SHIPMAN & GOODWIN LLP®
COUNSELORS AT LAW

Vincenzo Carannante
Phone: (860) 251-5096
Fax: (860) 251-5311
vcarannante@goodwin.com
Admitted in Massachusetts, Connecticut and Rhode Island

May 22, 2017

VIA EMAIL
Kimberly R. Martone
Director of Operations
Office of Health Care Access
Department of Public Health
410 Capitol Avenue
Hartford, CT 06134

Re: CON Application

Dear Ms. Martone:

On behalf of the Hospital of Central Connecticut ("HOCC"), enclosed please find a Certificate of Need Application for the termination of HOCC's outreach laboratory services.

Please do not hesitate to contact me at 860-251-5096 if you have any questions.

Sincerely,

Vincenzo Carannante

VZC/tlb

Enclosures

Checklist

Instructions:

Review each item below and check box when completed. **[Checklist *must* be submitted as the first page of the CON application.]**

☒ A completed CON Main Form, including an affidavit signed and notarized by the appropriate individuals. CON forms can be found at OHCA Forms.

☒ A completed Supplemental Form specific to the proposal type (see next page to determine which Supplemental Form to include in the application).

☒ Attached is the CON application filing fee in the form of a certified, cashier or business check in the amount of $**500** paid to "**Treasurer State of Connecticut.**"

☒ Attached is evidence demonstrating that public notice has been published for 3 consecutive days in a newspaper that covers the location of the proposal. Use the following link to help determine the appropriate publication: Connecticut newspapers. **The application must be submitted no sooner than 20 days, but no later than 90 days from the last day of the newspaper notice.**

The following information **must** be included in the public notice:

- A statement that the applicant is applying for a certificate of need pursuant to section § 19a-638 of the Connecticut General Statutes;
- A description of the scope and nature of the project;
- The street address where the project is to be located; and
- The total capital expenditure for the project.

(Please fax (860-418-7053) or email (OHCA@ct.gov) a courtesy copy of the newspaper order confirmation to OHCA at the time of publication.)

☒ A completed Financial Worksheet specific to the application type.

☒ All confidential or personally identifiable information (e.g., Social Security number) has been redacted.

☒ Submission includes one USB flash drive containing:

1. A scanned copy of each submission in its entirety, including all attachments in Adobe (.pdf) format.
2. An electronic copy of the applicant's responses in MS Word (the application) and MS Excel (the Financial Worksheet).

Note: OHCA hereby waives requirement to file any paper copies.

☒ All submissions should be emailed to OHCA@ct.gov.

For OHCA Use Only:

Docket No.: 17-32170-CON **Check No.:** 76903

OHCA Verified by: CR **Date:** 5-25-17

Checklist

Instructions:

Review each item below and check box when completed. **[Checklist *must* be submitted as the first page of the CON application.]**

☒ A completed CON Main Form, including an affidavit signed and notarized by the appropriate individuals. CON forms can be found at OHCA Forms.

☒ A completed Supplemental Form specific to the proposal type (see next page to determine which Supplemental Form to include in the application).

☒ Attached is the CON application filing fee in the form of a certified, cashier or business check in the amount of $**500** paid to "**Treasurer State of Connecticut.**"

☒ Attached is evidence demonstrating that public notice has been published for 3 consecutive days in a newspaper that covers the location of the proposal. Use the following link to help determine the appropriate publication: Connecticut newspapers. **The application must be submitted no sooner than 20 days, but no later than 90 days from the last day of the newspaper notice.**

The following information **must** be included in the public notice:

- A statement that the applicant is applying for a certificate of need pursuant to section § 19a-638 of the Connecticut General Statutes;
- A description of the scope and nature of the project;
- The street address where the project is to be located; and
- The total capital expenditure for the project.

(Please fax (860-418-7053) or email (OHCA@ct.gov) a courtesy copy of the newspaper order confirmation to OHCA at the time of publication.)

☒ A completed Financial Worksheet specific to the application type.

☒ All confidential or personally identifiable information (e.g., Social Security number) has been redacted.

☒ Submission includes one USB flash drive containing:

1. A scanned copy of each submission in its entirety, including all attachments in Adobe (.pdf) format.
2. An electronic copy of the applicant's responses in MS Word (the application) and MS Excel (the Financial Worksheet).

Note: OHCA hereby waives requirement to file any paper copies.

☒ All submissions should be emailed to **OHCA@ct.gov**.

For OHCA Use Only:

Docket No.: _____ Check No.: _____

OHCA Verified by: _____ Date: _____

Affidavit

Applicant: The Hospital of Central Connecticut

Project Title: Termination of Outreach Laboratory Services

I, Lucille Janatka, Hartford HealthCare Senior Vice President and Central Region President, being duly sworn, depose and state that the Hospital of Central Connecticut complies with the appropriate and applicable criteria as set forth in the Sections 19a-630, 19a-637, 19a-638, 19a-639, 19a-486 and/or 4-181 of the Connecticut General Statutes.

Signature _____ Date 5/18/17

Subscribed and sworn to before me on May 18, 2017

_____

Notary Public/Commissioner of Superior Court

My commission expires: 3-31-21

Check Date: 05/22/2017	Entity: 30100 - Hartford HealthCare Corp.		Supplier Number: 1000004913		Check No. 076903
Invoice Number	**Invoice Date**	**Voucher ID**	**Gross Amount**	**Discount Taken**	**Paid Amount**
C05181750000HOCC HOCC CERTIFICATION FEE	05/18/2017	00031078	$500.00	$0.00	$500.00
Totals			$500.00	$0.00	$500.00

THIS CHECK IS VOID WITHOUT A BLUE BACKGROUND

076903

HARTFORD HEALTHCARE
ATTN: ACCOUNTS PAYABLE
P.O. BOX 5037
HARTFORD, CT 06102-5037

BANK OF AMERICA N.A.

52-153/112

Date 05/22/2017

Pay Amount $500.00***
VOID AFTER 120 DAYS

Pay ****FIVE HUNDRED AND 00/100 DOLLARS****

To The Order Of
TREASURER, STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH
DIVISION OF HEALTH SYSTEMS REGULATIONS
PO BOX 1080
HARTFORD, CT 06143-1080

Authorized Signature

[redacted]

Hartford Courant
media group

AFFIDAVIT OF PUBLICATION

State of Connecticut

May 01, 2017

County of Hartford

I, Janet Tarasuk, do solemnly swear that I am a Sales Assistant of the Hartford Courant, printed and published daily, in the state of Connecticut and that from my own personal knowledge and reference to the files of said publication the advertisement of Public Notices was inserted in the regular edition.

On Dates as Follows:

04/29/2017	160.21;	04/29/2017	10.00;	04/30/2017	160.21;
05/01/2017	160.21				

In the Amount of:

$490.63
Shipman & Goodwin - CU00237595
4935280
Full Run

Janet Tarasuk Sales Assistant,
Janet Tarasuk

Subscribed and sworn before me on May 01, 2017

Renee N Janes **Notary Public**

RENEE N. JANES
NOTARY PUBLIC
MY COMMISSION EXPIRES MAR. 31, 2018

RENEE N. JANES NOTARY PUBLIC CONNECTICUT

Order # - 4935280

CTshopsHere
Buy. Sell. Save.

To advertise, call 860-525-2525
or placeanad.courant.com

Stuff
Announcements
Trucks & Vans
Motorcycles
Wheels
Antique/Classic
Autos / Trucks Wanted
Autos & SUV's
Wanted To Buy
Public Auction
POTENTIAL SUBDIVISION
(3) BUILDINGS
2-STORY COLONIAL STYLE HOME
SINGLE STORY OFFICE/GARAGE BUILDING
CHEVROLET SPECIAL DELUXE 2 door sedan 1941
FORD MUSTANG Iconic Edition 2968
LINCOLN LS 2004
WEATHER TEXT ALERTS
Sign-up today CTnow.com
Shop Confidently online or on the go.
cars.com
2 Lines 3 Days FREE*
To Place An Ad Go Online today courant.com/advertiser
WE'VE GOT YOUR TICKET!
ctlive.com
Concerts
Freeway
Sports and more!
courant.com
NEWS UPDATES 24/7
PUBLIC NOTICES
Connecticut
AT YOUR SERVICE
At Your Service
CNA TRAINING
TAG SALES
Tag Sales & Flea Markets
KENSINGTON
OPEN EVERY SUNDAY 8 AM-2 PM
WEST HARTFORD
www.courant.com/pets
pets
Adoption • News • Advice • More
POWERED BY gadzoo!
Dogs
OLD ENGLISH BULL DOG
CTshopsHere
Buy. Sell. Save.
courant.com/advertise • 860-525-2525

NEW BRITAIN HERALD

AFFIDAVIT OF PUBLICATION

State of Connecticut

s.s.

County of Hartford

I, JOANNE REYNOLDS, do solemnly swear, that I am CLASSIFIED ACCOUNT EXECUTIVE for the New Britain Herald published at 1 Herald Square, in the state of Connecticut, and from my own personal knowledge and reference to the files of said publication, the advertisement of:

SHIPMAN & GOODWIN

PUBLIC NOTICE FILING

was inserted in the regular edition(s) on date(s) as follows, at which the annexed is a printed copy 4/29/17 4/30/17 5/1/17

Joanne Reynolds, Classified Acct Exec

Signature/Title

Subscribed and sworn to me

this 3th

day of MAY

20 17

Anne R Lichniak

Notary Public

July 31, 2019

My commission expires on:

ANNA R. LICHNIAK
NOTARY PUBLIC
MY COMMISSION EXPIRES JULY 31, 2019

0006

Legals | Legals | Legals

PUBLIC NOTICE FILING for The Hospital of Central Connecticut

Statutory Reference: Connecticut General Statutes § 19a-638

Applicant: The Hospital of Central Connecticut

Proposal/Project Address: The Applicant intends to file a Certificate of Need application with the State of Connecticut Office of Health Care Access to transfer to Ques Diagnostics the Applicant's outpatient laborator service operations located at the following addresses:

1.) 100 Grand St., New Britain, CT
2.) 61 Hart St., New Britain, CT
3.) 183 N. Mountain Rd., New Britain, CT
4.) 360-1 North Main St., Southington, CT
5.) 55 Meriden Ave., Southington, CT
6.) 2150 Corbin Ave., New Britain, CT

Capital Expenditure: none

Legals | Legals

BRISTOL - 40 Sterling V
Sat 4/29 & Sun 4/30, 9
Lots of great stuff!

Legals | Legals

PUBLIC NOTICE FILING for The Hospital of Central Connecticut

Statutory Reference: Connecticut General Statutes § 19a-638

Applicant: The Hospital of Central Connecticut

Proposal/Project Address: The Applicant intends to file a Certificate of Need application with the State of Connecticut Office of Health Care Access to transfer to Quest Diagnostics the Applicant's outpatient laboratory service operations located at the following addresses:

1.) 100 Grand St., New Britain, CT
2.) 61 Hart St., New Britain, CT
3.) 183 N. Mountain Rd., New Britain, CT
4.) 360-1 North Main St., Southington, CT
5.) 55 Meriden Ave., Southington, CT
6.) 2150 Corbin Ave., New Britain, CT

Capital Expenditure: none

Legals | Legals | Legals

PUBLIC NOTICE FILING for The Hospital of Central Connecticut

Statutory Reference: Connecticut General Statutes § 19a-638

Applicant: The Hospital of Central Connecticut

Proposal/Project Address: The Applicant intends to file a Certificate of Need application with the State of Connecticut Office of Health Care Access to transfer to Quest Diagnostics the Applicant's outpatient laboratory service operations located at the following addresses:

1.) 100 Grand St., New Britain, CT
2.) 61 Hart St., New Britain, CT
3.) 183 N. Mountain Rd., New Britain, CT
4.) 360-1 North Main St., Southington, CT
5.) 55 Meriden Ave., Southington, CT
6.) 2150 Corbin Ave., New Britain, CT

Capital Expenditure: none

Supplemental Forms

In addition to completing this **Main Form** and **Financial Worksheet (A, B or C)**, the applicant(s) must complete the appropriate **Supplemental Form** listed below. Check the box of the **Supplemental Form** to be submitted with the application, below. If unsure which form to select, please call the OHCA main number (860-418-7001) for assistance. All CON forms can be found on OHCA's website at OHCA Forms.

Check form included	Conn. Gen. Stat. Section 19a-638(a)	Supplemental Form
☐	(1)	**Establishment of a new health care facility (mental health and/or substance abuse)** - *see note below**
☐	(2)	**Transfer of ownership of a health care facility** (excludes transfer of ownership/sale of hospital – see "Other" below)
☐	(3)	**Transfer of ownership of a group practice**
☐	(4)	**Establishment of a freestanding emergency department**
☒	(5) (7) (8) (15)	**Termination of a service:** - inpatient or outpatient services offered by a hospital - surgical services by an outpatient surgical facility** - emergency department by a short-term acute care general hospital - inpatient or outpatient services offered by a hospital or other facility or institution operated by the state that provides services that are eligible for reimbursement under Title XVIII or XIX of the federal Social Security Act, 42 USC 301, as amended
☐	(6)	**Establishment of an outpatient surgical facility**
☐	(9)	**Establishment of cardiac services**
☐	(10) (11)	**Acquisition of equipment:** - acquisition of computed tomography scanners, magnetic resonance imaging scanners, positron emission tomography scanners or positron emission tomography-computed tomography scanners - acquisition of nonhospital based linear accelerators
☐	(12)	**Increase in licensed bed capacity** of a health care facility
☐	(13)	**Acquisition of equipment utilizing [new] technology** that has not previously been used in the state
☐	(14)	**Increase of two or more operating rooms** within any three-year period by an outpatient surgical facility or short-term acute care general hospital
☐	Other	**Transfer of Ownership / Sale of Hospital**

*This supplemental form should be included with all applications requesting authorization for the establishment of a **mental health and/or substance abuse treatment facility.** For the establishment of other "health care facilities," as defined by Conn. Gen. Stat § 19a-630(11) - hospitals licensed by DPH under chapter 386v, specialty hospitals, or a central service facility - complete *the Main Form* only.

**If termination is due to insufficient patient volume, or it is a subspecialty being terminated, a CON is not required.

Proposal Information

Select the appropriate proposal type from the dropdown below. If unsure which item to select, please call the OHCA main number (860-418-7001) for assistance.

Proposal Type	Termination of inpatient or outpatient services offered by a hospital
Brief Description	The applicant seeks approval to transfer certain outpatient laboratory service operations to Quest Diagnostics
Proposal Address	1) 100 Grand St., New Britain, CT 2) 61 Hart St., New Britain, CT 3) 183 N. Mountain Rd., New Britain, CT 4) 360-1 North Main St., Southington, CT 5) 55 Meriden Ave., Southington, CT
Capital Expenditure	$ 0.00

Is this Application the result of a Determination indicating a CON application must be filed?

☒ No

☐ Yes, Docket Number: Click here to enter text.

Applicant(s) Information

	Applicant One	**Applicant Two*** (if applicable)
Applicant: Name & Address	The Hospital of Central Connecticut *Bradley Memorial Campus* 81 Meriden Avenue Southington, CT 06489 *New Britain General Campus* 100 Grand Street New Britain, CT 06050	
Parent Corporation: Name & Address (if applicable)	Hartford HealthCare One State Street, Suite 19 Hartford, CT 06103	
Contact Person: Name, Title, Address	Barbara A. Durdy Director, Strategic Planning 181 Patricia M. Genova Blvd. Newington, CT 06111	
Company	Hartford HealthCare	
Email Address	barbara.durdy@hhchealth.org	
Phone	860.972.4231	
Fax Number	860.972.9025	

Tax Status (check one box)	☐ For Profit ☒ Not-for-Profit	☐ For Profit ☐ Not-for-Profit

**For more than two Applicants, attach a separate sheet with the above information*

FOR OFFICE USE ONLY	
Docket #:	Staff Assigned :
Date Received:	

Executive Summary

The purpose of the Executive Summary is to give the reviewer a conceptual understanding of the proposal. In the space below, provide a succinct overview of your proposal (this may be done in bullet format). Summarize the key elements of the proposed project. Details should be provided in the appropriate sections of the application that follow.

- HOCC operates five (5) laboratory outreach locations at the following addresses:

  1) 100 Grand St., New Britain, CT
  2) 61 Hart St., New Britain, CT
  3) 183 N. Mountain Rd., New Britain, CT
  4) 360-1 North Main St., Southington, CT
  5) 55 Meriden Ave., Southington, CT

- HOCC has filed the present application to seek approval to terminate outreach laboratory services at these five (5) locations.

Pursuant to Section 19a-639 of the Connecticut General Statutes, the Office of Health Care Access is required to consider specific criteria and principles when reviewing a Certificate of Need application. Text marked with a "§" indicates it is actual text from the statute and may be helpful when responding to prompts.

Project Description

1. **Provide a detailed narrative describing the proposal. Explain how the Applicant(s) determined the necessity for the proposal and discuss the benefits to the public and for each Applicant, separately. Include all key elements, including the parties involved, what the proposal will entail, the equipment/service location(s), the geographic area the proposal will serve, the implementation timeline and why the proposal is needed in the community.**

   The Hospital of Central Connecticut ("**HOCC**" or the "**Applicant**") is an acute care hospital and is a member of Hartford HealthCare Corporation, an integrated health care delivery system ("**HHC**"). HOCC operates five (5) laboratory outreach locations at the following addresses:

   1) 100 Grand St., New Britain, CT
   2) 61 Hart St., New Britain, CT
   3) 183 N. Mountain Rd., New Britain, CT
   4) 360-1 North Main St., Southington, CT
   5) 55 Meriden Ave., Southington, CT

   Laboratory outreach locations, which are also commonly referred to as "**Patient Service Centers**" or "**PSCs**", are essentially satellite blood drawing stations that health care providers establish and operate in order to provide physicians and patients with another location or option for patients to get their blood drawn for eventual testing by the laboratory that supports said PSC. In other words, a phlebotomist at the PSC draws or obtains a patient's blood or other bodily fluid (e.g. urine) at the PSC and then the specimen is sent to a laboratory for testing.

   HOCC, like many health care providers, has been and is actively pursuing and implementing major initiatives, structures, affiliations and transactions in order to better position themselves for the changing health care payment and regulatory landscape. This includes pursuing transactions that will permit HOCC to focus on core strengths and services and shed those that can be performed better and more efficiently by other parties, such as Quest Diagnostics ("**Quest**").

   Quest is the world leader in diagnostic information services. Quest provides thousands of test services, including high-end genomic and genetic tests. It operates dozens of laboratories and more than 2,200 PSCs. With about 45,000 employees, Quest serves half of the doctors and hospitals in the U.S.

   HOCC has filed the present Certificate of Need application (this "**Application**" or "**Proposal**") to seek approval to terminate outreach laboratory services at these five (5) locations. The Applicant intends to transfer the operation of all five (5) of these PSCs to Quest. For any of the five (5) PSCs that HOCC is not able to transfer to Quest, HOCC shall

cease operating/close such PSC. In addition, and most significantly, please note that this Proposal does not include any of HOCC's actual laboratories and it does not impact, affect, limit, reduce and/or terminate any of the laboratory testing services offered by HOCC and/or provided by HOCC to its patients. This Proposal specifically and only relates to these five (5) locations.

The approval of this Application will permit HOCC to redeploy valuable resources to core clinical services and operations.

2. **Provide the history and timeline of the proposal (i.e., When did discussions begin internally or between Applicant(s)? What have the Applicant(s) accomplished so far?).**

   - In early 2017, Quest and HOCC began to discuss and negotiate a deal for Quest to purchase the outreach clinical laboratory services business of HOCC.

   - Pending OHCA's approval, HOCC and Quest intend to negotiate, draft and execute a mutually agreeable asset purchase agreement to effectuate this transaction.

3. **Provide the following information:**

   a. **utilizing OHCA Table 1, list all services to be added, terminated or modified, their physical location (street address, town and zip code), the population to be served and the existing/proposed days/hours of operation;**

      Please see Table 1.

   b. **identify in OHCA Table 2 the service area towns (i.e., use only official town names) and explain the reason for their inclusion (e.g., provider availability, increased/decreased patient demand for service, market share);**

      Please see Table 2.

4. **List the health care facility license(s) that will be needed to implement the proposal.**

   The Applicant will not need any health care facility licenses to implement the Proposal.

5. **Submit the following information as attachments to the application:**

   a. **a copy of all State of Connecticut, Department of Public Health license(s) currently held by the Applicant(s);**

      Please see **Exhibit 1** for the DPH licenses related to HOCC's laboratory services and related PSCs.

   b. **a list of all key professional, administrative, clinical and direct service personnel related to the proposal and attach a copy of their Curriculum Vitae;**

      List of Key Personnel:

      - Lucille Janatka- Senior Vice President and President, Central Region Hartford

HealthCare
- Carolyn Freiheit- Regional Vice President, Finance, Central Region Hartford HealthCare
- Gary Havican- Regional Vice President, Operations, Central Region Hartford HealthCare
- Barry Jacobs, M.D. - Chief of Pathology & Laboratory Medicine
- Joseph Vaccarelli, Jr. - Director of Laboratory Services, Central Region Hartford HealthCare

Please see **Exhibit 2** for their relevant resumes/CVs.

c. copies of any scholarly articles, studies or reports that support the need to establish the proposed service, along with a brief explanation regarding the relevance of the selected articles;

Not applicable to this Proposal/Application as no new service is being proposed.

d. letters of support for the proposal;

Please see **Exhibit 3** for copies of letters of support related to this proposal.

e. the protocols or the Standard of Practice Guidelines that will be utilized in relation to the proposal. Attach copies of relevant sections and briefly describe how the Applicant proposes to meet the protocols or guidelines.

Not applicable to this Proposal.

f. copies of agreements (e.g., memorandum of understanding, transfer agreement, operating agreement) related to the proposal. If a final signed version is not available, provide a draft with an estimated date by which the final agreement will be available.

Not applicable to this Proposal. The Applicant seeks to terminate services.

Public Need and Access to Care

§ *"Whether the proposed project is consistent with any applicable policies and standards adopted in regulations by the Department of Public Health;" (Conn.Gen.Stat. § 19a-639(a)(1))*

6. Describe how the proposed project is consistent with any applicable policies and standards in regulations adopted by the Connecticut Department of Public Health.

This Proposal is consistent with the policies and standards adopted by the Connecticut Department of Public Health, as it seeks to achieve efficiencies and allow HOCC to redeploy resources and focus its attention on core clinical services. This termination of services will not result in any duplication of services.

§ "The relationship of the proposed project to the statewide health care facilities and services plan;" (Conn.Gen.Stat. § 19a-639(a)(2))

7. Describe how the proposed project aligns with the Connecticut Department of Public Health Statewide Health Care Facilities and Services Plan, available on OHCA's website.

As identified on page 1 of the Statewide Health Care Facilities and Services Plan (2014 Supplement), HOCC has identified this Proposal as a vehicle to achieve efficiencies in health care administration and delivery. Moreover, if approved, this Proposal will permit HOCC to redeploy resources and focus its attention on core clinical services.

§ "Whether there is a clear public need for the health care facility or services proposed by the applicant;" (Conn.Gen.Stat. § 19a-639(a)(3))

8. With respect to the proposal, provide evidence and documentation to support clear public need:

In general, all of Question 8 does not apply to this Proposal as the Applicant is not proposing a new service and/or health care facility.

a. identify the target patient population to be served;

The Applicant is not proposing a new service or health care facility and, thus, this question is not applicable to this Proposal. However, please see Table 2 for the service area towns currently being served by the five (5) HOCC PSCs.

b. discuss if and how the target patient population is currently being served;

The Applicant is not proposing a new service or health care facility and, thus, this question is not applicable to this Proposal. However, please see Table 1 for the five (5) HOCC PSCs that are providing the laboratory outreach services to the patient populations identified in Table 2.

c. document the need for the equipment and/or service in the community;

The Applicant is not proposing a new service or health care facility and, thus, this question is not applicable to this Proposal.

d. explain why the location of the facility or service was chosen;

The Applicant is not proposing a new service or health care facility and, thus, this question is not applicable to this Proposal. The locations were chosen solely as a result of being a PSC of HOCC.

e. provide incidence, prevalence or other demographic data that demonstrates community need;

The Applicant is not proposing a new service or health care facility and, thus, this question is not applicable to this Proposal.

f. discuss how low income persons, racial and ethnic minorities, disabled persons and other underserved groups will benefit from this proposal;

The Applicant is not proposing a new service or health care facility and, thus, this question is not applicable to this Proposal.

g. list any changes to the clinical services offered by the Applicant(s) and explain why the change was necessary;

If this Proposal is approved, HOCC expects to terminate its services at the five (5) HOCC PSCs and transfer those PSCs to Quest. As noted above, the Proposal does not change the clinical laboratory services that HOCC offers to HOCC's inpatients and outpatients. This change is necessary so that HOCC can focus on the provision of its core clinical services and improve its operational efficiencies.

h. explain how access to care will be affected; and

HOCC expects that patient access to PSCs and blood drawing stations will not be negatively impacted as there are many other PSCs in the applicable service area (Please see Table 9).

i. discuss any alternative proposals that were considered.

The only other alternative that was considered was the simple closure of the five (5) HOCC PSCs.

§ "Whether the applicant has satisfactorily demonstrated how the proposal will improve quality, accessibility and cost effectiveness of health care delivery in the region, including, but not limited to, (A) provision of or any change in the access to services for Medicaid recipients and indigent persons; (Conn.Gen.Stat. § 19a-639(a)(5))

9. Describe how the proposal will:

a. improve the quality of health care in the region;

The approval of this Application will permit HOCC to redeploy valuable resources to and improve HOCC's provision of core clinical services. In addition, for any of the five (5) PSCs that are transferred to Quest, please also note that Quest is the world leader in diagnostic information services. Quest provides thousands of test services, including high-end genomic and genetic tests. It operates dozens of laboratories and more than 2,200 patient service centers. Accordingly, the provision of PSC services by Quest at any of the five (5) HOCC locations can only improve the quality of these services for the relevant patients.

Moreover, a program offered by Quest called "MyQuest," allows patients to use their computer or smartphone to access their test results, schedule appointments 24/7 for testing, and track health conditions. Once a patient has a MyQuest account, he/she can get Advanced Access, which allows him/her to see test results as far back as seven (7)

years, including graphic representations of how one's health is trending over time.

b. improve accessibility of health care in the region; and

HOCC expects that patient access to PSCs and blood drawing stations will not be negatively impacted as there are many other PSCs in the applicable service area (Please see Table 9).

c. improve the cost effectiveness of health care delivery in the region.

As opposed to HOCC, Quest's core services are laboratory services. Accordingly, Quest is able to provide said services in a much more efficient and cost effective manner than HOCC. This will also allow HOCC to focus on its core clinical services and use its valuable and limited resources in a more cost efficient manner for said services.

10. How will the Applicant(s) ensure that future health care services provided will adhere to the National Standards on culturally and Linguistically Appropriate Services (CLAS) to advance health equity, improve quality and help eliminate health care disparities in the projected service area? (More details on CLAS standards can be found at http://minorityhealth.hhs.gov/).

Not applicable to this Proposal. The Applicant seeks to terminate services.

11. How will this proposal help improve the coordination of patient care (explain in detail regardless of whether your answer is in the negative or affirmative)?

If this Proposal is approved, HOCC expects to terminate its services at the five (5) HOCC PSCs and transfer those PSCs to Quest. As a result of its conversion to the EPIC electronic health record ("EHR") system, HOCC has a bi-directional EHR interface with Quest that connects the EHR systems of HOCC and Quest so that laboratory requests, results and reports can be quickly accessed and transmitted by and to both parties all of which benefits the patients of each. This interface with Quest also exists at Hartford HealthCare Medical Group locations. It is also in place at all HHC acute care hospitals other than The William W. Backus Hospital.

12. Describe how this proposal will impact access to care for Medicaid recipients and indigent persons.

If this Proposal is approved, HOCC expects to terminate its services at the five (5) HOCC PSCs and transfer those PSCs to Quest. HOCC expects that access to care for Medicaid recipients and indigent persons will not be negatively impacted. Quest is enrolled in and a participating service provider in Connecticut's Medicaid program.

Please also note that Quest offers all patients with the option to apply to participate in the "Quest Diagnostics Patient Assistance Program." Patients can call Quest's "Billing Customer Service" at 1-(800) 933-2009 with questions or visit its website for the patient assistance program and policy. Please see link and web address below.

http://www.questdiagnostics.com/home/about/corporate-citizenship/community-giving/assistance.html

13. Provide a copy of the Applicant's charity care policy and sliding fee scale applicable to the proposal.

Please see **Exhibit 4** for HHC's charity care policy that applies to all of its member hospitals including, HOCC.

14. If charity care policies will be changed as a result of the proposal, list all changes and describe how the new policies will affect patients.

HOCC's charity care policy (i.e. HHC's charity care policy) will not be changed as a result of this Proposal.

> *§ "Whether an applicant, who has failed to provide or reduced access to services by Medicaid recipients or indigent persons, has demonstrated good cause for doing so, which shall not be demonstrated solely on the basis of differences in reimbursement rates between Medicaid and other health care payers;" (Conn.Gen.Stat. § 19a-639(a)(10))*

15. If the proposal fails to provide or reduces access to services by Medicaid recipients or indigent persons, provide explanation of good cause for doing so.

This Proposal does not fail to provide or reduce access to services by Medicaid recipients or indigent persons.

> *§ "Whether the applicant has satisfactorily demonstrated that any consolidation resulting from the proposal will not adversely affect health care costs or accessibility to care." (Conn.Gen.Stat. § 19a-639(a)(12))*

16. Will the proposal adversely affect patient health care costs in any way? Quantify and provide the rationale for any changes in price structure that will result from this proposal, including, but not limited to, the addition of any imposed facility fees.

If this Proposal is approved, the services provided at the five (5) HOCC PSC locations will no longer be hospital-based locations and, thus, any facility fees will be eliminated.

Financial Information

> *§ "Whether the applicant has satisfactorily demonstrated how the proposal will impact the financial strength of the health care system in the state or that the proposal is financially feasible for the applicant;" (Conn.Gen.Stat. § 19a-639(a)(4))*

17. Provide the Applicant's fiscal year: start date (mm/dd) and end date (mm/dd).

October 1st - September 30th

18. **Describe the impact of this proposal on the financial strength of the state's health care system or demonstrate that the proposal is financially feasible for the applicant.**

There are zero dollars ($0) in capital expenditures for the Applicant as it relates to this Proposal and, thus, it is financially feasible for the Applicant.

19. **Provide an estimate of the capital expenditure/costs for the proposal using OHCA Table 3.**

Please see Table 3.

20. **List all funding or financing sources for the proposal and the dollar amount of each. Provide applicable details such as interest rate; term; monthly payment; pledges and funds received to date; letter of interest or approval from a lending institution.**

Not applicable to this Proposal.

21. **Include as an attachment:**

a. **audited financial statements for the most recently completed fiscal year. If audited financial statements do not exist, provide other financial documentation (e.g., unaudited balance sheet, statement of operations, statement of cash flow, tax return, or other set of books). Connecticut hospitals required to submit annual audited financial statements may reference that filing, if current;**

HOCC has already filed its audited financial statement with OHCA. Please refer to said filing.

b. **completed Financial Worksheet A (non-profit entity), B (for-profit entity) or C (§19a-486a sale), available at OHCA Forms, providing a summary of revenue, expense, and volume statistics, "without the CON project," "incremental to the CON project," and "with the CON project." Note: the actual results reported in the Financial Worksheet must match the audited financial statements previously submitted or referenced. In addition, please make sure that the fiscal years reported on the Financial Worksheet are the same fiscal years reported for the financial projections, utilization and payer mix tables (OHCA Tables 4, 6 and 7).**

Please see **Exhibit 5** for Financial Worksheet A.

22. **Complete OHCA Table 4 utilizing the information reported in the attached Financial Worksheet.**

Please see Table 4.

23. Fully identify and explain all assumptions used in the projections reported in the Financial Worksheet. In providing these detailed assumptions, please include the following:

a. Identify general assumptions for projected amounts that are estimated to be the same, both with or without this proposed project (i.e., project-neutral increases or decreases that occur between years). Explain significant variances (+/- 25% variances) that occur between years for the project neutral changes;

FTE's were kept flat over the projection. The Applicant assumed small incremental increases in revenue and expenses.

b. Identify specific assumptions for all projected amounts that are estimated to change as a result of implementation of the proposed project (i.e., project-specific increases or decreases). Address projected changes in revenue, payer mix, expense categories and FTEs. In addition, connect any service, volume (utilization) or payer mix changes described elsewhere in the CON application narrative or tables with these financial assumptions;

FTEs were kept flat throughout the projection. For purposes of this projection, the Applicant assumed small incremental increases in revenue and expenses.

c. If the Applicant does not project any specific increases or decreases with the project in the Financial Worksheet, please explain why.

Not applicable.

24. Explain any projected incremental losses from operations resulting from the implementation of the CON proposal. Provide an estimate of the timeframe needed to achieve incremental operational gains.

The approval of this transaction will have a negative impact on HOCC income from operations. The proceeds from the sale of the PSC business units will be recorded "above the line" as other operating income. Overall the approval of this transaction will not cause HOCC to be in a loss position.

Utilization

§ *"The applicant's past and proposed provision of health care services to relevant patient populations and payer mix, including, but not limited to, access to services by Medicaid recipients and indigent persons;" (Conn.Gen.Stat. § 19a-639(a)(6))*

25. Complete OHCA Table 5 and OHCA Table 6 for the past three fiscal years ("FY"), current fiscal year ("CFY") and first three projected FYs of the proposal, for each of the Applicant's existing and/or proposed services. Note: for OHCA Table 6, if the first year of the proposal is only a partial year, provide the partial year and then provide projections for the first three complete FYs. In addition, please make sure that the fiscal years reported on OHCA Table 6 are the same fiscal years reported for the financial projections and payer mix tables (OHCA Tables 4 and 7).

Please see Table 5.

Table 6 is not applicable to this Proposal as HOCC is terminating the provision of PSC services at these five (5) locations and, thus, there are no service projections.

26. Provide a detailed explanation of all assumptions used in the derivation/ calculation of the projected service volume; explain any increases and/or decreases in volume reported in OHCA Table 5 and 6.

Not applicable to this Proposal as there are no projected services (i.e. Table 6 does not apply).

27. Provide the current and projected patient population mix (number and percentage of patients by payer) for the proposal using OHCA Table 7 and provide all assumptions. Note: payer mix should be calculated from patient volumes, not patient revenues. Also, current year should be the most recently completed fiscal year.

Please see Table 7.

§ *"Whether the applicant has satisfactorily identified the population to be served by the proposed project and satisfactorily demonstrated that the identified population has a need for the proposed services;" (Conn.Gen.Stat. § 19a-639(a)(7))*

28. Describe the population (as identified in question 8(a)) by gender, age groups or persons with a specific condition or disorder and provide evidence (i.e., incidence, prevalence or other demographic data) that demonstrates a need for the proposed service or proposal. Please note: if population estimates or other demographic data are submitted, provide only publicly available and verifiable information (e.g., U.S. Census Bureau, Department of Public Health and Connecticut State Data Center) and document the source.

Not applicable to this Proposal.

29. **Using OHCA Table 8, provide a breakdown of utilization by town for the most recently completed fiscal year. Utilization may be reported as the number of persons, visits, scans or other unit appropriate for the information being reported.**

Please see Table 8.

> *§ "The utilization of existing health care facilities and health care services in the service area of the applicant;" (Conn.Gen.Stat. § 19a-639(a)(8))*

30. **Using OHCA Table 9, identify all existing providers in the service area and, as available, list the services provided, population served, facility ID (see table footnote), address, hours/days of operation and current utilization of the facility. Include providers in the towns served or proposed to be served by the Applicant, as well as providers in towns contiguous to the service area.**

Please see Table 9.

31. **Will this proposal shift volume away from existing providers in the area? If not, explain in detail why the proposal will have no impact on existing provider volumes.**

The PSC service volumes will be shifted away from HOCC if this Proposal is approved.

32. **If applicable, describe what effect the proposal will have on existing physician referral patterns in the service area.**

This Proposal will not have any impact on existing physician referral patterns as it is up to the patient to determine where he/she wants to get his/her blood drawn.

> *§ "Whether the applicant has satisfactorily demonstrated that the proposed project shall not result in an unnecessary duplication of existing or approved health care services or facilities;" (Conn.Gen.Stat. § 19a-639(a)(9))*

33. **If applicable, explain why approval of the proposal will not result in an unnecessary duplication of services.**

This Proposal will not result in the unnecessary duplication of services as the Applicant is seeking to terminate PSC services.

> *§ "Whether the applicant has satisfactorily demonstrated that the proposal will not negatively impact the diversity of health care providers and patient choice in the geographic region;" (Conn.Gen.Stat. § 19a-639(a)(11))*

34. **Explain in detail how the proposal will impact (i.e., positive, negative or no impact) the diversity of health care providers and patient choice in the geographic region.**

There will be no impact on diversity of health care providers and patient choice besides the removal of HOCC-operated PSCs.

Tables

TABLE 1
APPLICANT'S SERVICES AND SERVICE LOCATIONS

Service	Street Address, Town	Population Served	Days/Hours of Operation	New Service or Proposed Termination
Lab Outreach Services	61 Hart St. New Britain	See Table 2	M -F 7:00 AM - 5:30 PM, Sat. 7:30 AM - 12:00 PM	Proposed Termination
Lab Outreach Services	100 Grand Street New Britain	See Table 2	M-F 6:00- 5:30pm Sat. 7:30- 12:00pm	Proposed Termination
Lab Outreach Services	360-1 North Main St., Southington, CT	See Table 2	M -F 6:00 AM - 5:30 PM Sat. 7:00- 11:00am	Proposed Termination
Lab Outreach Services	55 Meriden Ave., Southington, CT	See Table 2	M - F 8:00 AM - 4:30 PM	Proposed Termination
Lab Outreach Services	183 N. Mountain Rd., New Britain, CT	See Table 2	M-F 7am- 5pm Sat. 7am-12:00pm	Proposed Termination

[back to question]

TABLE 2
SERVICE AREA TOWNS

Town*	Reason for Inclusion
SOUTHINGTON, PLAINVILLE, NEWINGTON, NEW BRITAIN, BERLIN	More than 80% of all HOCC discharges originate from these towns.

*List **official town name** only - village or place names are not acceptable.

[back to question]

TABLE 3
TOTAL PROPOSAL CAPITAL EXPENDITURE

Purchase/Lease	Cost
Equipment (Medical, Non-medical, Imaging)	N/A
Land/Building Purchase*	N/A
Construction/Renovation**	N/A
Other (specify)	N/A
Total Capital Expenditure (TCE)	N/A
Lease (Medical, Non-medical, Imaging)***	N/A
Total Lease Cost (TLC)	N/A
Total Project Cost (TCE+TLC)	$0.00

*If the proposal involves a land/building purchase, attach a real estate property appraisal including the amount; the useful life of the building; and a schedule of depreciation.

**If the proposal involves construction/renovations, attach a description of the proposed building work, including the gross square feet; existing and proposed floor plans; commencement date for the construction/ renovation; completion date of the construction/renovation; and commencement of operations date.

***If the proposal involves a capital or operating equipment lease and/or purchase, attach a vendor quote or invoice; schedule of depreciation; useful life of the equipment; and anticipated residual value at the end of the lease or loan term.

[back to question]

TABLE 4
HOCC's PROJECTED INCREMENTAL REVENUES AND EXPENSES

	FY 2017	FY 2018	FY 2019	FY 2020
Revenue from Operations	$15,000,000	$(5,945,230)	$(6,034,052)	$(6,124,198)
Total Operating Expenses	$328,942	$(5,375,277)	$(5,527,501)	$(5,684,111)
Gain/Loss from Operations	$14,671,058	$(569,953)	$(506,550)	$(440,086)

*Fill in years using those reported in the Financial Worksheet attached.

Note: please make sure that the fiscal years reported on the Financial Worksheet are the same fiscal years reported for the financial projections, utilization and payer mix tables (OHCA Tables 4, 6 and 7).

[back to question]

TABLE 5
HISTORICAL UTILIZATION BY SERVICE

Service**	Actual Volume**** (Last 3 Completed FYs)			CFY Volume* Actual	CFY Volume Annualized
	FY 2014***	FY 2015***	FY 2016***	FY 2017***	FY 2017***
Lab Outreach Services at 61 Hart St. New Britain	22734	23832	22038	7910	15820
Lab Outreach Services at 100 Grand Street New Britain	21089	20634	19364	8564	17128
Lab Outreach Services at 360-1 North Main St., Southington, CT	20735	22124	21473	8351	16702
Lab Outreach Services at 55 Meriden Ave., Southington, CT	4,924	6,042	5,625	2111	4222
Lab Outreach Services at 183 N. Mountain Rd., New Britain, CT	N/A	1707	6295	4219	8438
Total	69480	74339	74795	31155	62310

*For periods greater than 6 months, report annualized volume, **identify the months covered** and the method of annualizing. For periods less than 6 months, report actual volume and **identify the months covered.**

**Identify each service type and level adding lines as necessary. Provide the number of visits or discharges as appropriate for each service type and level listed.

***Fill in years. If the time period reported is not *identical* to the fiscal year reported in Table 4 of the application, provide the date range using the mm/dd format as a footnote to the table.

**** Volume represents patient visits.

[back to question]

TABLE 6
PROJECTED UTILIZATION BY SERVICE

Service*	Projected Volume		
	FY 20__**	FY 20__**	FY 20__**
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
Total	N/A	N/A	N/A

*Identify each service type by location and add lines as necessary. Provide the number of visits/discharges as appropriate for each service listed.

**If the first year of the proposal is only a partial year, provide the first partial year and then the first three full FYs. Add columns as necessary. If the time period reported is not *identical* to the fiscal year reported in Table 4 of the application, provide the date range using the mm/dd format as a footnote to the table.

Note: please make sure that the fiscal years reported on the Financial Worksheet are the same fiscal years reported for the financial projections, utilization and payer mix tables (OHCA Tables 4, 6 and 7).

[back to question]

TABLE 7
APPLICANT'S CURRENT & PROJECTED PAYER MIX

Payer	Current FY 2016**		Projected					
			FY 2017**		FY 2018**		FY 2019**	
	Discharges	%	Discharges	%	Discharges	%	Discharges	%
Medicare*	33,777	45.16%	N/A	N/A	N/A	N/A	N/A	N/A
Medicaid*	20,210	27.02%	N/A	N/A	N/A	N/A	N/A	N/A
CHAMPUS & TriCare	67	0.09%	N/A	N/A	N/A	N/A	N/A	N/A
Total Government	**54,054**	**72.27%**	N/A	N/A	N/A	N/A	N/A	N/A
Commercial Insurers	19,813	26.49%	N/A	N/A	N/A	N/A	N/A	N/A
Uninsured	793	1.06%	N/A	N/A	N/A	N/A	N/A	N/A
Workers Compensation	135	0.18%	N/A	N/A	N/A	N/A	N/A	N/A
Total Non-Government	**20,741**	**27.73%**	N/A	N/A	N/A	N/A	N/A	N/A
Total Payer Mix	**74,795**	**100%**	N/A	N/A	N/A	N/A	N/A	N/A

*Includes managed care activity.

Fill in years. Current year should be the most recently **completed fiscal year. Ensure the period covered by this table corresponds to the period covered in the projections provided. New programs may leave the "current" column blank.

Note: please make sure that the fiscal years reported on the Financial Worksheet are the same fiscal years reported for the financial projections, utilization and payer mix tables (OHCA Tables 4, 6 and 7).

[back to question]

TABLE 8
UTILIZATION BY TOWN

Town	Utilization*** FY 2016**
61 Hart St. New Britain	
NEW BRITAIN	14,190
KENSINGTON	1,319
PLAINVILLE	884
NEWINGTON	838
BRISTOL	793
All other	4,014
Total	22,038
100 Grand Street New Britain	
NEW BRITAIN	11,193
BRISTOL	1,049
PLAINVILLE	995
NEWINGTON	857
KENSINGTON	727
SOUTHINGTON	573
All other	3,970
Total	19,364
360-1 North Main St., Southington, CT	
SOUTHINGTON	13,224
PLANTSVILLE	3,731
PLAINVILLE	1,125
All other	3,393
Total	21,473
55 Meriden Ave., Southington, CT	
SOUTHINGTON	2,943
PLANTSVILLE	1,099
BRISTOL	238
CHESHIRE	212
PLAINVILLE	182
All other	951
Total	5,625
183 N. Mountain Rd., New Britain, CT	
NEW BRITAIN	2,130
PLAINVILLE	1,061
BRISTOL	363
SOUTHINGTON	363
NEWINGTON	344
KENSINGTON	290

FARMINGTON	213
BERLIN	178
MERIDEN	111
All other/ Total	1,242/6,295
Grand Total	74,795

*List inpatient/outpatient/ED volumes separately, if applicable

Fill in most recently **completed fiscal year.

*** Represents patient visit volume

[back to question]

TABLE 9
SERVICES AND SERVICE LOCATIONS OF EXISTING PROVIDERS

Service or Program Name	Population Served	Facility ID*	Facility's Provider Name, Street Address and Town	Hours/Days of Operation	Current Utilization
Quest	Unknown	Unknown	98 Main St Ste 204 Southington CT 06489-2500	Unknown	Unknown
Quest	Unknown	Unknown	365 Queen Street Unit C Southington CT 06489-0000	Unknown	Unknown
Quest	Unknown	Unknown	7 North Washington St Ste 107 Plainville CT 06062-1957	Unknown	Unknown
Quest	Unknown	Unknown	935 Farmington Avenue Bristol CT 06010-3927	Unknown	Unknown
Quest	Unknown	Unknown	40 Hart Street, Building C New Britain CT 06052-1743	Unknown	Unknown
Quest	Unknown	Unknown	66 Cedar Street Newington CT 06111-0000	Unknown	Unknown
Quest	Unknown	Unknown	955 Main St Newington CT 06111-2472	Unknown	Unknown

*Provide the Medicare, Connecticut Department of Social Services (DSS), or National Provider Identifier (NPI) facility identifier and label column with the identifier use

[back to question]

EXHIBIT 1

STATE OF CONNECTICUT

Department of Public Health

License No. CL-0719

Licensed Clinical Laboratory

In accordance with the provisions of the General Statutes of Connecticut Section 19a-30:

HOSPITAL OF CENTRAL CONNECTICUT AT NEW BRITAIN GENERAL is hereby licensed to maintain and operate a Clinical Laboratory.

THE HARTFORD HEALTHCARE CANCER INSTITUTE LABORATORY is located at **183 NORTH MAOUNTAIN ROAD, NEW BRITAIN, CT 06053** with:

Lucille Janatka, as Licensee/Registrant.

This license expires **MARCH 31, 2019** and may be revoked for cause at any time.

Dated at Hartford, Connecticut, **APRIL 1, 2017.**

Raul Pino, MD, MPH
Commissioner

STATE OF CONNECTICUT

Department of Public Health

Approval

Approval No. DS-383

Approved Blood Collection Facility

In accordance with the provisions of the General Statutes of Connecticut Section 19a-30:

THE HOSPITAL OF CENTRAL CT AT NEW BRITAIN GENERAL is hereby approved to maintain and operate a Blood Collection Facility.

61 HART STREET DIAGNOSTIC CENTER is located at **61 HART STREET, NEW BRITAIN, CT 06050** with:

Barry Jacobs, M.D. as Director.

Dated at Hartford, Connecticut, **OCTOBER 2, 2006.**

J. Robert Galvin MD, MPH

J. Robert Galvin, M.D., M.P.H., Commissioner
Department of Public Health

STATE OF CONNECTICUT

Department of Public Health

Approval

Approval No. DS-571

Approved Blood Collection Facility

In accordance with the provisions of the General Statutes of Connecticut Section 19a-30:

THE HOSPITAL OF CENTRAL CONNECTICUT AT BRADLEY MEMORIAL is hereby approved to maintain and operate a Blood Collection Facility.

SOUTHINGTON DIAGNOSTIC CENTER is located at **360-1 NORTH MAIN ST., SOUTHINGTON, CT 06489** with:

Barry Jacobs, M.D. as Director.

Dated at Hartford, Connecticut, **OCTOBER 2, 2006.**

J. Robert Galvin MD, MPH

J. Robert Galvin, M.D., M.P.H., Commissioner
Department of Public Health

EXHIBIT 2

LUCILLE ANDOLINA JANATKA, FACHE

P. O. Box 940
Woodbury, Connecticut 06798
203.405.3452

PROFESSIONAL EXPERIENCE:

2013 – Present **Senior Vice President and President, Central Region**
Hartford HealthCare
Hartford, Connecticut 06013

Responsible for two hospitals and healthcare services serving Central Connecticut. The Hospital of Central Connecticut in New Britain, Connecticut is a 414-bed teaching hospital and MidState Medical Center in Meriden, Connecticut is a 156-bed acute care hospital. Along with Senior Services and Behavioral Health Services, the Central Region is now focused on the integration of population health services.

2009 – 2013 **Senior Vice President**
Hartford HealthCare
Hartford, Connecticut 06103

In addition to MidState Medical Center, Executive Sponsor for the development of Hartford HealthCare Cancer Institute, a system-wide Cancer Service Line integrating five hospital cancer programs which average over 5,000 new cancer cases annually.

Hartford HealthCare is a charter member of the Memorial Sloan Kettering Cancer Alliance.

- Responsible for statewide VNA Healthcare with operating revenue of $44 million;
- Responsible for Central Connecticut Senior Health Services. This organization includes five facilities offering assisted living, memory care, and skilled nursing care.

1999 – Present **President/Chief Executive Officer**
MidState Medical Center
Meriden, Connecticut 06451

Responsible for executive leadership of MidState Medical Center, a 156-bed acute care hospital with net revenue of $233 million.

- Consistently achieved 3-5% operating margin for 12 years;
- Recognized by Press Ganey for top scores in patient satisfaction, physician satisfaction, and employee satisfaction over many years;
- Recognized with top awards for quality throughout State of Connecticut and Massachusetts Baldrige process;
- Developed multi-specialty medical foundation consisting of 40 physicians, now merged system-wide with 500 providers;
- Oversight of new construction totaling $60 million and adding 30% more capacity on current campus.

P. O. Box 940
Woodbury, Connecticut 06798

1995 – 1999

Chief Operating Officer
Waterbury Hospital
Waterbury, Connecticut 06708

Responsible for all hospital operations at this 360-bed acute care teaching facility; implemented a redesign plan that achieved $10 million savings in operating expenses; negotiated sale of dialysis business for $2 million above offering price; developed joint venture with rehabilitation agency, increasing net revenues by $500,000; participated in planning stages of merging outpatient cancer services operating at two hospitals, into new independent LLC.

1992 – 1995

Vice President, Operations
Hospital of St. Raphael
New Haven, Connecticut 06511

Accountable for all Clinical and Support Services in 500-bed teaching tertiary care hospital; hospital-wide program coordination for cancer services, JCAHO requirements, union negotiations, and Engineering/Maintenance, Construction Management, Environmental Health and Safety departments.

1990 – 1992

Vice President, Administration
Greenwich Hospital
Greenwich, Connecticut 06830

Responsible for operation of all clinical departments, Environmental Services, Engineering, construction programs, Materials Management, Laundry, Safety and Security; directed construction of 600-car ($6.8 million) parking garage; coordinated plan, design, and construction of cancer center and medical offices ($15 million); participated in development of master plan for renovation and expansion of entire hospital.

1986 – 1990

Senior Vice President
Meriden-Wallingford Hospital
Meriden, Connecticut 06450

Responsible for operation of both clinical and non-clinical departments; coordinated purchase and operation of walk-in center, industrial medicine services program, physical therapy services; changed physician referral patterns, increased market share with $1 million new revenue to hospital; developed new Women's Health Center; physician recruitment; participated in planning, strategy, and implementation of merger with competitor hospital.

1982 – 1986

Vice President for Patient Care Services
Meriden-Wallingford Hospital
Meriden, Connecticut 06450

Areas of responsibility included Division of Nursing, Anesthesia, Operating Room, Emergency Department, Continuing Care/Social

Services, OB clinics, Hospice, Infection Control, SurgiCenter, and labor relations; decentralized Nursing Division; instituted walk-in program for non-emergent care through the Emergency Department; key member of negotiating team for all union contracts.

EDUCATION: MSN Degree, Boston College, School of Arts and Sciences, Chestnut Hill, Boston, Massachusetts

BSN Degree, St. Anselm College
Manchester, New Hampshire

PROFESSIONAL ASSOCIATIONS:

- Fellow of the American College of Health Care Executives 1987-present.

BOARD and COMMITTEE MEMBERSHIPS:

Professional:

- Numerous Board and Community memberships

PERSONAL AWARDS:

- 2011 Women in Business Award - Hartford Business Journal, Hartford, CT
- 2009 Top 25 Women in Healthcare - Modern Healthcare Magazine
- 2009 CT Women's Hall of Fame
- 2008 Athena Award - Quinnipiac Chamber of Commerce, Wallingford, CT 2003 Strong, Smart & Bold Award - Girls, Inc., Meriden, CT
- 2006 Women in Leadership - Women & Families Center, Meriden, CT
- 2005 Regent's Award - American College of Healthcare Executives
- 2003 Strong, Smart & Bold Award - Girls Inc., Meriden, CT

Carolyn M. Freiheit
92 General Patton Drive
Naugatuck, CT 06770
203 415-7161

Summary & Overview

Versatile, highly accomplished, results driven leader who leads through change. Hands on leader with extensive background in healthcare finance and establishing cross functional partnerships to deliver results. Strong qualifications in developing and implementing financial controls and processes in addition to productivity improvements, and change management. Possesses solid leadership, communication and interpersonal skills to establish rapport with all levels of staff and management.

Professional Experience

2013-Present Hartford Healthcare, Inc.

Regional Vice President, Finance (2 acute care hospitals $600M Revenue)

Areas of Responsibility: Patient Financial Services, Admitting, General Accounting, Reimbursement, Decision Support Analytics, Budget and Accounts Payable for both Hospital of Central Connecticut and Midstate Medical Center with 5 direct reports and 100 divisional employees.

Key Accomplishments: transitioned revenue cycle to shared service organization model with standardization, regionalized departmental leadership, integrated system decision support and general accounting system,

2003- 2013 The Hospital of Central Connecticut, New Britain, CT

Director of Finance 2006 – Present

Areas of Responsibility: General Accounting, Reimbursement and Chargemaster Maintenance, Decision Support Analytics, Budget, Managed Annual Financial and Grant Audits, Accounts Payable with 14 direct staff members

Key Accomplishments: integrated fixed assets into general accounting with bar coding, implemented invoice scanning, electronic invoicing, reimbursement improvements with cost report preparation and compliance, implemented labor productivity monitoring system

Director of Budget 2003- 2006

Areas of Responsibility: budget & decision support system maintenance and reportingwith 2 direct staff members

Key Accomplishments: automated budget preparation, designed and implemented management training, managed variance reporting, selected and implemented new budget system with increased reporting efficiencies

1997-2003 Waterbury Hospital, Waterbury CT
Assistant Director of Finance 1999 – 2003
Reimbursement Analyst 1997- 1999

1994-1997 Milford Hospital, Milford CT
Reimbursement Analyst
1990-1994 Griffin Hospital, Derby CT
Senior Accountant

Professional Organizations & Community Leadership

CenConn Services	2013 - present
Hospital of Central Connecticut	2013 - present
Midstate Medical Center	2013 - present
Meriden Imaging Center	2013 - present
Corperator of Hospital of Central Connecticut	2009 - present
HealthCare Financial Management	2003 - present
Naugatuck Congregational Church	Finance Committee & Stewardship Committee

Education

Sacred Heart University and University of Connecticut MBA
Western CT State University Bachelors of Science; Major in Accounting
Bay Path College Associates of Science; Major in Accounting

Garrett C. Havican, MBA, FACHE

140 Laurel Brook Rd.
Middlefield, CT. 06455
Gary.Havican@gmail.com

PROFESSIONAL EXPERIENCE

MIDDLESEX HOSPITAL

(7/15-Present)-Vice President Strategic Planning & Ambulatory Operations

Middlesex Hospital is a not for profit, acute care community teaching hospital located in Middletown, CT. It provides health care services to a large geographic area covering the 24 towns in Middlesex County and the lower Connecticut River Valley, with a combined population of over 265,000 persons. The hospital is the only Connecticut member of the Mayo Clinic Care Network (MCCN) and the only acute care hospital located in its service area. It offers its residents a myriad of services including: two 24-hour emergency clinics, a comprehensive Cancer Center; out-patient Surgical Center, Laboratory, Radiology, Physical Therapy and Behavioral Health Services; a Family Practice Residency Program, Middlesex Primary Care Group and Middlesex Hospital Multi-specialty and Surgical Alliance Clinics. The hospital is licensed for 275 beds and 22 bassinets.

- *Executive oversight*: Health System Strategic Planning, MAYO Clinic Partnership, Ambulatory Operations &Business Development. *Departments include*: Radiology, Laboratory, Physical Medicine & Rehabilitation, Radiation Oncology, Surgical Alliance (multi-specialty surgical group), Radiation Safety, Cancer Center, Institutional Review Board, Out-patient services, Physician/Practice Relations, Internal Logistics and Patient Transport. *Initiatives include*: LEAN/ Six Sigma operational process improvement and the Health Systems Administrative Fellowship Program.
- Oversees all Certificate of Need applications and business development activities.
- Chairs patient throughput/length of stay initiative for MHS Performance Improvement Project. $4.3M expense reduction
- Negotiates multi-million dollar contracts for major medical equipment for Radiation Therapy, Radiology, Laboratory, Pulmonary Dept.
- Managed clinical practice transitions/acquisitions including Shoreline Medical Center in Westbrook, ASAP Urgent Care acquisition in Madison, East Haddam Family Medicine, Pro Physical Therapy/Rehab, Middletown Surgical Group and several Ambulatory Surgery Center joint ventures.
- Developed the following: Middlesex Medical Group(MMG) Surgical Alliance, MMG Dermatology Clinic, LEAN Six Sigma Leadership team, Physician/Practice Relations Department, Centralized Transportation Department and internal logistics team, new business acquisition teams and "No Lift Hospital" Committee.

(1/12-7/15)-*Promotion* -Vice President, Operations

(1/10-1/12)-*Promotion* -Director, Cancer Center & Oncology Services

(1/08-1/10)-Administrative Director

- Operational Oversight: Cancer Center, Comprehensive Breast Center, Radiation Oncology, Physics, & Surgical Sub-specialty Clinic
- Manages all financial aspects of six specific cost centers including budgeting, revenue and expense reporting and forecasting.
- 32 reports include: Physician Medical Directors, All Clinical, administrative and ancillary staff.
- Developed multi-disciplinary programs in breast, lung, colo-rectal, prostate, kidney, bladder, GYN Onc & IM/Survivorship.
- Facilitated inter-facility teams to justify, submit CON and acquire new technology including: Linear Accelerator, DaVinci Robotic Surgery, EBUS, 3.0 Tesla MRI's, etc.
- Developed comprehensive Multi-disciplinary surgical sub-specialty Clinic offering Thoracic Surgery, Gynecologic Oncology and Neurosurgical services. (2011)
- Led the Cancer Center to receive the American College of Surgeon's "Outstanding Achievement Award" (3/10 & 5/15))
- Developed the Middlesex Hospital Comprehensive Breast Center and the Center for Survivorship and Integrative Medicine. (2009)
- Secured in excess of $1Million in philanthropic donations for programmatic expansion.
- Developed a marketing platform including: a new web site, electronic & print media, Annual Report, Video and TV commercial.
- Received re-Accreditation with Commendation from the American College of Surgeon's Commission on Cancer (5-2009).
- Received re-Accreditation through the CALGB and the CTSU for clinical trial regulatory compliance (6/2009)
- Led the Comprehensive Breast Center through its inaugural site visit and achieved Accreditation through the American College of Surgeon's National Accreditation Program for Breast Centers (NAPBC) (7/2009) and re-accreditation (7-2012)

UNIVERSITY OF CONNECTICUT HEALTH CENTER; The Carole & Ray Neag Comprehensive Cancer Center

(1/06-1/08)-Administrative Manager; Signature Programs (Strategic Planning)

Neag Comprehensive Cancer Center Administrative Offices

The UConn Health Center is a vibrant, integrated academic medical center that is entering an era of unprecedented growth in all three areas of its mission: academics, research, and clinical care. Based in Farmington, Connecticut – a popular suburb of the state's capitol of Hartford – the UConn Health Center is home to the School of Medicine, School of Dental Medicine, John Dempsey Hospital, UConn Medical Group, UConn Health Partners, University Dentists and a thriving research enterprise. With approximately 5,000 employees, the UConn Health Center is a major economic driver in the region, generating nearly $1 billion annually in gross state product. It is closely linked with the University of Connecticut's main campus in Storrs through multiple, cross-campus academic projects.

- Direct oversight of the Academic Offices and its employees answering to the Chief Operating Officer of the Cancer Center.
- Oversight of all financial aspects of the $16 million budget including revenue/expenses, marketing, philanthropic giving & grant funding.
- Development of annual operational and research strategic plan in conjunction with the Cancer Center's Executive Committee.
- Develop org. infrastructure and policy to prepare the Cancer Center for subsequent National Cancer Institute (NCI) designation
- Direct supervision of Clinical Trials Office including employee supervision, recruitment, budgets and industry negotiations.
- Responsible for contractual review, financial planning, regulatory compliance and IRB submissions for over 76 active clinical trials.
- Led strategic planning efforts for the new Colon Cancer Prevention Program to develop "Prevention" translational medicine programs in colon, ovarian and breast cancer.
- New business development initiatives for health center trends in bench research, clinical treatment and translational activities.

HARTFORD HOSPITAL; Department of Trauma & Emergency Medicine. (Hartford, CT)
(3/04-1/06)-Strategic Planning Coordinator/ Regional Unit Leader
- Responsibilities included: Strategic organizational emergency response planning for the healthcare system in the Northern half of CT.
- Liaison to the CT. DPH, CT. Hospital Assoc., Dept. of Emergency Mgt. and Homeland Security and other planning partners.
- Directed project development including Surge Capacity planning, Web application project management, Behavioral Health Response, inter-regional Hospital resource utilization and Drill and Exercise Coordination.

GREENWICH EMERGENCY MEDICAL SERVICES; Administration. (Greenwich, CT)
(10/02-3/04)-Operations Manager
- Responsibilities included: Directing daily operations of citywide ambulance service managing over 80 employees.
- Head of strategy and planning and budgets for organization including identifying trends and forecasting growth opportunities.
- Increased staff by over 60% through successful recruitment campaign and establishment of successful employee retention programs.

UNIVERSITY OF CONNECTICUT HEALTH CENTER/ CONNECTICUT DEPARTMENT OF PUBLIC HEALTH
(4/01- 10/02)-State of Connecticut Clinical Coordinator-Connecticut DPH
- Responsibilities included: consultation with State agencies regarding pre-hospital advanced medical practices.
- Reviewed and revised current regulations and statutes for the Ct. DPH Office of Emergency Medical Service.
- Manage the process for advanced level practice to grant and/or revoke authorization as necessary.
- Implement performance indicators used to track and trend statewide data and apply results to "Best-Practices" model.

(4/2001-10/2002)-Mobile Intensive Care Coordinator-UCHC Dept. of Traumatology and Emergency Medicine
- Responsibilities included: providing consultative services to the State of Connecticut Department of Public Health.
- Clinical Direction of 15 volunteer/municipal/Industrial/State EMS providers in 10 surrounding communities.
- Strategy, planning and new business development initiatives for UCHC Emergency Department and Regional Paramedic program
- Developed, published and implemented Standard Operating Guidelines for the sponsored EMS providers..

WATERBURY HOSPITAL HEALTH CENTER; Department of Emergency Medicine (Waterbury, CT.)
(9/97 - 4/01)-Emergency Medical Services Coordinator
- Responsibilities included: coordinating Emergency Medical Services for the Greater Waterbury area and the six contiguous communities (estimated population in excess of 85K).
- Strategy, planning and new business development initiatives for WHHC Emergency Department and Regional EMS program
- Coordinated a number of quality based projects including pharmaceutical research studies, analysis of concurrent and retrospective patient review, JCAHO preparatory teams and the implementation of HCFA (CMS) mandates.

EDUCATION/CREDENTIALS

Academic Degrees

1994: Western Connecticut State University, Danbury, Ct.
Bachelor of Arts, History.

2004 University of New Haven, New Haven, Ct.
Master's in Business Administration. (4.0 GPA)

Professional Certifications

2010: American College of Healthcare Executives, Chicago, IL.
Board Certification in Healthcare Management
Fellow, American College of Healthcare Executives

2011: Central Connecticut State University, New Britain, Ct.
Green Belt Certificate-Six Sigma

2012: Villanova University, Villanova, PA
Certified Six Sigma Black Belt

ADDITIONAL EXPERIENCE

Train the Trainer/ Health System Roll out: Level 3 High Reliability Organization
Renovation Project Leadership:

- Middlesex Health Systems Shoreline Medical Center Linear Accelerator/ Comprehensive Cancer Program $8M
- Middlesex Hospital Cancer Center Radiation Therapy Linear Accelerator acquisition/ vault construction $4M
- Middlesex Hospital Cancer Center Administrative/Clinical Office renovation $1M
- Middlesex Surgical Alliance office renovations $2M
- Middlesex Health Systems Shoreline Medical Center $34M
- Middlesex Health Systems Pro Physical Therapy acquisition/renovation (under development) appx $2.4M
- Neag Comprehensive Cancer Center Prevention Center $10M

State of Connecticut License: (1994-Present) Licensed Paramedic.
Coach: Little League Baseball, Youth Soccer
Certified: ACLS, PALS, BLS, HEICS
Operating system competencies in MS Word, Excel, Power Point, Access, Outlook, Publisher, Visio, MS Project, Google, Cerner

APPOINTMENTS AND INSTRUCTORSHIPS

Appointed Member: State of Connecticut; Governor's Certificate of Need Task Force
President: Connecticut Chapter of the American College of Healthcare Executives (CTAHE)
Board Member: Connecticut Chapter of the American College of Healthcare Executives
Member, Regents Advisory Council: Connecticut Chapter of the American College of Healthcare Executives
Member, Presidents Club: MARC: Community Resources (A local organization managing the needs of the developmentally disabled)
Member: University of New Haven Masters in Healthcare Administration Advisory Committee
Board Member: Middlesex United Way; Corporate Development Committee
Board Member: East Haddam Moodus Little League
Member: (2005-Present) Association of Community Cancer Centers (ACCC), Association of Cancer Executives (ACE)
Director/Instructor: (1995-2012) AHA Advanced Cardiac Life Support, Pediatric Advanced Life Support, BLS
Chair: 2010: Middlesex Health Systems United Way Campaign. (2009, Co-chair)
Chair: 2005-2009 American Heart Association, Emergency Cardiovascular Care Committee (New England Region)
President/CEO: (2004-2008) Corporation, Board of Directors, East Haddam Volunteer Ambulance Association, Inc.
Chairperson/Chief: Capitol Region Emergency Planning Committee Hospital Support Function (ESF8)
Chairperson (finr): Environment of Care Committee-Hazardous Materials and Emergency Preparedness-Waterbury Hospital
Instructor: Hospital Emergency Incident Command System (HEICS).

AWARDS AND ACCOMPLISHMENTS

2016 Appointed Member: State of Connecticut; Governor's Certificate of Need Task Force
2015 Promoted: Vice President Strategic Planning & Ambulatory Operations
2012 Awarded "ACHE" Regents Award for outstanding leadership/ healthcare management excellence
2012 Promoted: Vice President, Operations, Middlesex Health System
2011 Awarded "Heart of Hospice, Pulse of Palliative" Recognition Award
2011 Awarded "Corporate Achievement Award" and "Top 10" for leadership in the Middlesex County United Way Campaign.
2011 Named "Hometown Hero" by the Hartford Courant for community leadership and philanthropic initiatives.
2010 Promoted: Director, Cancer Center & Oncology Services: Middlesex Health System
2010 Awarded "Volunteer Leadership Award" by the American Heart Association Emergency Cardiovascular Care Committee
2007 Published: Hospital Preparation for Bioterror: A Medical and Biomedical Systems Approach; "Hospital Large Scale Drills"
2006 Lecture: "Top Off III: A Hospital Response". National Environmental Health Conference; San Antonio, Tx.
2005 Lecture: "Marketing your Community Training Center". American Heart Association Northeast affiliate; Worcester, MA.
2005 Awarded a "Public Service Award" by Secretary of State Susan Bysiewicz for Community Service in the State of Connecticut.
2004 Chosen as UNH EMBA "Success Story" by Dr. Parbadyul Singh, PhD; Associate Dean , UNH School of Business
2004 Awarded "Outstanding Service Award" Hartford Hospital Lead Planner for the Federal Top Officials Exercise, April 2004
2003 Awarded the "First Selectman's Award" Town of Greenwich for incident mitigation and control during the Black Outs of 2003.
1996 Awarded the "Member of the Year" (1996) for Wolcott Volunteer Ambulance.
1994 Award for Excellence in Field Internship for Yale Sponsored Hospital Paramedic Program.
1992-1993 Served as President and Alumni Chapter Advisor, Sigma Chi International Fraternity

REFERENCES AVAILABLE UPON REQUEST

Curriculum Vitae

Barry Jacobs, M.D.

15 Two Buck Ring
Burlington, CT 06013
(860) 305-0530

Personal Data:

Birthplace:	New York City
Citizenship:	USA
Health:	Excellent

Education:

High School: Amity Regional
Woodbridge, CT
Diploma 1971

Undergraduate College: University of Connecticut
Storrs, Connecticut
B.A. 1975, Summa Cum Laude with honors in Biological Sciences
University Scholar and Phi Beta Kappa

Medical School: New York Medical College
Valhalla, New York
M.D. 1979

Residency Training:
Bronx Municipal Hospital Center,
July – October 1979 (Internal Medicine)

The Stamford Hospital
Stamford, Connecticut
Anatomic and Clinical Pathology
1979 – 1983

Fellowship: University of Connecticut Health Center & Hospital
Farmington, Connecticut
Hematology/Transfusion Medicine
7/1/83 – 12/31/84

Appointments:

Associate Attending Pathologist, New Britain General Hospital, 1/1/85 – 6/30/93
Senior Attending Pathologist, New Britain General Hospital, 7/1/93 – present

Associate Chief of Pathology, New Britain General Hospital, 7/1/96 – 6/30/2003, Bradley Memorial Hospital, 7/1/1997-9/30/2003.
Chief of Pathology, New Britain General Hospital, 7/1/2003 – 9/30/06, Bradley Memorial Hospital, 7/1/2003 – 9/30/06.
Chief of Pathology and Laboratory Medicine, Hospital of Central Connecticut, 10/1/06 – present.
Medical Director of Hematology Laboratory, New Britain General Campus, 7/1/96 – 6/30/2010.
Medical Director of Chemistry Laboratory, Hospital of Central Connecticut, 1/1/10 – 6/30/2010.
Medical Director of Core Laboratory, Hospital of Central Connecticut, 7/1/2010-present
Assistant Director of Blood Bank, Hospital of Central Connecticut, 8/1/2011 – present.
Assistant Professor of Laboratory Medicine, University of Connecticut Health Center 1/1/85 – present
Assistant Professor of Pathology, University of Connecticut Health Center, 1/1/85 – present
Clinical Faculty, Frank Netter School of Medicine at Quinnipiac University, 7/10/2015 – present.

Awards and Honor Societies:

Phi Beta Kappa, University of Connecticut, 1974
University Scholar, University of Connecticut, 1974
Alpha Omega Alpha, New York Medical College, 1978
Harrison Award for highest academic standing in graduating class, New York Medical College, 1979
Ruggiero Award for Surgery, New York Medical College, 1979
Cor et Manus citation for school service, New York Medical College, 1979

Professional Societies:

American Society of Clinical Pathology
College of American Pathologists
Connecticut State Pathology Society

Certification:

Diplomate of the National Board of Medical Examiners, 1981
Diplomate of the American Board of Pathology, Anatomic and Clinical Pathology (5/31/85), Hematology (5/31/85)
Connecticut Medical License, 1984 to present

Hobbies and Interests:

Music
Prototype and model railroading
Birdwatching

Outdoor sports – cycling, kayaking, hiking.
Information Technology

References: Provided upon request.

Summary of Training:

January 1, 1980 – December 31, 1980
Surgical and Autopsy Pathology

January 1, 1981 – December 31, 1981
Clinical Pathology:
- Hematology and Transfusion Medicine – 4 months
- Clinical Chemistry – 4 months
- Microbiology – 4 months
- Autopsy Pathology

January 1, 1982 – December 31, 1982
Surgical and Autopsy Pathology

January 1, 1983 – June 30, 1983
Clinical Pathology:
- Cytology – 2 months
- Microbiology – 2 months
- Clinical Chemistry – 1 ½ months

July 1983 – December 1984
Fellowship in Hematopathology and Transfusion Medicine, University of Connecticut Health Center (3 months at American Red Cross Blood Center, Farmington, CT)

Publications:

Parry, M.F., Jacobs, B., Scully, B., Neu, H.C.: Thrombocytosis: An Acute Phase Reactant, Not an Adverse Reaction to the New B-Lactam Antibiotics, Diagn. Microbiol. Infect. Disease, 1984: 2:229-231

Morse, E.E. and Jacobs, B., Blood Donation and its Aftereffects, The American Scientist, 1985: 73 p. 68-69

Kakaiya, R.M., Jacobs, B., Pelletier, M., Morse, E., Cable, R.: Trends in Hepatitis B Surface Antigen (HbsAg) Prevalence in Volunteer Blood Donors in Connecticut, 1973-1983, Annals of Clinical and Laboratory Science 1986: 5:380-385

Kalish, R.I., Jacobs, B.: Post-Transfusion Purpura: Initiation by Leukocyte-Poor Red Cells in a Polytransfused Woman, Vox Sang 1987, 53:169-172

Engle P.A., Grunnet, M., Jacobs, B., Wernicke-Korsakoff Syndrome complicating T-cell Lymphoma: Unusual or Unrecognized?, Southern Medical Journal, 1991, Feb 84 (2): 253-256

Voytek, T.M., Rezuke, W.N., Benn, P.A., Jacobs, B., and Pogue W.H.: Acute Lymphoblastic Leukemia, FAB L3, with t (8;14) and Precursor B Cell Immunophenotype: Case Report and Literature Review, The Journal of Histotechnology, 18 (2), 1995:149-153

Additional Activities:

NBGC – Member of Cancer Committee, Medical Executive Committee, Blood Bank Advisory Committee, Medical Consultant to HOCC Tumor Registry, Thoracic Work Group. Hematology and Thoracic Disease Management Teams

BMC – Medical Staff Operations Committee.

Hartford Healthcare - Chairperson, System Pathology Council, Chairperson of Anatomic Pathology Information System Steering Committee, Member of HHC System Laboratory Information System Steering Committee

College of American Pathologists: Inspection Team Leader, Laboratory Accreditation Program. Instructor, College of American Pathologists Inspector Training Seminar.

Certified Physician and Staff Trainer, High Reliability Error Prevention Program at HOCC.

Joseph A. Vaccarelli, Jr.
2 DiSanto Drive • Wolcott, Connecticut 06716
203.879.5998 • jlmnv@aol.com

EDUCATION: Quinnipiac College - Hamden, Connecticut
Masters of Health Science
Bachelor of Science in Medical Technology
Graduated magna cum laude
Member of Lambda Tau-Mu and Tri-Beta National Honor Societies for Biological Sciences
University of Connecticut - Waterbury, Connecticut
Liberal Arts and Sciences, 4 undergraduate semesters
Sacred Heart High School - Waterbury, Connecticut

PROFESSIONAL CERTIFICATIONS: American Society of Clinical Pathologists
- Certified Medical Technologist MT (ASCP)
- Specialist in Hematology SH (ASCP)

National Certification Agency
- Clinical Laboratory Scientist CLS (NCA)
- Categorical Certification in Hematology H (NCA)

The Ohio State University - Moresteam University Affiliate
- Green Belt Certification in Lean-Six Sigma November (2010)
- Black Belt Certification (September 2012)

EXPERIENCE:

March 2007 to Present — **The Hospital of Central Connecticut, 100 Grand Street, New Britain, Connecticut**

CURRENT POSITION: Administrative Director, Radiology; Pathology; Laboratory Medicine; and Outpatient Clinics

DUTIES AND RESPONSIBILITIES: Report directly to the Vice President and Chief Operating Officer in a position that has evolved significantly since 2007. Areas of responsibility include all imaging modalities; all sections of the clinical and anatomic pathology laboratories; and hospital-based clinics. Radiology and Laboratory responsibility extends to 6 remote patient service centers for imaging and laboratory services. A

total of more than 260 FTEs, including 12 clinical and non-clinical managers comprise these service areas.

June 2003
to **Danbury Hospital, 24 Hospital Avenue, Danbury, Connecticut**
March 2007

POSITION: Administrative Director, Department of Pathology
and Laboratory Medicine

DUTIES AND RESPONSIBILITIES: Report directly to the Senior Vice President and Chief Operating Officer. Areas of responsibility include all sections of the clinical and anatomic pathology laboratories, campus-based and remote patient service centers, and nuclear medicine. A total of 168 FTEs, including 14 clinical and non-clinical managers comprise this service line.

August 1980
to **St. Mary's Hospital, 56 Franklin Street, Waterbury, Connecticut**
June 2003

August 1996 **POSITION:** Division Director
to
June 2003

DUTIES AND RESPONSIBILITIES: Report directly to the division Vice President
Areas of responsibility include the clinical and administrative management of the Laboratory, off-site Patient Service Centers, Occupational Health Center, off-site Urgent Care Center, Family Health Center, Medicine/Pediatric Center, Dental Health Center, and Home-Based Health Center. The division consists of a total of 141 FTEs.

February 1993 **POSITION:** Laboratory Outpatient Services Manager
to
August 1996

DUTIES AND RESPONSIBILITIES: Oversee all activities related to Laboratory Outpatient Services.

June 1991 **POSITION:** Director, Medical Technology Program
to
August 1996

DUTIES AND RESPONSIBILITIES: Direct all activities associated with the School of Medical Technology.

June 1991 to August 1996 **POSITION:** Supervisor, Hematology/Hemostasis/ Clinical Microscopy

DUTIES AND RESPONSIBILITIES: Function as the primary technical resource for staff, physicians, and other allied health personnel; the technical adjuvant for the pathologists, administrative director, and other supervisors.

August 1980 to June 1991 **POSITION:** Staff Medical Technologist - Generalist

DUTIES AND RESPONSIBILITIES: Perform a variety of laboratory procedures in all areas of the clinical laboratory

January 1985 to Present **Lincoln College of New England, Southington, Connecticut (Formerly, Briarwood College)**

POSITION: Instructor

DUTIES AND RESPONSIBILITIES: Instruction in both a classroom and clinical setting. Areas of instruction include anatomy and physiology, medical terminology, and all aspects of clinical laboratory science.

December 1985 to December 1989 POSITION: Technical Assistant to the College of American Pathologists Regional Commissioner for hospital accreditation

DUTIES AND RESPONSIBILITIES: Evaluate and respond to inspection reports from all participating hospitals, as well as several on-site inspections of healthcare facilities throughout the Northeast.

August 1981 to December 1984 **Laboratory for Clinical Investigation, 417 Highland Avenue, Waterbury, Connecticut**

POSITION: Medical Technologist - Supervisor

DUTIES AND RESPONSIBILITIES: Manage the Hematology and Clinical Microscopy sections. Responsible for capital equipment evaluations and purchases, operating policy and procedures, employee selection, orientation, technical supervision, and implementing and monitoring quality control and quality assurance strategies.

PROFESSIONAL ASSOCIATIONS:

Current-
American College of Healthcare Executives (ACHE)
Clinical Laboratory Management Association (CLMA)
American Society for Clinical Pathology (ASCP)
American Society for Clinical Laboratory Science (ASCLS)
Former-
Connecticut Association of Medical Laboratory Educators (CAMLE)
American Society of Medical Technologists (ASMT)
Connecticut Society of Medical Technologists (CSMT)

COMMITTEE MEMBERSHIP:

The Hospital of Central Connecticut (2007 through Present)
- Radiation Safety
- Breast Program Operations
- Mammography Quarterly
- Imaging Center / Cancer Center Design Team
- Meaningful Use / Project One / CPOE Steering
- Positive Patient ID (Project Sponsor)
- Continuous Performance Improvement
- Regulatory Readiness
- Physician Practice
- Laboratory Point-of Care Testing (co-chair)
- Diabetes Inpatient Advisory Board
- Employee Recognition
- Event Reporting (Quantros) Steering
- H3W™ Steering

- Hartford Health Care THRIVE™ Steering

Danbury Hospital (Through June 2007)

- United Way Hospital Campaign (Chair in 2006)
- Laboratory Point-of Care Testing (MAS-RALS Project Sponsor)
- Hospital Performance Improvement
- Employee Recruitment, Retention, Recognition
- Service Excellence
- Capital Equipment Acquisition
- Cultural Diversity Awareness
- Development Fund
- Revenue Cycle Team

St. Mary's Hospital (Through May 2003)

- Hazardous Materials Management (Chair)
- Ergonomics Task Force (Chair)
- Employee Wellness Program (Chair)
- United Way Hospital Campaign (Chair in 2001 and 2002)
- Laboratory Point-of Care Testing (Chair)
- Infection Control
- Information Security
- Information Technology Steering
- Capital Equipment Acquisition
- Radiation Safety
- Safety
- Physician Satisfaction
- Master Facilities Planning
- Emergency Preparedness
- Corporate Compliance
- Complementary and Alternative Medicine
- Employee Recruitment, Retention, and Recognition
- Speakers Bureau

COMMUNITY SERVICE (Past and Present):

American Red Cross Board of Directors (Waterbury and Danbury Chapters)
United Way Allocations
Elderly Health Screening Services Board of Directors
Wolcott Education Foundation Board of Directors
Wolcott Business and Industrial Commission

COMPUTER
EXPERIENCE: Sunquest Laboratory Information System; Cerner Millennium Information System; Microsoft Office Applications

HONORS/
AWARDS: St. Mary's Hospital Employee of the Year
Who's Who in Professional Management

PERSONAL: Life-long Wolcott, Connecticut resident
Married; two daughters
Health - Excellent
Hobbies – Golf, Running, Reading

REFERENCES: An abbreviated list is attached. Additional references available upon request.

Joseph A. Vaccarelli, Jr.

REFERENCES

William Frederick, M.D. (Chairperson, Department of Laboratories)
St. Mary's Hospital
56 Franklin Street
Waterbury, Connecticut 06706
203.709.6050

Dwight Miller, M.D.
St. Mary's Hospital
56 Franklin Street
Waterbury, Connecticut 06706
203.709.6050

Gregory K. Buller, M.D.
850 Straits Turnpike
Middlebury, Connecticut 06762
203.758.1800

Eleanor Flores, Program Director
Lincoln College of New England (Formerly, Briarwood College)
2279 Mount Vernon Road
Southington, Connecticut 06489
203.628.4751

Barry Jacobs, M.D. (Chief of Pathology)
The Hospital of Central Connecticut
100 Grand Street
New Britain, Connecticut 06050
860-224-5900

Joel Gelber, M.D. (Chief of Radiology)
The Hospital of Central Connecticut
100 Grand Street
New Britain, Connecticut 06050
860-224-5900

Joseph A. Vaccarelli, Jr.

Select Accomplishments
At The Hospital of Central Connecticut

1. Consolidated reference testing / renegotiated contracts during initial 6 months

Identified that reference laboratory charges to The Hospital of Central Connecticut were in excess of "best pricing". Reference testing was consolidated and new contracts executed.

Result:
Year-one savings of $50,739 (21%) on referred testing (volume adjusted)

2. Reconfigured Management Structure

Revised T/O. Eliminated 4 supervisory positions with no involuntary RIF. Designed a new model.

Result:
Recurring annual salary (and benefit) expense reduction of over $370,000

3. Implemented new strategy for GYN-cytology

A confluence of inextricable factors coalesced to produce a compelling case for outsourcing. These factors include: cytotechnologist recruitment / retention; high (and increasing) cost per [PAP] test; imminent scheduling challenges; declining volume
and TAT concerns.

Result:
An immediate and sustained annual increase in cytology margin exceeding $165,000; a 65% increase.

4. **Role expansion in June 2010**

Assigned responsibility for two additional departments (Radiology and Patient Transport), previously managed by two individuals — a director and an assistant director.

Result:
Recurring annual salary (and benefit) expense savings of over $275,000

5. **Implemented Point-of-Service (POS) registration model in Radiology**

Decentralized the registration process, bringing it to the point of service

Result:
Sustained quantifiable decrease in patient wait times; more efficient workflow; enhanced patient experience.

6. **Restructure Home Draw Policy and Procedures**

Defined previously unstructured practice and developed forms and communications to make optimal use of resources, assure appropriate use and efficient delivery of service.
Result:
Only medically necessary services were provided, yielding a 36% reduction in this labor intensive service.

7. **Created and implemented new intra-department communication tools**

Introduced Change of Shift Communication Log; Phlebotomy Tracking; and electronic Shift Report available via e-mail 24/7 to all members of the Laboratory Management Team.
Result:
Enhanced communication and maximized transparency among management and staff regarding operations

8. **Obtained Lean-SixSigma (LSS) Black Belt Certification**

Result:
Engaged management teams in Radiology and Laboratory in the DMAIC process, thereby creating a force multiplier, with management staff applying LSS principles and tools.

9. **Designed Phlebotomy Rounds to Meet Physician Expectations**

Responding to a physician-directed committee (Ease of Practice), a staggered "early morning" collection and testing schedule was designed and implemented to have results available to physicians at the time of their morning rounds.

Result:
Since its inception more than 3 years ago, result turnaround times have met established targets at a cumulative percentage of 97.8.

10. **Sponsored and lead LSS team to implement Positive Patient Identification (PPID)**

Introduced an electronic solution — CERNER-PPID module — to complement other identification initiatives

Result:
Approaching SixSigma level performance in the area of patient identification.

Joseph A. Vaccarelli, Jr.

Select Accomplishments At Danbury Hospital

1. Reduction in Costs for Referred Laboratory Testing

Referred testing comprises 3% of volume, but consumed 12% of the Laboratory's non-salary budget. Created RFP, coordinated response / analysis processes, conducted negotiations and prepared comprehensive summary / recommendation

Result:
Initiation of process had immediate pricing impact yielding a savings of over $38,000 in reference lab costs in just 6 months of FY05 — even with a volume increase — as compared to the same period for the prior fiscal year.

In FY06, cost per referred test was reduced by an additional 13%, compared to the prior fiscal year, with improved quality of service.

2. Restructured Nursing Home / Assisted Living Contracts and Services

Restructured nursing home contracts and established contracts / service expectations with assisted living facilities.

Result:
STAT charge encouraged appropriate use of stat testing, which declined by more than 50%, thereby decreasing phlebotomy resource demands. When STATS were performed, Danbury Hospital was compensated (STAT charge collected exceeded $25,000 in year one of the new contracts).

Vigorous payment collection (monthly calls / letters from me to administrative directors of nursing homes) resulted in reduction of outstanding balances by 61% (overdue payments collected = $78,106).

A new configuration for providing laboratory services to nursing homes yielded a 24% volume decrease in this labor-intensive service, while increasing contribution margin by 44%, and actually enhancing the quality of care.

3. Instrument Contracts / Negotiations

Personally involved in operational detail with potential for high return on time invested — Beckman Coulter.

Result:
Negotiated directly with Beckman Coulter's Vice President of North American Operations to secure an agreement for "consignment" of 2 Hematology analyzers at no cost to Danbury Hospital. The arrangement, similar to one configured at St. Mary's, was in response to problematic instruments. This allowed for an 18-month deferment of over $250,000 in capital costs; resulted in improved analyzer operations (via attention at the highest level of Beckman Coulter); and afforded an extensive end user experience with the instruments, prior to making a purchase decision..

4. Cardiac Surgery CON and new Outpatient Diagnostic Building CON

Represented both the Laboratory and Nuclear Medicine at CON planning sessions spanning several months.

Result:
All CON information provided as requested; both applications approved.

5. Development Fund / Flow Cytometer

Prepared and presented information to committee in support of directing Development Fund dollars to a Laboratory instrument.

Result:
Presentation was compelling and funds were directed to the Laboratory. Flow cytometer was acquired at no cost, with development fund contributions.
Authored the document ultimately used verbatim by the Development Fund in their annual publication.

6. Outpatient Laboratory Business Profitability

Conducted analysis with Vice President Planning; identified opportunities for data refinement with Decision Support; submitted recommendation for MOA; Completed section-specific analysis

Result:
Outpatients comprise 68% of laboratory testing volume. Through service quality enhancements – cost reduction combinations, contribution margin on this portion of laboratory business has increased by an average of 8.6% per year since 2004

Joseph A. Vaccarelli, Jr.

Select Accomplishments
At Saint Mary's Hospital

1. Expanded Laboratory outpatient services. Prior to my appointment as Laboratory Outpatient Services Manager, the Laboratory's presence in the outpatient arena had precipitously declined, generating less than $200,000 in annual gross revenue. Within 24 months, outpatient accounts grew to represent over $2.5 million in gross revenue.

2. Obtained, at no cost, an automated hematology analyzer valued at $150,000. The instrument acquisition (and the accompanying three-year service contract) followed six months of negotiations with the manufacturer of hematology analyzer of substandard performance.

3. Created a continuing education competency and assessment plan for the Laboratory.

The plan was designed to meet the requirements of all regulatory agencies overseeing the Laboratory. It inspired our staff to continually update their skill-sets and helped assure the delivery of the highest quality laboratory services.

4. Developed and implemented an Employee Recognition Program for the Laboratory technical staff. The program's success exceeded the highest expectations in augmenting the performance of the technical staff and enhancing the professional environment in the laboratory. Benefits to the Laboratory included greater productivity from motivated, empowered, self-directed clinical laboratory technologists.

5. Improved the performance of Medical Technology School graduates on national certifying examinations during my tenure as Program Director. During the five years preceding my appointment, the success rate had reached a nadir of 78%. Under my direction, the success rate rose to 94%.

EXHIBIT 3

The Hospital of Central Connecticut
A Hartford HealthCare Partner

Steven R. Prunk, M.D., FCCP
Director
Pulmonary/Critical Care Medicine
The Hospital of
Central Connecticut
Associate Professor of Clinical Medicine
University of Connecticut
School of Medicine
E-mail: Steven.Prunk@hhchealth.org

May 19, 2017

State of Connecticut
Department of Public Health
Office of Health Care Access
410 Capitol Avenue
Hartford, CT 06134

Re: Certificate of Need Transfer to Quest Diagnostics the Applicant's outreach laboratory service operations

To whom it may concern:

I am writing today in support of The Hospital of Central Connecticut's proposal to transfer outreach laboratory services to Quest Diagnostics.

As Director of Pulmonary Medicine and Intensive Care, I have witnessed an increasing demand for high value, cost-effective lab services which will be best met by Quest Diagnostics. This proposal will also ensure that the region has increased access to laboratory services.

This project exemplifies how The Hospital of Central Connecticut is committed to providing the highest quality services in an ever-changing environment where integration, coordination and increased access are all of the utmost importance.

Sincerely,

Steven R. Prunk, MD, FCCP

Director, Pulmonary Medicine and Critical Care
Hospital of Central Connecticut
(860) 224-5242

EXHIBIT 4

Hartford HealthCare	**Subject:** **Financial Assistance Policy**	
Issuing Department: **Finance/Revenue Cycle Services** **Subject Matter Consultation:** Legal Services	**File Under:** _____ Section - _____	**Original Date:** 12/16/2010
Latest Revision Date: January 1, 2016 September 20, 2016	1) **Page 1 of 13**	**Approved By:** _____ Charles L. Johnson, III HHC Executive Vice President & Chief Financial Officer

Purpose: The purpose of this Policy is to set forth the Hartford HealthCare (HHC) policy for the provision of free or discounted Health Care Services to patients who meet the criteria for Financial Assistance. This Policy describes: (i) the eligibility criteria for Financial Assistance, and whether such assistance includes free or discounted Health Care Services; (ii) the basis for calculating amounts charged to patients; (iii) the method for applying for Financial Assistance; (iv) the collection actions that may be initiated in the event of non-payment, including civil collections actions and reporting to consumer credit reporting agencies; and (v) the Hospital's approach to presumptive eligibility determinations and the types of information that the Hospital will use to assess presumptive eligibility.

This Policy is intended to comply with Section 501(r) of the Internal Revenue Code and the billing and collection requirements described in Chapter 368z of the Connecticut General Statutes and any regulations promulgated thereunder and must be interpreted and applied in accordance with those laws and regulations. This Policy will be adopted by the governing body of Hartford HealthCare on behalf of its affiliates.

Scope: This Policy applies to all Health Care Services provided by a Hartford HealthCare hospital facility. (Facilities listed in Appendix D)

Definitions:

"Eligibility Criteria" means the criteria set forth in this Policy to determine whether a patient qualifies for Financial Assistance for the Health Care Services provided.

"EMTALA" means the Emergency Medical Treatment and Labor Act, 42 USC 1395dd.

"Extraordinary Collection Activity"(ECA) means a collection action requiring a legal or judicial process, involving selling debt to another party, reporting adverse information to credit agencies or bureaus, or deferring or denying, or requiring a payment before providing, medically necessary care because of an individual's nonpayment of one or more bills for previously provided care covered under HHC's Financial Assistance Policy. The actions that require legal or judicial process for this purpose include 1) placing a lien; 2) foreclosing on real property; 3) attaching or seizing of bank accounts or other personal property; 4) commencing a civil action against an individual; 5) taking actions that cause an individual's arrest; 6) taking actions that cause an individual to be subject to body attachment; and 7) garnishing wages.

"Family" means, pursuant to the Census Bureau definition, a group of two or more people who reside together and who are related by birth, marriage, civil union or adoption. For purposes of this Policy, if the patient claims someone as a dependent on the patient's income tax return, that person may be considered a dependent for purposes of the provision of Financial Assistance.

"Family Income" means the following income when calculating Federal Poverty Level Guidelines of liquid assets: earnings, unemployment compensation, workers' compensation, Social Security, Supplemental Security Income, public assistance, veterans' payments, survivor benefits, pension or retirement income, interest, dividends, rents, business income, royalties, income from estates, trusts, educational assistance, alimony, child support, assistance from outside the household, and other miscellaneous sources of income. .

"Federal Poverty Level Guidelines" means the federal poverty level guidelines established by the United States Department of Health and Human Services in effect on the date of the provision of the Health Care Service for awards of Financial Assistance under this Policy.

"Financial Assistance" means free or discounted Health Care Services provided to persons who, pursuant to the Eligibility Criteria, HHC has determined to be unable to pay for all or a portion of such Health Care Services and to be eligible for free or discounted Health Care Services under this Policy.

"Free Bed Funds" means any gift of money, stock, bonds, financial instruments or other property made by any donor to a HHC hospital facility for the purpose of establishing a fund to provide medical care to a patient.

"Health Care Services" means (i) emergency medical services as defined by EMTALA; (ii) services for a condition which, if not promptly treated, will result in adverse change in the health status of the individual; (iii) non-elective services provided in response to life-

threatening circumstances in a non-emergency department setting; and (iv) medically necessary services as determined by HHC on a case-by-case basis at the provider's discretion.

"Liquid Assets" refers to how easily an asset can be exchanged for cash on short notice, without losing value. Items such as cash, gold or marketable securities are examples. On the converse, nonliquid asset examples are real estate (land and housing) and automobiles.

"Medically Indigent" means a person who HHC has determined to be unable to pay some or all of his or her medical bills because the medical bills exceed a certain percentage of the person's Family Income or Family Assets even though they have income or assets that otherwise exceed the generally applicable eligibility criteria for free or discounted care under the policy. Refer to Appendix A.

"Patient" means person receiving or registered to receive medical treatment or in context of the policy refers to the person liable for payment.

"Uninsured" means a patient who has no level of insurance or third party assistance to assist in meeting his or her payment obligations for Health Care Services and is not covered by Medicare, Medicaid, Tricare, or any other health insurance program of any nation, state, territory or commonwealth, or under any other governmental or privately sponsored health or accident insurance or benefit program including, but not limited to workers' compensation and awards, settlements or judgments arising from claims, suits or proceedings involving motor vehicle accidents or alleged negligence.

"Underinsured" means the patient has some level of insurance or third-party assistance but still has out-of-pocket Health Care Service expenses such as high deductible plans that exceed the patient's level of financial resources.

Policy: Consistent with its mission, it is Hartford HealthCare's policy to provide Financial Assistance to all eligible individuals who are Uninsured or Underinsured, ineligible for a government payer program, and otherwise unable to pay for Health Care Services due to their limited financial resources. It is also HHC's policy to provide without discrimination care for emergency medical conditions (as defined by EMTALA) to individuals regardless of their eligibility for Financial Assistance under this Policy or for government assistance. Finally, it is the policy of HHC to prohibit any action that discourages individuals from seeking emergency medical care, such as by demanding that Emergency Department patients pay before receiving treatment for emergency medical conditions. Nothing in this Policy shall be deemed to limit the Hospital's obligations under EMTALA to treat patients with emergency medical conditions.

I. Determining Eligibility.

In determining eligibility for Financial Assistance, it is important that both HHC and the patient work collaboratively. Specifically, HHC will do its best to apply the Eligibility Criteria in a reasonable manner and the patient will do his or her best in responding to requests for information in a timely, complete, and accurate manner. If the documentation provided by the patient or his/her family is incomplete or inconsistent with the application we will request clarification to assist in making a decision about eligibility for financial assistance.

1. Eligibility for Financial Assistance. Individuals who are Uninsured or Underinsured, ineligible for any government health care benefit program and unable to pay for their Health Care Services may be eligible for Financial Assistance pursuant to this Policy. Financial Assistance also may be available for individuals who are Medically Indigent. The granting of Financial Assistance shall be based upon an individualized determination of financial need, and shall not take into account age, gender, race, color, national origin, marital status, social or immigrant status, sexual orientation or religious affiliation. The Financial Assistance Application outlines the documents required to verify family size and income.

Further, to be eligible for Financial Assistance, an individual must cooperate with HHC, provide the requested information and documentation in a timely manner, complete the required application form truthfully, and notify HHC promptly of any change in his or her financial situation so that HHC can assess the change's impact on the individual's eligibility for financial assistance.

2. Process for Determining Eligibility for Financial Assistance. In connection with determining eligibility for Financial Assistance, HHC (i) will require that the patient complete an application for Financial Assistance and provide other financial information and documentation relevant to making a determination of financial eligibility; (ii) may rely upon publicly available information and resources to verify the financial resources of the patient or a potential guarantor; (iii) may pursue alternative sources of payment from public and private payment benefit programs; and (iv) may review the patient's prior payment history.

3. **Processing Requests.** HHC will use its best efforts to facilitate the determination process before rendering services so long as the determination process does not interfere with the provision of emergency medical services as defined under federal law. However, eligibility determinations can be made at any time during the revenue cycle. During the eligibility determination process, HHC will at all times treat the patient or their authorized representative with dignity and respect and in accordance with all state and federal laws.

4. **Financial Assistance Guidelines.** Eligibility criteria for Financial Assistance may include family size, liquid and non-liquid assets, employment status, financial obligations, amount and frequency of healthcare expense (i.e. Medically Indigent) and other financial resources available to the patient. Family size is determined based upon the number of dependents living in the household. Information collected will be used to corroborate information generated by predictive analytical software used in making a determination of financial assistance. In particular, eligibility for Financial Assistance will be determined in accordance with the following guidelines:

(a) ***Uninsured Patients:***

(i) Published rates will be reduced by the percentage defined by the IRS as the amount generally billed using a "look back" retrospective calculation to calculate the amount allowed by governmental (Medicare and Medicaid) and commercially insured patients. This percentage will be updated on an annual basis. The annual calculation methodology and the percentages are located in Appendix A of this policy.

(ii) If Family Income is verified to be at or below 250% of the Federal Poverty Level Guidelines, the patient will qualify for a 100% discount of the amount generally billed.

(iii) If Family income is verified between 250% and 400% of the Federal Poverty Level Guidelines, the patient will qualify for a 25-75% discount of the amount generally billed.

(iv) A patient may also qualify for Free Bed Funds in accordance with the Hospital's Free Bed Funds criteria.

(vi) Payment plans will be extended for any patient liability identified in a manner consistent with the Hartford HealthCare's Payment Plan Policy, a copy of which is available from the Financial Assistance team as provided below and on the Hartford HealthCare and subsidiary websites.

(vii) Refunds will be issued for any payments of $5.00 or more that exceed the patient's personal liability.

(b) ***Underinsured Patients:***

(i) If Family Income is verified to be at or below 250% of the Federal Poverty Level Guidelines, the patient will qualify for a 100% discount against the patient's account balance after insurance payments from third-party payors are applied. Underinsured patients will not be billed more than amounts generally billed (AGB) to insured patients.

(ii) If Family Income is verified between 250% and 400% of the Federal Poverty Level Guidelines, the patient will qualify for a 25-75% discount against the patient's account balance after insurance payments from third-party payers are applied.

(iii) A patient also may qualify for Free Bed Funds in accordance with the Hospital's Free Bed Funds criteria.

(v) Payment plans will be extended for any patient liability identified in a manner consistent with HHC's Payment Plan Policy, a copy of which is available from the Financial Assistance team as provided below.

(vi) Refunds will be issued for any payments of $5.00 or more that exceed the patient's personal liability

(c) ***Medically Indigent****:*

A Patient will be required to submit a Financial Assistance Application along with other supporting documentation, such as medical bills, drug and medical device bills and other evidence relating to high-dollar medical liabilities, so that Hartford Health Care can determine whether the patient qualifies for Financial Assistance due to the patient's medical expenses and liabilities. This discount will be considered after other discounts have been applied and the patient is still unable pay for the Health Care Service provided. This discount will be applied as described in Appendix A.

(d) ***Presumptive Eligibility****:* Eligibility for Financial Assistance may be presumed based on the patient's life circumstances. The list below is representative of circumstances under which a patient is deemed to be eligible for a 100% discount without further need to complete a Financial Assistance Application:

1. The patient's receipt of state-funded prescription programs
2. Participation in Women, Infants and Children programs
3. Food stamp eligibility (SNAP)
4. Subsidized school lunch program eligibility
5. Subsidized housing or other public assistance eligibility

6. Patient states that he/she is homeless and additional due diligence on such status performed and documented

7. Patient is identified to have an income of 250% of the Federal Poverty Level or less, as verified by electronic industry standard software

II. Method for Applying for Financial Assistance. Copies of the Financial Assistance Application and instructions are available online at [www.HarfordHealthCare.org, or on each hospital facility's website], by requesting a copy in person at any of the HHC hospitals' patient admission or registration areas as identified in Appendix B, or by requesting a free copy by mail by contacting the HHC hospitals' Patient Access Services department. Additional contact information is provided in Appendix B of this policy. In addition, patients may ask any nurse, physician, chaplain, or staff member from Patient Registration, Patient Financial Services, Office of Professional Services, Case Coordination, or Social Services about initiating the Financial Assistance Application process.

To apply for Financial Assistance, a patient must complete HHC's Financial Assistance Application Form. The individual will provide all supporting data required to verify eligibility, including supporting documentation verifying income described below.

Patients may submit an application up to 240 days from the date on which HHC issues its first, post-discharge billing statement. If an individual has not submitted an application within the first 120 days from the date on which HHC issues its first, post-discharge billing statement, then HHC may begin engaging in the collection actions described below.

Before HHC initiates any collection actions, it will issue a written notice to the last known address of record for the patient (or his/her family) that describes the specific collection activities it intends to initiate (or resume), provides a deadline after which such action(s) will be initiated (or resumed), and includes a plain-language summary of this Policy. HHC may initiate collection activities no sooner than 30 days from the date on which it transmits this written initiation notice, either by mail or electronic mail.

If HHC receives an incomplete application form, it will provide the patient (or his or her legal representative) with a list of the missing information or documentation and give the patient 30 days to provide the missing information. Extraordinary collection activities (ECA's) will be suspended during this 30 day period. If the patient does not provide the missing information within this period, HHC may commence collection actions including ECA's (assuming it has provided the written notice described above).

If HHC receives a completed application form, it will make and document eligibility determinations in a timely manner. If an application is deemed complete HHC will provide to the patient or his or her legal representative, a written determination of financial eligibility within fifteen (15) business days. Decisions by HHC that the patient does not qualify for Financial Assistance may be appealed by the patient, or his or her legal representative, within fourteen (14) calendar days of the date of the written determination.

If the patient or his or her legal representative appeals the determination, the Director of Patient Access (or designee) will review the determination along with any new information and make a final decision within fifteen (15) business days. During this review and decision making period, Hartford Healthcare will suspend any ECA's. If financial assistance is not approved, Hartford Healthcare will resume its collection activities after the 14 calendar days afforded for appeal.

Signage and written information regarding how to apply for Financial Assistance will be available in the Hospital emergency service departments and patient registration areas.

Once a patient or his or her legal representative requests information about Financial Assistance, a financial counselor will provide the patient or his or her legal representative with the Financial Assistance Application along with a list of the required documents that must be provided to process the application.

Approved Financial Assistance Applications will be valid for six months from the date HHC's makes its eligibility determination.

Patients may apply for Financial Assistance at any time during the collection cycle process or within 240 days from the date of the first Self Pay notice.

III. Calculating Amounts Charged to Patients

Notwithstanding anything else in this Policy, no individual who is determined to be eligible for financial assistance will be charged more for emergency or other medically necessary care than the amount generally billed to individuals who have insurance covering such care. The basis to which any discount is applied is equivalent to the billed charges posted to a patient account minus any prior insurance payments and adjustments from the patient's insurance (if applicable).

IV. Relationship to Hartford HealthCare's Collection Practices.

In the event a patient fails to qualify for Financial Assistance or fails to timely pay his or her portion of discounted charges pursuant to this Policy, HHC reserves the right to institute and pursue Extraordinary Collection Actions (ECA) and remedies such as imposing wage garnishments or filing liens on primary or secondary residences, bank or investment accounts, or other assets, instituting and prosecuting legal actions and reporting the matter to one or more credit rating agencies. For those patients who qualify for Financial Assistance and who, in HHC's sole determination, are cooperating in good faith to resolve the outstanding accounts, HHC may offer extended payment plans to eligible patients. For patients who meet the terms of the payment plan HHC will not impose wage garnishments or liens on primary residences, and will not send unpaid bills that are part of the payment plan to outside collection agencies.

No ECA will be initiated during the first 120 days following the first post-discharge billing statement to a valid address or during the time that the patient's Financial Assistance Application is processing. Before initiating any ECA, a notice will be provided to the patient 30 days prior to initiating such event.

If the patient applies for assistance within 240 days from the first notification of the self-pay balance, and is granted assistance, any ECA's such as negative reporting to a credit bureau or liens that have been filed will be removed.

V. Publication and Education. HHC will provide information about its Financial Assistance Policy as follows: (i) provide signs regarding this Policy and written plain language summary information describing the Policy along with Financial Assistance contact information in the Emergency Department, Labor and Delivery areas and other patient registration areas; (ii) provide to each patient written plain language summary information describing the Policy along with Financial Assistance contact information in admission, patient registration, discharge, billing and collection written communications; (iii) make paper copies of the Policy, financial assistance application, and plain language summary of the Policy available upon request and without charge, both by mail and in public locations in the hospital facility, including the emergency room (if any) and admissions areas; (iii) post the Policy, plain language summary and financial assistance application on the website with clear linkage to such documents on the HHC's home page; (iv) educate all admission and registration personnel regarding the Policy so that they can serve as an informational resource to patients regarding the Policy; and (v) include the tag line "Please ask about our Financial Assistance Policy" in HHC written publications.

VI. Covered/Non-Covered Provider List. Attached as Appendix C to this Policy is a list of providers independent of HHC that deliver emergency or other medically necessary care in HHC's facility and identifies whether the care they provide is (or is not) covered by this Policy. The Board of Directors of HHC delegates the authority to update Appendix C as needed to the Executive Vice President and Chief Financial Officer.

VII. Relation to Free Bed Funds. If a patient applies for Financial Assistance, the Hospital will determine his or her eligibility for Financial Assistance and or Free Bed Funds.

VIII. Regulatory Compliance. The Hospital will comply with all state and federal laws, rules and regulations applicable to the conduct described in this Policy.

APPENDIX A

Federal Poverty Guidelines Effective January 2015

		250%** FPG	275%** FPG	300%** FPG	325%** FPG	400%** FPG
Size of Family	Poverty Guideline	100% Awarded	75% Awarded	50% Awarded	25% Awarded	25% Awarded
1	$11,770	$29,425	$32,368	$35,310	$38,253	$47,080
2	$15,930	$39,825	$43,808	$47,790	$51,773	$63,720
3	$20,090	$50,225	$55,248	$60,270	$65,293	$80,360
4	$24,250	$60,625	$66,688	$72,750	$78,813	$97,000
5	$28,410	$71,025	$78,128	$85,230	$92,333	$113,640
6	$32,570	$81,425	$89,568	$97,710	$105,853	$130,280
7	$36,730	$91,825	$101,008	$110,190	$119,373	$146,920
8	$40,890	$102,225	$112,448	$122,670	$132,893	$163,560

*In no case will the Patient's Balance Due after Discount is applied be more than 10% of annual gross family income

For families with more than 8 members, add $4,160 (multiplying factor) for each additional member

Medically Indigent/Catastrophic Financial Assistance*

Medically Indigent/Catastrophic Eligibility:	
Balance Due	Discount
Balance due is ≥ **100%** of patient's annual gross family	90% of balance due
Balance due is ≥ **90%** of patient's annual gross family	85% of balance due
Balance due is ≥ **80%** of patient's annual gross family	80% of balance due
Balance due is ≥ **70%** of patient's annual gross family	75% of balance due
Balance due is ≥ **60%** of patient's annual gross family	70% of balance due
Balance due is ≥ **50%** of patient's annual gross family	65% of balance due

*In no case will the Patient's Balance Due after Discount is applied be more than 10% of annual gross family income

Average Generally Billed* (AGB's) by Facility/Group

Facility/Physician Group	Average Generally Billed (AGB)	Uninsured Discount as of 1/1/16
Backus Hospital	41%	59%
Hospital of Central Connecticut	41%	59%
Hartford Hospital	40%	60%
Hartford Healthcare Medical Group	40%	60%
Midstate Medical Center	41%	59%
Windham Hospital	41%	59%
Natchaug	64%	36%
Rushford	66%	34%

*AGB rates calculated using all allowable claims including commercial, Medicare and Medicaid claims using period YTD September 2015. Each facility AGB will be calculated annually and effective on 1/1 of the next year.

APPENDIX B

Contact Information for Financial Assistance

Hartford HealthCare
Customer Service
1-877-HHC-Bill
hartfordhealthcare.org

Hartford Hospital
Financial Assistance Clearance Team
Main Admitting Department
80 Seymour Street
Hartford, CT 06102
1-877-545-3914
hartfordhospital.org

The Hospital of Central Connecticut
Financial Counselors
Main Admitting Department
100 Grand Street
New Britain, CT 06050
860-224-5181
thocc.org

MidState Medical Center
Financial Counselors
Main Admitting Department

435 Lewis Avenue
Meriden, CT 06451
203-694-8213
midstatemedical.org

or

455 Lewis Avenue
Meriden, CT 06451
203-694-8456
midstatemedical.org

William W. Backus Hospital
Financial Counselors
Financial Counseling Unit
326 Washington Street
Norwich, CT 06030
860-889-8331 x 2917
backushospital.org

Windham Memorial Hospital
Financial Counselors

Main Admitting Department
112 Mansfield Avenue
Willimantic, CT 06226
860.456.6706 or 860.456.6109
windhamhospital.org

Natchaug Hospital
189 Storrs Road
Mansfield, CT 06250
1-800-426-7792
nathaug.org

Rushford
1250 Silver Street
Middletown, CT 06457
1-877-577-3233
rushford.org

APPENDIX C

List of Providers Independent of HHC Which Are Covered/Not Covered by the HHC Financial Assistance Policy

With respect to the provision of emergency and medically necessary care in HHC's facility, care provided by the following independent providers is covered by this Policy:

1. Hartford Medical Group (HHCMG)

2. Employed Physicians of Hartford Healthcare including all hospitalists and ED providers at Harford Hospital, The Hospital of Central Connecticut and William W. Backus Hospital.

With respect to the provision of emergency and medically necessary care in HHC's facility, care provided by the following independent providers is not covered by this Policy:

1. Services provided by Hartford Healthcare affiliates other than those listed in Appendix B are not covered by this policy.

2. Providers providing the following services are excluded from this policy: Radiology, Pathology, Anesthesia and ED providers at Midstate Medical Center and Windham Memorial Hospital.

3. If you have questions regarding the status of your provider, please call your hospital contact listed in Appendix B.

Appendix D: Hartford Healthcare Facilities covered by this policy

Backus Hospital

Hospital of Central Connecticut

Hartford Hospital

MidState Medical Center

Natchaug Hospital

Rushford

Windham Hospital

EXHIBIT 5

NON-PROFIT

Applicant: The Hospital of Central Connecticu Please provide one year of actual results and three years of projections of **Total Entity** revenue, expense and volume statistics
Financial Worksheet (A) without, incremental to and with the CON proposal in the following reporting format:

LINE	Total Entity:	(1) FY 16 Actual Results	(2) FY 17 Projected W/out CON	(3) FY 17 Projected Incremental	(4) FY 17 Projected With CON	(5) FY 18 Projected W/out CON	(6) FY 18 Projected Incremental	(7) FY 18 Projected With CON	(8) FY 19 Projected W/out CON	(9) FY 19 Projected Incremental	(10) FY 19 Projected With CON	(11) FY 20 Projected W/out CON	(12) FY 20 Projected Incremental	(13) FY 20 Projected With CON
	Description													
A.	**OPERATING REVENUE**													
1	Total Gross Patient Revenue	$902,315,375	$942,694,810		$942,694,810	$970,975,654	($31,804,708)	$939,170,946	$1,000,104,924	($32,758,849)	$967,346,075	$1,030,108,072	($33,741,615)	$996,366,457
2	Less: Allowances	$526,548,154	$585,755,213		$585,755,213	$608,615,122	($25,412,799)	$583,202,323	$632,240,805	($26,269,185)	$605,971,620	$656,656,449	($27,152,692)	$629,503,757
3	Less: Charity Care	$10,644,417	$13,368,316		$13,368,316	$13,635,682	($375,193)	$13,260,489	$13,908,396	($382,697)	$13,525,699	$14,186,564	($390,351)	$13,796,213
4	Less: Other Deductions	$0	$0		$0			$0			$0			$0
	Net Patient Service Revenue	**$365,122,804**	**$343,571,281**	**$0**	**$343,571,281**	**$348,724,850**	**($6,016,716)**	**$342,708,134**	**$353,955,723**	**($6,106,967)**	**$347,848,756**	**$359,265,059**	**($6,198,572)**	**$353,066,487**
5	Medicare	$136,840,983	$118,456,118		$118,456,118	$120,232,960	($1,898,794)	$118,334,166	$122,036,454	($1,927,276)	$120,109,178	$123,867,001	($1,956,185)	$121,910,816
6	Medicaid	$57,499,882	$47,276,954		$47,276,954	$47,986,108	($1,127,910)	$46,858,198	$48,705,900	($1,144,829)	$47,561,071	$49,436,488	($1,162,001)	$48,274,487
7	CHAMPUS & TriCare	$560,460	$313,394		$313,394	$318,095	($5,933)	$312,162	$322,866	($6,022)	$316,844	$327,709	($6,112)	$321,597
8	Other	$0	$0		$0	$0		$0	$0	$0	$0	$0	$0	$0
	Total Government	**$194,901,325**	**$166,046,466**	**$0**	**$166,046,466**	**$168,537,163**	**($3,032,637)**	**$165,504,526**	**$171,065,220**	**($3,078,127)**	**$167,987,094**	**$173,631,199**	**($3,124,298)**	**$170,506,900**
9	Commercial Insurers	$162,998,792	$171,960,938		$171,960,938	$174,540,352	($2,938,961)	$171,601,391	$177,158,457	($2,983,045)	$174,175,412	$179,815,834	($3,027,792)	$176,788,042
10	Uninsured	$0	$0		$0	$0		$0	$0	$0	$0	$0	$0	$0
11	Self Pay	$646,523	$675,485		$675,485	$685,617	($19,508)	$666,109	$695,902	($19,801)	$676,101	$706,340	($20,098)	$686,242
12	Workers Compensation	$6,576,164	$4,888,392		$4,888,392	$4,961,718	($25,610)	$4,936,108	$5,036,144	($25,994)	$5,010,149	$5,111,686	($26,384)	$5,085,302
13	Other	$0	$0		$0	$0		$0	$0	$0	$0	$0	$0	$0
	Total Non-Government	**$170,221,479**	**$177,524,815**	**$0**	**$177,524,815**	**$180,187,687**	**($2,984,079)**	**$177,203,608**	**$182,890,503**	**($3,028,840)**	**$179,861,662**	**$185,633,860**	**($3,074,274)**	**$182,559,586**
	Net Patient Service Revenue[a] (Government+Non-Government)	**$365,122,804**	**$343,571,281**	**$0**	**$343,571,281**	**$348,724,850**	**($6,016,716)**	**$342,708,134**	**$353,955,723**	**($6,106,967)**	**$347,848,756**	**$359,265,059**	**($6,198,572)**	**$353,066,487**
14	Less: Provision for Bad Debts	$6,729,060	$5,829,908		**$5,829,908**	$5,946,506	($71,486)	**$5,875,020**	$6,065,436	($72,916)	**$5,992,521**	$6,186,745	($74,374)	**$6,112,371**
	Net Patient Service Revenue less provision for bad debts	**$358,393,744**	**$337,741,373**	**$0**	**$337,741,373**	**$342,778,344**	**($5,945,230)**	**$336,833,114**	**$347,890,287**	**($6,034,052)**	**$341,856,235**	**$353,078,314**	**($6,124,198)**	**$346,954,116**
15	Other Operating Revenue	$13,594,417	$14,239,911	$15,000,000	**$29,239,911**	$14,524,709		**$14,524,709**	$14,815,203	$0	**$14,815,203**	$15,111,507	$0	**$15,111,507**
17	Net Assets Released from Restrictions	$978,222	$748,436		**$748,436**	$755,920		**$755,920**	$763,480	$0	**$763,480**	$771,114	$0	**$771,114**
	TOTAL OPERATING REVENUE	**$372,966,383**	**$352,729,720**	**$15,000,000**	**$367,729,720**	**$358,058,973**	**($5,945,230)**	**$352,113,743**	**$363,468,970**	**($6,034,052)**	**$357,434,918**	**$368,960,936**	**($6,124,198)**	**$362,836,738**
B.	**OPERATING EXPENSES**													
1	Salaries and Wages	$135,869,626	$135,277,710	$274,118	$135,551,828	$137,983,264	($903,424)	$137,079,840	$140,742,929	($921,492)	$139,821,437	$143,557,788	($939,922)	$142,617,866
2	Fringe Benefits	$39,508,767	$38,082,356	$54,824	$38,137,180	$39,224,827	($271,027)	$38,953,799	$40,401,571	($279,158)	$40,122,413	$41,513,619	($287,533)	$41,326,086
3	Physicians Fees	$11,245,852	$11,030,825		$11,030,825	$11,196,287		$11,196,287	$11,364,232		$11,364,232	$11,534,695		$11,534,695
4	Supplies and Drugs	$47,476,290	$45,110,879		$45,110,879	$46,464,205	($3,736,612)	$42,727,593	$47,858,132	($3,848,710)	$44,009,421	$49,293,875	($3,964,172)	$45,329,704
5	Depreciation and Amortization	$20,089,896	$19,901,790		$19,901,790	$20,100,808		$20,100,808	$20,301,816		$20,301,816	$20,504,834		$20,504,834
6	Provision for Bad Debts-Other[b]	$0			$0			$0	$0		$0	$0		$0
7	Interest Expense	$3,135,278	$3,107,060		$3,107,060	$3,107,060		$3,107,060	$3,138,131		$3,138,131	$3,169,512		$3,169,512
8	Malpractice Insurance Cost	$7,527,635	$3,839,412		$3,839,412	$3,954,594		$3,954,594	$4,073,232		$4,073,232	$4,195,429		$4,195,429
9	Lease Expense	$3,902,734	$2,580,413		$2,580,413	$2,606,217		$2,606,217	$2,632,279		$2,632,279	$2,658,602		$2,658,602
10	Other Operating Expenses	$97,929,803	$102,007,636		$102,007,636	$105,067,865	($464,214)	$104,603,651	$108,219,901	($478,140)	$107,741,761	$111,466,498	($492,485)	$110,974,013
	TOTAL OPERATING EXPENSES	**$366,685,881**	**$360,938,081**	**$328,942**	**$361,267,023**	**$369,705,128**	**($5,375,277)**	**$364,329,851**	**$378,732,223**	**($5,527,501)**	**$373,204,722**	**$387,994,853**	**($5,684,111)**	**$382,310,741**
	INCOME/(LOSS) FROM OPERATIONS	**$6,280,502**	**($8,208,361)**	**$14,671,058**	**$6,462,697**	**($11,646,155)**	**($569,953)**	**($12,216,107)**	**($15,263,254)**	**($506,550)**	**($15,769,804)**	**($19,033,917)**	**($440,086)**	**($19,474,004)**
	NON-OPERATING REVENUE	**$13,509,915**	**$13,814,983**		**$13,814,983**	**$1,569,904**		**$1,569,904**	**$1,601,302**		**$1,601,302**	**$1,633,328**		**$1,633,328**
	EXCESS/(DEFICIENCY) OF REVENUE OVER EXPENSES	**$19,790,417**	**$5,606,622**	**$14,671,058**	**$20,277,680**	**($10,076,251)**	**($569,953)**	**($10,646,203)**	**($13,661,952)**	**($506,550)**	**($14,168,502)**	**($17,400,589)**	**($440,086)**	**($17,840,675)**
	Principal Payments	**$494,632**	$537,010		**$537,010**	$588,123		**$588,123**	$622,090		**$622,090**	$657,675		**$657,675**
C.	**PROFITABILITY SUMMARY**													
1	Hospital Operating Margin	**1.6%**	**-2.2%**	**97.8%**	**1.7%**	**-3.2%**	**9.6%**	**-3.5%**	**-4.2%**	**8.4%**	**-4.4%**	**-5.1%**	**7.2%**	**-5.3%**
2	Hospital Non Operating Margin	**3.5%**	**3.8%**	**0.0%**	**3.6%**	**0.4%**	**0.0%**	**0.4%**	**0.4%**	**0.0%**	**0.4%**	**0.4%**	**0.0%**	**0.4%**
3	Hospital Total Margin	**5.1%**	**1.5%**	**97.8%**	**5.3%**	**-2.8%**	**9.6%**	**-3.0%**	**-3.7%**	**8.4%**	**-3.9%**	**-4.7%**	**7.2%**	**-4.9%**
D.	**FTEs**	**1,739**	1,686		**1,686**	1,686	(31)	**1,655**	1,686	(31)	**1,655**	1,686	(31)	**1,655**
E.	**VOLUME STATISTICS[c]**													
1	Inpatient Discharges	13,940	13,962		**13,962**	13,700		**13,700**	13,837		**13,837**	13,975		**13,975**
2	Outpatient Visits	372,585	349,906		**349,906**	353,405	(92,475)	**260,930**	356,939	(93,400)	**263,539**	360,508	(94,334)	**266,175**
	TOTAL VOLUME	**386,525**	**363,868**	**0**	**363,868**	**367,105**	**(92,475)**	**274,630**	**370,776**	**(93,400)**	**277,376**	**374,484**	**(94,334)**	**280,150**

[a]Total amount should equal the total amount on cell line "Net Patient Revenue" Row 14.
[b]Provide the amount of any transaction associated with Bad Debts not related to the provision of direct services to patients. For additional information, refer to FASB, No.2011-07, July 2011.
[c]Provide projected inpatient and/or outpatient statistics for any new services and provide actual and projected inpatient and/or outpatient statistics for any existing services which will change due to the proposal.

Supplemental CON Application Form

Termination of a Service

Conn. Gen. Stat. § 19a-638(a)(5),(7),(8),(15)

Applicant: The Hospital of Central Connecticut

Project Name: Termination of Outreach Laboratory Services

Affidavit

Applicant: The Hospital of Central Connecticut

Project Title: Termination of Outreach Laboratory Services

I, Lucille Janatka, Hartford HealthCare Senior Vice President and Central Region President, being duly sworn, depose and state that the Hospital of Central Connecticut complies with the appropriate and applicable criteria as set forth in the Sections 19a-630, 19a-637, 19a-638, 19a-639, 19a-486 and/or 4-181 of the Connecticut General Statutes.

Signature _____ Date 5/18/17

Subscribed and sworn to before me on May 18, 2017

Notary Public/Commissioner of Superior Court

My commission expires: 3-31-21

1. **Project Description: Service Termination**

   a. **Please provide**

      i. **a description of the history of the services proposed for termination, including when they commenced,**

      HOCC has PSCs at the locations listed below. As described in the Main Application, any person can show up to said PSC location and have their blood drawn or provide some other bodily fluid that is to be sent to a laboratory for testing.

PSC LOCATION	COMMENCEMENT DATE
100 Grand St., New Britain, CT	3/30/1993
61 Hart St., New Britain, CT	10/7/1991
183 N. Mountain Rd., New Britain, CT	4/1/2015
360-1 North Main St., Southington, CT	10/24/97
55 Meriden Ave., Southington, CT	1/12/1993

      ii. **whether CON authorization was received and,**

      CON authorization was not needed and, thus, not received for said PSC locations.

      iii. **if CON authorization was required, the docket number for that approval.**

      Not applicable to this Proposal.

   b. **Explain in detail the Applicant's rationale for this termination of services, and the process undertaken by the Applicant in making the decision to terminate.**

      Laboratory outreach businesses/operations require significant investment in billing, marketing, client services and logistics, among other things to help support the business and to facilitate a convenient and efficient experience for the business' customers and clients. HOCC, like many health care providers, has been and is actively pursuing and implementing major initiatives, structures, affiliations and transactions in order to better position itself for the changing health care payment and regulatory landscape. This includes pursuing transactions that will permit HOCC to focus on core clinical strengths and services and shed those that can be performed better and more efficiently by other parties, such as Quest.

c. Did the proposed termination require the vote of the Board of Directors of the Applicant? If so, provide copy of the minutes (excerpted for other unrelated material) for the meeting(s) the proposed termination was discussed and voted on.

No, this Proposal did not require the vote of the Applicant's Board of Directors.

2. Termination's Impact on Patients and Provider Community

a. For each provider to which the Applicant proposes transferring or referring clients, provide the below information for the last completed fiscal year and current fiscal year.

This question and Table 2.a. are not applicable to this Proposal as HOCC will not be transferring or referring patients to anyone or any party. Patients can seek to obtain their blood drawing or PSC services at any location they prefer.

TABLE A
PROVIDERS ACCEPTING TRANSFERS/REFERRALS

Facility Name	Facility ID*	Facility Address	Total Capacity	Available Capacity	Utilization FY XX**	Utilization Current CFY***
N/A	N/A	N/A	N/A	N/A	N/A	N/A

* Please provide either the Medicare, Connecticut Department of Social Services (DSS), or National Provider Identifier (NPI) facility identifier and label column with the identifier used.

** Fill in year and identify the period covered by the Applicant's FY (e.g., July 1-June 30, calendar year, etc.). Label and provide the number of visits or discharges as appropriate.

*** For periods greater than 6 months, report annualized volume, identifying the number of actual months covered and the method of annualizing. For periods less than six months, report actual volume and identify the period covered.

b. Provide evidence (e.g., written agreements or memorandum of understanding) that other providers in the area are willing and able to absorb the displaced patients.

This question is not applicable as there will be no displaced patients.

c. Identify any special populations that utilize the service(s) and explain how these populations will maintain access to the service following termination at the specific location; also, specifically address how the termination of this service will affect access to care for Medicaid recipients and indigent persons.

For the 183 N. Mountain Road location, HOCC also provides a specific and very limited set of diagnostic services for HOCC's cancer center patients. More specifically, certain patients require very specialized, immediate and real-time diagnostic tests while undergoing chemotherapy, radiation and other treatments

at HOCC's cancer center. These specialized diagnostic services are provided in the same location as the PSC services are provided. Quest and HOCC, however, have not yet confirmed whether the transfer of services from HOCC to Quest will include said specialized diagnostic services. Regardless and most importantly, HOCC will ensure that such services will continue to be provided for HOCC's cancer center patients (whether it be by Quest or by HOCC).

For all other locations, there are no special populations that utilize the blood draw/PSC services provided at the aforementioned locations. HOCC expects that access to care for Medicaid recipients and indigent persons will not be negatively impacted. Quest is enrolled in and a participating service provider in Connecticut's Medicaid program. Also, as noted above, Quest offers all patients the option to apply to participate in the "Quest Diagnostics Patient Assistance Program" as described in the Main Application.

d. Describe how clients will be notified about the termination and transfer to other providers.

The Applicant expects to notify local providers by letter, and notify patients through notices/signs at each of the PSC sites.

e. <u>For DMHAS-funded programs only,</u> attach a report that provides the following information for the last three full FYs and the current FY to-date:
- **i. Average daily census;**
- **ii. Number of clients on the last day of the month;**
- **iii. Number of clients admitted during the month; and**
- **iv. Number of clients discharged during the month.**

Not applicable to this Proposal.

32170

CITY OF NEW BRITAIN

EST. 1871 | HEALTH DEPARTMENT | WWW.NEWBRITAINCT.GOV

May 22, 2017

Date of Connecticut
Department of Public Health
Office of Health Care Access
410 Capitol Avenue
Hartford, CT 06134

Re: Certificate of Need Transfer to Quest Diagnostics the Applicant's Outreach Laboratory Service Operations

To Whom It May Concern:

I am writing today in support of The Hospital of Central Connecticut's proposal to transfer outreach laboratory services to Quest Diagnostics.

As Director of Health for the City of New Britain, I have witnessed an increasing demand for high value, cost-effective lab services which will be best met by Quest Diagnostics. This proposal will also ensure that the region has increased access to laboratory services.

This project exemplifies how The Hospital of Central Connecticut is committed to providing the highest quality services in an ever-changing environment where integration, coordination and increased access are all of the utmost importance.

Sincerely,

Sergio Lupo. MPH, RS
Director of Health
City of New Britain

SL:cgl

88 PROSPECT STREET - NEW BRITAIN, CT 06051 • PHONE (860) 826-3464 - FAX (860) 826-2687

Harold, Sanchez, MD FCAP
20 Mulberry Road
Woodbridge, Connecticut 06525

June 05, 2017

Jessica Schaeffer-Helmecki, JD, MPA
Planning Analyst, Office of Health Care Access
Connecticut Department of Public Health
410 Capitol Avenue, MS #13 HCA
Hartford, Connecticut 06134

Dear Ms Schaeffer-Helmecki,

As outlined in Connecticut General Statute 19a-639a(e), the signatories on the attached page write to you to request a public hearing on the Hospital of Central Connecticut's application for a certificate of need, your docket number 17-32170-CON.

Please let me know if you need anything further. Thank you for your assistance.

Sincerely,

Harry Sanchez

We, the undersigned, request that the Connecticut Department of Health schedule a **public hearing on** the matter of the Hospital of Central Connecticut's application for a certificate of need, your **docket number 17-32170-CON.**

NAME (PRINT)	SIGNATURE
HAROLD SÁNCHEZ	
Donna Carroccia	
KARLENE ARCHAMBEAULT	
Nicole lavigne	
BACHLOAN PHAN	
Michael Albert	
Nathan Thomas	
Paula webber	
Jim PERRONE	
IRENEUSZ MALEC	
Bill Hague	
Kristen Marshall	
Marilyn Gugal	

User, OHCA

From: Schaeffer-Helmecki, Jessica
Sent: Tuesday, June 06, 2017 8:23 AM
To: Carannante, Vincenzo <VCarannante@goodwin.com> (VCarannante@goodwin.com); Durdy, Barbara
Cc: User, OHCA; Lazarus, Steven; Hansted, Kevin; Riggott, Kaila; Mitchell, Micheala
Subject: CON docket 17-32170: Public Hearing Request
Attachments: 32170 - Request for Public Hearing.pdf

Good Morning Vincenzo and Barbara—

Yesterday OHCA received the attached letter requesting a public hearing, under CGS sec. 19a-639a(e), regarding the Hospital of Central Connecticut's application to terminate five laboratory outreach locations. As you likely know, once we complete our initial review and the application is deemed complete, we will work with you to schedule a date, time and location for the hearing.

In the meantime, if you have any questions, please feel free to contact us.

Thank you,

Jessica

Jessica Schaeffer-Helmecki, JD, MPA
Planning Analyst, Office of Health Care Access
Connecticut Department of Public Health
410 Capitol Avenue, MS #13 HCA, Hartford, Connecticut 06134
P: (860) 509-8075|F: (860) 418-7053|E: jessica.schaeffer-helmecki@ct.gov

User, OHCA

From: Schaeffer-Helmecki, Jessica
Sent: Friday, June 16, 2017 2:34 PM
To: Durdy, Barbara; Carannante, Vincenzo <VCarannante@goodwin.com> (VCarannante@goodwin.com)
Cc: User, OHCA; Riggott, Kaila; Mitchell, Micheala
Subject: Completeness Letter: HOCC termination of PSCs (doc no. 17-32170-CON)
Attachments: 32170 HoCC term PSCs Completeness Letter .pdf

Good afternoon Barbara and Vin--

Attached please find OHCA's completeness letter regarding the above-referenced CON application. Please let us know you've received this and feel free to contact us if you have any questions.

Thank you and have a good weekend,

Jessica

Jessica Schaeffer-Helmecki, JD, MPA
Planning Analyst, Office of Health Care Access
Connecticut Department of Public Health
410 Capitol Avenue, MS #13 HCA, Hartford, Connecticut 06134
P: (860) 509-8075|F: (860) 418-7053|E: jessica.schaeffer-helmecki@ct.gov

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

Raul Pino, M.D., M.P.H.
Commissioner

Dannel P. Malloy
Governor

Nancy Wyman
Lt. Governor

Office of Health Care Access

June 16, 2017 via Email only

Barbara A. Durdy
Director, Strategic Planning, Hartford HealthCare
One State Street, Suite 19
Hartford, Conn. 06103
Barbara.durdy@hhchealth.org

RE: **Certificate of Need Application: Completeness Letter**
Termination of Outpatient Services Offered by the Hospital of Central Connecticut
(Docket No. 17-32170-CON)

Dear Ms. Durdy:

On May 24, 2017, OHCA received a Certificate of Need application from the Hospital of Central Connecticut ("HOCC" or "Hospital") and Hartford HealthCare Corporation ("HHC"), seeking authorization to terminate five blood drawing stations, or patient service centers "PSCs." HOCC intends to subsequently transfer ownership of all five PSCs to Quest Diagnostics ("Quest"). OHCA requests additional information pursuant to Connecticut General Statutes §19a-639a(c). *Please "reply all" to electronically confirm receipt of this email as soon as you receive it.* Provide responses to the questions below as both a Word and PDF attachment. ***Please email your responses to both OHCA@ct.gov and Kaila.Riggott@ct.gov***.

Paginate and date your response (i.e., each page in its entirety). Repeat each OHCA question before providing your response. Information filed after the initial CON application submission (e.g., completeness response letter, prefiled testimony, late file submissions, etc.) must be numbered sequentially from the Applicant's preceding document. Begin your submission using **Page 89** and reference "**Docket Number: 17-32170-CON**."

Pursuant to Section 19a-639a(c) of the Connecticut General Statutes, you must submit your response to this request for additional information no later than sixty days after the date this

request was transmitted. Therefore, please provide your written responses to OHCA no later than **August 15, 2017, 4:30 p.m.**, otherwise your application will be automatically considered withdrawn.

1. If the proposal is approved, when approximately do you anticipate the transfer to Quest to occur?

2. The Applicant states on page 13 of the application that the proposal does not include any of HOCC's actual laboratories or lab testing services offered by HOCC to its patients. Describe the lab testing and/or blood drawing services that will continue to be owned and/or operated by HOCC and their locations.

3. One of the PSCs listed to be terminated is located at 100 Grand Street, New Britain.

    a. Is this located on the Hospital's main campus? If so, please describe why this location was selected to be terminated and how it will impact services to patients.
    b. If for whatever reason, the transfer to Quest is not effectuated, would it be included in the locations at which blood drawing services would cease?

4. On page 32 of the application, other existing blood drawing locations in the area are listed. All seven are Quest owned. Are there any non-Quest PSC blood drawing locations in the area?

5. Provide the hours and days of operation for the existing PSCs in the area on page 32 as well as any locations listed in response to question 4 of this letter.

6. What is Quest's charity care policy and how does it compare with that of HOCC? The web-site provided in the application does not give details on Quest's policy.

7. On page 18 of the application, it states that any HOCC facility fees will be eliminated.

    a. How much are the current facility fees at the five PSCs?
    b. Will Quest be imposing any new fees?

8. What is the average cost to patients for drawing and testing services at Quest compared to that at one of the five PSCs to be terminated?

9. What is the asset purchase price for the five PSCs?

10. Provide a draft of the purchase agreement between the Applicant and Quest.

11. Are the FY2017 patient visits listed in Table 5 on page 27 annualized? If so, based on which months?

12. The public notice lists “2150 Corbin Ave, New Britain” as one of the sites being terminated and transferred to Quest. The application, however, does not make mention of this location. Please clarify the Applicant’s intention regarding this site.

If you have any questions concerning this letter, please contact Kaila Riggott at (860) 418-7037.

Sincerely,

Jessica Schaeffer-Helmecki
Planning Analyst

User, OHCA

From: Durdy, Barbara <Barbara.Durdy@hhchealth.org>
Sent: Friday, June 16, 2017 3:21 PM
To: Schaeffer-Helmecki, Jessica
Cc: Carannante, Vincenzo <VCarannante@goodwin.com> (VCarannante@goodwin.com); User, OHCA; Riggott, Kaila; Mitchell, Micheala
Subject: Re: Completeness Letter: HOCC termination of PSCs (doc no. 17-32170-CON)
Attachments: image001.jpg; image002.jpg

Confirming receipt
Thank you

Sent from my iPhone

> On Jun 16, 2017, at 2:34 PM, Schaeffer-Helmecki, Jessica <Jessica.Schaeffer-Helmecki@ct.gov> wrote:
>
> Good afternoon Barbara and Vin--
>
> Attached please find OHCA's completeness letter regarding the above-referenced CON application. Please let us know you've received this and feel free to contact us if you have any questions.
>
> Thank you and have a good weekend,
>
> Jessica
>
> Jessica Schaeffer-Helmecki, JD, MPA
> Planning Analyst, Office of Health Care Access Connecticut Department
> of Public Health
> 410 Capitol Avenue, MS #13 HCA, Hartford, Connecticut 06134
> P: (860) 509-8075|F: (860) 418-7053|E:
> jessica.schaeffer-helmecki@ct.gov<mailto:jessica.schaeffer-helmecki@ct
> .gov>
>
> [http://www.ct.gov/insidedph/lib/insidedph/communications/DPH-Color.gi
> f] [http://www.phaboard.org/wp-content/uploads/PHAB-SEAL-COLOR.jpg]
>
> <image001.jpg>
> <image002.jpg>
> <32170 HoCC term PSCs Completeness Letter .pdf>

User, OHCA

From: Carannante, Vincenzo <VCarannante@goodwin.com>
Sent: Friday, June 30, 2017 4:46 PM
To: User, OHCA; Riggott, Kaila
Cc: Schaeffer-Helmecki, Jessica; Durdy, Barbara (Barbara.Durdy@hhchealth.org)
Subject: FW: Completeness Letter: HOCC termination of PSCs (doc no. 17-32170-CON)
Attachments: Completeness Questions (HOCC Lab Termination _ June 2017) 6-30-17.DOCX; Docket No. 17-32170-CON.PDF

Follow Up Flag: Follow up
Flag Status: Completed

Hello Kaila and Jessica: Please see attached for the responses to your completeness questions.

Thank you and have a great 4th of July,
Vin

Shipman & Goodwin LLP
COUNSELORS AT LAW

Vincenzo Carannante
Partner
One Constitution Plaza
Hartford, CT 06103-1919

Tel (860) 251-5096
Fax (860) 251-5211
vcarannante@goodwin.com
www.shipmangoodwin.com

From: Schaeffer-Helmecki, Jessica [mailto:Jessica.Schaeffer-Helmecki@ct.gov]
Sent: Friday, June 16, 2017 2:34 PM
To: Durdy, Barbara; Carannante, Vincenzo
Cc: User, OHCA; Riggott, Kaila; Mitchell, Micheala
Subject: Completeness Letter: HOCC termination of PSCs (doc no. 17-32170-CON)

Good afternoon Barbara and Vin--

Attached please find OHCA's completeness letter regarding the above-referenced CON application. Please let us know you've received this and feel free to contact us if you have any questions.

Thank you and have a good weekend,

Jessica

Jessica Schaeffer-Helmecki, JD, MPA
Planning Analyst, Office of Health Care Access
Connecticut Department of Public Health
410 Capitol Avenue, MS #13 HCA, Hartford, Connecticut 06134
P: (860) 509-8075|F: (860) 418-7053|E: jessica.schaeffer-helmecki@ct.gov


Keeping Connecticut Healthy
DPH
Connecticut Department
of Public Health

Accredited Health Department
PHAB
Advancing public health performance
Public Health Accreditation Board

SHIPMAN & GOODWIN LLP®
COUNSELORS AT LAW

Vincenzo Carannante
Phone: (860) 251-5096
Fax: (860) 251-5311
vcarannante@goodwin.com
Admitted in Massachusetts, Connecticut and Rhode Island

June 30, 2017

VIA EMAIL

Jessica Schaeffer-Helmecki, JD, MPA
Planning Analyst, Office of Health Care Access
Connecticut Department of Public Health
410 Capitol Avenue, MS #13 HCA,
Hartford, Connecticut 06134
jessica.schaeffer-helmecki@ct.gov

Re: Certificate of Need Application: Completeness Letter (Responses)
Termination of Outpatient Services Offered by the Hospital of Central Connecticut
(Docket No. 17-32170-CON)

Dear Jessica:

Enclosed please find the Hospital of Central Connecticut's responses to the Office of Health Care Access's completeness questions dated June 16, 2017. Please do not hesitate to contact me if you need additional information or have any further questions.

Sincerely,

Vincenzo Carannante

VZC/kad

Enclosures

cc: *Barbara.durdy@hhchealth.org*
OHCA@ct.gov
Kaila.Riggott@ct.gov.

0089 **(06/30/17)**

Docket Number: 17-32170-CON
The Hospital of Central Connecticut

COMPLETENESS LETTER RESPONSES
Docket Number: 17-32170-CON

1. If the proposal is approved, when approximately do you anticipate the transfer to Quest to occur?

Response: Hartford HealthCare intends to complete this transfer in Fiscal Year 2017, which ends on September 30, 2017.

2. The Applicant states on page 13 of the application that the proposal does not include any of HOCC's actual laboratories or lab testing services offered by HOCC to its patients. Describe the lab testing and/or blood drawing services that will continue to be owned and/or operated by HOCC and their locations.

Response: The following lab testing and/or blood draw services will continue to be owned/operated by HOCC:

- HOCC - New Britain General Campus - 100 Grand Street, New Britain CT 06050: HOCC will operate a full service laboratory at this location.
- HOCC - Out Patient Test Center - 100 Grand Street, New Britain CT 06050: At this location, HOCC will continue to provide specimen collection for services that are part of a hospital outpatient visit (as distinguished from an outreach visit).
- HOCC - Bradley Campus - 81 Meriden Avenue, Southington CT 06489: HOCC will operate a full service laboratory at this location.
- HOCC - Cancer Center - 183 N. Mountain Road, New Britain CT 06053: For the 183 N. Mountain Road location, HOCC provides a specific and very limited set of diagnostic services for HOCC's cancer center patients. More specifically, certain patients require very specialized, immediate and real-time diagnostic tests while undergoing chemotherapy, radiation and other treatments at HOCC's cancer center. These specialized diagnostic services are provided in the same location as the PSC services are provided. Quest and HOCC, however, have not yet confirmed whether the transfer of services from HOCC to Quest will include said specialized diagnostic services. Regardless and most importantly, HOCC will ensure that such services will continue to be provided for HOCC's cancer center patients (whether it be by Quest or by HOCC).

3. One of the PSCs listed to be terminated is located at 100 Grand Street, New Britain.

a. Is this located on the Hospital's main campus? If so, please describe why this location was selected to be terminated and how it will impact services to patients.

Response: Yes, this location is on the Hospital's main campus in New Britain (i.e. the New Britain General campus). The transaction involves the transfer of all PSCs to Quest and it was included because of the fact that it is a PSC and, thus, subject to the transaction. We anticipate no impact on the services to patients.

b. If for whatever reason, the transfer to Quest is not effectuated, would it be included in the locations at which blood drawing services would cease?

Response: Quest has agreed to accept the transfer of this location and, thus, the blood drawing services will not cease.

4. On page 32 of the application, other existing blood drawing locations in the area are listed. All seven are Quest owned. Are there any non-Quest PSC blood drawing locations in the area?

Response: Yes, there are other non-Quest PSC blood draw stations in the areas set forth in Tables 2 and 9 of the CON Application. Please see the revised Table 9 below for the specifics.

5. Provide the hours and days of operation for the existing PSCs in the area on page 32 as well as any locations listed in response to question 4 of this letter.

Response: Please see the revised Table 9 in the response to Question # 4 above.

6. What is Quest's charity care policy and how does it compare with that of HOCC? The web-site provided in the application does not give details on Quest's policy.

Response: Please see Exhibit 6 for Quest's Patient Assistance Program documents including, its "QNatal" policy that offers financial assistance for non-invasive prenatal testing. The benefits and procedures of HHC's charity care policy, which applies to HOCC, and Quest's Patient Assistance Program are similar in that patients qualify for their applicable level of discount based on how their or their family income compares to federal poverty level guidelines.

7. On page 18 of the application, it states that any HOCC facility fees will be eliminated.

a. How much are the current facility fees at the five PSCs?

Response: HOCC does not charge a separate facility fee for the services provided at the PSCs. HOCC simply bills for the services provided (e.g. blood drawing/collection fee).

b. Will Quest be imposing any new fees?

Response: Because Quest is not a hospital, it cannot charge a separate facility fee (i.e. provider-based fee). Quest will bill for the services it provides according to the testing fee schedule negotiated with payers.

8. What is the average cost to patients for drawing and testing services at Quest compared to that at one of the five PSCs to be terminated?

Response: Due to antitrust restrictions, the parties have not shared or disclosed pricing information with/to each other. The Applicant is not aware of Quest's charges.

9. What is the asset purchase price for the five PSCs?

Response: The purchase price for this transaction is approximately thirty million dollars ($30,000,000). Please note however, that the specific amounts to be allocated for the PSCs at HOCC and Backus Hospital, respectively, have not been determined.

10. Provide a draft of the purchase agreement between the Applicant and Quest.

Response: The parties are currently negotiating and drafting the APA. The Applicant will submit a redacted form of the APA to OHCA as soon as it is available.

11. Are the FY2017 patient visits listed in Table 5 on page 27 annualized? If so, based on which months?

Response: Yes, the patient visits listed in Table 5 on page 27 were annualized and based on October 2016 - March 2017.

12. The public notice lists "2150 Corbin Ave, New Britain" as one of the sites being terminated and transferred to Quest. The application, however, does not make mention of this location. Please clarify the Applicant's intention regarding this site.

Response: The outreach laboratory at this address is not operated under HOCC's license. Rather, it is licensed by the Hospital for Special Care. Therefore, it is not within the scope of this Certificate of Need Application.

TABLE 9 (Revised)
SERVICES AND SERVICE LOCATIONS OF EXISTING PROVIDERS

Service or Program Name	Population Served	Facility ID*	Facility's Provider Name, Street Address and Town	Hours/Days of Operation	Current Utilization
Quest	Unknown	Unknown	98 Main St Ste 204 Southington CT 06489-2500	M-F 7:00am-12:00pm & 1:00pm-4:00pm	Unknown
Quest	Unknown	Unknown	365 Queen Street Unit C Southington CT 06489-0000	M-F 7:00am-12:00pm & 1:00pm-4:00pm	Unknown
Quest	Unknown	Unknown	7 North Washington St Ste 107 Plainville CT 06062-1957	M-F 7:00am-12:00pm & 1:00pm-4:00pm	Unknown
Quest	Unknown	Unknown	935 Farmington Avenue Bristol CT 06010-3927	M-F 7:00am-4:00pm; Sat. 7:30am-12:00pm	Unknown
Quest	Unknown	Unknown	40 Hart Street, Building C New Britain CT 06052-1743	M-F 7:00am-4:00pm; Sat. 7:30am-12:00pm	Unknown
Quest	Unknown	Unknown	66 Cedar Street Newington CT 06111-0000	M-F 7:00am-4:00pm	Unknown
Quest	Unknown	Unknown	955 Main St Newington CT 06111-2472	M-F 6:30am-4:00pm; Sat. 7:00am-12:00pm	Unknown
Quest	Unknown	Unknown	320 New Britain Rd, Kensington CT 06037	M-F 7:00 am - 4:00 pm, Sat - 7:30 am - 12:00 pm	Unknown
Quest	Unknown	Unknown	7 North Washington St. Ste 107, Plainville CT 06062	M-F 7:00 am - 4:00 pm, Sat - 7:30 am - 12:00 pm	Unknown
ProHealth Laboratory	Unknown	Unknown	621 Terryville Avenue, Bristol CT 06010-4078	M-F 7:30am-2:00pm	Unknown
ProHealth Laboratory	Unknown	Unknown	25 Collins Road, Bristol CT 06010-3800	M-F 7:45am-5:00pm	Unknown
ProHealth Laboratory	Unknown	Unknown	211 New Britain Road, Kensington CT 06037-3167	M-F 7:30am-9:30am; Sat 8:00am-12:30pm	Unknown
Bristol Hospital	Unknown	Unknown	41 Brewster Road, Bristol CT 06011	M-F 6:30am-6:00pm; Sat 7:00am-12:00pm	Unknown
Bristol Hospital	Unknown	Unknown	641 Farmington Avenue, Bristol CT 06011	M-F 7:00am-4:00pm; Sat 7:00am-12:00pm	Unknown
UConn Health	Unknown	Unknown	Southington Blood Drawing Facility, 1115 West Street, Southington CT 06489-6025	M-F 7:00am-4:00pm; closed 12:00pm-1:00pm	Unknown

*Provide the Medicare, Connecticut Department of Social Services (DSS), or National Provider Identifier (NPI) facility identifier and label column with the identifier use

Exhibit 6

Quest Diagnostics

Quest Diagnostics Patient Assistance Program

We are committed to providing clinical laboratory services regardless of your ability to pay. Through our Patient Assistance Program, we tailor solutions for uninsured or underinsured patients based on individual circumstances and may adjust some or all laboratory charges if you cannot afford to pay for your testing.

Payment Plans

We offer payment plans, which allow those who are unable to pay their full balance by the due date, to make monthly installment payments.

Financial Assistance Program

We offer tiered discounts that take into account your income and family unit size. Discounts are based on guidelines provided by the US Department of Health and Human Services and can be as much as 100% of your amount due.

Eligibility

We will determine your eligibility based on your income and the U.S. Department of Health and Human Services poverty guidelines. The guidelines are updated annually and are available at the HHS website.

How to Obtain Assistance

To take advantage of a payment plan, call the customer service phone number listed on your invoice. If you do not have an invoice, contact Billing Customer Service.

Download Application

To apply for our Financial Assistance Program, download an application and mail it to the address listed on your invoice, or, call the Customer Service phone number listed on your invoice.

For additional questions please contact Billing Customer Service.

Make a difference in your career

Join a healthcare industry leader and help to change lives

Make better decisions about your health

Use the MyQuestTM patient portal and mobile health app to help you make better decisions about your health

Important and timely

Quest Diagnostics Health Trends™ reports track allergies, diabetes, heart health and more

Quest Diagnostics

Dear Patient,

Thank you for your interest in our Patient Financial Assistance Program. So that we can determine your eligibility, please complete the attached application form and return it to the correspondence address listed on your invoice, along with one or more of the required documents listed below:

- A copy of last year's W2 form
- A copy of last year's income tax return
- A copy of your most recent pay stub (s)
- A proof source indicating that you are eligible for local, state, or federal assistance programs.

Once we receive your completed application and documentation, we will determine if you meet the established criteria. Please allow approximately two weeks for your application to be processed. Do not make any payments until you receive notification regarding the status of your request. Applying for acceptance into our Financial Assistance Program does not guarantee reduced charges.

If you have any additional questions or concerns, please do not hesitate to contact us. Thank you for using Quest Diagnostics. We look forward to serving you in the future.

Sincerely,

Patient Billing Customer Service

Quest Diagnostics

Patient Financial Assistance Form

Patient Name:_____ ***Telephone Number:***_____

Address:_____ ***Patient Date of Birth:*** _____

City:_____ ***State:*** _____ ***Zip Code:*** _____

Invoice Number(s):_____***Lab Code:***_____

Please complete all information accurately. The signature of the patient or patient's guardian is required.
Please make sure to attach the required supporting documentation.

1. Does the patient have sufficient resources to pay for the testing and/or the deductible and coinsurance?
   - ☐ Yes If answer is "Yes", you are financially responsible for payment.
   - ☐ No If answer is "No", complete form below.

2. Is any source, other than the patient, legally responsible for the patient's medical bills (***e.g.***, Medicaid, local welfare agency, guardian or other insurance program)?
   ☐ Yes ☐ No If answer is "Yes" list:
   Insurance Company Name: _____
   Address: _____
   Member I.D.: _____
   Other Source: _____

3. Patient/legal guardian's monthly resources:

Salary	$_____
Social Security	$_____
Cash/Welfare Payment	$_____
Family Contribution	$_____
Income from Savings Accounts, CDs, etc.	$_____
Other	$_____
Total	**$**_____

4. Number of family members in household: _____

I hereby acknowledge that the above information is true and correct according to the best of my knowledge and belief. I also authorize the release of any and all financial records necessary to verify the above information. I understand that if I do not qualify, I will be notified and Quest Diagnostics will bill me. I hereby acknowledge that I am neither related to nor employed by the physician who ordered the testing.

Patient Name (Print): _____
Guardian Name (Print): _____
Responsible Party Signature: _____
Date: _____

For Official Use Only:

Bill Number	Amount $	Approved	Denied
Date Received:			
PCS Rep:			
Supervisor (signature):			

Quest Diagnostics

Homepage » Contact » Customer Service Billing

Contact Us

Need Assistance? Please choose from the topics below

Contact Billing Customer Service
Call one of our Patient Billing Customer Service Centers based on your area of interest below

LOCATION	CITY	TELEPHONE NUMBER
CANADA		1 (866)930-3718 (calls from Canada only)
CA	Sacramento	1 (855)324-2016
CA	West Hills	1 (800)758-6047
CO	Denver	1 (800)433-4988
CT	Wallingford	1 (800)933-2009
FL	Miami	1 (800)743-7440
FL	Tampa	1 (800)488-8890
GA	Atlanta	1 (800)366-6635
IL	Wood Dale	1 (800)888-8333
KS	Lenexa	1 (800)759-2789
LA	New Orleans	1 (800)759-2758
MA	Cambridge	1 (800)253-2743
MD	Baltimore	1 (844)750-4024
MI	Auburn Hills	1 (800)888-8333
MN	Minneapolis	1 (800)888-8333
NJ	Teterboro	1 (800)631-1388
NV	Las Vegas	1 (855)619-4056
NY	Syosset	1 (866)865-2805
OH	Cincinnati	1 (800)888-8333

PA	Philadelphia	1 (800)766-2604
PA	Pittsburgh	1 (800)837-3177
TN	Nashville	1 (800)766-0595
TX	Dallas	1 (800)694-0247
TX	Houston	1 (866)846-4021
WA	Seattle	1 (866)846-4027

Quest Diagnostics Employer Customer Service
Please call our Employer Customer Service number at 1(800) 877-7484

Quest Diagnostics Nichols Institute
Please call our Nichols Institute San Juan Capistrano at 1(800) 426-4702 or Nichols Institute Valencia at 1(800) 421-7110 (options 2# 7, 2) or Nichols Institute Chantilly at 1(800) 336-3718 (option 4)

Quest Diagnostics Clinical Trials
Please call our Clinical Trials Customer Service number at 1(800) 877-7004

What's new at Quest Diagnostics?

What's new at Quest Diagnostics? We've introduced over 100 new tests and continue to advance the science and delivery of diagnostics

Make a difference in your career.

Join a healthcare industry leader and help to change lives

Make better decisions about your health.

Use the MyQuestTM patient portal and mobile health app to help you make better decisions about your health

Quest Diagnostics™

QNatal™ Advanced NIPS
Financial Assistance

Ensure all of your patients receive the testing they require. Quest Diagnostics offers flexible and easy-to-use financial assistance for those who cannot afford Noninvasive Prenatal Screening (NIPS). Affordability shouldn't stand in the way of diagnostic insights. Let's help find every patient a solution that fits their financial need.

- For uninsured and underinsured patients who meet or fall below the federal poverty level, testing is provided at no charge
- Uninsured and underinsured patients that meet income requirements (household incomes of greater than 100% and at or less than 400% of the federal poverty level) **will qualify for an out-of-pocket maximum of $200**
- Financial criteria information is available on the U.S. Department of Health and Human Services (HHS) website at **http://aspe.hhs.gov/poverty**

To Qualify:

- Patient must meet income requirements. See the 2015 HHS financial guidelines on the back of this page
- If insured, patients must meet their insurance provider's requirements for this testing, such as obtaining preauthorization for testing

How to apply:

- Download the application at the URL below and mail it to the address listed on your invoice, or call the Customer Service phone number listed on your invoice

QuestDiagnostics.com/financialassistance

For patients who require additional financial assistance, Quest Diagnostics offers payment plans of 0% financing for a 12-month period.

QNatal™ Advanced NIPS

Financial Assistance

2015 HHS Poverty Guidelines

Income Requirements for Eligibility

Persons in Family/ Household	48 Contiguous States & Washington, DC		Alaska		Hawaii	
	Poverty level	x 400%	Poverty level	x 400%	Poverty level	x 400%
1	$11,770	$47,080	$14,720	$58,880	$13,550	$54,200
2	$15,930	$63,720	$19,920	$79,680	$18,330	$73,320
3	$20,090	$80,360	$25,120	$100,480	$23,110	$92,440
4	$24,250	$97,000	$30,320	$121,280	$27,890	$111,560
5	$28,410	$113,640	$35,520	$142,080	$32,670	$130,680
6	$32,570	$130,280	$40,720	$162,880	$37,450	$149,800
7	$36,730	$146,920	$45,920	$183,680	$42,230	$168,920
8	$40,890	$163,560	$51,120	$204,480	$47,010	$188,040
	For families/households with more than 8 persons, add $4,160 for each additional person.		For families/households with more than 8 persons, add $5,200 for each additional person.		For families/households with more than 8 persons, add $4,780 for each additional person.	

The financial assistance application is available at:
QuestDiagnostics.com/financialassistance

Please contact your sales representative for additional information.

Note: The financial criteria above are based upon the United States Department of Health & Human Services (HHS) Poverty Guidelines 2015. Our illustration provides an estimate of the poverty level multiplied times 400%, which are subject to change when these levels change each year. Quest Diagnostics reserves the right to modify or terminate this program at any time.

For more information please access the HHS website at http://aspe.hhs.gov/poverty

QuestDiagnostics.com

Quest Diagnostics™

User, OHCA

From: Durdy, Barbara <Barbara.Durdy@hhchealth.org>
Sent: Wednesday, July 05, 2017 11:12 AM
To: Riggott, Kaila; Carannante, Vincenzo; User, OHCA
Cc: Schaeffer-Helmecki, Jessica
Subject: RE: Completeness Letter: HOCC termination of PSCs (doc no. 17-32170-CON)

Thank you Kaila

From: Riggott, Kaila [mailto:Kaila.Riggott@ct.gov]
Sent: Monday, July 03, 2017 8:20 AM
To: Carannante, Vincenzo; User, OHCA
Cc: Schaeffer-Helmecki, Jessica; Durdy, Barbara
Subject: RE: Completeness Letter: HOCC termination of PSCs (doc no. 17-32170-CON)

Thank you. Please let this confirm receipt of your responses. Enjoy the Holiday!

Kaila Riggott, MPA
Planning Specialist
State of Connecticut
Department of Public Health
Office of Health Care Access
410 Capitol Avenue, MS#13-HCA
Hartford, CT 06134
phone: 860.418.7037
fax: 860.418.7053
http://www/ct.gov/ohca

From: Carannante, Vincenzo [mailto:VCarannante@goodwin.com]
Sent: Friday, June 30, 2017 4:46 PM
To: User, OHCA <OHCA@ct.gov>; Riggott, Kaila <Kaila.Riggott@ct.gov>
Cc: Schaeffer-Helmecki, Jessica <Jessica.Schaeffer-Helmecki@ct.gov>; Durdy, Barbara (Barbara.Durdy@hhchealth.org) <Barbara.Durdy@hhchealth.org>
Subject: FW: Completeness Letter: HOCC termination of PSCs (doc no. 17-32170-CON)

Hello Kaila and Jessica: Please see attached for the responses to your completeness questions.

Thank you and have a great 4th of July,
Vin

Shipman & Goodwin LLP
COUNSELORS AT LAW

Vincenzo Carannante
Partner
One Constitution Plaza
Hartford, CT 06103-1919

Tel (860) 251-5096
Fax (860) 251-5211
vcarannante@goodwin.com
www.shipmangoodwin.com

Privileged and confidential. If received in error, please notify me by e-mail and delete the message.

please consider the environment before printing this message

From: Schaeffer-Helmecki, Jessica [mailto:Jessica.Schaeffer-Helmecki@ct.gov]
Sent: Friday, June 16, 2017 2:34 PM
To: Durdy, Barbara; Carannante, Vincenzo
Cc: User, OHCA; Riggott, Kaila; Mitchell, Micheala
Subject: Completeness Letter: HOCC termination of PSCs (doc no. 17-32170-CON)

Good afternoon Barbara and Vin--

Attached please find OHCA's completeness letter regarding the above-referenced CON application. Please let us know you've received this and feel free to contact us if you have any questions.

Thank you and have a good weekend,

Jessica

Jessica Schaeffer-Helmecki, JD, MPA
Planning Analyst, Office of Health Care Access
Connecticut Department of Public Health
410 Capitol Avenue, MS #13 HCA, Hartford, Connecticut 06134
P: (860) 509-8075|F: (860) 418-7053|E: jessica.schaeffer-helmecki@ct.gov

User, OHCA

From: Schaeffer-Helmecki, Jessica
Sent: Friday, July 21, 2017 2:32 PM
To: Durdy, Barbara; Carannante, Vincenzo <VCarannante@goodwin.com> (VCarannante@goodwin.com)
Cc: Riggott, Kaila; User, OHCA; Mitchell, Micheala
Subject: Deemed Complete: 17-32170-CON
Attachments: 32170-CON Notification of Application Deemed Complete.pdf

Good afternoon Barbara and Vin,

Attached please find your notification that CON docket number 17-32170 has been deemed complete as of today, July 21, 2017. If you have any questions, please feel free to contact us.

Have a great weekend,

Jessica

Jessica Schaeffer-Helmecki, JD, MPA
Planning Analyst, Office of Health Care Access
Connecticut Department of Public Health
410 Capitol Avenue, MS #13 HCA, Hartford, Connecticut 06134
P: (860) 509-8075|F: (860) 418-7053|E: jessica.schaeffer-helmecki@ct.gov

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

Raul Pino, M.D., M.P.H.
Commissioner

Dannel P. Malloy
Governor

Nancy Wyman
Lt. Governor

Office of Health Care Access

July 21, 2017 Via Email Only

Barbara A. Durdy
Director, Strategic Planning, Hartford HealthCare
One State Street, Suite 19
Hartford, Conn. 06103
Barbara.durdy@hhchealth.org

RE: Certificate of Need Application: Docket Number: 17-32170-CON
Termination of Outpatient Services offered by Hospital of Central Connecticut

Dear Ms. Durdy:

This letter is to inform you that, pursuant to Section 19a-639a (d) of the Connecticut General Statutes, the Office of Health Care Access has deemed the above-referenced application complete as of July 21, 2017.

If you have any questions concerning this letter, please feel free to contact me at (860) 418-7055.

Sincerely,

Digitally signed by
Micheala Mitchell
Date: 2017.07.21
10:43:19 -04'00'

Micheala L. Mitchell
Staff Attorney

Phone: (860) 418-7001 • Fax: (860) 418-7053
410 Capitol Avenue, P.O. Box 340308
Hartford, Connecticut 06134-0308
www.ct.gov/dph
Affirmative Action/Equal Opportunity Employer

User, OHCA

From: Durdy, Barbara <Barbara.Durdy@hhchealth.org>
Sent: Friday, July 21, 2017 2:59 PM
To: Schaeffer-Helmecki, Jessica; Carannante, Vincenzo <VCarannante@goodwin.com> (VCarannante@goodwin.com)
Cc: Riggott, Kaila; User, OHCA; Mitchell, Micheala
Subject: RE: Deemed Complete: 17-32170-CON

Thank you Jessica,
Have a great weekend

From: Schaeffer-Helmecki, Jessica [mailto:Jessica.Schaeffer-Helmecki@ct.gov]
Sent: Friday, July 21, 2017 2:32 PM
To: Durdy, Barbara; Carannante, Vincenzo <VCarannante@goodwin.com> (VCarannante@goodwin.com)
Cc: Riggott, Kaila; User, OHCA; Mitchell, Micheala
Subject: Deemed Complete: 17-32170-CON

Good afternoon Barbara and Vin,

Attached please find your notification that CON docket number 17-32170 has been deemed complete as of today, July 21, 2017. If you have any questions, please feel free to contact us.

Have a great weekend,

Jessica

Jessica Schaeffer-Helmecki, JD, MPA
Planning Analyst, Office of Health Care Access
Connecticut Department of Public Health
410 Capitol Avenue, MS #13 HCA, Hartford, Connecticut 06134
P: (860) 509-8075|F: (860) 418-7053|E: jessica.schaeffer-helmecki@ct.gov

User, OHCA

From: Schaeffer-Helmecki, Jessica
Sent: Friday, July 21, 2017 2:39 PM
To: Harry Sanchez
Cc: Mitchell, Micheala; Riggott, Kaila; User, OHCA
Subject: Deemed Complete: CON Application 17-32170-CON
Attachments: 32170-CON Notification of Application Deemed Complete.pdf

Good afternoon Harry,

As a member of the public who has expressed interest in HOCC's application to terminate five laboratory outreach locations (docket number 16-32170-CON), we wanted to inform you that, as of today, OHCA has deemed the application complete.

Have a great weekend,

Jessica

Jessica Schaeffer-Helmecki, JD, MPA
Planning Analyst, Office of Health Care Access
Connecticut Department of Public Health
410 Capitol Avenue, MS #13 HCA, Hartford, Connecticut 06134
P: (860) 509-8075|F: (860) 418-7053|E: jessica.schaeffer-helmecki@ct.gov

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

Raul Pino, M.D., M.P.H.
Commissioner

Dannel P. Malloy
Governor
Nancy Wyman
Lt. Governor

Office of Health Care Access

July 21, 2017 Via Email Only

Barbara A. Durdy
Director, Strategic Planning, Hartford HealthCare
One State Street, Suite 19
Hartford, Conn. 06103
Barbara.durdy@hhchealth.org

RE: Certificate of Need Application: Docket Number: 17-32170-CON
Termination of Outpatient Services offered by Hospital of Central Connecticut

Dear Ms. Durdy:

This letter is to inform you that, pursuant to Section 19a-639a (d) of the Connecticut General Statutes, the Office of Health Care Access has deemed the above-referenced application complete as of July 21, 2017.

If you have any questions concerning this letter, please feel free to contact me at (860) 418-7055.

Sincerely,

Micheala L. Mitchell
Staff Attorney

June 21, 2017

Ms. Kimberly Martone
Director, Operations
State of Connecticut Department of Public Health
Office of Health Care Access Division
410 Capital Avenue
P.O. Box 340308
Hartford, CT 06134-0308

RE: **Withdrawal of Public Hearing Request**
Termination of Outpatient Services Offered by the Hospital of Central Connecticut (Docket No. 17-32170-CON)

Dear Ms. Martone:

On June 5, 2017 a petition to request a public hearing with respect to the above-referenced Certificate of Need application was submitted to Jessica Schaeffer-Helmecki. After obtaining a better understanding of the facts with respect to this matter, I no longer wish to request a public hearing.

Accordingly, please consider this communication as the official withdrawal of my name from the submitted list of petitioners requesting a public hearing.

Thank you for your time and consideration.

Respectfully,

Bachloan Phan

Signature of Petitioner

Bachloan Phan 7/24/2017

Olejarz, Barbara

From: Olejarz, Barbara
Sent: Tuesday, August 01, 2017 1:51 PM
To: Barbara Durdy
Subject: Public Hearing notice
Attachments: 17-32170 Applicant.pdf; 17-32170 Hartford Courant.pdf; 17-32170 New Britain Herald.pdf

Tracking:

Recipient	Delivery	Read
Barbara Durdy		
Mitchell, Micheala		
Martone, Kim		
Schaeffer-Helmecki, Jessica	Delivered: 8/1/2017 1:51 PM	
Riggott, Kaila	Delivered: 8/1/2017 1:51 PM	
Casagrande, Antony A		
Furniss, Wendy (Wendy.Furniss@ct.gov)		Read: 8/1/2017 1:53 PM
Downes, Maura		
Stan, Christopher		
Salton, Henry A.		
Kennedy, Jill		
Hansted, Kevin	Delivered: 8/1/2017 1:51 PM	
'daniels@chime.org'		
Schaeffer-Helmecki, Jessica		
Jill.Kennedy@ct.gov	Delivered: 8/1/2017 1:51 PM	
Kimberly.Martone@ct.gov	Delivered: 8/1/2017 1:51 PM	
Wendy.Furniss@ct.gov	Delivered: 8/1/2017 1:51 PM	
Antony.Casagrande@ct.gov	Delivered: 8/1/2017 1:51 PM	
Micheala.Mitchell@ct.gov	Delivered: 8/1/2017 1:51 PM	
Maura.Downes@ct.gov	Delivered: 8/1/2017 1:51 PM	
Henry.Salton@ct.gov	Delivered: 8/1/2017 1:51 PM	
Christopher.Stan@ct.gov	Delivered: 8/1/2017 1:51 PM	

8/1/17

Attached is the notice of public hearing for the Hospital of Central Connecticut along with the newspaper notices. The hearing has been scheduled for August 23, 2017.

Barbara K. Olejarz
Administrative Assistant to Kimberly Martone
Office of Health Care Access
Department of Public Health
Phone: (860) 418-7005
Email: Barbara.Olejarz@ct.gov

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

Raul Pino, M.D., M.P.H.
Commissioner

Dannel P. Malloy
Governor
Nancy Wyman
Lt. Governor

Office of Health Care Access

August 1, 2017

Barbara A. Durdy
Director, Strategic Planning
Hartford HealthCare
One State Street, Suite 19
Hartford, Conn. 06103
Barbara.durdy@hhchealth.org

RE: Certificate of Need Application, Docket Number 17-32170-CON
Termination of 5 Outpatient Blood Drawing Locations
Applicant Hearing Notice

Dear Ms. Durdy:

With the receipt of the completed Certificate of Need ("CON") application, submitted by The Hospital of Central Connecticut ("Applicant") on July 21, 2017, the Office of Health Care Access ("OHCA") has initiated its review of the CON application identified above.

Pursuant to General Statutes § 19a-639a (e), OHCA shall hold a hearing upon receiving a properly filed request from the requisite number of members of the public."

This hearing notice is being issued pursuant to General Statutes § 19a-639a (f)(2)

Applicant(s): The Hospital of Central Connecticut

Docket Number: 17-32170-CON

Proposal: Termination of 5 Outpatient Blood Drawing Locations

Hospital of Central Connecticut August 1, 2017
Notice of Public Hearing
Docket Number: 17-32170-CON

Notice is hereby given of a public hearing to be held in this matter to commence on:

Date: August 23, 2017

Time: 10:00 a.m.

Place: Department of Public Health, Office of Health Care Access
410 Capitol Avenue, Third Floor Hearing Room
Hartford, CT 06134

The Applicant is designated as a party in this proceeding. Enclosed for your information is a copy of the hearing notice for the public hearing that will be published in the *New Britain Herald and the Hartford Courant* pursuant to General Statutes § 19a-639a (f)(2).

All Applicants and Intervenors are reminded that The Office of Health Care Access division of the Department of Public Health follows the Rules of Practice under section 19a-9-1, et seq., of the Regulations of Connecticut State Agencies.

Sincerely,

Digitally signed by Kimberly Martone
Date: 2017.08.01 13:37:56 -04'00'

Kimberly R. Martone
Director of Operations
Enclosure

cc: Henry Salton, Esq., Office of the Attorney General
Antony Casagrande, Department of Public Health
Kevin Hansted, Department of Public Health
Wendy Furniss, Department of Public Health
Maura Downes, Department of Public Health
Jill Kennedy, Department of Public Health
Chris Stan, Department of Public Health
Marielle Daniels, Connecticut Hospital Association

KRM:JSH:MM:bko

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

Raul Pino, M.D., M.P.H.
Commissioner

Dannel P. Malloy
Governor
Nancy Wyman
Lt. Governor

Office of Health Care Access

August 1, 2017 P.O. #54772

The New Britain Herald
1 Herald Square
New Britain, CT 06050

Gentlemen/Ladies:

Please make an insertion of the attached copy, in a single column space, set solid under legal notices, in the issue of your newspaper by no later than Thursday, **August 3, 2017**. Please provide the following within 30 days of publication:

- Proof of publication (copy of legal ad. acceptable) showing published date along with the invoice.

If there are any questions regarding this legal notice, please contact Kaila Riggott at (860) 418-7001.

KINDLY RENDER BILL IN DUPLICATE ATTACHED TO THE TEAR SHEET.

Sincerely,

Digitally signed by Kimberly Martone
Date: 2017.08.01 13:39:15 -04'00'

Kimberly R. Martone
Director of Operations

Attachment
cc: Danielle Pare, DPH
Marielle Daniels, Connecticut Hospital Association

KRM:JSH:MM:bko

Phone: (860) 418-7001 • Fax: (860) 418-7053
410 Capitol Avenue, P.O. Box 340308
Hartford, Connecticut 06134-0308
www.ct.gov/dph
Affirmative Action/Equal Opportunity Employer

The New Britain Herald August 1, 2017
Notice of Public Hearing, Docket Number 17-32170-CON

PLEASE INSERT THE FOLLOWING:

Office of Health Care Access Public Hearings

Statute Reference:	19a-638
Applicant:	The Hospital of Central Connecticut
Towns:	New Britain and Southington
Docket Number:	17-32170-CON
Proposal:	Termination of 5 Outpatient Blood Drawing Locations
Date:	August 23, 2017
Time:	10:00 a.m.
Place:	Department of Public Health, Office of Health Care Access 410 Capitol Avenue, Third Floor Hearing Room Hartford, CT 06134

Any person who wishes to request status in the above listed public hearing may file a written petition no later than August 18, 2017 (5 calendar days before the date of the hearing) pursuant to the Regulations of Connecticut State Agencies §§ 19a-9-26 and 19a-9-27. If the request for status is granted, such person shall be designated as a Party, an Intervenor or an Informal Participant in the above proceeding. Please check OHCA's website at www.ct.gov/ohca for more information or call OHCA directly at (860) 418-7001. If you require aid or accommodation to participate fully and fairly in this hearing, please phone (860) 418-7001.

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

Raul Pino, M.D., M.P.H.
Commissioner

Dannel P. Malloy
Governor
Nancy Wyman
Lt. Governor

Office of Health Care Access

August 1, 2017 P.O. #54772

Hartford Courant
285 Broad Street
Hartford, CT 06115

Gentlemen/Ladies:

Please make an insertion of the attached copy, in a single column space, set solid under legal notices, in the issue of your newspaper by no later than Thursday, **August 3, 2017**. Please provide the following within 30 days of publication:

- Proof of publication (copy of legal ad. acceptable) showing published date along with the invoice.

If there are any questions regarding this legal notice, please contact Kaila Riggott at (860) 418-7001.

KINDLY RENDER BILL IN DUPLICATE ATTACHED TO THE TEAR SHEET.

Sincerely,

Digitally signed by Kimberly Martone
Date: 2017.08.01 13:38:41 -04'00'

Kimberly R. Martone
Director of Operations

Attachment
cc: Danielle Pare, DPH
Marielle Daniels, Connecticut Hospital Association

KRM:JSH:MM:bko

Phone: (860) 418-7001 • Fax: (860) 418-7053
410 Capitol Avenue, P.O. Box 340308
Hartford, Connecticut 06134-0308
www.ct.gov/dph
Affirmative Action/Equal Opportunity Employer

Hartford Courant August 1, 2017
Notice of Public Hearing, Docket Number 17-32170-CON

PLEASE INSERT THE FOLLOWING:

Office of Health Care Access Public Hearings

Statute Reference:	19a-638
Applicant:	The Hospital of Central Connecticut
Towns:	New Britain and Southington
Docket Number:	17-32170-CON
Proposal:	Termination of 5 Outpatient Blood Drawing Locations
Date:	August 23, 2017
Time:	10:00 a.m.
Place:	Department of Public Health, Office of Health Care Access 410 Capitol Avenue, Third Floor Hearing Room Hartford, CT 06134

Any person who wishes to request status in the above listed public hearing may file a written petition no later than August 18, 2017 (5 calendar days before the date of the hearing) pursuant to the Regulations of Connecticut State Agencies §§ 19a-9-26 and 19a-9-27. If the request for status is granted, such person shall be designated as a Party, an Intervenor or an Informal Participant in the above proceeding. Please check OHCA's website at www.ct.gov/ohca for more information or call OHCA directly at (860) 418-7001. If you require aid or accommodation to participate fully and fairly in this hearing, please phone (860) 418-7001.

Olejarz, Barbara

From: Microsoft Outlook
To: Barbara Durdy
Sent: Tuesday, August 01, 2017 1:51 PM
Subject: Relayed: Public Hearing notice

Delivery to these recipients or groups is complete, but no delivery notification was sent by the destination server:

Barbara Durdy (Barbara.Durdy@hhchealth.org)

Subject: Public Hearing notice

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

Raul Pino, M.D., M.P.H.
Commissioner

Dannel P. Malloy
Governor
Nancy Wyman
Lt. Governor

Office of Health Care Access

TO: Kevin Hansted, Hearing Officer

FROM: Raul Pino MD/MPH, Commissioner

DATE: August 1, 2017

RE: Certificate of Need Application: Docket Number: 17-32170-CON
Hospital of Central Connecticut
Termination of 5 Outpatient Blood Drawing Locations

I hereby designate you to sit as a hearing officer in the above-captioned matter to rule on all motions and recommend findings of fact and conclusions of law upon completion of the hearing.

Connecticut Department of Public Health

Phone: (860) 418-7001 • Fax: (860) 418-7053
410 Capitol Avenue, P.O. Box 340308
Hartford, Connecticut 06134-0308
www.ct.gov/dph

User, OHCA

From: Schaeffer-Helmecki, Jessica
Sent: Tuesday, August 15, 2017 11:58 AM
To: Durdy, Barbara; Carannante, Vincenzo <VCarannante@goodwin.com> (VCarannante@goodwin.com)
Cc: User, OHCA; Riggott, Kaila; Mitchell, Micheala
Subject: Request for Prefiled Testimony: 17-32170-CON
Attachments: 17-32170 Request for Prefile Testimony8.15.17 FINAL SIGNED.pdf

Good afternoon Barbara and Vin,

Attached please find a request for prefiled testimony pertaining to the CON hearing scheduled for Wed. Aug 23rd.

Thanks,

Jessica Schaeffer-Helmecki, JD, MPA
Planning Analyst, Office of Health Care Access
Connecticut Department of Public Health
410 Capitol Avenue, MS #13 HCA, Hartford, Connecticut 06134
P: (860) 509-8075|F: (860) 418-7053|E: jessica.schaeffer-helmecki@ct.gov

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

Raul Pino, M.D., M.P.H.
Commissioner

Dannel P. Malloy
Governor

Nancy Wyman
Lt. Governor

Office of Health Care Access

Via Email Only

Ms. Barbara Durdy
Director, Strategic Planning
Hartford HealthCare
One State Street, Ste 19
Hartford, CT 06103
barbara.durdy@hhchealth.org

Mr. Vincenzo Carannante, Esq.
Shipman & Goodwin, LLP
One Constitution Plaza
Hartford, CT 06103
vcarannante@goodwin.com

RE: Certificate of Need Application, Docket Number 17-32170-CON
Termination of outpatient blood drawing locations by Hospital of Central Connecticut
Request for Prefiled Testimony

Dear Ms. Durdy and Mr. Carannante:

The Office of Health Care Access ("OHCA") will hold a public hearing on the above docket number on August 23, 2017. The hearing will be at10:00 am, at the Department of Public Health, Office of Health Care Access 410 Capitol Avenue, third floor hearing room Hartford, CT 06134. Pursuant to the Regulations of Connecticut State Agencies § 19a-9-29(e), any party or other participant is required to prefile in written form all substantive, technical, or expert testimony that it proposes to offer at the hearing. OHCA requests that Hospital of Central Connecticut ("Applicant in this matter") submit prefiled testimony **by 4:00 p.m. on August 18, 2017.**

All persons providing prefiled testimony must be present at the public hearing to adopt their written testimony under oath and must be available for cross-examination for the entire duration of the hearing. If you are unable to meet the specified time for filing the prefiled testimony you

must request a time extension in writing, detailing the reasons for not being able to meet the specified deadline.

Please contact Kaila Riggott at (860) 418-7037, if you have any questions concerning this request.

Sincerely,

Kevin T. Hansted
Hearing Officer

User, OHCA

From: Durdy, Barbara <Barbara.Durdy@hhchealth.org>
Sent: Tuesday, August 15, 2017 12:02 PM
To: Schaeffer-Helmecki, Jessica; Carannante, Vincenzo <VCarannante@goodwin.com> (VCarannante@goodwin.com)
Cc: User, OHCA; Riggott, Kaila; Mitchell, Micheala
Subject: RE: Request for Prefiled Testimony: 17-32170-CON

Thank you Jessica

From: Schaeffer-Helmecki, Jessica [mailto:Jessica.Schaeffer-Helmecki@ct.gov]
Sent: Tuesday, August 15, 2017 11:58 AM
To: Durdy, Barbara; Carannante, Vincenzo <VCarannante@goodwin.com> (VCarannante@goodwin.com)
Cc: User, OHCA; Riggott, Kaila; Mitchell, Micheala
Subject: Request for Prefiled Testimony: 17-32170-CON

Good afternoon Barbara and Vin,

Attached please find a request for prefiled testimony pertaining to the CON hearing scheduled for Wed. Aug 23rd.

Thanks,

Jessica Schaeffer-Helmecki, JD, MPA
Planning Analyst, Office of Health Care Access
Connecticut Department of Public Health
410 Capitol Avenue, MS #13 HCA, Hartford, Connecticut 06134
P: (860) 509-8075|F: (860) 418-7053|E: jessica.schaeffer-helmecki@ct.gov

User, OHCA

From: Schaeffer-Helmecki, Jessica
Sent: Thursday, August 17, 2017 10:17 AM
To: Hansted, Kevin
Cc: User, OHCA; Riggott, Kaila; Mitchell, Micheala
Subject: FW: Request for Intervenor Status
Attachments: Intervenor.docx

From: Harry Sanchez [mailto:pathgrunt@gmail.com]
Sent: Thursday, August 17, 2017 10:15 AM
To: Schaeffer-Helmecki, Jessica <Jessica.Schaeffer-Helmecki@ct.gov>
Cc: barry.jacobs@hhchealth.org; gary.havican@hhchealth.org; lucille.janatka@hhchealth.org
Subject: Request for Intervenor Status

Dear Jessica,

Attached please find my request for intervenor status at the upcoming public hearing. I apologize in advance if it falls short in terms of its style or format. I am happy to revise the letter if you would like or add any missing information.

I have copied my departmental director, the hospital president, and the HHC regional director. Please let me know if this needs to go to anyone else.

Thank you for your time and consideration.

Harry

Request for Intervenor Status at the Public Hearing
Regarding the Application for a Certificate of Need in the
Sale of Hospital of Central Connecticut Outreach Laboratory Work
To Quest Diagnostics
(Docket Number: 17-32170-CON)

Office of Health Care Access
Department of Public Health
410 Capitol Avenue
Hartford, CT 06134

(1) Name and Address

My name is Harold Sanchez. I reside at 20 Mulberry Road, Woodbridge, CT 06525. I have worked as a pathologist at the Hospital of Central Connecticut (HOCC) since 1995, and I write to you on behalf of a group of committed colleagues who work in various divisions of the hospital laboratory. I respectfully ask to be granted intervenor status in the public hearing concerning the sale of HOCC's outreach laboratory work to Quest Diagnostics in Marlborough, Massachusetts. My CV is attached.

(2) Interest Affected by the Proceeding

I contacted the Office of Health Care Access (OHCA) in June 2017 to request a public hearing in this matter out of concern that the sale would be detrimental to HOCC's patients and to the hospital itself.

(3) Manner and Extent of Participation at the Hearing

If granted intervenor status, I hope to submit written arguments (supported where appropriate by literature) to support my position and to present an oral summary of those arguments on the day of the hearing. I also respectfully ask the OHCA for the opportunity to cross examine the applicants' representatives on the day of the hearing and to answer any questions the applicants might have.

(4) Manner in Which Our Participation Will Furnish Assistance the Agency in Resolving the Issues

My colleagues and I love our hospital, and we are committed to the care of its patients. We are experienced laboratory professionals with decades of service to HOCC, and we are intimately familiar with the community we serve, the clinicians in that community, and the workings of the hospital laboratory. I believe this provides us with a unique point of view and that, if granted intervenor status, we can provide the panel with perspective and information not available in the CON application.

(5) Summary of Proposed Arguments

I believe that the applicants provide an incomplete and misleading characterization of the proposed sale and that careful review will show that the application falls short of satisfying the criteria for a successful CON application as outlined in the statute. The sale does not further the

interests of HOCC's patients and runs counter to HOCC's mission statement and core values. The principle arguments are summarized below.

The application states that shedding the outreach laboratory service will allow HOCC to focus on its core services. We could not disagree more. We hope to convince the panel that the hospital laboratory, including its outreach work, ***is*** a core service. The outreach laboratory service not only generates income for the hospital, it also connects the hospital to the community and reinforces crucial patterns of referral to the hospital. In short it helps integrate the hospital into the community that it serves. We hope to illustrate this point by showing the adverse effects that followed the loss of HOCC's gynecologic cytology work to Quest a number of years ago.

The applicants contend that the laboratory work in question can be performed better and more efficiently by Quest Diagnostics than by the HOCC hospital laboratory. We believe that we can show that this is simply false. Moving the outreach work to Quest offers no improvement in quality. For the menu of tests offered at HOCC, the instruments, reagents, and protocols are similar if not identical to the ones used at Quest, and our technologists are at least as well trained if not better trained. Quest does offer a more extensive menu of laboratory tests, but HOCC already has access to those tests through our contract to use Quest as a reference laboratory. Furthermore, shuttling specimens and slides back and forth over ninety miles between New Britain and Marlborough will do nothing to improve the efficiency of the process. On the contrary, such an arrangement introduces additional handoffs and increases opportunities for errors and loss. We will introduce literature to address the dangers involved in adding more time, distance, and handoffs to the testing cycle.

The application suggests that the proposed sale is necessary. The application further claims that no scholarly articles are needed to support its proposal. There is, in fact, a literature that deals with the sale of hospital outreach work to large commercial laboratories. We will provide literature by recognized experts that disputes the applicant's contention that the sale is the only or best solution to its financial challenges.

The application claims that the proposed sale is strictly limited to the five patient service centers listed in the application. This limited transaction, they claim, will not impact or affect any of the laboratory testing services offered by HOCC and/or provided by HOCC to its patients. This is only partially true. The transfer of ownership of the patient service centers by itself will not have a significant impact or affect. But the agreement being drafted between HOCC and Quest goes well beyond that. As discussed in the announcements of the proposed sale and in a meeting between the administration and the laboratory staff, the agreement will also reroute all physician office tissue biopsies and cytology specimens (formerly handled by HOCC labs) to Quest. The tissue specimens will be transported by courier to the Quest labs in Marlborough where they will be processed, and glass slides will be produced. Those glass slides will then be transported back to New Britain where they will be reviewed by HOCC pathologists. Pathology reports will be entered into the Quest computer system which is separate from the HOCC system. This new process produces many new opportunities for errors which can be mitigated

but not eliminated. Furthermore, for complicated cases which require additional special tests this new arrangement cannot hope to compete with the efficiency of the current operation. This is not merely a theoretical drawback to the system. We will show that when the same system was put in place at Hartford Hospital, some physicians found it unacceptable and demanded that their specimens be processed in house. Although time is limited, we hope to arrange for those physicians to testify at the hearing.

The application includes letters of support from a staff physician, Dr. Steven Prunk, and the Director of Health for the City of New Britain, Mr. Sergio Lupo. Without questioning their motives in supporting the proposed sale, I would like to point out several problems with these letters. Dr. Prunk is a friend, a colleague, and an excellent physician, but as director of pulmonary medicine and critical care his practice is largely hospital based. He does not use HOCC outreach services and is not in the best position to comment on them. Both letters claim that there is an increasing demand for high value, low cost laboratory services that can best be met by Quest. I am not personally aware of any such demand on the part of the patients or clinicians, and I see no evidence in the application to suggest that such a demand exists. The letters both suggest that the proposed sale would result in the region enjoying increased access to laboratory services. As explained above, that is simply and demonstrably not the case. Finally, it should also be pointed out that both supporting letters are identical, word for word.

In addition to demonstrating that Quest offers no advantage to our patients in terms of the quality of services provided, I hope to show that selling our outreach work to Quest will serve to limit choice for HOCC patients. Quest is one of the largest providers of laboratory services in Connecticut and across the United States and already does the lab testing for 50% of physician offices. If the proposed sale is approved, large numbers of HOCC's patients including many of its employees, will have no say in where their lab work is done.

Finally, I hope to show that the sale of HOCC's outreach laboratory work is just the latest in a series of decisions designed to centralize services in the HHC network and to limit the range of hospital services offered in New Britain. While this approach may offer financial advantages to HHC, it comes at the price of decreased access and choice for the people who live in New Britain and surrounding communities.

In short, we believe that the application fails to meet OHCA's criteria for an acceptable CON application as outlined in 19a-639 in the following ways:

1. The application fails to satisfactorily demonstrate that the proposed transaction will improve the quality, accessibility and cost effectiveness of health care delivery in the region.
2. The application fails to satisfactorily demonstrate that the sale of outpatient work to Quest will not negatively impact the diversity of health care providers and patient choice in the geographic region.

I would be happy to answer any questions you might have or to add provide any additional material that you require. I understand that if I am granted intervenor status, the time available to produce pre-hearing testimony will be short. Thank you for your consideration, and I ask that you please excuse any shortcomings in format or style in this submission.

Harold Sanchez, MD on August 17, 2017

Harold Sanchez, MD FCAP

20 Mulberry Road
Woodbridge, CT 06525
203-314-1009; harold.sanchez@hhchealth.org

Current Employment:

- Associate Chief of Pathology and Medical Director of Microbiology, the Hospital of Central Connecticut. On staff since July 1995.
- 2007-Present: Laboratory Director for Urology Specialists in Middlebury, CT
- 2011-Present: Laboratory Director for Milton F. Armm, Bridgeport, CT
- 2014-Present: Laboratory Director for Center for Urology Care, Kensington, CT

Professional Training:

- 1993-1995 Clinical Pathology Resident, Yale New Haven Hospital.
- 1992-1993 Chief Resident in Anatomic Pathology, Yale New Haven Hospital.
- 1990-1992 Resident in Anatomic Pathology.

Education:

- 1986-1990: MD State University of New York at Stony Brook.
- 1982-1984: Graduate student in Physiology, City University of New York at Mount Sinai.
- 1978-1982: BS Fairfield University

Board Certification:

- 1996: American Board of Pathology for Anatomic and Clinical Pathology

Work Experience:

- 1984-1986: Technical Assistant, Medical Health Research Association, N Y, NY.
- 2011-2014: Laboratory Director for Thames Urology, New London, CT

Administrative Positions:

- 1995- Present: Medical Director of Microbiology, the Hospital of Central Connecticut
- Committees: Continuing Education Committee, Infection Control Committee
- Conferences: Tumor Board, Medical Resident Pathology Conference

Teaching:

- 1992-1996 Lab Instructor Yale University School of Medicine Microbiology Course

- 2004 – Present: Lecturer in Physician Assistants Program and Pathologist Assistants Program, Quinnipiac University
- March 2010 - Present: Assistant Clinical Professor, Department of Laboratory Medicine, Yale School of Medicine
- February 2014: Associate Clinical Professor of Pathology, Frank Netter School of Medicine.

Societies

- Member of the Autopsy Committee-College of American Pathologists; Past Editor of the Autopsy Pathology Continuing Education Series
- Prior member of the Quality Practices Committee-College of American Pathologists
- Beaumont Medical Club: President, Former Vice-president, and Past Secretary-Treasurer
- New England Society of Microbiology Directors

Peer Reviewed Publications:

Njei B, Konjeti VR, Sanchez H. The curious case of a Klatskin tumor. *Conn Med* 2013 Nov-Dec;77(10):591-4.

Njei B, Sanchez H. Neurofibromatosis type 1, recurrent pulmonary embolism, and a periampullary carcinoid tumor: is there a link? *Conn Med* 2013 Feb;77(2):77-80.

Sinard JH; Autopsy Committee of the College of American Pathologists. Accounting for the professional work of pathologists performing autopsies. *Arch Pathol Lab Med*. 2013 Feb;137(2):228-32.

Book Chapters:

Sanchez H. The history of pediatric forensic pathology and the pediatric autopsy in *Forensic Pathology of Infancy and Childhood*, Byard RW and Collins KA, editors. Springer Verlag 2014.

Sanchez H (contributing author). *Diagnostic Pathology: Hospital Autopsy*, Fyfe B and Miller DV, editors. Elsevier, Philadelphia 2015.

Sanchez H. Historical perspective on the Autopsy in *Autopsy Performance & Reporting*, Collins KA editor. College of American Pathologists 2017.

Peer Reviewed Continuing Medical Education Activity

Sanchez H, Sarma L. Morbid Obesity, AUCD2010. Case 12. *Autopsy Pathology Program.* Northfield, IL: College of American Pathologists; 2010.

Sanchez H, Bakula A. Glioblastoma Multiforme and Herpes Encephalitis. AUCD2011. Case 3. *Autopsy Pathology Program.* Northfield, IL: College of American Pathologists; 2011.

Sanchez H. Subarachnoid Hemorrhage. AUCD2012. Case 12. *Autopsy Pathology Program.* Northfield, IL: College of American Pathologists; 2012.

Sanchez H, Irvine R. Traumatic Aortic Rupture. AUCD2013. Case 3. *Autopsy Pathology Program.* Northfield, IL: College of American Pathologists; 2013.

Patterson ER, Sanchez H. Invasive Pulmonary Aspergillosis. AUCDB2013. Case 7. *Autopsy Pathology Program.* Northfield, IL: College of American Pathologists; 2013.

Sanchez H. Penetrating Ulcer. AUCDB2013. Case 12. *Autopsy Pathology Program.* Northfield, IL: College of American Pathologists; 2013.

Boggs C, Sanchez H. Hyperthermia. AUCD2014. Case 1. *Autopsy Pathology Program.* Northfield, IL: College of American Pathologists; 2013.

Sanchez H. LCHAD. *Autopsy Pathology Program.* Northfield, IL: College of American Pathologists; 2013. Forthcoming.

Sanchez H. Neurofibroamtosis and Ampullary Carcinoid. *Autopsy Pathology Program.* Northfield, IL: College of American Pathologists; 2013. Forthcoming.

Sanchez H, Irvine R. Pulmonary Emboli in a Male to Female Transsexual. *Autopsy Pathology Program.* Northfield, IL: College of American Pathologists; 2013. Forthcoming.

Stroberg E, Sanchez H. Angiosarcoma and Kasabach Merritt Syndrome. *Autopsy Pathology Program.* Northfield, IL: College of American Pathologists; 2013. Forthcoming.

Sanchez H. Post-influenza pneumonia. *Autopsy Pathology Program.* Northfield, IL: College of American Pathologists; 2014. Forthcoming.

Schwerdt M, Sanchez H. Pulmonary foreign body granulomatosis. *Autopsy Pathology Program.* Northfield, IL: College of American Pathologists; 2017. Forthcoming.
Udu L, Sanchez H. Pancreatic cancer. *Autopsy Pathology Program.* Northfield, IL: College of American Pathologists; 2017. Forthcoming.

Presentations at National Meetings:

Poster: Sanchez H, Irvine R. Sudden death due to segmental arterial mediolysis involving the right coronary artery. 66th Annual Scientific Meeting of the American Academy of Forensic Sciences, Seattle WA 2014.

Medical Self-Regulation, the Joint Commission, and the Vanishing Hospital Autopsy. 46th Annual Meeting of the American Osler Society, Minneapolis, MN 2016.

Practical Guidelines in Postmortem Microbiology for Clinical Microbiologists (with Michael Caplan, Chief Medical Examiner for Suffolk County, NY). ASM Microbe 2017, New Orleans, LA 2017.

Presentations at Local Meetings:

- ***Typhoid Mary***: This talk explores the life of Mary Mallon, the real-life Typhoid Mary, and in the process examines the Irish immigrant experience in the United States and one society's response to a novel public health problem.
- ***The Illness of Charles Darwin***: After his return from a round-the-world voyage on the Beagle, Darwin became increasingly debilitated by a mysterious illness that would profoundly affect his life and work and eventually render him a recluse. This talk looks at the illness and the truly dazzling array of explanations that have been offered by physicians, scientists, and historians.
- ***A History of Biological Warfare and Bioterrorism***: This talk chronicles the colorful and frightening history of attempts by individuals, groups, and governments to turn living things and their byproducts into weapons of war or terror.
- ***A History of Self Experimentation in Microbiology***: Driven by idealism, zeal, frustration, lack of resources, and national pride, medical researchers have resorted to experimenting on themselves with results that range from triumphant (Nobel prizes) to tragic (death).
- ***The Society of Mutual Autopsy***: At a dinner party in Paris in the late1800s, a group of French physicians, scientists and intellectuals formed a society dedicated to discovering the biological basis of genius by studying the most exemplary brains in France: their own. In the process they challenged established societal and religious ideas about life, death, and the sanctity of the human body.
- ***A History of the Autopsy***: This talk explores the attitudes of society, religion, the law, and medicine towards human remains and looks at how the interaction between these forces led first to the rise of the autopsy to a place of preeminence and later to its decline. (CSH April 29, 2017)
- ***A History of Pediatric Forensic Pathology***: For much of recorded history children have been bought, sold, pressed into military service, exploited for their labor, and murdered, often by family members and, until comparatively recently, often with impunity. This talk looks at the history of child protection and in particular at the relatively late contribution of the medical profession.
- ***Physicians Behaving Badly***: This talk looks at the unique bond of trust that is essential to the therapeutic relationship between doctor and patient. It then goes on

to look at instances of physicians who took advantage of that trust for their own ends (academic, professional, personal, or criminal). The importance of physician oversight is emphasized.

- ***Discredited Medical Theories***: The history of medicine is littered with theories and procedures which were part of mainstream medicine in their time (e.g. the use of leeches, frontal lobotomies, therapeutic pneumothorax), but which appear ridiculous in hindsight. This talk examines some of these theories and procedures and tries to place them into historical context. In the process I hope to show that no age, even our own, is immune to the ridicule of its successors.
- ***Style, Piracy, and Piety: The Colorful and Convoluted History of Hematoxylin & Its New England Connection.*** This talk attempts to give the listener a sense of the long, convoluted, and colorful history of hematoxylin. It will examine the geography, politics, and social forces behind the international dye trade and the peculiar part it played in New England history. It is hoped that the listener will gain a new appreciation for this humble workhorse of histology.

Online Publication:

- Harold Sanchez, *Autopsy Request Process,* Medscape, http://emedicine.medscape.com/article/1730552
- Harold Sanchez and Gregory Chamberlin, *Autopsy Rate and Physician Attitudes Toward Autopsy,* Medscape, http://emedicine.medscape.com/article/1705948

User, OHCA

From: Schaeffer-Helmecki, Jessica
Sent: Thursday, August 17, 2017 1:42 PM
To: Carannante, Vincenzo
Cc: Riggott, Kaila; Mitchell, Micheala; User, OHCA
Subject: RE: Request for Intervenor Status

Hi Vin—

As we discussed, I spoke with Kevin Hansted and the timeline has been modified. **Any objections will be due by Friday, Aug. 18th by noon**. **Prefiled Testimony will be due Monday, August 21st by 4 p**.m.

From: Carannante, Vincenzo
Sent: Thursday, August 17, 2017 12:12 PM
To: 'Schaeffer-Helmecki, Jessica' <Jessica.Schaeffer-Helmecki@ct.gov>
Subject: RE: Request for Intervenor Status

Hi Jessica:
1. Thank you.
2. I would like to file an objection to Dr. Sanchez's petition. What is the deadline to do so?
3. Can we get a 1-day extension to file our pre-file testimony to Monday?

Thanks,
Vin

Shipman & Goodwin LLP
COUNSELORS AT LAW

Vincenzo Carannante
Partner
One Constitution Plaza
Hartford, CT 06103-1919

Tel (860) 251-5096
Fax (860) 251-5211
vcarannante@goodwin.com
www.shipmangoodwin.com

User, OHCA

From: Schaeffer-Helmecki, Jessica
Sent: Thursday, August 17, 2017 2:12 PM
To: User, OHCA
Subject: FW: Request for Intervenor Status
Attachments: Intervenor.docx

Hi Barbara—

Please add the below to the record as public comment. Thank you!

From: Jacobs, Barry M.D. [mailto:Barry.Jacobs@hhchealth.org]
Sent: Thursday, August 17, 2017 12:37 PM
To: Schaeffer-Helmecki, Jessica <Jessica.Schaeffer-Helmecki@ct.gov>
Cc: Vdovenko, Alexandre M.D. <Alexandre.Vdovenko@hhchealth.org>; Sarma, Lakshmi M.D. <Lakshmi.Sarma@hhchealth.org>; Parker, Susan M.D. <Susan.Parker@hhchealth.org>
Subject: FW: Request for Intervenor Status

One point of clarification – when Dr Sanchez refers to "I write to you on behalf of a group of committed colleagues" in this application, it does NOT include the other 4 physicians in our practice. He is acting entirely on his own, outside of our group, without our approval or support in this initiative. I have made this quite clear to him that although he is free to exercise his legal rights, he is not expressing the opinions of our pathology practice.

Thank you for your consideration in the matter.

Barry Jacobs, MD
Chief of Pathology and Laboratory Medicine,
HOCC
President, Central Connecticut Pathology Consultants, PC

From: Harry Sanchez [mailto:pathgrunt@gmail.com]
Sent: Thursday, August 17, 2017 10:15 AM
To: Schaeffer-Helmecki, Jessica
Cc: Jacobs, Barry M.D.; Havican, Gary; Janatka, Lucille
Subject: Request for Intervenor Status

Dear Jessica,

Attached please find my request for intervenor status at the upcoming public hearing. I apologize in advance if it falls short in terms of its style or format. I am happy to revise the letter if you would like or add any missing information.

I have copied my departmental director, the hospital president, and the HHC regional director. Please let me know if this needs to go to anyone else.

Thank you for your time and consideration.

Harry

Reminder: This e-mail and any attachments are subject to the current HHC email retention policies. Please save or store appropriately in accordance with policy.

Request for Intervenor Status at the Public Hearing
Regarding the Application for a Certificate of Need in the
Sale of Hospital of Central Connecticut Outreach Laboratory Work
To Quest Diagnostics
(Docket Number: 17-32170-CON)

Office of Health Care Access
Department of Public Health
410 Capitol Avenue
Hartford, CT 06134

(1) Name and Address

My name is Harold Sanchez. I reside at 20 Mulberry Road, Woodbridge, CT 06525. I have worked as a pathologist at the Hospital of Central Connecticut (HOCC) since 1995, and I write to you on behalf of a group of committed colleagues who work in various divisions of the hospital laboratory. I respectfully ask to be granted intervenor status in the public hearing concerning the sale of HOCC's outreach laboratory work to Quest Diagnostics in Marlborough, Massachusetts. My CV is attached.

(2) Interest Affected by the Proceeding

I contacted the Office of Health Care Access (OHCA) in June 2017 to request a public hearing in this matter out of concern that the sale would be detrimental to HOCC's patients and to the hospital itself.

(3) Manner and Extent of Participation at the Hearing

If granted intervenor status, I hope to submit written arguments (supported where appropriate by literature) to support my position and to present an oral summary of those arguments on the day of the hearing. I also respectfully ask the OHCA for the opportunity to cross examine the applicants' representatives on the day of the hearing and to answer any questions the applicants might have.

(4) Manner in Which Our Participation Will Furnish Assistance the Agency in Resolving the Issues

My colleagues and I love our hospital, and we are committed to the care of its patients. We are experienced laboratory professionals with decades of service to HOCC, and we are intimately familiar with the community we serve, the clinicians in that community, and the workings of the hospital laboratory. I believe this provides us with a unique point of view and that, if granted intervenor status, we can provide the panel with perspective and information not available in the CON application.

(5) Summary of Proposed Arguments

I believe that the applicants provide an incomplete and misleading characterization of the proposed sale and that careful review will show that the application falls short of satisfying the criteria for a successful CON application as outlined in the statute. The sale does not further the

interests of HOCC's patients and runs counter to HOCC's mission statement and core values. The principle arguments are summarized below.

The application states that shedding the outreach laboratory service will allow HOCC to focus on its core services. We could not disagree more. We hope to convince the panel that the hospital laboratory, including its outreach work, ***is*** a core service. The outreach laboratory service not only generates income for the hospital, it also connects the hospital to the community and reinforces crucial patterns of referral to the hospital. In short it helps integrate the hospital into the community that it serves. We hope to illustrate this point by showing the adverse effects that followed the loss of HOCC's gynecologic cytology work to Quest a number of years ago.

The applicants contend that the laboratory work in question can be performed better and more efficiently by Quest Diagnostics than by the HOCC hospital laboratory. We believe that we can show that this is simply false. Moving the outreach work to Quest offers no improvement in quality. For the menu of tests offered at HOCC, the instruments, reagents, and protocols are similar if not identical to the ones used at Quest, and our technologists are at least as well trained if not better trained. Quest does offer a more extensive menu of laboratory tests, but HOCC already has access to those tests through our contract to use Quest as a reference laboratory. Furthermore, shuttling specimens and slides back and forth over ninety miles between New Britain and Marlborough will do nothing to improve the efficiency of the process. On the contrary, such an arrangement introduces additional handoffs and increases opportunities for errors and loss. We will introduce literature to address the dangers involved in adding more time, distance, and handoffs to the testing cycle.

The application suggests that the proposed sale is necessary. The application further claims that no scholarly articles are needed to support its proposal. There is, in fact, a literature that deals with the sale of hospital outreach work to large commercial laboratories. We will provide literature by recognized experts that disputes the applicant's contention that the sale is the only or best solution to its financial challenges.

The application claims that the proposed sale is strictly limited to the five patient service centers listed in the application. This limited transaction, they claim, will not impact or affect any of the laboratory testing services offered by HOCC and/or provided by HOCC to its patients. This is only partially true. The transfer of ownership of the patient service centers by itself will not have a significant impact or affect. But the agreement being drafted between HOCC and Quest goes well beyond that. As discussed in the announcements of the proposed sale and in a meeting between the administration and the laboratory staff, the agreement will also reroute all physician office tissue biopsies and cytology specimens (formerly handled by HOCC labs) to Quest. The tissue specimens will be transported by courier to the Quest labs in Marlborough where they will be processed, and glass slides will be produced. Those glass slides will then be transported back to New Britain where they will be reviewed by HOCC pathologists. Pathology reports will be entered into the Quest computer system which is separate from the HOCC system. This new process produces many new opportunities for errors which can be mitigated

but not eliminated. Furthermore, for complicated cases which require additional special tests this new arrangement cannot hope to compete with the efficiency of the current operation. This is not merely a theoretical drawback to the system. We will show that when the same system was put in place at Hartford Hospital, some physicians found it unacceptable and demanded that their specimens be processed in house. Although time is limited, we hope to arrange for those physicians to testify at the hearing.

The application includes letters of support from a staff physician, Dr. Steven Prunk, and the Director of Health for the City of New Britain, Mr. Sergio Lupo. Without questioning their motives in supporting the proposed sale, I would like to point out several problems with these letters. Dr. Prunk is a friend, a colleague, and an excellent physician, but as director of pulmonary medicine and critical care his practice is largely hospital based. He does not use HOCC outreach services and is not in the best position to comment on them. Both letters claim that there is an increasing demand for high value, low cost laboratory services that can best be met by Quest. I am not personally aware of any such demand on the part of the patients or clinicians, and I see no evidence in the application to suggest that such a demand exists. The letters both suggest that the proposed sale would result in the region enjoying increased access to laboratory services. As explained above, that is simply and demonstrably not the case. Finally, it should also be pointed out that both supporting letters are identical, word for word.

In addition to demonstrating that Quest offers no advantage to our patients in terms of the quality of services provided, I hope to show that selling our outreach work to Quest will serve to limit choice for HOCC patients. Quest is one of the largest providers of laboratory services in Connecticut and across the United States and already does the lab testing for 50% of physician offices. If the proposed sale is approved, large numbers of HOCC's patients including many of its employees, will have no say in where their lab work is done.

Finally, I hope to show that the sale of HOCC's outreach laboratory work is just the latest in a series of decisions designed to centralize services in the HHC network and to limit the range of hospital services offered in New Britain. While this approach may offer financial advantages to HHC, it comes at the price of decreased access and choice for the people who live in New Britain and surrounding communities.

In short, we believe that the application fails to meet OHCA's criteria for an acceptable CON application as outlined in 19a-639 in the following ways:

1. The application fails to satisfactorily demonstrate that the proposed transaction will improve the quality, accessibility and cost effectiveness of health care delivery in the region.
2. The application fails to satisfactorily demonstrate that the sale of outpatient work to Quest will not negatively impact the diversity of health care providers and patient choice in the geographic region.

I would be happy to answer any questions you might have or to add provide any additional material that you require. I understand that if I am granted intervenor status, the time available to produce pre-hearing testimony will be short. Thank you for your consideration, and I ask that you please excuse any shortcomings in format or style in this submission.

Harold Sanchez, MD on August 17, 2017

Harold Sanchez, MD FCAP

20 Mulberry Road
Woodbridge, CT 06525
203-314-1009; harold.sanchez@hhchealth.org

Current Employment:

- Associate Chief of Pathology and Medical Director of Microbiology, the Hospital of Central Connecticut. On staff since July 1995.
- 2007-Present: Laboratory Director for Urology Specialists in Middlebury, CT
- 2011-Present: Laboratory Director for Milton F. Armm, Bridgeport, CT
- 2014-Present: Laboratory Director for Center for Urology Care, Kensington, CT

Professional Training:

- 1993-1995 Clinical Pathology Resident, Yale New Haven Hospital.
- 1992-1993 Chief Resident in Anatomic Pathology, Yale New Haven Hospital.
- 1990-1992 Resident in Anatomic Pathology.

Education:

- 1986-1990: MD State University of New York at Stony Brook.
- 1982-1984: Graduate student in Physiology, City University of New York at Mount Sinai.
- 1978-1982: BS Fairfield University

Board Certification:

- 1996: American Board of Pathology for Anatomic and Clinical Pathology

Work Experience:

- 1984-1986: Technical Assistant, Medical Health Research Association, N Y, NY.
- 2011-2014: Laboratory Director for Thames Urology, New London, CT

Administrative Positions:

- 1995- Present: Medical Director of Microbiology, the Hospital of Central Connecticut
- Committees: Continuing Education Committee, Infection Control Committee
- Conferences: Tumor Board, Medical Resident Pathology Conference

Teaching:

- 1992-1996 Lab Instructor Yale University School of Medicine Microbiology Course

- 2004 – Present: Lecturer in Physician Assistants Program and Pathologist Assistants Program, Quinnipiac University
- March 2010 - Present: Assistant Clinical Professor, Department of Laboratory Medicine, Yale School of Medicine
- February 2014: Associate Clinical Professor of Pathology, Frank Netter School of Medicine.

Societies

- Member of the Autopsy Committee-College of American Pathologists; Past Editor of the Autopsy Pathology Continuing Education Series
- Prior member of the Quality Practices Committee-College of American Pathologists
- Beaumont Medical Club: President, Former Vice-president, and Past Secretary-Treasurer
- New England Society of Microbiology Directors

Peer Reviewed Publications:

Njei B, Konjeti VR, Sanchez H. The curious case of a Klatskin tumor. *Conn Med* 2013 Nov-Dec;77(10):591-4.

Njei B, Sanchez H. Neurofibromatosis type 1, recurrent pulmonary embolism, and a periampullary carcinoid tumor: is there a link? *Conn Med* 2013 Feb;77(2):77-80.

Sinard JH; Autopsy Committee of the College of American Pathologists. Accounting for the professional work of pathologists performing autopsies. *Arch Pathol Lab Med*. 2013 Feb;137(2):228-32.

Book Chapters:

Sanchez H. The history of pediatric forensic pathology and the pediatric autopsy in *Forensic Pathology of Infancy and Childhood*, Byard RW and Collins KA, editors. Springer Verlag 2014.

Sanchez H (contributing author). *Diagnostic Pathology: Hospital Autopsy*, Fyfe B and Miller DV, editors. Elsevier, Philadelphia 2015.

Sanchez H. Historical perspective on the Autopsy in *Autopsy Performance & Reporting*, Collins KA editor. College of American Pathologists 2017.

Peer Reviewed Continuing Medical Education Activity

Sanchez H, Sarma L. Morbid Obesity, AUCD2010. Case 12. *Autopsy Pathology Program.* Northfield, IL: College of American Pathologists; 2010.

Sanchez H, Bakula A. Glioblastoma Multiforme and Herpes Encephalitis. AUCD2011. Case 3. *Autopsy Pathology Program.* Northfield, IL: College of American Pathologists; 2011.

Sanchez H. Subarachnoid Hemorrhage. AUCD2012. Case 12. *Autopsy Pathology Program.* Northfield, IL: College of American Pathologists; 2012.

Sanchez H, Irvine R. Traumatic Aortic Rupture. AUCD2013. Case 3. *Autopsy Pathology Program.* Northfield, IL: College of American Pathologists; 2013.

Patterson ER, Sanchez H. Invasive Pulmonary Aspergillosis. AUCDB2013. Case 7. *Autopsy Pathology Program.* Northfield, IL: College of American Pathologists; 2013.

Sanchez H. Penetrating Ulcer. AUCDB2013. Case 12. *Autopsy Pathology Program.* Northfield, IL: College of American Pathologists; 2013.

Boggs C, Sanchez H. Hyperthermia. AUCD2014. Case 1. *Autopsy Pathology Program.* Northfield, IL: College of American Pathologists; 2013.

Sanchez H. LCHAD. *Autopsy Pathology Program.* Northfield, IL: College of American Pathologists; 2013. Forthcoming.

Sanchez H. Neurofibroamtosis and Ampullary Carcinoid. *Autopsy Pathology Program.* Northfield, IL: College of American Pathologists; 2013. Forthcoming.

Sanchez H, Irvine R. Pulmonary Emboli in a Male to Female Transsexual. *Autopsy Pathology Program.* Northfield, IL: College of American Pathologists; 2013. Forthcoming.

Stroberg E, Sanchez H. Angiosarcoma and Kasabach Merritt Syndrome. *Autopsy Pathology Program.* Northfield, IL: College of American Pathologists; 2013. Forthcoming.

Sanchez H. Post-influenza pneumonia. *Autopsy Pathology Program.* Northfield, IL: College of American Pathologists; 2014. Forthcoming.

Schwerdt M, Sanchez H. Pulmonary foreign body granulomatosis. *Autopsy Pathology Program.* Northfield, IL: College of American Pathologists; 2017. Forthcoming.
Udu L, Sanchez H. Pancreatic cancer. *Autopsy Pathology Program.* Northfield, IL: College of American Pathologists; 2017. Forthcoming.

Presentations at National Meetings:

Poster: Sanchez H, Irvine R. Sudden death due to segmental arterial mediolysis involving the right coronary artery. 66th Annual Scientific Meeting of the American Academy of Forensic Sciences, Seattle WA 2014.

Medical Self-Regulation, the Joint Commission, and the Vanishing Hospital Autopsy. 46th Annual Meeting of the American Osler Society, Minneapolis, MN 2016.

Practical Guidelines in Postmortem Microbiology for Clinical Microbiologists (with Michael Caplan, Chief Medical Examiner for Suffolk County, NY). ASM Microbe 2017, New Orleans, LA 2017.

Presentations at Local Meetings:

- ***Typhoid Mary***: This talk explores the life of Mary Mallon, the real-life Typhoid Mary, and in the process examines the Irish immigrant experience in the United States and one society's response to a novel public health problem.
- ***The Illness of Charles Darwin***: After his return from a round-the-world voyage on the Beagle, Darwin became increasingly debilitated by a mysterious illness that would profoundly affect his life and work and eventually render him a recluse. This talk looks at the illness and the truly dazzling array of explanations that have been offered by physicians, scientists, and historians.
- ***A History of Biological Warfare and Bioterrorism***: This talk chronicles the colorful and frightening history of attempts by individuals, groups, and governments to turn living things and their byproducts into weapons of war or terror.
- ***A History of Self Experimentation in Microbiology***: Driven by idealism, zeal, frustration, lack of resources, and national pride, medical researchers have resorted to experimenting on themselves with results that range from triumphant (Nobel prizes) to tragic (death).
- ***The Society of Mutual Autopsy***: At a dinner party in Paris in the late1800s, a group of French physicians, scientists and intellectuals formed a society dedicated to discovering the biological basis of genius by studying the most exemplary brains in France: their own. In the process they challenged established societal and religious ideas about life, death, and the sanctity of the human body.
- ***A History of the Autopsy***: This talk explores the attitudes of society, religion, the law, and medicine towards human remains and looks at how the interaction between these forces led first to the rise of the autopsy to a place of preeminence and later to its decline. (CSH April 29, 2017)
- ***A History of Pediatric Forensic Pathology***: For much of recorded history children have been bought, sold, pressed into military service, exploited for their labor, and murdered, often by family members and, until comparatively recently, often with impunity. This talk looks at the history of child protection and in particular at the relatively late contribution of the medical profession.
- ***Physicians Behaving Badly***: This talk looks at the unique bond of trust that is essential to the therapeutic relationship between doctor and patient. It then goes on

to look at instances of physicians who took advantage of that trust for their own ends (academic, professional, personal, or criminal). The importance of physician oversight is emphasized.

- ***Discredited Medical Theories***: The history of medicine is littered with theories and procedures which were part of mainstream medicine in their time (e.g. the use of leeches, frontal lobotomies, therapeutic pneumothorax), but which appear ridiculous in hindsight. This talk examines some of these theories and procedures and tries to place them into historical context. In the process I hope to show that no age, even our own, is immune to the ridicule of its successors.
- ***Style, Piracy, and Piety: The Colorful and Convoluted History of Hematoxylin & Its New England Connection.*** This talk attempts to give the listener a sense of the long, convoluted, and colorful history of hematoxylin. It will examine the geography, politics, and social forces behind the international dye trade and the peculiar part it played in New England history. It is hoped that the listener will gain a new appreciation for this humble workhorse of histology.

Online Publication:

- Harold Sanchez, *Autopsy Request Process,* Medscape, http://emedicine.medscape.com/article/1730552
- Harold Sanchez and Gregory Chamberlin, *Autopsy Rate and Physician Attitudes Toward Autopsy,* Medscape, http://emedicine.medscape.com/article/1705948

User, OHCA

From: Carannante, Vincenzo <VCarannante@goodwin.com>
Sent: Friday, August 18, 2017 11:13 AM
To: Hansted, Kevin
Cc: Riggott, Kaila; Mitchell, Micheala; User, OHCA; Schaeffer-Helmecki, Jessica
Subject: Docket No. 17-32170-CON : Applicant's Objection to Petition for Intervenor Status
Attachments: Docket No. 17-32170-CON.PDF

Hello Kevin: Please see attached for our notice of appearance and partial objection to Dr. Sanchez's request for intervenor status.

Thank you,
Vin

Shipman & Goodwin LLP
COUNSELORS AT LAW

Vincenzo Carannante
Partner
One Constitution Plaza
Hartford, CT 06103-1919

Tel (860) 251-5096
Fax (860) 251-5211
vcarannante@goodwin.com
www.shipmangoodwin.com

SHIPMAN & GOODWIN LLP®
COUNSELORS AT LAW

Vincenzo Carannante, Esq.
Phone: (860) 251-5096
Fax: (860) 251-5211
vcarannante@goodwin.com

August 18, 2017

VIA EMAIL

Kevin Hansted, Esq.
Hearing Officer
Department of Public Health
Office of Health Care Access
410 Capitol Avenue, MS #13HCA
P.O. Box 34048
Hartford, Connecticut 06134-0308
Kevin.Hansted@ct.gov

Re: IN THE MATTER OF: DOCKET NO. 17-32170-CON

Dear Attorney Hansted:

On behalf of the Applicant in the above-referenced matter, enclosed please find:

1. Shipman & Goodwin's Notice of Appearance Form;

2. The Applicant's Objection to Dr. Sanchez's request for full intervenor status; and

3. Shipman & Goodwin's Certification that the above-referenced documents have been provided to Dr. Sanchez via email.

If you have any questions, please do not hesitate to contact me.

Sincerely yours,

Vincenzo Carannante

Enclosure

Cc: ohca@ct.gov

SHIPMAN & GOODWIN LLP®
COUNSELORS AT LAW

Vincenzo Carannante
Phone: (860) 251-5096
Fax: (860) 251-5211
vcarannante@goodwin.com

August 18, 2017

VIA EMAIL

Kevin Hansted, Esq.
Hearing Officer
Department of Public Health
Office of Health Care Access
410 Capitol Avenue, MS #13HCA
P.O. Box 34048
Hartford, Connecticut 06134-0308
Kevin.Hansted@ct.gov

Re: Objection to the Petition for Full Intervenor Status in the Matter of Docket No. 17-32170-CON

Dear Attorney Hansted:

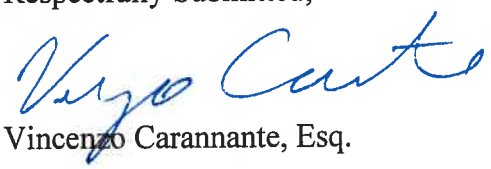
On behalf of the Applicant in the above-referenced Application, I respectfully object to Dr. Harold Sanchez's ("Sanchez") petition for full intervenor status (the "Petition").

We do not object to Sanchez's participation in the hearing for the above-referenced Application as an intervenor. For the reasons described herein, however, we object to Sanchez's request to cross-examine the Applicant's witnesses. More specifically, and in the interests of an orderly hearing and facilitating OHCA's fact-finding, the Applicant believes that Sanchez's participation should be limited solely to submitting pre-file testimony and presenting witness testimony at the hearing. This form of participation by Sanchez is more than enough to permit Sanchez to present his position and assist OHCA in its review of the present application.

Sanchez should not be allowed to cross-examine witnesses. The Applicant is concerned that if Sanchez is granted the right to cross-examine the Applicant's witnesses, it would provide a forum and an opportunity for Sanchez to address issues and grievances that are not relevant to the Application at hand including, his own personal agenda. Moreover, and as you know, OHCA has the right to ask the Applicant and its witnesses questions that can address any of the concerns set forth by Sanchez in his pre-filed testimony or other statements. By proceeding in this manner, OHCA will ensure that the hearing proceeds in an orderly manner and focuses only on the relevant issues within OHCA's jurisdiction and relevant to HOCC's Application.

Accordingly, we respectfully request that Sanchez's Petition for full intervenor status be denied and that said Petition be approved on a limited basis as described herein.

Respectfully Submitted,



Vincenzo Carannante, Esq.

Cc: ohca@ct.gov

Certificate of Service

I hereby certify that a true and correct copy of the foregoing Objection to Petitioner's request for Intervenor Status was e-mailed this 18th day of August 2017 to:

Dr. Harold Sanchez at pathgrunt@gmail.com

Vincenzo Carannante, Esq.

User, OHCA

From: Hansted, Kevin
Sent: Friday, August 18, 2017 11:16 AM
To: 'Carannante, Vincenzo'
Cc: Riggott, Kaila; Mitchell, Micheala; User, OHCA; Schaeffer-Helmecki, Jessica
Subject: RE: Docket No. 17-32170-CON : Applicant's Objection to Petition for Intervenor Status

Thank you

Kevin T. Hansted
Staff Attorney
Office of Health Care Access
Connecticut Department of Public Health
410 Capitol Avenue
Hartford, CT 06134
Phone: 860-418-7044
kevin.hansted@ct.gov

From: Carannante, Vincenzo [mailto:VCarannante@goodwin.com]
Sent: Friday, August 18, 2017 11:13 AM
To: Hansted, Kevin <Kevin.Hansted@ct.gov>
Cc: Riggott, Kaila <Kaila.Riggott@ct.gov>; Mitchell, Micheala <Micheala.Mitchell@ct.gov>; User, OHCA <OHCA@ct.gov>; Schaeffer-Helmecki, Jessica <Jessica.Schaeffer-Helmecki@ct.gov>
Subject: Docket No. 17-32170-CON : Applicant's Objection to Petition for Intervenor Status

Hello Kevin: Please see attached for our notice of appearance and partial objection to Dr. Sanchez's request for intervenor status.

Thank you,
Vin

Shipman & Goodwin LLP
COUNSELORS AT LAW

Vincenzo Carannante
Partner
One Constitution Plaza
Hartford, CT 06103-1919

Tel (860) 251-5096
Fax (860) 251-5211
vcarannante@goodwin.com
www.shipmangoodwin.com

User, OHCA

From: Schaeffer-Helmecki, Jessica
Sent: Friday, August 18, 2017 1:16 PM
To: Harry Sanchez
Cc: Carannante, Vincenzo; User, OHCA; Riggott, Kaila; Mitchell, Micheala; Durdy, Barbara
Subject: CON 17-32170 Hearing Ruling: Intervenor Status
Attachments: 17-32170- Ruling re Intervenor Status (002).pdf

Good Afternoon Harry,

Attached please find Hearing Officer Hansted's ruling on your request for intervenor status. Please confirm your receipt of this message at your earliest convenience.

Thank you,

Jessica

Jessica Schaeffer-Helmecki, JD, MPA
Planning Analyst, Office of Health Care Access
Connecticut Department of Public Health
410 Capitol Avenue, MS #13 HCA, Hartford, Connecticut 06134
P: (860) 509-8075|F: (860) 418-7053|E: jessica.schaeffer-helmecki@ct.gov

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

Raul Pino, M.D., M.P.H.
Commissioner

Dannel P. Malloy
Governor

Nancy Wyman
Lt. Governor

Office of Health Care Access

IN THE MATTER OF:

A Certificate of Need Application by
Hospital of Central Connecticut
Notice to Petitioner re: Request for Status

Docket Number: 17-32170-CON

RULING ON A PETITION FILED BY
HAROLD SANCHEZ, M.D.
TO BE DESIGNATED AS AN INTERVENOR

By petition dated August 17, 2017, Harold Sanchez, M.D. ("Petitioner") requested Intervenor status in the public hearing to be held by the Department of Public Health ("DPH") Office of Health Care Access ("OHCA") regarding the Certificate of Need ("CON") application of the Hospital of Central Connecticut ("Applicant") filed under Docket Number: 17-32170-CON.

Pursuant to Connecticut General Statutes § 4-177a, the Petitioner is hereby designated as an Intervenor with limited rights at the hearing scheduled for August 23, 2017 at 410 Capitol Avenue, Hartford, Connecticut. As an Intervenor with limited rights, the Petitioner may participate as indicated below.

The Petitioner is granted the right to inspect and copy records on file with OHCA related to the CON filed under Docket Number 17-32170-CON and shall be copied on all pleadings, correspondence and filings submitted from this point forward by the Applicant until the issuance of a final decision by OHCA. As an Intervenor with limited rights, the Petitioner may be cross-examined by the Applicant but the Petitioner may not cross-examine the Applicant.

The Petitioner shall file his prefiled testimony no later than 4:30 p.m. on August 21, 2017. OHCA will make any additional rulings as to the extent of the hearing participation rights of the Petitioner throughout the hearing in the interest of justice and to promote the orderly conduct of the proceedings.

Digitally signed by Kevin T. Hansted
Date: 2017.08.18 11:55:07 -04'00'

Kevin T. Hansted
Hearing Officer

Phone: (860) 418-7001 • Fax: (860) 418-7053
410 Capitol Avenue, P.O. Box 340308
Hartford, Connecticut 06134-0308
www.ct.gov/dph
Affirmative Action/Equal Opportunity Employer

User, OHCA

From: Mandavilli, Srinivas <Srinivas.Mandavilli@hhchealth.org>
Sent: Friday, August 18, 2017 2:20 PM
To: Schaeffer-Helmecki, Jessica
Cc: Riggott, Kaila; User, OHCA
Subject: Letter of Support for Certificate of Need, Application Docket Number 17-321070-CON
Attachments: LetterOfSupportCON.pdf

Dear Ms. Schaeffer-Helmecki,

Attached please find a letter of support with regard to Certificate of Need Application Docket Number 17-321070-CON.

Enjoy your weekend.

Sincerely,

Srinivas Mandavilli, M.D.

Srini Mandavilli, M.D.
Chief of Pathology & Laboratory Medicine
Senior Attending Pathologist
Department of Pathology & Laboratory Medicine
Hartford Hospital
Hartford, CT 06102
860-972-3369

Administrative Associate:
Megan Fuller
860-972-2249
Megan.fuller@hhchealth.org

Hartford Hospital
A Hartford HealthCare Partner

August 18, 2017

VIA EMAIL TO (Jessica.Schaeffer-Helmecki@ct.gov)

State of Connecticut
Department of Public Health
Office of Health Care Access
410 Capital Avenue
Hartford, CT 06134

RE: Support for Certificate of Need Application Docket #17-32170-CON

To whom it may concern:

I am writing in support of The Hospital of Central Connecticut's ("HOCC") Certificate of Need application to transfer its outreach laboratory operations to Quest Diagnostics ("Quest").

As the then Vice-Chief of the Pathology Department at Hartford Hospital, I witnessed the successful transition of the outreach laboratory services in the Hartford Hospital service area from Clinical Laboratory Partners, a Hartford HealthCare Corporation ("HHC") subsidiary, to Quest. By design, the transfer resulted in additional resources that are now available to support the core clinical operations throughout the HHC system. Importantly, though, the transfer was accomplished by Quest deploying resources and a diligent transition team determined to preserve the quality of the laboratory services. In fact, the clinical community has come to appreciate Quest's patient-friendly advanced technology (*e.g.*. Care 360 patient/physician portal with easily accessible laboratory results), ability to perform both standard and specialized complex testing (which, before, would typically be done in two steps by two different laboratories), and broad geographic array of drawing stations that have provided added convenience to patients (*e.g.*, particularly in the context of the need to direct a specimen for blood-matching to the transfusion service that provides the blood product, which historically required the patient to go to the facility where the surgery is to be performed).

As I am sure you are aware, HHC is a nonprofit charitable organization that is dedicated to the care of the communities that its hospitals serve. As purveyors of that community trust, it is incumbent upon the layers of volunteer directors and administrative professionals, along with the physician community, to adapt to the ever-evolving healthcare landscape. The recent creation of the Bone and Joint Institute and careful crafting of the relationships with world class partners such as the Memorial Sloan Kettering Cancer Center and Quest are key examples of that visionary leadership at work. Therefore, as the current proposal by HOCC is the product of such leadership and is likely to further the success achieved in the Hartford community, I encourage you to approve the application.

Hartford Hospital
A Hartford HealthCare Partner

Sincerely,

Srinivas Mandavilli, M.D.
Chief of Pathology & Laboratory Medicine, Hartford Hospital
860-972-3369

User, OHCA

From: Carannante, Vincenzo <VCarannante@goodwin.com>
Sent: Monday, August 21, 2017 3:51 PM
To: Hansted, Kevin
Cc: Riggott, Kaila; Mitchell, Micheala; User, OHCA; Schaeffer-Helmecki, Jessica
Subject: RE: Docket No. 17-32170-CON : Pre-Filed Testimony
Attachments: Docket No. 17-32170-CON.PDF

Follow Up Flag: Follow up
Flag Status: Completed

Hello Kevin: Please see attached for our pre-filed testimony for the above referenced matter.

Thank you,
Vin

Shipman & Goodwin LLP
COUNSELORS AT LAW

Vincenzo Carannante
Partner
One Constitution Plaza
Hartford, CT 06103-1919

Tel (860) 251-5096
Fax (860) 251-5211
vcarannante@goodwin.com
www.shipmangoodwin.com

From: Carannante, Vincenzo
Sent: Friday, August 18, 2017 11:13 AM
To: Hansted, Kevin (Kevin.Hansted@ct.gov) <Kevin.Hansted@ct.gov>
Cc: 'Kaila.Riggott@ct.gov' <Kaila.Riggott@ct.gov>; 'Micheala.Mitchell@ct.gov' <Micheala.Mitchell@ct.gov>; 'OHCA@ct.gov' <OHCA@ct.gov>; 'Schaeffer-Helmecki, Jessica' <Jessica.Schaeffer-Helmecki@ct.gov>
Subject: Docket No. 17-32170-CON : Applicant's Objection to Petition for Intervenor Status

Hello Kevin: Please see attached for our notice of appearance and partial objection to Dr. Sanchez's request for intervenor status.

Thank you,
Vin

Shipman & Goodwin LLP
COUNSELORS AT LAW

Vincenzo Carannante
Partner
One Constitution Plaza
Hartford, CT 06103-1919

Tel (860) 251-5096
Fax (860) 251-5211
vcarannante@goodwin.com
www.shipmangoodwin.com

SHIPMAN & GOODWIN LLP®
COUNSELORS AT LAW

Vincenzo Carannante, Esq.
Phone: (860) 251-5096
Fax: (860) 251-5211
vcarannante@goodwin.com

August 21, 2017

VIA EMAIL

Kevin Hansted, Esq.
Hearing Officer
Department of Public Health
Office of Health Care Access
410 Capitol Avenue, MS #13HCA
P.O. Box 34048
Hartford, Connecticut 06134-0308
Kevin.Hansted@ct.gov

Re: IN THE MATTER OF: DOCKET NO. 17-32170-CON

Dear Attorney Hansted:

On behalf of the Applicant in the above-referenced matter, enclosed please find:

1. Prefiled testimony for: (a) Lucille Janatka; (b) Joseph Vaccarelli; and (c) Dr. Salim Kabawat; and

2. Shipman & Goodwin's Certification that the above-referenced documents have been provided to Dr. Sanchez via email.

If you have any questions, please do not hesitate to contact me.

Sincerely yours,

Vincenzo Carannante

Enclosures

Cc: ohca.ct.gov

Certificate of Service

I hereby certify that true and correct copies of the foregoing prefiled testimony for (a) Lucille Janatka, (b) Joseph Vaccarelli and (c) Dr. Salim Kabawat were e-mailed this 21st day of August 2017 to:

Dr. Harold Sanchez at pathgrunt@gmail.com

Vincenzo Carannante, Esq.

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH
OFFICE OF HEALTH CARE ACCESS

IN RE: TERMINATION OF OUTPATIENT SERVICES OFFERED BY THE HOSPITAL OF CENTRAL CONNECTICUT

DOCKET NO. 17-32170-CON

August 21, 2017

PRE-FILED TESTIMONY OF LUCILLE JANATKA ON BEHALF OF THE HOSPITAL OF CENTRAL CONNECTICUT

Good morning, Attorney Hansted and staff of the Office of Health Care Access ("OHCA"). My name is Lucille Janatka and I am the Hartford HealthCare Senior Vice President and President of The Hospital of Central Connecticut ("HOCC"). I am very grateful for this opportunity to be here today to tell you why the above-referenced Application to transition five (5) of HOCC's outreach laboratory locations (the "PSCs") to Quest Diagnostics ("Quest") should be approved by OHCA.

HOCC is an acute care hospital and is a member organization of Hartford HealthCare Corporation, an integrated health care delivery system ("HHC"). HOCC operates five (5) PSCs at the following addresses:

1) 100 Grand St., New Britain, CT
2) 61 Hart St., New Britain, CT
3) 183 N. Mountain Rd., New Britain, CT
4) 360-1 North Main St., Southington, CT
5) 55 Meriden Ave., Southington, CT

As noted above, we are here today to seek OHCA's approval to transition HOCC's outreach laboratory services to Quest, a nationally recognized laboratory service provider.

As the Hospital's President, it is my duty to judiciously lead HOCC so that it may fulfill its mission and vision to improve the health care of the communities it serves. As

such, I am personally offended by any notion or statements to the contrary made by the Intervenor in his Petition for Intervenor Status dated August 17, 2017 (the "Petition"). The Intervenor is neither a fiduciary nor steward of HOCC nor is he even an employee of HOCC. The Intervenor is a service provider or vendor of HOCC and OHCA's decisions should not colored by a hospital's self-interested service providers or vendors.

As an actual fiduciary of HOCC, I am charged with the responsibility to allocate HOCC's resources in the most effective and efficient manner, especially given the uncertainty of the State budget and reimbursement scheme, balanced with federal health care reform. To achieve these objectives, HOCC is actively implementing major initiatives, cost restructuring, and strategies in order to better position the hospital for the changing health care payment and regulatory landscape. This includes transactions that will permit HOCC to focus on its core strengths and services. Certain services are performed better and more cost efficiently by other parties, such as Quest, with a national presence and scale in a high quality manner.

The proposal before you today is not unique to HOCC as many hospitals and health systems across the country, such as the Mount Sinai Health System in New York, have transferred their outreach laboratory services to quality national laboratories. Importantly, this type of transaction continues a prior transition by HHC. Quest recently continued the outpatient laboratory services formerly performed by Hartford HealthCare Laboratories (an HHC subsidiary a/k/a "CLP") including the transition of all of CLP's outreach laboratory business to Quest. In direct contradiction to any statements made by the Intervenor in his Petition, HHC, and its member hospitals and providers, are very happy with the quality and responsiveness of the services now provided by Quest. For example, please see Exhibit A

attached hereto which sets forth a letter provided to OHCA by the Chief of Pathology and Laboratory Medicine at Hartford Hospital and which clearly indicates the success of a similar transition and arrangement at Hartford Hospital.

Finally, it is important to note here that HOCC is not closing these five (5) PSCs and, thus, access will not be impacted negatively. In fact, access will be enhanced as will be explained by my colleagues here today. HOCC is transferring all five (5) PSCs to Quest, a world leader in the provision of quality laboratory and other diagnostic services. Its expertise and clinical quality is very high as Quest operates dozens of laboratories and more than 2,200 PSCs and serves approximately half of all doctors and hospitals in the U.S. In addition, if OHCA has any questions with respect to the quality of the services provided by Quest, we have here today Joseph Vaccarelli, Administrative Director of Radiology, Pathology, Laboratory Medicine, and Outpatient Clinics for HOCC and Salim E. Kabawat, M.D., Quest's Regional Medical Director, for the North Region. Both Mr. Vaccarelli and Dr. Kabawat will be more than happy to answer any questions OHCA may have with respect to Quest's services and quality.

In conclusion, I respectfully request that OHCA approve this Application for the reasons stated herein and our Application.

I adopt the foregoing pre-filed testimony as my own.

Lucille Janatka
President, The Hospital of Central Connecticut
Senior Vice President, Hartford HealthCare

Exhibit A

Hartford Hospital
A Hartford HealthCare Partner

August 18, 2017

VIA EMAIL TO (Jessica.Schaeffer-Helmecki@ct.gov)

State of Connecticut
Department of Public Health
Office of Health Care Access
410 Capital Avenue
Hartford, CT 06134

RE: Support for Certificate of Need Application Docket #17-32170-CON

To whom it may concern:

I am writing in support of The Hospital of Central Connecticut's ("HOCC") Certificate of Need application to transfer its outreach laboratory operations to Quest Diagnostics ("Quest").

As the then Vice-Chief of the Pathology Department at Hartford Hospital, I witnessed the successful transition of the outreach laboratory services in the Hartford Hospital service area from Clinical Laboratory Partners, a Hartford HealthCare Corporation ("HHC") subsidiary, to Quest. By design, the transfer resulted in additional resources that are now available to support the core clinical operations throughout the HHC system. Importantly, though, the transfer was accomplished by Quest deploying resources and a diligent transition team determined to preserve the quality of the laboratory services. In fact, the clinical community has come to appreciate Quest's patient-friendly advanced technology (*e.g,*. Care 360 patient/physician portal with easily accessible laboratory results), ability to perform both standard and specialized complex testing (which, before, would typically be done in two steps by two different laboratories), and broad geographic array of drawing stations that have provided added convenience to patients (*e.g.*, particularly in the context of the need to direct a specimen for blood-matching to the transfusion service that provides the blood product, which historically required the patient to go to the facility where the surgery is to be performed).

As I am sure you are aware, HHC is a nonprofit charitable organization that is dedicated to the care of the communities that its hospitals serve. As purveyors of that community trust, it is incumbent upon the layers of volunteer directors and administrative professionals, along with the physician community, to adapt to the ever-evolving healthcare landscape. The recent creation of the Bone and Joint Institute and careful crafting of the relationships with world class partners such as the Memorial Sloan Kettering Cancer Center and Quest are key examples of that visionary leadership at work. Therefore, as the current proposal by HOCC is the product of such leadership and is likely to further the success achieved in the Hartford community, I encourage you to approve the application.

Hartford Hospital
A Hartford HealthCare Partner

Sincerely,

Srinivas Mandavilli, M.D.
Chief of Pathology & Laboratory Medicine, Hartford Hospital
860-972-3369

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

OFFICE OF HEALTH CARE ACCESS

IN RE: TERMINATION OF OUTPATIENT SERVICES OFFERED BY THE HOSPITAL OF CENTRAL CONNECTICUT	**DOCKET NO. 17-32170-CON**
	August 21, 2017

PRE-FILED TESTIMONY OF JOSEPH VACCARELLI ON BEHALF OF THE HOSPITAL OF CENTRAL CONNECTICUT

Good morning, Attorney Hansted and staff of the Office of Health Care Access ("OHCA"). My name is Joseph Vaccarelli and I am the Administrative Director of Radiology, Pathology, Laboratory Medicine, and Outpatient Clinics for The Hospital of Central Connecticut ("HOCC"). I am very grateful for this opportunity to be here today to tell you why the above-referenced Application to transition five (5) of HOCC's outreach laboratory locations (the "PSCs") to Quest Diagnostics ("Quest") should be approved by OHCA.

As a result of serving in the capacity as the Administrative Director for the past ten (10) years at HOCC, I have particular insight and knowledge with respect to the diagnostic services provided by HOCC and the partnership we have forged and continue to develop with Quest. My testimony here today will provide OHCA with relevant information relating to:

1. The five (5) PSCs to be transitioned to Quest and the services and locations that will continue to be provided and operated by HOCC;

2. The exaggerated statements made by Dr. Harold Sanchez (the "Intervenor") in his petition for intervenor status dated August 17, 2017 (the "Petition"); and

3. The reasons why the transition to Quest will benefit our patients and physicians.

1. Five (5) PSCs to be transitioned to Quest and the locations/services that HOCC will continue to operate/provide.

As noted by Ms. Janatka, we are here today only to seek approval to transition to Quest the five (5) PSCs located at:

- 100 Grand St., New Britain, CT
- 61 Hart St., New Britain, CT
- 183 N. Mountain Rd., New Britain, CT
- 360-1 North Main St., Southington, CT; and
- 55 Meriden Ave., Southington, CT.

Moreover, please note that this Application does not include any of HOCC's inpatient or outpatient diagnostic laboratories and, most importantly, it does not seek to terminate any of the laboratory testing services offered by HOCC and/or provided by HOCC to its patients. The following laboratory locations/services will continue to be operated/provided by HOCC:

1. HOCC - New Britain General Campus: HOCC will continue to operate a full service laboratory at this location.[1]

2. HOCC - Out Patient Test Center: HOCC will continue to provide specimen collection for services that are part of a hospital outpatient visit (as distinguished from an outreach visit) at this location.[2]

3. HOCC - Bradley Campus: HOCC will continue to operate a full service laboratory at this location.[3]

4. HOCC Cancer Center (laboratory services only): HOCC will continue to provide cancer related laboratory services at this location.[4]

---

[1] Located at 100 Grand Street, New Britain CT 06050
[2] Located at 100 Grand Street, New Britain CT 06050
[3] Located at 81 Meriden Avenue, Southington CT 06489
[4] Located at 183 N. Mountain Road

HOCC's present proposal specifically and only relates to the five (5) aforementioned PSC locations and HOCC is not eliminating any diagnostic service that it currently provides to any inpatient or outpatient of HOCC.

2. Responses to the Intervenor's Petition statements.

On page 2 of the Petition, the Intervenor states that he would like to show "the adverse effects that followed the loss of HOCC's gynecologic cytology work to Quest a number of years ago". This is an exaggerated claim and mischaracterization of the facts by the Intervenor. In 2010, Dr. Barry Jacobs, the Chief of Pathology at HOCC and I, decided it would be best to outsource HOCC's gynecologic cytology work to Quest for a number of reasons including, declining volumes, financial viability of the program, and staffing concerns. In general, the gynecologic cytology work consisted of the reading of pap smears/tests. The initial process after the decision to outsource this service to Quest was to have Ob/Gyn physicians send the pap smear specimens for the pap smears/tests to HOCC's laboratory who would then send them to Quest for slides to be prepared for an initial screening. If the initial reading was negative (i.e. no abnormal results) the process would end there and the same would be reported to the Ob/Gyn physician who ordered the pap smear/test. If the result was abnormal, the slide would be sent by Quest back to HOCC for a pathologist from the Intervenor's private pathology practice (the "Pathology Practice" to review and report back to the Ob/Gyn. The initial review by Quest is known as the "technical component" and any review by a pathologist is known as the "professional component". We can only assume as to what the Intervenor alludes to in his testimony as an "adverse effect" is the Ob/Gyn physicians' temporary dissatisfaction

with this multi-step process. More importantly, upon learning about this dissatisfaction, HOCC and Quest agreed upon a solution or alternative process. More specifically, HOCC and Quest implemented a new process by which the Ob/Gyn physicians would simply send their pap/smear specimens directly to Quest (i.e. eliminated the HOCC / "middleman"), Quest would perform both the technical and professional component of the test, and Quest would report its results directly back to the ordering Ob/Gyn physicians. On all accounts and based upon my conversations with involved physicians, the Ob/Gyns are very happy and satisfied with this arrangement. The only person I am aware of that is not happy with this arrangement is the Intervenor as via the elimination of the "middleman" it eliminated a source of income for the Intervenor's Pathology Practice in relation to the abnormal tests the pathologists from the Pathology Practice used to read for the Ob/Gyns when Quest sent the Pathology Practice abnormal pap slides for their review.

On page 3 of the Petition, the Intervenor states that for "complicated cases which require special tests ... when the same system was put in place at Hartford Hospital, some physicians found it unacceptable and demanded that their specimens be processed in house." The only issues I am aware of that occurred during the initial phase of Hartford Hospital's arrangement with Quest and special tests relates to breast and prostate biopsies. More importantly, these two situations magnify and demonstrate one of the reasons why we believe the Quest arrangement will work for HOCC as well. First, as to the breast biopsy readings, the pathologists at Hartford Hospital did not like the new breast biopsy reading process with Quest and asked that an alternative process be

implemented. Quest and Hartford Hospital agreed on the new process which is still in effect today. Most notably, the same physician that "demanded" that the process be kept in place around 18 months ago has also submitted a letter of support for this proposal and has cited several reasons why Hartford Hospital's partnership with Quest is flourishing including, without limitation, by stating that:

> "the transfer resulted in additional resources that are now available to support the core clinical operations throughout the HHC system. Importantly, though, the transfer was accomplished by Quest deploying resources and a diligent transition team determined to preserve the quality of the laboratory services. In fact, the clinical community has come to appreciate Quest's patient-friendly advanced technology (*e.g.*. Care 360 patient/physician portal with easily accessible laboratory results), ability to perform both standard and specialized complex testing (which, before, would typically be done in two steps by two different laboratories), and broad geographic array of drawing stations that have provided added convenience to patients (*e.g.*, particularly in the context of the need to direct a specimen for blood-matching to the transfusion service that provides the blood product, which historically required the patient to go to the facility where the surgery is to be performed)."

The only other initial transition issue that I am aware of at Hartford Hospital was certain physician concerns with the new manner in which Quest reported prostate biopsy results. The Hartford Hospital associated physicians were used to receiving reports with a pictogram which indicated a spectrum of results. Quest did not report its results in this manner. Accordingly, Quest and Hartford Hospital agreed that until Quest develops a pictogram result process to the satisfaction of Hartford Hospital's physicians, the current process will remain in place.

While we believe these "issues" raised by the Intervenor are irrelevant to the specific proposal before OHCA today, we find these issues to be positives as in every instance, Quest came up with a solution or an accommodation that satisfied all parties involved. Quest, if needed, will make the same accommodations for HOCC.

3. Reasons why the transition to Quest will benefit our patients and physicians.

HOCC's patients and physicians will benefit from this Proposal. First, and contrary to the Intevenor's assertions, Quest will offer and present many advantages to our patients who visit the five (5) PSCs. More specifically, when it relates to blood draw stations or patient service centers, one of the most important aspects is access and the type of access provided by a patient service center. If OHCA approves this proposal, subsequent to the transition to Quest, patient access will not only be maintained, but more importantly, it will be enhanced and improved as described below.

a. Quest PSC Locations. In addition to these five (5) PSCs, Quest operates fifteen (15) other PSCs within eight (8) miles of HOCC's New Britain campus and twelve (12) other PSCs within eight (8) miles of HOCC's Southington campus. Quest's numerous, proximally located PSCs will maintain and enhance access to patients.

b. Quest Appointment Scheduling System: Quest PSCs offer appointment scheduling. This allows patients to make an appointment ahead of time and avoid the risks of delays that can occur with walk-ins.

c. Quest Electronic Check-in System: Quest permits patients to check-in electronically. This system also includes a waiting room management feature which informs the patient how long (approximately) until the patient will be seen by the next available phlebotomist. This feature will allow patients to determine if they want to stay and wait, come back at a later time after

accomplishing some other objective, go to a different location, or simply return another day.

These aforementioned capabilities are not present at or offered by HOCC's PSC locations and patient access will undoubtedly be enhanced if OHCA approves this proposal. In addition, please note that Quest will offer a free downloadable software application known as Quest's MyQuest Application which will provide patients with the following benefits:

a. allows patients to access their own test results on their computers or smart phones without having the need to wait for physician appointments or calls;
b. allows patients to schedule and receive medication reminders; and
c. allows patients to schedule appointments and find nearby Quest patient service centers.

As a reminder, this proposal is in relation to the transition of five (5) PSCs to Quest only. However, and if relevant to OHCA, we, in conjunction with Quest are more than happy to discuss the other aspects of our partnership with Quest and the reasons why our patients and associated physicians will benefit from this arrangement. Accordingly, we have also invited here today Salim E. Kabawat, M.D., Quest's Regional Medical Director, for the North Region. Dr. Kabawat will be more than happy to answer any questions OHCA may have with respect to why Quest's facilities, services policies and procedures will enhance the services provided to HOCC's patients and physicians including, without limitation, how:

1. Quest has developed and continues to refine technology for electronic order entry and result access by patients and physicians. Quest has a well-integrated, robust information system, with excellent support, enabling them

to provide physicians with result access options that do not currently exist at HOCC;

2. Quest can manage very complex testing. Much of the work we refer to Quest will now go directly to the testing location at Quest from their PSC with no intermediate stop at HOCC and by extension no additional handling or transfers;
3. Quest has dedicated client support and client services team which allow for rapid response to everything from clinical inquires, logistical items, and IT solutions/resolutions;
4. Quest provides rapid access to physicians who are specialists in their respective fields. The pool of individuals and proprietary data bases from which they can access information allows for information to reach local physicians from Quest resources both locally and across the country;
5. Quest's tissue transport logistics, policies and procedures that ensure the integrity of samples for testing; and
6. The quality and capabilities of Quest's state of the art diagnostic laboratory in Marlborough, Massachusetts.

In conclusion, I respectfully request that OHCA approve this Application for the reasons stated herein and our Application.

I adopt the foregoing pre-filed testimony as my own.

Joseph Vaccarelli

Joseph Vaccarelli
Administrative Director of Radiology, Pathology,
Laboratory Medicine, and Outpatient Clinics for
The Hospital of Central Connecticut

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

OFFICE OF HEALTH CARE ACCESS

IN RE: TERMINATION OF OUTPATIENT SERVICES OFFERED BY THE HOSPITAL OF CENTRAL CONNECTICUT

DOCKET NO. 17-32170-CON

August 21, 2017

PRE-FILED TESTIMONY OF SALIM E. KABAWAT, M.D. ON BEHALF OF THE HOSPITAL OF CENTRAL CONNECTICUT

Good morning, Attorney Hansted and staff of the Office of Health Care Access ("OHCA"). My name is Salim E. Kabawat, M.D. and I am Regional Medical Director, North Region for Quest Diagnostics ("Quest"). A copy of my CV is attached for your reference. In summary, I completed residencies in anatomic pathology and anatomic and clinic pathology at Boston University Medical Center and Brigham and Women's Hospital, respectively, I completed my fellowship at Massachusetts General Hospital, and I have been in the practice of pathology for over twenty (20) years. I am here today to support the Applicant's proposal to transition five (5) of HOCC's outreach laboratory locations (the "PSCs") to Quest and I am here to answer any questions OHCA may have regarding Quest's clinical services or operations.

I. Quest's Experience:

In relation to the proposal before OHCA today, Quest has entered into the same type of arrangement with over 100 hundred hospitals / health systems across the country. Not only does this reflect or support the soundness of HOCC's decision, it also demonstrates that Quest is experienced and capable of handling this transition if OHCA were to approve it. Even more significant, is the fact that Quest successfully handled an almost identical transition by other Hartford HealthCare hospitals including, Hartford

Hospital. This transition was much larger in scope (i.e. much larger volume of diagnostic services at Hartford Hospital than HOCC) and, by all accounts, this transition has been very successful to the satisfaction of all parties involved.

II. Quest's Quality and the Benefits HOCC Physicians and Patients Will Receive

A. Patient services:

As noted by Mr. Vaccarelli's testimony, Quest's patient services centers provide patients with enhanced access via: (1) appointment scheduling; (2) E-Check-in and waiting room management; (3) and My Quest applications for a patient's computer and/or smart phone. If OHCA desires any other details in addition to what Mr. Vaccarelli has already provided to OHCA, please let me know.

B. Logistics.

I oversee Quest's quality programs including transportation logistics to ensure that the integrity of the tissues/specimens are not compromised. Such quality programs, policies and procedures include:

1. Pre-programmed bar code scanners for each and every courier who picks up specimens at a patient services center. The pre-programmed scanners ensure that all pick-up locations (including areas or locations within the patient services center) are visited by the courier;

2. Use of scanners to log-in and track all specimens picked up by a courier which includes real-time route updates for client call-ins for pick-ups;

3. Location scanning which informs the courier if the relevant specimen must be maintained in an ambient (i.e. room temperature, refrigerated, or frozen) environment; and

4. All Quest courier vehicles being equipped to store specimens in ambient, refrigerated, frozen environments.

I would also like to respond here to the Intervenor's comments that he made in his petition for intervenor status dated August 17, 2017 (the "Petition"). The Intervenor claims that shuttling specimens and slides back and forth over ninety (90) miles will introduce additional handoffs, errors and loss. This is simply not the case.

First, it is important for OHCA to understand the operation of patient services centers (a/k/a outreach or blood draw locations) that are the subject of the present Proposal. Over ninety nine percent (99%) of the services provided at these five (5) PSCs relates to clinical pathology services as opposed to anatomic pathology services. In general, this means these PSCs, like all other blood draw stations, focus on and serve individuals who: (a) have received a laboratory requisition or order from a physician to obtain laboratory services; and (b) come to the PSC to see a phlebotomist who will obtain a blood and/or urine sample as appropriate for the diagnostic services ordered by the physician. Blood draw stations or PSCs do not relate to or provide services in relation to anatomic pathology services. In general, for anatomic pathology services, this is the scenario in which some form of tissue or other biological specimen is obtained by a provider (e.g. via a biopsy) and the tissue or specimen is sent to a pathologist for his/her professional review.

The very essence of a patient service center or outreach location is that some form of specimen is collected at the PSC and picked up by a courier or other service and transported to a laboratory for testing. This is the same exact process that is in place now with HOCC-operated PSCs (i.e. HOCC still needs to pack, store, pick up and transport specimens). The fact that the specimens will now be picked up by a Quest courier versus an HOCC courier and transported ninety (90) miles is clinically irrelevant and insignificant, especially with the policies and procedures Quest has in place to maintain

specimen integrity as described herein. To put the ninety (90) miles in context, Quest has other outreach or patient service arrangements in rural areas where the specimens are transported close to 1000 miles and, again, there are no issues with specimen integrity. This is not to mention that we also transport specimens from Connecticut to California or Connecticut to Virginia for special reference laboratory testing, when needed, and again, there are no issues with specimen integrity.

Moreover, for the services that run through PSCs, there is no shuttling back and forth as claimed by the Intervenor. The patients who visit these PSCs are, in general, there for routine lab work and once the specimens are collected, they are sent directly to a Quest laboratory (i.e. they are delivered to one of Quest's stats laboratories in CT or their main laboratory in Marlborough , Massachusetts). Quest's laboratory then performs the testing and sends the results directly back to the ordering physician.

C. Ordering Physician Connectivity.

If this Application is approved, physicians will have access to electronic ordering and results that will be sent directly into their medical records / systems. In addition, physicians will be able to access laboratory results anywhere with a smart phone. Again, this enhances the physician experience, which allows the applicable physician to enhance his/her patient's services and experience.

D. Laboratory.

In 2014,, Quest completed the building of its laboratory in Marlborough, Massachusetts (the "Laboratory"). I am very proud to state that this Laboratory is state of the art and known or referenced to as a laboratory of the future. Just some of its amazing characteristics or capabilities are listed below:

1. Full automation: The Laboratory offers fully automated and robotic specimen handling (e.g. centrifugation, sorting, decapping, loading and unloading of instruments, storage of specimens) for approx.. 80% of its testing which involves/requires little human intervention and thereby reduces possibility for error. In addition, the robotic or automated aliquoting process enhances patient PSC experiences as it permits the laboratory to require less blood for testing which, in turn, means patients need to provide less blood during collection at the PSC.

2. Microbiology Capabilities: The Laboratory can perform Automated plating (i.e. robots doing streaking of plates), which again, minimizes the chance for human error. Even more impressive is the availability of our MALDI-TOF laser application. With this equipment, we are able to identify microbes (e.g. a bacteria that is causing a patient issue) within 1 hour instead of 24 or more hours a typical laboratory, such as HOCC's, would take to grow a culture and then identify the microbe.

3. Cytology: The Laboratory has location-guided automated screening (HOLOGIC Imager, BD Focal point) and on-site testing for HPV by the latest HPV TMA technology for mRNA.

4. In-House Redundancies: The Laboratory's scope and size provides built-in redundancies in equipment and personnel, which protects from staffing or equipment failure generated down-time.

5. On-site Faculty: UMass Faculty are on site (7 PhD's and / or MD's) at the Laboratory providing medical and scientific oversight and peer-to-peer conversations with physicians, which provides continuous education and exposure to the latest developments in laboratory medicine.

6. Reference laboratory testing: Large local menu in Marlborough with Cytogenetics and Molecular Diagnostics on site. In addition, the Laboratory is proximate to Worcester Airport if usage of company-owned QuestAir is needed for testing services.

7. Access & Turn-Around-Times ("TAT"): As it relates to clinical pathology services, routine laboratory results will be submitted electronically to the ordering physicians by 8:00 am the next morning. If emergency or STAT testing is needed, Quest has five (5) local locations where STAT testing is available for HOCC specimens including at its locations in Wallingford, Torrington, Hartford, Stratford, and Norwich.[1] The TAT for emergency or

[1] The Norwich location will be operational in October of 2017.

> STAT testing is generally four (4) hours. As a reminder, the overwhelming majority of PSC lab services relate to routine lab work. As it relates to anatomic pathology services, it should be noted that our Laboratory offers much more testing and access that HOCC's laboratory does. More specifically, the Laboratory provide anatomic pathology testing services 24 hours a day Monday through Friday and 8 hours on Saturday and 8 hours on Sunday. The HOCC laboratory provides anatomic pathology services just for 11 hours Monday through Friday, 4 hours on Saturday and is closed on Sundays.

In light of the foregoing and Mr. Vaccarelli's, any statements made by the Intervenor or anyone else that patients and/or physicians will not receive any advantages or benefits if this Proposal is approved, are simply and literally incorrect. We are looking forward to working with the Intervenor and the other pathologists at HOCC to deliver quality patient care and, as we have in the past, will maintain solid professional relations through frequent meetings and consultations. I am happy to answer any and all of OHCA's questions.

I adopt the foregoing pre-filed testimony as my own.

August 21, 2017

Salim E. Kabawat, M.D.
Regional Medical Director, North Region
Quest Diagnostics

Curriculum Vitae.

Salim E. Kabawat, M.D.

200 Forest St, Marlborough, MA 01752| **phone** 774.843.3522 | **fax** 610.271.4260
|salim.e.kabawat@questdiagnostics.com|

Current Positions:

Anatomic and Clinical Pathology Regional Medical Director, Quest Diagnostics, North Region 2013-

CLIA Director of Laboratory, Quest Diagnostics, 200 Forest St Marlborough MA 01752 2014-

CLIA Director of Laboratory, Harvard University Health Services, 75 Mt Auburn St, Cambridge, MA 02138, 2001-

Previous positions:

Director, Pathology Department and Medical Director, Quest Diagnostics (formerly Bioran, Corning-Bioran and Corning Clinical Laboratory), Cambridge, Massachusetts, 1993-2013.
Associate Pathologist, Bioran Medical Laboratory, 1984-1993
Associate Pathologist, Somerville Hospital, 1984-1997

Training:

Fellowship 1982-1984:	**Immunopathology** Massachusetts General Hospital, Boston, Massachusetts.
Residency:	**Gynecologic and Neonatal Pathology and Cytology**
1980-1981	Brigham and Women's Hospital, Boston, Massachusetts.
1978-1980	**Clinical Pathology** University Hospital, Boston, Massachusetts.
1977-1978	**Anatomic Pathology** Mallory Institute of Pathology and Boston VA Hospital, Boston, Massachusetts.

Education:

1969-1975	University of Damascus Medical College Damascus, Syria, M.D. 1975 (Honors).

Board Certifications:

1981	**American Board of Pathology, Anatomic and Clinical.**
1984	**Immunopathology**, Special Qualification.
1995	**Cytopathology,** Special Qualification.

License: Massachusetts (#42271), FLEX (1977).
RI, NH, CT (2008)

Academic appointments:
Assistant Clinical Professor in Pathology, Tufts Medical School, 1996-2014.
Fellow in Clinical Pathology, Mallory Institute of Pathology, 1978-1980.
Research and Clinical Fellow, Harvard Medical School, 1981-1984.
Instructor in Pathology, Tufts Medical School 1984-1996

Professional Societies: U.S.-Canada Academy of Pathology, 1983-
New England Society of Pathologists, 1985-
International Academy of Cytology, 1998-
College of American Pathologists, 1993-
Massachusetts Medical Society 2000-

Citizenship: U.S.

Community activities:

Clinical Laboratory Directors Representative, Medicare Carrier Advisory Committee, NHIC, 1998-present
Member, Board of Overseers, Museum of Science, Boston, 2010-2017
Member, The Forsyth Institute rDNA Biosafety Committee, 2010-
Member, Mayor's Red Ribbon Committee on Central Square Cambridge, 2010
Chair, Board of Trustees, Prospect Hill Academy, 2005-2008
Co-chair Board of Trustees, Somerville Charter School, 1999-2001
Vice-Chairman and Treasurer, Board of Trustees, Cambridge Montessori School 1990-1996).
Co-chair, Small Property Owners Association of Cambridge, Massachusetts (1990-1992).
Treasurer, Mass. Homeowners Coalition (1993-1996).
Coach, Cambridge Youth Soccer (1992-1998).
Member, then honorary member, Board of Trustees, Prospect Hill Academy, 1998-

Publications:

Kabawat SE, Mostoufi-Zadeh M, Driscoll SG & Bhan AK.
Implantation site in normal pregnancy. A study with monoclonal antibodies.
Am J Pathol 1985 Jan;118(1):76-84

Kabawat SE, Bast RC Jr, Bhan AK, Welch WR, Knapp RC & Colvin RB.
Tissue distribution of coelomic-epithelium-related antigen recognized by the monoclonal antibody OC125.
Int J Gynecol Pathol 1983;2(3):275-85

Kabawat SE, Bast RC Jr, Welch WR, Knapp RC & Bhan AK.
Expression of major histocompatibility antigens and nature of inflammatory cellular infiltrate in ovarian neoplasms.
Int J Cancer 1983 Nov 15;32(5):547-54

Berkowitz R, Kabawat S, Lazarus H, Colvin R, Knapp R & Bast RC Jr.
Comparison of a rabbit heteroantiserum and a murine monoclonal

antibody raised against a human epithelial ovarian carcinoma cell line.
Am J Obstet Gynecol 1983 Jul 15;146(6):607-12
Kabawat SE, Bast RC, Welch WR, Knapp RC & Colvin RB.
Immunopathologic characterization of a monoclonal antibody that recognizes common surface antigens of human ovarian tumors of serous, endometrioid, and clear cell types.
Am J Clin Pathol 1983 Jan;79(1):98-104

Kabawat SE, Mostoufi-Zadeh M, Berkowitz RS, Driscoll SG , Goldstein DP & Bhan AK.
Implantation site in complete molar pregnancy: a study of immunologically competent cells with monoclonal antibodies.
Am J Obstet Gynecol 1985 May 1;152(1):97-9

Kabawat SE, Preffer FI & Bhan AK, Monoclonal antibodies in diagnostic pathology, in Handbook of monoclonal antibodies, MP Dierich & S Ferrone eds., Noyes Publishing, New Jersey pp. 293-328, 1985.

Todd RF, Bhan AK, Kabawat SE & Schlossman SF. Human myelomonocytic antigens defined by monoclonal antibodies. In Human leukocytes markers detected by monoclonal antibodies. A Bernard & L Boumsell eds., Springer-Verlag, pp 424-433, 1984

Diaz-Rosario LA, & Kabawat SE, Performance of a fluid-based thin layer Pap smear method in the clinical setting of an independent laboratory and an out-patient screening population in New England. Arch Pathol Lab Med. 1999 Sep; 123(9):817-21

Diaz-Rosario LA, & Kabawat SE, Cell block preparation by inverted filter sedimentation is useful in the differential diagnosis of AGUS in ThinPrep specimens. Cancer Cytopath, 2000;90:265-72

Workshop:
WHO workshop on antibodies to human trophoblast and sperm antigens. Work by Kabawat SE and Bhan AK presented in Toronto on June 30 1986 and documented in:
Anderson DJ; Johnson PM; Alexander NJ; Jones WR; Griffin PD
Monoclonal antibodies to human trophoblast and sperm antigens: report of two WHO-sponsored workshops, June 30, 1986--Toronto, Canada.
J Reprod Immunol 1987 Mar;10(3):231-57

Abstracts:
Kabawat SE, Bast RC Jr, Bhan AK, Welch WR,Knapp RC & Colvin RB.
Tissue distribution of coelomic-epithelium-related antigen recognized by the monoclonal antibody OC125.
Lab Invest 48:42A, 1983 (presented in USCAP meeting, Atlanta GA, 1983).

Diaz-Rosario LA, & Kabawat SE, Cell block preparation by inverted filter sedimentation is useful in the differential diagnosis of AGUS in ThinPrep specimens. Modern Path 13:173A, 2000 (presented in USCAP meeting, New Orleans 2000).

User, OHCA

From: Harry Sanchez <pathgrunt@gmail.com>
Sent: Monday, August 21, 2017 3:06 PM
To: Carannante, Vincenzo; User, OHCA; Schaeffer-Helmecki, Jessica; Sharon Johnson
Subject: Testimony for the Upcoming Public Hearing
Attachments: Testimony.docx

Attorney Carannante and OHCA,

Attached please find the written testimony for the public hearing scheduled for Wednesday August 23. I will be happy to answer any questions you may have about it.

I can also be reached by cell phone at 203-314-1009.

I look forward to meeting you all.

Harry Sanchez

Testimony of Intervenor Harold Sanchez, MD
Regarding the Application for a Certificate of Need in the
Sale of Hospital of Central Connecticut Outreach Laboratory Work
To Quest Diagnostics
(Docket Number: 17-32170-CON)

Office of Health Care Access
Department of Public Health
410 Capitol Avenue
Hartford, CT 06134

My name is Harold Sanchez, MD. I reside at 20 Mulberry Road, Woodbridge, CT 06525. I have worked as a pathologist at the Hospital of Central Connecticut (HOCC) since 1995, and I write to you on behalf of a group of committed colleagues who work in various divisions of the hospital laboratory. I contacted the Office of Health Care Access (OHCA) in June 2017 to request a public hearing on the application by Hartford Healthcare (HHC) for a certificate of need (CON) from the OHCA which would allow HHC to sell HOCC's outreach laboratory work to Quest Diagnostics in Marlborough, Massachusetts. After reviewing the applicable statutes and regulations, HHC's application for a CON, and the applicable scientific and trade literature, and after discussion with members of the laboratory and clinical staff, my colleagues and I are convinced that the proposed sale would be detrimental to HOCC's patients and to the hospital itself.

Specifically, we believe that the application fails to meet OHCA's criteria for an acceptable CON application as outlined in 19a-639 in the following ways:

1. The application fails to satisfactorily demonstrate that the proposed transaction will improve the quality, accessibility and cost effectiveness of health care delivery in the region.
2. The application fails to satisfactorily demonstrate that the sale of outpatient work to Quest will not negatively impact the diversity of health care providers and patient choice in the geographic region.

Furthermore, we believe that the CON application, while compliant with statutory requirements, is incomplete and misleading in the following ways:

1. We believe that the claims made in the application are offered without appropriate literature support or expert opinion to substantiate them.
2. We believe that the application neglects to adequately discuss the outreach anatomic pathology component of the proposed transaction with Quest and its potential implications.
3. We believe that the characterization of the outreach laboratory service as something other than a core service is simply wrong.
4. The statement that Quest can provide either better quality or more efficient service is demonstrably false.

5. The impact of the sale on our patients and clinical staff are characterized as minimal despite what we believe is data to suggest otherwise and without directly surveying either the clinical staff or the patients in our community.
6. The economic arguments which are the driving force behind the proposal are offered without evidence that appropriate alternatives were investigated.

My colleagues and I love our hospital, and we are committed to the care of its patients. We are experienced laboratory professionals with decades of service to HOCC, and we are intimately familiar with the community we serve, the clinicians in that community, and the workings of the hospital laboratory. We want nothing more than for the hospital to fulfill its mission in the community. Our motive in appearing before the OHCA today is to help the hospital do just that.

We respectfully ask that OHCA deny HHC's request for a CON.

ARGUMENTS

Outreach Laboratory Service is a Core Service

The application states that shedding the outreach laboratory service will allow HOCC to focus on its core services. We strongly disagree. Outreach laboratory work ***is*** a core service. The outreach laboratory service not only generates income for the hospital, it also connects the hospital to the community and reinforces crucial patterns of referral to the hospital. In short it helps integrate the hospital into the community that it serves. Loss of outreach laboratory work leads not only to the loss of the lab work itself. The loss of the connection to the diagnostic hospital lab can lead to a loss in the follow up testing and further care of the patient. That is to say, when a patient's lab work leaves the hospital, the rest of that patient's care may follow.

For an illustration of this fact we need look no further than HOCC and its decision in 2009 to sell its outreach gynecologic cytology (Pap smear) lab service to Quest. Compelling economic arguments for the sale were offered. Quest was touted as offering cheaper and more efficient service. The downstream impacts of the sale were said to be minimal. The gynecologic cytology service was sold to Quest, and in calendar year 2009 HOCC accessioned 24,400 Pap smears. By 2011, the number of Pap smears accessioned fell to 1,786. So far in 2017 we have accessioned 17 Pap smears.

But the hospital lost far more than just Pap smears. The number of cervical biopsies and other gynecologic procedures, which often follow an abnormal Pap smear, also fell dramatically. A search of the HOCC pathology information system, Copath, for final diagnoses for all gynecologic cases which contained the terms "cervix", "cervical", or "biopsy" yielded the following numbers of results:

Calendar Year	Number of results
2007	556
2008	586

2009	564
2010	456
2011	184
2012	117
2013	120
2014	120
2015	131
2016	125

The time available precludes a more detailed analysis, but the trend of the results is obvious. The loss of Pap smears coincided with a loss of other gynecologic procedures. When the gynecologic biopsies in the busiest year studied is compared to the slowest year, the decline is about 80%.

The loss of cytology and biopsies also has other unintended and undesirable consequences. Before 2009, the Pap smear slides were kept in HOCC and were easily available for comparison and correlation with follow up biopsies. Discrepancies between cytology and biopsy could be quickly and efficiently analyzed and resolved. After 2009 the slides were kept at Quest and this ability was lost. In addition, the loss of Pap smear and gynecologic biopsy volume meant that there was a dramatic decrease in the number of these specimens seen by any one pathologist. A pathologist's proficiency in interpreting a type of specimen depends in no small part on that pathologist's exposure to and experience with that specimen type. Loss of volume threatens loss of proficiency.

We would be happy to perform a more detailed analysis of the downstream effects of the sale of the Pap smear business if OHCA would find that helpful.

Outreach laboratory work does comprise a core service and its loss has a predictable and detrimental effect on the volume and quality of related hospital work.

HOCC's Hospital Lab Can Perform Routine Lab Services Better and More Efficiently Than Quest

Quality: The applicants contend that the laboratory work in question can be performed better and more efficiently by Quest Diagnostics than by the HOCC hospital laboratory. This is simply false. Moving the outreach work to Quest offers no improvement in quality.

For the menu of tests offered at HOCC, the instruments, reagents, and protocols are similar if not identical to the ones used at Quest. Our contingent of laboratory technologists is among our greatest assets. Their training and experience are second to none. HOCC's hospital lab is accredited by the College of American Pathologists. The lab undergoes top to bottom annual inspections that alternate between inspections by investigators from outside laboratories one year, and thorough self inspections the next. The lab staff also performs peer inspections of

other hospital labs, a process that helps keep the staff abreast of alternative approaches and techniques. The lab is also included in some periodic inspections by the Joint Commission. In short, the quality of the personnel, instrumentation, and testing available for the menu of lab services offered at HOCC is equal or superior to comparable services at Quest.

Quest undeniably offers a more extensive menu of laboratory tests than HOCC. But HOCC already has access to all of those tests through our contract to use Quest as a reference laboratory. Moving our outreach work to Quest will not improve the quality of the lab work. In meetings and conversations with administrators, clinicians, and laboratory professionals, no one has disputed this fact.

Efficiency: Furthermore, shuttling specimens and slides back and forth over ninety miles between New Britain and Marlborough will do nothing to improve the efficiency of the process. On the contrary, such an arrangement introduces additional handoffs and increases opportunities for errors and loss.

The testing cycle, the entire process of laboratory testing from specimen collection to report generation, can be separated into three phases: the preanalytic phase, the analytic phase, and the postanalytic phase. The analytic phase (the actual testing of the specimen once it is received by the lab) is largely described above under the heading of Quality. The analytic phase is the area that the lab itself often has most direct control of, and it is typically the source of fewest errors. The majority of significant laboratory problems arise during the preanalytic phase which includes specimen collection, labelling, and transport. It is here that the HOCC lab enjoys the greatest advantage over Quest. A comparison of the preanalytic phase of the anatomic pathology outreach service at HOCC and the prenanalytic phase in the proposed arrangement will serve as an illustration.

Currently, physician office biopsies are collected and labelled in the doctor's office. They are then transported from those offices in nearby communities to the HOCC lab. The biopsies are processed in surgical pathology and delivered to histology, located a few steps away. The histology lab produces slides, and the slides are distributed to HOCC pathologists located just down the hall the next day. The pathologists review the slides and produce diagnostic reports that are available immediately in the HOCC hospital information system. If the pathologists need additional tests, they can request them from histology and, if the request is received before 10:30 AM, the results are available the same day. Unexpected results, by Pathology department policy, are phoned or texted to the ordering physician as soon as they are available.

If the CON is granted and physician office biopsies are processed at Quest, the tissue specimens will be collected and labelled at the physician office as before. They will then be transported by courier ninety miles to the Quest labs in Marlborough where they will be processed, and glass slides will be produced. Those glass slides will then be transported ninety miles back to New Britain where they will be reviewed by HOCC pathologists. Pathology reports will be entered

into the Quest computer system which is separate from the HOCC system. If additional testing is needed, it is unlikely to be available to the pathologist until at least the following day.

The Quest preanalytic phase is more susceptible to unpredictable weather and traffic conditions. The tissue and slides will travel over greater distances, more time will be involved, and the response to unanticipated events like the need for special testing and the reporting of unexpected results will be less agile and slower. The arrangement with Quest will inevitably result in delays which will have an impact on the efficiency, timeliness, and quality of patient offered at HOCC.

Safety: The proposed sale will result in a process that will be more complex and involve more handoffs (exchanges of specimens and information between people or systems). Both increased complexity and increased handoffs have been shown in numerous studies to increase the chance for serious errors (please see Exhibit A). HOCC has invested heavily in creating a culture of safety. A consulting firm was hired to analyze hospital operations and suggest areas for improvement. Data were collected. Mandatory safety and high reliability training sessions were instituted for all hospital staff, professional and non-professional. These changes were instituted at considerable cost. The proposed system runs counter to this initiative and to HOCC's commitment to safety as a core value.

The scenario outlined in the above comparison is not merely theoretical. When the same system was put in place at Hartford Hospital following the sale of outpatient lab work to Quest, some physicians (notably breast surgeons) found it unacceptable. The turnaround times adversely impacted the delivery of prompt care. These clinicians demanded that their specimens be at Hartford Hospital. Testimony from the Hartford Hospital histology laboratory and breast surgeons can be submitted at a later date if OHCA will permit it.

The Applicant's Economic Arguments are Offered Without Evidence That Alternatives Were Adequately Considered

The application suggests that the proposed sale is necessary for the continued economic well being of HOCC. The application further claims that no scholarly articles are needed to support its proposal. There is, in fact, a literature that deals with the sale of hospital outreach work to large commercial laboratories. As outlined in Exhibit B, there is recognized expert opinion published in books and professional journals that contests the applicant's claim that the economic challenges faced by the hospital leave no choice but to sell the outreach lab service.

Consultants and laboratory managers offer multiple examples of hospitals that have successfully chosen to say no to offers from large commercial labs. They have found ways to focus on generating revenue (by investing in the lab, improving their marketing, and reanalyzing their business practices) rather than focusing solely on cutting expenses (by dismissing employees and shedding facilities). There is, of course, expert opinion which supports the sale of hospital outreach work to large commercial labs, but the issue can hardly

be characterized as definitively decided. At very best there is a healthy difference of opinion on the matter.

The applicant has made no discernible effort to demonstrate that other viable options were explored before agreeing to the proposed sale, a sale which (as outlined above) carries the potential for serious adverse effects on patient care.

The Application is Incomplete and Misleading

The application claims that the proposed sale is strictly limited to the five patient service centers listed in the application. This limited transaction, it claims, will not impact or affect any of the laboratory testing services offered by HOCC and/or provided by HOCC to its patients. This is only partially true. The transfer of ownership of the patient service centers by itself will not have a significant impact or effect. But the agreement being drafted between HOCC and Quest goes well beyond that. As discussed in the announcements of the proposed sale and in a meeting between the administration and the laboratory staff, the agreement will also reroute all physician office tissue biopsies and cytology specimens (formerly handled by HOCC labs) to Quest. This aspect of the agreement is not adequately discussed.

The application also implies the support of hospital staff and local officials. The application includes letters of support from a staff physician, Dr. Steven Prunk, and the Director of Health for the City of New Britain, Mr. Sergio Lupo. Without questioning their motives in supporting the proposed sale, I would like to point out several problems with these letters. Dr. Prunk is a friend, a colleague, and an excellent physician, but as director of pulmonary medicine and critical care his practice is largely hospital based. He does not use HOCC outreach services and is not in the best position to comment on them. Both letters claim that there is an increasing demand for high value, low cost laboratory services that can best be met by Quest. I am not personally aware of any such demand on the part of the patients or clinicians, and I see no evidence in the application to suggest that such a demand exists. The letters both suggest that the proposed sale would result in the region enjoying increased access to laboratory services. As explained above, that is simply and demonstrably not the case. Finally, it should also be pointed out that both supporting letters are identical, word for word.

In all of the conversations we have had with laboratory technologists, pathologists, and clinicians, we have not heard one unprompted word of support for the proposed sale. The abbreviated timeline for this submission precludes the inclusion of a written statement by a clinician who opposes the sale. But we have a verbal commitment to send such a written statement at a later date if the OHCA will permit.

We believe that the application offers an incomplete and unrealistic assessment of the potential for harm to HOCC patients. At the very least, we ask that OHCA request a more complete description of the agreement between HOCC and Quest and a more thorough analysis of the potential for adverse effects.

The Proposed Sale Will Limit Patient Choice

Selling our outreach work to Quest will serve to limit choice for HOCC patients. Quest is one of the largest providers of laboratory services in Connecticut and across the United States, and it already does the lab testing for 50% of physician offices. If the proposed sale is approved, large numbers of HOCC's patients including many of its employees, will have no say in where their lab work is done. It may be argued that the patients may not care where their specimens go to be tested. But it cannot be shown anywhere in the application that their opinion was ever solicited.

The proposed sale will necessarily reduce the number of options available to our patients. The public has a right to know about the proposed sale and to weigh in on it. The public hearing is a very welcome first step in that process. But we ask that OHCA request more information from the applicant prior to making its decision.

Finally, the sale of HOCC's outreach laboratory work is just the latest in a series of decisions designed to centralize services in the HHC network and to limit the range of hospital services offered in New Britain. While this approach may offer financial advantages to HHC, it comes at the price of decreased access and choice for the people who live in New Britain and surrounding communities. The proposed sale of outreach laboratory services follows the sale of gynecologic cytology (see above), the outsourcing of autopsy technical services, and the outsourcing of transcription services here in the lab. HOCC has also discontinued inpatient and outpatient pediatric services as well as bariatric surgery. Each of these changes was supported by economic arguments by HHC and none of them individually seemed like a seismic change in health care delivery at HOCC. But collectively they are significant, not only because of the reduction of services offered to the citizens of New Britain, but also because they suggest a pattern. We ask the OHCA to consider not only the proposed sale as outlined in HHC's application in isolation, but also to consider the sale in the context of their statewide plan for facilities and services. We ask the OHCA to examine the evidence and decide if the proposed sale, seen as part of the trend of a decreasing menu of services offered at HOCC, is in the best interest of our community.

For all of the above reasons, we respectfully ask that OHCA deny the applicant's request for a CON.

Harold Sanchez, MD on August 21, 2017

EXHIBIT A:
Studies which conclude that systems that are more complicated and have more handoffs are less afe

1. Institute of Medicine: To Err is Human 1999:

Systems that are more complex and tightly coupled are more prone to accidents and have to be made more reliable.[32] *In Reason's words, complex and tightly coupled systems can "spring nasty surprises."*[33] Chapter 3 Why Do Errors Happen? page 58

A number of practices have been shown to reduce errors in the medication process and to exemplify known methods for improving safety. The committee believes they warrant strong consideration by health care organizations including hospitals, long-term-care facilities, ambulatory settings, and other health care delivery sites, as well as outpatient and community pharmacies. These methods include: reducing reliance on memory; simplification; standardization; use of constraints and forcing functions; the wise use of protocols and checklists; decreasing reliance on vigilance, handoffs, and multiple data entry; and differentiating among products to eliminate look-alike and sound-alike products. Chapter 8 Creating Safety Systems in Health Care Organizations page 157-8 Recommendation 8.2

Simplifying key processes can minimize problem solving and greatly reduce the likelihood of error. Simplifying includes reducing the number of handoffs required for a process to be completed (e.g., decreasing multiple order and data entry). Chapter 8 Creating Safety Systems in Health Care Organizations page 172.

2. West DR et al. Laboratory Medicine Handoff Gaps Experienced by Primary Care Practices: A Report from the Shared Networks of Collaborative Ambulatory Practices and Partners (SNOCAP). *J Am Board Fam Med* 2014;27:796-803:

"Both the Institute of Medicine (IOM) and the Joint Commission have identified failed patient handoffs as a cause of medical errors leading to a significant number of sentinel events. Laboratory medicine in primary care is no exception to this; it is frequently characterized by a constellation of multiple-step processes with critical cross-domain handoffs occurring among patients, clinical care teams, and laboratories…As many as half of physician-reported errors have been related to the laboratory testing process. Studies report that the consequences of many laboratory medicine handoff errors include delayed care, increased costs, and patient pain and suffering"

3. Patient Safety Tip of the Week, November 16, 2010 http://www.patientsafetysolutions.com/docs/November_16_2010_Lost_Lab_Specimens.htm

"In the Slavin article, the pathology department decided that it would take ownership of the transport process from the OR to the lab. That effectively reduced the number of handoffs. Handoffs are always opportunities for errors to occur so anything that reduces the number of handoffs generally improves safety."

4. Slavin, Lee et al. *Quality Management in Healthcare* Fall 2001; 10(1):45-53

5. Wen T, Attenello FJ, Cen SY, Khalessi AA, Kim-Tenser M, Sanossian N, Giannotta SL, Amar AP, Mack WJ. Impact of the 2003 ACGME Resident Duty Hour Reform on Hospital-Acquired Conditions: A National Retrospective Analysis.. *J Grad Med Educ*. 2017 Apr;9(2):215-221.

BACKGROUND: The Accreditation Council for Graduate Medical Education reforms in 2003 instituted an 80-hour weekly limit for resident physicians. Critics argue that these restrictions have increased handoffs among residents and the potential for a decline in patient safety. "Never events" hospital-acquired conditions (HACs) are a set of preventable events used as a quality metric in hospital safety analyses.
OBJECTIVE: This analysis evaluated post-work hour reform effects on HAC incidence for US hospital inpatients, using the National Inpatient Sample.
METHODS: Data were collected from 2000-2002 (pre-2003) and 2004-2006 (post-2003) time periods. HAC incidence in academic and non-academic centers was evaluated in multivariate analysis assessing for likelihood of HAC occurrence, prolonged length of stay (pLOS), and increased total charges.
RESULTS: The data encompassed approximately 111 million pre-2003 and 117 million post-2003 admissions. Patients were 10% more likely to incur a HAC in the post-2003 versus pre-2003 era (odds ratio [OR] = 1.10; 95% confidence interval [CI] 1.06-1.14; P < .01). Teaching hospitals exhibited an 18% (OR = 1.18; 95% CI 1.11-1.27; P < .01) increase in HAC likelihood, with no change in nonteaching settings (OR = 1.03; 95% CI 1.00-1.06; P > .05). Patients with ≥ 1 HAC were associated with a 60% likelihood of elevated charges (OR = 1.60; 95% CI 1.50-1.72; P < .01) and 65% likelihood of pLOS (OR = 1.65; 95% CI 1.60-1.70; P < .01).
CONCLUSIONS: Post-2003 era patients were associated with 10% increased likelihood of HAC, with effects noted primarily at teaching hospitals.

EXHIBIT B: Publications Offering Alternatives to Selling Outreacj Lab Business to large Commercial Labs

1. Kathleen A Murphy PhD. The Profit Machine in the Hospital Basement: Turning Your Lab Into an Economic Engine. Ellsworth Press. Ann Arbor Michigan 2016.

Every hospital and health system has sunk costs in laboratories that are required for serving inpatients and outpatients. They have a substantial investment in facilities, information technology, laboratory equipment, automation, and staff, but use only 20 to 30 percent of capacity on a 24/7 basis. The excess capacity can be leveraged to bring in more work from the community, with work typically done on off-shifts when hospital volume is low. (Introduction)

By providing a competitive offering, laboratory outreach programs can compete and win against large national and regional laboratories (such as Quest Diagnostics and LabCorp). Outreach brings material new revenues and margins to hospitals looking for ways to offset decreasing reimbursement from traditional service line (Introduction).

Over 90 percent of hospitals perform some outreach work, but the vast majority of outreach programs are small businesses that are under- funded and run as side-line businesses. Because of this, outreach has a bad rap. It is viewed by many hospital executives as a business that is too difficult, not part of the core business, or not sufficiently profitable to pursue. However, there are dozens of successful laboratories that have generated over $100 million in revenue with 30 percent operating margins (Introduction)

This is where hospital laboratories have a distinct advantage over large national and regional laboratories.As a 24/7 operation that serves acutely ill patients, hospital laboratories are designed to provide quick turn- around of results.Stat services for the emergency department or intensive care units are provided in less than one hour. Most automated laborato- ries can turn around routine tests within an hour of two of receipt and report results back the same day.This real-time testing provides a competitive advantage for local hospitals, compared to national or regional laboratories.These laboratories function as third-shift operations, doing large batch testing overnight and reporting results the next day.This will become even more important within the context of managing popula- tion health on fixed reimbursements. After all, time is money (Chapter 6 Operational Infrastructure)

In the big picture, the outreach program does not have the scale or sophistication of the national laboratories. It cannot compete on price. It provides quality testing for the community –some would say better than the nationals. It keeps jobs local. It provides faster turnaround time and personalized service. It leverages the sunk investment in facilities, equipment, and staff in the hospital laboratory and lowers the cost of testing overall. It's the only laboratory that does testing across the patient continuum (hospital, extended care facilities, doctor's office, and medical home), not because it's profitable but because it's the right thing to do. (Chapter 7 Financial Considerations

page 77)

The national laboratories would like you to believe that they have the advantage when it comes to managed care contracting—that they alone have negotiated "national exclusive contracts" with certain payers that require physician offices to send all patient insurance types to their laboratories. This is hogwash. Or perhaps brainwash is more apropos. They have brainwashed physicians and their office staff that they are required contractually to follow these "rules." (Chapter 7 Financial Considerations page 79)

Now, here's the real story.The nationals have negotiated highly dis- counted, exclusive agreements with certain payers (such as LabCorp for United Healthcare and Quest for Aetna) that rule out other independent laboratories, but not hospitals. It's the last part that is conveniently left unsaid.This is one of the best kept secrets of the laboratory industry. The strategy of the national laboratory is to use the exclusive contract to capture what is commonly referred to as "pull-through" business (other insurances and governmental payers, in order to offset losses due to highly discounted fees. The real story is that as long as a hospital has a contract for inpatient services, the laboratory can provide outreach lab- oratory services. Has anyone ever told you that before? Of course not! It is not in the interest of the national laboratory or the payer. (Chapter 7 Financial Considerations page 80)

The top 5 things hospital executives unwittingly do to make it difficult or impossible for laboratories to succeed at community-based outreach programs:

• *Failing to identify outreach as an organizational priority.* (Chapter 10 Risk Versus Reward page 123)

• *Treating the outreach program like a "cost center."*

• *Charging hospital prices for community-based work.*

• *Starving the program for capital.*

• *Under-resourcing the program.*

2. Outreach: Forge ahead or accept purchase bid? *Pathology Today* August 2017.

(CAP website is not responding at present and the deadline for submission of testimony draws near. I ask for your permission to submit the link and or the text of the article later)

User, OHCA

From: Mitchell, Micheala
Sent: Monday, August 21, 2017 3:59 PM
To: 'pathgrunt@gmail.com'
Cc: User, OHCA; Riggott, Kaila; Hansted, Kevin; Schaeffer-Helmecki, Jessica
Subject: Docket No. 17-32170-CON : Pre-Filed Testimony
Attachments: Docket No. 17-32170-CON.PDF

Good afternoon Mr. Sanchez,

Attached is the Applicant's pre-filed testimony in the above referenced matter. Please confirm receipt of this message at your earliest convenience.

Thank you,
Micheala L. Mitchell
Staff Attorney, PHHO/OHCA
Connecticut Department of Public Health
410 Capitol Avenue, MS# 13-HCA, Hartford, CT 06134
Phone: (860) 418-7055
Email: micheala.mitchell@ct.gov

SHIPMAN & GOODWIN LLP®
COUNSELORS AT LAW

Vincenzo Carannante, Esq.
Phone: (860) 251-5096
Fax: (860) 251-5211
vcarannante@goodwin.com

August 21, 2017

VIA EMAIL

Kevin Hansted, Esq.
Hearing Officer
Department of Public Health
Office of Health Care Access
410 Capitol Avenue, MS #13HCA
P.O. Box 34048
Hartford, Connecticut 06134-0308
Kevin.Hansted@ct.gov

Re: IN THE MATTER OF: DOCKET NO. 17-32170-CON

Dear Attorney Hansted:

On behalf of the Applicant in the above-referenced matter, enclosed please find:

1. Prefiled testimony for: (a) Lucille Janatka; (b) Joseph Vaccarelli; and (c) Dr. Salim Kabawat; and

2. Shipman & Goodwin's Certification that the above-referenced documents have been provided to Dr. Sanchez via email.

If you have any questions, please do not hesitate to contact me.

Sincerely yours,

Vincenzo Carannante

Enclosures

Cc: ohca.ct.gov

Certificate of Service

I hereby certify that true and correct copies of the foregoing prefiled testimony for (a) Lucille Janatka, (b) Joseph Vaccarelli and (c) Dr. Salim Kabawat were e-mailed this 21st day of August 2017 to:

Dr. Harold Sanchez at pathgrunt@gmail.com

Vincenzo Carannante, Esq.

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH
OFFICE OF HEALTH CARE ACCESS

IN RE: TERMINATION OF OUTPATIENT SERVICES OFFERED BY THE HOSPITAL OF CENTRAL CONNECTICUT

DOCKET NO. 17-32170-CON

August 21, 2017

PRE-FILED TESTIMONY OF LUCILLE JANATKA ON BEHALF OF THE HOSPITAL OF CENTRAL CONNECTICUT

Good morning, Attorney Hansted and staff of the Office of Health Care Access ("OHCA"). My name is Lucille Janatka and I am the Hartford HealthCare Senior Vice President and President of The Hospital of Central Connecticut ("HOCC"). I am very grateful for this opportunity to be here today to tell you why the above-referenced Application to transition five (5) of HOCC's outreach laboratory locations (the "PSCs") to Quest Diagnostics ("Quest") should be approved by OHCA.

HOCC is an acute care hospital and is a member organization of Hartford HealthCare Corporation, an integrated health care delivery system ("HHC"). HOCC operates five (5) PSCs at the following addresses:

1) 100 Grand St., New Britain, CT
2) 61 Hart St., New Britain, CT
3) 183 N. Mountain Rd., New Britain, CT
4) 360-1 North Main St., Southington, CT
5) 55 Meriden Ave., Southington, CT

As noted above, we are here today to seek OHCA's approval to transition HOCC's outreach laboratory services to Quest, a nationally recognized laboratory service provider.

As the Hospital's President, it is my duty to judiciously lead HOCC so that it may fulfill its mission and vision to improve the health care of the communities it serves. As

such, I am personally offended by any notion or statements to the contrary made by the Intervenor in his Petition for Intervenor Status dated August 17, 2017 (the "Petition"). The Intervenor is neither a fiduciary nor steward of HOCC nor is he even an employee of HOCC. The Intervenor is a service provider or vendor of HOCC and OHCA's decisions should not colored by a hospital's self-interested service providers or vendors.

As an actual fiduciary of HOCC, I am charged with the responsibility to allocate HOCC's resources in the most effective and efficient manner, especially given the uncertainty of the State budget and reimbursement scheme, balanced with federal health care reform. To achieve these objectives, HOCC is actively implementing major initiatives, cost restructuring, and strategies in order to better position the hospital for the changing health care payment and regulatory landscape. This includes transactions that will permit HOCC to focus on its core strengths and services. Certain services are performed better and more cost efficiently by other parties, such as Quest, with a national presence and scale in a high quality manner.

The proposal before you today is not unique to HOCC as many hospitals and health systems across the country, such as the Mount Sinai Health System in New York, have transferred their outreach laboratory services to quality national laboratories. Importantly, this type of transaction continues a prior transition by HHC. Quest recently continued the outpatient laboratory services formerly performed by Hartford HealthCare Laboratories (an HHC subsidiary a/k/a "CLP") including the transition of all of CLP's outreach laboratory business to Quest. In direct contradiction to any statements made by the Intervenor in his Petition, HHC, and its member hospitals and providers, are very happy with the quality and responsiveness of the services now provided by Quest. For example, please see Exhibit A

attached hereto which sets forth a letter provided to OHCA by the Chief of Pathology and Laboratory Medicine at Hartford Hospital and which clearly indicates the success of a similar transition and arrangement at Hartford Hospital.

Finally, it is important to note here that HOCC is not closing these five (5) PSCs and, thus, access will not be impacted negatively. In fact, access will be enhanced as will be explained by my colleagues here today. HOCC is transferring all five (5) PSCs to Quest, a world leader in the provision of quality laboratory and other diagnostic services. Its expertise and clinical quality is very high as Quest operates dozens of laboratories and more than 2,200 PSCs and serves approximately half of all doctors and hospitals in the U.S. In addition, if OHCA has any questions with respect to the quality of the services provided by Quest, we have here today Joseph Vaccarelli, Administrative Director of Radiology, Pathology, Laboratory Medicine, and Outpatient Clinics for HOCC and Salim E. Kabawat, M.D., Quest's Regional Medical Director, for the North Region. Both Mr. Vaccarelli and Dr. Kabawat will be more than happy to answer any questions OHCA may have with respect to Quest's services and quality.

In conclusion, I respectfully request that OHCA approve this Application for the reasons stated herein and our Application.

I adopt the foregoing pre-filed testimony as my own.

Lucille Janatka
President, The Hospital of Central Connecticut
Senior Vice President, Hartford HealthCare

Exhibit A

Hartford Hospital
A Hartford HealthCare Partner

August 18, 2017

VIA EMAIL TO (Jessica.Schaeffer-Helmecki@ct.gov)

State of Connecticut
Department of Public Health
Office of Health Care Access
410 Capital Avenue
Hartford, CT 06134

RE: Support for Certificate of Need Application Docket #17-32170-CON

To whom it may concern:

I am writing in support of The Hospital of Central Connecticut's ("HOCC") Certificate of Need application to transfer its outreach laboratory operations to Quest Diagnostics ("Quest").

As the then Vice-Chief of the Pathology Department at Hartford Hospital, I witnessed the successful transition of the outreach laboratory services in the Hartford Hospital service area from Clinical Laboratory Partners, a Hartford HealthCare Corporation ("HHC") subsidiary, to Quest. By design, the transfer resulted in additional resources that are now available to support the core clinical operations throughout the HHC system. Importantly, though, the transfer was accomplished by Quest deploying resources and a diligent transition team determined to preserve the quality of the laboratory services. In fact, the clinical community has come to appreciate Quest's patient-friendly advanced technology (*e.g,*. Care 360 patient/physician portal with easily accessible laboratory results), ability to perform both standard and specialized complex testing (which, before, would typically be done in two steps by two different laboratories), and broad geographic array of drawing stations that have provided added convenience to patients (*e.g.*, particularly in the context of the need to direct a specimen for blood-matching to the transfusion service that provides the blood product, which historically required the patient to go to the facility where the surgery is to be performed).

As I am sure you are aware, HHC is a nonprofit charitable organization that is dedicated to the care of the communities that its hospitals serve. As purveyors of that community trust, it is incumbent upon the layers of volunteer directors and administrative professionals, along with the physician community, to adapt to the ever-evolving healthcare landscape. The recent creation of the Bone and Joint Institute and careful crafting of the relationships with world class partners such as the Memorial Sloan Kettering Cancer Center and Quest are key examples of that visionary leadership at work. Therefore, as the current proposal by HOCC is the product of such leadership and is likely to further the success achieved in the Hartford community, I encourage you to approve the application.

Hartford Hospital
A Hartford HealthCare Partner

Sincerely,

Srinivas Mandavilli, M.D.
Chief of Pathology & Laboratory Medicine, Hartford Hospital
860-972-3369

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

OFFICE OF HEALTH CARE ACCESS

IN RE: TERMINATION OF OUTPATIENT SERVICES OFFERED BY THE HOSPITAL OF CENTRAL CONNECTICUT	**DOCKET NO. 17-32170-CON**
	August 21, 2017

PRE-FILED TESTIMONY OF JOSEPH VACCARELLI ON BEHALF OF THE HOSPITAL OF CENTRAL CONNECTICUT

Good morning, Attorney Hansted and staff of the Office of Health Care Access ("OHCA"). My name is Joseph Vaccarelli and I am the Administrative Director of Radiology, Pathology, Laboratory Medicine, and Outpatient Clinics for The Hospital of Central Connecticut ("HOCC"). I am very grateful for this opportunity to be here today to tell you why the above-referenced Application to transition five (5) of HOCC's outreach laboratory locations (the "PSCs") to Quest Diagnostics ("Quest") should be approved by OHCA.

As a result of serving in the capacity as the Administrative Director for the past ten (10) years at HOCC, I have particular insight and knowledge with respect to the diagnostic services provided by HOCC and the partnership we have forged and continue to develop with Quest. My testimony here today will provide OHCA with relevant information relating to:

1. The five (5) PSCs to be transitioned to Quest and the services and locations that will continue to be provided and operated by HOCC;

2. The exaggerated statements made by Dr. Harold Sanchez (the "Intervenor") in his petition for intervenor status dated August 17, 2017 (the "Petition"); and

3. The reasons why the transition to Quest will benefit our patients and physicians.

1. Five (5) PSCs to be transitioned to Quest and the locations/services that HOCC will continue to operate/provide.

As noted by Ms. Janatka, we are here today only to seek approval to transition to Quest the five (5) PSCs located at:

- 100 Grand St., New Britain, CT
- 61 Hart St., New Britain, CT
- 183 N. Mountain Rd., New Britain, CT
- 360-1 North Main St., Southington, CT; and
- 55 Meriden Ave., Southington, CT.

Moreover, please note that this Application does not include any of HOCC's inpatient or outpatient diagnostic laboratories and, most importantly, it does not seek to terminate any of the laboratory testing services offered by HOCC and/or provided by HOCC to its patients. The following laboratory locations/services will continue to be operated/provided by HOCC:

1. HOCC - New Britain General Campus: HOCC will continue to operate a full service laboratory at this location.[1]

2. HOCC - Out Patient Test Center: HOCC will continue to provide specimen collection for services that are part of a hospital outpatient visit (as distinguished from an outreach visit) at this location.[2]

3. HOCC - Bradley Campus: HOCC will continue to operate a full service laboratory at this location.[3]

4. HOCC Cancer Center (laboratory services only): HOCC will continue to provide cancer related laboratory services at this location.[4]

---

[1] Located at 100 Grand Street, New Britain CT 06050
[2] Located at 100 Grand Street, New Britain CT 06050
[3] Located at 81 Meriden Avenue, Southington CT 06489
[4] Located at 183 N. Mountain Road

HOCC's present proposal specifically and only relates to the five (5) aforementioned PSC locations and HOCC is not eliminating any diagnostic service that it currently provides to any inpatient or outpatient of HOCC.

2. Responses to the Intervenor's Petition statements.

On page 2 of the Petition, the Intervenor states that he would like to show "the adverse effects that followed the loss of HOCC's gynecologic cytology work to Quest a number of years ago". This is an exaggerated claim and mischaracterization of the facts by the Intervenor. In 2010, Dr. Barry Jacobs, the Chief of Pathology at HOCC and I, decided it would be best to outsource HOCC's gynecologic cytology work to Quest for a number of reasons including, declining volumes, financial viability of the program, and staffing concerns. In general, the gynecologic cytology work consisted of the reading of pap smears/tests. The initial process after the decision to outsource this service to Quest was to have Ob/Gyn physicians send the pap smear specimens for the pap smears/tests to HOCC's laboratory who would then send them to Quest for slides to be prepared for an initial screening. If the initial reading was negative (i.e. no abnormal results) the process would end there and the same would be reported to the Ob/Gyn physician who ordered the pap smear/test. If the result was abnormal, the slide would be sent by Quest back to HOCC for a pathologist from the Intervenor's private pathology practice (the "Pathology Practice" to review and report back to the Ob/Gyn. The initial review by Quest is known as the "technical component" and any review by a pathologist is known as the "professional component". We can only assume as to what the Intervenor alludes to in his testimony as an "adverse effect" is the Ob/Gyn physicians' temporary dissatisfaction

with this multi-step process. More importantly, upon learning about this dissatisfaction, HOCC and Quest agreed upon a solution or alternative process. More specifically, HOCC and Quest implemented a new process by which the Ob/Gyn physicians would simply send their pap/smear specimens directly to Quest (i.e. eliminated the HOCC / "middleman"), Quest would perform both the technical and professional component of the test, and Quest would report its results directly back to the ordering Ob/Gyn physicians. On all accounts and based upon my conversations with involved physicians, the Ob/Gyns are very happy and satisfied with this arrangement. The only person I am aware of that is not happy with this arrangement is the Intervenor as via the elimination of the "middleman" it eliminated a source of income for the Intervenor's Pathology Practice in relation to the abnormal tests the pathologists from the Pathology Practice used to read for the Ob/Gyns when Quest sent the Pathology Practice abnormal pap slides for their review.

On page 3 of the Petition, the Intervenor states that for "complicated cases which require special tests ... when the same system was put in place at Hartford Hospital, some physicians found it unacceptable and demanded that their specimens be processed in house." The only issues I am aware of that occurred during the initial phase of Hartford Hospital's arrangement with Quest and special tests relates to breast and prostate biopsies. More importantly, these two situations magnify and demonstrate one of the reasons why we believe the Quest arrangement will work for HOCC as well. First, as to the breast biopsy readings, the pathologists at Hartford Hospital did not like the new breast biopsy reading process with Quest and asked that an alternative process be

implemented. Quest and Hartford Hospital agreed on the new process which is still in effect today. Most notably, the same physician that "demanded" that the process be kept in place around 18 months ago has also submitted a letter of support for this proposal and has cited several reasons why Hartford Hospital's partnership with Quest is flourishing including, without limitation, by stating that:

> "the transfer resulted in additional resources that are now available to support the core clinical operations throughout the HHC system. Importantly, though, the transfer was accomplished by Quest deploying resources and a diligent transition team determined to preserve the quality of the laboratory services. In fact, the clinical community has come to appreciate Quest's patient-friendly advanced technology (*e.g.*. Care 360 patient/physician portal with easily accessible laboratory results), ability to perform both standard and specialized complex testing (which, before, would typically be done in two steps by two different laboratories), and broad geographic array of drawing stations that have provided added convenience to patients (*e.g.*, particularly in the context of the need to direct a specimen for blood-matching to the transfusion service that provides the blood product, which historically required the patient to go to the facility where the surgery is to be performed)."

The only other initial transition issue that I am aware of at Hartford Hospital was certain physician concerns with the new manner in which Quest reported prostate biopsy results. The Hartford Hospital associated physicians were used to receiving reports with a pictogram which indicated a spectrum of results. Quest did not report its results in this manner. Accordingly, Quest and Hartford Hospital agreed that until Quest develops a pictogram result process to the satisfaction of Hartford Hospital's physicians, the current process will remain in place.

While we believe these "issues" raised by the Intervenor are irrelevant to the specific proposal before OHCA today, we find these issues to be positives as in every instance, Quest came up with a solution or an accommodation that satisfied all parties involved. Quest, if needed, will make the same accommodations for HOCC.

3. Reasons why the transition to Quest will benefit our patients and physicians.

HOCC's patients and physicians will benefit from this Proposal. First, and contrary to the Intevenor's assertions, Quest will offer and present many advantages to our patients who visit the five (5) PSCs. More specifically, when it relates to blood draw stations or patient service centers, one of the most important aspects is access and the type of access provided by a patient service center. If OHCA approves this proposal, subsequent to the transition to Quest, patient access will not only be maintained, but more importantly, it will be enhanced and improved as described below.

a. Quest PSC Locations. In addition to these five (5) PSCs, Quest operates fifteen (15) other PSCs within eight (8) miles of HOCC's New Britain campus and twelve (12) other PSCs within eight (8) miles of HOCC's Southington campus. Quest's numerous, proximally located PSCs will maintain and enhance access to patients.

b. Quest Appointment Scheduling System: Quest PSCs offer appointment scheduling. This allows patients to make an appointment ahead of time and avoid the risks of delays that can occur with walk-ins.

c. Quest Electronic Check-in System: Quest permits patients to check-in electronically. This system also includes a waiting room management feature which informs the patient how long (approximately) until the patient will be seen by the next available phlebotomist. This feature will allow patients to determine if they want to stay and wait, come back at a later time after

accomplishing some other objective, go to a different location, or simply return another day.

These aforementioned capabilities are not present at or offered by HOCC's PSC locations and patient access will undoubtedly be enhanced if OHCA approves this proposal. In addition, please note that Quest will offer a free downloadable software application known as Quest's MyQuest Application which will provide patients with the following benefits:

a. allows patients to access their own test results on their computers or smart phones without having the need to wait for physician appointments or calls;
b. allows patients to schedule and receive medication reminders; and
c. allows patients to schedule appointments and find nearby Quest patient service centers.

As a reminder, this proposal is in relation to the transition of five (5) PSCs to Quest only. However, and if relevant to OHCA, we, in conjunction with Quest are more than happy to discuss the other aspects of our partnership with Quest and the reasons why our patients and associated physicians will benefit from this arrangement. Accordingly, we have also invited here today Salim E. Kabawat, M.D., Quest's Regional Medical Director, for the North Region. Dr. Kabawat will be more than happy to answer any questions OHCA may have with respect to why Quest's facilities, services policies and procedures will enhance the services provided to HOCC's patients and physicians including, without limitation, how:

1. Quest has developed and continues to refine technology for electronic order entry and result access by patients and physicians. Quest has a well-integrated, robust information system, with excellent support, enabling them

to provide physicians with result access options that do not currently exist at HOCC;

2. Quest can manage very complex testing. Much of the work we refer to Quest will now go directly to the testing location at Quest from their PSC with no intermediate stop at HOCC and by extension no additional handling or transfers;
3. Quest has dedicated client support and client services team which allow for rapid response to everything from clinical inquires, logistical items, and IT solutions/resolutions;
4. Quest provides rapid access to physicians who are specialists in their respective fields. The pool of individuals and proprietary data bases from which they can access information allows for information to reach local physicians from Quest resources both locally and across the country;
5. Quest's tissue transport logistics, policies and procedures that ensure the integrity of samples for testing; and
6. The quality and capabilities of Quest's state of the art diagnostic laboratory in Marlborough, Massachusetts.

In conclusion, I respectfully request that OHCA approve this Application for the reasons stated herein and our Application.

I adopt the foregoing pre-filed testimony as my own.

Joseph Vaccarelli

Joseph Vaccarelli
Administrative Director of Radiology, Pathology,
Laboratory Medicine, and Outpatient Clinics for
The Hospital of Central Connecticut

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

OFFICE OF HEALTH CARE ACCESS

IN RE: TERMINATION OF OUTPATIENT SERVICES OFFERED BY THE HOSPITAL OF CENTRAL CONNECTICUT

DOCKET NO. 17-32170-CON

August 21, 2017

PRE-FILED TESTIMONY OF SALIM E. KABAWAT, M.D. ON BEHALF OF THE HOSPITAL OF CENTRAL CONNECTICUT

Good morning, Attorney Hansted and staff of the Office of Health Care Access ("OHCA"). My name is Salim E. Kabawat, M.D. and I am Regional Medical Director, North Region for Quest Diagnostics ("Quest"). A copy of my CV is attached for your reference. In summary, I completed residencies in anatomic pathology and anatomic and clinic pathology at Boston University Medical Center and Brigham and Women's Hospital, respectively, I completed my fellowship at Massachusetts General Hospital, and I have been in the practice of pathology for over twenty (20) years. I am here today to support the Applicant's proposal to transition five (5) of HOCC's outreach laboratory locations (the "PSCs") to Quest and I am here to answer any questions OHCA may have regarding Quest's clinical services or operations.

I. Quest's Experience:

In relation to the proposal before OHCA today, Quest has entered into the same type of arrangement with over 100 hundred hospitals / health systems across the country. Not only does this reflect or support the soundness of HOCC's decision, it also demonstrates that Quest is experienced and capable of handling this transition if OHCA were to approve it. Even more significant, is the fact that Quest successfully handled an almost identical transition by other Hartford HealthCare hospitals including, Hartford

Hospital. This transition was much larger in scope (i.e. much larger volume of diagnostic services at Hartford Hospital than HOCC) and, by all accounts, this transition has been very successful to the satisfaction of all parties involved.

II. Quest's Quality and the Benefits HOCC Physicians and Patients Will Receive

A. Patient services:

As noted by Mr. Vaccarelli's testimony, Quest's patient services centers provide patients with enhanced access via: (1) appointment scheduling; (2) E-Check-in and waiting room management; (3) and My Quest applications for a patient's computer and/or smart phone. If OHCA desires any other details in addition to what Mr. Vaccarelli has already provided to OHCA, please let me know.

B. Logistics.

I oversee Quest's quality programs including transportation logistics to ensure that the integrity of the tissues/specimens are not compromised. Such quality programs, policies and procedures include:

1. Pre-programmed bar code scanners for each and every courier who picks up specimens at a patient services center. The pre-programmed scanners ensure that all pick-up locations (including areas or locations within the patient services center) are visited by the courier;

2. Use of scanners to log-in and track all specimens picked up by a courier which includes real-time route updates for client call-ins for pick-ups;

3. Location scanning which informs the courier if the relevant specimen must be maintained in an ambient (i.e. room temperature, refrigerated, or frozen) environment; and

4. All Quest courier vehicles being equipped to store specimens in ambient, refrigerated, frozen environments.

I would also like to respond here to the Intervenor's comments that he made in his petition for intervenor status dated August 17, 2017 (the "Petition"). The Intervenor claims that shuttling specimens and slides back and forth over ninety (90) miles will introduce additional handoffs, errors and loss. This is simply not the case.

First, it is important for OHCA to understand the operation of patient services centers (a/k/a outreach or blood draw locations) that are the subject of the present Proposal. Over ninety nine percent (99%) of the services provided at these five (5) PSCs relates to clinical pathology services as opposed to anatomic pathology services. In general, this means these PSCs, like all other blood draw stations, focus on and serve individuals who: (a) have received a laboratory requisition or order from a physician to obtain laboratory services; and (b) come to the PSC to see a phlebotomist who will obtain a blood and/or urine sample as appropriate for the diagnostic services ordered by the physician. Blood draw stations or PSCs do not relate to or provide services in relation to anatomic pathology services. In general, for anatomic pathology services, this is the scenario in which some form of tissue or other biological specimen is obtained by a provider (e.g. via a biopsy) and the tissue or specimen is sent to a pathologist for his/her professional review.

The very essence of a patient service center or outreach location is that some form of specimen is collected at the PSC and picked up by a courier or other service and transported to a laboratory for testing. This is the same exact process that is in place now with HOCC-operated PSCs (i.e. HOCC still needs to pack, store, pick up and transport specimens). The fact that the specimens will now be picked up by a Quest courier versus an HOCC courier and transported ninety (90) miles is clinically irrelevant and insignificant, especially with the policies and procedures Quest has in place to maintain

specimen integrity as described herein. To put the ninety (90) miles in context, Quest has other outreach or patient service arrangements in rural areas where the specimens are transported close to 1000 miles and, again, there are no issues with specimen integrity. This is not to mention that we also transport specimens from Connecticut to California or Connecticut to Virginia for special reference laboratory testing, when needed, and again, there are no issues with specimen integrity.

Moreover, for the services that run through PSCs, there is no shuttling back and forth as claimed by the Intervenor. The patients who visit these PSCs are, in general, there for routine lab work and once the specimens are collected, they are sent directly to a Quest laboratory (i.e. they are delivered to one of Quest's stats laboratories in CT or their main laboratory in Marlborough , Massachusetts). Quest's laboratory then performs the testing and sends the results directly back to the ordering physician.

C. Ordering Physician Connectivity.

If this Application is approved, physicians will have access to electronic ordering and results that will be sent directly into their medical records / systems. In addition, physicians will be able to access laboratory results anywhere with a smart phone. Again, this enhances the physician experience, which allows the applicable physician to enhance his/her patient's services and experience.

D. Laboratory.

In 2014,, Quest completed the building of its laboratory in Marlborough, Massachusetts (the "Laboratory"). I am very proud to state that this Laboratory is state of the art and known or referenced to as a laboratory of the future. Just some of its amazing characteristics or capabilities are listed below:

1. Full automation: The Laboratory offers fully automated and robotic specimen handling (e.g. centrifugation, sorting, decapping, loading and unloading of instruments, storage of specimens) for approx.. 80% of its testing which involves/requires little human intervention and thereby reduces possibility for error. In addition, the robotic or automated aliquoting process enhances patient PSC experiences as it permits the laboratory to require less blood for testing which, in turn, means patients need to provide less blood during collection at the PSC.

2. Microbiology Capabilities: The Laboratory can perform Automated plating (i.e. robots doing streaking of plates), which again, minimizes the chance for human error. Even more impressive is the availability of our MALDI-TOF laser application. With this equipment, we are able to identify microbes (e.g. a bacteria that is causing a patient issue) within 1 hour instead of 24 or more hours a typical laboratory, such as HOCC's, would take to grow a culture and then identify the microbe.

3. Cytology: The Laboratory has location-guided automated screening (HOLOGIC Imager, BD Focal point) and on-site testing for HPV by the latest HPV TMA technology for mRNA.

4. In-House Redundancies: The Laboratory's scope and size provides built-in redundancies in equipment and personnel, which protects from staffing or equipment failure generated down-time.

5. On-site Faculty: UMass Faculty are on site (7 PhD's and / or MD's) at the Laboratory providing medical and scientific oversight and peer-to-peer conversations with physicians, which provides continuous education and exposure to the latest developments in laboratory medicine.

6. Reference laboratory testing: Large local menu in Marlborough with Cytogenetics and Molecular Diagnostics on site. In addition, the Laboratory is proximate to Worcester Airport if usage of company-owned QuestAir is needed for testing services.

7. Access & Turn-Around-Times ("TAT"): As it relates to clinical pathology services, routine laboratory results will be submitted electronically to the ordering physicians by 8:00 am the next morning. If emergency or STAT testing is needed, Quest has five (5) local locations where STAT testing is available for HOCC specimens including at its locations in Wallingford, Torrington, Hartford, Stratford, and Norwich.[1] The TAT for emergency or

[1] The Norwich location will be operational in October of 2017.

> STAT testing is generally four (4) hours. As a reminder, the overwhelming majority of PSC lab services relate to routine lab work. As it relates to anatomic pathology services, it should be noted that our Laboratory offers much more testing and access that HOCC's laboratory does. More specifically, the Laboratory provide anatomic pathology testing services 24 hours a day Monday through Friday and 8 hours on Saturday and 8 hours on Sunday. The HOCC laboratory provides anatomic pathology services just for 11 hours Monday through Friday, 4 hours on Saturday and is closed on Sundays.

In light of the foregoing and Mr. Vaccarelli's, any statements made by the Intervenor or anyone else that patients and/or physicians will not receive any advantages or benefits if this Proposal is approved, are simply and literally incorrect. We are looking forward to working with the Intervenor and the other pathologists at HOCC to deliver quality patient care and, as we have in the past, will maintain solid professional relations through frequent meetings and consultations. I am happy to answer any and all of OHCA's questions.

I adopt the foregoing pre-filed testimony as my own.

August 21, 2017

Salim E. Kabawat, M.D.
Regional Medical Director, North Region
Quest Diagnostics

Curriculum Vitae.

Salim E. Kabawat, M.D.

200 Forest St, Marlborough, MA 01752| **phone** 774.843.3522 | **fax** 610.271.4260
|salim.e.kabawat@questdiagnostics.com|

Current Positions:

Anatomic and Clinical Pathology Regional Medical Director, Quest Diagnostics, North Region 2013-

CLIA Director of Laboratory, Quest Diagnostics, 200 Forest St Marlborough MA 01752 2014-

CLIA Director of Laboratory, Harvard University Health Services, 75 Mt Auburn St, Cambridge, MA 02138, 2001-

Previous positions:

Director, Pathology Department and Medical Director, Quest Diagnostics (formerly Bioran, Corning-Bioran and Corning Clinical Laboratory), Cambridge, Massachusetts, 1993-2013.
Associate Pathologist, Bioran Medical Laboratory, 1984-1993
Associate Pathologist, Somerville Hospital, 1984-1997

Training:

Fellowship 1982-1984:	**Immunopathology** Massachusetts General Hospital, Boston, Massachusetts.
Residency:	**Gynecologic and Neonatal Pathology and Cytology**
1980-1981	Brigham and Women's Hospital, Boston, Massachusetts.
1978-1980	**Clinical Pathology** University Hospital, Boston, Massachusetts.
1977-1978	**Anatomic Pathology** Mallory Institute of Pathology and Boston VA Hospital, Boston, Massachusetts.

Education:

1969-1975	University of Damascus Medical College Damascus, Syria, M.D. 1975 (Honors).

Board Certifications:

1981	**American Board of Pathology, Anatomic and Clinical.**
1984	**Immunopathology**, Special Qualification.
1995	**Cytopathology,** Special Qualification.

License: Massachusetts (#42271), FLEX (1977).
RI, NH, CT (2008)

Academic appointments:
Assistant Clinical Professor in Pathology, Tufts Medical School, 1996-2014.
Fellow in Clinical Pathology, Mallory Institute of Pathology, 1978-1980.
Research and Clinical Fellow, Harvard Medical School, 1981-1984.
Instructor in Pathology, Tufts Medical School 1984-1996

Professional Societies: U.S.-Canada Academy of Pathology, 1983-
New England Society of Pathologists, 1985-
International Academy of Cytology, 1998-
College of American Pathologists, 1993-
Massachusetts Medical Society 2000-

Citizenship: U.S.

Community activities:

Clinical Laboratory Directors Representative, Medicare Carrier Advisory Committee, NHIC, 1998-present
Member, Board of Overseers, Museum of Science, Boston, 2010-2017
Member, The Forsyth Institute rDNA Biosafety Committee, 2010-
Member, Mayor's Red Ribbon Committee on Central Square Cambridge, 2010
Chair, Board of Trustees, Prospect Hill Academy, 2005-2008
Co-chair Board of Trustees, Somerville Charter School, 1999-2001
Vice-Chairman and Treasurer, Board of Trustees, Cambridge Montessori School 1990-1996).
Co-chair, Small Property Owners Association of Cambridge, Massachusetts (1990-1992).
Treasurer, Mass. Homeowners Coalition (1993-1996).
Coach, Cambridge Youth Soccer (1992-1998).
Member, then honorary member, Board of Trustees, Prospect Hill Academy, 1998-

Publications:

Kabawat SE, Mostoufi-Zadeh M, Driscoll SG & Bhan AK.
Implantation site in normal pregnancy. A study with monoclonal antibodies.
Am J Pathol 1985 Jan;118(1):76-84

Kabawat SE, Bast RC Jr, Bhan AK, Welch WR, Knapp RC & Colvin RB.
Tissue distribution of coelomic-epithelium-related antigen recognized by the monoclonal antibody OC125.
Int J Gynecol Pathol 1983;2(3):275-85

Kabawat SE, Bast RC Jr, Welch WR, Knapp RC & Bhan AK.
Expression of major histocompatibility antigens and nature of inflammatory cellular infiltrate in ovarian neoplasms.
Int J Cancer 1983 Nov 15;32(5):547-54

Berkowitz R, Kabawat S, Lazarus H, Colvin R, Knapp R & Bast RC Jr.
Comparison of a rabbit heteroantiserum and a murine monoclonal

antibody raised against a human epithelial ovarian carcinoma cell line.
Am J Obstet Gynecol 1983 Jul 15;146(6):607-12
Kabawat SE, Bast RC, Welch WR, Knapp RC & Colvin RB.
Immunopathologic characterization of a monoclonal antibody that recognizes common surface antigens of human ovarian tumors of serous, endometrioid, and clear cell types.
Am J Clin Pathol 1983 Jan;79(1):98-104

Kabawat SE, Mostoufi-Zadeh M, Berkowitz RS, Driscoll SG , Goldstein DP & Bhan AK.
Implantation site in complete molar pregnancy: a study of immunologically competent cells with monoclonal antibodies.
Am J Obstet Gynecol 1985 May 1;152(1):97-9

Kabawat SE, Preffer FI & Bhan AK, Monoclonal antibodies in diagnostic pathology, in Handbook of monoclonal antibodies, MP Dierich & S Ferrone eds., Noyes Publishing, New Jersey pp. 293-328, 1985.

Todd RF, Bhan AK, Kabawat SE & Schlossman SF. Human myelomonocytic antigens defined by monoclonal antibodies. In Human leukocytes markers detected by monoclonal antibodies. A Bernard & L Boumsell eds., Springer-Verlag, pp 424-433, 1984

Diaz-Rosario LA, & Kabawat SE, Performance of a fluid-based thin layer Pap smear method in the clinical setting of an independent laboratory and an out-patient screening population in New England. Arch Pathol Lab Med. 1999 Sep; 123(9):817-21

Diaz-Rosario LA, & Kabawat SE, Cell block preparation by inverted filter sedimentation is useful in the differential diagnosis of AGUS in ThinPrep specimens. Cancer Cytopath, 2000;90:265-72

Workshop:
WHO workshop on antibodies to human trophoblast and sperm antigens. Work by Kabawat SE and Bhan AK presented in Toronto on June 30 1986 and documented in:
Anderson DJ; Johnson PM; Alexander NJ; Jones WR; Griffin PD
Monoclonal antibodies to human trophoblast and sperm antigens: report of two WHO-sponsored workshops, June 30, 1986--Toronto, Canada.
J Reprod Immunol 1987 Mar;10(3):231-57

Abstracts:
Kabawat SE, Bast RC Jr, Bhan AK, Welch WR,Knapp RC & Colvin RB.
Tissue distribution of coelomic-epithelium-related antigen recognized by the monoclonal antibody OC125.
Lab Invest 48:42A, 1983 (presented in USCAP meeting, Atlanta GA, 1983).

Diaz-Rosario LA, & Kabawat SE, Cell block preparation by inverted filter sedimentation is useful in the differential diagnosis of AGUS in ThinPrep specimens. Modern Path 13:173A, 2000 (presented in USCAP meeting, New Orleans 2000).

User, OHCA

From: Harry Sanchez <pathgrunt@gmail.com>
Sent: Monday, August 21, 2017 4:26 PM
To: Carannante, Vincenzo; User, OHCA; Sharon Johnson
Subject: REVISED WRITTEN TESTIMONY
Attachments: Testimony (1).docx

Please pardon the last minute submission. Attached is a slightly modified version.

Please confirm receipt.

Thanks.

Harry Sanchez

Testimony of Intervenor Harold Sanchez, MD
Regarding the Application for a Certificate of Need in the
Sale of Hospital of Central Connecticut Outreach Laboratory Work
To Quest Diagnostics
(Docket Number: 17-32170-CON)

Office of Health Care Access
Department of Public Health
410 Capitol Avenue
Hartford, CT 06134

My name is Harold Sanchez, MD. I reside at 20 Mulberry Road, Woodbridge, CT 06525. I have worked as a pathologist at the Hospital of Central Connecticut (HOCC) since 1995, and I write to you on behalf of a group of committed colleagues who work in various divisions of the hospital laboratory. I contacted the Office of Health Care Access (OHCA) in June 2017 to request a public hearing on the application by Hartford Healthcare (HHC) for a certificate of need (CON) from the OHCA which would allow HHC to sell HOCC's outreach laboratory work to Quest Diagnostics in Marlborough, Massachusetts. After reviewing the applicable statutes and regulations, HHC's application for a CON, and the applicable scientific and trade literature, and after discussion with members of the laboratory and clinical staff, my colleagues and I are convinced that the proposed sale would be detrimental to HOCC's patients and to the hospital itself.

Specifically, we believe that the application fails to meet OHCA's criteria for an acceptable CON application as outlined in 19a-639 in the following ways:

1. The application fails to satisfactorily demonstrate that the proposed transaction will improve the quality, accessibility and cost effectiveness of health care delivery in the region.
2. The application fails to satisfactorily demonstrate that the sale of outpatient work to Quest will not negatively impact the diversity of health care providers and patient choice in the geographic region.

Furthermore, we believe that the CON application, while compliant with statutory requirements, is incomplete and misleading in the following ways:

1. We believe that the claims made in the application are offered without appropriate literature support or expert opinion to substantiate them.
2. We believe that the application neglects to adequately discuss the outreach anatomic pathology component of the proposed transaction with Quest and its potential implications.
3. We believe that the characterization of the outreach laboratory service as something other than a core service is simply wrong.
4. The statement that Quest can provide either better quality or more efficient service is demonstrably false.

5. The impact of the sale on our patients and clinical staff are characterized as minimal despite what we believe is data to suggest otherwise and without directly surveying either the clinical staff or the patients in our community.
6. The economic arguments which are the driving force behind the proposal are offered without evidence that appropriate alternatives were investigated.

My colleagues and I love our hospital, and we are committed to the care of its patients. We are experienced laboratory professionals with decades of service to HOCC, and we are intimately familiar with the community we serve, the clinicians in that community, and the workings of the hospital laboratory. We want nothing more than for the hospital to fulfill its mission in the community. Our motive in appearing before the OHCA today is to help the hospital do just that.

We respectfully ask that OHCA deny HHC's request for a CON.

ARGUMENTS

Outreach Laboratory Service is a Core Service

The application states that shedding the outreach laboratory service will allow HOCC to focus on its core services. We strongly disagree. Outreach laboratory work ***is*** a core service. The outreach laboratory service not only generates income for the hospital, it also connects the hospital to the community and reinforces crucial patterns of referral to the hospital. In short it helps integrate the hospital into the community that it serves. Loss of outreach laboratory work leads not only to the loss of the lab work itself. The loss of the connection to the diagnostic hospital lab can lead to a loss in the follow up testing and further care of the patient. That is to say, when a patient's lab work leaves the hospital, the rest of that patient's care may follow.

For an illustration of this fact we need look no further than HOCC and its decision in 2009 to sell its outreach gynecologic cytology (Pap smear) lab service to Quest. Compelling economic arguments for the sale were offered. Quest was touted as offering cheaper and more efficient service. The downstream impacts of the sale were said to be minimal. The gynecologic cytology service was sold to Quest, and in calendar year 2009 HOCC accessioned 24,400 Pap smears. By 2011, the number of Pap smears accessioned fell to 1,786. So far in 2017 we have accessioned 17 Pap smears.

But the hospital lost far more than just Pap smears. The number of cervical biopsies and other gynecologic procedures, which often follow an abnormal Pap smear, also fell dramatically. A search of the HOCC pathology information system, Copath, for final diagnoses for all gynecologic cases which contained the terms "cervix", "cervical", or "biopsy" yielded the following numbers of results:

Calendar Year	Number of results
2007	556
2008	586

2009	564
2010	456
2011	184
2012	117
2013	120
2014	120
2015	131
2016	125

The time available precludes a more detailed analysis, but the trend of the results is obvious. The loss of Pap smears coincided with a loss of other gynecologic procedures. When the gynecologic biopsies in the busiest year studied is compared to the slowest year, the decline is about 80%.

The loss of cytology and biopsies also has other unintended and undesirable consequences. Before 2009, the Pap smear slides were kept in HOCC and were easily available for comparison and correlation with follow up biopsies. Discrepancies between cytology and biopsy could be quickly and efficiently analyzed and resolved. After 2009 the slides were kept at Quest and this ability was lost. In addition, the loss of Pap smear and gynecologic biopsy volume meant that there was a dramatic decrease in the number of these specimens seen by any one pathologist. A pathologist's proficiency in interpreting a type of specimen depends in no small part on that pathologist's exposure to and experience with that specimen type. Loss of volume threatens loss of proficiency.

We would be happy to perform a more detailed analysis of the downstream effects of the sale of the Pap smear business if OHCA would find that helpful.

Outreach laboratory work does comprise a core service and its loss has a predictable and detrimental effect on the volume and quality of related hospital work.

HOCC's Hospital Lab Can Perform Routine Lab Services Better and More Efficiently Than Quest

Quality: The applicants contend that the laboratory work in question can be performed better and more efficiently by Quest Diagnostics than by the HOCC hospital laboratory. This is simply false. Moving the outreach work to Quest offers no improvement in quality.

For the menu of tests offered at HOCC, the instruments, reagents, and protocols are similar if not identical to the ones used at Quest. Our contingent of laboratory technologists is among our greatest assets. Their training and experience are second to none. HOCC's hospital lab is accredited by the College of American Pathologists. The lab undergoes top to bottom annual inspections that alternate between inspections by investigators from outside laboratories one year, and thorough self inspections the next. The lab staff also performs peer inspections of

other hospital labs, a process that helps keep the staff abreast of alternative approaches and techniques. The lab is also included in some periodic inspections by the Joint Commission. In short, the quality of the personnel, instrumentation, and testing available for the menu of lab services offered at HOCC is equal or superior to comparable services at Quest.

Quest undeniably offers a more extensive menu of laboratory tests than HOCC. But HOCC already has access to all of those tests through our contract to use Quest as a reference laboratory. Moving our outreach work to Quest will not improve the quality of the lab work. In meetings and conversations with administrators, clinicians, and laboratory professionals, no one has disputed this fact.

Efficiency: Furthermore, shuttling specimens and slides back and forth over ninety miles between New Britain and Marlborough will do nothing to improve the efficiency of the process. On the contrary, such an arrangement introduces additional handoffs and increases opportunities for errors and loss.

The testing cycle, the entire process of laboratory testing from specimen collection to report generation, can be separated into three phases: the preanalytic phase, the analytic phase, and the postanalytic phase. The analytic phase (the actual testing of the specimen once it is received by the lab) is largely described above under the heading of Quality. The analytic phase is the area that the lab itself often has most direct control of, and it is typically the source of fewest errors. The majority of significant laboratory problems arise during the preanalytic phase which includes specimen collection, labelling, and transport. It is here that the HOCC lab enjoys the greatest advantage over Quest. A comparison of the preanalytic phase of the anatomic pathology outreach service at HOCC and the prenanalytic phase in the proposed arrangement will serve as an illustration.

Currently, physician office biopsies are collected and labelled in the doctor's office. They are then transported from those offices in nearby communities to the HOCC lab. The biopsies are processed in surgical pathology and delivered to histology, located a few steps away. The histology lab produces slides, and the slides are distributed to HOCC pathologists located just down the hall the next day. The pathologists review the slides and produce diagnostic reports that are available immediately in the HOCC hospital information system. If the pathologists need additional tests, they can request them from histology and, if the request is received before 10:30 AM, the results are available the same day. Unexpected results, by Pathology department policy, are phoned or texted to the ordering physician as soon as they are available.

If the CON is granted and physician office biopsies are processed at Quest, the tissue specimens will be collected and labelled at the physician office as before. They will then be transported by courier ninety miles to the Quest labs in Marlborough where they will be processed, and glass slides will be produced. Those glass slides will then be transported ninety miles back to New Britain where they will be reviewed by HOCC pathologists. Pathology reports will be entered

into the Quest computer system which is separate from the HOCC system. If additional testing is needed, it is unlikely to be available to the pathologist until at least the following day.

The Quest preanalytic phase is more susceptible to unpredictable weather and traffic conditions. The tissue and slides will travel over greater distances, more time will be involved, and the response to unanticipated events like the need for special testing and the reporting of unexpected results will be less agile and slower. The arrangement with Quest will inevitably result in delays which will have an impact on the efficiency, timeliness, and quality of patient offered at HOCC.

Safety: The proposed sale will result in a process that will be more complex and involve more handoffs (exchanges of specimens and information between people or systems). Both increased complexity and increased handoffs have been shown in numerous studies to increase the chance for serious errors (please see Exhibit A). HOCC has invested heavily in creating a culture of safety. A consulting firm was hired to analyze hospital operations and suggest areas for improvement. Data were collected. Mandatory safety and high reliability training sessions were instituted for all hospital staff, professional and non-professional. These changes were instituted at considerable cost. The proposed system runs counter to this initiative and to HOCC's commitment to safety as a core value.

The scenario outlined in the above comparison is not merely theoretical. When the same system was put in place at Hartford Hospital following the sale of outpatient lab work to Quest, some physicians (notably breast surgeons) found it unacceptable. The turnaround times adversely impacted the delivery of prompt care. These clinicians demanded that their specimens be at Hartford Hospital. Testimony from the Hartford Hospital histology laboratory and breast surgeons can be submitted at a later date if OHCA will permit it.

The Applicant's Economic Arguments are Offered Without Evidence That Alternatives Were Adequately Considered

The application suggests that the proposed sale is necessary for the continued economic well being of HOCC. The application further claims that no scholarly articles are needed to support its proposal. There is, in fact, a literature that deals with the sale of hospital outreach work to large commercial laboratories. As outlined in Exhibit B, there is recognized expert opinion published in books and professional journals that contests the applicant's claim that the economic challenges faced by the hospital leave no choice but to sell the outreach lab service.

Consultants and laboratory managers offer multiple examples of hospitals that have successfully chosen to say no to offers from large commercial labs. They have found ways to focus on generating revenue (by investing in the lab, improving their marketing, and reanalyzing their business practices) rather than focusing solely on cutting expenses (by dismissing employees and shedding facilities). There is, of course, expert opinion which supports the sale of hospital outreach work to large commercial labs, but the issue can hardly

be characterized as definitively decided. At very best there is a healthy difference of opinion on the matter.

The applicant has made no discernible effort to demonstrate that other viable options were explored before agreeing to the proposed sale, a sale which (as outlined above) carries the potential for serious adverse effects on patient care.

The Application is Incomplete and Misleading

The application claims that the proposed sale is strictly limited to the five patient service centers listed in the application. This limited transaction, it claims, will not impact or affect any of the laboratory testing services offered by HOCC and/or provided by HOCC to its patients. This is only partially true. The transfer of ownership of the patient service centers by itself will not have a significant impact or effect. But the agreement being drafted between HOCC and Quest goes well beyond that. As discussed in the announcements of the proposed sale and in a meeting between the administration and the laboratory staff, the agreement will also reroute all physician office tissue biopsies and cytology specimens (formerly handled by HOCC labs) to Quest. This aspect of the agreement is not adequately discussed.

The application also implies the support of hospital staff and local officials. The application includes letters of support from a staff physician, Dr. Steven Prunk, and the Director of Health for the City of New Britain, Mr. Sergio Lupo. Without questioning their motives in supporting the proposed sale, I would like to point out several problems with these letters. Dr. Prunk is a friend, a colleague, and an excellent physician, but as director of pulmonary medicine and critical care his practice is largely hospital based. He does not use HOCC outreach services and is not in the best position to comment on them. Both letters claim that there is an increasing demand for high value, low cost laboratory services that can best be met by Quest. I am not personally aware of any such demand on the part of the patients or clinicians, and I see no evidence in the application to suggest that such a demand exists. The letters both suggest that the proposed sale would result in the region enjoying increased access to laboratory services. As explained above, that is simply and demonstrably not the case. Finally, it should also be pointed out that both supporting letters are identical, word for word.

In all of the conversations we have had with laboratory technologists, pathologists, and clinicians, we have not heard one unprompted word of support for the proposed sale. Attached are written statements from HOCC laboratory technologists (please see Exhibit C). The abbreviated timeline for this submission precludes the inclusion of a written statement by a clinician who opposes the sale. But we have a verbal commitment to send such a written statement as soon as August 22nd if the OHCA will permit.

We believe that the application offers an incomplete and unrealistic assessment of the potential for harm to HOCC patients. At the very least, we ask that OHCA request a more complete description of the agreement between HOCC and Quest and a more thorough analysis of the potential for adverse effects.

The Proposed Sale Will Limit Patient Choice

Selling our outreach work to Quest will serve to limit choice for HOCC patients. Quest is one of the largest providers of laboratory services in Connecticut and across the United States, and it already does the lab testing for 50% of physician offices. If the proposed sale is approved, large numbers of HOCC's patients including many of its employees, will have no say in where their lab work is done. It may be argued that the patients may not care where their specimens go to be tested. But it cannot be shown anywhere in the application that their opinion was ever solicited.

The proposed sale will necessarily reduce the number of options available to our patients. The public has a right to know about the proposed sale and to weigh in on it. The public hearing is a very welcome first step in that process. But we ask that OHCA request more information from the applicant prior to making its decision.

Finally, the sale of HOCC's outreach laboratory work is just the latest in a series of decisions designed to centralize services in the HHC network and to limit the range of hospital services offered in New Britain. While this approach may offer financial advantages to HHC, it comes at the price of decreased access and choice for the people who live in New Britain and surrounding communities. The proposed sale of outreach laboratory services follows the sale of gynecologic cytology (see above), the outsourcing of autopsy technical services, and the outsourcing of transcription services here in the lab. HOCC has also discontinued inpatient and outpatient pediatric services as well as bariatric surgery. Each of these changes was supported by economic arguments by HHC and none of them individually seemed like a seismic change in health care delivery at HOCC. But collectively they are significant, not only because of the reduction of services offered to the citizens of New Britain, but also because they suggest a pattern. We ask the OHCA to consider not only the proposed sale as outlined in HHC's application in isolation, but also to consider the sale in the context of their statewide plan for facilities and services. We ask the OHCA to examine the evidence and decide if the proposed sale, seen as part of the trend of a decreasing menu of services offered at HOCC, is in the best interest of our community.

For all of the above reasons, we respectfully ask that OHCA deny the applicant's request for a CON.

Harold Sanchez, MD on August 21, 2017

EXHIBIT A:

Studies which conclude that systems that are more complicated and have more handoffs are less afe

1. Institute of Medicine: To Err is Human. National Academies Press, Washington DC. 1999:

Systems that are more complex and tightly coupled are more prone to accidents and have to be made more reliable.[32] *In Reason's words, complex and tightly coupled systems can "spring nasty surprises."*[33] Chapter 3 Why Do Errors Happen? page 58

A number of practices have been shown to reduce errors in the medication process and to exemplify known methods for improving safety. The committee believes they warrant strong consideration by health care organizations including hospitals, long-term-care facilities, ambulatory settings, and other health care delivery sites, as well as outpatient and community pharmacies. These methods include: reducing reliance on memory; simplification; standardization; use of constraints and forcing functions; the wise use of protocols and checklists; decreasing reliance on vigilance, handoffs, and multiple data entry; and differentiating among products to eliminate look-alike and sound-alike products. Chapter 8 Creating Safety Systems in Health Care Organizations page 157-8 Recommendation 8.2

Simplifying key processes can minimize problem solving and greatly reduce the likelihood of error. Simplifying includes reducing the number of handoffs required for a process to be completed (e.g., decreasing multiple order and data entry). Chapter 8 Creating Safety Systems in Health Care Organizations page 172.

2. West DR et al. Laboratory Medicine Handoff Gaps Experienced by Primary Care Practices: A Report from the Shared Networks of Collaborative Ambulatory Practices and Partners (SNOCAP). *J Am Board Fam Med* 2014;27:796-803:

"Both the Institute of Medicine (IOM) and the Joint Commission have identified failed patient handoffs as a cause of medical errors leading to a significant number of sentinel events. Laboratory medicine in primary care is no exception to this; it is frequently characterized by a constellation of multiple-step processes with critical cross-domain handoffs occurring among patients, clinical care teams, and laboratories…As many as half of physician-reported errors have been related to the laboratory testing process. Studies report that the consequences of many laboratory medicine handoff errors include delayed care, increased costs, and patient pain and suffering"

ORIGINAL RESEARCH

Laboratory Medicine Handoff Gaps Experienced by Primary Care Practices: A

Report from the Shared Networks of Collaborative Ambulatory Practices and Partners (SNOCAP)

David R. West, PhD, Katherine A. James, MSCE, PhD, Douglas H. Fernald, MA, Claire Zelie, MPH, Maxwell L. Smith, MD, and Stephen S. Raab, MD

Background: **The majority of errors in laboratory medicine testing are thought to occur in the pre- and postanalytic testing phases, and a large proportion of these errors are secondary to failed handoffs. Because most laboratory tests originate in ambulatory primary care, understanding the gaps in handoff processes within and between laboratories and practices is imperative for patient safety. Therefore, the purpose of this study was to understand, based on information from primary care practice personnel, the perceived gaps in laboratory processes as a precursor to initiating process improvement activities.**

Design: **A survey was used to assess perceptions of clinicians, staff, and management personnel of gaps in handoffs between primary care practices and laboratories working in 21 Colorado primary care practices. Data were analyzed to determine statistically significant associations between categorical vari- ables. In addition, qualitative analysis of responses to open-ended survey questions was conducted.**

Results: **Primary care practices consistently reported challenges and a desire/need to improve their efforts to systematically track laboratory test status, confirm receipt of laboratory results, and report results to patients. Automated tracking systems existed in roughly 61% of practices, and all but one of those had electronic health record– based tracking systems in place. One fourth of these electronic health record– enabled practices expressed sufficient mistrust in these systems to warrant the concur- rent operation of an article-based tracking system as backup. Practices also reported 12 different pro- cedures used to notify patients of test results, varying by test result type.**

Conclusion: **The results highlight the lack of standardization and definition of roles in handoffs in primary care laboratory practices for test ordering, monitoring, and receiving and reporting test re- sults. Results also identify high-priority gaps in processes and the perceptions by practice personnel that practice improvement in these areas is needed. Commonalities in these areas warrant the develop- ment and support of tools for use in primary care settings. (J Am Board Fam Med 2014;27:796–803.)**

Keywords: **Laboratories, Practice-based Research, Primary Health Care**

This article was externally peer reviewed.

Submitted 15 January 2014; revised 19 August 2014; ac- cepted 25 August 2014.

From the Department of Family Medicine, University of Colorado Denver, Aurora (DRW, KAJ, DHF, CZ); the

Department of Laboratory Pathology, Mayo Clinic, Scotts- dale, AZ (MLS); the Department of Pathology, University of Washington, Seattle (SSR); and the Department of Pa- thology, Memorial University/Eastern Health, St John's, Newfoundland, Canada (SSR).

Funding: The research described in this article was funded by the Centers for Disease Control and Prevention, Division of Laboratory Programs, Standards, and Services, via coop- erative agreement no. U47CI000832.

Conflict of interest: none declared.

Both the Institute of Medicine (IOM) and the Joint Commission have identified failed patient handoffs as a cause of medical errors leading to a significant

Disclaimer: The opinions expressed by authors do not necessarily reflect the opinions of the U.S. Department of Health and Human Services, the Public Health Service, the Centers for Disease Control and Prevention, or the authors' affiliated institutions. Use of trade names is for identification only and does not imply endorsement by any of the groups named above.

Corresponding author: David R. West, PhD, Department of Family Medicine, University of Colorado School of Med- icine, 12477 E. 19th Ave, Bldg 406 M/S F44, Aurora, CO 80045 (E-mail: David.West@ucdenver.edu).

number of sentinel events.[1,2] Laboratory medicine in primary care is no exception to this; it is fre- quently characterized by a constellation of multi- ple-step processes with critical cross-domain hand- offs occurring among patients, clinical care teams, and laboratories.[3]

Studies examining the frequency and causes of laboratory errors in primary care indicate that ambu- latory care practice characteristics affect error detec- tion and frequency.[4] For example, practices lacking a specific system to manage laboratory test orders are twice as likely to report errors as practices with a system.[5] As many as half of physician-reported errors have been related to the laboratory testing process.[6 – 8] Studies report that the consequences of many labora- tory medicine handoff errors include delayed care, increased costs, and patient pain and suffering.[5,9]

In 2010, the Centers for Disease Control and Prevention initially funded the University of Col- orado Health Outcomes Program (Aurora, CO) to design quality improvement initiatives that would bridge current gaps in primary care–laboratory medicine handoffs. As the first step, practices par- ticipating in the Shared Networks of Collaborative Ambulatory Practices and Partners (SNOCAP) practice-based research network, researchers, and laboratory personnel (pathologists) used qualitative and quantitative practice survey data to identify perceived gaps in laboratory testing processes by key role within the primary care practice and to identify specific laboratory

testing processes as tar- gets for in-depth study before initiating process improvement. The findings reported here provide both laboratories and primary care practices with a greater understanding of the management of labo- ratory tests, including handoff failures, with a goal of informing efforts to transcend cross-domain bar- riers and foster partnerships in the solutions for improving laboratory medicine care.

Methods

A survey method was used to assess perceptions regarding gaps in primary care before and after analytic laboratory testing processes. The question- naire for the survey was designed to discretely mea- sure staff and provider perceptions about how prac- tices manage laboratory test ordering and tracking, patient notification, and patient follow-up. Labo- ratory tracking is an information-gathering and documentation process associated with managing

handoffs. In this study, handoffs included transmis- sion of clinicians' orders to other personnel in the practice, test requests from practices to laboratories, transmission of laboratory results from laboratories to clinics, and the ultimate communication of these re- sults to patients. This study was reviewed for human subjects protections and was approved by the Colo- rado Multiple Institutional Review Board.

Practice Recruitment

We recruited ambulatory care practices from the SNOCAP practice based research network that are affiliated with the University of Colorado Depart- ment of Family Medicine (Aurora, CO). Practices within SNOCAP comprise predominantly family medicine physicians, with some pediatric and internal medicine practices (one of each were included in the survey). A recruitment E-mail with information on the study's aims was sent to practice managers in March 2011. Practices that did not respond received a follow-up E-mail 4 to 6 weeks after the initial invitation. A payment of $250 was offered to each practice for participation. A total of 43 practices were contacted to consider participation in this survey.

Using an approach like that described by Dill- man,[10] questionnaires were distributed via mail to the participating practices in rural, urban, and sub- urban settings during the recruitment period (March to June 2011). Using the expectations of 60% to 80% return rates from homogeneous re- sponse groups, as published by Dillman,[10] we es- tablished a goal of a 70% internal response rate from each practice organization for inclusion of each practice's results in the analysis. All practices received 2 reminder E-mails to complete and re- turn the questionnaires.

Questionnaire Design

We developed the survey questionnaire subsequent to conducting a review of the literature about pre- viously developed tools and research in this area.[4] The questionnaire was modeled after an instru- ment developed by the American Academy of Fam- ily Physicians National Research Network (Test Processing Survey Questionnaire).[5] All question- naires were produced using the Snap Survey soft- ware program (Snap Surveys Ltd, Bristol, UK) that allows completed surveys to be scanned for efficient data entry, review, and analysis.

A general practice questionnaire was adminis- tered to collect practice demographics and infor-

mation about general processes, along with instru- ments including questions tailored specifically for personnel in 3 practice role categories: practice staff, clinicians, and practice managers. Staff in- cluded nurses, medical assistants, medical records, clerical personnel, front desk staff, and practice- based phlebotomists. Clinicians included physi- cians, nurse practitioners, physician assistants, and other independent clinicians (eg, pharmacists and psychologists). Practice or office managers in- cluded individuals who were generally nonphysi- cian administrators responsible for practice coordi- nation and management.

The tailored questionnaires were quite similar to one another, examining perceptions of handoffs be- fore and after analytic processes and transitions within these processes, as well as the perceptions of roles and responsibilities of the survey respondent and those of personnel in the other role categories. In each case, we sought to gather information about practice pol- icies regarding laboratory test processes, the nature of the processes themselves (including documentation and perceived roles of clinic personnel in carrying out the processes), and problems that were associated with these processes. The questionnaire focused ex- clusively on routine diagnostic tests such as blood, urine, and stool tests; it did not include imaging, body function, biopsy, endoscopy, or special studies. Table 1 summarizes the processes that were explicitly ex- plored with the questionnaires.

The questionnaire posed specific questions to gather data concerning respondents' perceptions of the quality of processes in place within their prac- tices and those aspects of laboratory testing pro- cesses that could be changed or improved. Most questions had structured response categories com- posed of binary (yes or no) responses, 4- or 5-point Likert scale responses, and nominal response op- tions. In addition, open-ended questions were in- cluded to allow respondents to discuss the per-

Table 1. Laboratory Processes Explored

Process	Test ordering	Test tracking	Test result notification	Patient follow-up

ceived gaps in their processes and to offer suggestions for improvement. The questionnaire was pilot tested with members of the practicing faculty at the Department of Family Medicine at the University of Colorado (Aurora, CO), whose suggestions for clarity and ease of use were incor- porated into the final questionnaire (Appendix 1, available upon request from the authors).

Statistical Analysis

Data were analyzed using the SAS statistical software package, version 9.2 (SAS Institute, Inc., Cary, NC). Survey data initially were analyzed descriptively, and exploratory analysis was performed to identify the variables of highest interest. Analyses of contingency tables (^{2} statistics), complemented by analyses of standardized residuals, determined statistically signif- icant associations between categorical variables. Sta- tistical significance was assumed at a conservative level of P .01.

Qualitative Analysis

For open-ended survey responses, a content anal- ysis[11] was conducted using a process in which at least 2 investigators independently evaluated the content of each question to identify the general ideas/themes that were expressed. Each investiga- tor numerically coded each individual idea/theme, and the codes and general trends were assessed across statements. Once complete, the investigators compared their assessments, and differences were resolved by continued discussion until consensus was reached.

Results

Initially, 43 Colorado-based practices were con- tacted for this study, and 21 agreed to participate. From among the cohort of 21 practices we received 384 completed questionnaires. This resulted in a

Process Description

The clinician's decision process about which test(s) to order and the transmission of that information to personnel responsible for performing the test or obtaining the specimen

The clinic's internal monitoring and reconciliation processes for the expected transmission of results of tests ordered from laboratories

The processes by which a patient learns of test results and how recommendations for action are transmitted to the patient

The processes by which abnormal test results or results needing action by the patient are tracked until that action is taken or refused by the patient

final analytic cohort of responses from 135 clini- cians, 192 staff personnel, 18 practice managers (responses from 2 practice managers were received from within the same practice), and 39 individuals whose role in the practice was unclear. Table 2 summarizes practice characteristics (of those in- cluded) that were representative of the practice membership of SNOCAP. We noted that 17 of the 21 practices had an internal completion rate of at least 70% among physicians, staff, and practice managers (n 345). With regard to the roles and activities of clinicians versus staff in performing lab- oratory processes, analysis of the reported perceptions of individuals within practices were limited to these responses (as displayed in Tables 3 and 4).

Test-Ordering Processes

Clinicians identified the electronic health record (EHR) (52%) and clinical flow sheets and guide- lines (50%) as primary aids for laboratory test ordering. The most common methods of trans- mitting test orders to laboratories were hard copy requisition forms (40%) and EHR-based com- puterized provider order entry (CPOE) (38%).

In general, respondents characterized their test ordering processes as functioning least ade- quately.

Test-Tracking Processes

While more than half of practices (61%) reported the use of an automated system to track laboratory tests once they are ordered, 37% of clinicians and 18% of staff reported that their practice had “no system” for tracking or reconciling laboratory test orders and results. Practices with less than a 25% Medicaid payer mix and those in urban settings were less likely to have any tracking system in place; if they did, they were more likely to report their tracking to be “poor” (*P* .001). Test tracking was the specific area that clinician respondents were most interested in improving (57%). Numerous respondents qualitatively described their concern about the lack of tracking systems or the failure of these systems, including one fourth of practices with EHR tracking systems that reported the con- current use of error-prone and labor-intensive Ar- ticle-based systems as backups.

Table 2. Characteristics of Participating Primary Care Practices (n 21) Characteristic

Electronic health record utilization Disease registry utilization Rural location Practice patient volume

Small (60 patient visits/day) Medium (60–100 patient visits/day) Large (100 patient visits/day)

Medicaid and Medicare population/payer mix 25% of patient population insured by Medicaid 20% of patient population insured by Medicare

Past participation in formal practice improvement On-site processes

Phlebotomy Preparation of blood samples before transport to the laboratory Collection of stool samples Collection of urine samples Clinical Laboratory Improvement Amendment–waived laboratories Licensed laboratory as part of practice

Practices, n (%)

17 (81) 20 (95) 9 (43)

7 (33) 8 (38) 6 (29)

14 (67) 7 (33) 17 (81)

14 (67) 12 (57) 20 (95) 13 (62) 13 (62)

5 (24) Commercial Laboratory “B”

8 (38%) 1 (5%) 9 (43%) 1 (5%)

Test result delivery method from external laboratories Fax

Dedicated printer Directly downloaded to electronic heath record Other

Commercial Laboratory “A” 10 (48%) 1 (5%) 10 (48%) 1 (5%)

Hospital 8 (38%) 4 (19%) 8 (38%) 6 (29%)

doi: 10.3122/jabfm.2014.06.140015

Table 3. Reported Method of Communicating Normal/ Clinically Insignificant Abnormal and Abnormal Laboratory Results to Patients, by Electronic Health Record (EHR)– versus Non-EHR-Enabled Practices*

Table 4. Reported Method of Communicating Normal/ Clinically Insignificant Abnormal and Abnormal Laboratory Results to Patients, by Urban versus Rural Practice Location*

	Practices That Always/Often Use Method, n (%)‡	
	Practices	Practices
Practices That Always/Often Use Method, n (%)‡		
Method of Communicating Results†		
Normal and clinically insignificant abnormal results		
Personal call from clinician		
Medical assistant/nurse phone call to patient		
Patient instructed to call		
Patient to assume test is normal if not notified		
Send personal note		
Send form letter to patient		
Mail copy of test results		
Results available on secure website for patients to access		
Results emailed to patients		
Results available on automated phone-in system		
Results available during patient visit		
Laboratory center directly notifies patient		
Clinically significant abnormal results		
Personal call from clinician		

Medical assistant/nurse phone call to patient

Patient instructed to call

Send personal note

Results available on secure website for patients to access

Results emailed to patients

Results available on automated phone-in system

Send form letter to patient

Mail copy of test results

Results available during patient visit

Laboratory center directly notifies patient

With EHR

104 (41) 137 (54)

54 (22) 68 (27)

68 (27) 117 (46) 108 (42)

28 (11) 9 (4)

2 (1) 139 (56)

5 (2)

204 (81) 136 (54)

48 (20) 39 (16) 22 (9)

8 (3) 5 (2)

55 (23)

71 (29) 110 (46)

6 (3)

Without EHR

36 (32) 36 (32)

25 (23) 30 (28)

19 (17) 47 (42) 39 (35) 30 (27)

6 (6) 0 (0)

55 (50) 0 (0)

83 (75) 33 (30)

19 (18) 10 (9) 25 (24)

7 (7) 0 (0)

26 (24) 31 (29) 50 (46)

1 (1)

Method of Communicating Results[†]

Normal and clinically insignificant abnormal results

Personal call from clinician

Medical assistant/nurse phone call to patient

Patient instructed to call

Patient to assume test is normal if not notified

Send personal note

Send form letter to patient

Mail copy of test results

Results available on secure website for patients to access

Results emailed to patients

Results available on automated phone-in system

Results available during patient visit

Laboratory center directly notifies patient

Clinically significant abnormal results

Personal call from clinician

Medical assistant/nurse phone call to patient

Patient instructed to call

Send personal note

Results available on secure website for patients to access

Results emailed to patients

Results available on automated phone-in system

Send form letter to patient

Mail copy of test results

Results available during patient visit

Laboratory center directly notifies patient

Urban

127 (40) 125 (40

62 (20) 94 (30)

72 (23) 145 (46) 138 (44)

58 (19) 15 (5)

2 (1) 153 (50)

4 (1)

257 (82) 124 (40)

49 (17) 43 (14) 47 (16)

15 (5) 5 (1)

65 (22)

93 (31) 124 (42)

5 (2)

Rural

22 (31) 56 (80)

19 (27) 11 (17)

17 (24) 30 (43) 15 (21) 1 (1)

0 (0) 0 (0)

53 (75) 1 (1)

47 (67) 53 (76)

19 (28) 9 (13) 1 (1)

0 (0) 0 (0)

20 (29) 11 (16) 45 (64) 2 (3)

Bold indicates significant different between clinicians and staff and managers. *Analysis was confined to responses from the 17 practices with an internal response rate of at least 70%, by role.

†Row percentage for each notification method could be 100% because not every respondent selected each method. ‡Respondents to the survey (clinicians, staff, and managers) were able to select all notification methods that apply to their prac- tice; therefore, percentages may be 100%.

Bold indicates significant different between clinicians and staff and managers. *Analysis was confined to responses from the 17 practices with an internal response rate of at least 70%, by role.

†Row percentages for each notification method could be 100% because not every respondent selected each method. ‡Respondents to the survey (clinicians, staff, and managers) were able to select all notification methods that apply to their prac- tice; therefore, column percentages may be 100%.

Patient Notification

Table 5 summarizes the reported frequency across all surveyed practices for notifying patients about

Table 5. Frequency With Which Practice Personnel Reported That the Practice Directly Notifies Patients of Laboratory Test Results (n 384)

(medical assistants and nurses) to make these calls than did urban practices (76% vs 40%).

We observed that approximately 20% of clini- cians and 11% of staff rated their patient notifica- tion for normal or CIA results processes as “poor.” About one third of staff also reported that patient notification systems were among their highest pri- orities for improvement (34%). Qualitatively, re- spondents frequently described processes whereby laboratory test notifications often were triggered by patient calls and reported that patient calls for test results often were disruptive to practice workflows and that handling them was labor intensive.

Tools and Reminders for Follow-Up Testing

Respondents reported the use of EHR-based re- minder systems, and their own internal “tickler” systems, as the

most common mechanisms for as- suring that required follow-up testing was ordered. Practices with at least a 25% Medicaid and/or 20% Medicare payer mix were more likely to have an EHR-based system rather than a stand-alone “tick- ler” file (*P* .01). In assessing practice responses to patient follow-up, 30% of clinicians and 17% of staff responded that they had no specific system. The most common response indicated that the EHR is flagged with follow-up recommendations. Staff and clinicians statistically differed in reporting who was responsible for documenting patient fol- low-up: 57% of staff, compared with 81% of clini- cians, reported this to be the role of the clinician (*P* .001).

Other Qualitative Themes

In addition to the qualitative results reported above, respondents frequently reported human er- ror and communication breakdown at the point of handoffs, as well as difficulty in sorting and han- dling results when returned from the laboratory. In addition, respondents reported concerns of “pa- tient leakage” when referring to the phenomenon when patients sent to the laboratory draw station with the requisition forms do not show up, as well as having outdated or erroneous contact informa- tion to use when attempting to notify them patients about results.

Discussion

The aim of this study was to develop an under- standing of the perceived gaps in laboratory testing

Reported Patients Notified Directly, n (%)

Result

Normal Clinically insignificant abnormal Clinically significant abnormal

96% of the Time

255 (66) 220 (57) 105 (27)

Between 96% to 100% of the Time

129 (34) 164 (43) 279 (73)

laboratory results that were normal, clinically in- significant abnormal (CIA), and clinically signifi- cant abnormal (CSA). Our results showed no signif- icant differences in reported notification practices from EHR-enabled versus non-EHR-enabled prac- tices, nor were urban results significantly different from those reported by rural practices. Nearly three quarters of clinicians (74%) reported that the clinic directly notified patients of abnormal test results at least 96% of the time. Only two thirds of staff and managers (63%) reported that the clinic directly no- tified patients of abnormal test results at least 96% of the time.

Tables 3 and 4 summarize the reported methods commonly used for communicating normal/CIA and CSA test

results to patients and display for comparison the responses from EHR-enabled and non-EHR-enabled practices (Table 3) and urban and rural practices (Table 4). Importantly, approx- imately one quarter of practice personnel (for all surveyed practices combined) reported that their practice always or often informs patients that they should assume test results to be normal if they receive no notification from the practice. Respon- dents also generally agreed that the most common methods (always or often) of communicating nor- mal/CIA laboratory results to patients were mailing a form letter or by mailing a photocopy of labora- tory results; rural practices were less likely to mail copies of test results. Notification telephone calls from the clinician or staff also were reported to be frequently used (with much higher rates of staff rather than clinicians reported to be making the calls in rural practices), along with making the results available at the patient visit. Respondents reported a much higher use of telephone calls ver- sus other methods to notify patients of CSA results, and rural practices reported a higher use of staff

processes— both internally and during handoffs be- tween practices and laboratories—as reported by personnel in primary care practices. Data from these stakeholders provide useful insight into po- tential targets for process improvement activities. These survey results highlight the lack of standard- ized handoffs and definition of roles in ordering and monitoring tests and receiving and reporting results in primary care laboratory practices. The survey results also point to the high-priority gaps in processes that providers and staff identified as areas for practice improvement. As documented in the literature, the lack of standardization results in in- efficient delivery of care, associated with higher costs, breakdowns in patient-centeredness, and medical errors.[12] These failures result in laboratory test–related inefficiencies and lost revenue from patients who do not show up for a test or who file medical liability claims based on resulting failures. In their written responses, practices expressed a strong desire for more efficient and effective labo- ratory test processing systems. In addition, many respondents reported several inefficiencies with their current system(s).

The field of laboratory medicine traditionally allocated test ownership based on domain of work- flow, with handoffs of ownership occurring at the preanalytic and analytic (ambulatory practice to laboratory) and the analytic and postanalytic (lab- oratory to ambulatory practice) phases of testing. The handoff challenges identified by primary care practice personnel highlight flaws in this silo do- main model, and optimal solutions should be de- signed jointly by both parties. As an example of a joint approach, the College of American Patholo- gists recently released 4 different practice pathway examples for pathologists to demonstrate their value to accountable care organizations.[13] One of the pathways they describe, called the patient diag- nostic services center, is designed to combine lab- oratory medicine and diagnostic radiology services as partners in the ambulatory care setting. This partnership would allow for up-front, patient-cen- tered diagnostic studies to improve the efficiency and productivity of subsequent ambulatory care visits. Our survey data support components of this type of ambulatory care and laboratory medicine partnership. Many believe that improving health care quality is linked to improving teamwork, es- pecially at points of handoff, and laboratories have

the potential to play a major role in developing handoff best practices.

The first handoff (practice to laboratory) imme- diately leaves many practices blind as to whether a test specimen was actually collected because the responsibility for action to enable collection is placed on the patient. Although

not all primary care practices collect patient specimens, these prac- tices still require reliable systems to track test status when patients go elsewhere to undergo laboratory testing. While practices may attempt to use their EHR CPOE, many resort to hand-written log books because of frustration with poorly function- ing automated tools. Of even greater concern is that a number of practices reported that they have no system at all to track laboratory tests. Many laboratories receive test orders in CPOE environ- ments, but these laboratories generally do not in- form practices if the patient fails to arrive at a specimen collection center and the test is never received. EHR-based CPOE systems could be bet- ter used to flag potential errors of this type.

For the second handoff (laboratory to primary care), laboratories generally return test results to the ordering clinician. However, practices are com- plex environments, and the reconciliation of tests ordered and resulted generally does not fall to the ordering clinician. In fact, the survey data indicated that practice personnel recommended that some- one other than the physician should perform test reconciliation. Laboratory tools that direct test re- sults to personnel with a central practice function would improve practice efficiency and likely reduce errors secondary to missed test results.

These survey data also show that primary care practices use a variety of methods and different personnel for patient notification services. Some practices have a policy of not notifying patients of normal laboratory test results. This lack of patient- centeredness has multiple causes, one of which is the large number of practice-patient communica- tions that this would entail. Some laboratories have created Internet-based portals that allow patients to view these test results, although laboratories could work even further to partner with ambulatory care practices in the result notification process.

For some testing activities, including patient no- tification, ambulatory care practice personnel showed levels of role confusion that may further contribute to practice inefficiencies and gaps in handoffs. These findings emphasize the benefit that

laboratories could provide by assisting practices in standardizing work processes and personnel activi- ties in the handoff steps.

A limitation of this study is that we measured only personnel responses from a set of practices in Colorado; geographic, economic, and other factors may affect personnel responses regarding handoff perceptions. We also did not evaluate practice per- ceptions of test selection and aspects of test result management practices (apart from patient notifica- tion). These phases of the total testing process affect testing handoffs, and improved practice–lab- oratory communication could positively affect these phases as well.

Conclusion

Gathering the perceptions of practice personnel are only a first step in substantially improving pro- cesses. We see the engagement of practices and their laboratory partners in process improvement activities, with the use of appropriate metrics with which to track progress, as the next logical step of this research.

References

1. Institute of Medicine. Crossing the quality chasm: a new health system for the 21st century. Washington, DC: National Academies Press; 2001.

2. Joint Commission Perspectives on Patient Safety. Strategies to improve hand-off communication: imple- menting a process to resolve questions. Oak Brook (IL): Joint Commission; 2005. Available from: https://ps. mcic.com/appdocs/lps/Strategies%20to%20Improve% 20Handoff%20Communication.pdf. Accessed Septem- ber 21, 2014.

3. Elder NC, Hickner J, Graham D. Quality and safety in outpatient laboratory testing. Clin Lab Med 2008; 28:295–303, vii.

4. Smith ML, Raab SS, Fernald DH, et al. Evaluating the connections between primary care practice and clinical laboratory testing: a review of the literature and call for laboratory involvement in the solutions. Arch Pathol Lab Med 2013;137:120–5.

5. Hickner J, Graham DG, Elder NC, et al. Testing process errors and their harms and consequences reported from family medicine practices: a study of the American Academy of Family Physicians Na- tional Research Network. Qual Saf Health Care 2008;17:194 –200.

6. Fernald DH, Pace WD, Harris DM, West DR, Main DS, Westfall JM. Event reporting to a primary care patient safety reporting system: a report from the ASIPS Collaborative. Ann Fam Med 2004;2: 327–32.

7. Makeham MA, Dovey SM, County M, Kidd MR. An international taxonomy for errors in general prac- tice: a pilot study. Med J Aust 2002;177:68–72.

8. Dovey SM, Meyers DS, Phillips RL Jr, et al. A preliminary taxonomy of medical errors in family practice. Qual Saf Health Care 2002;11:233–8.

9. Gandhi TK, Kachalia A, Thomas EJ, et al. Missed and delayed diagnoses in the ambulatory setting: a study of closed malpractice claims. Ann Intern Med 2006;145:488 –96.

10. Dillman DA. The design and administration of mail surveys. Annu Rev Sociol 1991;17:225– 49.

11. Miles MB, Huberman AM. Qualitative data analysis: an expanded sourcebook. Thousand Oaks (CA): SAGE Publications; 1994.

12. Christenson RH, Snyder SR, Shaw CS, et al. Labo- ratory medicine best practices: systematic evidence review and evaluation methods for quality improve- ment. Clin Chem 2011;57:816–825.

13. Promising practice pathways. Northfield (IL): College of American Pathologists; 2012. Available from: http://www. cap.org/apps/docs/reference/promising-pathways_ full_new.pdf. Accessed August 9, 2013.

---

doi: 10.3122/jabfm.2014.06.140015 Laboratory Medicine Handoff Gaps: A SNOCAP Report 803

3. Patient Safety Tip of the Week, November 16, 2010 http://www.patientsafetysolutions.com/docs/November_16_2010_Lost_Lab_Specimens.htm

"In the Slavin article, the pathology department decided that it would take ownership of the transport process from the OR to the lab. That effectively reduced the number of handoffs. Handoffs are always opportunities for errors to occur so anything that reduces the number of handoffs generally improves safety."

4. Slavin, Lee et al. *Quality Management in Healthcare* Fall 2001; 10(1):45-53

5. Wen T, Attenello FJ, Cen SY, Khalessi AA, Kim-Tenser M, Sanossian N, Giannotta SL, Amar AP, Mack WJ. Impact of the 2003 ACGME Resident Duty Hour Reform on Hospital-Acquired Conditions: A National Retrospective Analysis.. *J Grad Med Educ*. 2017 Apr;9(2):215-221.

BACKGROUND: The Accreditation Council for Graduate Medical Education reforms in 2003 instituted an 80-hour weekly limit for resident physicians. Critics argue that these restrictions have increased handoffs among residents and the potential for a decline in patient safety. "Never events" hospital-acquired conditions (HACs) are a set of preventable events used as a quality metric in hospital safety analyses.
OBJECTIVE: This analysis evaluated post-work hour reform effects on HAC incidence for US hospital inpatients, using the National Inpatient Sample.
METHODS: Data were collected from 2000-2002 (pre-2003) and 2004-2006 (post-2003) time periods. HAC incidence in academic and non-academic centers was evaluated in multivariate analysis assessing for likelihood of HAC occurrence, prolonged length of stay (pLOS), and increased total charges.
RESULTS: The data encompassed approximately 111 million pre-2003 and 117 million post-2003 admissions. Patients were 10% more likely to incur a HAC in the post-2003 versus pre-2003 era (odds ratio [OR] = 1.10; 95% confidence interval [CI] 1.06-1.14; P < .01). Teaching hospitals exhibited an 18% (OR = 1.18; 95% CI 1.11-1.27; P < .01) increase in HAC likelihood, with no change in nonteaching settings (OR = 1.03; 95% CI 1.00-1.06; P > .05). Patients with ≥ 1 HAC were associated with a 60% likelihood of elevated charges (OR = 1.60; 95% CI 1.50-1.72; P < .01) and 65% likelihood of pLOS (OR = 1.65; 95% CI 1.60-1.70; P < .01).
CONCLUSIONS: Post-2003 era patients were associated with 10% increased likelihood of HAC, with effects noted primarily at teaching hospitals.

EXHIBIT B:

Publications Offering Alternatives to Selling Outreacj Lab Business to large Commercial Labs

1. Kathleen A Murphy PhD. The Profit Machine in the Hospital Basement: Turning Your Lab Into an Economic Engine. Ellsworth Press. Ann Arbor Michigan 2016.

https://www.chisolutionsinc.com/wp-content/uploads/2014/07/2016_04_21-Press-Release-for-New-Book-FINAL-MR15v9.pdf

Every hospital and health system has sunk costs in laboratories that are required for serving inpatients and outpatients. They have a substantial investment in facilities, information technology, laboratory equipment, automation, and staff, but use only 20 to 30 percent of capacity on a 24/7 basis. The excess capacity can be leveraged to bring in more work from the community, with work typically done on off-shifts when hospital volume is low. (Introduction)

By providing a competitive offering, laboratory outreach programs can compete and win against large national and regional laboratories (such as Quest Diagnostics and LabCorp). Outreach brings material new revenues and margins to hospitals looking for ways to offset decreasing reimbursement from traditional service line (Introduction).

Over 90 percent of hospitals perform some outreach work, but the vast majority of outreach programs are small businesses that are under- funded and run as side-line businesses. Because of this, outreach has a bad rap. It is viewed by many hospital executives as a business that is too difficult, not part of the core business, or not sufficiently profitable to pursue. However, there are dozens of successful laboratories that have generated over $100 million in revenue with 30 percent operating margins (Introduction)

This is where hospital laboratories have a distinct advantage over large national and regional laboratories.As a 24/7 operation that serves acutely ill patients, hospital laboratories are designed to provide quick turn- around of results.Stat services for the emergency department or intensive care units are provided in less than one hour. Most automated laborato- ries can turn around routine tests within an hour of two of receipt and report results back the same day.This real-time testing provides a competitive advantage for local hospitals, compared to national or regional laboratories.These laboratories function as third-shift operations, doing large batch testing overnight and reporting results the next day.This will become even more important within the context of managing popula- tion health on fixed reimbursements. After all, time is money (Chapter 6 Operational Infrastructure)

In the big picture, the outreach program does not have the scale or sophistication of the national laboratories. It cannot compete on price. It provides quality testing for the community –some would say better than the nationals. It

keeps jobs local. It provides faster turnaround time and personalized service. It leverages the sunk investment in facilities, equipment, and staff in the hospital laboratory and lowers the cost of testing overall. It's the only laboratory that does testing across the patient continuum (hospital, extended care facilities, doctor's office, and medical home), not because it's profitable but because it's the right thing to do. (Chapter 7 Financial Considerations page 77)

The national laboratories would like you to believe that they have the advantage when it comes to managed care contracting—that they alone have negotiated "national exclusive contracts" with certain payers that require physician offices to send all patient insurance types to their laboratories. This is hogwash. Or perhaps brainwash is more apropos. They have brainwashed physicians and their office staff that they are required contractually to follow these "rules." (Chapter 7 Financial Considerations page 79)

Now, here's the real story.The nationals have negotiated highly dis- counted, exclusive agreements with certain payers (such as LabCorp for United Healthcare and Quest for Aetna) that rule out other independent laboratories, but not hospitals. It's the last part that is conveniently left unsaid.This is one of the best kept secrets of the laboratory industry. The strategy of the national laboratory is to use the exclusive contract to capture what is commonly referred to as "pull-through" business (other insurances and governmental payers, in order to offset losses due to highly discounted fees. The real story is that as long as a hospital has a contract for inpatient services, the laboratory can provide outreach lab- oratory services. Has anyone ever told you that before? Of course not! It is not in the interest of the national laboratory or the payer. (Chapter 7 Financial Considerations page 80)

The top 5 things hospital executives unwittingly do to make it difficult or impossible for laboratories to succeed at community-based outreach programs:

• *Failing to identify outreach as an organizational priority.* (Chapter 10 Risk Versus Reward page 123)

• *Treating the outreach program like a "cost center."*

• *Charging hospital prices for community-based work.*

• *Starving the program for capital.*

• *Under-resourcing the program.*

2. Paxton, Anne. Outreach: Forge ahead or accept purchase bid? *Pathology Today* July 2017.

http://digital.olivesoftware.com/Olive/ODN/CAPToday/default.aspx#

EXHIBIT C: SUPPORTING WRITTEN STATEMENTS

August 17, 2017
Dear Committee Member,
I have been employed at the Hospital of Central Connecticut (HOCC) for over 35 years as a Medical Technologist on a part time basis. I am writing to you because of my concern over the decision by HOCC to sell the existing outpatient laboratory services to Quest Diagnostics. As I understand it, HOCC has filed for a certificate of need (CON) with the Office of Health Care Access as is required by law. A number of staff members of the HOCC laboratory have requested a public hearing as allowed by the CON statute and that hearing is scheduled for August 23, 2017. The request was made based on the overriding suggestion that patient care would be unaffected by this sale. While we understand that this is a financial decision on the part of HOCC, as employees of HOCC and as part of the Hartford Healthcare Alliance, we have been trained to perform our duties practicing the core values of this alliance, all of which center around doing the right thing for our patients. Many of us do not believe that this sale advances that core value.

1. This sale of HOCC outpatient laboratory services will eliminate 38 current HOCC employees. Some of these employees may be hired by Quest, but it represents another incidence of attrition of Connecticut jobs.

2. Although patients currently served by HOCC outreach services will be able to have blood and other samples drawn at a Quest drawing station, these samples will be transported to their laboratory in Massachusetts. It is highly likely that the turnaround times for this testing will be increased due to batching protocols, etc.. Whether these turnaround times would affect patient care remains to be seen – again, hard to consider this as "doing the right thing" for the patient.

3. In the application submitted by HOCC, there is a statement that the sale of the outreach business would "permit HOCC to focus on core strengths and services and shed those that can be performed better and more efficiently by other parties such as Quest Diagnostics". Since the HOCC laboratory will continue to serve patient needs, it's hard to understand how "shedding" the outreach services will allow HOCC to better focus on core strengths. We consider the HOCC laboratory services to be a "core strength". In addition, the HOCC laboratory uses many of the same analyzers and methodologies used by Quest. Both have highly trained personnel and so it defies understanding that Quest could perform the outreach testing better and/or more efficiently.

In today's healthcare market, it would seem that having more competition for laboratory services would tend to lead to more stabilized costs. HOCC has been providing these laboratory outreach services to the local communities of New Britain, Southington, Newington, Plainville and Berlin for many years and has been a reliable resource for the physicians and other healthcare providers that serve these communities. With the current fiscal status of the state of Connecticut, sending another piece of business to another state would seem to accept the continued overall decline of this state's economic future. We thank you for your consideration of our concerns and hope that they will used in your upcoming decision.

Respectfully,

David M. Govoni
19 Roaring Brook Drive
Southington, CT 06489

To the Office of Health Care Access,

August 18, 2017

Having worked 47 years at New Britain General Hospital Laboratory, I have seen many changes in Medical Technology. It has always been a privilege to work with a great group of dedicated, intelligent, caring people who always put the patient first, striving for the best care and service for them and being intent on quick and accurate service to our Medical Staff. Over the years, our instrumentation and methods have been first rate and in the forefront of the newest technology, allowing us to give above normal quality service and work with our nurses and Doctors to help improve patient care.

Years ago, when we were asked to implement ideas to build up our hospital, the Lab decided to offer more services to our clients, by opening blood drawing stations in surrounding towns to give patients easier access and more options, yielding a lucrative outpatient business for New Britain General.

I believe that this move to sell our Outpatient business compromises the ability of our Doctors to serve their patients efficiently and hurts our patients' ability to choose where their work will be done. It will mean downsizing our laboratory, cutting employment opportunities, forcing patients to go to a Quest facility, which will own almost all of the facilities and their blood being sent to a neighboring state for analysis, thus creating a much longer turn-around time for results. It could mean that a patient might not get the proper treatment in a timely manner just because of logistics. The Doctors are used to having a patient get their blood drawn and receiving their results the same day as compared to possibly a week later. I can appreciate that most outpatient bloodwork might be for routine physicals, but if your relative is found to have a critical result, it will not be very helpful to find out 2 or 3 days later!

I am saddened to see the changes that are being made to our hospital and strongly recommend that you consider reversing your decision to sell such a lucrative business that brings in much needed revenue. The way that Health Care is headed suggests that outpatient business is growing while inpatient stays are shortening, so why would we want to give away our source of income while jeopardizing our patient care and leaving our clients with no other options?

Thanks for considering our concern for our patients.

Karlene Archambeault, Medical Laboratory Tech.

787 Corbin Ave. New Britain, Ct. 06052

Karlene Archambeault

[redacted]

ASSET PURCHASE AGREEMENT

among

HARTFORD HEALTHCARE CORPORATION,

THE WILLIAM W. BACKUS HOSPITAL,

THE HOSPITAL OF CENTRAL CONNECTICUT AT NEW BRITAIN GENERAL AND BRADLEY MEMORIAL

and

QUEST DIAGNOSTICS LLC

dated as of

August 11, 2017

TABLE OF CONTENTS

ANNEXES

Annex 2.1(c)	-	Purchased Assets: Sellers' Agreements
Annex 2.1(d)	-	Equipment Located at Hospital for Special Care
Annex 2.1(e)	-	Purchased Assets: Assigned Tangible Property Leases
Annex 2.1(f)	-	Purchased Assets: Assigned Locations
Annex 2.1(g)	-	Purchased Assets: Prepaid Expenses
Annex 2.4	-	Allocation of Purchase Price
Annex 4.11	-	Client Setup Data
Annex 6.11	-	Monthly CPT Volume Example Report
Annex 7.2(i)	-	Renovations
Annex 8.19	-	Use of Name and Term
Annex 8.21	-	Post-Transition Reports
Annex 10.2(b)	-	Non-Solicitation List
Annex 10.2(c)	-	Exceptions to Returning Customer Connectivity

EXHIBITS

Exhibit A – Form of Bill of Sale
Exhibit B – Form of Restrictive Covenant Agreement
Exhibit C – Escrow Agreement
Exhibit D – Form of Assignment and Assumption Agreement
Exhibit E-1 and E-2 – Technical Services Agreements
Exhibit F-1 – F-10 – Leases and Subleases
Exhibit G - Form of STAT Testing Agreement
Exhibit H – Form of Amendment to Specimen Collection Agreement
Exhibit I – Compendium Template
Exhibit J – Form of Jerome Home and Southington Care Agreements
Exhibit K – Standing Orders Template
Exhibit L – Hold Orders and Future Orders Template

ASSET PURCHASE AGREEMENT

This Asset Purchase Agreement (this "**Agreement**"), dated as of August 11, 2017 (the "**Execution Date**"), is entered into by and among Hartford Healthcare Corporation, a Connecticut nonstock corporation ("**Parent**"), The William W. Backus Hospital, a Connecticut nonstock corporation ("**Backus Hospital**"), The Hospital of Central Connecticut at New Britain General and Bradley Memorial, a Connecticut nonstock corporation ("**HOCC**", and together with Backus Hospital, "**Sellers**"), and Quest Diagnostics LLC, a Massachusetts limited liability company ("**Buyer**").

RECITALS

WHEREAS, Sellers wish to sell and assign to Buyer, and Buyer wishes to purchase and assume from Sellers, certain of the assets and liabilities of the Businesses (as defined below), goodwill and certain other intangibles, subject to the terms and conditions set forth herein.

NOW, THEREFORE, in consideration of the mutual covenants and agreements hereinafter set forth and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto agree as follows:

Article I.
DEFINITIONS

The following terms have the meanings specified or referred to in this **Article I**:

"**Acquired Locations**" means the Assigned Locations and the patient service centers located in Jewett City, Connecticut and Uncasville, Connecticut.

"**Affiliate**" of a Person means any other Person that directly or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with, such Person; provided, however, that for purposes of the representations and warranties set forth in this Agreement, Affiliate shall not include any entity owned jointly and exclusively by Parent or any Affiliate thereof and physicians (or the group practice with which such physicians are affiliated) that holds a license to operate, and in fact does operate, a freestanding ambulatory surgical center as of the date hereof ("ASC"), as long as the following conditions are met: (i) the clinical laboratory services rendered at or through the ASC are limited to those provided to patients who are having surgery at the ASC and (ii) the decision on the provider of clinical laboratory services at or through the ASC to surgical patients of the ASC is within the control of the physicians (or the group practice with which such physician is affiliated) who are the owners of the ASC. The term "control" (including the terms "controlled by" and "under common control with") means the possession, directly or indirectly, of the power to direct or cause the direction of the management and policies of a Person, whether through the ownership of voting securities, by contract or otherwise.

"**Agreement**" has the meaning set forth in the preamble.

"**Assignable Right**" has the meaning set forth in **Section 3.3**.

"**Assigned Agreements**" has the meaning set forth in **Section 6.20**.

"**Assigned Locations**" has the meaning set forth in **Section 2.1(f)**.

"**Assigned Real Property Leases**" has the meaning set forth in **Section 2.1(f)**.

"**Assigned Tangible Property Leases**" has the meaning set forth in **Section 2.1(e)**.

"**Assignment and Assumption Agreement**" has the meaning set forth in **Section 3.2(a)(iv)**.

"**Assumed Liabilities**" has the meaning set forth in **Section 2.3**.

"**available in the Data Room**" means made available by Seller in the electronic data room maintained by Merrill at least one Business Day prior to the Execution Date.

"**Backus Closing**" has the meaning set forth in **Section 3.1**.

"**Backus Closing Date**" has the meaning set forth in **Section 3.1**.

"**Backus Hospital**" has the meaning set forth in the preamble.

"**Backus Hospital Business**" means the clinical and anatomic pathology (but only the technical component) laboratory business performing services for physicians, hospitals, clinics and home health and long-term care facilities, including drugs of abuse testing, of Backus Hospital immediately prior to the Closing Date but specifically excluding the Excluded Laboratory Business.

"**Basket**" has the meaning set forth in **Section 9.4(a)**.

"**Bill of Sale**" has the meaning set forth in **Section 3.2(a)(i)**.

"**Business**" means Backus Hospital Business or the HOCC Business, as the context requires.

"**Businesses**" means both the Backus Hospital Business and the HOCC Business.

"**Business Associate**" means any employee, contractor, subcontractor, representative, consultant or agent of either Seller or Buyer or any of their Affiliates who has acted in such capacity at any time within the 12-month period immediately preceding the date of hire, recruitment, solicitation, or retention; provided, however, that independent consultants and agents who have provided professional services to Sellers shall not be deemed Business Associates.

"**Business Day**" means any day except Saturday, Sunday or any other day on which commercial banks located in New York, New York are authorized or required by Law to be closed for business.

"**Business Intellectual Property**" has the meaning set forth in **Section 4.19(a)**.

"**Business Permits**" has the meaning set forth in **Section 4.6**.

"**Buyer**" has the meaning set forth in the preamble.

"**Buyer Closing Certificate**" has the meaning set forth in **Section 7.3(d)**.

"**Buyer Group**" has the meaning set forth in **Section 6.8(a).**

"**Buyer Indemnified Parties**" has the meaning set forth in **Section 9.2**.

"**Buyer Material Adverse Effect**" means any event, occurrence, fact, condition or change that is, or is reasonably expected to be, materially adverse to the ability of Buyer to perform its obligations under this Agreement or to consummate the transactions contemplated by this Agreement or the Transaction Documents.

"**Cap**" has the meaning set forth in **Section 9.4(a)**.

[redacted]

"**Claim**" means any action, cause of action, claim, demand, suit, proceeding or investigation, civil, criminal or regulatory, in law or in equity.

"**Client Setup Data**" has the meaning set forth in **Section 4.11(a)**.

"**Closing**" means the HOCC Closing or the Backus Closing, as the context requires.

"**Closing Date**" means the HOCC Closing Date or the Backus Closing Date, as the context requires.

"**Closing Payment**" has the meaning set forth in **Section 2.4**.

"**Code**" means the Internal Revenue Code of 1986, as amended, and the Treasury Regulations.

"**CON**" has the meaning set forth in **Section 4.4(b)**.

"**Confidential Information**" means information regarding the Businesses or Buyer that has not been disclosed to the public by duly authorized agents of either Seller or Parent prior to the Closing or by Buyer and is not known to the general public, and which shall include the following with respect to the Businesses or Buyer, whether written or not: (1) information regarding operations, assets, liabilities or financial condition; (2) information regarding bidding, quotations, price, sales, profits, merchandising, marketing and promotions (including marketing strategies and concepts), advertising campaigns, capital expenditures, costs, joint ventures, business alliances, products, services or purchasing; (3) information regarding the terms, conditions and relationship the Business has with Business Associates (other than employees), including their identities, responsibilities, qualifications, benefits, compensation and files; (4) customer lists, databases and other information related to current or prospective customers, including information regarding their identities, contact persons and purchasing patterns; (5) information regarding current or prospective vendors, suppliers, distributors or other business partners; (6) forecasts, projections, budgets, strategies, and business plans, and (7) any information of or concerning the assets purchased pursuant to this Agreement. Notwithstanding the foregoing, Confidential Information shall be treated as such under this Agreement or the Transaction Documents unless and until it becomes generally known to the public through no act or fault of Sellers or Parent or any of Sellers' or Parent's Affiliates.

"**Confidentiality Agreement**" means the Mutual Confidentiality Agreement, dated as of April 3, 2015, between Buyer and Parent.

"**Contract**" means any contract, agreement, understanding, indenture, note, bond, undertaking, mortgage, loan, instrument, lease, license, joint venture or any other commitment or

legally binding arrangement, whether written or oral. "**Contract**" shall include any series of related Contracts.

"**CPT Volume**" means the amount of Testing (by payor and listing by individual Current Procedural Terminology (CPT) code) performed by a Seller during a given period, prepared and formatted in the same manner as the schedules such Seller has provided to Buyer prior to the Execution Date.

"**Customers**" means the health care providers who have ordered services from either Seller related to the Business prior to Closing.

"**Designated Employees**" has the meaning set forth in **Section 6.8(c)**.

"**Direct Claim**" has the meaning set forth in **Section 9.5(c)**.

[redacted]

"**Disclosing Party**" has the meaning set forth in **Section 6.2**.

"**Disclosure Schedules**" means the Disclosure Schedules delivered by Sellers and Buyer concurrently with the execution and delivery of this Agreement.

"**Dollars or $**" means the lawful currency of the United States.

"**Draft Purchase Price Allocation**" has the meaning set forth in **Section 2.5**.

"**Encumbrance**" means any lien, pledge, mortgage, deed of trust, security interest, charge, claim, easement, encroachment, other similar encumbrance, or adverse claim of any kind or character.

"**Environmental Laws**" has the meaning set forth in **Section 4.15**.

"**Escrow Agreement**" has the meaning set forth in **Section 3.2(a)(iii)**.

"**Escrow Amount**" has the meaning set forth in **Section 2.4**.

"**Excluded Assets**" has the meaning set forth in **Section 2.2**.

"**Excluded Laboratory Business**" means the provision, directly or indirectly, of clinical laboratory and anatomic pathology services by either Seller or any Affiliate of a Seller or Parent with respect to Inpatients or Outpatients and pre-operative blood bank type and screen testing.

"**Excluded PSCs**" has the meaning set forth in **Section 6.12**.

"**Execution Date**" has the meaning set forth in the preamble.

"**Final Purchase Price Allocation**" has the meaning set forth in **Section 2.5**.

"**Financial Relationship**" has the meaning set forth in **Section 4.9(c)**.

"**Fundamental Representations**" has the meaning set forth in **Section 9.1**.

"**GAAP**" means United States generally accepted accounting principles in effect from time to time.

"**Governmental Authority**" means any national, federal, state, provincial, municipal, local or other domestic, foreign or supranational government, governmental, legislative, regulatory, self-regulatory, or administrative authority, agency or commission or any court, tribunal, judicial or arbitral body, department, office, commission, board, bureau, division or other governmental, regulatory or self-regulatory entity, including any competent governmental authority responsible for the determination, assessment or collection of Taxes.

"**Governmental Order**" means any order, writ, judgment, doctrine, requirement, ruling, assessment, injunction, decree, stipulation, determination or award entered by or with any Governmental Authority.

"**Hazardous Substance**" has the meaning set forth in **Section 4.15**.

"**Healthcare Laws**" means any and all federal, state or local laws, regulations, rules, directives or guidance pertaining to or regulating the health care industry or to the payment for items provided by or services rendered by healthcare providers and suppliers (including clinical laboratories), including, but not limited to, all federal, state and local laws pertaining to the confidentiality, privacy or security of protected health information (i.e., individually identifiable health information), including the Administrative Simplification provisions of the Health Insurance Portability and Accountability Act of 1996 ("HIPAA"), the Health Information Technology for Economic and Clinical Health (the "HITECH Act") and their implementing regulations, the Standards for Privacy of Individually Identifiable Health Information (45 CFR Part 160 and Part 164, Subpart A, D and E) ("Privacy Standards"), the Transactions and Code Set Standards (45 CFR Part 162) ("TCS Standards") and Security Standards for the Protection of Electronic Protected Health Information (45 CFR Part 164, Subpart A and C) ("Security Standards"), as in effect on the Execution Date and all federal or state laws regulating prescription drug, medical device, and controlled substance manufacture, sale, use, distribution, dispensing, marketing and security, including without limitation the Federal Food, Drug and Cosmetic Act, the federal Medicare, Medicaid, and TRICARE statutes, the Clinical Laboratory Improvement Amendments of 1988 ("CLIA"), the federal Stark Law and applicable state law counterparts, the federal Anti-Kickback Statute (42 U.S.C. § 1320a 7b(b)) and applicable state law counterparts, the federal False Claims Act (31 U.S.C. § 3729 3733) and applicable state law counterparts, the federal Civil Monetary Penalties Law (42 U.S.C. § 1320a-7a), the federal Criminal Penalties Law (42 U.S.C. §1320a-7b), any mail fraud statute, any prohibition on the making of any false claim, false statement or misrepresentation of facts to any third party payor (including commercial payors) or any federal or state healthcare program, all federal or state laws relating to fee-splitting and conflict of interests, all federal or state laws, statutes, regulations or rules governing assignment, reassignment, global billing and/or purchased diagnostic tests and all Medicare Advantage marketing regulations rules, and restrictions. Each law or regulation specifically mentioned above shall be interpreted to automatically include all amendments thereto, and all regulations, rules and other guidance promulgated pursuant thereto.

"**HOCC**" has the meaning set forth in the preamble.

"**HOCC Business**" means the clinical and anatomic pathology (but only the technical component) laboratory business performing services for physicians, hospitals, clinics and home health and long-term care facilities, including drugs of abuse testing, of HOCC immediately prior to the Closing Date but specifically excluding the Excluded Laboratory Business.

"**HOCC Closing**" has the meaning set forth in **Section 3.1**.

"**HOCC Closing Date**" has the meaning set forth in **Section 3.1**.

"**HSC**" has the meaning set forth in **Section 2.7**.

"**HSC Purchase Price Adjustment**" has the meaning set forth in **Section 2.7**.

"**Indemnified Party**" has the meaning set forth in **Section 9.4**.

"**Indemnifying Party**" has the meaning set forth in **Section 9.4**.

"**Inpatient**" means a person admitted for bed occupancy for purposes of receiving inpatient hospital services.

"**Integration**" has the meaning set forth in **Section 6.8(b)**.

"**Integration Period**" means the period beginning on the Closing Date and ending on the four and a half-month anniversary of the Closing Date.

"**Intellectual Property**" means all rights, privileges and priorities provided under applicable Law relating to intellectual property, whether registered or unregistered, including all (a) (i) inventions, discoveries, processes, formulae, designs, methods, techniques, procedures, concepts, developments, technology, mask works, moral rights and confidential information, new and useful improvements thereof and know-how relating thereto, whether or not patented or eligible for patent protection; (ii) copyrights and copyrightable works, including computer applications, programs, Software and related items; (iii) trademarks, service marks, trade names, brand names, product names, corporate names, logos and trade dress, the goodwill of any business symbolized thereby, and all common-law rights relating thereto; and (iv) trade secrets, data and other confidential or proprietary information; and (b) all registrations, applications, recordings, and licenses or other similar agreements or rights related to the foregoing.

"**Interface**" has the meaning set forth in **Section 6.19(c).**

"**IT**" has the meaning set forth in **Section 6.8(e)**.

"**IT Designee**" has the meaning set forth in **Section 6.8(e)**.

[redacted]

"**Law**" means any statute, law, ordinance, regulation, rule, code, order, constitution, treaty, common law, judgment, decree, injunction, other requirement or rule of law of any Governmental Authority.

"**Liabilities**" means any debts, liabilities or obligations of any kind whatsoever, whether accrued, unaccrued, absolute, contingent, changing, known, unknown, fixed, contingent, asserted, unasserted, matured, unmatured, determinable, indeterminable, liquidated, unliquidated

or otherwise and whether due or to become due in the future (including those arising out of any contract or tort, whether based on negligence, strict liability or otherwise).

"**Losses**" means all claims, obligations, losses, deficiencies, damages (excluding punitive or exemplary damages, except to the extent payable to a third party), Liabilities, losses, Taxes, fines, penalties, costs and expenses (including reasonable fees of counsel) of any kind or nature whatsoever (whether or not arising out of Third Party Claims and including all amounts paid in investigation, defense or settlement of the foregoing).

"OHCA" has the meaning set forth in **Section 4.4(b)**.

"**Ordinary Course of Business**" shall mean the ordinary and usual course of normal day-to-day operations of the Businesses, as conducted by Sellers through the Execution Date consistent with past custom and practice (including with respect to quantity and frequency); provided, that in no event shall "Ordinary Course of Business" include any breach of any Law or contract, or violation of any Permit.

"**Outpatient**" means a person who is not admitted as an Inpatient, but who: (i) is registered on a hospital's records as an outpatient of the hospital and receives therapeutic medical services from the hospital that may include, without limitation, one or more of the following: same day surgery, emergency room treatment, radiology, nuclear or similar diagnostic services (in each case, other than solely clinical laboratory testing services) or (ii) occupies an observation bed.

"**Parent**" has the meaning set forth in the preamble.

"**Permit**" means all franchises, permits, licenses, approvals and other authorizations of any Governmental Authority.

"**Permitted Encumbrances**" means: (a) liens for Taxes not yet due and payable; (b) Encumbrances that constitute the Assumed Liabilities; (c) mechanics', carriers', workers', repairers' and similar statutory liens arising or incurred in the Ordinary Course of Business; (d) purchase money liens and liens securing rental payments under the Assigned Tangible Property Leases; (e) covenants, conditions, restrictions, easements, reservations, rights of way, mortgages, deeds of trust, applicable zoning, building and land use Laws and other Encumbrances affecting title to the Assigned Locations, in each case, that do not materially interfere with access to or use of any of the Assigned Locations; and (f) terms, covenants and conditions expressly set forth in the Assigned Real Property Leases.

"**Person**" means an individual, corporation, partnership, joint venture, limited liability company, Governmental Authority, firm, company, unincorporated organization, trust, association, operating division or other entity.

"**Pre-Closing Period**" has the meaning set forth in **Section 6.1.**

"**Purchased Assets**" has the meaning set forth in **Section 2.1**.

"**Purchase Price**" means the Closing Payment plus the Purchase Price Adjustment.

"**Release**" has the meaning set forth in **Section 4.15**.

"**Removal**" has the meaning set forth in **Section 4.15**.

"**Representative**" means, with respect to any Person, any and all trustees, officers, employees, consultants, financial advisors, counsel, accountants and other agents of such Person.

"**Requisition Volume**" means (without duplication with respect to a specific order for Testing), the number of communications or forms, including electronic or hard copy, provided to a Seller that identify the Testing to be performed for a patient, prepared and formatted in the same manner as the information provided with respect to "Requisition Volume" in **Section 4.11(b)** of the Disclosure Schedules.

"**Restrictive Covenant Agreement**" has the meaning set forth in Section 3.2(a)(ii).

"**Retained Liabilities**" has the meaning set forth in **Section 2.3**.

"**Retained Medical Records**" means all medical records maintained by Sellers at the time of Closing relating to individual patients of Customers.

"**Sellers**" has the meaning set forth in the preamble.

"**Seller Closing Certificates**" has the meaning set forth in **Section 7.2(d)**.

"**Seller Contracts**" has the meaning set forth in **Section 4.22(a)**.

"Seller Employed Customers" has the meaning set forth in Section 6.19(c).

"Seller Employee List" has the meaning set forth in Section 6.18.

"**Seller Material Adverse Effect**" means any event, occurrence, fact, condition or change that is, or is reasonably expected to be, materially adverse to (i) the business, results of operations, financial condition, assets, or operations of a Business, taken as a whole, or (ii) the ability of a Seller to perform its obligations under this Agreement or to consummate the transactions contemplated by this Agreement or the Transaction Documents; provided, however, that "**Seller Material Adverse Effect**" shall not include any event, occurrence, fact, condition or change, directly or indirectly, arising out of or attributable to: (A) general economic or political conditions; (B) conditions generally affecting the industries in which the Businesses operate; (C) the execution or announcement or pendency of the transactions contemplated by this Agreement or the Transaction Documents or other communication by Buyer to third parties of its plans or intentions (including in respect of employees) with respect to the Businesses, the Purchased Assets, or the Assumed Liabilities; (D) the consummation of the transactions contemplated by this Agreement or the Transaction Documents or any actions by Buyer or Sellers taken pursuant to this Agreement or in connection with the transactions contemplated by this Agreement or the Transaction Documents; (E) any failure, in and of itself, by the Businesses to meet any financial projections or forecasts; (F) any changes in financial, banking or securities markets in general, including any disruption thereof and any decline in the price of any security or any market index or any change in prevailing interest rates; (G) acts of war (whether or not declared), armed hostilities or terrorism; (H) any changes in applicable Laws or accounting rules (including GAAP); and (I) any natural or man-made disaster or acts of God, except in the cases of (A), (B), (F), (G), (H) and (I), to the extent a Business is materially disproportionately affected relative to other participants in the industry in which such Business operates.

"**Sellers' Indemnified Parties**" has the meaning set forth in **Section 9.3**.

"**Specimen Collection Amendment**" has the meaning set forth in **Section 3.2(a)(xiii)**.

"**Stark Law**" has the meaning set forth in **Section 4.8**.

"**STAT Testing Agreement**" has the meaning set forth in **Section 3.2(a)(xi)**.

"**Superfund**" has the meaning set forth in **Section 4.15**.

"**Taxes**" means any assessment of any kind or nature imposed by any Governmental Authority, any federal, state, local or foreign income, gross receipts, business and occupancy, license, payroll, employment, excise, severance, stamp, occupation, premium, windfall profits, environmental (including taxes under § 59A of the Internal Revenue Code of 1986, as amended), duties including customs duties, capital stock, franchise, profits, withholding, social security (or similar), unemployment, disability, real property, personal property, sales, use, transfer, registration, value added, alternative or add-on minimum, estimated or other tax of any kind whatsoever, including the health insurance providers fee under the Patient Protection and Affordable Care Act (PPACA) Section 9010, as amended, whether computed on a separate or consolidated, unitary or combined basis or in any other manner, including any interest, penalty, deficiency or addition thereto, whether disputed or not and including any obligation to indemnify or otherwise assume or succeed to the liability for Taxes of any other Person, whether as a result of (i) being a member of an affiliated, consolidated, combined or unitary group for any period, (ii) any express or implied obligation to indemnify any other Person, (iii) a contract with any other person or (iv) any other reason.

"**Tax Return**" means any return (including any information return), report, statement, declaration, estimate, schedule, notice, notification, form, election, certificate or other document or information (including any amendments thereto) that is, has been or may in the future be filed with or submitted to, or required to be filed with or submitted to, any Governmental Authority in connection with the determination, assessment, collection or payment of any Tax or in connection with the administration, implementation or enforcement of or compliance with any Law relating to any Tax.

"**Testing**" means all laboratory testing services.

"**Test Results**" has the meaning set forth in **Section 8.6**.

"**Third Party Claim**" has the meaning set forth in **Section 9.5(a)**.

"**Transaction Documents**" means this Agreement, the Bill of Sale, the Assignment and Assumption Agreement, the Restrictive Covenant Agreement, the Escrow Agreement, the Technical Services Agreements, the STAT Testing Agreement, the Specimen Collection Amendment and the other agreements, instruments and documents delivered or to be delivered at the Closing.

"**Transaction Taxes**" has the meaning set forth in **Section 8.3(a)**.

"**Transaction Tax Returns**" has the meaning set forth in **Section 8.3(a)**.

"**Transferred Permit**" has the meaning set forth in **Section 4.6**.

"**Treasury Regulations**" means the regulations promulgated by the Governmental Authority of the United States of American to interpret and carry out the provisions of the Internal Revenue Code of 1986, as amended.

"**WARN**" means the Workers Adjustment and Retraining Notification Act.

Article II.
PURCHASE AND SALE

Section 2.1 Purchase and Sale of Assets. Subject to the terms and conditions set forth herein, at the applicable Closing, the applicable Seller shall sell, assign, transfer, convey and deliver to Buyer, and Buyer shall acquire, purchase and assume from such Seller, free and clear of all Encumbrances other than Permitted Encumbrances, all of such Seller's right, title and interest in, to and under the following assets, properties and rights of such Seller (collectively, the "**Purchased Assets**"):

(a) all customer accounts related to such Seller's Business, customer files and records related to its Business, sales data related to its Business; books and records (electronic, paper or other media) related to the Purchased Assets (except patient accounting and related information, and except Retained Medical Records); lists of courier routes related to its Business, customer requirements related to its Business and all rights to trade secrets, market know-how and other intangible property rights related to its Business;

(b) all of such Seller's customer and contractor relationships related to such Seller's Business, to the extent assignable;

(c) such Seller's laboratory management agreements, agreements with home health customers, and all other customer agreements of such Seller listed on **Annex 2.1(c)**; provided, however, that Buyer shall have the right to update **Annex 2.1(c)** within ten Business Days following the Execution Date by adding to or deleting from **Annex 2.1(c)** one or more customer agreements of such Seller and giving written notice thereof to Seller and upon such notice, **Annex 2.1(c)** shall be deemed to be automatically updated in accordance with such notice;

(d) subject to **Section 2.7**, all tangible assets that are owned by such Seller and located at the Acquired Locations and at any Customer locations and the equipment and inventory listed on **Annex 2.1(d)** located at the Hospital for Special Care Laboratory;

(e) all of such Seller's leases of tangible property listed on **Annex 2.1(e)** ("**Assigned Tangible Property Leases**");

(f) all of such Seller's existing leases of real property for the leased premises listed on **Annex 2.1(f)** (such premises, "**Assigned Locations**" and such leases, the "**Assigned Real Property Leases**");

(g) all of such Seller's reserves, security and other deposits, advances and prepaid expenses and credits related to the Assigned Real Property Leases, including those listed on **Annex 2.1(g)**; and

(h) all of such Seller's electronic copies and paper copies of paper-only standing orders, orders on hold and future orders;

(i) all goodwill and going concern value associated with the operation of such Seller's Business and any of the assets described in the foregoing clauses.

Section 2.2 Excluded Assets. Notwithstanding anything to the contrary contained in this Agreement, the property and assets of Sellers described below are expressly excluded from the transactions contemplated by this Agreement and do not constitute Purchased Assets being transferred hereunder (collectively, the "**Excluded Assets**"):

(a) all of Sellers' cash and cash equivalents;

(b) all of Sellers' accounts receivable;

(c) all of Sellers' reserves, security and other deposits, advances and prepaid expenses and credits, excluding those described in **Section 2.1(g)**;

(d) all insurance policies held by, or the beneficiary of which is, either Seller and the proceeds thereunder;

(e) all securities and investments held by either Seller;

(f) all printers, label printers/makers, network security devices, and computers owned by a Seller and located at an Acquired Location or any Customer location;

(g) all corporate documents;

(h) all rights of either Seller in connection with and assets of its employee benefit plans;

(i) any contract or agreement which is not included in the Purchased Assets;

(j) all of Sellers' licenses, permits, certifications and accreditations not included in the Purchased Assets;

(k) all Retained Medical Records, excluding those set forth in **Section 2.1(h)** copies of which may be retained by Sellers;

(l) any inventory located, housed, or maintained at any Excluded PSC or any Seller laboratory facility, except for inventory listed on **Annex 2.1(d)**;

(m) any equipment located, housed, or maintained at any Excluded PSC or any Seller laboratory facility, except for equipment listed on **Annex 2.1(d)**;

(n) rights to refunds of Taxes which relate to a Business or the Purchased Assets for any period (or portion thereof) ending on or prior to the Closing Date; and

(o) all other assets that are not Purchased Assets.

Section 2.3 Assumed Liabilities. Other than those Liabilities of either Seller arising after the applicable Closing under the Assigned Agreements (other than Liabilities arising after the applicable Closing out of a breach by either Seller of the Assigned Agreements that occurred prior to such Closing) (collectively, "**Assumed Liabilities**"), Buyer shall not assume or be obligated to pay any other Liabilities or obligations of either Seller. Each Seller shall be

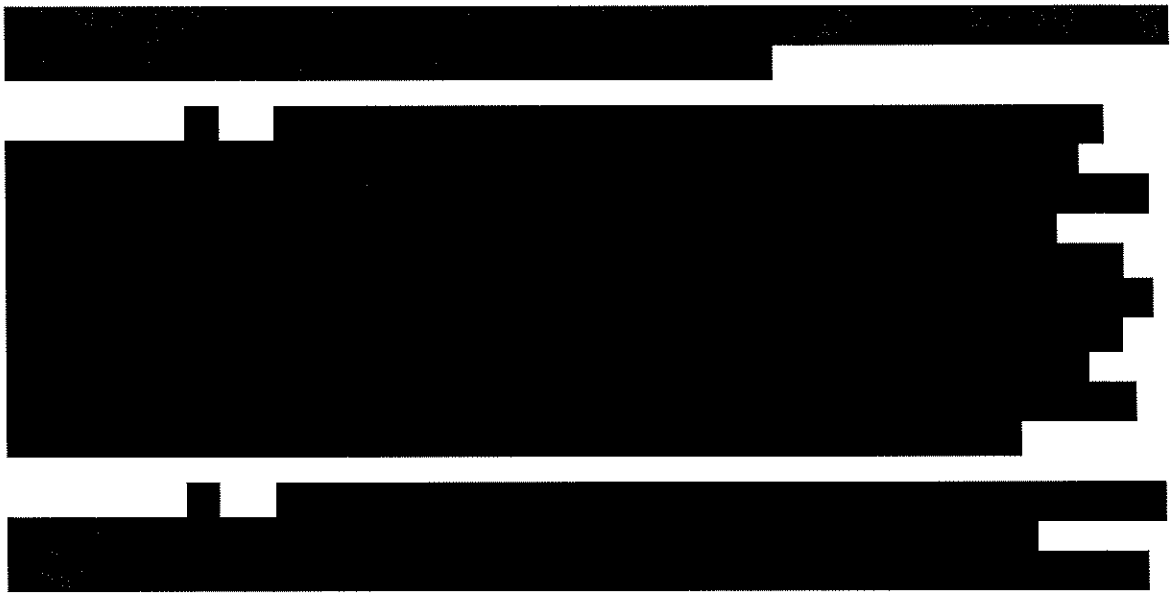
responsible for and shall pay when due all of its obligations and Liabilities that are not Assumed Liabilities, including all obligations and Liabilities arising out of, related to or in connection with such Seller's use, ownership or operation of such Seller's Purchased Assets or Business on or prior to the applicable Closing (which for the avoidance of doubt and notwithstanding anything in this Agreement to the contrary shall include any Claims or Liabilities related to the CBA to the extent such Claims or Liabilities are not adjudged by a Governmental Authority to be caused by the actions or inactions of Buyer with respect to the Direct Hires) (collectively, the **"Retained Liabilities"**). Other than the Assumed Liabilities, nothing contained in this Agreement shall be construed as an agreement by Buyer to assume any Liability or to perform any obligation of either Seller, whether known or unknown, fixed or contingent, asserted or unasserted, accrued or unaccrued, matured or unmatured, liquidated or unliquidated (including those arising out of any contract or tort, whether based on negligence, strict liability or otherwise).

Section 2.4 Purchase Price. The purchase price to be paid by Buyer for the Purchased Assets at the Closings shall be $30,000,000 less the HSC Purchase Price Adjustment, as applicable (the "**Closing Payment**"), allocated between the Sellers as set forth on **Annex 2.4** and delivered by Buyer as follows: (i) the Closing Payment, less the Escrow Amount (each as allocated between the Sellers on **Annex 2.4**) by wire transfer of immediately available funds to the account designated by such Seller not less than three (3) Business Days prior to the applicable Closing; and (ii) [redacted] less the HSC Escrow Adjustment, as applicable (the "**Escrow Amount**") to the escrow agent pursuant to the Escrow Agreement.

Section 2.5 Purchase Price Allocation. Parent shall prepare an allocation for Tax purposes of the Purchase Price among the Purchased Assets and the Restrictive Covenant Agreement on IRS Form 8594 in accordance with Code §1060 (and any similar provision of state, local, or non-U.S. Law, as appropriate), for approval by Buyer (the "**Draft Purchase Price Allocation**"). In preparing the Draft Purchase Price Allocation, the amount of the Purchase Price allocated to the tangible assets owned by Sellers and described in **Section 2.1(d)** shall not exceed the net book value of such assets on the books of Sellers under GAAP as of the end of the day immediately preceding the Closing Date. Parent shall deliver the Draft Purchase Price Allocation to Buyer within 90 days after the final Closing Date, and Buyer shall inform Parent in writing within 30 days of receiving the Draft Purchase Price Allocation whether Buyer approves the Draft Purchase Price Allocation or does not approve of the Draft Purchase Price Allocation. If Buyer approves of the Draft Purchase Price Allocation within the 30 day period, or Buyer fails to provide written notice to Parent that Buyer objects to the Draft Purchase Price Allocation within the 30 day period, then the Draft Purchase Price Allocation shall become the final Purchase Price Allocation (the "**Final Purchase Price Allocation**"). If Buyer provides Parent a written objection to the Draft Purchase Price Allocation within the 30 day period (together with a statement explaining the particular objections of the Buyer to the Draft Purchase Price Allocation and Buyer's reasons for any objections), then the Draft Purchase Price Allocation shall not become final at such time, and Buyer and Parent shall negotiate in good faith for a period of 30 days to resolve their differences; provided, however, that Buyer and Parent shall negotiate in good faith for a period of 45 days if Buyer and Parent do not agree on the allocation of the Purchase Price to the Restrictive Covenant Agreement. If Buyer and Parent resolve their differences within such 30 day period, the Draft Purchase Price Allocation, as amended to reflect any changes agreed by Buyer and Parent, shall become the Final Purchase Price Allocation. If Buyer and Parent are unable to resolve their differences within such 30 day period, Buyer and

Parent and their respective Affiliates shall be entitled to allocate the Purchase Price to the Purchased Assets in such manner as each independently determines is reasonable. If a Final Purchase Price Allocation is established, Buyer and Parent and their respective Affiliates shall report and file all federal and state tax and information returns which each of them are required by Law to file and report (including, but not limited to, Internal Revenue Service Form 8594) in all respects and for all purposes consistent with the Final Purchase Price Allocation. Neither Buyer nor Parent, nor any of their respective Affiliates, shall take any position (whether in audits, tax returns or otherwise) on any federal or state tax or information return or filing that is inconsistent with the Final Purchase Price Allocation, if any, unless required to do so by applicable Law. Buyer shall provide to Parent such other information as Parent may reasonably request to assist Parent with preparing the Draft Purchase Price Allocation.

Section 2.6 Prorations. Subject to **Section 8.3**, Taxes and assessments, common area maintenance charges, utility charges and rental payments with respect to the Purchased Assets and/or the Assigned Real Property Leases, amounts prepaid or payable in respect of any Purchased Assets or Assumed Liabilities and similar prepaid items and similar accrued expenses in respect to the Purchased Assets shall be prorated on a per diem basis between Sellers, on the one hand, and Buyer, on the other hand, as of 11:59 p.m. on the day immediately preceding the applicable Closing Date. Subject to **Section 8.3**, Sellers shall be liable for that portion of such Taxes and assessments relating to, or arising in respect of, periods prior to the applicable Closing Date, and Buyer shall be liable for that portion of such Taxes and assessments relating to, or arising in respect of, any period on or after the applicable Closing Date. Amounts to be pro rated known as of the applicable Closing Date, shall be pro rated and paid as between Sellers and Buyer at the applicable Closing. Amounts to be pro rated first known by Sellers and Buyer after the applicable Closing, shall be settled as between Sellers and Buyer within thirty (30) days of such amounts first becoming known. Notwithstanding anything in this Agreement to the contrary, if the documents described in **Section 6.20** with respect to the Assigned Real Property Leases are not delivered to Buyer on or prior to the date that is at least 30 days before the applicable Closing Date, then Sellers shall pay any rent due for the first rent period following the applicable Closing Date consistent with prior practice, and Buyer shall reimburse Sellers therefor promptly following receipt of the evidence of such payment from Sellers.



Article III.
CLOSING

Section 3.1 Closing. Subject to the terms and conditions of this Agreement, the consummation of the purchase and sale of the Purchased Assets of HOCC contemplated by this Agreement (the "**HOCC Closing**") shall take place at the offices of Buyer, 500 Plaza Drive, Secaucus, NJ 07094, by electronic mail or other electronic transmission, United States mail or overnight courier, at 9:00 a.m., Eastern Time, (a) on the later of (i) the fifteenth day from receipt of notice to the Buyer that the Sellers have received a CON for HOCC; (ii) the second Business Day after all of the conditions to Closing with respect to HOCC set forth in **Article VII** are either satisfied or waived by the party or parties entitled to the benefit thereof (other than conditions which, by their nature, are to be satisfied on the HOCC Closing Date); or (iii) September 25, 2017; and (b) at such other time, date, or place as the Parties may mutually agree upon in writing. The date on which the HOCC Closing actually occurs is herein referred to as the "**HOCC Closing Date**," and the HOCC Closing shall for all business, tax and accounting purposes be deemed to have occurred at 12:01 a.m. Eastern Time on the HOCC Closing Date. Subject to the terms and conditions of this Agreement, the consummation of the purchase and sale of the Purchased Assets of Backus Hospital contemplated by this Agreement (the "**Backus Closing**") shall take place at the offices of Buyer, 500 Plaza Drive, Secaucus, NJ 07094, by electronic mail or other electronic transmission, United States mail or overnight courier, at 9:00 a.m., Eastern Time, (x) on the later of (i) September 18, 2017; or (ii) the second Business Day after all of the conditions to Closing with respect to Backus Hospital set forth in **Article VII** are either satisfied or waived by the party or parties entitled to the benefit thereof (other than conditions which, by their nature, are to be satisfied on the Backus Closing Date), and (y) at such other time, date, or place as the Parties may mutually agree upon in writing. The date on which the Backus Closing actually occurs is herein referred to as the "**Backus Closing Date**," and the Backus Closing shall for all business, tax and accounting purposes be deemed to have occurred at 12:01 a.m. Eastern Time on the Backus Closing Date.

Section 3.2 Closing Deliverables.

(a) At the Closing, the applicable Seller or Parent, as applicable, shall deliver to Buyer the following:

(i) a bill of sale, in substantially the form attached hereto as **Exhibit A**, duly executed by such Seller (the "**Bill of Sale**");

(ii) a restrictive covenant agreement, in the form attached hereto as **Exhibit B**, duly executed by such Seller and Parent (the "**Restrictive Covenant Agreement**");

(iii) an escrow agreement, in substantially the form attached hereto as **Exhibit C**, subject to any revisions required by the escrow agent and mutually agreed upon by the Sellers and Buyer (the "**Escrow Agreement**"), duly executed by such Seller and the escrow agent set forth therein;

(iv) an assignment and assumption agreement, in substantially the form attached hereto as **Exhibit D**, duly executed by such Seller (the "**Assignment and Assumption Agreement**");

(v) Technical Services Agreements, in substantially the forms attached hereto as **Exhibits E-1** and **E-2** (the "**Technical Services Agreements**") executed by the practices operating in Backus Hospital's Jewett City and Uncasville/Montville locations and an authorization to collect laboratory testing samples from patients who are not patients of the practices operating in Backus Hospital's Jewett City and Uncasville/Montville locations, in a form reasonably acceptable to Buyer, each executed by each of such practices;

(vi) a Seller Closing Certificate, duly executed by such Seller;

(vii) (A) properly completed IRS Forms W-9, duly executed by such Seller, (B) a certificate of non-foreign status meeting the applicable requirements of Treasury Regulation Section 1.1445-2(b)(2) in form reasonably satisfactory to the Buyer (i.e., FIRPTA affidavit), duly executed by such Seller, stating, under penalties of perjury, such Seller's U.S. taxpayer identification number and that such Seller is not a foreign person within the meaning of the Code (and any similar affidavit that may be required under state Law), (C) a certificate from the Connecticut Department of Revenue for such Seller showing that all Taxes have been paid and/or no Tax is due from such Seller, and (D) if applicable, any certificate, affidavit or other documentation required to establish that no withholding is required under applicable state, local or foreign Tax Laws;

(viii) a certificate of good standing of such Seller issued by the State of Connecticut and dated no earlier than ten days prior to the applicable Closing Date;

(ix) the certificate of the Secretary (or equivalent officer) of such Seller required by **Section 7.2(e)**;

(x) (A) for each of the Assigned Real Property Leases an estoppel certificate duly executed by the applicable landlord / licensor, in form and substance reasonably

acceptable to Buyer; and (B) each of the leases and subleases attached as **Exhibits F-1 – F-10** duly executed by each landlord and prime landlord thereunder;

(xi) evidence reasonably acceptable to Buyer of the release and termination of all Encumbrances on the Purchased Assets other than Permitted Encumbrances, including termination statements with respect to all UCC financing statements;

(xii) a rapid response testing agreement, in substantially the form attached hereto as **Exhibit G**, duly executed by Backus Hospital (the "**STAT Testing Agreement**");

(xiii) an amendment to that certain specimen collection agreement, dated February 29, 2016, by and among Quest Diagnostics LLC, Parent and Hartford HealthCare Laboratories, LLC f/k/a Clinical Laboratory Partners, LLC, in substantially the form attached hereto as **Exhibit H,** duly executed by Parent and Hartford HealthCare Laboratories, LLC (the "**Specimen Collection Amendment**"); and

(xiv) such other customary instruments of transfer, assumption, filings or documents, in form and substance reasonably satisfactory to Buyer, as may be required to give effect to this Agreement.

(b) At the Closing, Buyer shall deliver to the applicable Seller the following:

(i) such Seller's portion of the Closing Payment less the Escrow Amount as set forth on **Annex 2.4** (for clarity, the Purchase Price Adjustment will be paid following the Backus Closing in accordance with **Section 2.4**);

(i) the Escrow Agreement, duly executed by Buyer, together with the delivery of the applicable portion of the Escrow Amount by wire transfer to the escrow agent thereunder;

(ii) the Buyer Closing Certificate;

(iii) the Restrictive Covenant Agreement, duly executed by Buyer;

(iv) the Assignment and Assumption Agreement, duly executed by Buyer;

(v) the certificate of the Secretary (or equivalent officer) of Buyer required by **Section 7.3(e)**;

(vi) the STAT Testing Agreement, duly executed by Buyer;

(vii) the Technical Services Agreements, duly executed by Buyer;

(viii) the Specimen Collection Amendment duly executed by Quest Diagnostics, LLC; and

(ix) such other customary instruments of transfer, assumption, filings or documents, in form and substance reasonably satisfactory to Sellers, as may be required to give effect to this Agreement.

Section 3.3 Consents to Assignment. Notwithstanding any other provision of this Agreement to the contrary, this Agreement shall not constitute an agreement to assign any contract, lease, permit or other claim or right, or any benefit arising thereunder or resulting therefrom (each, an "**Assignable Right**"), if an attempted assignment thereof, without the consent of a third party, would constitute a breach or default thereof or thereunder or increase the obligations or adversely affect the rights of Sellers or Buyer thereunder. If such consent is not obtained prior to the Closing, the applicable Seller and Buyer shall use their respective commercially reasonable efforts, and cooperate with each other, to obtain such consent as quickly as practicable thereafter. Prior to the obtaining of any such consent, Sellers and Buyer shall cooperate with each other in any reasonable and lawful arrangements designed to provide to Buyer the benefits of use of the Assignable Right for its term, and to the extent that Buyer receives such benefits, it will assume the obligations of the applicable Seller thereunder to the extent that Buyer would have been responsible therefor if such consent had been obtained. Once a consent is obtained, the applicable Seller shall promptly assign such Assignable Right to Buyer, and Buyer shall assume the obligations thereunder. Nothing contained in this **Section 3.3** or elsewhere in this Agreement shall be deemed to constitute an agreement to exclude from the Purchased Assets the economic benefits under any Assigned Agreement as to which a consent may be necessary.

Article IV.
REPRESENTATIONS AND WARRANTIES OF SELLERS AND PARENT

Except as set forth in the Sellers' and Parent's Disclosure Schedules (all such exceptions noted in the Disclosure Schedules being numbered to correspond to the applicable section of this **Article IV**), Sellers and Parent, as applicable, represent and warrant to Buyer as follows:

Section 4.1 Organization of Sellers and Parent. Each Seller and Parent is a non-stock corporation duly incorporated, validly existing and in good standing under the Laws of the State of Connecticut.

Section 4.2 Authority of Sellers and Parent. Each of the Sellers and Parent has all necessary entity power and authority to (i) own, lease and operate its properties and assets and carry on the Businesses as currently conducted and (ii) enter into this Agreement and the other Transaction Documents to which it is a party, to carry out its obligations hereunder and thereunder and to consummate the transactions contemplated hereby and thereby. The execution and delivery by each of the Sellers and Parent of this Agreement and the other Transaction Documents to which it is a party, the performance by each Seller of its obligations hereunder and thereunder and the consummation by each of the Sellers and Parent of the transactions contemplated hereby and thereby have been duly authorized by all requisite corporate action on the part of each of Sellers and Parent. This Agreement has been duly executed and delivered by each of the Sellers and Parent, and (assuming due authorization, execution and delivery by Buyer) this Agreement constitutes a legal, valid and binding obligation of each of the Sellers and Parent, enforceable against it in accordance with its terms, except as such enforceability may be

limited by applicable bankruptcy, insolvency, reorganization, moratorium or similar Laws affecting creditors' rights generally and by general principles of equity (regardless of whether enforcement is sought in a proceeding at law or in equity). When each other Transaction Document to which a Seller or Parent is or will be a party has been duly executed and delivered by such Seller or Parent, as applicable (assuming due authorization, execution and delivery by each other party thereto), each such Transaction Document will constitute a legal, valid and binding obligation of such Seller or Parent, as applicable, enforceable against it in accordance with its terms, except as such enforceability may be limited by applicable bankruptcy, insolvency, reorganization, moratorium or similar Laws affecting creditors' rights generally and by general principles of equity (regardless of whether enforcement is sought in a proceeding at law or in equity).

Section 4.3 Ownership of Sellers. Parent is the sole member of each Seller.

Section 4.4 No Conflicts; Consents.

(a) Neither Seller is in default under or in violation of any provision of: (i) its organizational documents; or (ii) any agreement to which such Seller is a party or by which such Seller or any of its Purchased Assets are bound, which default or violation in **Section 4.4(b)** would be material with respect to the transactions contemplated hereby, or Buyer's possession or use of such Purchased Assets, and neither Seller has received any written notice that it is in default or violation thereunder.

(b) The execution, delivery and performance by each of the Sellers and Parent of this Agreement and the other Transaction Documents to which it is a party, and the consummation of the transactions contemplated hereby and thereby, do not and will not: (i) result in a violation or breach of any provision of the organizational documents of either Seller or Parent, as applicable; (ii) result in a violation or breach of any provision of any Law or Governmental Order applicable to either Seller, Parent, the Business or the Purchased Assets; (iii) except as set forth in **Section 4.4(b)** of the Disclosure Schedules require the consent of, notice to, or other action by any Person under any Seller Contract; (iv) conflict with, result in a violation or breach of, constitute a default under, give rise to any right to termination or result in the acceleration of any contract, agreement, mortgage or other instrument or obligation to which either Seller or Parent is a party or by which it or the Purchased Assets may be bound; or (v) result in the creation or imposition of any Encumbrance (except Permitted Encumbrances) upon any of the Purchased Assets, except, in the cases of clauses (ii), (iii), (iv), and (v), where the violation, breach, conflict, default, acceleration, or failure to give notice or obtain consent would not be material. No consent, approval, Permit, Governmental Order, declaration or filing with, or notice to, any Governmental Authority is required by or with respect to either Seller or Parent in connection with the execution and delivery of this Agreement or any of the other Transaction Documents and the consummation of the transactions contemplated hereby and thereby, except for receipt of a Certificate of Need ("**CON**") from the Connecticut Office of Heath Care Access ("**OHCA**").

Section 4.5 Legal Proceedings; Governmental Orders.

(a) There are no actions, suits, claims, audits, investigations or other legal proceedings pending or, to Sellers' Knowledge, threatened against or by either Seller or Parent relating to or affecting the Business or the Purchased Assets, including the Permits, at law or in equity, or by or before any Governmental Authority that would reasonably be expected to adversely affect the Business, the transactions contemplated hereby or by any other Transaction Document, or Buyer's unencumbered possession or use of the Purchased Assets.

(b) There are no outstanding Governmental Orders and no unsatisfied judgments, penalties or awards against or affecting the Business or the Purchased Assets.

Section 4.6 Licenses and Permits. Except as set forth in **Section 4.6** of the Disclosure Schedule, Sellers and their respective employees and contractors own, hold or possess all Permits, including those required under any Laws pertaining to health, employment, or the environment, which are material to the operation of the Businesses and, to the Knowledge of Sellers, necessary to entitle Sellers and/or their respective employees or contractors, as applicable, to own, lease, operate and use the Purchased Assets and the Acquired Locations and to carry on and conduct the Businesses as currently conducted (each a "**Business Permit**" and collectively, the "**Business Permits**"). Each Business Permit that will be assigned to Buyer at the Closing (each, a "**Transferred Permit**") is valid, subsisting, and in full force and effect, and the execution and delivery by Sellers of this Agreement and the other Transaction Documents, and the consummation of the transactions contemplated hereby and thereby, shall not: (i) conflict with or violate any Transferred Permit, or (ii) cause the occurrence of any breach, default or forfeiture of any rights thereunder.

Section 4.7 No Investigations. Neither of the Sellers nor any officer or director of either Seller, has been (i) convicted of, charged with, or to the Knowledge of Sellers, investigated for a Medicare, Medicaid or any other federal or state health program-related offense, including any overpayments owed by a Seller to any federal or state healthcare program, (ii) convicted of, charged with, or to the Knowledge of Sellers, investigated for a violation of any Law related to fraud, theft, embezzlement, breach of fiduciary responsibility, financial misconduct, obstruction of any investigation or controlled substances, (iii) excluded or suspended from participation in Medicare, Medicaid or any other federal or state health program, or (iv) within the past three years (and, with respect to Sellers' respective officers or directors, during the term of employment or governing body service, as applicable), subject to any Order, or criminal or civil fine or penalty imposed by, any courts or Governmental Authority. Except as set forth in **Section 4.7** of the Disclosure Schedule, neither of the Sellers nor any of their respective officers or directors has knowledge of any actual or potential overpayments received from any state or federal healthcare program, other than non-material refunds and repayments that occur in the Ordinary Course of Business.

Section 4.8 No Violation of Law. Sellers are and have been in compliance in all material respects with all applicable Laws, including applicable Healthcare Laws, and neither Seller has received written notice of any violation of any applicable Law or other requirement of any Governmental Authority related to the Business or the Purchased Assets which has not been fully remedied. Neither Seller has received written notice of any threatened, pending or possible revocation, termination, suspension or limitation of any of its Transferred Permits that would reasonably be expected to have a Seller Material Adverse Effect and, to the Knowledge of

Sellers, there are no facts or circumstances that could form the basis for any of the foregoing. Sellers are in compliance in all material respects with the terms of all of the Business Permits and with all material requirements, standards and procedures of the Governmental Authorities that issued them. Sellers have provided to Buyer access to true and complete copies of all (i) surveys, reports, notices, inquiries, subpoenas and other correspondence related to any and all certification, licensure or other governmental investigations, inspections, inquiries and audits and summaries of all proficiency test results related to the Business, for the three-year period prior to the Execution Date, (ii) any and all written inquiries, notices, subpoenas and correspondence related to utilization, reimbursement or other audits or investigations by any Governmental Authority or other Person related to the Business for the three-year period prior to the Execution Date, (iii) all filings and correspondence with any Governmental Authority related to the Business pursuant to Section 1877 of the Social Security Act and the regulations promulgated thereunder (the "**Stark Law**"), as well as pursuant to any similar counterpart state Laws, for the three-year period prior to the Execution Date, and (iv) all filings made by either Seller related to the Business pursuant to the Clinical Laboratory Improvement Act of 1988 and the regulations promulgated pursuant thereto for the three-year period prior to the Execution Date, and all of the materials referenced by clauses (i) through (iv) are described on **Section 4.8** of the Disclosure Schedules. Except as set forth in **Section 4.8** of the Disclosure Schedules, there are no inspections or proficiency tests performed prior to the Execution Date for which Sellers have not yet received a report or results.

Section 4.9 No Fraud and Abuse Violations.

(a) Neither Seller has entered into any arrangement, and no officer, employee or agent of either Seller has entered into any arrangement, involving the offering or paying of any remuneration (including any kickback, bribe, or rebate), directly or indirectly, overtly or covertly, in cash or in kind to any Person (i) in return for referring an individual to the Business for the furnishing or arranging for the furnishing of any item or service for which payment may be made in whole or in part by any federal or state healthcare program or any commercial third-party payor, or (ii) in return for purchasing, leasing, or ordering or arranging for or recommending purchasing, leasing, or ordering any good, facility, service, or item from the Business for which payment may be made in whole or in part by any federal or state healthcare program or commercial third-party payor. There are no arrangements relating to the Business providing for any rebates, kickbacks or other forms of compensation to any Person in return for the referral or generation of business for the Business or for the arrangement for recommendation of such referrals or business.

(b) All billings by Sellers for services of the Businesses and marketing practices in connection therewith, including billings to all federal and state healthcare programs, private individuals or patients, private or commercial third-party payors and third party payors, have been true and correct and in compliance with all applicable Laws in all material respects.

(c) (i) No physician or referring physician, as those terms are defined in the regulations promulgated pursuant to the Stark Law, who has a "financial relationship," as defined in the Stark Law, whether direct or indirect investment or ownership interest or direct or indirect compensation arrangement (a **"Financial Relationship"**) with either Seller, who practices any medical specialty other than pathology and also makes (or has made) referrals, as that term is

defined in the Stark Law, of patients or specimen(s) to the Business and (ii) no physician or referring physician, as those terms are defined in the Stark Law, having a Financial Relationship with either Seller, and no physician or referring physician, as those terms are defined in the Stark Law, whose immediate family member, as that term is defined in the Stark Law, has such a Financial Relationship with either Seller, directly or indirectly makes (or has made) referrals, as that term is defined in the Stark Law, of patients or services to the Business other than, with respect to (i) and (ii) above, referrals which comply with, or are exempt from, the requirements of the Stark Law, including because the Financial Relationship qualifies for an exception under the Stark Law. The foregoing representations and warranties shall similarly be true and correct as they relate to any prohibition under applicable state Law that is similar to the Stark Law.

Section 4.10 Absence of Changes. Since December 31, 2016, (i) there has been no Seller Material Adverse Effect in the Purchased Assets of either Seller or the Business and (ii) Sellers have operated the Businesses only in the Ordinary Course of Business.

Section 4.11 Customers, Tests, Payors and Supplies.

(a) **Section 4.11(a)** of the Disclosure Schedules (x) contains a complete and accurate list of Customers who ordered services from HOCC at any time during the one (1) year period ended March 31, 2017, and from Backus Hospital at any time during the one (1) year period ended June 30, 2017; and (y) accurately indicates which of such Customers the applicable Seller considers (in its reasonable discretion) to be "lost" by the applicable Seller and which of such Customers the applicable Seller considers (in its reasonable discretion) to be "at risk of loss" by the applicable Seller. With respect to each of the Customers representing in the aggregate 95% of the CPT Volume of the (x) HOCC Business for the three-month period ended March 31, 2017, and of the (y) Backus Hospital Business for the three-month period ended June 30, 2017 (each a "**Material Customer**"), **Section 4.11(a)(i)** of the Disclosure Schedules sets forth: (i) the information set forth in **Annex 4.11** that Seller can reasonably provide (such information, excluding the monthly CPT volume, the "**Client Setup Data**"); and (ii) the amounts ordered and performed by HOCC during the nine month period ended December 31, 2016 and by Backus Hospital during the nine month period ended March 31, 2017. With respect to each Customer that is not a Material Customer, **Section 4.11(a)(ii)** of the Disclosure Schedules sets forth: (i) the information set forth in **Annex 4.11**that Seller can reasonably provide; and (ii) the amounts ordered and performed by HOCC during the nine month period ended December 31, 2016; and by Backus Hospital during the nine month period ended March 31, 2017. Neither Seller nor Parent has received any written or verbal indication from any Customer of the Business to the effect that such Customer intends to cease doing business with or materially diminish the amount of the business that it is now doing with either Seller with respect to the Business or, after the Closing Date, with Buyer. Neither Seller has made any commitment of any kind to any Customer to implement price reductions or adjustments or any material change in the nature of services or a material change in the service levels provided at a future date outside the Ordinary Course of Business. No Customers are employed by either Seller or any Affiliate of either Seller. Neither Seller is involved in any claim, dispute or controversy with any Customer that would reasonably be expected to have a Seller Material Adverse Effect, and neither Seller is involved in any material claim, dispute or controversy with any Customer.

(b) **Section 4.11(b)** of the Disclosure Schedules sets forth the CPT Volume ordered and performed by HOCC during the one (1) year period ended March 31, 2017 for each of the Customers of the HOCC Business, and sets forth the Requisition Volume and CPT Volume ordered and performed by Backus Hospital during the one (1) year period ended June 30, 2017 for each of the Customers of the Backus Hospital Business; such Requisition Volume and CPT Volume is attributable solely to the Business, and not to (i) any other business of either Seller, or (ii) any of the Excluded Assets.

(c) **Section 4.11(c)** of the Disclosure Schedules sets forth the aggregate CPT Volume ordered and performed by HOCC during the one (1) year period ended March 31, 2017, and sets forth the aggregate Requisition Volume and CPT Volume ordered and performed by Backus Hospital during the one (1) year period ended June 30, 2017 for which either Seller was reimbursed (i) under Title XVIII of the Social Security Act (i.e., Medicare), (ii) under Title XIX of the Social Security Act (i.e., Medicaid), and (iii) by private pay sources. Except for publicly available information, neither Seller has received any written or verbal indication from the Centers for Medicare and Medicaid Services or any such private pay source that they intend to (A) materially reduce the amount paid to such Seller for any of its clinical laboratory services or (B) terminate such Seller as a participating or non-participating provider of testing services.

(d) Sellers provide no computer hardware, fax machines, printers or software to Customers or potential customers, other than as specifically set forth in **Section 4.11(d)** of the Disclosure Schedules. Also set forth in **Section 4.11(d)** of the Disclosure Schedules is a complete and accurate list of all supplies that Sellers provide to Customers with respect to Sellers' Testing. Sellers do not provide any supplies with respect to Sellers' Testing to Customers other than those supplies listed in **Section 4.11(d)** of the Disclosure Schedules and provide such supplies consistent with the Supply Policy included in **Section 4.11(d)** of the Disclosure Schedules. Other than as specifically set forth in **Section 4.11(d)** of the Disclosure Schedules and except as set forth in written agreements, true and complete copies of which have been made available in the Data Room, Sellers do not provide any services, items, remuneration or any other benefit to any Customer or potential customer and there are no other financial relationships with any Customer or potential customer, including any consulting arrangement or similar engagement. Sellers monitor compliance with the Stark Law maximum gift policy and have not exceeded the limitations on gifts with any Customer or potential customer of the Business.

(e) **Section 4.11(e)** of the Disclosure Schedules accurately sets forth the data reflected in **Annex 6.11** (i.e., Monthly Volume Trend by segment) for the Businesses for the calendar month of June, 2017.

(f) Other than for billing to Connecticut State Medicaid, Sellers have bundled and billed all assays ordered by physicians with respect to the comprehensive metabolic panel and the basic metabolic panel using a single CPT code 80048 for the basic metabolic panel and a single CPT code 80053 for the comprehensive metabolic panel, and the CPT Volume provided by Sellers under **Section 4.11** of this Agreement accurately reflects the foregoing implosion logic.

(g) **[Intentionally Omitted].**

(h) **Section 4.11(h)(i)(A)** of the Disclosure Schedules accurately sets forth, with respect to each Material Customer that uses an electronic interface in connection with obtaining services from the Business, such Customer's client ID, each order code used by such Customer and the utilization thereof for the 12-month period ended March 31, 2017 with respect to the HOCC Business, and for the 12-month period ended June 30, 2017 with respect to the Backus Hospital Business. **Section 4.11(h)(i)(B)** of the Disclosure Schedules accurately sets forth in all material respects, with respect to each Customer that is not a Material Customer that uses an electronic interface in connection with obtaining services from the Business, such Customer's client ID, each order code used by such Customer and the utilization thereof for the 12-month period ended March 31, 2017 with respect to the HOCC Business, and for the 12-month period ended June 30, 2017 with respect to the Backus Hospital Business. **Section 4.11(h)(ii)** of the Disclosure Schedules accurately sets forth the detailed compendium of order codes utilized in the Business in the form set forth on **Exhibit I** hereto applicable to the HOCC Business and the Backus Hospital Business.

Section 4.12 Brokers. No broker, finder, investment banker or other Person has been employed by or on behalf of either Seller or is entitled to any brokerage, finder's or other fee or commission or other compensation in connection with the transactions contemplated by this Agreement or any other Transaction Document based upon arrangements made by or on behalf of such Seller.

Section 4.13 Taxes.

(a) Parent or Sellers, as the case may be, have filed on a timely basis all Tax Returns required to be filed by them in respect of the Businesses or the Purchased Assets on or prior to the Execution Date, or validly extended the time for filing such Tax Returns. The foregoing filed Tax Returns were correct and complete in all material respects, and all Taxes as shown thereon have been paid by Sellers or Parent, as the case may be, to the applicable Governmental Authority.

(b) Neither Seller is a party to any Tax allocation or sharing agreement or to any "closing agreement" as described in Code § 7121 (or any corresponding or similar provision of state, local or non-U.S. Tax law), other than any agreement that will terminate as of the Closing Date.

(c) Within the preceding five (5) years, no claim has been made by a Governmental Authority in a jurisdiction where Parent or either Seller, as the case may be, does not file Tax Returns that it is or may be subject to taxation by that jurisdiction due to the operation of the Businesses or the location of the Purchased Assets.

(d) There are no claims of any Governmental Authority that Parent or Sellers, as the case may be, are delinquent in the payment of any Taxes in respect of the Purchased Assets or any Business, and there are no liens for Taxes other than Permitted Encumbrances on the Purchased Assets.

(e) Parent or Sellers, as the case may be, have withheld and paid all material Taxes required to have been withheld and paid in connection with amounts paid or owing by any

Business or with respect to the Purchased Assets to any employee, independent contractor, creditor, stockholder or other third party and all Forms W-2 and 1099 required with respect thereto have been properly completed and timely filed.

(f) The transaction contemplated herein is not subject to the tax withholding provisions of Section 3406 of the Code, or of Subchapter A of Chapter 3 of the Code or of any other provision of Law.

Section 4.14 Real Property.

(a) **Section 4.14(a)** of the Disclosure Schedules sets forth a complete and accurate list of the locations at which the Businesses are operated, including any and all patient service centers and any other locations where Testing with respect to the Business is performed.

(b) Except as disclosed in **Section 4.14(b)** of the Disclosure Schedules, neither Seller owns any fee interest in any real property used by such Seller in connection with the Business.

(c) **Section 4.14(c)(i)** of the Disclosure Schedules sets forth a true, complete and correct list (with addresses) of each leased or subleased premises used by each Seller for such Seller's Business, whether pursuant to written or oral lease, sublease, license or other occupancy agreement. For each of the Assigned Locations, **Section 4.14(c)(ii)** of the Disclosure Schedules accurately specifies whether the landlord or sublandlord for any Assigned Location is directly or indirectly owned by a medical doctor or other referral source. Each of the Acquired Locations is open to the public (including Persons who are not patients of the landlord or sublandlord) during normal business hours. Except as set forth on **Section 4.14(c)(iii)** of the Disclosure Schedules, all Assigned Real Property Leases were entered into in arm's length transactions and no landlord or sublandlord is affiliated with any Seller or is a referral source with respect to any Seller. The rent for all Assigned Locations leased from a medical doctor or other referral source was a fair market value rent at the time the applicable Assigned Real Property Lease was entered into.

(d) For the Assigned Locations, (A) the applicable Seller has a valid leasehold interest, free and clear of all Encumbrances (other than Permitted Encumbrances) under the applicable Assigned Real Property Lease for each Assigned Location, (B) the applicable Seller has the right to use (and have quiet enjoyment of) such Assigned Location for the purposes for which it is being used by such Seller, (C) neither Seller nor any of their respective Affiliates have received any written notice of a dispute concerning the occupancy or use thereof which has not heretofore been fully resolved, (D) each Assigned Real Property Lease applicable thereto is legal, valid and binding, in full force and effect, and enforceable in accordance with its terms, subject to Laws of general application relating to the rights of creditors generally and the availability of equitable remedies, and (E) to such Seller's Knowledge, no party to any Assigned Real Property Lease is in material default thereunder (with or without notice or lapse of time, or both), nor has any material default been threatened nor is there any material dispute related thereto. Except as set forth on **Section 4.14(d)** of the Disclosure Schedules, each Seller enjoys exclusive, peaceful and undisturbed possession of all of its Assigned Locations. All Assigned Real Property Leases with landlords or sublandlords who are physicians comply with all

requirements of the Stark legislation, 42 USC §1395(m), as amended, including for purposes of complying with the Stark Law exception for rental of office space, the exclusive use by the applicable Seller, except for the use of space consisting of common areas.

(e) For each of the patient service centers used by a Seller in connection with the Business, **Section 4.14(e)** of the Disclosure Schedule accurately sets forth the patient volume attributable to such patient service centers for each of the nine months ended July 31, 2017 with respect to the HOCC Business, and for each of the nine months ended July 31, 2017 with respect to the Backus Hospital Business.

Section 4.15 Environmental Matters. All uses of the Purchased Assets and of the Acquired Locations by Sellers are in compliance in all material respects with all Laws relating to pollution or protection of the environment, including Laws relating to Releases or threatened Releases of Hazardous Substances or otherwise relating to the manufacture, processing, distribution, use, treatment, storage, Release, disposal, transport or handling of Hazardous Substances and all Laws with regard to record keeping, notification, disclosure and reporting requirements respecting Hazardous Substances (collectively, "**Environmental Laws**"). Neither Seller has received any written notice that is outstanding or unresolved of any violations of any Environmental Laws regarding the Purchased Assets or the Acquired Locations. Sellers are in compliance in all material respects with all Environmental Laws, including those regarding the storage, handling and Removal of Hazardous Substances or toxic substances and medical wastes, in connection with the operation of the Businesses, the Acquired Locations and the Purchased Assets. During Sellers' occupancy of the Acquired Locations, Sellers have not Released any Hazardous Substance on the Acquired Locations in excess of cleanup standards established under applicable Environmental Laws and in material violation of Environmental Laws, and, to the Knowledge of Sellers, the same has never occurred on such premises prior to such occupancy. To the Knowledge of Sellers, the Acquired Locations are not subject to any federal, state or local Superfund or other proceeding, claim, liability or action requiring the cleanup, Removal, or remediation of any Hazardous Substance. The terms "**Hazardous Substance**," "**Release**" and "**Removal**" as used in this **Section 4.15** shall have the same meaning and definition as set forth in paragraphs (14), (22) and (23), respectively, of Title 42 U.S.C. Section 9601 et seq. and any applicable state Laws; however, the term "**Hazardous Substance**" as used in this **Section 4.15** also shall include (i) "hazardous waste" as defined in paragraph (5) of 42 U.S.C. Section 6903, (ii) "petroleum" as defined in paragraph (8) of 42 U.S.C. Section 6991, (iii) any asbestos containing material, (iv) any polychlorinated biphenyls or PCBs, and (v) radon. The term "**Superfund**" as used in this **Section 4.15** means the Comprehensive Environmental Response, Compensation and Liability Act, as amended, being Title 42 U.S.C. Section 9601 et seq. as amended, and any similar state or local Law.

Section 4.16 Title to Assets. Each Seller has good, marketable, and exclusive title to all of its Purchased Assets, free and clear of all Encumbrances, other than Permitted Encumbrances, except that such Seller has valid and subsisting leasehold or subleasehold interests or licenses in all of the Purchased Assets that are leased or licensed by such Seller, including, but not limited to, the Acquired Locations, and such interests and licenses are free and clear of all Encumbrances other than Permitted Encumbrances.

Section 4.17 Condition of Assets. The Purchased Assets are in reasonable operating condition (ordinary wear and tear excepted). The Purchased Assets conform in all material respects to all applicable Laws related to their use and operation by Sellers.

Section 4.18 Bankruptcy. Neither Seller (a) is in receivership or dissolution, (b) has made any assignment for the benefit of creditors, (c) has admitted in writing its inability to pay its debts as they mature, (d) has been adjudicated a bankrupt, or (e) has filed a petition in voluntary bankruptcy, a petition or answer seeking reorganization, or an arrangement with creditors under the federal bankruptcy Law or any other similar Law or statute of the United States or any state, nor has any such petition been filed against either Seller.

Section 4.19 Intellectual Property.

(a) **Section 4.19(a)** of the Disclosure Schedules identifies each material item of Intellectual Property used in or held for use in the Business (the "**Business Intellectual Property**"). Sellers own, free and clear of all Encumbrances, or have the right to use pursuant to a valid and enforceable license, sublicense or agreement, all Business Intellectual Property and have the right to convey or assign the Business Intellectual Property to Buyer without material liability to, or any requirement of consent from, any other Person. Each Seller has taken all commercially reasonable action to maintain and protect all of its Business Intellectual Property so as not to adversely affect the validity or enforceability thereof. Each Seller has taken all commercially reasonable action to maintain and protect the confidentiality and value of all trade secrets and confidential information included in its Business Intellectual Property. To the Knowledge of Sellers, all of the Business Intellectual Property is valid and enforceable, and none of the Business Intellectual Property has been misused.

(b) None of Business Intellectual Property infringes, misappropriates or otherwise comes into conflict with any Intellectual Property of any Person. Neither Seller has received any charge, complaint, claim, demand or notice alleging any such interference, infringement, misappropriation or violation (including any claim that either Seller must license or refrain from using any Intellectual Property rights of any Person). To the Knowledge of Sellers, no Person has interfered with, infringed upon, misappropriated or otherwise come into conflict with any Intellectual Property rights owned by Sellers or used in connection with the Business.

(c) No material confidential or trade secret information of either Seller related to its Business has been provided to any Person except subject to written confidentiality agreements and except for any such disclosure which is not, and would not reasonably expected to result in a Seller Material Adverse Effect to the continuing conduct of the Business. To the Knowledge of Sellers, no Person is in breach or violation of any such confidentiality agreement.

Section 4.20 Prepaid Expenses. Section 4.20 of the Disclosure Schedules sets forth a true, complete and correct list of all reserves, security and other deposits, advances and prepaid expenses and credits related to the Assigned Real Property Leases.

Section 4.21 Internal Accounting Controls. Sellers devised and have maintained systems of internal accounting controls which are in all material respects effective in providing

reasonable assurances that (i) transactions are executed in accordance with management's authorization, (ii) transactions are recorded as necessary to permit the preparation of financial statements in conformity with GAAP, to the extent applicable, and to maintain proper accountability for items, (iii) access to its property and assets is permitted only in accordance with management's authorization, and (iv) the recorded accountability for items is compared with the actual levels at reasonable intervals and appropriate action is taken with respect to any differences.

Section 4.22 Contracts.

(a) **Section 4.22(a)(i)** of the Disclosure Schedules sets forth a true, complete and correct list (subsections of the Disclosure Schedule are numbered to correspond to the subsections of this **Section 4.22(a)**) of: (w) the Assigned Tangible Property Leases; (x) all Contracts with Customers, including, to the extent applicable, electronic connectivity, equipment or interface Contracts, business associate agreements or confidentiality agreements; (y) all Contracts exclusively or primarily used in the Business that involve payments by Seller anticipated to be in excess of $2,500 in any one calendar month, including, to the extent applicable, electronic connectivity, equipment or interface Contracts, business associate agreements or confidentiality agreements; and (z) all collective bargaining agreements, contracts or other agreements or understandings with any labor union (such Contracts in clauses (w), (x), (y) and (z) collectively, the "**Seller Contracts**"). Except as set forth in **Section 4.22(a)(ii)** of the Disclosure Schedules, none of the Seller Contracts materially limit either Seller or any assignee or Affiliate thereof in any way from competing anywhere or in any business or from soliciting any Person as a customer, client, payor or employee, or requires either Seller to refer any testing to any third party. Each Seller Contract is legal, valid and binding, in full force and effect, and enforceable against the Seller party thereto and, to the Knowledge of Sellers, the other parties thereto, in accordance with its terms, except as enforceability may be limited by applicable bankruptcy, insolvency, reorganization, moratorium or similar Laws affecting creditors' rights generally and by general principles of equity (regardless of whether enforcement is sought in a proceeding at law or in equity). Neither Seller nor, to the Knowledge of Sellers, any other party thereto is in material default thereunder (with or without notice or lapse of time, or both). No event has occurred or circumstance exists that (with or without notice or lapse of time, or both) would result in a breach of, or give either Seller or other Person the right to declare a default or exercise any remedy under, or accelerate the maturity or performance of or payment under, or cancel, terminate or modify, any Seller Contract, to the extent such breach or the exercise of such rights by the other Person would reasonably be expected to result in a Seller Material Adverse Effect. Sellers have made available in the Data Room true, complete and correct copies of all Assigned Real Property Leases and all written Seller Contracts, together with all amendments or modifications thereto, and true, complete and correct summaries of all material terms of all oral Seller Contracts, if any.

(b) Except as set forth in **Section 4.22(b)** of the Disclosure Schedules, neither Seller has, and to the Knowledge of Sellers, no other party to any Seller Contract has, exercised any termination rights with respect thereto that would be material to the Seller party thereto.

Section 4.23 Assets Related to the Business. Sellers have made available in the Data Room complete and accurate lists of all assets, whether tangible or intangible, that are used or

held for use in the Business. No assets of Parent, whether tangible or intangible, are used or held for use exclusively or primarily in the Business.

Section 4.24 Permits; Approvals The officers of Sellers set forth in **Section 4.24** of the Disclosure Schedules do not have any actual knowledge (without duty of inquiry) of any written communication from a Governmental Authority indicating that such Governmental Authority intends to object to or seek to prohibit the transactions contemplated by this Agreement or any of the Transaction Documents.

Section 4.25 Data Responses. All information set forth in **Section 4.25** of the Disclosure Schedules was true and correct as of the date provided from Seller to Buyer.

[redacted]

Section 4.27 Disclaimer of Certain Warranties. NONE OF SELLERS OR PARENT MAKES ANY REPRESENTATION OR WARRANTY TO BUYER, EXPRESS OR IMPLIED,

WITH RESPECT TO THE SELLERS OR PARENT, THE BUSINESSES, THE PURCHASED ASSETS, OR THE ASSUMED LIABILITIES OTHER THAN AS EXPRESSLY PROVIDED IN THIS **ARTICLE IV** AND THE DISCLOSURE SCHEDULES RELATED THERETO. WITHOUT LIMITING THE FOREGOING, NONE OF SELLERS OR PARENT MAKES ANY REPRESENTATION OR WARRANTY TO BUYER, EXPRESS OR IMPLIED, WITH RESPECT TO: (A) MANAGEMENT AND/OR SELLER PRESENTATIONS; OR (B) ANY FINANCIAL PROJECTIONS OR FORECASTS RELATING TO SELLERS, THE BUSINESSES, OR THE PURCHASED ASSETS.

Article V.
REPRESENTATIONS AND WARRANTIES OF BUYER

Except as set forth in Buyer's Disclosure Schedules (all such exceptions noted in the Disclosure Schedules being numbered to correspond to the applicable section of this **Article V**), Buyer represents and warrants to Sellers as follows:

Section 5.1 Organization of Buyer. Buyer is a limited liability company duly organized, validly existing and in good standing under the Laws of the State of Massachusetts.

Section 5.2 Authority of Buyer. Buyer has all necessary corporate power and authority to enter into this Agreement and the other Transaction Documents to which Buyer is a party, to carry out its obligations hereunder and thereunder and to consummate the transactions contemplated hereby and thereby. The execution and delivery by Buyer of this Agreement and any other Transaction Document to which Buyer is a party, the performance by Buyer of its obligations hereunder and thereunder and the consummation by Buyer of the transactions contemplated hereby and thereby have been duly authorized by all requisite limited liability company action on the part of Buyer. This Agreement has been duly executed and delivered by Buyer, and (assuming due authorization, execution and delivery by Sellers) this Agreement constitutes a legal, valid and binding obligation of Buyer enforceable against Buyer in accordance with its terms, except as such enforceability may be limited by applicable bankruptcy, insolvency, reorganization, moratorium or similar Laws affecting creditors' rights generally and by general principles of equity (regardless of whether enforcement is sought in a proceeding at law or in equity). When each other Transaction Document to which Buyer is or will be a party has been duly executed and delivered by Buyer (assuming due authorization, execution and delivery by each other party thereto), such Transaction Document will constitute a legal and binding obligation of Buyer enforceable against it in accordance with its terms, except as such enforceability may be limited by applicable bankruptcy, insolvency, reorganization, moratorium or similar Laws affecting creditors' rights generally and by general principles of equity (regardless of whether enforcement is sought in a proceeding at law or in equity).

Section 5.3 No Conflicts; Consents. The execution, delivery and performance by Buyer of this Agreement and the other Transaction Documents to which it is a party, and the consummation of the transactions contemplated hereby and thereby, do not and will not: (a) result in a violation or breach of any provision of the articles of organization or operating agreement of Buyer; (b) result in a violation or breach of any provision of any Law or Governmental Order applicable to Buyer; or (c) require the consent, notice or other action by any Person under, conflict with, result in a violation or breach of, constitute a default under or result

in the acceleration of any agreement to which Buyer is a party, except in the cases of clauses (b) and (c), where the violation, breach, conflict, default, acceleration or failure to give notice would not have a Buyer Material Adverse Effect on Buyer's ability to consummate the transactions contemplated hereby. No consent, approval, Permit, Governmental Order, declaration or filing with, or notice to, any Governmental Authority is required by or with respect to Buyer in connection with the execution and delivery of this Agreement and the other Transaction Documents and the consummation of the transactions contemplated hereby and thereby, and such consents, approvals, Permits, Governmental Orders, declarations, filings or notices which would not have a Buyer Material Adverse Effect on Buyer's ability to consummate the transactions contemplated hereby and thereby.

Section 5.4 Brokers. No broker, finder, investment banker or other similar Person has been employed by or on behalf of Buyer or is entitled to any brokerage, finder's or other fee or commission or other compensation in connection with the transactions contemplated by this Agreement or any other Transaction Document based upon arrangements made by or on behalf of Buyer.

Section 5.5 Sufficiency of Funds. Buyer has sufficient cash on hand or other sources of immediately available funds to enable it to make payment of the Purchase Price and consummate the transactions contemplated by this Agreement.

Section 5.6 Legal Proceedings. There are no actions, suits, claims, investigations, or other legal proceedings pending or, to Buyer's Knowledge, threatened against or by Buyer or any Affiliate of Buyer, nor is there any order, writ, injunction, judgment or decree of any court or Governmental Authority outstanding against Buyer or any Affiliate of Buyer, that would be reasonably likely to have a Buyer Material Adverse Effect, or that challenge or seek to prevent, enjoin, or otherwise delay the transactions contemplated by this Agreement or any Transaction Document.

Section 5.7 Permits; Approvals. The officers of Buyer set forth in **Section 5.7** of Buyer's Disclosure Schedules do not have any actual knowledge (without duty of inquiry) of any written communication from a Governmental Authority indicating that such Governmental Authority intends to object to or seek to prohibit the transactions contemplated by this Agreement or any of the Transaction Documents.

Article VI.
PRE-CLOSING COVENANTS

Section 6.1 Conduct of Business Prior to the Closing. From and after the Execution Date and through and including the earlier of (i) the Closing Date or (ii) the date on which this Agreement is terminated in accordance with **Section 10.1** (such time period, the "**Pre-Closing Period**"), except as otherwise provided in this Agreement or consented to in writing by Buyer, each Seller shall conduct its Business in the Ordinary Course of Business and (i) pay or satisfy all of the obligations and Liabilities of such Business in the Ordinary Course of Business and file all Tax Returns required to be filed prior to the Closing Date and pay all Taxes required to be paid prior to the Closing Date and (ii) use reasonable best efforts to preserve intact the current business organization of such Seller related to the Business, keep available the services of such

Seller's officers, employees, and agents who perform services for the Business, and maintain such Seller's relations and goodwill with landlords, suppliers, creditors, employees, agents and others having business relationships with such Seller in connection with the Business and (iii) use commercially reasonable efforts to maintain, in the Ordinary Course of Business, service levels with respect to the Businesses generally consistent with the service levels maintained with respect to the Businesses during the three months immediately prior to the Effective Date. In addition, during the Pre-Closing Period, neither Seller shall, without the prior written consent of Buyer, take any of the following actions:

(a) enter into any agreement or incur or agree to incur any material liability with respect to its Business or Purchased Assets, except in the Ordinary Course of Business;

(b) sell, lease, or otherwise dispose of, or permit any Encumbrance upon, any of the Purchased Assets other than (i) sales of inventory in the Ordinary Course of Business, (ii) dispositions of obsolete equipment or unsaleable inventory in the Ordinary Course of Business, and (iii) Permitted Encumbrances;

(c) fail to spend funds for any budgeted capital expenditures with respect to the Purchased Assets;

(d) fail to keep in full force and effect insurance comparable in amount and scope to insurance carried by such Seller with respect to its Business as of the Execution Date;

(e) influence, or attempt to influence in any way (positively or negatively, directly or indirectly), or require any physician to purchase or order services from its Business;

(f) take any other action that would reasonably be expected to have a Seller Material Adverse Effect on its Purchased Assets in the aggregate or its Business as a whole;

(g) enter into any merger or consolidation with any Person, or engage in any new business unrelated to the Business;

(h) amend, modify or terminate any of the Assigned Real Property Leases;

(i) enter into any agreement that subjects the Purchased Assets or the Business to any non-competition or material restriction that will be binding on Buyer following the Closing;

(j) make any commitment of any kind to any Customer to any material change in the service levels provided at a future date outside the Ordinary Course of Business; or

(k) enter into any agreement, whether oral or written to do any of the foregoing.

In addition, during the Pre-Closing Period, Parent shall not, and shall cause its Affiliates not to, without the prior written consent of Buyer, hire any employees of either Seller involved in the Business, except in the Ordinary Course of Business.

Section 6.2 Notification. During the Pre-Closing Period, Buyer or Sellers, as the case may be (any such party, the "**Disclosing Party**"), shall promptly notify the other party in writing if the Disclosing Party becomes aware of: (i) any fact or condition that causes or constitutes a breach of any of the representations and warranties of the Disclosing Party made as of the Execution Date; or (ii) the occurrence after the Execution Date of any fact or condition that would, or be reasonably likely to, cause or constitute a breach of any such representation or warranty had that representation or warranty been made as of the time of the occurrence of, or the Disclosing Party's discovery of, such fact or condition. If any such fact or condition requires any change to the Disclosure Schedules prepared by a Disclosing Party, such Disclosing Party shall promptly deliver to the other party a supplement to such Disclosure Schedules specifying such change. In addition, between the Execution Date and the Closing, Buyer or Sellers, as the case may be, shall promptly notify the other party of the occurrence of any breach of any covenant by such party in this **Article VI** or of the occurrence of any event that would reasonably be expected to make the satisfaction of any conditions in **Article VII** impossible or unlikely. No disclosure pursuant to this **Section 6.2** will prevent or cure any breach of any representation or warranty or covenant set forth herein or affect any remedies available to the non-Disclosing Party.

Section 6.3 Confidentiality.

(a) Buyer acknowledges and agrees that the Confidentiality Agreement remains in full force and effect and, in addition, covenants and agrees to keep confidential, in accordance with the provisions of the Confidentiality Agreement, information provided to Buyer pursuant to this Agreement. If this Agreement is, for any reason, terminated prior to the Closing, the Confidentiality Agreement and the provisions of this **Section 6.3** shall nonetheless continue in full force and effect.

(b) Notwithstanding anything contained herein to the contrary, effective as of the Closing, all Confidential Information of Sellers included in the Purchased Assets or otherwise related to the Businesses will be deemed to be "**Confidential Information**" of Buyer and will be subject to the following provisions:

(i) Each of Parent and Sellers agrees that at all times: (A) it shall (and shall cause its Affiliates to) maintain all Confidential Information in strict confidence; (B) neither Parent nor Sellers shall (and shall cause its Affiliates not to) disclose any Confidential Information to any Person other than Buyer, except for legal counsel, auditors, accountants, consultants and insurers of Parent or Sellers or their Affiliates if such disclosure is made subject to appropriate assurances or circumstances of confidentiality; and (C) neither Parent nor Sellers shall (and shall cause its Affiliates not to) use any Confidential Information for the benefit of Parent or Sellers or any of their Affiliates, or any third party.

(ii) Notwithstanding anything herein to the contrary, if any given item(s) of Confidential Information would be entitled to protection against misappropriation, use, disclosure or other conduct for a period of time longer than otherwise required hereunder under any applicable trade secrets statute or other applicable Law, then the protections hereunder shall, as to such item(s) of Confidential Information, extend for such longer period of time pursuant to applicable Law, and the foregoing provisions shall not be deemed in any way to reduce, limit or

waive any such protections that may be applicable to such Confidential Information under applicable Law.

(iii) Nothing in this Agreement, however, shall prohibit any Person from using or disclosing Confidential Information to the extent required by Law or as reasonably required in connection with a dispute concerning the terms of this Agreement. If Sellers, Parent or their Affiliates are required by Law to disclose any Confidential Information, then they shall (i) provide Buyer with prompt notice before such disclosure in order that Buyer may attempt to obtain a protective order or other assurance that confidential treatment will be accorded such information and (ii) cooperate with Buyer in attempting to obtain such order or assurance.

Section 6.4 Governmental Approvals and Consents.

(a) Each party hereto shall, as promptly as possible, use its commercially reasonable efforts to obtain, or cause to be obtained, all consents, authorizations, orders and approvals from all Governmental Authorities and make, or cause to be made, all filings required by Law to be made by it to consummate the transactions contemplated hereby that may be or become necessary for its execution and delivery of this Agreement and the performance of its obligations pursuant to this Agreement and the other Transaction Documents. Each party shall cooperate with each other party and its Affiliates in promptly seeking to obtain all such consents, authorizations, orders and approvals that the other is required by Law to make. The parties hereto shall not willfully take any action that will have the effect of delaying, impairing or impeding the receipt of any required consents, authorizations, orders and approvals that the other is required by Law to make. Each party shall bear its own costs in obtaining such consents, authorizations, orders, and approvals and making such filings.

(b) All analyses, appearances, meetings, discussions, presentations, memoranda, briefs, filings, arguments, and proposals made by or on behalf of Buyer or Sellers before any Governmental Authority or the staff or regulators of any Governmental Authority, in connection with the transactions contemplated hereunder (but, for the avoidance of doubt, not including any interactions between Buyer or Sellers and Governmental Authorities in the Ordinary Course of Business, any disclosure which is not permitted by Law or any disclosure containing confidential information) shall be disclosed to the other party hereunder in advance of any filing, submission or attendance, it being the intent that the parties will consult and cooperate with one another, and consider in good faith the views of one another, in connection with any such analyses, appearances, meetings, discussions, presentations, memoranda, briefs, filings, arguments, and proposals. Each party shall give notice to the other parties with respect to any meeting, discussion, appearance or contact with any Governmental Authority or the staff or regulators of any Governmental Authority, with such notice being sufficient to provide the other parties with the opportunity to attend and participate in such meeting, discussion, appearance or contact.

Section 6.5 Closing Conditions. During the Pre-Closing Period, each party hereto shall use its commercially reasonable efforts to take such actions as are necessary to expeditiously satisfy the closing conditions set forth in **Article VII** hereof to the extent that such party's action or inaction can control or influence the satisfaction of such conditions.

Section 6.6 Public Announcements. Unless otherwise required by applicable Law (based upon the reasonable advice of counsel), no party to this Agreement shall make any public announcements in respect of this Agreement or the transactions contemplated hereby or otherwise communicate with any news media without the prior written consent of the other party (which consent shall not be unreasonably withheld, conditioned or delayed), and the parties shall cooperate as to the timing and contents of any such announcement.

Section 6.7 Bulk Sales Laws. The parties hereby waive compliance with the provisions of any bulk sales, bulk transfer or similar Laws of any jurisdiction that may otherwise be applicable with respect to the sale of any or all of the Purchased Assets to Buyer.

Section 6.8 Access and Investigation; Assistance with Customer Transition.

(a) During the Pre-Closing Period, and upon at least two (2) Business Days advance notice received from Buyer, each Seller shall: (a) afford Buyer and its agents and Representatives (collectively, the "**Buyer Group**") reasonable access, during regular business hours, to such Seller's properties, personnel, facilities, contracts, books and records (except Retained Medical Records), and other documents and data related to its Business and Purchased Assets, such rights of access to be exercised in a manner that does not unreasonably interfere with the operations of such Seller; (b) furnish to the Buyer Group copies of all such contracts, books and records (except Retained Medical Records), and other existing documents and data related to the Purchased Assets and Business that the Buyer Group may reasonably request; (c) furnish the Buyer Group with such additional financial, operating, and other data and information related to the Purchased Assets and Business as the Buyer Group may reasonably request (except Retained Medical Records); and (d) otherwise cooperate and assist, to the extent reasonably requested by Buyer Group, with Buyer Group's investigation of the properties, assets and financial condition of such Seller related to the Purchased Assets and Business.

(b) From and after the date that is ten (10) Business Days after the Execution Date and through and including the earlier of: (i) the Closing Date or (ii) the date on which this Agreement is terminated in accordance with **Section 10.1**, Sellers and Parent shall provide Buyer reasonable access to, and shall make their employees reasonably available for joint visits with, any and all Customers for the purpose of facilitating Buyer's integration activities with respect to the Businesses from and after the Closing (the "**Integration**"), including dropping off supplies, installing electronic interfaces, deactivating existing lines and performing such other activities as are reasonably necessary in order to transition the Businesses from Sellers effective from and after the Closing; provided, however, that Buyer shall provide Sellers reasonable advance notice of such joint visits. For the avoidance of doubt, nothing in this Agreement shall prohibit Buyer from communicating with health plans with which a Seller is a participating provider and health plans with which a Seller is not a participating provider regarding the transactions contemplated by this Agreement from and after the Execution Date.

(c) During the Pre-Closing Period, Sellers shall provide Buyer with access to Designated Employees and shall make Designated Employees available for training, at such times and in such manner as Buyer may reasonably request (including during such Designated Employees' work hours); provided that such training shall not unreasonably interfere with such Designated Employees' performance of their duties as employees of Sellers. For purposes of this

Agreement, the defined term "**Designated Employees**" means a Seller's employees that Buyer designated as employees to whom it intends to make offers of employment upon the Closing.

(d) During the Pre-Closing Period, Sellers shall provide Buyer with such access to suppliers and other Persons having business relations with Sellers that is reasonably necessary in connection with the Integration, at such times and in the manner mutually agreed to by Buyer and Sellers (it being understood that Sellers will permit Buyer to have reasonable access to such Persons), and Sellers and Parent shall provide such assistance as Buyer may reasonably request in connection with the Integration.

Section 6.9 Physician Client Information. Subject to **Section 6.2**, in the event Buyer identifies any error or inaccuracy in the Client Setup Data or requests any updates thereto, Sellers shall use reasonable best efforts to correct such error or inaccuracy or provide such updates, as applicable, within two Business Days of receiving notice thereof or request therefor from Buyer; provided, that no such action by Sellers will prevent or cure any breach of any representation or warranty or covenant set forth herein or affect any remedies available to Buyer. In addition to the foregoing, at the HOCC Closing, (a) HOCC shall deliver the information set forth in **Annex 4.11** for each Material Customer who ordered services from HOCC after March 31, 2017 and through the most recent complete calendar month, with all fields accurately completed in all material respects; and (b) HOCC shall deliver the information set forth in **Annex 4.11** that Seller can reasonably provide for each Customer that is not a Material Customer who ordered services from HOCC after March 31, 2017 and through the most recent complete calendar month. At the Backus Closing, (a) Backus Hospital shall deliver the information set forth in **Annex 4.11** for each Material Customer who ordered services from Backus Hospital after June 30, 2017 and through September 30, 2017, with all fields accurately completed in all material respects; and (b) Backus Hospital shall deliver the information set forth in **Annex 4.11** that Seller can reasonably provide for each Customer that is not a Material Customer who ordered services from Backus Hospital after June 30, 2017 and through September 30, 2017.

Section 6.10 No Negotiation. During the Pre-Closing Period, Sellers shall not, and Sellers shall cause their respective directors, employees and other Representatives, not to, directly or indirectly, solicit, initiate, encourage or entertain any inquiries or proposals from, discuss or negotiate with, provide any non-public information to, or consider the merits of any inquiries or proposals from, any Person (other than Buyer) relating to any merger, consolidation, business combination or similar transaction involving any Seller, or the sale of its Business or the assets of a Seller used in its Business (excluding the sale of inventory in the Ordinary Course of Business). Sellers shall notify Buyer of any such inquiry or proposal and the terms thereof promptly from the time of receipt or awareness.

Section 6.11 Example Reports. Within four Business Days following the date hereof, each Seller shall deliver to Buyer a report in the form, and containing the type of information set forth on **Annex 6.11** (i.e., End of Month CPT Volume Report) for the calendar month of July 2017, together with the underlying source information. During the Pre-Closing Period, each Seller shall deliver to Buyer within four Business Days following the end of a calendar month, a report in the form, and containing the type of information set forth on **Annex 6.11** (i.e., End of Month CPT Volume Report) for the calendar month immediately preceding the month in which such report is provided, together with the underlying source information. All reports delivered

pursuant to this **Section 6.11** shall be complete and accurate in all material respects and shall be prepared by Sellers consistent with past practice.

Section 6.12 [Intentionally Omitted].

Section 6.13 [Intentionally Omitted].

Section 6.14 [Intentionally Omitted].

Section 6.15 Available Funds. From and after the execution of this Agreement through the Closing Date, Buyer shall take such reasonable actions as may be necessary to ensure that Buyer will have as of the Closing available to it, all funds in cash necessary to consummate the transactions contemplated by this Agreement and the Transaction Documents and to perform its obligations under this Agreement and the Transaction Documents.

Section 6.16 [Intentionally Omitted].

Section 6.17 [Intentionally Omitted].

Section 6.18 Seller Employee List. Within three Business Days following the Execution Date, Sellers shall deliver to Buyer a list of all employees of Sellers involved in the Business as of the Execution Date, including, for each such employee: name, years of service with the relevant Seller, and start date with the relevant Seller (the "**Seller Employee List**"), which shall be certified by Sellers to be complete and accurate. At the Closing, Sellers shall deliver to Buyer a Seller Employee List updated as of immediately prior to Closing, which shall be certified by Sellers to be complete and accurate.

Section 6.19 Information Technology.

(a) Within three Business Days after the Effective Date, each Seller shall designate and provide the Buyer Group with reasonable access to a senior information technology ("**IT**") employee of such Seller (the "**IT Designee**") who will serve as a point of contact and coordination for all IT-related questions and issues relating to Buyer's integration activities with respect to the Businesses during the Pre-Closing Period and Integration Period, including with respect to electronic interfaces and such other activities as are reasonably necessary in order to transition the Businesses from Sellers effective on the Closing. Each IT Designee shall have the authority to, and each Seller shall cause such IT Designee to, provide (i) the Buyer Group with access to the Customers and vendors of the Business that consent to such access by Buyer, to the Assigned Locations, and to information, in each case, that is reasonably requested by Buyer in connection with the transition of the Businesses from Sellers effective on the Closing and (ii) vendors of the Buyer Group with reasonable access to the Acquired Locations within two Business Days following Buyer's request therefor, including for purposes of installation of connectivity at any Acquired Location prior to Closing; provided, however, that Buyer shall not be permitted to connect any of its network equipment into existing network equipment of HHC or its Affiliates.

(b) During the Pre-Closing Period, Sellers shall use commercially reasonable efforts to advise Buyer's employees with respect to Sellers' compendium and Customer connectivity solutions used by Sellers in connection with the Businesses.

(c) During the Pre-Closing Period, Sellers shall:

(i) expand the usage of an electronic interface using standard Epic-Buyer certified interface and connectivity protocol (the "**Interface**") from Sellers' electronic health record system into Buyer's electronic health record system to those Seller-owned or controlled physicians groups that do not use the Interface as of the Execution Date ("**Seller Employed Customers**"), which Interface shall (A) be capable of accurately processing electronic orders, electronic results, and electronic billing information from patients of its Business to enable Buyer to directly bill payers of its Business, patients of its Business, or Customers; and (B) facilitate the use of Buyer's order codes and result codes in the HL7 messages;

(ii) perform such database work within Sellers' electronic health record system as is necessary to facilitate the transmission of electronic orders and results of these orders through the Interface for Seller Employed Customers, all solely with respect to its Business; and

(iii) use commercially reasonable efforts to perform such training and communication with Seller Employed Customers as is reasonably necessary for such Seller Employed Customers to successfully send orders to Buyer and view results from Buyer on the Closing.

(d) During the Pre-Closing Period and Integration Period, Sellers shall use commercially reasonable efforts to assist Buyer with adding additional IP addresses to the VPN tunnel and building printer names for expanded SLAB usage at the Assigned Locations.

(e) During the Pre-Closing Period, Sellers shall use commercially reasonable efforts to facilitate Buyer's improvements and installations of connectivity and hardware at any Acquired Location; provided, however, that Buyer shall not be permitted to connect any of its network equipment into existing network equipment of HHC or its Affiliates. With respect to the Acquired Locations, during the Pre-Closing Period, Sellers shall use commercially reasonable efforts to facilitate the transfer of connectivity and related telecom equipment to Buyer on the Closing Date. Within one week following the Closing, Sellers shall remove their equipment from each Acquired Location as reasonably requested by Buyer.

(f) During the Pre-Closing Period, Sellers shall continue to maintain access for Customers to all results for Testing performed prior to the Closing Date with respect to the Business, such that results for Testing performed prior to the Closing Date can be reported to the Customers and historical results will remain available during the Integration Period.

(g) During the Pre-Closing Period and the Integration Period, Sellers shall support Buyer's staff and Customers by providing information as reasonably requested for the purpose of accessing standing orders, orders on hold and future orders, and communicating

results relating to periods prior to the Closing Date to the ordering physician, all solely related to the Business.

(h) Sellers' obligations in this **Section 6.19** are subject to Buyer's cooperation reasonably requested by Seller in connection with Sellers' performance of its obligations under this **Section 6.19**.

(i) Sellers shall be responsible for up to a combined $10,000 in expenses incurred while performing their obligations under this **Section 6.19**. To the extent such expenses exceed $10,000, Buyer shall pay 50% of such expenses incurred by Sellers, provided that Sellers provide reasonable supporting documentation for such expenses and Buyer's payment obligation under this **Section 6.19(i)** shall not exceed $10,000.

Section 6.20 Required Consents. During the Pre-Closing Period, Sellers shall use their reasonable best efforts to obtain, on or prior to Closing, all consents, authorizations, orders and approvals required in connection with the transactions contemplated hereby under the Seller Contracts set forth on **Annex 2.1(c)**, the Assigned Tangible Property Leases and the Assigned Real Property Leases (collectively, "**Assigned Agreements**"), including, with respect to each Assigned Location, consents (in form and substance reasonably acceptable to Buyer) from the landlord or sublandlord, as applicable, for the assignment or sublease, as applicable of such Assigned Location as well as Form W-9s reasonably requested by Buyer in connection therewith.

Section 6.21 [Intentionally Omitted].

Section 6.22 [Intentionally Omitted].

Section 6.23 Agreement with Central Connecticut Pathology Consultants. During the Pre-Closing Period, the Sellers shall use commercially reasonable efforts to assist Buyer to reach agreement on a coordination of services agreement with Central Connecticut Pathology Consultants to be effective on or around the HOCC Closing Date.

Article VII.
CONDITIONS TO CLOSING

Section 7.1 Conditions to Obligations of All Parties. The obligations of each party to consummate the transactions contemplated by this Agreement shall be subject to the fulfillment, at or prior to the Closing, of each of the following conditions (any of which may be waived in writing, in whole or in part by the party entitled to enforce such condition):

(a) The filings of each Seller required by OHCA, if any, shall have been made and the CON for each Seller shall have been obtained from OHCA.

(b) No Governmental Authority shall have enacted, issued, promulgated, enforced or entered any Governmental Order or Law which is in effect and has the effect of making the transactions contemplated by this Agreement illegal, or otherwise restraining, prohibiting or delaying consummation of such transactions or causing any of the transactions contemplated hereunder to be rescinded following completion thereof, and no proceedings or

investigations by or before, or otherwise involving, any Governmental Authority shall be threatened or pending against either Seller or Buyer which seek to enjoin or prevent the consummation of the transactions contemplated by this Agreement or which seek material damages in connection with the transactions contemplated hereby.

Section 7.2 Conditions to Obligations of Buyer. The obligations of Buyer to consummate the transactions contemplated by this Agreement shall be subject to the fulfillment or Buyer's written waiver, at or prior to the Closing, of each of the following conditions:

(a) (i) (A) The representations and warranties of Sellers and Parent contained in this Agreement (other than the representations and warranties described in **Section 7.2(a)(ii)**) must have been true and correct in all material respects as of Execution Date, and shall be true and correct in all material respects as of the Closing as if made on the Closing, and (B) each of the representations and warranties of Sellers and Parent contained in this Agreement that contains an express materiality or Seller Material Adverse Effect qualification (other than the representations and warranties described in **Section 7.2(a)(ii)**) must have been true and correct in all respects as of the Execution Date, and must be true and correct in all respects as of the Closing as if made on the Closing Date.

(ii) The representations and warranties of Sellers and Parent contained in **Section 4.1** (Organization of Sellers and Parent), **Section 4.2** (Authority of Sellers and Parent) and **Section 4.12** (Brokers) must be true and correct in all respects as of the Closing Date with the same effect as if made on and as of the Closing Date.

(b) Sellers and Parent shall have duly performed and complied in all material respects with all agreements, covenants and conditions required by this Agreement and each of the other Transaction Documents to be performed or complied with by them prior to or on the Closing Date.

(c) Sellers and Parent shall have delivered to Buyer duly executed counterparts to the Transaction Documents (other than this Agreement) and such other documents and deliveries set forth in **Section 3.2(a)**.

(d) Buyer shall have received certificates of each Seller, dated the Closing Date and signed by duly authorized officers of Sellers and Parent, that each of the conditions set forth in **Section 7.2(a)** and **Section 7.2(b)** have been satisfied (the "**Seller Closing Certificates**").

(e) Buyer shall have received certificates of the Secretary (or equivalent officer) of Parent certifying that attached thereto are true and complete copies of all resolutions adopted by Parent on its behalf and on behalf of Sellers duly authorizing the execution, delivery, and performance of this Agreement and the other Transaction Documents and the consummation of the transactions contemplated hereby and thereby, and that all such resolutions are in full force and effect and are all the resolutions adopted in connection with the transactions contemplated hereby and thereby.

(f) There must not have been any Seller Material Adverse Effect on the Purchased Assets of either Seller in the aggregate or either Business as a whole since the Execution Date.

(g) Buyer shall have entered into agreements with each of Jerome Home and Southington Care, in the form set forth on **Exhibit J** hereto.

(h) Sellers shall have provided, for each Material Customer, (i) all standing order information, in the form set forth on **Exhibit K** hereto, and (ii) and all hold order and future order information for all orders on hold, in the form set forth on **Exhibit L** hereto, in each case, outstanding as of the Closing Date.

(i) Each Seller shall have completed each of the renovations and repairs of its patient service centers listed on **Annex 7.2(i)** to Buyer's reasonable satisfaction.

Section 7.3 Conditions to Obligations of Sellers. The obligations of each Seller and Parent to consummate the transactions contemplated by this Agreement shall be subject to the fulfillment or such Seller's written waiver, at or prior to the Closing, of each of the following conditions:

(a) (i) Each of the representations and warranties of Buyer contained in this Agreement must have been true and correct in all material respects as of the Execution Date, and must be accurate in all material respects as of the Closing as if made on the Closing Date, and (ii) each of the representations and warranties of Buyer contained in this Agreement that contains an express materiality or Buyer Material Adverse Effect qualification must have been true and correct in all respects as of the Execution Date, and must be accurate in all respects as of the Closing as if made on the Closing Date.

(b) Buyer shall have duly performed and complied in all material respects with all agreements, covenants and conditions required by this Agreement and each of the other Transaction Documents to be performed or complied with by it prior to or on the Closing Date.

(c) Buyer shall have delivered to such Seller duly executed counterparts to the Transaction Documents (other than this Agreement) and such other documents and deliveries set forth in **Section 3.2(b)**.

(d) Such Seller shall have received a certificate, dated the Closing Date and signed by a duly authorized officer of Buyer, that each of the conditions set forth in **Section 7.3(a)** and **Section 7.3(b)** have been satisfied (the "**Buyer Closing Certificate**").

(e) Such Seller shall have received a certificate of the Secretary (or equivalent officer) of Buyer certifying that attached thereto are true and complete copies of all resolutions adopted by the applicable governing body of Buyer authorizing the execution, delivery and performance of this Agreement and the other Transaction Documents and the consummation of the transactions contemplated hereby and thereby, and that all such resolutions are in full force and effect and are all the resolutions adopted in connection with the transactions contemplated hereby and thereby.

Article VIII.
COVENANTS

Section 8.1 Further Assurances; Cooperation Post-Closing.

(a) Sellers and Parent shall cooperate with Buyer after the Closing in executing and delivering, without further consideration, such agreements and instruments as Buyer may reasonably request to convey and transfer more effectively to Buyer any of the Purchased Assets or to carry out the intent and purposes of the transactions contemplated hereby and by the other Transaction Documents. Sellers and Buyer acknowledge that, subsequent to the Closing, either Seller and Buyer may need access to information or documents in the control or possession of the other party for the purposes of concluding the transactions herein contemplated, audits, compliance with applicable Laws and requirements of any Governmental Authority, and the prosecution or defense of Third Party Claims. Accordingly, after the Closing, for the longer of (i) the period of time provided in each party's record retention policy in effect from time to time or (ii) the period as may be required by applicable Law, each Seller and Buyer shall make reasonably available to each other and to each other's agents, independent auditors, counsel, and/or any Governmental Authority upon written request and at the expense of the requesting party such documents and information as may be available related to the Purchased Assets (except Retained Medical Records) to the extent necessary to facilitate concluding the transactions herein contemplated, audits, compliance with applicable Laws and requirements of any Governmental Authority, and the prosecution or defense of Third Party Claims.

(b) Prior to Closing, Sellers and Buyer shall mutually agree on the terms of the joint communication to Customers and shall cooperate with Buyer in connection with communication with Customers regarding the transactions contemplated by this Agreement. In addition, during the Pre-Closing Period, Sellers shall cooperate with Buyer's reasonable requests to make joint visits or calls to Customers after Closing. Except where prohibited by applicable Law or the applicable Assigned Real Property Lease, Sellers shall post signage in any patient service centers for which the operation of the Business has ceased directing patients to the closest Buyer location, which signage shall be approved in advance by Buyer.

Section 8.2 Insurance. For a period of five years following the Closing Date, each Seller shall maintain in full force and effect through CHS Insurance Limited or another Affiliate of Parent extended reporting period endorsements (so-called "tail" coverage) on its professional and general liability insurance policies relating to the Businesses in effect immediately prior to the Closing and shall name Buyer as additional insured under such policies.

Section 8.3 Taxes.

(a) Transaction Taxes. The party responsible under Law for the payment of any transfer, documentary, sales, use, value added, goods and services, registration and other similar Taxes payable as a result of the sale and purchase of the Purchased Assets or any other action contemplated hereby ("**Transaction Taxes**") and the filing of any Tax returns related to Transaction Taxes ("**Transaction Tax Returns**") shall pay such Transaction Taxes and file such Transaction Tax Returns.

(b) Ad Valorem Taxes. In the case of any real and personal property taxes and similar ad valorem obligations (excluding any taxes based on income, receipts, or sales of property) levied with the respect to the Purchased Assets for a period that begins before the Closing Date and ends after the Closing Date, the responsibility for the payment of such taxes shall be apportioned between Sellers and Buyer as follows: the portion of such taxes payable by Sellers shall be the amount of such taxes for the entire period multiplied by a fraction, the numerator of which is the number of days in the period ending on the Closing Date and the denominator of which is the number of days in the entire period, and the portion of such taxes payable by the Buyer shall be the amount of such taxes for the entire period multiplied by a fraction, the numerator of which is the number of days in the period after the Closing Date and the denominator of which is the number of days in the entire period. Buyer and Sellers shall account to one another as necessary to determine if either pays more than its allocable share of such Taxes in accordance with the preceding sentence.

(c) Tax Refunds. Buyer shall promptly remit to the applicable Seller any refund of Taxes received by Buyer or any Affiliate of Buyer (or applied as a credit against Taxes owed by Buyer or any Affiliate of Buyer) with respect to the Purchased Assets or the Business attributable to any period (or portion thereof) ending on or prior to the Closing Date, net of any reasonable costs or out-of-pocket expenses incurred by Buyer in obtaining such refunds.

(d) Cooperation. Buyer, Parent and Sellers shall cooperate, as and to the extent reasonably requested by the other Party, in connection with the filing of Tax Returns and any audit, litigation or other proceeding with respect to Taxes, and in seeking any available exemptions from Transaction Taxes. Such cooperation shall include the retention and (upon Buyer's or Sellers', as applicable, request) the provision of records and information which are reasonably relevant to any such audit, litigation or other proceeding and making employees available on a mutually convenient basis to provide additional information and explanation of any material provided hereunder. As soon as reasonably practicable after each Closing, but no later than twenty Business Days after such Closing, Seller shall provide Buyer a schedule describing each item of tangible personal property that is a Purchased Asset, the physical location (street address and municipality) of each such item, the date of such item's acquisition and its historical cost, the methodology used for depreciating such item for purposes of the applicable Seller's financial statements, and the net book value of such item for purposes of the GAAP as of the Closing.

Section 8.4 Remittances and Related Matters. Subject to **Section 8.12**, Sellers shall promptly turn over to Buyer all remittances, payments, mail and other communications to the extent related to the Purchased Assets received by either Seller or its Affiliates at any time after the Closing. Buyer shall promptly turn over to Sellers all remittances, payments, mail and other communications to the extent related to the Excluded Assets or the Retained Liabilities received by Buyer or its Affiliates at any time after the Closing. Subject to **Section 8.12**, each Seller hereby authorizes Buyer from and after the Closing Date to receive and open all mail and other communications received by Buyer which relate to the Purchased Assets or the Business, and to act with respect to such communications in such manner as Buyer may elect, and, if such communications do not so relate, to forward them promptly to the applicable Seller. Subject to **Section 8.12**, each Seller hereby authorizes Buyer from and after the Closing Date to endorse without recourse the name of such Seller on any check or other instrument of payment received

by Buyer on account of any services rendered by Buyer to a Customer included in the Purchased Assets; provided, however, that if any such check or other instrument of payment is provided in settlement of a dispute, then Buyer shall not be permitted to endorse the name of such Seller on such instrument without such Seller's prior written consent, which consent shall not be unreasonably withheld, conditioned or delayed.

Section 8.5 WARN. Each Seller shall comply with WARN and shall be responsible for any obligation with respect to such Seller's employees under WARN.

Section 8.6 Test Results. Following the Closing, each Seller shall: (a) promptly satisfy, at no cost to Buyer, any (i) requests from ordering physicians for results relating to tests performed by such Seller in its Business through the Closing Date (the "**Test Results**"), and (ii) requests from any other Person or Governmental Authority for copies of the Test Results or other information relating thereto, in each case, to the extent such Seller is obligated by Law or Contract to provide the Test Results to the relevant third party, and for so long as such Seller maintains the Test Results pursuant to its record retention policy in effect as of the Execution Date; and (b) reasonably cooperate with Buyer in connection with the foregoing.

Section 8.7 Public Announcements. Following the Closing, neither Party shall, or shall permit their Affiliates to, make any public announcement in respect of this Agreement, the other Transaction Documents or the transactions contemplated hereby and thereby, including any announcement to Customers of the Businesses, without the prior written consent of the other party, except as set forth in **Section 8.1(b)**.

Section 8.8 [Intentionally Omitted].

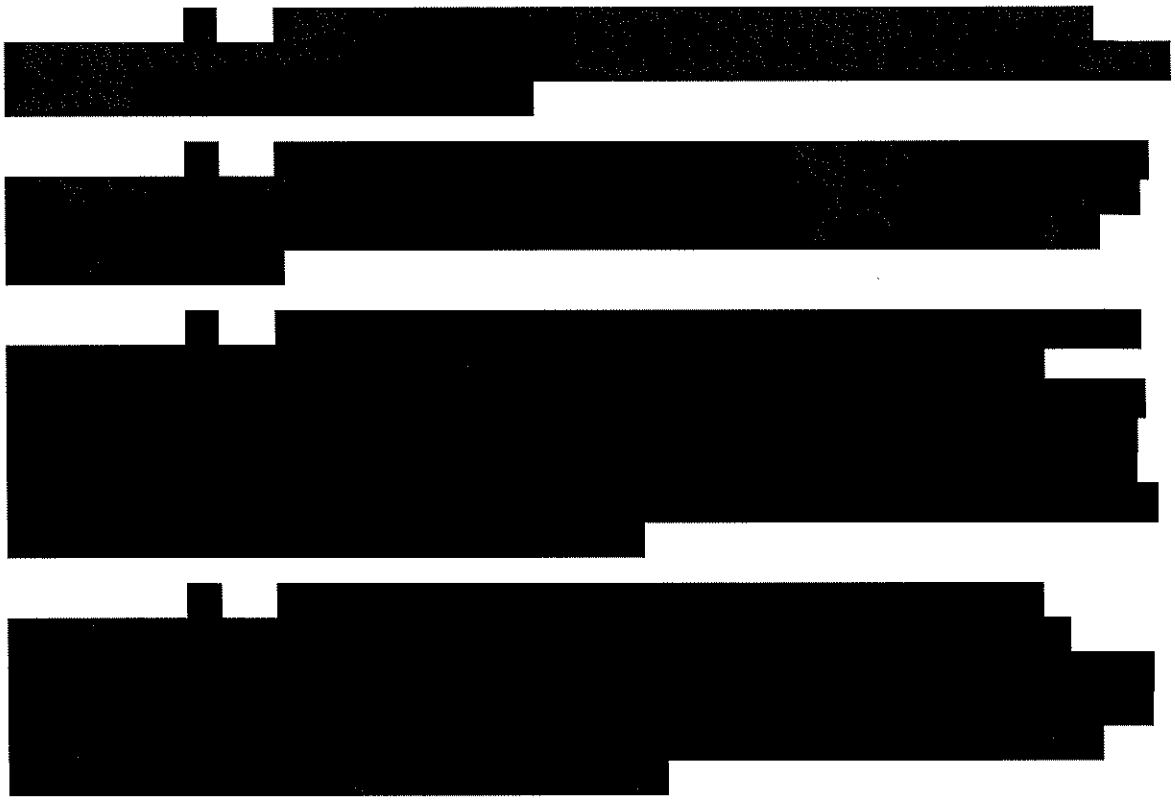
Section 8.9 [Intentionally Omitted].

Section 8.10 [Intentionally Omitted].

Section 8.11 Permits. Buyer hereby acknowledges and agrees that from and after the Closing Date, Sellers shall have no liability to Buyer or any of its Affiliates for any losses incurred by Buyer or any of its Affiliates arising solely as a result of any actions taken, or omitted to be taken, by Buyer or any its Affiliates in connection with any Permits for any healthcare or medical-related license(s) required to be obtained by Buyer as a result of the consummation of the transactions contemplated by this Agreement or the Transaction Documents; provided, that Sellers have complied with its covenants set forth in **Section 6.4**.

Section 8.12 Accounts Receivable. Sellers shall retain all accounts receivable arising out of the operation of the Businesses and specimens received by Sellers prior to the Closing and Buyer shall retain all accounts receivable arising out of the operation of the Businesses and specimens received by Buyer on or after the Closing. After the Closing, Buyer and Sellers shall promptly forward to the other party any funds which are received by such party but relate to the accounts receivable of the other party. Notwithstanding anything to the contrary stated herein, neither party shall have any responsibility to collect any of the other party's accounts receivable.

[redacted]



Section 8.14 [Intentionally Omitted].

Section 8.15 [Intentionally Omitted].

Section 8.16 [Intentionally Omitted].

Section 8.17 Referrals. No part of this Agreement shall be construed to induce, encourage, solicit or reimburse the referral of any patients or business, including any patient or business funded in whole or in part by federal or state government programs (i.e., Medicare, Medicaid, TRICARE, etc.). The parties acknowledge and agree that there is no requirement under this Agreement or any other agreement between the parties to refer patients to Buyer or any of its Affiliates; rather, neither Sellers nor Parent, nor any of their respective officers, directors, employees shall, at any time, require, request or otherwise attempt to influence or recommend, whether directly or indirectly, that any physician, including any physician on the medical staff of any Affiliate or any physician that practices as an employee or contractor of any Affiliate, orders any services from either Seller or any of its Affiliates. No payment made under this Agreement is in return for the referral of patients or business, including those paid in whole or in part by federal or state government programs. Sellers and Parent agree, and covenant, that none of the proceeds of the transactions contemplated by this Agreement will be paid, or otherwise provided, directly or indirectly, to any physician or their immediate family members (as defined by the Stark Law) that is affiliated with either Seller or Parent.

Section 8.18 Parent's Logo. To the extent any of the Purchased Assets incorporate Parent's logo (i.e., multi-colored pinwheel) in or on them, Buyer shall be permitted to use such

logo as long as on or prior to the first anniversary of the Closing Date, Buyer shall remove such logo from all of the Purchased Assets.

Section 8.19 Sellers' Names. Backus Hospital hereby grants Buyer a non-exclusive license to use the name "The William W. Backus Hospital" and HOCC hereby grants Buyer a non-exclusive license to use the name "The Hospital of Central Connecticut at New Britain General and Bradley Memorial" for the purpose and duration of the transitional activities set forth in **Annex 8.19** so long as (and notwithstanding Section 11.2) (a) Buyer notifies Seller by e-mail to Daniel Kalosieh at Daniel.Kalosieh@hhchealth.org (or such other individual designated by Seller) of any intended usage of such names at least 24 hours in advance with a description of such intended usage; and (b) Seller does not disapprove of the intended usage within such 24-hour period, such approval not to be unreasonably withheld.

Section 8.20 Compliance Notices. Promptly following the Closing, with respect to each physician Customer that is employed or engaged as independent contractor, directly or indirectly, by such Seller or any of its Affiliates, each Seller shall advise in writing, directly or indirectly through the physician Customer's employer, that (a) the transactions contemplated by this Agreement have occurred; and (b) such physician Customer is not required to refer Testing to Buyer.

Section 8.21 Post-Transition Reports On the date that is four Business Days following the expiration of the first full calendar month following its Closing and one hundred and twenty days following its Closing (or such earlier date when Quest confirms in writing that the transition of the Business is complete), each Seller shall deliver to Buyer a written report in the form of and containing the type of information set forth on **Annex 8.21** for the period in which such report is delivered. Seller shall use commercially reasonable efforts to deliver reports pursuant to this **Section 8.21** that are complete and accurate.

Article IX.
INDEMNIFICATION

Section 9.1 Survival. Subject to the limitations and other provisions of this Agreement, the representations and warranties contained herein shall survive the Closing and shall remain in full force and effect until the date that is eighteen (18) months from the Closing Date, provided that: (a) the representations and warranties of Sellers and Parent, as applicable, set forth in **Section 4.1** (Organization of Sellers and Parent), **Section 4.2** (Authority of Sellers and Parent), **Section 4.9** (No Fraud and Abuse Violations), **Section 4.12** (Brokers) and **Section 4.16** (Title to Assets), and the representations and warranties of Buyer set forth in **Section 5.1** (Organization of Buyer), **Section 5.2** (Authority of Buyer) and **Section 5.4** (Brokers) (collectively, the "**Fundamental Representations**") shall survive the Closing without limitations; and (b) the representations and warranties of Sellers set forth in **Section 4.13** (Taxes) shall survive the Closing until the date that is ninety (90) days following the expiration of the applicable statute of limitations. The covenants or other agreements contained in this Agreement shall survive until the earlier of: (A) the date on which the covenant or agreement has been fully complied with or (B) the date contemplated by the express terms of such covenant or agreement as set forth herein. Notwithstanding the foregoing, any claims asserted by proper notice hereunder by an Indemnified Party prior to the expiration date of the applicable survival period

shall not thereafter be barred by the expiration of such survival period and such claims shall survive until finally resolved.

Section 9.2 Indemnification By Sellers. Subject to the other terms and conditions of this **Section 9.2**, Sellers and Parent shall jointly and severally indemnify and defend Buyer against, and shall hold Buyer and its Affiliates and their respective officers, directors, employees, agents, successors and assigns (collectively, the "**Buyer Indemnified Parties**") harmless from and against, and shall reimburse the Buyer Indemnified Parties for, any and all Losses incurred or sustained by, or imposed upon, any Buyer Indemnified Party based upon, arising out of, with respect to or by reason of:

(a) any breach of any of the representations or warranties of Sellers or Parent contained in this Agreement, any other Transaction Document entered into by either Seller or Parent or any other document or instrument delivered by either Seller pursuant to this Agreement;

(b) any breach or non-fulfillment of any covenant, agreement or obligation to be performed by either Seller or Parent pursuant to this Agreement or any other Transaction Document entered into by either Seller or Parent;

(c) any Excluded Asset or any Retained Liability;

(d) the operation or ownership of the Purchased Assets or the Businesses on or prior to the Closing Date;

(e) any liability relating to either Seller's obligations to provide notice under WARN to employees of the Business;

(f) any claim for a finder's fee, brokerage or other commission arising by reason of any services alleged to have been rendered to or at the instance of either Seller with respect to the transactions contemplated hereby;

(g) any Taxes relating to the Business or the Purchased Assets for any period (or portion thereof) ending on or prior to the Closing Date, and any Taxes of either Seller or Parent not related to the Business or the Purchased Assets; and

(h) any Losses incident to any of the foregoing or incurred in attempting to oppose the imposition thereof, or in enforcing the foregoing indemnities.

Section 9.3 Indemnification By Buyer. Subject to the other terms and conditions of this **Article IX**, Buyer shall indemnify and defend Sellers, Parent and their Affiliates and their respective officers, directors, employees, agents, successors and assigns (collectively, the **"Sellers' Indemnified Parties"**) against, and shall hold Sellers and Parent harmless from and against, and shall reimburse the Sellers' Indemnified Parties for any and all Losses incurred or sustained by, or imposed upon, Sellers' Indemnified Party based upon, arising out of, with respect to or by reason of:

(a) any breach of any of the representations or warranties of Buyer contained in this Agreement, any other Transaction Document entered into by Buyer or any other document or instrument delivered by Buyer pursuant to this Agreement;

(b) any breach or non-fulfillment of any covenant, agreement or obligation to be performed by Buyer pursuant to this Agreement or any other Transaction Document entered into by Buyer;

(c) any Assumed Liability related to or occurring on or after the Closing Date;

(d) the operation or ownership of the Purchased Assets or the Businesses by Buyer after the Closing Date (for clarity, this **Section 9.3** shall not apply to any Claims related to the CBA to the extent such Claims are not adjudged by a Governmental Authority to be caused by the actions or inactions of Buyer with respect to the Direct Hires); and

(e) any Losses incident to any of the foregoing or incurred in attempting to oppose the imposition thereof, or in enforcing the foregoing indemnities.

Section 9.4 Certain Limitations. The party making a claim under this **Article IX** is referred to as the "**Indemnified Party**", and the party against whom such claims are asserted under this **Article IX** is referred to as the "**Indemnifying Party**". The indemnification provided for in **Section 9.2** and **Section 9.3** shall be subject to the following limitations:

(b) The limitations in **Section 9.4(a)** shall not apply to any Losses arising out of, related to, in connection with or based upon (i) any matters addressed in any provision of **Section 9.2** or **Section 9.3** other than **Section 9.2(a)** or **Section 9.3(a)**, (ii) any of the Fundamental Representations, or (iii) any intentional misrepresentation, willful or intentional misconduct or fraud.

(c) Sellers and Parent shall have no obligation to indemnify Buyer or its Affiliates from and against any Losses consisting of or relating to Taxes with respect to any taxable period that begins on or after the Closing Date, or any taxable period that begins before and ends after the Closing Date to the extent allocable to the portion of such period that begins after the Closing Date, as a result of any breach of the representation and warranties set forth in **Section 4.13**.

(d) For purposes of determining whether a representation or warranty in this Agreement has been breached and calculating the amount of Losses to which the Buyer Indemnified Parties and Sellers' Indemnified Parties are entitled under this **Article IX**, the terms "material," "materiality," or other similar terms will be disregarded.

(e) The amount of Losses that an Indemnified Party may be indemnified for pursuant to this **Article IX** shall be net of any applicable insurance proceeds actually received by such Indemnified Party under any insurance policy (less the amount of any applicable deductible); provided, however, that an Indemnified Party shall not be obligated to submit or pursue a claim for the recovery of such insurance proceeds.

(f) The right to indemnification, reimbursement, or other remedy based on the representations, warranties, covenants and obligations in the Transaction Documents, the Disclosure Schedules and any other certificate or document delivered pursuant to this Agreement will not be affected by any investigation conducted with respect to, or any knowledge acquired (or capable of being acquired) about, the accuracy or inaccuracy of or compliance with, any such representation, warranty, covenant or obligation.

(g) Each party may seek any damages to which it believes it is entitled; provided, however, that no party shall be liable under this **Article IX** for punitive damages, other than those arising pursuant to a Third Party Claim.

(h) Each party shall use commercially reasonable efforts to mitigate any Losses with respect to any indemnification claim of that party hereunder.

Section 9.5 Indemnification Procedures.

(a) **Third Party Claims.** If any Indemnified Party receives notice of the assertion or commencement of any action, suit, claim or other legal proceeding made or brought by any Person who is not a party to this Agreement (a "**Third Party Claim**") against such Indemnified Party with respect to which the Indemnifying Party is obligated to provide indemnification under this Agreement, the Indemnified Party shall give the Indemnifying Party prompt written notice thereof. The failure to give such prompt written notice shall not, however, relieve the Indemnifying Party of its indemnification obligations, except to the extent that such failure is demonstrated by the Indemnifying Party to have actually caused the Claim for which it is obligated to pay hereunder to be greater than such Claim would have been had the Indemnified Party given the prompt notice required hereby. Such notice by the Indemnified Party shall describe the Third Party Claim in reasonable detail, shall include copies of all material written evidence thereof and shall indicate the estimated amount, if reasonably practicable, of the Loss that has been or may be sustained by the Indemnified Party. The Indemnifying Party shall have the right to participate in, or by giving written notice to the Indemnified Party within 20 days after the Indemnified Party has provided notice of the Claim, to assume the defense of any Third Party Claim at the Indemnifying Party's expense and by the Indemnifying Party's own counsel, and the Indemnified Party shall cooperate in good faith in such defense. As a condition precedent to the Indemnifying Party's right to assume control of such defense, it must first: (i) confirm in writing to the Indemnified Party that the Indemnifying Party shall be fully responsible (with no reservation of rights) for all Losses relating to such Third Party Claim and that it will provide full

indemnification to the Indemnified Party for all Losses relating to such claim, and (ii) furnish the Indemnified Party with reasonable evidence that the Indemnifying Party is and will be able to satisfy any such Liability. Notwithstanding the foregoing, if the Indemnifying Party is a Seller, such Indemnifying Party shall not have the right to assume the defense of any Third Party Claim (A) that is asserted directly or indirectly on behalf of a Person that is a current customer, third-party payor, or supplier of Buyer if in the reasonable judgment of the Indemnified Party (which may be asserted at any time), the Indemnifying Party's defense of such Third Party Claim could reasonably be expected to have a material and adverse effect on the Indemnified Party's existing relationship with such current customer, third-party payor, or supplier, or (B) if the Third Party Claim (1) seeks non-monetary relief, (2) involves criminal or quasi criminal allegations, (3) involves a Claim of which the Indemnified Party reasonably believes an adverse determination would be materially detrimental or injurious to the Indemnified Party, or (4) involves a claim which, upon petition by the Indemnified Party, the appropriate court or arbitrational body rules that the Indemnifying Party failed or is failing to vigorously prosecute or defend. Notwithstanding the foregoing, in the event that the Indemnified Party shall in good faith determine that the Indemnified Party may have available to it one or more defenses or counterclaims that are inconsistent with one or more of those that may be available to the Indemnifying Party in respect of such Third Party Claim, the Indemnified Party shall have the right, but not the obligation, at all times to take over and assume control over the defense, settlement, negotiations or proceedings relating to any such Third Party Claim; provided that if the Indemnified Party does so take over and assume control, the Indemnified Party shall not settle such Third Party Claim without the prior written consent of the Indemnifying Party, not to be unreasonably withheld, conditioned or delayed. In the event that the Indemnifying Party assumes the defense of any Third Party Claim, subject to **Section 9.5(b)**, it shall have the right to take such action as it deems necessary to avoid, dispute, defend, appeal or make counterclaims pertaining to any such Third Party Claim in the name and on behalf of the Indemnified Party. The Indemnified Party shall have the right, at its own cost and expense, to participate in the defense of any Third Party Claim with counsel selected by it subject to the Indemnifying Party's right to control the defense thereof. If the Indemnifying Party elects not to compromise or defend such Third Party Claim or fails to promptly notify the Indemnified Party in writing of its election to defend as provided in this Agreement, the Indemnified Party may, subject to **Section 9.5(b)**, pay, compromise, defend such Third Party Claim and seek indemnification for any and all Losses based upon, arising from or relating to such Third Party Claim. Sellers and Buyer shall cooperate with each other in all reasonable respects in connection with the defense of any Third Party Claim, including making available (subject to the provisions of **Section 6.3**) records relating to such Third Party Claim and furnishing, without expense (other than reimbursement of actual out-of-pocket expenses) to the defending party, management employees of the non-defending party as may be reasonably necessary for the preparation of the defense of such Third Party Claim. The party controlling the defense of such Third Party Claim shall keep the other parties reasonably advised of the status of such Third Party Claim and the defense thereof and shall consider in good faith any reasonable recommendations made by any non-controlling party with respect thereto.

(b) **Settlement of Third Party Claims.** Notwithstanding any other provision of this Agreement, the Indemnifying Party shall not consent to the entry of any judgment or enter into settlement of any Third Party Claim without the prior written consent of the Indemnified Party (which consent shall not be unreasonably withheld, conditioned or delayed), except as

provided in this **Section 9.5(b)**. If a firm offer is made to settle a Third Party Claim without injunctive or other non-monetary relief affecting the Indemnified Party or leading to liability or the creation of a financial or other obligation on the part of the Indemnified Party and provides, in customary form, for the unconditional release of each Indemnified Party from all Liabilities and obligations in connection with such Third Party Claim and the Indemnifying Party desires to accept and agree to such offer, the Indemnifying Party shall give written notice to that effect to the Indemnified Party. If the Indemnified Party fails to consent to such firm offer within ten days after its receipt of such notice, the Indemnified Party may continue to contest or defend such Third Party Claim and in such event, the maximum liability of the Indemnifying Party as to such Third Party Claim shall not exceed the amount of such settlement offer. If the Indemnified Party fails to consent to such firm offer and also fails to assume defense of such Third Party Claim, the Indemnifying Party may settle the Third Party Claim upon the terms set forth in such firm offer to settle such Third Party Claim. If the Indemnified Party has assumed the defense pursuant to **Section 9.5(a)**, it shall not agree to any settlement without the written consent of the Indemnifying Party (which consent shall not be unreasonably withheld, conditioned or delayed).

(c) **Direct Claims.** Any claim by an Indemnified Party on account of a Loss which does not result from a Third Party Claim (a "**Direct Claim**") shall be asserted by the Indemnified Party giving the Indemnifying Party prompt written notice thereof. The failure to give such prompt written notice shall not, however, relieve the Indemnifying Party of its indemnification obligations, except to the extent that such failure is demonstrated by the Indemnifying Party to have actually caused the Claim for which it is obligated to pay hereunder to be greater than such Claim would have been had the Indemnified Party given the prompt notice required hereby. Such notice by the Indemnified Party shall describe the Direct Claim in reasonable detail to the extent known to the Indemnified Party, shall include copies of all material written evidence thereof and shall indicate the estimated amount, if reasonably practicable, of the Loss that has been or may be sustained by the Indemnified Party. The Indemnifying Party shall have 30 days after its receipt of such notice to respond in writing to such Direct Claim. If the Indemnifying Party does not notify the Indemnified Party within 30 days following receipt of such notice of Direct Claim by the Indemnifying Party that the Indemnifying Party disputes in whole or in part its Liability to the Indemnified Party under this **Article IX** or the amount thereof, the Direct Claim specified by the Indemnified Party in such notice of Direct Claim shall be conclusively deemed a Liability of the Indemnifying Party under this **Article IX**; provided, however, that if such counternotice disputes such liability in part, the Indemnified Party shall promptly be paid the undisputed amount. If the Indemnifying Party has timely disputed its Liability in whole or in part with respect to such Direct Claim as provided above, the Indemnifying Party and the Indemnified Party shall proceed in good faith to negotiate a resolution of such dispute for 60 days following receipt of the dispute notice by the Indemnified Party, and if not resolved through such negotiations within such 60 day period, either party shall be entitled to pursue resolution of such dispute by litigation in accordance with **Section 11.10**. Following the final resolution of the merits and amounts of such Direct Claim (whether by mutual agreement or litigation in accordance with **Section 11.10**), the Indemnifying Party shall pay the amount of such Liability to the Indemnified Party on demand.

Section 9.6 Tax Treatment of Indemnification Payments. All indemnification payments made under this Agreement shall be treated by the parties as an adjustment to the Purchase Price for Tax purposes, unless otherwise required by Law.

Section 9.7 Exclusive Remedies. After the Closing, subject to **Section 11.11**, the parties acknowledge and agree that their sole and exclusive remedy for recovery by one party hereto against another party hereto with respect to any and all claims for any breach of any representation, warranty, covenant, agreement or obligation set forth herein and for the matters set forth in **Section 9.2** and **Section 9.3** as being indemnified against, shall be pursuant to the remedies set forth in this **Article IX**. Notwithstanding the foregoing, nothing in this **Section 9.7** shall limit any Person's right to seek and obtain specific performance or any other equitable remedy or to limit the right of any Person to otherwise seek any remedy for an intentional misrepresentation, willful or intentional misconduct or fraud.

Article X.
TERMINATION

Section 10.1 Termination. This Agreement may be terminated with respect to both Sellers or one Seller at any time prior to the Closing:

(a) by the mutual written consent of Sellers and Buyer;

(b) by Buyer by written notice to Sellers if:

(i) there has been a material breach of any Fundamental Representation or any representation set forth in **Section 4.11** (Customers, Tests, Payors and Suppliers), **Section 4.14** (Real Property), or **Section 4.22** (Contracts), or any covenant or agreement made by Sellers pursuant to this Agreement that has not been waived in writing by Buyer, or, if curable, cured within ten (10) days of Sellers' receipt of notice of such breach; or

(ii) there has been a Seller Material Adverse Effect on the Purchased Assets of either Seller in the aggregate or either Business as a whole; or

(iii) the satisfaction of any of the conditions set forth in **Section 7.1** or **Section 7.2** shall become impossible, unless such failure shall be due to the failure of Buyer to perform or comply with any of the covenants, agreements or conditions hereof to be performed or complied with by it prior to the Closing, and Buyer has not waived such condition in writing;

(c) by Sellers by written notice to Buyer if:

(i) there has been a material breach of any representation, warranty, covenant, or agreement made by Buyer pursuant to this Agreement that has been waived in writing by Sellers, or, if curable, cured within ten (10) days of Buyer's receipt of notice of such breach; or

(ii) the satisfaction of any of the conditions set forth in **Section 7.1** or **Section 7.3** shall become impossible, unless such failure shall be due to the failure of either Seller to perform or comply with any of the covenants, agreements or conditions hereof to be performed or complied with by it prior to the Closing and Sellers have not waived such condition in writing; or

(d) by Buyer or Sellers in the event that:

(i) there shall be any Law that makes consummation of the transactions contemplated by this Agreement illegal or otherwise prohibited;

(ii) any Governmental Authority of competent jurisdiction shall have issued a Governmental Order permanently restraining or enjoining the consummation of the transactions contemplated by this Agreement, and such Governmental Order shall have become final and non-appealable; or

(iii) neither Closing has occurred on or before February 12, 2018 (the "**Outside Date**") or such later date as the parties may agree upon in writing, unless the terminating party is in material breach of this Agreement.

Section 10.2 Effect of Termination. Each party's right of termination under **Section 10.1** is in addition to any other rights it may have under this Agreement or otherwise, and the exercise of such right of termination will not be an election of remedies. In the event of the termination of this Agreement in accordance with this **Article X**, this Agreement shall forthwith become void and there shall be no liability on the part of any party hereto except:

(a) **Section 6.3**, **Section 6.6**, **Article X** and **Article XI** hereof shall survive the termination.

(b) For a period of twelve (12) months after termination of this Agreement, Buyer shall not, either directly or indirectly, solicit for employment any senior officer or director or any senior level employee of Sellers or Parent listed on **Annex 10.2(b)** attached hereto, or induce, cause, or facilitate the termination of employment of any such employee by Sellers or Parent, as applicable. The foregoing provision shall not prevent Buyer from: (i) soliciting for employment, or interviewing or hiring, any such employee who has been terminated by Sellers or Parent, as applicable, for at least six (6) months prior to the commencement of employment discussions between Buyer and the relevant employee; (ii) interviewing or hiring any person who responds to a general solicitation made by Buyer or any of its Affiliates in any trade publication, newspaper or other publication in the course of normal hiring practices of Buyer or any of its Affiliates, or (iii) employing a person who initiates contact with Buyer entirely on his or her own initiative unrelated to any action or conduct by Buyer or any of its Affiliates in violation of this **Section 10.2(b)**. The obligations of Buyer set forth in this **Section 10.2(b)** shall be deemed to have been violated only if the violation results from the direct or indirect actions of, or involvement by, any employee or agent of Buyer or its Affiliates holding the position of Director of Human Resources or any Vice President (or its equivalent or above); provided, however, that the foregoing limitation on this **Section 10.2(b)** shall not apply to any hiring in violation of **Section 10.2(b)**.

(c) Termination of this Agreement will not preclude a party from bringing an indemnification claim against any other party to this Agreement for a breach arising prior to such termination pursuant to the terms and conditions set forth herein and nothing herein shall relieve any party hereto from liability for any intentional breach of any provision hereof; and

(d) Buyer shall, at its sole cost and expense: (i) remove all hardware and supplies that it delivered to Customers during the Pre-Closing Period; (ii) provide instructions to

Customers on how to de-install any software it provided to Customers during the Pre-Closing Period; (iii) de-install all EMR interfaces that it installed for Customers during the Pre-Closing Period; and (iv) for 30 days following the date on which this Agreement is terminated, take all actions reasonably requested by Sellers to return the Customer's connectivity with Buyer to the state it was in prior to engaging in any of the integration activities facilitated by Sellers. Notwithstanding anything in this **Section 10.2(c)** to the contrary, Buyer shall not be required to comply with its obligations described in the immediately preceding sentence with respect to Customers: (A) listed on **Annex 10.2(c)** (which Annex shall be updated by Buyer promptly during the Pre-Closing Period to add Customers, if any, that execute, after the Execution Date, written agreements with Buyer or any of its Affiliates relating to connectivity with Buyer or any of its Affiliates); or (B) who do not give permission to Buyer to comply with such obligations.

Article XI.
MISCELLANEOUS

Section 11.1 Expenses. Except as otherwise expressly provided herein (including **Section 6.19** hereof), all costs and expenses, including, without limitation, fees and disbursements of counsel, financial advisors and accountants, incurred in connection with this Agreement and the transactions contemplated hereby shall be paid by the party incurring such costs and expenses, whether or not the Closing shall have occurred.

Section 11.2 Notices. All notices, requests, consents, claims, demands, waivers and other communications hereunder shall be in writing and shall be deemed to have been given (a) when delivered by hand (with written confirmation of receipt); (b) when received by the addressee if sent by a nationally recognized overnight courier (receipt requested); (c) on the third day after the date mailed, by certified or registered mail, return receipt requested, postage prepaid. Such communications must be sent to the respective parties at the following addresses (or at such other address for a party as shall be specified in a notice given in accordance with this **Section 11.2**):If to Backus Hospital: Hartford HealthCare Corporation
One State Street, Suite 19
Hartford, CT 06103
Attn: Bimal Patel, Senior Vice President and President, East Region

If to HOCC: Hartford HealthCare Corporation
One State Street, Suite 19
Hartford, CT 06103
Attn: Bimal Patel, Senior Vice President and President, East Region

With a copy to: Hartford HealthCare Corporation
One State Street, Suite 19
Hartford, CT 06103
Attn: Margaret Marchak, Senior Vice President and Chief Legal Officer

and

	McDermott Will & Emery LLP 28 State Street Boston, MA 02109 Attn: Patrick Healy
If to Buyer:	*Prior to September 1, 2017:* c/o Quest Diagnostics Incorporated 3 Giralda Farms Madison, NJ 07940 Attn: Dermot Shorten, Vice President, Strategy and Ventures
With a copy to (which shall not constitute notice):	Quest Diagnostics Incorporated 3 Giralda Farms Madison, NJ 07940 Attn: Michael E. Prevoznik, Senior Vice President, Legal and Compliance, and General Counsel *Beginning September 1, 2017:* Quest Diagnostics Incorporated 500 Plaza Drive Secaucus, New Jersey 07094 Attn: Dermot Shorten, Vice President, Strategy and Ventures
With a copy to (which shall not constitute notice):	Quest Diagnostics Incorporated 500 Plaza Drive Secaucus, New Jersey 07094 Attn: Michael E. Prevoznik, Senior Vice President, Legal and Compliance, and General Counsel

Section 11.3 Interpretation. For purposes of this Agreement, (a) the words "include," "includes" and "including" shall be deemed to be followed by the words "without limitation"; (b) the word "or" is not exclusive; and (c) the words "herein," "hereof," "hereby," "hereto" and "hereunder" refer to this Agreement as a whole. Unless the context otherwise requires, references herein: (x) to Articles, Sections, Disclosure Schedules and Exhibits mean the Articles and Sections of, and Disclosure Schedules and Exhibits attached to, this Agreement; (y) to an agreement, instrument or other document means such agreement, instrument or other document as amended, supplemented and modified from time to time to the extent permitted by the provisions thereof and (z) to a statute means such statute as amended from time to time and includes any successor legislation thereto and any regulations promulgated thereunder. This Agreement shall be construed without regard to any presumption or rule requiring construction

or interpretation against the party drafting an instrument or causing any instrument to be drafted. The Disclosure Schedules and Exhibits referred to herein shall be construed with, and as an integral part of, this Agreement to the same extent as if they were set forth verbatim herein.

Section 11.4 Headings. The headings in this Agreement are for reference only and shall not affect the interpretation of this Agreement.

Section 11.5 Severability. If any term or provision of this Agreement is invalid, illegal or unenforceable in any jurisdiction, such invalidity, illegality or unenforceability shall not affect any other term or provision of this Agreement or invalidate or render unenforceable such term or provision in any other jurisdiction. Upon such determination that any term or other provision is invalid, illegal or unenforceable, the parties hereto shall negotiate in good faith to modify this Agreement so as to effect the original intent of the parties as closely as possible in a mutually acceptable manner in order that the transactions contemplated hereby be consummated as originally contemplated to the greatest extent possible.

Section 11.6 Entire Agreement. This Agreement (including the Disclosure Schedules, Annexes and Exhibits) and the other Transaction Documents constitute the sole and entire agreement of the parties to this Agreement with respect to the subject matter contained herein and therein, and supersede all prior and contemporaneous representations, warranties, understandings and agreements, both written and oral, with respect to such subject matter. In the event of any inconsistency between the statements in the body of this Agreement and those in the other Transaction Documents, the Exhibits and Disclosure Schedules (other than an exception expressly set forth as such in the Disclosure Schedules), the statements in the body of this Agreement will control.

Section 11.7 Successors and Assigns. This Agreement shall be binding upon and shall inure to the benefit of the parties hereto and their respective successors and permitted assigns. No party may assign its rights or obligations hereunder without the prior written consent of the other party, except that Buyer may assign any of its rights and delegate any of its obligations under this Agreement (i) to any Affiliate of Buyer or (ii) in connection with the sale of all or substantially all of the assets of or any business combination transaction involving Quest Diagnostics Incorporated. No assignment shall relieve the assigning party of any of its obligations hereunder.

Section 11.8 No Third Party Beneficiaries. Except as set forth in **Article IX**, this Agreement is for the sole benefit of the parties hereto and their respective successors and permitted assigns and nothing herein, express or implied, is intended to or shall confer upon any other Person or entity any legal or equitable right, benefit or remedy of any nature whatsoever under or by reason of this Agreement.

Section 11.9 Amendment and Modification; Waiver. This Agreement may only be amended, modified or supplemented by an agreement in writing signed by each party hereto. No waiver by any party of any of the provisions hereof shall be effective unless explicitly set forth in writing and signed by the party so waiving. No waiver by any party shall operate or be construed as a waiver in respect of any failure, breach or default not expressly identified by such written waiver, whether of a similar or different character, and whether occurring before or after that waiver. No failure to exercise, or delay in exercising, any right, remedy, power or privilege

arising from this Agreement shall operate or be construed as a waiver thereof; nor shall any single or partial exercise of any right, remedy, power or privilege hereunder preclude any other or further exercise thereof or the exercise of any other right, remedy, power or privilege.

Section 11.10 Governing Law; Submission to Jurisdiction; Waiver of Jury Trial.

This Agreement shall be governed by and construed in accordance with the internal Laws of the State of Connecticut without giving effect to any choice or conflict of Law provision or rule (whether of the State of Connecticut or any other jurisdiction).

(a) ANY LEGAL SUIT, ACTION OR PROCEEDING ARISING OUT OF OR BASED UPON THIS AGREEMENT, THE OTHER TRANSACTION DOCUMENTS OR THE TRANSACTIONS CONTEMPLATED HEREBY OR THEREBY MAY BE INSTITUTED IN THE FEDERAL COURTS OF THE UNITED STATES OF AMERICA OR THE COURTS OF THE STATE OF CONNECTICUT IN EACH CASE LOCATED IN CONNECTICUT, AND EACH PARTY IRREVOCABLY SUBMITS TO THE EXCLUSIVE JURISDICTION OF SUCH COURTS IN ANY SUCH SUIT, ACTION OR PROCEEDING. SERVICE OF PROCESS, SUMMONS, NOTICE OR OTHER DOCUMENT BY MAIL TO SUCH PARTY'S ADDRESS SET FORTH HEREIN SHALL BE EFFECTIVE SERVICE OF PROCESS FOR ANY SUIT, ACTION OR OTHER PROCEEDING BROUGHT IN ANY SUCH COURT. THE PARTIES IRREVOCABLY AND UNCONDITIONALLY WAIVE ANY OBJECTION TO THE LAYING OF VENUE OF ANY SUIT, ACTION OR ANY PROCEEDING IN SUCH COURTS AND IRREVOCABLY WAIVE AND AGREE NOT TO PLEAD OR CLAIM IN ANY SUCH COURT THAT ANY SUCH SUIT, ACTION OR PROCEEDING BROUGHT IN ANY SUCH COURT HAS BEEN BROUGHT IN AN INCONVENIENT FORUM.

(b) EACH PARTY ACKNOWLEDGES AND AGREES THAT ANY CONTROVERSY WHICH MAY ARISE UNDER THIS AGREEMENT OR THE OTHER TRANSACTION DOCUMENTS IS LIKELY TO INVOLVE COMPLICATED AND DIFFICULT ISSUES AND, THEREFORE, EACH SUCH PARTY IRREVOCABLY AND UNCONDITIONALLY WAIVES ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY IN RESPECT OF ANY LEGAL ACTION ARISING OUT OF OR RELATING TO THIS AGREEMENT, THE OTHER TRANSACTION DOCUMENTS OR THE TRANSACTIONS CONTEMPLATED HEREBY OR THEREBY. EACH PARTY TO THIS AGREEMENT CERTIFIES AND ACKNOWLEDGES THAT (A) NO REPRESENTATIVE OF ANY OTHER PARTY HAS REPRESENTED, EXPRESSLY OR OTHERWISE, THAT SUCH OTHER PARTY WOULD NOT SEEK TO ENFORCE THE FOREGOING WAIVER IN THE EVENT OF A LEGAL ACTION, (B) SUCH PARTY HAS CONSIDERED THE IMPLICATIONS OF THIS WAIVER, (C) SUCH PARTY MAKES THIS WAIVER VOLUNTARILY, AND (D) SUCH PARTY HAS BEEN INDUCED TO ENTER INTO THIS AGREEMENT BY, AMONG OTHER THINGS, THE MUTUAL WAIVERS AND CERTIFICATIONS IN THIS **Section 11.10(b)**.

Section 11.11 Specific Performance; Remedies Cumulative. The parties agree that irreparable damage would occur if any provision of this Agreement were not performed in accordance with the terms hereof and that the parties shall be entitled to seek specific performance of the terms hereof, in addition to any other remedy to which they are entitled at law or in equity. No exercise of a remedy available to a party shall be deemed an election

excluding any other remedy available to such party (any such claim by any other party being hereby waived).

Section 11.12 Counterparts. This Agreement may be executed in counterparts, each of which shall be deemed an original, but all of which together shall be deemed to be one and the same agreement. A signed copy of this Agreement delivered by facsimile, e-mail or other means of electronic transmission shall be deemed to have the same legal effect as delivery of an original signed copy of this Agreement.

Section 11.13 Independence of Covenants. All covenants hereunder shall be given independent effect so that if a certain action or condition constitutes a default under a certain covenant, the fact that such action or condition is permitted by another covenant shall not affect the occurrence of such default, unless expressly permitted under an exception to such initial covenant. In addition, all representations and warranties hereunder shall be given independent effect so that if a particular representation or warranty proves to be incorrect or is breached, the fact that another representation or warranty concerning the same or similar subject matter is correct or is not breached will not affect the incorrectness of a breach of a representation and warranty hereunder.

Section 11.14 Disclosure Schedules. Each exception to any representation or warranty disclosed on one section of the Disclosure Schedules shall constitute an exception to all other applicable representations or warranties made in this Agreement requiring disclosure of such exception to the extent the relevance of such disclosure to such other representation or warranty is reasonably apparent on the face of such disclosure to such other representation or warranty. Any disclosure made in section of the Disclosure Schedules shall not imply that any other disclosure should have been made in the same section or any other section of the Disclosure Schedules. The information contained in the Disclosure Schedules is disclosed solely for the purposes of this Agreement, and no information contained therein shall be deemed to be an admission by any Party hereto to any third party of any matter whatsoever, including of any violation of law or breach of any agreement.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed as of the Execution Date by their respective officers thereunto duly authorized.

HARTFORD HEALTHCARE CORPORATION

By: _____
Name:
Title:

THE WILLIAM W. BACKUS HOSPITAL

By: _____
Name:
Title:

THE HOSPITAL OF CENTRAL CONNECTICUT AT NEW BRITAIN GENERAL AND BRADLEY MEMORIAL

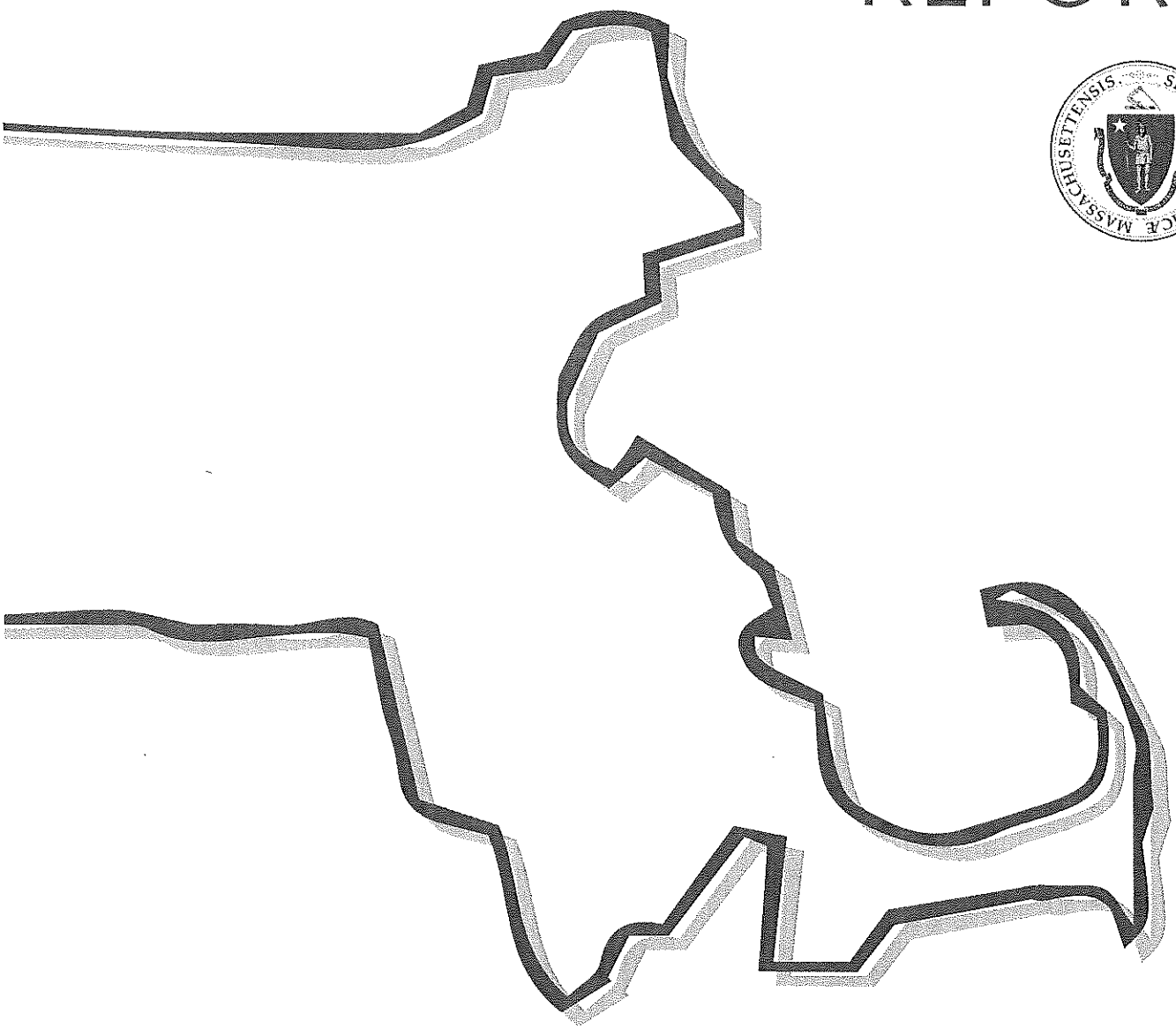
By: _____
Name:
Title:

QUEST DIAGNOSTICS LLC

By: _____
Name: Dermot V. Shorten
Title: SVP, Strategy, M&A and Ventures

COMMONWEALTH OF MASSACHUSETTS
HEALTH POLICY COMMISSION

2015 COST TRENDS REPORT



January 2016

2015 COST TRENDS REPORT

Index of Exhibits

Index of Acronyms

ACA	Affordable Care Act
ACO	Accountable Care Organization
ADL	Activities of Daily Living
AMC	Academic Medical Center
AM-PAC	Activity Measures of Post-Acute Care
APCD	All-Payer Claims Database
APM	Alternative Payment Method
APRN	Advanced Practice Registered Nurse
AQC	Alternative Quality Contract
ASC	Ambulatory Surgical Center
ASP	Average Sales Price
AWP	Average Wholesale Price
BCBS	Blue Cross Blue Shield of Massachusetts
BCPI	Bundled Payments for Care Improvement
CalPERS	California Public Employees' Retirement System
CAUTI	Catheter-associated Urinary Tract Infections
CCJR	Comprehensive Care for Joint Replacement
CHART	Community Hospital Acceleration, Revitalization, and Transformation
CHIA	Center for Health Information and Analysis
CMIR	Cost and Market Impact Review
CMS	Centers for Medicare & Medicaid Services
Connector	Massachusetts Health Connector
CPT	Current Procedural Terminology
C-sections	Caesarian Sections
DOJ	U.S. Department of Justice
DRG	Diagnosis-related Group
E&M	Evaluation and Management
ED	Emergency Department
EHR	Electronic Health Record
ENS	Event Notification Service
FDA	Food and Drug Administration
FFS	Fee-For-Service
FPL	Federal Poverty Level
FTC	Federal Trade Commission
GIC	Group Insurance Commission
GPO	Group Purchasing Organizations
H2H	Hospital to Home
Harbor	Harbor Medical Associates
HCBS	Home and Community-Based
HCCI	Health Care Cost Institute
HCV	Hepatitis C Virus
HDHP	High-Deductible Health Plan
HEN	Hospital Engagement Network
HHA	Home Health Agency

HIT	Health Information Technology
HMO	Health Maintenance Organization
HOPD	Hospital Outpatient Department
HPC	Health Policy Commission
HPHC	Harvard Pilgrim Health Care
HRA	Health Reimbursement Accounts
HSA	Health Savings Accounts
ICER	Institute for Clinical and Economic Research
IRBO	Integrated Risk-Bearing Organizations
IRF	Inpatient Rehabilitation Facility
LOS	Length of Stay
LTCH	Long-Term Care Hospital
LTSS	Long-Term Services and Supports
MCN	Material Change Notices
MCO	Managed Care Organization
MGH	Massachusetts General Hospital
MSPB	Medicare Spending per Beneficiaries
MSSP	Medicare Shared Savings Program
NCQA	National Committee for Quality Assurance
NP	Nurse Practitioner
NQF	National Quality Forum
NTSV	Nulliparous Term Singleton Vertex
OCHOPD	Off-campus Hospital Outpatient Department
PA	Physician Assistants
PAC	Post-Acute Care
Partners	Partners HealthCare
PBM	Pharmacy Benefit Managers
PCC	Primary Care Clinician
PCMH	Patient Centered Medical Home
PCP	Primary Care Provider or Primary Care Physician
PCPRI	Primary Care Payment Reform Initiative
PIP	Performance Improvement Plan
PMPM	Per Member Per Month
PPO	Preferred Provider Organization
QALY	Quality-adjusted Life Year
QHP	Qualified Health Plan
RN	Registered Nurse
RPO	Registration of Provider Organizations
SNF	Skilled Nursing Facility
SOP	Scope of Practice
SQAC	Statewide Quality Advisory Committee
SQMS	Statewide Quality Measure Set
STAAR	State Action on Avoidable Rehospitalizations
THCE	Total Health Care Expenditures
THR	Total Hip Replacement
TKR	Total Knee Replacement
TME	Total Medical Expense

Executive Summary

Consistent with the statutory mandate of the Health Policy Commission (HPC), this 2015 Cost Trends Report presents an overview of healthcare spending and delivery in Massachusetts, opportunities to improve quality and efficiency, progress in key areas, and recommendations for strategies to increase quality and efficiency in the Commonwealth.

Past HPC reports have identified four areas of opportunity: fostering a value-based market; promoting an efficient, high-quality healthcare delivery system; advancing alternative payment methods (APMs); and enhancing transparency and data availability. The HPC continues to emphasize these four areas in its analysis and recommendations.

This Executive Summary presents a concise overview of the findings and recommendations detailed in this report.

FINDINGS

TRENDS IN SPENDING AND CARE DELIVERY

Overview of trends in spending

- Between 2005 and 2014, increases in health insurance premiums have outpaced income gains, consuming more than 40 percent of family income growth over the past nine years.
- Massachusetts' 4.8 percent growth in health care spending in 2014 exceeded the 3.6 percent spending benchmark, largely because of growth in MassHealth spending (driven by enrollment growth) and spending on prescription drugs across all market sectors.
- Despite high growth in prescription drug spending, total per-capita spending growth was under the benchmark in all major market segments, including MassHealth.

Trends in commercial spending

- Continued low rates of growth in commercial spending have narrowed the family premium gap between Massachusetts and the U.S. This gap was $2,000 in 2011 and $1,000 in 2014.
- Hospital and physician commercial spending each grew roughly one percent per commercial enrollee between 2013 and 2014.
- Payers reported that price increases and shifts in the providers used, not changes in overall health care utilization, drove observed spending increases.

Trends in Medicare and MassHealth

- Among beneficiaries with Original Medicare (fee-for-service), Massachusetts spends more on hospital care but less on physician care than the U.S. overall.
- Baseline trends, the extension of MassHealth eligibility under the Affordable Care Act, and a temporary coverage program to address operational difficulties at the Massachusetts Health Connector all contributed to significant MassHealth enrollment growth between 2013 and 2014.
- MassHealth spending accounted for two-thirds (3.2 percentage points) of statewide spending growth between 2013 and 2014, or half of statewide spending growth (2.5 percentage points) if drugs are excluded. By the fall of 2015, the Connector website was functioning well, and MassHealth enrollment had stabilized at 1.85 million members, a 31 percent increase relative to the fall of 2013.

Trends in access, affordability, and quality

- Patient cost-sharing (co-payments and deductibles) increased 4.9 percent between 2013 and 2014. Including other out-of-pocket spending such as over-the-counter medications and uncovered services and providers, 38 percent of residents paid more than $1,000 and 19 percent paid more than $3,000 in cost-sharing in 2014. Patients with certain behavioral health conditions paid a higher percentage of their total health spending out-of-pocket than those with other medical conditions.

- Massachusetts continued to perform well relative to the rest of the U.S. on most measures of quality and access to care and had the highest rate in the nation of insurance coverage in 2014. However, on measures of appropriate hospital admissions and excess readmissions, Massachusetts performed worse than the U.S., and considerable opportunities remain to further improve quality and access as well as population health.

Trends in provider markets

- Massachusetts is characterized by a growing concentration of inpatient care in large systems. Increasingly, physicians are also consolidating into large systems, whether through clinical affiliations, contracting affiliations, or acquisitions. In 2010, 68 percent of primary care physicians were affiliated with large systems; in 2014, this percentage was 76 percent. The acquisition of physician practices by hospital systems may also result in the addition of outpatient facility fees, an important trend to monitor.

Prescription drug spending

- Prescription drugs were a major area of spending growth in 2014, after years of low growth, with a 13 percent per-capita spending increase in Massachusetts between 2013 and 2014, slightly higher than the U.S. growth rate. One-third of all spending growth in Massachusetts (1.6 percentage points) was attributable to prescription drugs. Growth was driven by the entry of new drugs, price increases, and a low rate of patent expirations.
- New, effective, but high-cost drugs for the Hepatitis C virus were a particular driver of drug spending growth in 2014.
- Spending on specialty drugs, which typically cost more than $6,000 a year, grew from 26 percent to 34 percent of Massachusetts' drug sales between 2010 and 2014.
- Many top drug classes have had double-digit spending increases each year. For oncology drugs, the therapy class with the highest spending in Massachusetts and the U.S., spending in Massachusetts grew to almost $700 million in 2014, an increase of 12.3 percent from 2013.
- Given the current national regulatory framework, many aspects of drug spending are outside the direct control of payers and providers in Massachusetts, and change would require federal action. However, levers for change are available at the state level, some requiring new legislation.

Hospital outpatient utilization and spending

- Relative to the national average, hospital outpatient visits are 50 percent more frequent in Massachusetts, and hospital outpatient spending has been growing rapidly, with an average annual per-capita growth rate of six percent in Medicare and three percent in commercial insurance between 2010 and 2014. Some services have shifted from inpatient to outpatient settings, while others have shifted from non-hospital to hospital outpatient settings.
- Outpatient surgery accounts for more than half of the growth in hospital outpatient spending. In a subset of five high-volume surgical procedures that could be performed in either the outpatient or inpatient setting, the share performed in the outpatient setting grew from 48 percent in 2011 to 70 percent in 2013. Spending for these procedures would have been about 15 percent higher without the shifts in setting.
- Payments for standard services and medical tests are substantially higher in the hospital outpatient department, compared to physician offices and other non-hospital settings. For example, the median price of a colonoscopy in a hospital outpatient department was 56 percent above the median price in a non-hospital setting.

OPPORTUNITIES TO INCREASE QUALITY AND EFFICIENCY

Variation among providers in prices and episode costs

- Prices vary significantly among providers, and such variation has not meaningfully decreased over time. A substantial amount of the variation in inpatient hospital prices is not related to measures of quality or other value-based factors. Rather, the higher prices some providers receive appear to reflect market leverage and negotiating power. This extensive price variation, combined with increasing concentration of volume in high-cost providers, leads to higher spending and persistent inequities in the distribution healthcare resources.
- Commercial spending for episodes of care can also vary extensively. For low-risk pregnancies, commercial spending for an episode of care varied from below $12,300 at several less expensive hospitals to $18,500

at the most expensive hospital. While variation in episode spending could result from price variation, practice variation, or a combination of the two, the HPC found that the variation was overwhelmingly driven by the price of the procedure.

- Unnecessary and avoidable utilization also drive high costs. In Massachusetts, the rate of Caesarian section for first-time mothers was 26.2 percent—above the target rate of 23.9 percent proposed as part of the federal government's Healthy People 2020 initiative. Unnecessary Caesarian sections increase spending and increase health risks for mother and baby.

Avoidable hospital use

- All-cause readmissions in Massachusetts have improved slightly, consistent with national trends. However, based on Medicare data, Massachusetts readmission rates remain worse than the national average, and between October 2015 and September 2016, 78 percent of Massachusetts hospitals were penalized by Medicare for readmission rates in excess of the national average.
- Rates of preventable inpatient hospital use improved slightly between 2013 and 2014, but rates of preventable hospitalizations in lower-income communities (median family income below $52,000) remained twice as high as rates in higher income communities (median family income > $87,000), a troubling indicator of disparities in care.
- While overall ED use declined slightly between 2010 and 2014, visits associated with a primary behavioral health diagnosis increased sharply (24 percent over four years). Certain regions of the Commonwealth had markedly high rates of behavioral-health related ED visits, as did certain demographic segments, and seven percent of ED visitors accounted for 33 percent of visits.
- Emerging technologies offer promise to support population health management and address hospital overutilization. Event notification services, other facets of health information exchange, and telemedicine in particular, have been effective in other states comparable to Massachusetts.

Access to primary care

- Despite the state's high numbers of physicians per capita, the number of primary care providers per capita varies 30-fold across the state and is lower in more rural areas; 500,000 residents live in federally-identified areas with a shortage of primary care providers (PCPs).
- Nurse practitioners (NPs) provide care at comparable quality and lower cost than physicians, and are more likely to practice in rural areas and to serve Medicaid patients. Relative to other states, Massachusetts requires high levels of physician oversight for NPs, which can limit access to care and add unnecessary costs.
- In Massachusetts, 25 percent of primary care providers practice in NCQA-recognized patient-centered medical homes, a rate considerably above the national average of 15 percent.

Maximizing value in post-acute care

- Massachusetts continued to use post-acute care at a higher rate than the national average. While post-acute patterns have changed little overall between 2010 and 2014, the use of institutional post-acute care after total joint replacement declined over these years in 49 of the 57 hospitals for which rates are available.

PROGRESS IN ALIGNING INCENTIVES

Alternative payment methods

- Alternative payment methods (APMs) offer incentives that support value and reward high-quality care. Statewide, the rate of APM coverage increased eight percentage points between 2012 and 2014, with differences among payers. In 2014, the three major commercial payers met the HPC's 2016 target of at least 60 percent of each payer's HMO lives covered by APMs.
- In 2014, rates of APM adoption within commercial preferred provider organizations (PPOs) remained low. However, at the HPC's 2015 Health Care Cost Trends Hearing, the state's largest commercial payer announced an agreement with four major providers whereby it would use APMs to pay for PPO members beginning in 2016. The change will affect one-third of that payer's total PPO population. More progress is needed to meet the Report's target of one-third of all PPO lives covered by APMs by 2017.
- Developing a comprehensive care delivery and payment reform model that promotes coordination of care, improves population health, integrates behavioral health and long-term supports and services, and enhances accountability for total cost of care is a top priority for the Executive Office of Health and Human Services. In developing this strategy, MassHealth has

initiated an intensive stakeholder engagement and policy development process with the goal of launching a range of ACO models at scale over the next one to two years.

- Sixty-two provider groups or organizations in Massachusetts participate in Medicare's Bundled Payments for Care Improvement Initiative, but bundled payments covering episodes of care have not yet taken hold among commercial payers in Massachusetts.

Demand-side incentives

- As required by Chapter 224, commercial payers launched transparency tools in 2014, offering consumers information on the costs and quality of care available from different providers. However, there has been limited utilization of these tools to date; major payers reported fewer than 50 inquiries per 1,000 members. Many tools do not yet include information on prices for behavioral health visits or measures of the quality of care.
- High-deductible health plans (HDHPs) surpassed tiered network plans in the share of market covered. HDHPs have lower premiums than tiered products, but often lead to indiscriminate reductions in utilization, especially among low-income members. Tiered network products could be strengthened by widening the cost-sharing differentials between tiers and using consistent quality metrics for tier placement.

RECOMMENDATIONS

In light of these findings, as well as the HPC's other analytic and policy work throughout the year, this Report makes the following recommendations and commitments to promote the goals of Chapter 224:

Recommendations to foster a value-based market

1. Payers and employers should continue to enhance strategies that enable consumers to make high-value choices, including increasing transparency of comparative prices and quality.
2. The Commonwealth should enhance transparency of drug prices and spending, and payers should consider opportunities to maximize value.
3. The Commonwealth should take action to implement safeguards for consumers and improve market function related to out-of-network billing practices.
4. The Commonwealth should take action to equalize payments for the same services between hospital outpatient departments and physician offices.
5. The Commonwealth should act to reduce unwarranted variation in provider prices. The HPC will undertake further research and analysis and will convene stakeholders to discuss specific policy options.

Recommendations to promote an efficient, high-quality care delivery system

6. The Commonwealth should continue to focus on enhancing community-based, integrated care and reducing the unnecessary utilization of costly acute settings.
7. The Legislature should act to remove scope of practice restrictions for Advanced Practice Registered Nurses (APRNs).
8. The Commonwealth should be a national leader in use of enabling technologies to advance care delivery transformation through expansion of health information exchange, telehealth, and other digital health innovations.

Recommendations to advance alternative payment methods

9. Payers and providers should continue to focus on increasing the adoption and effectiveness of APMs in promoting high quality, efficient care.
10. The Commonwealth should develop alternative payment models to catalyze delivery system reform in MassHealth. This is a top priority of the Executive Office of Health and Human Services and the HPC strongly supports this effort.
11. Payers and providers should seek to align technical aspects of their global budget contracts, including quality measures, risk adjustment methods, and reports to providers. The HPC will convene providers to continue this important work.

Recommendations to enhance transparency and data availability

12. The Commonwealth should develop a coordinated quality strategy that is aligned across public agencies and market participants.
13. CHIA should continue to improve and document its data resources and develop key spending measures.

SECTION 1: INTRODUCTION

Introduction

Created by Chapter 224 of the Acts of 2012, the Health Policy Commission (HPC) is charged with monitoring healthcare spending growth in Massachusetts and providing data-driven policy recommendations (see **Sidebar: "What is the role of the Health Policy Commission?"**). In this third annual Cost Trends Report, the HPC outlines spending trends, opportunities, and foundations for improvement in the Commonwealth's second full year under the healthcare cost growth benchmark.

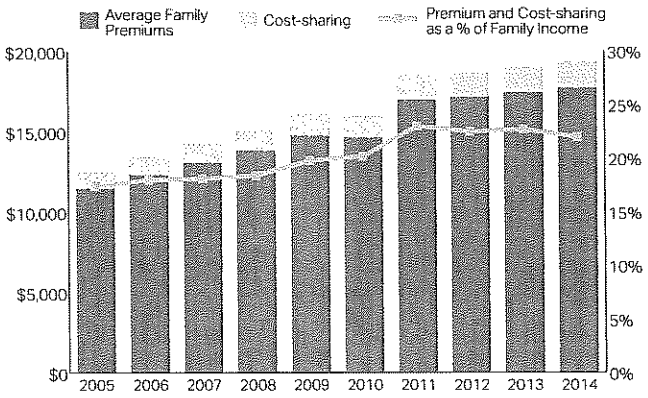
The HPC's work is driven by the following principles:

1. **Fostering a value-based market** in which payers and providers openly compete to provide services and in which consumers and employers have the appropriate information and incentives to make high-value choices for their care and coverage options;
2. **Promoting an efficient, high-quality, healthcare delivery system** in which providers efficiently deliver coordinated, patient-centered, high-quality health care that integrates behavioral and physical health and produces better outcomes and improved health status;
3. **Advancing alternative payment methods** (APMs) that support and equitably reward providers for delivering high-quality care while holding them accountable for slowing increases in future healthcare spending;
4. **Enhancing transparency and data availability** necessary for providers, payers, purchasers, and policymakers to successfully implement reforms and evaluate performance over time.

The rising cost of health care places increasing pressure on consumers, businesses, and governments. **Exhibit 1.1** shows average family premiums in Massachusetts combined with typical cost-sharing amounts, as a percentage of median family income in the state.

Exhibit 1.1: Family premiums, cost-sharing, and family income in Massachusetts, 2005 – 2014

Dollars are nominal in the year shown



Note: Cost-sharing amounts are approximate from 2005-2011.

Source: American Community Survey (income), Agency for Healthcare Research and Quality (premiums) and Center for Healthcare Information and Analysis (cost-sharing)

Average family premiums for employer-sponsored health insurance in Massachusetts rose from $11,400 in 2005 to near $17,000 in 2011. Including typical amounts paid out-of-pocket in cost-sharing, total family health care outlays rose from 17 percent to 23 percent of median family income over that period.[i] Since 2011, healthcare spending has grown relatively slowly and that percentage has declined slightly to 22 percent. Still, premiums and out-of-pocket spending for an average family in Massachusetts approached $20,000 in 2014, more than the annual income of a full-time minimum wage worker.[ii]

i These spending figures do not include additional spending on health care for services not covered by insurance such as over-the-counter medicines, spending on non-covered services, and dental and vision care.

ii Employer contributions to health insurance premiums (and in most cases, employee contributions as well) are excluded from taxation, so these amounts are effectively lower than the premium and cost-sharing amounts shown. However, lower income people face lower marginal tax rates so the exclusion from taxation can have little to no benefit for families who face the largest burden of high health care costs.

From 2005 to 2014, premiums and cost-sharing grew by roughly $6,800 per year while median family income grew by $16,300 per year. Roughly 40 percent of a typical family's income gain was consumed by higher healthcare spending.

Recognizing the impact of this crowd-out effect, Chapter 224 set a statewide benchmark for sustainable healthcare spending growth. From 2013 to 2014, the growth in total health care spending in Massachusetts was 4.8 percent, exceeding the state's benchmark (set at 3.6 percent) for the first time.

Through the analyses and research developed for this Report, the HPC sought to enhance its understanding of spending trends and market dynamics that impacted the Commonwealth's ability to meet the benchmark in 2014 and identify opportunities for improving the quality and efficiency of the Massachusetts health care system moving forward.

HOW THIS REPORT IS ORGANIZED

The HPC's 2015 Cost Trends Report is informed by annual reports of the Attorney General's Office (AGO) and the Center for Health Information and Analysis (CHIA), as well as by testimony submitted during the HPC's 2015 Health Care Cost Trends Hearing.

In this Report, **Section II (Chapters 2 through 6)** compares healthcare cost growth in 2014 against the Chapter 224 benchmark, offers an overview of trends in spending and provider markets, and closely examines two key trends: 1) spending on prescription drugs and utilization and 2) spending associated with hospital outpatient services. To conclude, the Report discusses the outlook for future success in meeting the benchmark.

Section III (Chapters 7 through 10) examines opportunities to improve quality and efficiency of care—including variation among providers in spending and practice patterns, with a focus on maternal care; avoidable hospital utilization; improving access to primary care; and maximizing value in post-acute care.

Section IV (Chapters 11 and 12) continues discussion from the 2014 Cost Trends Report on progress made in two key areas of focus: 1) to improve the incentives facing the providers of care via alternative payment models (APMs) and 2) to improve the opportunities for employers and consumers to save money by making high-value care choices via demand-side incentives.

Section V (Chapter 13) presents a dashboard of key metrics from the report and contains HPC's recommendations for accelerating efficiency in healthcare spending in Massachusetts and improving quality of care.

This Report builds on the HPC's previous work to promote public policies that work toward efficient patient-centered care, and strengthen and accelerate ongoing reform efforts.

What is the role of the Health Policy Commission?

The Health Policy Commission (HPC) is an independent state agency established through Chapter 224 of the Acts of 2012, the Commonwealth's landmark cost-containment law. The HPC, led by an 11-member board with diverse experience in health care, is charged with developing health policy to reduce overall cost growth while improving the quality of care, and monitoring the health care delivery and payment systems in Massachusetts. The HPC's mission is to advance a more transparent, accountable, and innovative health care system through independent policy leadership and investment programs. The HPC's goal is better health and better care at a lower cost across the Commonwealth.

The HPC's staff and various policy committees engage in healthcare market research through the publication of annual reports on cost trends; market monitoring through notices of material change and cost and market impact reviews; market regulation through the creation of criteria for accountable care organizations (ACOs) and the Registration of Provider Organizations (RPO) Program; and market investment through the $120 million Community Hospital Acceleration, Revitalization, and Transformation Investment Program (CHART). As part of Chapter 224, the HPC operates the Office of Patient Protection, which administers healthcare consumer protections and monitors access to care. Through these and other activities, the HPC strives to monitor and support progress towards meeting the healthcare cost growth benchmark, while improving quality and access in patient care.

SECTION II: TRENDS IN SPENDING AND CARE DELIVERY

Overview of Trends in Spending and Care Delivery

Chapter 224 of the Acts of 2012, the Massachusetts health care cost containment law, established a benchmark against which annual healthcare spending growth can be evaluated. As Massachusetts has among the highest per-capita health care spending in the nation, the Commonwealth recognized that keeping future spending growth under control was key to easing this burden on households, businesses, and the state economy. In keeping with that mandate, Chapter 224 directs the Health Policy Commission (HPC) and the Center for Health Information and Analysis (CHIA) to annually monitor healthcare spending growth relative to economic growth. The benchmark is tied to potential gross state product, with the intention of maintaining a roughly constant share of the state economy devoted to healthcare spending. The benchmark was set at 3.6 percent annually for the period from 2013 to 2017.

Each year, the benchmark is compared to the change in a measure of spending growth, Total Health Care Expenditures (THCE, as defined by CHIA). per state resident. THCE aims to capture the bulk of healthcare spending in the state in a manner that is comparable from year to year. It includes healthcare spending incurred by individuals, the state, and the federal government via Medicaid (MassHealth) and Medicare, as well as commercial spending, as reported by health insurers to CHIA.[i] This chapter discusses the state's performance relative to the benchmark in 2014 as well as other broad trends affecting healthcare spending and the overall health care system in Massachusetts.

STATEWIDE SPENDING GROWTH, 2013-2014

CHIA reported initial[ii] per-capita growth in total spending (THCE) in Massachusetts from 2013 to 2014 to be 4.8 percent, exceeding the state's benchmark of 3.6 percent. Total spending increased from the revised, final figure of $51.3 billion in 2013 to a preliminary figure of $54.0 billion in 2014, while the state's population was estimated to grow from 6.709 million to 6.745 million residents, resulting in an increase in per-capita spending from $7,641 to $8,010. The increase in 2014 was driven by a 13 percent increase in MassHealth spending (including CommCare and accompanied by a 14 percent increase in combined enrollment) and a large increase in spending on prescription drugs for both public and private payers.[iii] Because of the large impact of these two factors, per-capita THCE would have grown only by 1.5 percent if MassHealth spending had grown at the 2012-2013 rate

i The commercial spending figures include roughly 3.4 million (or 80 percent) of the estimated 4.2 million commercially-insured residents in Massachusetts. Those not included are largely employees whose employers are headquartered out-of-state (including the Federal Government) and who do not submit detailed claims and spending information to CHIA. THCE also excludes health spending not covered by insurance such as over-the-counter medications and privately-paid dental and nursing-home expenses.

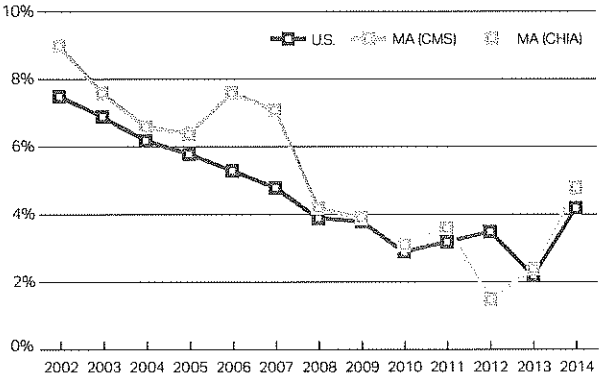
ii CHIA's assessment of 2013-2014 spending growth, published in September, 2015 is based on data submitted five months after the close of the 2015 calendar year, including payers' estimates for claims completion and quality and performance settlements. Final THCE is published a year later. There is considerable volatility between the two assessments. In September, 2015, CHIA updated the 2013 (and 2012) spending and population figures that had been initially reported in September 2014. At that time, CHIA had reported that per-capita THCE grew by 2.3 percent from 2012 to 2013, or from $7,376 to $7,550 (in total, from $49.0 billion to $50.5 billion). In CHIA's September 2015 report, the 2012 and 2013 finalized spending totals were roughly $620 million and $730 million higher, respectively, which, combined with population revisions (increases of 10,500 and 16,000, respectively) reported by the U.S. Bureau of the Census, resulted in revised THCE per capita of $7,459 in 2012 and $7,641 in 2013—a 2012-2013 increase of 2.4 percent rather than the 2.3 percent reported in 2014. Thus, while the 2012-2013 aggregate per-capita spending growth remained relatively unchanged, the volatility in the spending figures is noteworthy. For example, CHIA reported double-digit changes to 2012-2013 per-member spending growth for a number of commercial payers in their updated 2015 report. This volatility has implications for performance improvement plans (PIPs).

iii See "Growth in MassHealth enrollment and spending, 2013-2015," below for more details. Spending and enrollment measures from the Center for Health Information and Analysis total health care expenditure data.

and prescription drug spending had increased by 3.6 percent – this Report discusses each of these factors in detail.

This increase in spending per state resident is slightly above the Centers for Medicare and Medicaid Services' (CMS) estimate of 4.2 percent per-capita growth in personal healthcare spending in the U.S. for 2014 (see **Exhibit 2.1**).[iv]

Exhibit 2.1: Annual growth in per-capita healthcare spending, Massachusetts and the U.S., 2002 – 2014



Note: U.S. data uses personal health expenditures (Centers for Medicare & Medicaid Services) divided by the U.S. population. Massachusetts data uses personal health expenditures (Centers for Medicare & Medicaid Services) through 2009, changes in total medical expenditures per member per year from the Center for Health Information and Analysis for 2010 and 2011, and changes in total health care expenditures per capita from the Center for Health Information and Analysis from 2012-2014.

Source: Centers for Medicare and Medicaid Services; Center for Health Information and Analysis

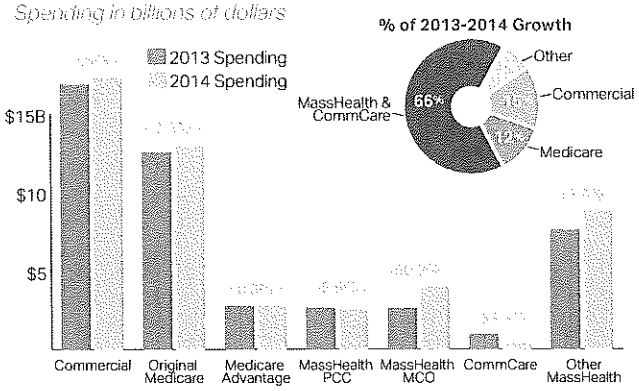
Spending growth accelerated in 2014 in the U.S. as well as Massachusetts, with analysts attributing the national growth to the Affordable Care Act (ACA) coverage expansion, increased prescription drug spending, and economic improvement.[1] The first two factors (and possibly the third) are responsible for some of Massachusetts' spending growth as well. Spending in each market segment in Massachusetts between 2013 and 2014 is shown in **Exhibit 2.2**.

The largest spending increases between 2013 and 2014 occurred within MassHealth. Commonwealth Care (CommCare) spending declined by more than $500 million as it was phased out in 2014; many of its members transitioned from CommCare to MassHealth managed care organizations (MCOs) in 2014. MassHealth is discussed in more detail later in this chapter.

Spending for a given category of coverage can grow due to growth in number of enrollees as well as growth in spending per enrollee. When the HPC considers per-enrollee spending growth in 2014 (in which case the agency limits MassHealth to the primary care clinician (PCC)/MCO programs which provide primary insurance and add in CommCare, which is not a MassHealth program, due to the transfer of most members to MassHealth in 2014), spending growth for each major category of spending was below the benchmark (see **Exhibit 2.3**).[v]

Exhibit 2.2: Massachusetts healthcare spending, by payer type, 2013 and 2014

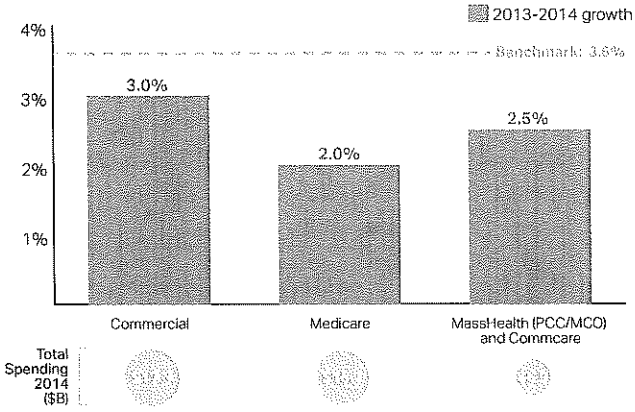
Spending in billions of dollars



Source: Center for Health Information and Analysis

Exhibit 2.3: Growth in per-capita spending, by broad payer type, 2013 – 2014

Percentage growth per member from previous year



Note: Commercial spending excludes actuarial completion of partial-claims.

Source: Center for Health Information and Analysis

Although performance of some individual payers and providers did exceed the benchmark (see **Sidebar: "Performance Improvement Plans"**), this low per-capita growth within each sector of the Massachusetts health system is particularly noteworthy given the large increase in prescription drug spending, discussed in more detail in **Chapter 4: "Prescription Drug Spending."**

iv The estimate of 4.2 percent is based on the subset of national health spending called 'personal health care expenditures,' which are most similar to THCE.

v MassHealth Fee-for-Service is not shown because unique enrollees cannot be determined for some spending in that category.

Performance Improvement Plans

Beginning in 2016, Performance Improvement Plans (PIPs) will provide a key mechanism under **Chapter 224** for the HPC to identify, monitor, and assist payers and providers whose cost growth may threaten the ability of the state to meet the health care cost growth benchmark.

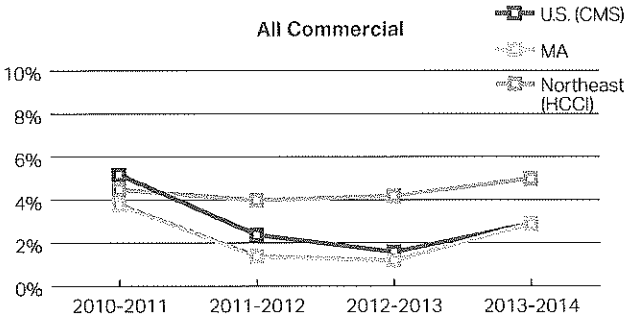
Annually, CHIA will provide the HPC a list of payers and providers whose cost growth, as measured by health status-adjusted Total Medical Expenses (TME), is considered excessive and threatens the benchmark. All identified payers and providers will receive notice from the HPC. Some of the identified payers or providers may be required to file a PIP where the HPC has confirmed concerns about the entity's cost growth and found that the PIP process could result in meaningful, cost reducing reforms. The HPC also has the option to conduct a cost and market impact review of any of the provider organizations identified by CHIA if the state's total healthcare expenditures exceed the cost growth benchmark.

If required to file a PIP, the payer or provider must develop a PIP and propose it to the HPC for approval. The PIP must identify and address the causes of the entity's cost growth and include action steps, measurable outcomes, and an implementation timetable of no more than 18 months. The PIP must be reasonably expected to succeed and to address the underlying causes of the entity's cost growth. Implementation of a PIP will involve regular reporting by the payer or provider as well as monitoring and assistance from the HPC.

COMMERCIAL SPENDING GROWTH, 2010 – 2014

In 2012 and 2013, growth in commercial spending in Massachusetts was below U.S. commercial growth. In 2014, the 2.9 percent rate of per-enrollee growth in commercial spending in Massachusetts[vi] was in line with national rates as reported by CMS, though it remained significantly below a different, claims-based source which reported 3.4 percent growth nationally and 5 percent in the Northeast region in 2014 (see **Exhibit 2.4**).[vii]

Exhibit 2.4: Annual growth in commercial spending per enrollee, 2010 – 2014



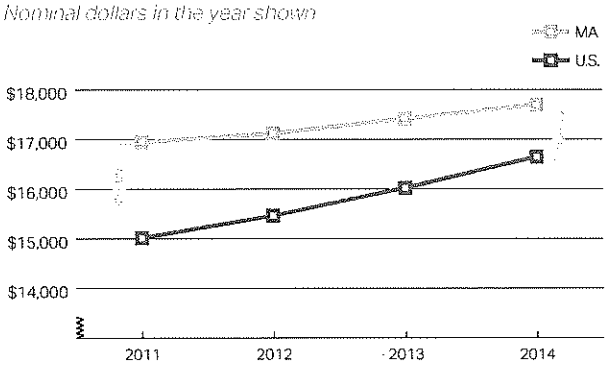
Source: Center for Health Information and Analysis (Massachusetts); Centers for Medicare and Medicaid Services (U.S.); and Health Care Cost Institute (Northeast)

Pre-filed testimony submitted by the three major commercial payers in Massachusetts as part of the HPC's 2014 Health Care Cost Trends Hearing assessed growth in commercial spending by prices, utilization, and service mix. All payers found prices to be the largest factor contributing to total spending growth, continuing patterns observed for a number of years and consistent with national trends.[2]

As a result of continued, slower growth in commercial spending in Massachusetts relative to the U.S. over the last several years, the gap in health insurance premiums (see **Exhibit 2.5**) has shrunk.

Exhibit 2.5: Family health insurance premiums, Massachusetts and the U.S., 2011 – 2014

Nominal dollars in the year shown



Note: Premiums for employer-sponsored health insurance. Cost-sharing is not included.

Source: Agency for Healthcare Research and Quality, Medical Expenditure Panel Survey

In 2011, premiums for family coverage were nearly $2,000 per year higher in Massachusetts than the rest of the U.S. ($16,953 versus $15,022). Between 2011 and 2014, family premiums in Massachusetts grew a total of 4.4 percent compared to 10.9 percent in the rest of the U.S., cutting

vi Although the rate of commercial spending growth was reported as 3 percent in **Exhibit 2.3**, that figure includes "partial-claims" enrollees—those for whom CHIA does not receive full detailed spending for all claims. For the analyses in **Exhibits 2.4** and **2.6**, the HPC reports only full-claims members, for whom there is comprehensive information on spending.

vii The primary source of U.S. data used in this Report is the private health insurance subset of the Personal Health Expenditures data released on 12/2/15. The secondary source used is from the Health Care Cost Institute (HCCI). The HCCI's figures are based on a national sample contributed by large commercial insurers and representing some 27 percent of all commercial enrollees in employer-sponsored insurance in the U.S.

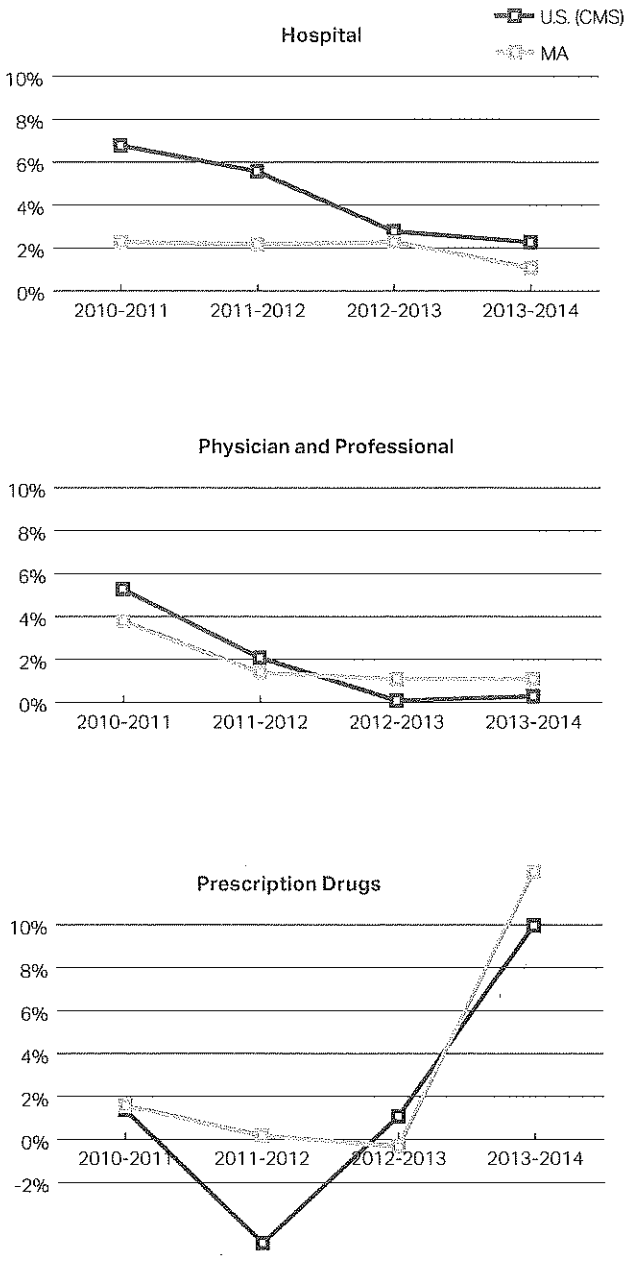
the 2011 premium gap nearly in half—to $1,050 ($17,702 versus $16,655). Premiums for single coverage also grew more slowly in Massachusetts over this period (9 percent versus 11.7 percent in the U.S.). Looking at commercial spending by category of service—hospital spending (including inpatient and outpatient), physician and other professional spending, and prescription drugs—offers further insight into the slower rate of growth of commercial spending in Massachusetts (see **Exhibit 2.6**).

Growth in hospital spending in Massachusetts from 2013 to 2014 per commercial enrollee continued at a slower pace than for the U.S. —at 1.1 percent versus 2.3 percent. Within the hospital sector, inpatient hospital spending growth was negative (-0.4 percent) while outpatient spending grew 2.2 percent, suggesting a possible shift from inpatient to outpatient settings (see **Chapter 5**: **"Hospital Outpatient Spending"**). Spending on physician and other professional services also grew slowly from 2013 to 2014 (1.1 percent), consistent with continued slow growth (0.3 percent) in the U.S.

Finally, growth in prescription drug spending per commercial enrollee skyrocketed in both Massachusetts and the U.S. in 2014 —12.5 percent in Massachusetts versus 10.0 percent in the U.S. Growth in prescription drug spending in Massachusetts accounted for almost two-thirds of the 2.9 percent growth in commercial spending per enrollee and one-third of spending growth overall in 2014.[viii] Because of the implications of this trend for future success at controlling healthcare spending, the HPC devotes a fuller discussion of prescription drug spending and trends in **Chapter 4**: **"Prescription Drug Spending."**

On the whole, spending growth in the commercial sector in Massachusetts was modest in 2014. Aside from increases in prescription drug spending, per-member spending growth was near 1 percent from 2013 to 2014, continuing a trend of slow growth and dropping Massachusetts' insurance premiums toward national averages. This slower growth does not imply, however, that there are not opportunities to remove unnecessary spending from the system—spending that does little to improve health or outcomes. Massachusetts commercial spending is still

Exhibit 2.6: Annual growth in commercial spending per enrollee, by spending category, 2010 - 2014



Source: Centers for Medicare and Medicaid Services; Center for Health Information and Analysis

viii If drug spending had grown by 3.6 percent in Massachusetts in 2014, THCE would have come in below the 3.6 percent benchmark.

higher than the U.S. average,[ix] while per-capita health spending in the U.S. is 50 percent greater than that of the next highest country and nearly three times that of the U.K., for example.[3] Some of these opportunities are explored later in this Report.

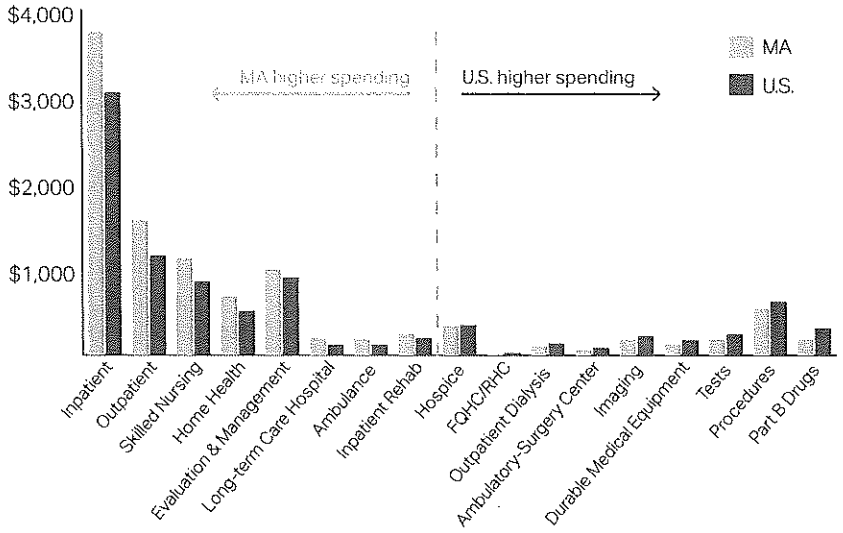
MEDICARE SPENDING AND GROWTH, 2010-2014

To further gauge Massachusetts spending patterns relative to the U.S., it is illustrative to compare spending within the Medicare Fee-For-Service (FFS) program ("Original Medicare"). Roughly 70 percent of Medicare beneficiaries are enrolled in Original Medicare nationwide (80 percent in Massachusetts).[4] Compared to commercial spending, Given that it is a national program, Original Medicare is more comparable across the U.S. in terms of benefit structure, prices paid to providers, and demographics of the enrolled population. Massachusetts does have a larger portion of Original Medicare beneficiaries enrolled in accountable care organizations (ACOs) than most states, which could influence care patterns and reduce spending.[x]

In 2014, total spending by or on behalf of Original Medicare beneficiaries averaged $15,177 in Massachusetts, approximately 4.8 percent higher than the $14,483 national average.[xi] That gap has remained relatively unchanged since 2010, when Massachusetts spending was 6 percent above the U.S. average. Growth in per-beneficiary spending by category of service has also roughly mirrored national trends since 2010, with total growth per beneficiary below 5 percent over the four-year period for all categories except for hospital outpatient spending (which grew 25 percent in both Massachusetts and the U.S. This is explored in **Chapter 5: "Hospital Outpatient Spending"**) and prescription drugs.

While spending *growth* among Medicare beneficiaries has been similar in Massachusetts and the U.S., the underlying *amounts* of spending by category of service reveal important differences in the way care is provided to Original Medicare beneficiaries in Massachusetts versus in the U.S. (see **Exhibit 2.7**).[xii]

Exhibit 2.7: Original Medicare spending per beneficiary in Massachusetts and in the U.S, by category, 2013



Note: Categories are ordered from left to right by the amount by which spending in Massachusetts exceeds national spending.
Source: Centers for Medicare and Medicaid Services

ix CMS last published directly comparable estimates of state-by-state expenditures per privately-insured enrollee updated through 2009, at which time Massachusetts was 18 percent higher than the U.S. average. Though Massachusetts commercial spending has grown more slowly than national spending since that time, the difference is not enough to erase that deficit.

x See **Chapter 11: "Alternative Payment Methods"**.

xi Data from CMS includes cost-sharing by beneficiaries and drug spending for those with Medicare Part D drug coverage. It does not include premiums paid for supplemental coverage ("Medigap").

xii Medicare does adjust prices to account for regional differences in input costs (such as the wages of nurses), the number of medical residents a hospital is currently training, and other factors. The residency adjustment is particularly important for Massachusetts, which has more medical residents per capita than any other state.

In general, Massachusetts Medicare beneficiaries spend more on institutional-based care (inpatient care,[xiii] outpatient care, post-acute care, and ambulance care) than the rest of the U.S. does and less on ambulatory-based care (drugs provided in ambulatory settings, procedures, tests, and imaging). High rates of utilization of institutional care in Massachusetts compared with the rest of the U.S. have been noted elsewhere and suggest ample room to redirect some care to less intensive settings, a topic which the HPC returns to in later sections of this Report. Furthermore, although the higher spending in Massachusetts on inpatient care largely reflects higher prices rather than higher utilization, this spending difference would be reduced if more Medicare beneficiaries used lower-paid community hospitals rather than teaching hospitals, a topic addressed in the HPC's forthcoming Community Hospital Study.

GROWTH IN MASSHEALTH ENROLLMENT AND SPENDING, 2013-2015

As shown in **Exhibit 2.2**, two-thirds of state spending growth between 2013 and 2014 occurred within MassHealth. As previously noted, this spending increase is largely attributable to enrollment growth, which was impacted by two significant events in 2014: 1) the implementation of the ACA insurance market changes and 2) the subsequent operational difficulties at the Massachusetts Health Connector. In addition, like other payers, MassHealth spending increased due to the introduction of high-cost drugs into the market and other factors impacting drug spending.[xiv]

MassHealth enrollment, 2013-2015[xv]

Between 2013 and 2015, the implementation of ACA significantly impacted enrollment in the MassHealth program. Consistent with the Commonwealth's health reform aim to extend affordable coverage to all residents, in 2014 MassHealth extended eligibility to low-income adults through the ACA and transferred individuals with incomes between 100 and 133 percent of the Federal Poverty Level (FPL), who had been previously eligible for subsidized insurance via the Massachusetts Health Connector (Connector), onto MassHealth. On January 1, 2014, these individuals were automatically enrolled into the new CarePlus program, thereby gaining access to MassHealth coverage through MCOs.[5,xvi] This transfer represented a significant and permanent change in the size and composition of the MassHealth population.[xvii]

The ACA also required changes to the processes that the Connector used to assess applicants' eligibility for subsidies to enroll them into new programs. The Connector was unable to carry out these changes within the necessary timeframe, and was unable to effectively enroll individuals into subsidized insurance. The Commonwealth responded to these operational difficulties by extending eligibility for comprehensive coverage through MassHealth. All applicants, including those not eligible for subsidies, were enrolled in a new "Temporary Coverage" program, managed by MassHealth, with services paid for on a FFS basis. The Temporary Coverage program was phased out in early 2015 with the introduction of a well-functioning Connector website. This process resulted in significant temporary changes to the enrollment and composition of the MassHealth population in 2014.

xiii In Exhibit 2.7, higher utilization of services in Massachusetts drives higher spending for most categories of service. For inpatient care, however, spending differences between Massachusetts and U.S. disappear completely when adjusted for prices. Massachusetts' higher prices result from several factors including, 1) adjustments Medicare makes to inpatient admissions to account for higher labor costs (such as nurse wages) in different areas in the U.S. that were enhanced further in 2011 by the reclassification of the rural Nantucket Cottage from a critical access hospital to a hospital paid under the regular inpatient hospital payment system, and 2) the fact teaching hospitals are paid more per admission combined with the fact that roughly double the proportion of Medicare beneficiaries in Massachusetts receive care at teaching hospitals compared to the U.S. average (Massachusetts Health Policy Commission, Annual Cost Trends Report, 2013).

xiv Of the 4.8 percent increase in per-capita spending in Massachusetts, 3.2 percentage points were due to increased spending in MassHealth, of which 0.7 percentage points (22 percent) were due to prescription drugs.

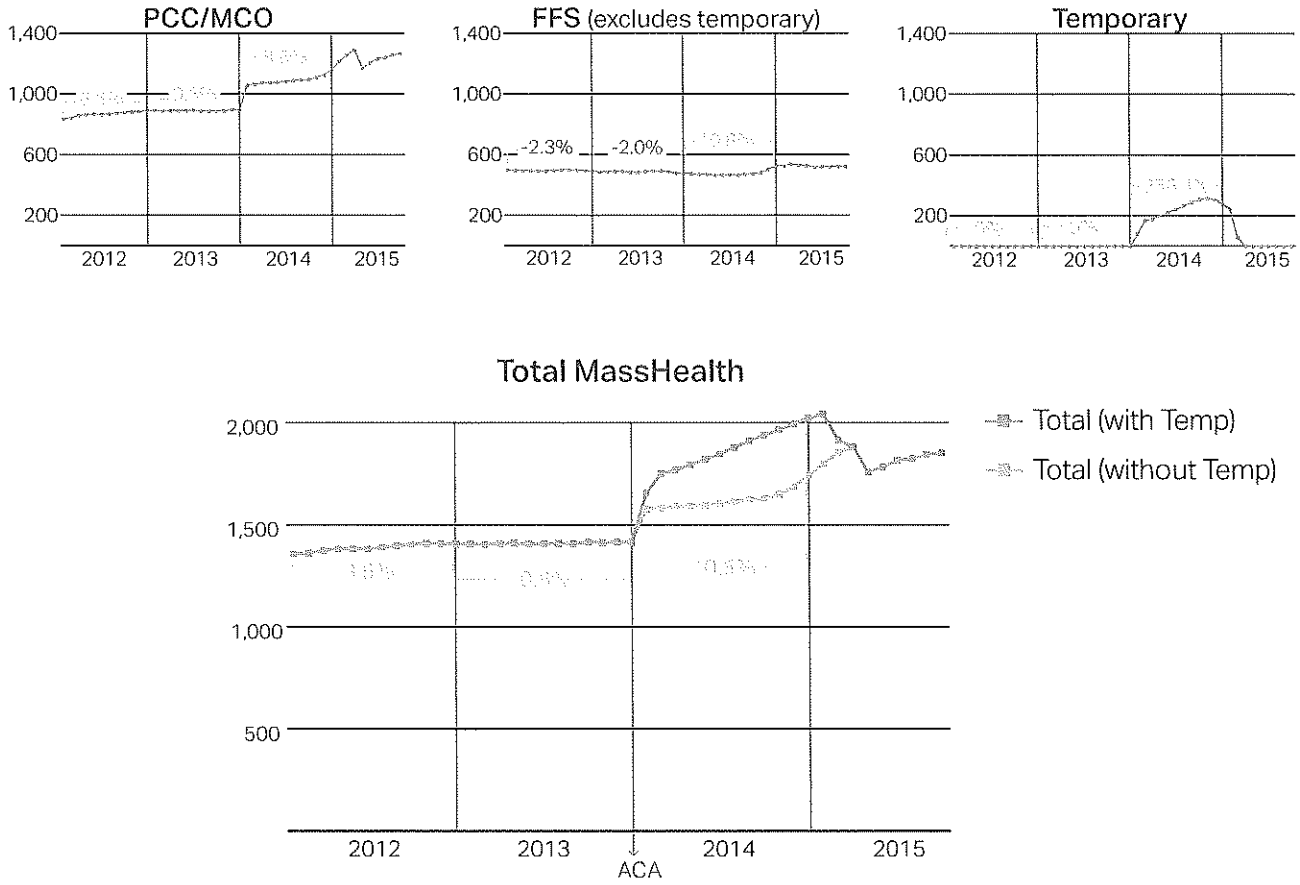
xv While much of this report focuses exclusively on 2014, this section discusses the MassHealth enrollment trend through 2015 to create perspective on the events of 2014.

xvi At the same time, MassHealth also transferred certain members with incomes below 100 percent of the FPL from the PCC program to CarePlus MCO.

xvii On January 1, 2015, individuals who had formerly been eligible for subsidized insurance via the Medical Security program were required to re-apply for coverage; approximately 7,000 of these had incomes below 133 percent of FPL and were likely eligible for MassHealth (Health Management Associates).

Because of these two programmatic changes, enrollment in the PCC/MCO programs rose by approximately 56,000 members on January 1, 2014 (due to auto-enrollment into CarePlus) and rose again by about 180,000 members between November 2014 and March 2015 (due to the closing of the Temporary Coverage program and subsequent enrollment of a portion of its members into MassHealth)[6, xviii, xix] (see **Exhibit 2.8**).

Exhibit 2.8: MassHealth enrollment, January 2012 – August 2015
Thousands of enrollees per month



Source: Center for Health Information and Analysis

xviii The dip in enrollment in March 2015 is likely due to the process whereby MassHealth re-determined eligibility. Members were dropped from the program during this process but often re-enroll soon after.

xix The PCC and MCO programs are considered together because of significant overlap in populations served. Joint analysis is particularly helpful when considering the 2013/2014 trend because some members were auto-enrolled from the PCC plan to the CarePlus MCO on January 1, 2014. For the discussion of MassHealth enrollment, the HPC uses enrollment measures from the "Enrollment Snapshot Report" produced by MassHealth.

Enrollment in the FFS program, excluding the Temporary Coverage program, rose at a fairly steady rate of an average of 2,000 members per month throughout 2014. In August 2015, the FFS caseload was 525,727 members, representing 23,000 (5 percent) more than in September 2013. The Temporary Coverage program (which had no members in January 2014) peaked at 317,000 in October 2014 and ended in March 2015. The overall MassHealth trend is the sum of these three program trends: PCC/MCO, FFS, and Temporary Coverage. In a two-year period (September 2013-September 2015), the total MassHealth population increased 31 percent, from 1.41 to 1.85 million members.

Of the total increase, approximately one-third was offset by the closure of other state programs that served very low income individuals who became eligible for MassHealth, including CommCare (approximately 97,000 former members eligible for MassHealth), the Health Safety Net (approximately 31,000 eligible members), and the Medical Security Program (approximately 8,000 eligible members).[xx]

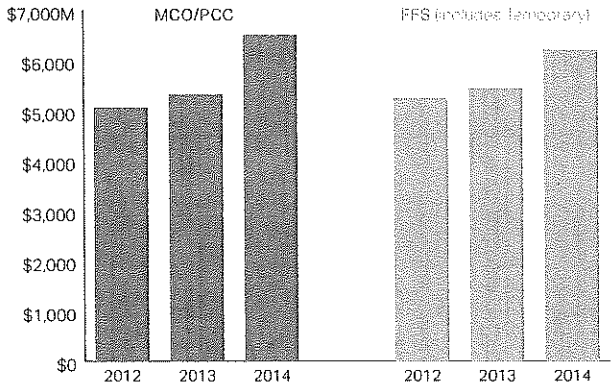
Some of the increase is also likely attributable to a decrease in the number of uninsured. While survey data do not show marked changes between 2013 and 2014 in the percentage of Massachusetts residents who were uninsured, data from emergency departments (ED) show a drop in the number of visits by uninsured patients and an offsetting increase in the number of visits by patients with MassHealth. Specifically, the number of ED visits by uninsured patients dropped from 205,000 in 2013 to 161,000 in 2014 while the number of ED visits by patients with MassHealth increased from 766,000 to 820,000.[7] This change is consistent with a drop in the uninsured of approximately 55,000, or 15 percent of the increase in the MassHealth population.[xxi] The remainder of the MassHealth enrollment increase may represent other dynamics.[xxii]

MassHealth spending, 2012-2014

As a primary result of these enrollment trends, MassHealth spending, as included in the benchmark calculations, increased significantly. In the PCC/MCO programs, spending increased from $5.3 billion to $6.5 billion (a change of $1.19 billion), much larger than the changes between 2012 and 2013 ($257 million).[8]

For the FFS program, including both the baseline FFS population and those enrolled in the new Temporary Coverage, spending increased from $5.45 billion to $6.22 billion (a change of $773 million), again dramatically more than the previous year's FFS trend ($197 million). These spending trends are shown in **Exhibit 2.9**.

Exhibit 2.9: MassHealth spending by program, 2012 – 2014
Millions of dollars in calendar year shown



Note: Senior Care Option (SCO), Programs of All-Inclusive Care for the Elderly (PACE), and OneCare not included in figure. These programs began as MassHealth managed care programs available to elderly, near elderly, and dual-eligible populations. For the SCO/PACE/OneCare program, spending was $727M (2012), $865M (2013), and $1.14B (2014). OneCare began in 2013.
Source: Center for Health Information and Analysis, Total Health Care Expenditures

While the changes in MassHealth spending were large, the 19 percent increase was typical among the states that expanded eligibility under the ACA.[9] Moreover, unlike other states, some of the increased public spending in MassHealth in 2014 was offset by decreased public spend-

xx Estimates of the size of eligible populations are from Health Management Associates. Higher income individuals in the programs that closed became eligible for coverage via the Connector. From September 2013 to September 2015, net private commercial enrollment for Massachusetts residents increased by approximately 50,000 members; commercial enrollment as of September 2015 included more than 170,000 residents enrolled in subsidized and unsubsidized Qualified Health Plan (QHP) offerings through the Health Connector. (Source: CHIA, private communication. Note commercial enrollment total only includes individuals with primary coverage.)

xxi This calculation assumes that uninsured individuals visit the ED at the same rate in 2013 and 2014, and that therefore, the 22% reduction in ED visits by the uninsured in 2014 represents a 22% reduction in the number of uninsured in Massachusetts. The HPC approximates that number as 3.7% of the Massachusetts population in 2014, or 250,000, based on survey estimates.

xxii Notably, during 2014 MassHealth was forced to suspend many of the processes used to verify eligibility due technical and operational challenges of implementing the Health Insurance Exchange (HIX)/Integrated Eligibility System; such processes have now resumed.

ing in CommCare.[xxiii] Importantly, although increased enrollment was clearly a major component of the 2014 rise in MassHealth spending, the total increase in MassHealth spending resulted not only from the costs of the newly enrolled population, but also from the spending trend for the baseline population, which will determine the future course of spending. As noted earlier, the rate of growth of per-capita spending of the combined PCC, MCO, and CommCare populations was 2.5 percent between 2013 and 2014. For the PCC/MCO population, the rate of growth was 2.7 percent between 2012 and 2013. In both years the spending trend was below the benchmark and roughly on par with other payers.[xxiv]

Unfortunately, the available data do not make it possible to calculate the 2013-2014 per-capita trend for the baseline FFS population absent the Temporary Coverage members, and the two populations are too disparate to analyze together. Between 2012 and 2013, prior to the Temporary Coverage program, the per-capita spending growth trend in the FFS population was 6.2 percent, above the benchmark rate of 3.6 percent.[xxv]

Given the importance of MassHealth to its 1.85 million members and to the benchmark, it is important to understand not only broad enrollment and spending trends but trends for specific populations within MassHealth programs as well as trends in risk factors and utilization. All are markedly different in MassHealth compared to the commercial and Medicare populations due to characteristics of the population and the benefit. For example, Medicaid is the primary payer for long-term supports and services (LTSS), as neither Medicare nor commercial health insurance cover most long-term services. In 2015, MassHealth LTSS spending totaled $4.5 billion, or approximately 30 percent of the MassHealth budget. Among the FFS population, many of whom have primary insurance coverage through Medicare or another payer, LTSS represented 75 percent of spending, totaling $3.7 billion in 2014. Of this spending, 32 percent was for nursing facility care ($1.6 billion), and 43 percent ($2.1 billion) was for home and community based services (HCBS), including waiver programs. [xxvi]

MassHealth is exploring a variety of options to increase the quality, cost-effectiveness, and member experience of its programs through an extensive stakeholder engagement process. Central to the reform is a comprehensive care delivery strategy to better integrate care for MassHealth members across physical, behavioral health, and LTSS care that is supported by value-based payment models.

ACCESS TO AND AFFORDABILITY OF CARE

In the aggregate, Massachusetts continues to perform well compared to other states on measures of access to care and affordability of care. In terms of insurance coverage, Massachusetts continued to have the lowest rate of uninsured in the U.S. (4 percent in 2014), even as other states closed some of the gap through the insurance coverage expansions under the ACA.[10] Massachusetts also continues to perform well on other population-level aggregate measures. The percentage of state residents paying more than 10 percent of income in out-of-pocket expenses for health care (not including premiums) was one of the lowest in the U.S. in 2013 and 2014 (11 percent), as was the percentage of at-risk adults without a doctor's visit (7 percent).[11]

These aggregate measures, however, mask access and affordability problems for many of the state's residents. Even with relatively slow growth in health insurance premiums in recent years, Massachusetts continued to have among the highest health insurance premiums in the U.S. in 2014, averaging $17,702 for family coverage and $6,348 for single coverage (approximately $1,000 and $500 above national averages, respectively). While average incomes are also high in the state, middle-class individuals and families face essentially the same premiums as higher income individuals, and are generally not eligible for subsidies.[xxvii] A family of four living at twice the FPL, with employer-based insurance would find the combination of average family health insurance premiums and cost-sharing ($19,300) to

xxiii The net increase in MassHealth spending, factoring in the reduction in spending on CommCare, is 13 percent.

xxiv PCC, MCO and CommCare populations are combined for the purpose of the 2013-2014 per-capita trend because of the transfer of CommCare patients to the MassHealth MCOs during this period. For the discussion of MassHealth per-capita spending trends, the HPC uses enrollment measures from THCE. The MassHealth Enrollment Snapshot and THCE define MassHealth enrollment differently. Approximately 2.4 million member months for individuals enrolled in the Health Safety Net, Children's Medical Security Plan, and DMH-only as well as CommCare-unenrolled are included in THCE enrollment but not the Enrollment Snapshot; these definitional differences mainly affect estimates of FFS enrollment.

xxv In 2016, CHIA and the HPC will have access via the All-Payer Claims Database (APCD) to the data needed to analyze risk factors, utilization, spending, and enrollment within segments of the MassHealth population defined by eligibility and demographic characteristics. This data were not available in time for this Report.

xxvi Data from Massachusetts Medicaid Policy Institute and CHIA. See Technical Appendix for details.

xxvii ACA tax credits are available to most families with income between 133% and 400% of the FPL (subsidies decline as income grows) but only if they do not have offers of health insurance from an employer.

equate to roughly 40 percent of annual income (roughly $50,000 in 2014).[xxviii]

These examples of high cost of care in the Commonwealth have contributed to persistent affordability challenges for some state residents. In 2014, 38 percent of Massachusetts residents paid more than $1,000 out-of-pocket for health care, and 19 percent paid more than $3,000. Out-of-pocket spending includes spending on over-the-counter medicines, spending on copays and deductibles for care in the context of an individual's health insurance plan, and spending on services not covered by health insurance, such as alternative therapies or charges when individuals visit out-of-network providers (see **Sidebar: "Out-of-network charges for emergency services and "surprise billing"**). Among residents between 138 and 300 percent of the FPL (between roughly $30,000 and $70,000 for a family of four), 30 percent reported having difficulty paying medical bills and 17 percent said someone in their family went without needed medical care due to cost in the past 12 months.

Out-of-network charges for emergency services and "surprise billing"

Most health insurance products identify a network of hospitals, physicians, and other providers with whom the payer has a contract and from whom the insured is entitled to receive services at agreed-upon cost sharing levels. When a consumer receives services from an out-of-network provider, depending on plan terms, the consumer may be required to pay for the full cost, or to pay much higher cost-sharing than would be required for in-network services. There are, however, circumstances where the consumer does not choose to receive care outside the network. These include emergency situations and services received at in-network facilities but provided by out-of-network providers, without the consumer's informed agreement. This latter phenomenon is often called "surprise billing." Further, as part of the "surprise billing"problem, there are circumstances where all the physicians in a given specialty working in a given hospital are out-of-network, so that even if the patient is informed of the out-of-network status, he or she does not have the choice of an in-network provider at the in-network facility.

Certain laws aim to protect consumers in such circumstances. Under Massachusetts state law and the ACA, most plans must pay a reasonable amount for out-of-network emergency care, although "balance billing" (whereby the consumer is billed for the difference between this reasonable amount and the amount charged by the hospital) is not prohibited.[xxix] Payers have stated that it is their policy to hold members harmless for out-of-network emergency care;[12] however, the HPC understands that "balance billing" sometimes occurs. Additionally, under state law, carriers must provide enrollees with a statement in the "evidence of coverage" that enrollees who receive care from an out-of-network provider at an in-network institution are not responsible for more than they would have been responsible for when receiving in-network care, unless they have a "reasonable opportunity to have the services performed by a network provider."[xxx] Though this language appears to prohibit "balance billing" for the consumer, the level of carrier compliance is not clear. Moreover, there is a perceived burden on consumers to be aware of this protection, as consumers may need to affirmatively alert payers to out-of-network service situations in order for the payer to cover the service. Several payers have indicated that they do hold members harmless in "surprise billing" situations, and others have stated that they use their appeals process to resolve this problem in members' favor.

In addition to these difficulties for consumers, there are also significant market function issues raised by unlimited out-of-network charges. Hospitals with high ED volume (and physicians who work in such hospitals) are likely to receive patients through emergency or "surprise billing" situations, even without joining the patients' insurance networks. As a consequence, the benefit to these providers from joining a network is relatively low, compared with providers who benefit more from the patient volume that comes from being in-network. For payers, the alternative to agreeing to high prices to keep providers in network may be to pay high charges for their patients who use these services out-of-network and whom the payer then holds harmless. This may contribute to price variation by increasing the bargaining leverage of hospitals with higher volume.[xxxi]

xxviii The figure of $19,300 includes an employee's contributions to health insurance premiums. These contributions vary by firm and are typically on the order of 70 percent of the premium for family coverage. The figure of 40 percent is somewhat of an overestimate because employer-based health insurance is not taxable and because employer contributions to health insurance should be considered additional compensation to the family and included in their income total. It is also debatable, but consistent with economic theory, that employer contributions to health insurance should be considered as part of the family's health insurance spending—which is the case insofar as the family would receive those dollars as higher wages in lieu of health insurance. On the other hand, this figure does not include other health insurance spending, such as over-the-counter spending and spending not covered by health insurance, such as spending on out-of-network providers.

xxix M.G.L. c. 176G and the Patient Protection and Accountable Care Act, 42 U.S.C. sec. 18001

xxx M.G.L. c. 176O, sec. 6

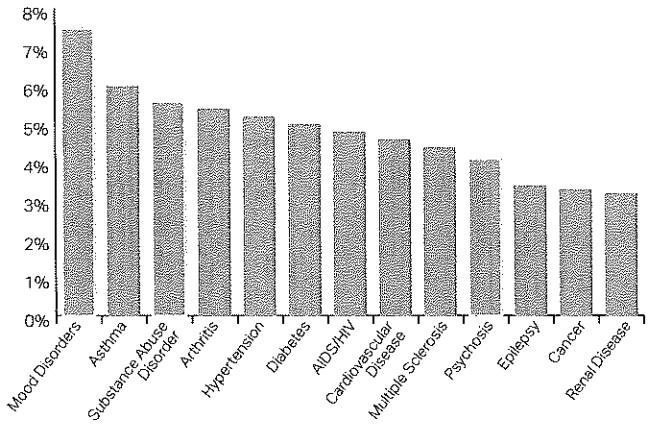
xxxi This perceived need for wider networks may also reduce payer incentives to form limited network plans, because in many cases, it is less expensive to agree to a higher rate to keep a provider in network than to pay charges for patients who use the provider's services out of network. See, e.g., Ripps, J.C. (August 17, 2007). Value Promoting Policy Review: Payments to Out-of-Network Hospitals in California. Milliman, Inc. for Pacific Business Group on Health; Murray, R. (May 16, 2013). Hospital Charges and the Need for a Maximum Price Obligation Rule for Emergency Department & Out-Of-Network Care. Health Affairs Blog.

Access to care was also a problem for some state residents, particularly lower income groups. Nineteen percent of residents reported they were unable to get an appointment as soon as needed in the prior 12 months. Twelve percent (20 percent of those below 133 percent of the FPL) reported that a doctor's office told them they were not accepting their insurance type, and 14 percent (18 percent of those below 133 percent of the FPL) were told that the doctor's office was not accepting new patients. These percentages are among all residents, including those who did not seek appointments with providers in the past 12 months and thus understate access problems for those who actually sought care.[xxxii]

Out-of-pocket spending

Out-of-pocket spending, defined more narrowly, is spending on copays and deductibles in the context of an individual's health insurance plan. Such spending grew by 4.9 percent in 2014 for commercially-insured state residents.[xxxiii] Growth was higher for individuals insured via the merged market (5 percent) and employees of firms that self-insure (6.5 percent). Furthermore, upon analysis of the state's All-Payer Claims Database (APCD), the HPC found that out-of-pocket spending as a proportion of total health care spending varied by health condition and was particularly high for individuals with behavioral health conditions (see **Exhibit 2.10**).

Exhibit 2.10: Cost-sharing as a percentage of total spending for individuals with given diagnosed conditions, 2013



Source: HPC analysis of Massachusetts All-Payer Claims Database

QUALITY OF CARE

Quality of care is multi-dimensional. In past cost trends reports, the HPC summarized Massachusetts' performance compared to the U.S. on measures from several domains of quality, including hospital admissions for chronic conditions, readmission rates, mortality rates, patient safety, and patient experience measures.[13] Massachusetts tends to perform well on most, but not all, measures. For example, on measures such as mortality rates, appropriate medication use, and patient safety, the state consistently performs in the top quartile.[14] On measures involving appropriate use of high-intensity care and appropriate hospital admissions, however, Massachusetts often performs worse than average. Massachusetts Medicare beneficiaries were in the worst quartile of avoidable ED admissions, hospital-readmission rates, and ambulatory-care-sensitive admissions for residents over 75 years of age (see **Chapter 8: "Avoidable Hospital Use"**).The state's performance on additional quality measures for specific conditions is discussed in CHIA's November 2015 report on the quality of care in Massachusetts.[15]

These state-wide averages mask considerable variation within the state. CHIA also reported on within-state variation on a number of measures, by provider, in its report. For example, patient-reported experiences with waiting times and access to appointments with their primary care offices varied considerably across 85 physician offices in Massachusetts, from composite scores of 63 to 96. Variation by hospital in other measures such as readmission rates and C-section rates for low-risk births was also considerable and is discussed later in this Report.

In their role monitoring health care system performance, it is critical for CHIA and the HPC to track and highlight variations in healthcare quality across settings, including physicians, hospitals and other settings of care. CHIA and the HPC are also working to promote the use of a standard set of quality measures in payment, insurance product design, and transparency – to help minimize consumer confusion and provider burden and allow for easier comparisons between Massachusetts providers.

xxxii CHIA did not include this question in its survey.

xxxiii While not including all kinds of out-of-pocket spending, this subset of out-of-pocket spending is submitted to CHIA via claims sent to the state's APCD, and can therefore be analyzed in greater detail.

REFERENCES

1 Keehan SP, Cuckler GA, Sisko AM, et al. National health expenditure projections, 2014–24: spending growth faster than recent trends. Health Affairs 2015;34:1407-17.

2 Health Care Cost Institute. 2014 Health Care Cost and Utilization Report. 2015.

3 Squires D, Anderson C. US health care from a global perspective: spending, use of services, prices, and health in 13 countries. Issue brief (Commonwealth Fund) 2015;15:1-15.

4 Kaiser Family Foundation. Medicare Advantage enrollment as a percent of total medicare population. State Health Facts2015.

5 Bern J. Implementing the Affordable Care Act in Massachusetts: Changes in subsizied coverage programs: Blue Cross Blue Shield Foundation; 2014 August 2015.

6 Center for Health Information and Analysis Enrollment Snapshot 18408 Boston (MA): Center for Health Information and Analysis Nov 18 2015

7 Center for Health Information and Analysis. Emergency Department Database Boston (MA): Center for Health Information and Analysis; 2010-2015.

8 Center for Health Information and Analysis Total Medical Expenses. Annual Report on the Preformance of the Massachusetts Health Care System. Boston (MA): Center for Health Information and Analysis October 2015.

9 Paradise J. Medicaid moving forward: The Henry J. Kaiser Family Foundation; 2014 March 2015.

10 The Henry J. Kaiser Family Foundation. Health Insurance Coverage of the Total Population. Menlo Park, CA: The Henry J. Kaiser Family Foundation; Available from: http://kff.org/other/state-indicator/total-population/.

11 The Commonwealth Fund. Aiming Higher: Results from a Scorecard on State Health System Performance. 2015 Edition. Washington, DC: The Commonwealth Fund; 2015; Available from: http://www.commonwealthfund.org/publications/fund-reports/2015/dec/aiming-higher-2015.

12 Health Policy Commission. Pre-filed Testimony pursuant to the 2015 Annual Cost-Trends Hearings. 2015

13 Massachusetts Health Policy Commission. Annual Cost Trends Report. Boston, MA2014.

14 The Commonwealth Fund. Commonwealth Scorecard on State Health System Performance. 2015.

15 Center for Health Information and Analysis. A Focus on Provider Quality. Boston, MA: Center for Health Information and Analysis; 2015.

Trends in Provider Markets

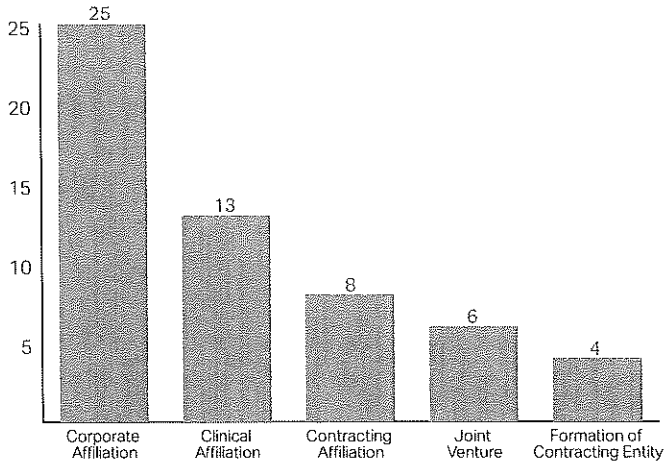
Provider alignments, including acquisitions and affiliations, can impact the performance of the healthcare system in delivering high-quality, cost-effective care. Although provider alignments may take a range of forms, and may promote more patient-centered, accountable care, many such alignments involve acquisitions and contracting affiliations that can increase overall market consolidation.[i] While some argue that alignments may result in efficiencies and care delivery improvements through clinical integration, evidence suggests that increases in market consolidation are not typically associated with increased quality of care, and may even be associated with decreased quality.[ii,1,2,3] There is also strong consensus that increased healthcare consolidation through hospital mergers leads to higher prices in the vast majority of cases.[4,5,6,7,8]

PROVIDER ALIGNMENTS

Chapter 224 directs the Health Policy Commission (HPC) to monitor this aspect of the Massachusetts healthcare system. Through the examination of notices of material change (MCNs) filed by provider organizations, the HPC tracks the frequency, type, and nature of such provider system alignments in the Commonwealth and assesses their potential impact on healthcare spending, quality, and access. The HPC also engages in a more comprehensive review of particular transactions anticipated to have a significant impact on healthcare costs or market functioning through its "cost and market impact reviews" (CMIRs).

From 2013 through 2015, the HPC received notice of 53 proposed mergers, acquisitions, and affiliations. These notices reveal a rapidly changing healthcare marketplace and represent a wide range of transactions, including acquisitions of hospitals and physician groups, affiliations between providers for joint contracting, creation of clinical joint ventures, formation of new contracting entities like accountable care organizations (ACOs), and establishment of new preferred provider arrangements and other clinical affiliations[iii] (see **Exhibit 3.1**).

Exhibit 3.1: Frequency of provider alignment types for which the HPC received material change notices, 2013 – 2015



Source: HPC

i The Health Policy Commission defines a contracting affiliation in its Final Regulation on Material Change Notices and Cost and Market Impact Reviews, 958 CMR 7.02, [hereinafter Final MCN and CMIR Regulation] as any relationship between a Provider Organization and another Provider or Provider Organization for the purposes of negotiating, representing, or otherwise acting to establish contracts for the payment of Health Care Services, including for payment rates, incentives, and operating terms, with a Carrier or third-party administrator.

ii This may be due to decreased incentives to maintain or improve clinical quality as a result of facing fewer competitors.

iii The HPC defines a clinical affiliation in its Final MCN and CMIR Regulation, 958 CMR 7.02, as any relationship between a Provider or Provider Organization and another organization for the purpose of increasing the level of collaboration in the provision of Health Care Services, including, but not limited to, sharing of physician resources in Hospital or other ambulatory settings, co-branding, expedited transfers to advanced care settings, provision of inpatient consultation coverage or call coverage, enhanced electronic access and communication, co-located services, provision of capital for service site development, joint training programs, video technology to increase access to expert resources and sharing of hospitalists or intensivists.

As a result of these and other changes to the healthcare system over the last several decades, the majority of care in the Commonwealth is now provided by a relatively small number of large provider systems. In 2014, the five largest health systems in the state accounted for 56 percent of hospital discharges for commercially insured patients, an increase from 51 percent in 2012. Much of the growth over these years was driven by the acquisition of Winchester Hospital in 2014 by Lahey Health System, which was the subject of a CMIR. [iv, 9]

Nearly half of the transactions noticed to the HPC involved corporate affiliations, which included mergers and acquisitions of acute care hospitals, physician groups, rehabilitation providers, visiting nurse associations, and a payer. However, the HPC has also observed significant alignment of both hospitals and physicians through contracting and clinical affiliations, including through the formation of new contracting entities like ACOs.

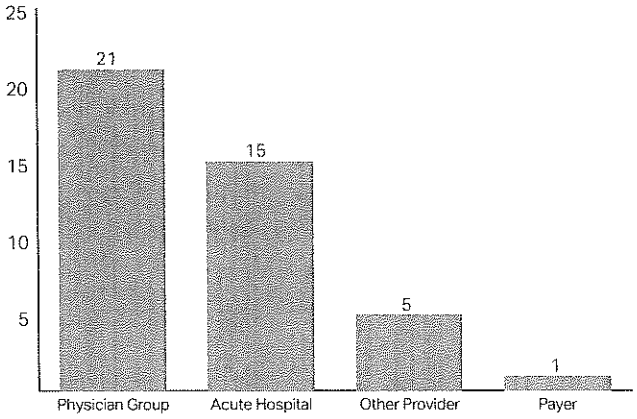
In past work, the HPC has highlighted the potential for contracting and clinical affiliations, as opposed to corporate integration, to facilitate coordination among providers while potentially raising fewer cost and market concerns than corporate acquisition.[9,10,11] However, others have suggested that non-corporate alignments can nonetheless raise cost or market concerns. For example, in analyzing new joint contracting among corporately distinct providers such as ACOs, antitrust agencies apply a very similar approach to that of their review of provider mergers, and the Federal Trade Commission (FTC) and U.S. Department of Justice (DOJ) have noted that "under certain conditions ACOs could reduce competition and harm consumers through higher prices or lower quality of care," similar concerns to those raised by corporate mergers.[12] Even clinical alignments, which have a significant potential to increase care coordination, can also raise market concerns when they serve to weaken providers' incentives to refer to more efficient providers.

As the market continues to explore these different models of clinical and contracting alignment, the HPC intends to examine whether and to what extent such models have truly succeeded in facilitating integration among providers, without negative impacts on cost and market functioning.

PHYSICIAN GROUP ACQUISITION AND AFFILIATION

Another significant trend, both in Massachusetts and nationally, is the rapid acquisition of physicians by hospitals and the transition from independent or affiliated physician practices to employment models. Many physician groups, even if they do not choose direct employment by hospitals, are joining the contracting networks of these primarily hospital-led integrated provider systems. As of December 2015, more than two-thirds of material changes involving new corporate or contracting affiliations have included physician groups (see **Exhibit 3.2**).

Exhibit 3.2: Frequency of providers involved in material change notices consisting of corporate or contracting affiliations



Source: HPC

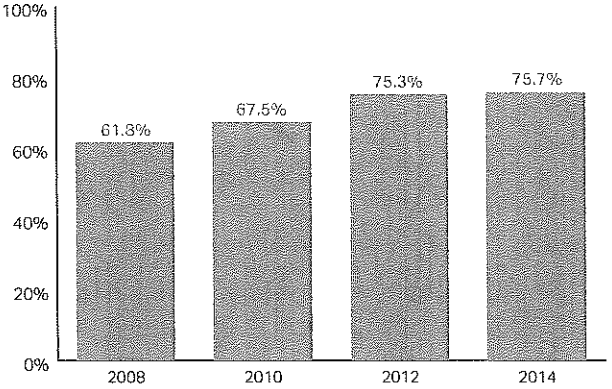
It is critically important to monitor this trend of increasing physician alignment with major hospital systems given the growing body of literature demonstrating that hospital system acquisitions of physician practices leads to higher physician and hospital prices.[13,14,15,16] Consistent with research literature, the HPC has found that hospital system acquisitions of physician practices can have a significant cost impact. For example, in the HPC's CMIR of Partners HealthCare System's (Partners) proposed acquisition of Harbor Medical Associates (Harbor), a previously independent 65-physician multispecialty group affiliated with South Shore Hospital, the HPC projected that healthcare spending would increase at least $8 million a year due to price increases for the Harbor physicians and would increase $6 million to $10 million a year due

iv Lahey's acquisition of Winchester Hospital accounted for three percentage points of the five percentage point increase, nearly doubling Lahey's share of discharges from 2013 to 2014, from four percent to seven percent. Comparable statistics in previous reports used projected data, updated here with validated data.

to changes in referral patterns.[v,11] Primary care physician (PCP) alignment with major hospital systems is particularly notable. PCP affiliations with hospitals have grown rapidly in recent years, and the vast majority of PCPs in Massachusetts are now associated with a relatively small number of provider systems. The share of PCPs affiliated with large provider systems grew from 62 percent in 2008 to 76 percent in 2014 (see **Exhibit 3.3**).[vi] In 2012, 75 percent of PCP visits were to PCPs affiliated with a large provider system, and these visits constituted nearly 79 percent of all revenue for PCP visits in the state (see **Exhibit 3.4**).

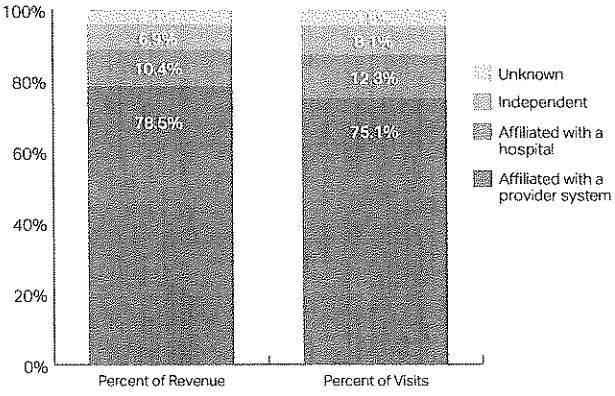
Acquisitions, mergers, contracting affiliations, and even clinical affiliations involving physician groups that have PCPs can have particularly profound implications on costs and market functioning. PCPs exercise significant control over where their patients receive further care, both because they are tasked with coordinating their patients' care under certain insurance models and because patients tend to follow the recommendations of their doctors.[17] Thus, the hospital or system affiliation of a patient's PCP will influence where that patient is referred for hospital services, and can play a bigger role in patient decisions about hospital care than cost, quality, or travel distance. In public statements about these affiliations, many providers discuss the need to better manage patients' use of services.[18,19,20] They assert that by establishing stronger relationships and encouraging referrals among a system's physicians, hospitals, and other types of providers, they can improve the quality and efficiency of patient care. However, integrated delivery systems have not uniformly been associated with improved quality or lower total medical spending for patients, and in some cases can in fact lead to higher spending.[21] Despite their potential benefits, these affiliations also frequently result in increases in physician referrals to those hospitals and to other providers within their system. In many cases, this can result in patients bypassing their closest provider to reach a (frequently more expensive) system-affiliated provider. One recent nationwide study found that physicians whose practices are owned by hospitals admit 70 percent or more of their patients needing hospital care to their affiliated hospital and that patients of hospital-employed physicians are substantially more likely (by 33 percent) to choose the hospital that owns the physician's practice as compared to patients of independent physicians. That study also found that physician ownership has a substantially greater influence on a patient's choice of hospital than the hospital's cost or quality.[22]

Exhibit 3.3: Percentage of primary care physicians affiliated with large provider systems, 2008 – 2014



Note: Reflects primary care physicians associated with Partners Community Health Care, Beth Israel Deaconess Care Organization, Steward Health Care Network, New England Quality Care Alliance, Atrius Health, UMass Memorial Health Care, Baycare Health Partners, and Lahey Health System.
Source: HPC analysis of data from Massachusetts Health Quality Partners

Exhibit 3.4: Percentage of primary care physician revenue and visits by affiliation status, 2012



Note: For the purposes of this analysis, major provider systems include Atrius Health, Baystate Health System, Beth Israel Deaconess Care Organization, Lahey Health System, New England Quality Care Alliance, Partners Community Health Care, Steward Health Care Network, and UMass Memorial Health Care. Primary care physicians affiliated with multiple systems are counted as being part of a major provider system.
Source: 2012 APCD claims for BCBS and HPHC, 2012 MHQP Master Provider Database

v These figures represent a significant proportion of the total spending increases that the HPC projected if Partners were to acquire both Harbor and South Shore Hospital. The HPC projected that the two transactions would increase spending for the three largest commercial payers by $23 million to $26 million per year. While Partners subsequently abandoned its bid to acquire South Shore Hospital, it did complete plans to acquire Harbor Medical Associates in March 2015.

vi The HPC's analysis of the Mass. Health Quality Partners Master Provider Database. Reflects PCPs associated with Partners Community Health Care, Beth Israel Deaconess Care Organization, Steward Health Care Network, New England Quality Care Alliance, Atrius Health, UMass Memorial Health Care, Baycare Health Partners, and Lahey Health System.

Furthermore, when a hospital acquires a physician practice, the hospital may decide to license the physician's office as a hospital outpatient department, which bills through the hospital.[11] This issue and its associated impact on healthcare spending are discussed in **Chapter 5: "Hospital Outpatient Spending."** In light of these and other concerns, it is particularly important for the HPC to continue to monitor the physician market to examine the impact of acquisition and affiliation of physician practices on healthcare costs and market functioning.[vii]

REFERENCES

1 Abraham JM, Gaynor M, Vogt WB. Entry and Competition in Local Hospital Markets. Journal of Industrial Economics. 2007; 55:265-88.

2 Rogowski J, Jain AK, Escarce JJ. Hospital competition, managed care, and mortality after hospitalization for medical conditions in California. Health services research. 2007; 42:682-705.

3 Encinosa WE, Bernard DM. Hospital finances and patient safety outcomes. INQUIRY: The Journal of Health Care Organization, Provision, and Financing. 2005; 42:60-72.

4 Gaynor M, Town R. The Synthesis Project: The Impact of Hospital Consolidation-Update. Robert Wood Johnson Foundation. 2012.

5 Haas-Wilson D, Garmon C. Hospital Mergers and Competitive Effects: Two Retrospective Analyses. International Journal of the Economics of Business. 2011; 18.

6 Tenn S. The Price Effects of Hospital Mergers: A Case Study of the Sutter-Summit Transaction. International Journal of the Economics of Business. 2011; 18.

7 Dafny L. Estimation and Identification of Merger Effects: An Application to Hospital Mergers. Journal of Law and Economics. 2009; 52.

8 Gaynor M, Vogt WB. Competition Among Hospitals. The RAND Journal of Economics. 2003; 34.

9 Health Policy Commission. Review of Lahey Health Systems's Proposed Acquisition of Winchester Hospital (HPC-CMR-2013-3). Pursuant to M.G.L. 6D § 13. Final Report. Boston, MA. 2014 Apr 16.

10 Health Policy Commission. Review of Partners HealthCare System's Proposed Acquisition of Halimark Health Corporation (HPC-CMR-2013-4), Pursuant to M.G.L. c. 6D, § 13, Final Report. Boston, MA. 2014 Sep 3.

11 Health Policy Commission. Review of Partners HealthCare System's Proposed Acquisition of South Shore Hospital (HPC-CMR-2013-1) and Harbor Medical Associates (HPC-CMR-2013-2), Pursuant to M.G.L. c.6D, § 13, Final Report. Boston, MA.2014 Feb 19.

12 Federal Trade Commission & U.S. Department of Justice. State of Antitrust Enforcement Policy Regarding Accountable Care Organizations Participating in the Medicare Shared Savings Program. 2011.

13 Neprash HT, Chernew ME, Hicks AL, Gibson T, McWilliams JM. Association of Financial Integration Between Physicians and Hospitals With Commercial Health Care Prices. JAMA internal medicine. 2015:1-8.

14 Baker LC, Bundorf MK, Royalty AB, Levin Z. Physician practice competition and prices paid by private insurers for office visits. JAMA. 2014; 312:1653-62.

15 Dunn A, Shapiro AH. Do Physicians Possess Market Power? Journal of Law and Economics. 2014; 57.

16 Robinson JC, Miller K. Total Expenditure per Patient in Hospital-Owned and Physician Organizations in California. JAMA. 2014; 312.

17 Chandra A, Cutler D, Song Z. Who Ordered That? The Economics of Treatment Choices in Medical Care. In: Pauly MV, Mcguire TG, Barros PP, editors. Handbook of Health Economics: Elsevier BV, 2012. p. 397-432.

18 Health Policy Commission. Steward HealthCare Systems LLC. Notice of Material Change to the Health Policy Commission, as Required under Mass. Gen. Laws ch. 6D, § 13. Boston, MA. 2013 May 24.

19 Health Policy Commission. New England Quality Care Alliance, Inc., Notice of Material Change to the Health Policy Commission, as Required under Mass. Gen. Laws ch. 6D, § 13. Boston, MA. 2013 Jul 22.

20 Health Policy Commission. Beth Israel Deaconess Medical Center. Notice of Material Change to the Health Policy Commission, as Required under Mass. Gen. Laws ch. 6D, § 13. Boston, MA. 2013 Jul 29.

21 Baker LC, Bundorf MK, Kessler DP. Vertical integration: hospital ownership of physician practices is associated with higher prices and spending. Health Affairs. 2014; 33:756-63.

22 Baker LC, Bundorf MK, Kessler DP. The Effect of Hospital/Physician Integration on Hospital Choice: National Bureau of Economic Research 2015.

vii State and federal antitrust agencies have shown significant recent interest in, and successful enforcement actions against, physician group acquisitions. The FTC issued a statement in 2011 recognizing that "consolidating with other . . . physician groups, entering into employment arrangements with hospitals, and forming other affiliations . . . may harm consumers through higher prices or lower quality of care." Statement of [FTC] Bureau of Competition Director Richard Feinstein on the Abandonment by Providence Health & Services of its Plan to Acquire Spokane Cardiology and Heart Clinics Northwest in Spokane, Washington [hereinafter FTC Statement], available at https://www.ftc.gov/sites/default/files/documents/closing_letters/providence-health-services/spokane-cardiology-and-hearts-clinic-northwest/110321providencestatement.pdf. Additionally, State attorneys general and the FTC recently successfully blocked acquisitions of physician practices in Idaho and Washington State. St. Alphonsus Med. Ctr. v. St. Luke's Health Sys., Ltd., 778 F.3d 775 (9th Cir. 2015) (affirming a lower court decision to block the acquisition of a physician multispecialty group practice by an integrated provider system based on the acquisition's likely anticompetitive effects; complaints were brought by the FTC and the Idaho Attorney General, as well as by competitor hospitals); see also FTC Statement (describing the investigation by the FTC and the WA Attorney General of the proposed acquisition of two cardiology practice groups by an integrated provider system, which the parties abandoned after the FTC expressed concerns about the acquisition's possible anticompetitive effects). However, the antitrust legal framework may not be as well suited to physician mergers as it is to hospital mergers. For example, antitrust review of mergers focuses in part on the overlap in service areas of the merging parties. Physicians in provider networks are often spread out over a large area, and it is harder to define their service area than that of a hospital. For this reason, it may be particularly important for the HPC to play a significant role in monitoring the functioning of the physician marketplace.

Prescription Drug Spending

After more than a decade of overall low pharmaceutical spending growth rates, dramatic jumps in spending in 2014 in both Massachusetts and the U.S.—driven in part by the high-profile introduction of new high-cost drugs for the Hepatitis C virus (HCV) — have focused attention on issues of drug prices and utilization, for new cutting-edge therapies as well as generic products. Pharmaceutical innovation has led to important advancements in patient longevity and quality of life. Manufacturers assert that high prices for new drugs reflect the costs of research and development, including research for products that fail to reach the market, and that high prices are necessary to support continued innovation. Further, some suggest that costs for preventative or curative treatments may lead to overall savings. However, with trends in Massachusetts largely mirroring national trends, drug spending has become an increasing concern for payers, providers—especially those engaging in new risk-based payment models —and patients facing out-of-pocket costs for medications. The impact of high-cost drugs on the state's healthcare cost growth benchmark has encouraged the Health Policy Commission (HPC) to closely examine the issue of pharmaceutical spending.

This chapter will describe current drug spending trends, factors influencing future trends, and issues for healthcare stakeholders to consider in addressing drug spending growth, including state-level policy considerations.

GROWTH IN DRUG SPENDING

In 2014, prescription drug spending in Massachusetts grew 13.4 percent per capita (14.1 percent total) over 2013 levels, increasing from about $6.4 billion in 2013 to about $7.3 billion in 2014. In the U.S. overall, prescription drug spending grew by an estimated 11.6 percent per capita (12.5 percent total) in 2014.[i] In both Massachusetts and the U.S. overall, the growth in 2014 represented a dramatic change from previous years of very low growth. In the commercial market, for example, between 2010 and 2013, prescription drug spending grew by less than one percent per year on average in Massachusetts and the U.S. (0.5 percent and -0.8 percent, respectively) (see **Chapter 2: "Overview of Spending Trends"**). Drug spending accounted for 13.5 percent of total healthcare expenditures (THCE) in 2014, which represents an increase of one percentage point compared to 2013.

This spending factored substantially in Massachusetts' performance against its benchmark for spending growth. The Center for Health Information and Analysis (CHIA) estimated that the growth in drug spending accounted for approximately one-third of THCE growth.

Importantly, estimates of drug spending do not reflect rebates and other discounts that occur after the initial acquisition price. According to a 2011 report from the Office of the Inspector General at the Department of Health and Human Services, Medicare Part D recoups about 19 percent of its spending on brand-name drugs through off-invoice discounts and rebates, while Medicaid programs recoup about 45 percent of their costs for brand-name drugs.[1] Rebate levels for MassHealth are higher than this national average. The value of rebate invoicing for the MassHealth Primary Care Clinician (PCC) and Fee-For-Service (FFS) plans was 50.1 percent of the pharmacy spending in FY 2015.[ii] (The Affordable Care Act (ACA) mandated that drug manufacturers must pay a minimum rebate of 23.1 percent to Medicaid programs). Rebates for private insurers vary widely. While exact rebate amounts are negotiated confidentially, estimates of typical rebates range from 20 to 30 percent, although rebates by drug can range from the single digits to more than half of gross sales.[2] Rebate amounts impact both the level and trend of spending. More data is needed on rebate amounts to produce more accurate estimates of total spending and growth.

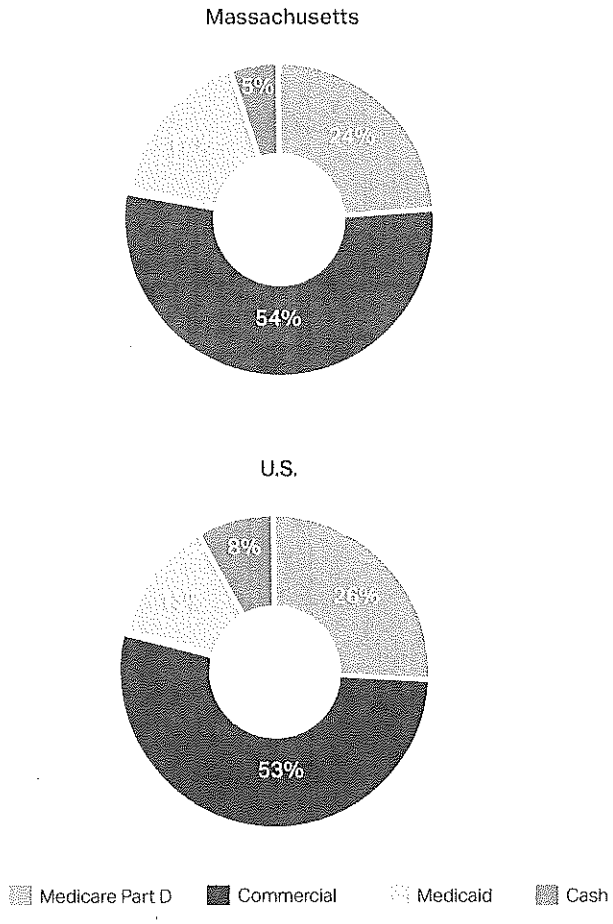
i Data from the Centers for Medicare and Medicaid Services' National Health Expenditures

ii Personal communication with MassHealth.

FACTORS IN 2014 DRUG SPENDING

To better understand Massachusetts-specific drug spending and utilization trends, the HPC obtained detailed state-specific data from national drug data vendor IMS Health Incorporated. The close similarity of spending trends between the Commonwealth and the U.S., as well as the national nature of many drug prices (see **Sidebar: "How drug prices are determined"**), suggest that factors driving U.S. spending trends have similarly shaped the trends in Massachusetts. Furthermore, Massachusetts has a similar payer-mix profile as the U.S., in terms of the distribution of retail prescriptions (see **Exhibit 4.1**).

Exhibit 4.1: Distribution of retail prescriptions in Massachusetts and the U.S., by payer, 2014



Source: IMS Health Incorporated

How drug prices are determined

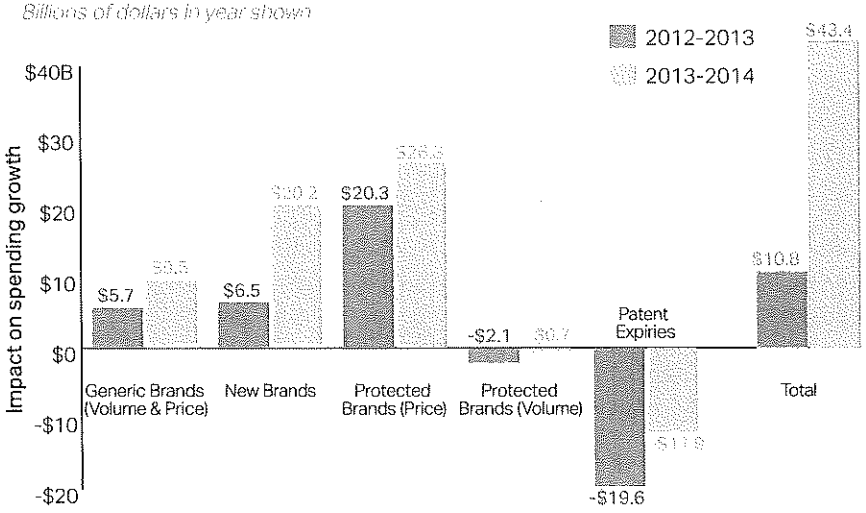
The amount an insurer will pay for a given drug is almost always determined by negotiations between a pharmacy benefit-management company (PBM), with which the insurer has contracted, and drug manufacturers.[3] PBMs manage drug benefits for many health plans, and act as the intermediary between insurers, manufacturers, and pharmacies. Each of the major PBMs, such as Express Scripts and CVS Caremark, has a national presence, typically thousands of affiliated insurers, and a single formulary (list of drugs covered). This greatly increases PBMs' purchasing power relative to any single state-level insurer and often results in larger discounts and rebates for each of its members.[4] Private payers can also negotiate directly with manufacturers for additional rebates or other concessions.

The Medicare program is prohibited by law from negotiating on behalf of all covered lives in the program. Medicare Part D plans may negotiate with manufacturers, but must do so individually. In contrast, the Department of Veterans Affairs negotiates with pharmaceutical companies on behalf of all covered lives, allowing it to secure relatively large discounts.[5] For Medicaid prices, federal law guarantees Medicaid "most-favored customer status," meaning that in exchange for all of a state's Medicaid plans covering a given drug, the drug's manufacturer must offer Medicaid at least the lowest price available to any other payer, including rebates. State Medicaid agencies can negotiate with manufacturers for additional discounts and rebates.

Prices for hospital-administered drugs are usually determined through negotiations between drug manufacturers and health systems, either in the form of Group Purchasing Organizations (GPOs) made up of multiple health systems, or an individual health system (usually one specializing in a particular field, such as oncology). GPOs also often handle negotiations for most other hospital supplies, such as surgical and medical equipment.[6] Hospitals or GPOs can also obtain drugs through negotiations with wholesale purchasers.[7]

Physician offices may purchase physician-administered drugs through PBMs, GPOs, wholesalers or specialty pharmacies that contract with insurers.[8] Medicare Part B typically reimburses physicians' offices at the rate of the drug's average sales prices (ASP) plus six percent; many private payers reimburse physicians similarly.[9]

Exhibit 4.2: Components of U.S. drug spending growth, 2013 – 2014
Billions of dollars in year shown



Source: "Medicine use and shifting costs of healthcare: A review of the use of medicines in the United States in 2014"; IMS Institute for Healthcare Informatics, 2015

Three main factors drove the high growth in drug spending in 2014: 1) the entry of new high-cost drugs, 2) price growth for existing drugs, and 3) a low level of patent expirations[10] (see **Exhibit 4.2**). Data from IMS show a 13 percent increase in U.S. total spending for pharmacy (prescription) and non-pharmacy (administered in a hospital or physician office) drugs. Total U.S. estimated drug spending increased by $43.4 billion, of which about $16 billion was offset by rebates on branded drugs on the market for at least two years (data not shown).[iii] Increases in spending were partially offset by reductions in spending due to patent expirations, which represented the lowest impact from patent expiration in the last five years.[10]

Sovaldi and other new drugs for HCV

Among the new drugs impacting spending in 2014, much attention has focused on the introduction of new Hepatitis C virus (HCV) therapies led by Gilead Sciences' Sovaldi, which became the nation's top-selling drug in 2014.[10] Introduced at the end of 2013, Sovaldi offered a significant advancement for people with HCV, with a high cure rate and substantially fewer toxic side effects and shorter treatment course than previously available options. However, Sovaldi entered the market with a list price of $84,000 per patient for a 12-week treatment, rivaling the high prices more typical of "orphan drugs" for rare diseases.[iv,11] The combination of high price and relatively high prevalence of HCV (3.2 million Americans were estimated to be infected in 2013[12]) resulted in Sovaldi earning over $10 billion in sales in 2014.[13] In Massachusetts, the introduction of Sovaldi and other new HCV drugs caused spending on HCV drugs (non-HIV antivirals) to rise from $96 million in 2013 to $436 million in 2014, more than a 350 percent increase (see **Exhibit 4.3**).

Comparative effectiveness analysis suggests that Sovaldi is very effective clinically, as well as cost-effective in the long-term relative to earlier HCV treatments. However, the drug's high short-term costs have resulted in some payers limiting access to Sovaldi through various medical necessity criteria, despite its major advancement in HCV treatment and potential to prevent downstream medical spending for some patients. The Institute for Clinical and Economic Research (ICER) (see **Sidebar: "Value-based price benchmarks and the Institute for Clinical and Economic Review"**) found that despite Sovaldi's "very-cost effective" performance at $20,000 per QALY (quality-adjusted life year) gained versus the previous standard of care, its long-term value does not translate into budgetary feasibility for payers. The determination of long-term cost-effectiveness is due to the potential for downstream savings: if a patient's HCV is cured by a regimen of Sovaldi, this prevents the need for repetitive, less effective treatments, such as repeated doses of interferon. For a small subset of patients, effective treatment will also prevent liver failure and the need for a liver transplant.

Any long-term cost-offsets could require as long as 20 years to manifest for payers.[14] In the meantime, Sovaldi's potential short-term budget impact was calculated to represent a per-member per-month premium increase of 5 percent, which is an increase at least five times higher than what ICER estimated state budgets can manage for individual new drugs without pushing up premiums at an unsustainable rate.[15]

iii This estimate is approximate and does not factor in rebates for new brands, defined as products launched in the last two years, or any additional discounts for generic drugs.

iv Orphan drugs are defined as treatment for diseases with less than 200,000 known cases. Orphan drugs are often high-priced agents; industry argues that due to low utilization, high-prices are necessary to recoup research costs.

Value-based price benchmarks and the Institute for Clinical and Economic Review (ICER)

ICER is a nonprofit organization dedicated to assessing the value of medical treatments. ICER's mission includes evaluating the clinical effectiveness, cost-effectiveness and potential budgetary impact of drugs and other treatments. For each drug, ICER seeks to determine a "value-based price benchmark" that takes into account how much better the drug is at improving patient outcomes over the long-term, tempered by thresholds at which additional new costs would contribute to growth in health care costs exceeding growth in the overall national economy. The value-based price benchmark represents a cost-effective price at which payers and providers would not be forced to limit the treatment's availability to patients.[16] Among its recent reports ICER has evaluated the value of Sovaldi, Harvoni and Viekira Pak for treating HCV[14], PCSK9 inhibitors for treating high LDL cholesterol, and Entresto for heart failure.[17] Reports expected in 2016 include new drugs for asthma, diabetes, multiple myeloma, multiple sclerosis, and lung cancer.

Several other groups are starting to examine the issue of "value" for new drugs. These include DrugAbacus at Memorial Sloan Kettering, the American Society of Clinical Oncology, the American College of Cardiology / American Heart Association, and the National Comprehensive Cancer Network, among others.

A number of commercial and MassHealth managed care organization (MCO) health plans reported that the introduction of HCV drugs contributed to significant financial losses in 2014, including Neighborhood Health Plan, Harvard Pilgrim Health Plan, Fallon Community Health Plan, Tufts Health Plan, and Blue Cross Blue Shield, among others.[18,19,20] For example, Blue Cross Blue Shield cited Sovaldi as a "key cause" of its higher-than-expected $118.8 million operating loss in 2014 as well as its net loss of $41.8 million in the first quarter of 2015.[21,22] Although payers carefully monitor the pipeline of drugs likely to enter the market, Sovaldi entered the market earlier than expected, due to receiving fast-track approval from the Food and Drug Administration (FDA) through the breakthrough therapy designation,[v] hindering insurers from accounting for the costs in their premiums.

Spending for new HCV drugs may have particularly impacted MassHealth in 2014, compared to other state Medicaid programs. MassHealth covered about 20 percent of all prescriptions for new HCV drugs in Massachusetts,[vi] while in the U.S. overall, Medicaid covered about 9 percent of new HCV patients in 2014.[vii,10] In addition to MassHealth's overall coverage expansion in 2014, MassHealth has among the most generous coverage policies for new HCV drugs compared to other state Medicaid programs. In line with consensus guidelines from the American Association for the Study of Liver Disease and the Infectious Diseases Society of America, MassHealth PCC / FFS did not restrict access through conditions for coverage, such as those related to progression of clinical symptoms or abstinence from substance use, although many other states did implement these restrictions in 2014.[23,24] In November 2015, the Centers for Medicare & Medicaid Services (CMS) sent a letter instructing state Medicaid programs to examine drug benefits in both fee-for-service and Medicaid managed care organization contracts to "ensure that limitations do not unreasonably restrict coverage of effective treatment" with these drugs.[25]

PBMs and payers employ a range of strategies in efforts to obtain lower prices, but competition remains an important factor in price negotiations. For example, Gilead increased rebate levels for Sovaldi as alternative HCV drugs became available. Before the release of AbbVie's Viekira Pak and Gilead's subsequent HCV drug, Harvoni, Sovaldi's estimated median discount for commercial payers was around 14 percent and discounts for Medicaid programs— above the required 23 percent— were minimal.[26,27] As competition increased, Gilead announced that discounts from list price for their HCV drugs would average 46 percent in 2015, and rebates would exceed 50 percent for certain Medicaid programs and the Department of Veteran Affairs.[28] Furthermore, in 2015, the PBM ExpressScripts removed Sovaldi from its formularies in favor of Viekira Pak,[29] and 25 state Medicaid agencies jointly negotiated for a discount on Viekira Pak in exchange for designating it the preferred option over Sovaldi.[viii] While Massachusetts is not among these states, MassHealth collected supplemental rebates on Harvoni and Viekira Pak in 2015 at a discount exceeding 50 percent. [ix]

v Section 902 of the Food and Drug Administration Safety and Innovation act gave the FDA power of expedited approval for breakthrough therapy drugs. The law defines a breakthrough therapy as 1) any drug or combination that 2) treats a serious or life-threatening disease and 3) preliminary evidence shows that drug demonstrates substantial improvement over existing therapies.

vi Data from IMS Health Incorporated.

vii Defined as new to prescriptions for Sovaldi, Harvoni, Incivek, Olysio, Victrelis, and Viekira Pak.

viii States and districts include: Alaska, Connecticut, Delaware, Florida, Idaho, Kentucky, Louisiana, Maryland, Michigan, Minnesota, Missouri, Montana, Nebraska, New Hampshire, New York, North Carolina, Pennsylvania, Rhode Island, South Carolina, Tennessee, Texas, Virginia, West Virginia, Wisconsin, and Washington D.C.

ix Personal communication with MassHealth.

INCREASES IN SPENDING IN OTHER DRUG CLASSES

While new HCV drugs had a clear impact on pharmaceutical spending, spending increased substantially across many drug classes in 2014. Including spending for both pharmacy and non-pharmacy drugs in Massachusetts, many of the top drug classes had double-digit spending increases year over year (see **Exhibit 4.3**). For oncology drugs, the therapy class for which spending is highest in Massachusetts and the U.S., spending in Massachusetts grew by 12.3 percent from 2013 to 2014 to almost $700 million in 2014. Insulin spending grew 19.8 percent in from 2013 to 2014, and more than doubled from 2011 to 2014, from $209 million to $433 million. Net of rebates and discounts, prices for branded drugs on the market for at least two years grew 5.5 percent from 2013 to 2014, less than the net 6.8 percent growth rate from 2012 to 2013.[30] However, while annual spending growth has been consistently high for many drug classes, total spending in earlier years was offset by decreases in other drug classes, due to factors including generic entry (the decrease in spending for cholesterol reducers following Lipitor's patent expiration in 2011 is one notable example).

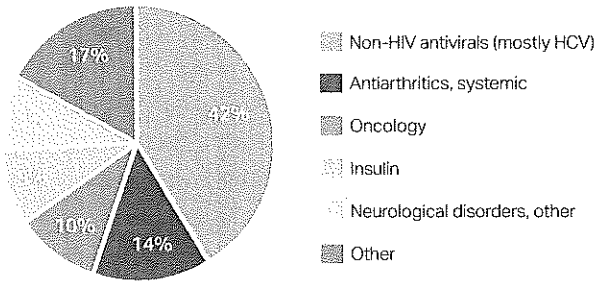
Exhibit 4.3: Massachusetts' top 20 drug-therapy classes by spending, with growth rates, 2010 – 2014

	Spending					Growth			
	2010	2011	2012	2013	2014	2010-2011	2011-2012	2012-2013	2013-2014
Oncology	$506.1	$520.3	$578.5	$620.0	$696.4	2.8%	11.2%	7.2%	12.3%
Antiarthritics, Systemic	$228.4	$264.1	$316.2	$390.6	$501.5	15.6%	19.7%	23.5%	28.4%
Non-HIV Antivirals (mostly HCV)	$64.4	$88.7	$107.2	$96.4	$436.0	37.7%	20.9%	-10.1%	352.3%
Insulin	$182.0	$209.3	$270.3	$361.4	$432.9	15.0%	29.1%	33.7%	19.8%
Antipsychotics	$499.7	$567.1	$405.9	$342.5	$355.4	13.5%	-28.4%	-15.6%	3.8%
HIV Antivirals	$227.0	$255.4	$301.4	$331.1	$348.0	12.5%	18.0%	9.9%	5.1%
Inhaled Steroids	$256.8	$277.8	$307.9	$345.1	$347.5	8.2%	10.8%	12.1%	0.7%
Immunomodulators	$128.9	$141.1	$171.3	$206.4	$269.9	9.5%	21.4%	20.5%	30.8%
GI Anti-Inflammatory	$164.4	$185.1	$300.7	$335.6	$257.6	12.6%	62.5%	11.6%	-23.2%
Analeptics	$177.1	$207.1	$243.1	$248.1	$243.4	16.9%	17.4%	2.1%	-1.9%
Neurological Disorders, Other	$77.3	$108.4	$134.6	$171.0	$239.3	40.2%	24.2%	27.0%	39.9%
Cholesterol Reducers	$312.6	$340.1	$262.2	$225.5	$223.1	8.8%	-22.9%	-14.0%	-1.1%
Bronchodilators	$166.5	$187.3	$219.3	$221.1	$207.2	12.5%	17.1%	0.8%	-6.3%
Anticoagulants	$274.4	$260.8	$215.2	$172.0	$178.5	-5.0%	-17.5%	-20.1%	3.8%
Analgesic Narcotics	$133.0	$139.0	$151.2	$163.4	$168.2	4.5%	8.8%	8.1%	2.9%
Specific Antagonists	$88.2	$111.3	$142.2	$152.6	$160.0	26.2%	27.8%	7.3%	4.8%
Antidepressants	$249.0	$230.0	$200.2	$216.3	$157.6	-7.6%	-13.0%	8.0%	-27.1%
Hematinics	$216.2	$182.6	$160.1	$155.6	$153.0	-15.5%	-12.3%	-2.8%	-1.7%
Non-Insulin Diabetes	$141.4	$142.0	$133.9	$128.2	$149.9	0.4%	-5.7%	-4.3%	16.9%
Seizure Disorders	$113.2	$118.0	$115.3	$136.0	$148.9	4.2%	-2.3%	18.0%	9.5%

Source: IMS Health Incorporated

The HPC analyzed the top drug-therapy classes contributing to Massachusetts' drug spending growth in 2014, based on IMS data that includes spending for both pharmacy and non-pharmacy drugs. In 2014, 42 percent of total drug spending growth was due to growth in antivirals (mostly HCV drugs), with spending growth in anti-arthritics, oncology, insulin, and neurological disorder therapies also representing particularly high contributions (See **Exhibit 4.4**).

Exhibit 4.4: Top therapy classes by contribution to 2014 drug spending growth in Massachusetts



Note: Spending includes drugs provided in both pharmacy (prescription) and non-pharmacy (hospital and physician office) settings. IMS estimates are not directly comparable to Center for Health Information and Analysis methodology; top contributions may represent upper bound estimates.
Source: IMS Health Incorporated

In addition to spending on new and branded drugs, price increases among generic drugs are also a factor in rising drug spending. Payers in Massachusetts have highlighted this issue. During the 2015 Cost Trends Hearing, Harvard Pilgrim Health Care leadership noted the price for some generics have doubled or tripled in recent years, leading the insurer to place some generics on higher tiers. Factors cited for generic price increases include manufacturing difficulties, an FDA backlog in generic drug approvals, unexpected increases in demand, and manufacturer consolidation, as well as accusations of collusion among generic drug manufacturers.[31-35] One example of generic price increases includes prices for Narcan (Naloxone), used to reverse the effects of opiate overdose. Generic Narcan has risen in price by 50 percent or more in some cases as providers have increased the focus on use of the drug in the effort to counter the opioid-addition epidemic.[36] In August 2015, Massachusetts Attorney General Maura Healey negotiated with manufacturer Amphastar Pharmaceuticals to secure a deal to lower the drug's price for municipalities in Massachusetts. A full understanding of drug spending trends will require ongoing analysis of prices both for branded drugs and generics.

CONSUMER IMPACT

The prices of high-cost drugs impact affordability for patients. Cost-sharing for a specialty-tier[x] drug under Medicare Part D is usually between 25 and 33 percent of the drug's negotiated price.[37] In 2013, 23 percent of commercial plans had a specialty tier of cost-sharing.[38] All plans sold on ACA exchanges have specialty tiers, with the average bronze plan offering 34 percent cost-sharing for these drugs. While patient liability is limited through ACA out-of-pocket maximums, these limits still represent a substantial financial burden for many patients.[xi] Furthermore, even covered drug costs ultimately impact all consumers through the inclusion of these costs in insurance premiums.

The high cost of drugs may be galvanizing public support for government intervention in drug pricing: an April 2015 Kaiser Family Foundation poll found that 60 percent of Americans thought that action to lower drug prices should be a "top priority" for the federal government.[39] Furthermore, a November 2015 poll conducted by the Harvard T.H. Chan School of Public Health found that 69 percent of Americans favor the Medicare program negotiating with drug companies to lower the prices of prescription drugs for seniors, with high approval among both Republicans (67 percent) and Democrats (77 percent).[40]

TRENDS IN MARKET COMPOSITION

The relatively high growth rate for high-cost drugs over time supports the need for continued focus on the issue of drug spending. Spending on specialty drugs—typically defined by prices over $6,000[xii]—has increased at a faster rate than traditional drugs. In Massachusetts, between 2010 and 2014, spending on specialty drugs grew by 67 percent, compared with 16 percent among traditional drugs, leading specialty drugs to grow from 26 percent of all drug spending in Massachusetts in 2010 to 34 percent in 2014, consistent with national trends.

An estimated 40 percent of drugs under development in April 2014 were considered to fall into the specialty

x Medicare Part D sponsors to designate drugs in specialty tier when the dollar-per-month costs exceeds the threshold established by CMS in the annual call letter ($600 in 2014) and when the majority of prescription drug events exceeds the dollar threshold. https://www.cms.gov/Medicare/Prescription-Drug-Coverage/PrescriptionDrugCovGenIn/Downloads/CY-2016-Specialty-Tier-Methodology.pdf

xi The maximum out-of-pocket limit for an exchange plan in 2016 is $6,850 for an individual plan and $13,700 for a family plan.

xii Specialty therapies are defined by IMS Health as products that are often injectable, high-cost, biologics or require cold-chain distribution.

category, with some estimates suggesting that spending on these drugs may quadruple by 2020.[41,42]

Trends in biological drugs (biologics) also merit particular attention. These drugs are comprised of or manufactured in biological sources, rather than solely the chemical compounds that make up traditional small molecule drugs. Most biologics are considered specialty drugs due to their typically high prices. In Massachusetts, spending on biologics grew 56 percent from 2010 to 2014, representing 28 percent of all drug spending in 2014, up from 23 percent in 2010. These drugs have distinct issues for generic competition that impact traditional spending patterns. In 1984, the Hatch-Waxman Act provided the FDA with the ability to approve generic versions of small molecule drugs when they exhibit equivalency and interchangeability properties, but biologics were not included. However, the ACA included FDA authorization to approval biosimilars for biological drugs by testing bioequivalency and determining interchangeability. The FDA's first biosimilar approval (Zarxio) only found bioequivalency, but did not determine interchangeability, which means that it cannot be automatically substituted for the branded product, as with traditional drugs. While the biosimilar market may be beginning to form, the extent to which this market will bring down prices similar to traditional generic markets is highly uncertain.

EXPECTATIONS FOR FUTURE SPENDING

While 2014 had unique factors for spending, many trends strongly suggest that large increases in drug spending will continue, in the absence of policy changes. Expensive and complex products—specialty and biologic drugs— have been gaining in their share of all drug spending. While increases in prices and spending on new products have long been offset by expiring patents, the complex market for biologics is unlikely to exactly mirror traditional levels of substitution with lower-cost generic products, as described above.

Furthermore, the phenomenon seen with the new HCV drugs—high per-patient "orphan drug" cost for a large base of potential patients—is likely to be replicated with new, innovative entrants. In particular, the next such entrants are in the PSCK9 inhibitor drug class to treat high cholesterol; the first two PSCK9 products gained FDA approval in summer 2015. Sanofi & Regeneron's joint entrant, Praluent, and Amgen's Repatha, launched with list prices of $14,600 and $14,100 a year, respectively.[43] As a point of comparison, the list price for the brand-name statin Crestor is approximately $3,000 a year.[44] While the FDA approved the two PSCK9 inhibitors only for patients with high cholesterol who are resistant to statins and other traditional therapies, off-label prescribing practices may capture additional populations. As with the new HCV therapies, the effect of competition on pricing and rebates will be important as additional drugs in the class enter the market.

Given these factors, high drug spending growth is likely to continue. Data from the first three quarters of 2015 shows drug spending increased of over 8 percent in the U.S. relative to the same time period in 2014.[xiii] The Centers for Medicare and Medicaid Services (CMS) estimates annual high single digit spending growth over the next decade.[45]

POLICY CONSIDERATIONS

Rapid growth in drug spending has led to increased pressure to slow that growth. State and federal governments along with payers and other stakeholders have considered a number of options and initiatives highlighted below.

Value-based price benchmarks

With a grant received in July 2015, ICER plans to review 15 to 20 new high-impact drugs nearing FDA approval over the next two years. Their review will evaluate comparative clinical effectiveness, potential budget impact, and a "value-based price benchmark." The price benchmark begins with calculating a sustainable price that reflects the long-term comparative clinical and cost-effectiveness of the drug; the benchmark price also reflects the potential budget impact, including any expected offsets in decreased medical spending over a five year time horizon as a result of the drug's use. Examples from health care and other industries suggest that the public availability of target prices can influence individual price negotiations, such as the influence of Medicare pricing on commercial payment levels. Media reports suggest that ICER's work is drawing interest and support from insurers.[46]

Risk-based contracting

In addition to traditional management tools, some payers have considered value in coverage through developing risk-based contracting with drug manufacturers, such as price-volume or performance-based models. While these agreements may be more complex to administer compared to supplemental rebate strategies, numerous examples of

xiii 8.4 percent growth in prescription-drug spending in the U.S. from September 2014 to September 2015.

such arrangements have been implemented to date in Canada, Europe, and the U.S. For example, CIGNA reached agreements with manufacturers to receive reimbursement for the cost of treating a heart attack that occurred while patients were taking lipid-lowering drugs, and Merck agreed to refund costs for a particular drug for patients whose symptoms did not improve within six months.[47] Harvard Pilgrim announced a deal in November 2015 with Amgen for a performance-based rebate model, in which the insurer will receive rebates on Repatha, a new PCSK9 drug, if the drug fails to meet certain performance targets.[48] Price-volume agreements, in which manufacturers reduce prices or increase rebates for utilization above a set volume, could be particularly valuable for drugs with high potential for off-label use, such as PCSK9s.

Academic detailing for high-impact choices

In FY2009, the Massachusetts state budget authorized the Department of Public Health to start and operate an academic detailing program, an evidence-based outreach and education program designed to provide information and education on the therapeutic and cost-effective utilization of prescription drugs to physicians, pharmacists and other health care professionals (although the state has funded the program only sporadically since its inception). Provider organizations can analyze data to identify providers who have outlier prescribing patterns, and use this model for targeted provider education. Academic detailing can be particularly valuable in cases of high-impact drugs such as those with a high cost, high risk of addiction, or potential for over-prescribing (e.g., antipsychotics for adolescents).

Clinical protocols and guidelines

Particularly for high-cost drugs, it can be valuable for payers and providers to develop consensus-based treatment protocols and guidelines for both appropriate use of new products, as well as appropriate use of lower-cost drugs when available. Important considerations for guidelines include efficacy and value, as well as ensuring patient access to necessary therapies. Alignment and education between specialty societies, payers, and providers are important for these efforts.

State-level strategies

While many issues in drug pricing require action from the federal government—such as allowing Medicare to negotiate prescription drug prices— state-level policies that can affect price and utilization in addition to APMs should be considered in the Commonwealth.[xiv] Furthermore, as the increase in drug spending in 2014 was a major contributor to the state's first failure to meet the benchmark, the HPC must consider questions of how to factor spending on new technology in general, and drugs in particular, in considering performance against the benchmark, as well as how this spending should factor in payer and provider accountability for total spending.

Group purchasing options

Multiple examples and options exist for purchasing models where groups jointly negotiate for higher rebates or lower pricing, as well as achieve administrative savings.[49] While MassHealth has demonstrated the ability to negotiate high rebates generally, other states have different models, and it is important for the Commonwealth to continue to review best practices and identify opportunities to maximize value in spending.

For example, Massachusetts is one of 31 states that participates in a single-state supplemental Medicaid rebate agreement, and Massachusetts does not participate in any multi-state supplemental rebate agreement (27 states participate as of June, 2015).[50] However, it is not clear which agreement types may achieve the highest savings. Another model serving (non-Medicaid) government purchasers in 47 states, the Minnesota Multistate Contracting Alliance for Pharmacy, reports average savings of about 24 percent below average wholesale price (AWP) for branded drugs and 65 percent AWP for generic drugs, in addition to administrative savings.[49]

Other models focus on achieving additional rebates on top of those rebates required by law or negotiated through PBMs. Many supplemental rebate arrangements between manufacturers and purchasers involve preferred drug lists in exchange for larger discounts, such as the recent example of 25 state Medicaid programs forming a group purchasing agreement for HCV drugs. Furthermore, some models aim to extend discounts to all state payers. For example, legislatures in California and Ohio are currently considering bills to require state agencies to negotiate drug prices that are no higher than those negotiated by the Department of

xiv Several bills have been proposed by Massachusetts legislators to limit the impact of drug price increases on consumers, including reimbursing government retirees for high drug prices (sponsored by Representatives Alan Silvia and Michael Rodrigues), establishing a statewide discount program for pharmaceuticals by creating a PDP through which the Commonwealth can purchase drugs (sponsored by Rep. John Scibak), capping the costs of certain generic drugs (sponsored by Rep. Paul Heroux), and requiring drug manufacturers to provide the methodology behind their pricing and potentially capping the prices of certain drugs (sponsored by Senator Mark Montigny).

Veterans Affairs. More research is needed on best practices for group purchasing models and potential for savings impact under different models.

Rebate data and other transparency efforts

Collecting and incorporating drug-rebate information is crucial for accuracy in tracking drug spending. Collection strategies should consider the confidentiality of net pricing agreements in their design. CHIA may already have the authority necessary to collect information on aggregate rebates and other discounts from payers; collection of this information, and calculating net spending amounts for drugs would be extremely valuable for the Commonwealth.

Furthermore, increasing transparency regarding manufacturer methodology for setting prices for specific drugs (with respect to costs to develop and distribute) may support efforts for value-based pricing, either by manufacturers setting the initial price or in subsequent price negotiations.

Considerations for the benchmark and alternative payment methods

The benchmark for total health care expenditures in Chapter 224 includes all services and all payers, in recognition of the holistic nature of health care and healthcare markets, and anticipates that the spending growth rate would include higher spending for new innovative therapies as well as lower spending in other areas due to improvements in efficiency. The impact on the benchmark from high-cost high-value product entrants will be a recurring issue: Sovaldi and other high-cost HCV drugs impacted the benchmark in 2014, and we can expect to see new high-cost drugs, devices, and other technologies in later years as well. Including broad elements of health care spending in the benchmark maintains pressure to create responsible and innovative strategies to contain costs, with ongoing attention to access and quality. Although many aspects of drug spending are outside the direct control of payers and providers— given that drug prices are largely determined under a national framework and medically necessary access must be preserved— consistent with the approach of Chapter 224, payers and providers do have opportunities to affect spending and utilization, through price negotiation, purchasing, establishing appropriate clinical guidelines and other strategies. Furthermore, new technologies may potentially result in savings.

Given that new innovative therapies may affect different market segments differently, it is essential for policy-makers to consider context when assessing the performance of an individual entity and the contribution of that entity to health care spending.

The same context is relevant for provider risk contracts. Risk-adjustment and other contractual elements designed to address actuarial risk may not adequately address the impact of high-cost drugs and technologies entering the market. Where feasible, risk-based contracts should account for expected spending for clinically appropriate drugs, and should be adjusted retroactively to account for fast-tracked technology that could not be expected in advance, particularly accounting for relevant differences in patient panels. In summary, policy must continue to be examined to ensure that incentives and approaches adapt as new technologies continue to change the medical landscape.

REFERENCES

1 Office of the Inspector General Department of Health and Human Services. Higher rebates for brand-name drugs result in lower costs for Medicaid compared to Medicare Part D. Office of the Inspector General Department of Health and Human Services. 2011.

2 Harper M. Inside The Secret World Of Drug Company Rebates. Forbes [Internet]. 2012.

3 Government Accountability Office. An Overview of Approaches to Negotiate Drug Prices Used by Other Countries and U.S. Private Payers and Federal Programs. 2007.

4 Trefis. CVS Might Have Tougher Times Ahead As Competition In The PBM Market Heats Up. Forbes. 2015 Mar 02.

5 Bloomberg View. For Medicare Savings, Send a Negotiator to the Pharmacy: View. New York, NY: Bloomberg View; 6 Sep 2011.

6 American Society of Health System Pharmacists. ASHP Guidelines on Medication Cost Management. Strategies for Hospitals and Health Systems. https://www.ashp.org/DocLibrary/BestPractices/MgmtGdlCostManag.aspx: American Society of Health-System Pharmacists.

7 Avalere Health. Group Purchasing Organizations (GPOs) Work to Maintain Access to Product Supply for America's Health Care Providers. http://cy.mcdn.com/sites/www.supplychainassociation.org/resource/resmgr/GPO_Drug_Shortage_Paper.pdf: Healthcare Supply Chain Association, Avalere Health.

8 Medicare Payment Advisory Commission. Three studies on physician-administered drugs. http://67.59.137.244/documents/Aug03_DrugRptsSummary.pdf: Medicare Payment Advisory Commission; 2003.

9 Glied S, Hanlinger K. ASPE Issue Brief: Medicare Part B Reimbursement of Prescription Drugs: Office of the Assistant Secretary for Planning and Evaluation June 2014.

10 IMS Institute for Healthcare Informatics. Medicine use and shifting costs of healthcare: A review of the use of medicines in the United States in 2014. IMS Institute for Healthcare Informatics. 2015.

11 Dayal McCluskey P. Federal health reform, drug costs drive losses for Mass. insurers. Boston Globe. 2015 Feb 27.

12 Holmberg SD, Spradling PR, Moorman AC, Denniston MM. Hepatitis C in the United States. N Engl J Med. 2013; 368:1859-61.

13 Pollack A. Sales of Sovaldi, New Gilead Hepatitis C Drug, Soar to $10.3 Billion. New York Times. 3 Feb 2015.

14 California Technology Assessment Forum. The Comparative Clinical Effectiveness and Value of Simeprevir and Sofosbuvir in the Treatment of Chronic Hepatitis C Infection. California Technology Assessment Forum. 15 Apr 2014.

15 Tice JA, Ollendorf DA, Chahal HS, Kahn JG, Marseille E, Weissberg J, et al. The Comparative Clinical Effectiveness and Value of Novel Combination Therapies for the Treatment of Patients with Genotype 1 Chronic Hepatitis C Infection. California Technology Assessment Forum. 2015.

16 Institute for Clinical and Economic Review. ICER Announces Initial List of Topics for 2016 New Drug Reports on Effectiveness, Value, and Value-Based Price Benchmarks. Institute for Clinical and Economic Review. 19 Nov 2015.

17 Comparative Effectiveness Public Advisory Council. PCSK9 Inhibitors for Treatment of High Cholesterol: Effectiveness, Value, and Value-Based Price Benchmarks. Comparative Effectiveness Public Advisory Council. 24 Nov 2015.

18 Bartlett J. MassHealth insurers look to state, other markets to solve operating losses. Boston Business Journal. 2014 Aug 20.

19 Fallon Health. Fallon Health reports 2014 financial results. Fallon Health. http://www.fchp.org/news/press-releases/2015/year-end-financials.aspx2015.

20 Weisman R. Tufts Health Plan posts second-quarter operating loss. Boston Globe. 2014 Aug 13.

21 Blue Cross Blue Shield of Massachusetts. Blue Cross Blue Shield of Massachusetts Announces 2014 Financial Results. Blue Cross Blue Shield of Massachusetts. 27 Feb 2015; Available from: https://www.bluecrossma.com/visitor/newsroom/press-releases/2015/2015-02-27.html.

22 Blue Cross Blue Shield of Massachusetts. Blue Cross Blue Shield of Massachusetts Announces First Quarter 2015 Financial Results. Blue Cross Blue Shield of Massachusetts; 2015. https://www.bluecrossma.com/visitor/newsroom/press-releases/2015/2015-05-15.html.

23 Barua S, Greenwald R, Grebely J, Dore GJ, Swan T, Taylor LE. Restrictions for Medicaid Reimbursement of Sofosbuvir for the Treatment of Hepatitis C Virus Infection in the United States. Ann Intern Med. 2015; 163:215-23.

24 Graham CSG, Robert; Lenz, Kimberly. Understanding the Reimbursement, Environment in Hepatitis C. Center for Health Law and Policy Innovation, Harvard Law School. 2015.

25 Center for Medicare & Medicaid Services. Assuring Medicaid Beneficiaries Access to Hepatitis C (HCV) Drugs. Baltimore, MD: Center for Medicare & Medicaid Services; 5 Nov 2015.

26 Alonso-Zaldivar R. Insurers choke on price of new hepatitis C-curing pill. Associated Press. 2014 Jun 17.

27 National Association of Medicaid Directors. Letter to Congress: http://dphullino.s.gov/sites/default/files/11-12-14%20NAMD%20Sovaldi%20letter%20to%20Congress%2010-28-14.pdf: National Association of Medicaid Directors.

28 Pollack A. Sales of Sovaldi, New Gilead Hepatitis C Drug, Soar to $10.3 Billion. The New York Times. 3 Feb 2015.

29 Hunnel C. Express Scripts drops Gilead hep C drugs for cheaper AbbVie rival. Reuters. 2014 Dec 22.

30 IMS Institute for Healthcare Informatics. Branded medicine price increases and the impact of off-invoice discounts and rebates. IMS Institute for Healthcare Informatics; 2015.

31 Elsevier. The Impact of Rising Generic Drug Prices on the U.S. Drug Supply Chain. Elsevier Clinical Solutions 2015. http://www.ncpa.co/pdf/elsevier_wp_genericdrug.pdf.

32 Trefis. Why Are Generic Drug Prices Shooting Up? Forbes. 2015 Feb 27.

33 Rosenthal E. Rapid Price Increases for Some Generic Drugs Catch Users by Surprise. The New York Times. 2014 Jul 08.

34 Silvennan E. Generic Drug Prices Keep Rising, but is a Slowdown Coming? Wall Street Journal. 2015 Apr 22.

35 Rosenthal E. Officials Question the Rising Costs of Generic Drugs. The New York Times. 2014 Oct 07.

36 Goodman JD. Naloxone, a Drug to Stop Heroin Deaths, Is More Costly, the Police Say. The New York Times. 2014 Nov 30.

37 Medicare Payment Advisory Commission. Status report on Part D. http://www.medpac.gov/documents/reports/chapter-14-status-report-on-part-d-(march-2015-report).pdf?sfvrsn=0: Medicare Payment Advisory Commission 2015.

38 HealthAffairs. Specialty Pharmaceuticals. HealthAffairs. http://www.healthaffairs.org/healthpolicybriefs/brief.php?brief_id=103: HealthAffairs; 2013.

39 DuJulio B, Kaiser Health Tracking Poll: April 2015. http://kff.org/health-costs/poll-finding/kaiser-health-tracking-poll-april-2015/: Kaiser Family Foundation; 2015.

40 STAT & Harvard T.H. Chan School of Public Health. The Controversy Over Rising Drug Prices: The Public's Views. Boston, MA: STAT & Harvard T.H. Chan School of Public Health; Nov 2015: Available from: https://cdn1.sph.harvard.edu/wp-content/uploads/sites/94/2015/11/STAT-Harvard-Poll-Nov-2015-Controversy-Over-Rising-Drug-Prices.pdf.

41 IMS Institute for Healthcare Informatics. Global Outlook for Medicines Through 2018. IMS Institute for Healthcare Informatics 2014.

42 UnitedHealth Center for Health Reform & Modernization. The Growth of Specialty Pharmacy: Current trends and future opportunities. Minnetonka, MN: UnitedHealth Group; Apr 2014: Available from: http://www.unitedhealthgroup.com/~/media/uhg/pdf/2014/uhn-the-growth-of-specialty-pharmacy.ashx.

43 Tice JA. PCSK9 Inhibitors for Treatment of High Cholesterol: Effectiveness, Value, and Value-Based Price Benchmarks. Institute for Clinical and Economic Review 2015. http://icepa.cicer-review.org/wp-content/uploads/2015/01/PCSK9_Draft_Report_0908151.pdf.

44 Pollack A. New Drug Sharply Lowers Cholesterol, but It's Costly. The New York Times. 2015 Jul 24.

45 Altarum Institute. Health Sector Economic Indicators. [Internet] Ann Arbor, MI: Altarum Institute; 12 Nov 2015; Available from: http://altarum.org/sites/default/files/uploaded-related-files/CSHS-Spending-Brief_November_2015.pdf.

46 Weisman R. Boston watchdog takes aim at rising drug prices. Boston Globe. 2015 Sep 14.

47 Adamski J, Godman B, Ofierska-Sujkowska G, Osinska B, Herholz H, Wandykowska K, et al. Risk sharing arrangements for pharmaceuticals: potential considerations and recommendations for European payers. BMC Health Serv Res. 2010; 10:153.

48 Weisman R. Harvard Pilgrim strikes 'pay-for-performance' deal for cholesterol drug. Boston Globe. 2015 Nov 06.

49 National Conference of State Legislatures. Pharmaceutical Bulk Purchasing: Multi-state and Inter-agency Plans. Washington, DC: National Conference of State Legislatures; Jan 2015; Available from: http://www.ncsl.org/research/health/bulk-purchasing-of-prescription-drugs.aspx.

50 Medicaid.gov. Medicaid Pharmacy Supplemental Rebate Agreements (SRA) As of June 2015. Medicaid.gov; 2015. http://www.medicaid.gov/medicaid-chip-program-information/by-topics/benefits/prescription-drugs/downloads/xxxsupplemental-rebates-chart-current-qtr.pdf.

Hospital Outpatient Spending

Hospital outpatient departments provide a range of clinical services, from the simple to the complex, including emergency department (ED) visits, surgeries, imaging, and regular doctor visits. Many outpatient services can be performed in multiple settings:, including more intensive inpatient settings and less expensive non-hospital settings, such as a physician's office or freestanding facility (such as an ambulatory surgical center (ASC) or freestanding laboratory or radiology center).

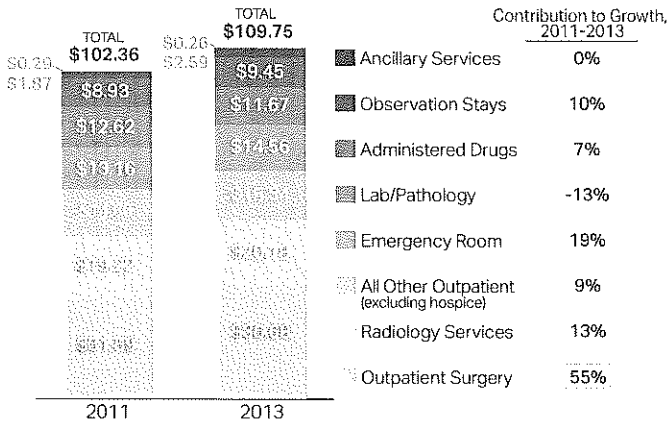
Outpatient spending has grown rapidly in Massachusetts in recent years, increasing an average 6 percent a year in the Medicare population and an average 3 percent a year in the commercial population between 2010 and 2014. In 2014, outpatient spending represented 15 percent of Medicare spending and 24 percent of commercial spending. Given the high annual growth in hospital outpatient spending, the HPC examined trends driving spending in this category of service.

HOSPITAL OUTPATIENT SPENDING IN MASSACHUSETTS

Compared to the U.S. overall, Massachusetts residents have higher utilization of outpatient services. In 2013, hospital outpatient utilization in Massachusetts outpaced the U.S. average. Data show 2013 per-capita ED visits and non-ED outpatient visits were higher than the U.S. average by 14 percent and 54 percent, respectively.[i] While Massachusetts Medicare fee-for-service (FFS) beneficiaries spent $400 more annually per beneficiary on hospital outpatient care than the U.S. average in 2014 (see **Chapter 2: "Overview of Spending Trends"**), annual spending growth appears similar. Between 2010 and 2014, Medicare outpatient spending grew 5.8 percent a year in Massachusetts and 5.7 percent a year in the U.S.

Outpatient spending consists of multiple types of services, which have grown at different rates (see **Exhibit 5.1**). For commercially insured patients, outpatient surgery, in which the patient typically requires hospital care for less than 24 hours, represented one-third of outpatient spending per member per month (PMPM) in 2013. Spending PMPM in outpatient surgery grew by 13 percent from 2011 to 2013, with growth in outpatient surgery accounting for more than half (55 percent) of total hospital outpatient spending growth between those years.

Exhibit 5.1: Commercial spending per member per month in Massachusetts by outpatient service category, 2011–2013
Per member per month spending



Source: HPC analysis of Massachusetts All-Payer Claims Database, 2011-2013

FACTORS CONTRIBUTING TO SPENDING GROWTH

The level and growth of hospital outpatient spending are driven by a number of factors. Some services have shifted from inpatient to hospital outpatient, while others have shifted from non-hospital settings—such as a physician office, ambulatory surgical center, or other freestanding facility— to hospital outpatient (see **Exhibit 5.2**). Technological innovation has facilitated a shift from inpatient to outpatient procedures and also increased overall use of these outpatient procedures. For example, surgical procedures have become easier to deliver in an outpatient setting due to advances in technology, such as innovation

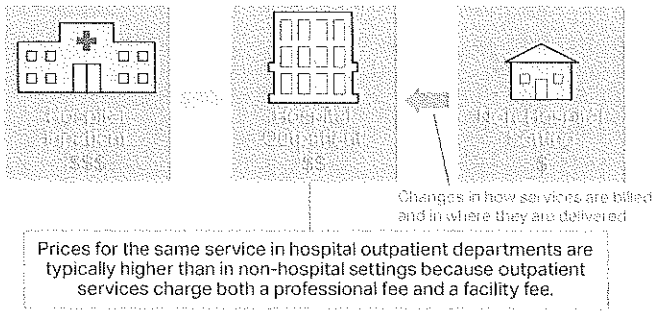
i Kaiser Family Foundation State Indicators

in minimally invasive procedures, better anesthesia, and more effective therapies to manage pain at home.[1] With surgical innovations allowing patients to have same-day surgeries and shorter recovery times, patient use of outpatient surgeries has surged overall, reflecting a shift from inpatient to outpatient procedures, but also an increase in total volume.[2] Shifting care from inpatient to outpatient settings may reduce health care spending if care is moved to a less costly setting. However, other factors could offset savings, such as increases in total volume or price increases.

Volume has also shifted for a number of services from non-hospital settings to hospital outpatient. Factors in this shift include market consolidation, including hospitals acquiring physician groups and licensing them as satellite outpatient departments. In these cases, the physician office bills through the hospital as an outpatient department.

Shifts in setting of care from non-hospital settings to hospital outpatient can increase costs, because prices for the same service in hospital outpatient departments— with both a professional fee and a facility fee—are typically higher than in non-hospital settings (see **Sidebar: "Hospital outpatient prices"**).

Exhibit 5.2: Shifts in settings to hospital outpatient departments



Hospital outpatient prices

In the Medicare payment system, payments for services provided in a hospital outpatient department have two components: a professional fee and a facility fee. This facility fee is intended to reflect the overhead costs associated with a hospital outpatient department (e.g., equipment, ancillary staff, requirements to provide 24-hour care). In contrast, payments for services provided in a physician office have only a professional-fee component. This fee is higher than the professional fee in a hospital outpatient department because it factors both professional costs and facility costs associated with overhead in a physician's office. In all, the fees for services provided in a physician office are typically considerably less than the combined payment amount for the professional fee and facility fee in a hospital outpatient department. For example, Medicare pays almost double the price for a 15-minute office visit to a practice billing as a hospital outpatient than to a freestanding practice for the same service (see **Exhibit 5.3**). Physician practices that are owned by a hospital can be licensed or re-licensed as hospital outpatient departments; in these cases, services are often billed at the higher rates through the addition of hospital facility fees, even though there has been no change in the location, patient mix, or the physicians performing the service, potentially raising both total medical spending and patient cost-sharing. Commercial payers tend to mimic Medicare's rules, and thus patients may receive two bills for their visit: a bill from their physician for professional services and a second bill from the associated hospital. However, commercial payers are increasingly focusing on negotiating contracts that would prevent paying facility fees in these cases.

Exhibit 5.3: Differences in Medicare program payments and beneficiary cost sharing for midlevel outpatient office visits provided in freestanding practices and hospital-based entities, 2014

	Service provided in freestanding physician practice	Service provided in a hospital outpatient department		
	MPFS physician office rate (a) "Professional fee"	MPFS physician facility rate (a) "Professional fee"	OPPS rate (b) "Facility fee"	Total hospital-based rate
Program payment	$58.46	$41.26	$74.02	$115.28
Beneficiary cost sharing	$14.62	$10.32	$18.51	$28.83
Total payment	$73.08	$51.58	$92.53	$144.11

Note MPFS: Medicare physician fee schedule. OPPS: Outpatient Prospective Payment System. (a) Paid under the Medicare physician fee schedule. (b) Paid under the OPPS.

Source: Health Affairs. Health Policy Brief: Site-Neutral Payments, 2014. Medicare Payment Advisory Commission table updated by Health Affairs with 2014 payment rates from Centers for Medicare and Medicaid Services website. The Current Procedural Terminology code used for this example under the physician fee schedule is 99213. The Healthcare Common Procedure Code Set code used for this example under the outpatient prospective payment system (OPPS) is G0462

Shifts between inpatient and outpatient settings

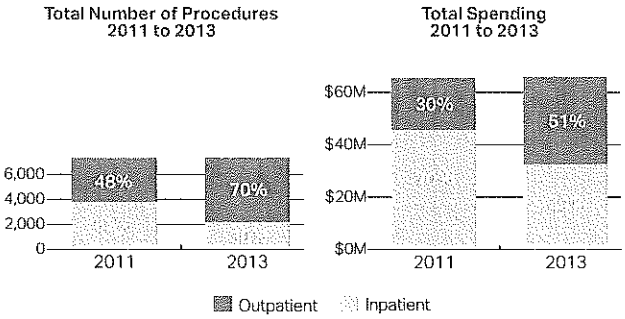
Surgical procedures have been shifting from the inpatient to the outpatient setting for a number of years. In the U.S., 65 percent of all surgeries across all payers in 2012 were performed in an outpatient setting, compared with 51 percent in 1990 and 16 percent in 1980.[3] For commercially insured patients in Massachusetts, the HPC found that 90 percent of all surgical procedures in 2013 were performed outpatient.

From 2011 to 2013, the number of procedures PMPM grew by 2.4 percent in outpatient settings and decreased by 18.4 percent in inpatient settings.[ii] Over the same time period, spending for hospital outpatient surgeries increased 14.6 percent PMPM (from $29.50 PMPM to $33.80 PMPM), while spending for inpatient surgery decreased by 1.9 percent PMPM (from $36.40 PMPM to $35.70 PMPM). Outpatient spending now accounts for roughly two-thirds of all hospital revenue among community and teaching hospitals in Massachusetts and half of hospital revenue among academic medical centers[4] (see **Chapter 2: "Overview of Spending Trends"**).

Given that some surgical procedures cannot be appropriately performed on an outpatient basis, the HPC examined volume and spending trends for five procedures commonly performed in both settings: laparoscopic cholecystectomy, laparoscopic appendectomy, arthrodesis, laparoscopic total hysterectomy, and laparoscopic vaginal hysterectomy.[iii] Between 2011 and 2013, the distribution of setting of care for these procedures shifted dramatically, with the share performed outpatient rising from 48 percent in 2011 to 70 percent in 2013 (see **Exhibit 5.4**). Overall, the total volume PMPM of the five procedures increased by about 5 percent from 2011 to 2013.[iv,v]

Despite shifts to lower-cost settings of care, total spending on these five cross-over procedures grew slightly, at about 5 percent from 2011 to 2013 (from $2.29 PMPM to $2.40 PMPM). However, spending growth for these procedures would likely have been higher without these shifts in setting of care. Prices for these procedures increased dramatically over this period, with inpatient prices increasing more than outpatient prices. This price growth appears to have consumed potential savings from the shift in site of care. Average prices for these procedures grew substantially between 2011 and 2013, with growth in inpatient prices ranging from 12 to 21 percent, and growth in outpatient prices ranging from 4 to 17 percent. At 2013 prices, if setting of care and volume had remained at 2011 levels, the HPC estimates that total spending for these procedures in 2013 would have been about 15 percent higher ($75 million versus $65 million).

Exhibit 5.4: Change in volume for five major cross-over surgical procedures performed in acute care hospitals, 2011 – 2013
Volume and spending for laparoscopic cholecystectomy, laparoscopic appendectomy, arthrodesis, laparoscopic total hysterectomy, and laparoscopic vaginal hysterectomy



Note: The five major cross-over procedures were identified as the highest-volume procedures billed by surgeons in 2013, where at least 10 percent of the surgeries occurred at an inpatient hospital and at least 10 percent occurred in an outpatient setting. Total spending includes insurer and enrollee payments for the facility portion of the surgical procedure. Commercial FFS spending does not include capitated payments. (see Technical Appendix).
Source: HPC analysis of Massachusetts All-Payer Claims Database, 2011-2013

ii From 2011 to 2013, the total number of surgical procedures decreased by 3.9 percent, from 415,772 to 399,674. The number of inpatient procedures decreased by 21.5 percent, and outpatient procedures decreased by 1.5 percent. This decrease may be attributed to a drop in the commercially insured population from 2011-2013, as total enrollees and member months declined by 4.7 percent and 3.8 percent, respectively.

iii Procedures were selected reflecting the highest volume billed by surgeons in 2013, where at least 10 percent of the surgeries occurred at an inpatient hospital and at least 10 percent occurred in an outpatient setting.

iv The total number of procedures in the sample increased by about 1 percent (from about 7,300 in 2011 to 7,340 in 2013); the number of member months in the sample decreased overall during this time period.

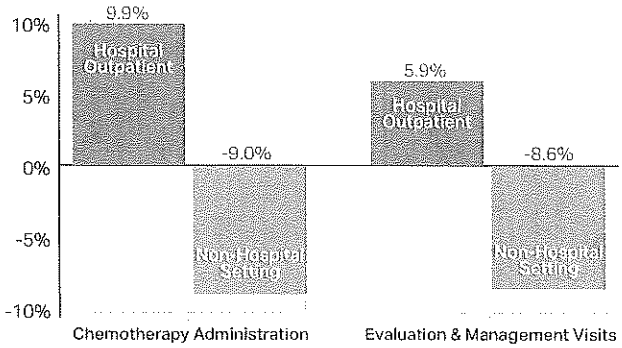
v Growth in laparoscopic total hysterectomy (for which number of procedures per 1,000 member months doubled from 0.018 in 2011 to 0.035 in 2013) accounts for most of the total volume growth.

Shifts between non-hospital and hospital outpatient settings

Services have also shifted to the hospital outpatient setting from non-hospital settings. The HPC examined volume and spending variations between HOPD and non-hospital settings for select imaging, laboratory tests, colonoscopy and endoscopy procedures, and chemotherapy administration that can be safely performed in both settings based on consensus guidelines, as well as for evaluation and management (E&M) visits (regular doctor visits).[vi] The HPC examined shifts in volume of services in each category for the years 2011-2013. For some of the services, volume PMPM declined in both HOPD and non-hospital settings, including imaging (7.6 percent decline in HOPD, 7.2 percent decline in non-hospital), laboratory tests (10.7 decline in HOPD, 2.2 percent decline in non-hospital), and colonoscopy and endoscopy procedures (4.7 percent decline in HOPD, 4.6 decline in non-hospital). However, for other services, a significant portion shifted from non-hospital settings to hospital outpatient departments. Between 2011 and 2013, volume PMPM for chemotherapy administration grew 9.9 percent in hospital outpatient departments and declined 9.0 percent in non-hospital settings; for E&M visits, volume PMPM increased 5.9 percent in hospital outpatient departments and decreased 8.6 percent in non-hospital settings (see **Exhibit 5.5**). This shift for E&M visits appears consistent with national data. For Medicare, the volume billed as HOPD services increased 9 percent per Medicare beneficiary in 2013, while the volume billed as physician-office services increased by only 1 percent.[5] Additional research is needed with a wider set of services to more fully estimate the shift in services to hospital outpatient departments from non-hospital settings in Massachusetts.

Exhibit 5.5: Changes in site of care for chemotherapy administration and E&M visits, 2011 – 2013

Percentage change in number of procedures per 1,000 member months



Note: * Median price. Procedures with a missing site of service or non-hospital outpatient site were excluded. Spending includes insurer and enrollee payments for both the facility and professional portion of the covered medical service, on all claim lines for the same patient on the same date with the same CPT procedure code. Commercial FFS spending does not include capitated payments. Non-hospital setting includes office, independent lab, urgent care, ambulatory surgical center, independent clinic, FQHC, public health clinic, walk-in retail health clinic, or rural health clinic (see **Technical Appendix**).

Source: HPC analysis of the Massachusetts All-Payer Claims Database, 2011-2013

Comparing commercial prices between settings, the HPC found that prices in hospital outpatient departments were consistently higher than in non-hospital settings. The median price for chemotherapy administration in 2013 was 68 percent higher in a HOPD versus non-hospital setting ($298 versus $177, respectively). Similarly, payments for E&M visits by provider specialty were also higher in hospital outpatient departments compared to non-hospital settings. For example, the mean payment in 2013 for a low complexity, primary care visit[vii] was 15 percent higher in a HOPD versus non-hospital setting ($137, versus $119, respectively). Moreover, the median price paid for a colonoscopy in a HOPD was 56 percent higher than in a non-hospital setting in 2013 ($1,470 versus $945), and the median price for an upper GI endoscopy was 53 percent higher in a HOPD versus non-hospital setting ($1421 versus $930, respectively) (see **Exhibit 5.6** and **Sidebar: "Common laboratory tests"**).

A key driver in this volume shift and spending increase is the growth in physician affiliation with hospitals, which can include contracting affiliations and hospital acquisition. For example, the share of primary care physicians (PCPs) in Massachusetts affiliated with large provider

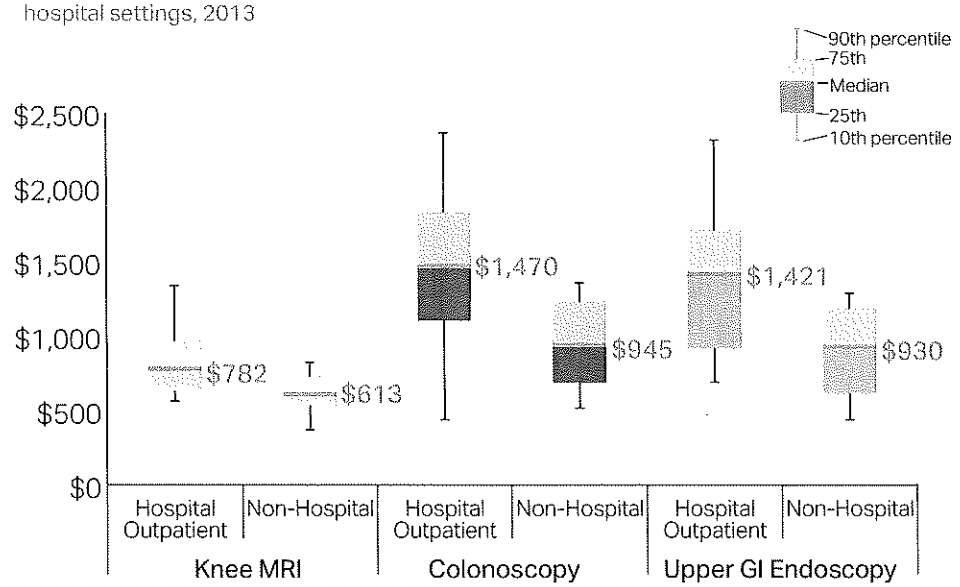
vi A full list of the procedures is available in the **Technical Appendix**.

vii CPT 99213, Low-complexity visits with established patients (15 minutes)

systems grew from 62 percent in 2008 to 76 percent in 2014 (see **Chapter 3: "Trends in Provider Markets"**). One method through which affiliations can shift care to hospital outpatient departments is establishing new in-system referral patterns that bypass non-hospital settings in favor of hospital-based care, thereby changing where services are delivered. However, hospital acquisition of physician practices can further shift care through licensure of physician practices as hospital outpatient departments.[6] When acquired physician groups are established as hospital outpatient departments, services are often billed at higher rates through the addition of hospital-facility fees, even though there has been no change in the location, patient mix, or the physicians performing the service. This potentially raises both total medical spending and patient cost-sharing. Currently, 29 percent of physicians nationwide are hospital-employed either through direct employment or hospital-owned practices, up from 16 percent in 2007.[7] One recent study found that hospital acquisitions of physician practices led to a 13.7 percent increase in average prices per unit of service and estimated that one-quarter of the price increases was due to the "increased exploitation of reimbursement rules that allows hospitals to charge facility fees for services by hospital owned physicians."[8]

Shifts in volume and spending over time, specifically due to conversion of physician practices into HOPDs are difficult to track. However, in pre-filed testimony[9] on outpatient facility charges for the HPC's 2015 Health Care Cost Trends Hearing, some payers noted an overall increase in physician services billed with hospital-facility fees. Several payers also noted that facility fees for outpatient care were contributing to higher costs. For example, in their testimony, Aetna stated, "Beginning in 2009, in Massachusetts, we began to see a shift away from a physician-office service to a split-billed physician outpatient clinic visit and facility-service fee." While Aetna stated that their general payment policy is to not pay separate facility fees for outpatient-based practices, they noted that, "when a hospital system negotiates an exemption... facility fees can be paid at a percentage of billed charges and those costs are ultimately passed along in the form of higher premium rates for insured groups and higher costs for self-funded groups." Increasingly, commercial payers have reacted to paying hospital outpatient facility fees for services delivered in a non-hospital setting. For example, Blue Cross Blue Shield (BCBS) noted in its 2015 pre-filed testimony[10] that it has prohibited reimbursement for facility fees billed with routine E&M services, effective July 1, 2015.

Exhibit 5.6: Comparison of spending per procedure between hospital outpatient and non-hospital settings, 2013



Note: Procedures with a missing site of service or non-hospital outpatient site were excluded. Spending includes insurer and enrollee payments for both the facility and professional portion of the covered medical service, on all claim lines for the same patient on the same date with the same procedure code. Commercial spending does not include capitated payments. See **Technical Appendix**.

Source: HPC analysis of Massachusetts All-Payer Claims Database, 2011-2013

Common laboratory tests: price variation by provider and setting of care

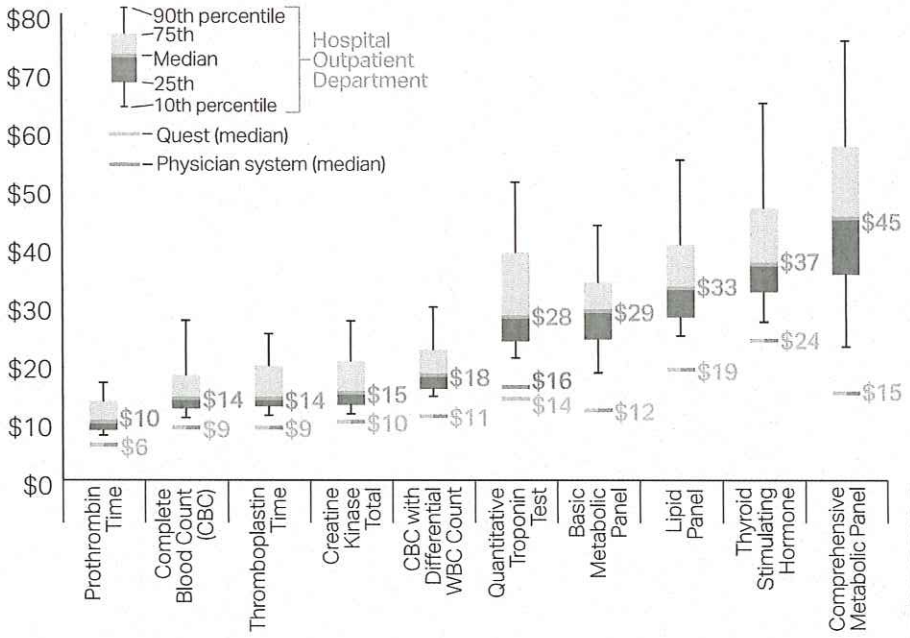
Simple laboratory tests can be performed in a variety of settings, from an in-house laboratory at a hospital or physician office to a freestanding testing facility. The HPC compared commercial payments for 10 common tests across different settings of care: HOPDs, physician offices, and freestanding diagnostic facilities.[viii] Physicians were grouped into physician systems. For prices at freestanding diagnostic facilities, the HPC evaluated Quest, a for-profit company that performs most of the freestanding lab services in Massachusetts. The sample included 3,252,584 claims, totaling $102,327,046 in patient and insurer payments in 2012.[ix]

For each common lab test, prices were higher in HOPDs than for the same test in a physician office or freestanding testing facility. For most tests, the price at a HOPD was double the price at Quest. For example, for a basic metabolic panel, the median price at a HOPD was $29, compared to a median price of $12 at Quest or a physician office. Prices also varied for providers within the same setting, with far greater variation between HOPDs than between physician systems. Between HOPDs, prices at the 90th percentile were at least double the prices at the 10th percentile for all tests. Between physician systems, prices at the 90th percentile were less than 30 percent higher than prices at the 10th percentile (for example, prices for a basic metabolic panel ranged from $14 at the 90th percentile to $12 at the10th percentile). **Exhibit 5.7** shows the variation in prices between HOPDs; variation between physician offices is available online in the **Technical Appendix.**

Across all claims for these tests, 65 percent of blood work was billed at a HOPD, while 35 percent of tests were billed at less-costly settings of care—physicians' offices (25 percent) and freestanding diagnostic facilities (10 percent). If prices for these lab tests at HOPDs were equal to prices at physician groups or Quest, the HPC estimates commercial spending for these tests would be 54 percent lower.

In conclusion, almost two-thirds of representative common lab tests in Massachusetts are performed at hospitals, even though they tend to be the most expensive settings of care for tests. The price difference for the same service between different settings of care supports the need to explore opportunities to address both price variation and site-neutral payments.

Exhibit 5.7: Prices for common lab tests by setting, 2012



Note: Tests in the hospital setting were only included if billed as an outpatient service. Providers are included if they performed at least 15 tests.

Source: HPC analysis of Massachusetts All-Payer Claims Database, 2012

viii Analysis of commercially insured members of Blue Cross Blue Shield MA, Harvard Pilgrim Health Plan, and Tufts Health Plan from the MA APCD.

ix The tests' descriptions and current procedural terminology (CPT) codes, as well as the number of claims for each are listed online in the **Technical Appendix.**

POLICY CONSIDERATIONS

Site-neutral payment

Medicare and other payers have many different payment systems to reimburse providers for medical services. The setting of care in which the service is delivered determines which payment system is applied. In some cases, the same service can be provided in multiple settings. However, as the findings here demonstrate, payment for the same service can differ substantially based on the setting in which the service was delivered, as is often the case with services that could be provided in either a hospital outpatient department or a physician office. For the Medicare program, both the Centers for Medicare and Medicaid Services (CMS) and the Medicare Payment Advisory Commission (MedPAC) have proposed options for "site-neutral payments"—that is, to eliminate the differential and pay the same rate for a service regardless of where the service is performed. The payment rate would be based on the rate for the lower-cost setting. For example, MedPAC has recommended lowering hospital outpatient department rates for E&M visits and a select set of other services such that Medicare payment rates for these services would be the same in physician offices and hospital outpatient departments.[4]

Refining provider locations eligible to receive hospital outpatient department payments

The ability to earn higher payment rates as a HOPD than as a physician practice has incentivized the practice of hospitals acquiring physician practices and enabling those practices to bill as HOPDs. In November 2015, Congress took action regarding this practice for Medicare payments,[11] passing legislation the codifies CMS' definition of provider-based off-campus hospital outpatient departments (OCHOPD). It states that these locations will not be eligible to receive hospital outpatient payment rates.[x] OCHOPDs are defined as providers located 250 yards away or more from a hospital's main campus. The law will go into effect January 1, 2017 and is projected to save $9.3 billion over 10 years. There are two significant exceptions to the law: 1) OCHOPDs that have already billed as an outpatient department prior to January 1, 2017 will still be eligible for reimbursements as hospital outpatient departments and 2) OCHOPDs with dedicated emergency departments.

Reference prices

Reference pricing is a consumer cost-sharing strategy applied to a particular service to allow consumers to share in the savings when they select lower-cost providers. Under reference pricing, the employer or insurer pays a pre-determined amount for a particular service, and the consumer is generally responsible for the remainder of the cost. As detailed in the 2014 Cost Trends Report,[12] reference pricing is most appropriate for non-emergent services that vary widely in price, but not quality, and have a large number of providers performing these services. Reference pricing could be appropriate for procedures such as colonoscopy, where there is a large price variation between hospital outpatient and non-hospital settings. The California Public Employees' Retirement System (CalPERS) has implemented a reference pricing initiative for colonoscopies, among other services. To encourage members to seek care at ASCs, CalPERS has covered colonoscopies performed at ASCs without cost sharing, and covered colonoscopies performed at hospital outpatient departments up to $1,500.[12] After the first two years of implementation, CalPERS saw a $7 million (28%) cost saving without a change in quality.[14]

In summary, shifts in volume to the hospital outpatient setting from other settings have contributed to a high growth in hospital outpatient spending. While some procedures have moved from inpatient to hospital outpatient, some services have shifted from the non-hospital setting to hospital outpatient. Prices are typically higher in the hospital outpatient department than in non-hospital settings for the same service. Both supply-side and demand-side policies can promote value-based care and reduce cost.

x An OCHOPD would only be eligible for CMS reimbursements under the Ambulatory Surgical Center Prospective Payment System (ASC PPS) or the Medicare Physician Fee Schedule (PFS), depending on the provider type, but not the Outpatient Prospective Payment System (OPPS).

REFERENCES

1. Al-Amin M, Housman M. Ambulatory surgery center and general hospital competition: entry decisions and strategic choices. Health care management review. 2012;37:223-34.
2. Russo A, Elixhauser A, Steiner C, Wier L. Hospital-based ambulatory surgery, 2007. Healthcare Cost and Utilization Project Statistical Brief. 2010.
3. National Center for Health Statistics. Health, United States, 2014. With Special Feature on Adults Aged 55-64. Hyattsville, MD2015.
4. Center for Health Information and Analysis. FY14 Hospital Industry Overview. Boston, MA: Center for Health Information and Analysis; 2015.
5. Medicare Payment Advisory Commission. Report to the Congress: Medicare payment policy. Washington (DC): Medicare Payment Advisory Commission; 2015.
6. Health Policy Commission. Review of Partners HealthCare System's Proposed Acquisitions of South Shore Hospital (HPC-CMIR-2013-1)and Harbor Medical Associates (HPC-CMIR-2013-2). Boston, MA: Health Policy Commission; 2014 Feb 19.
7. Dalny L. Healthcare Provider Consolidation: Facts and Myths. 2015 Massachusetts Cost Trends Hearing. Boston, MA 2015.
8. Capps C, Dranove D, Ody C. The Effect of Hospital Acquisitions of Physician Practices on Prices and Spending. Northwestern University: Institute for Policy Research. 2015.
9. Health Policy Commission. Pre-filed Testimony. Boston, MA: Health Policy Commission; 2015.
10. Health Policy Commission. Blue Cross Blue Shield of Massachusetts Pre-Filed Testimony. Boston, MA: Health Policy Commission; 2015.
11. Bipartisan Budget Act of 2015, H. 1314, 2015.
12. Health Policy Commission. 2014 Cost Trends Report. Boston, MA 2014.
13. California Public Employees' Retirement System. 2011 Open Enrollment and Health Benefits Information. Sacramento, CA: California Public Employees' Retirement System; 2011. Available from:https://www.calpers.ca.gov/docs/circular-letters/2011/600-047-11.pdf.
14. Robinson JC, Brown TT, Whaley C, Finlayson E. Association of reference payment for colonoscopy with consumer choices, insurer spending, and procedural complications. JAMA Internal Medicine 2015;175:1783-9.

Future Outlook

In the 2014 Cost Trends Report, the HPC raised notes of caution about new, expensive prescription drugs coming to market and ongoing consolidation of large provider systems, which can lead to higher prices for payers and consumers. As noted in this Report, these factors did play a role in spending growth in 2014, yet slow growth in other areas led to overall growth that continued below the benchmark in the commercial sector.

These forces of growth in prescription drug spending and continued provider consolidation do not appear to have dissipated in 2015. Nationally, indicators of prescription drug spending through the first three quarters of 2015 suggest increases on the order of 8 to 9 percent compared to the same period in 2014.[1] Given that prescription drug spending accounted for 13.5 percent of THCE in 2014, further growth of 8 percent in 2015 would add 1.1 percentage points of growth to the benchmark.

Provider consolidation has also continued, as indicated by a number of material change notices received by the HPC in 2015 and two transactions that will be investigated in new cost and market impact reviews in 2016.

Another indicator of higher growth rates is the 6.3 percent average first-quarter rate increase announced for the Massachusetts merged market in 2016 over first-quarter rates in 2015.[2] Those increases were noted to reflect high prescription drug spending, an uptick in inpatient and outpatient utilization, and effects of the ACA.

On the other hand, MassHealth enrollment—the major driver of 2014 growth—stabilized in 2015, particularly as some members who had been covered temporarily transitioned back to the Connector or other sources of coverage.

Commercial and hospital spending, outside of prescription drugs, continued their pattern of low rates of growth. Alternative payment models (APMs) are set to extend into PPO products in 2016, which could bring continued attention to cost growth in the longer-term, but will not have major effects in 2015. Ultimately, all market participants must continue to pursue opportunities to streamline care delivery, improve efficiency, and eliminate waste. The HPC continues to identify specific areas for attention, which are the subject of the next section of this Report.

REFERENCES

1 Altarum Institute Center for Sustainable Health Spending. Health Sector Trend Report. Nov 2015.

2 Commonwealth of Massachusetts Division of Insurance. Information Sheet: First Quarter 2016 Merged Market Health Insurance Rate Increases. 2015.

Hospital-level Variation in Spending per Episode of Care: Normal Pregnancy and Delivery

The Health Policy Commissions' (HPC's) past work and the work of many other state agencies have consistently[1] documented variation among Massachusetts providers in both prices and practice patterns. A body of academic research, as well as the HPC's cost and market impact reviews, has consistently shown that price variation is typically not related to indicators of higher value, such as quality of care or patient acuity. Rather, higher prices are generally associated with providers' market leverage, measured in terms of market share (see **Chapter 2: "Trends in Provider Markets"**) or other metrics. Such price variation, combined with increasing concentration of volume in high-cost providers, leads to higher spending. The topic of price variation is of critical interest in the Massachusetts market. Payers' testimony at the HPC's 2015 Health Care Cost Trends Hearing and other research have consistently found that higher prices, brought on, in part, by price variation and increasing concentration in high-price providers, drove much of the growth in hospital and professional spending from 2007 onward.[i]

Continuing the HPC's work on hospital-level variation in spending for an episode of care, this Report presents a joint analysis of both price variation and practice-pattern variation. Variation in the amounts paid to different providers for the same service or set of services without measurable differences in quality indicates a potential opportunity to decrease healthcare spending. This can be done either by shifting care to more efficient settings or by increasing efficiency and decreasing payments within a given setting. Variation in practice patterns may highlight opportunities to improve quality. Specifically, the chapter examines episodes of care for a normal pregnancy and delivery, the most common reason for a commercial inpatient stay. Maternal care is a particularly important service area to study given its high volume (29,191 commercial discharges in Massachusetts in 2014, the most common commercial discharge in 2014).[ii] In addition, maternal care is among the most common conditions for which consumers research and select providers in advance, potentially incorporating information on price, quality, and convenience.[2]

The HPC examined hospital-level variation in total spending per episode of care for commercial patients, and focused on three components: 1) average procedure prices for vaginal deliveries and Caesarian sections (C-sections); 2) the C-section rate among first-time mothers with pregnancies that were unlikely to need interventions (the "NTSV" rate)[iii]; and 3) the number of pre-natal ultrasound tests. The analysis of spending is based on data from the Massachusetts All-Payer Claims Database for the three largest commercial payers in 2011 and 2012 and includes only low-risk pregnancies; analyses of the numbers of discharges and C-sections draw on data from other sources.[iv]

i The topic of provider price variation is discussed more fully in the HPC's Provider Price Variation Special Report, which was released in conjunction with the 2015 Annual Cost Trends Report.

ii Based on the DRGs for normal vaginal delivery and for C-section without complications.

iii The NTSV C-section measure identifies pregnancies that are unlikely to need surgical intervention during labor. More specifically, NTSV refers to a first-time pregnancy (nulliparous) that has reached its 37th week or later (term) and consists of one fetus (singleton) in the head-down position (vertex).

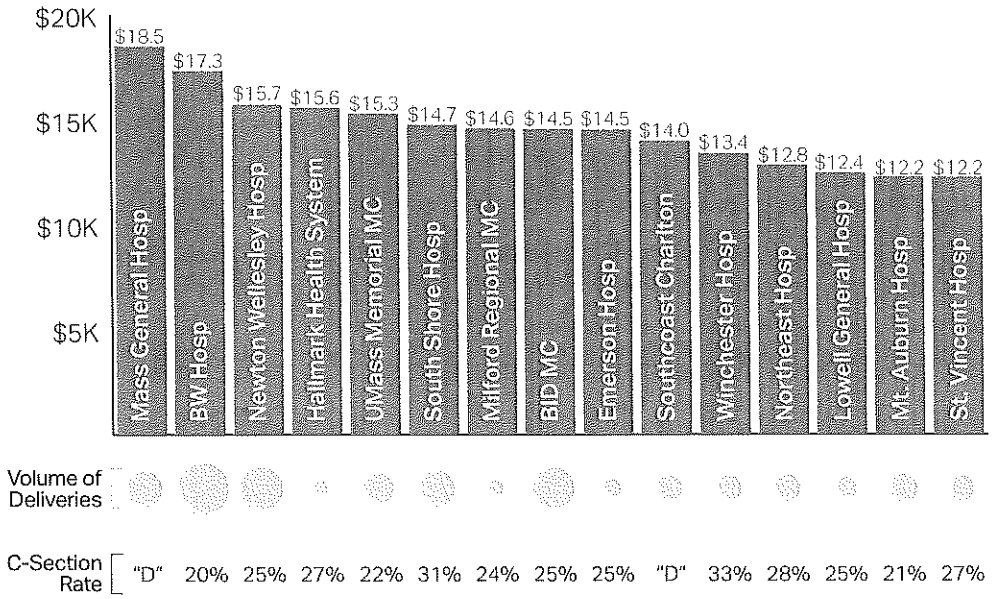
iv The three largest commercial payers were Blue Cross Blue Shield, Harvard Pilgrim Health Care, and Tufts Health Plan. Normal pregnancies were defined as pregnancies among women ages 18 – 35, who were assigned a severity score of 1 based on a standard grouper applied to diagnoses recorded on medical claims (the Optum ETG grouper). The HPC attributed each episode to the hospital where the delivery occurred. See the **Technical Appendix** for more information on the analytic methods.

VARIATION IN SPENDING AND PRICE

Among the episodes the HPC examined, the average episode-level spending, including both vaginal births and C-sections, was $14,686, including an average $2,747 for prenatal care, $11,851 for delivery, and $88 following birth (see **Exhibit 7.1**).[vi] Consistent with the HPC's past research, examining the results at the hospital level reveals substantial variation among individual hospitals, among types of hospitals, and among provider systems.

Across the 43 hospitals in the agency's sample, the average spending per episode ranged from $9,722 at the least expensive hospital to $18,475 at the most expensive hospital (see **Exhibit 7.2**).

Exhibit 7.1: Average spending for normal deliveries by hospital, selected hospitals, 2011 – 2012
Spending per episode, "thousands of dollars"



Note: This chart is limited to the 15 hospitals with the greatest number of normal deliveries paid by commercial payers in 2014. Both vaginal and C-section deliveries are included. "D" indicates that the hospital declined to voluntarily submit rates. C-section rate is the nulliparous term singleton vertex (NTSV) C-section rate.
Source: HPC analysis of the Massachusetts All-Payer Claims Database, 2011-2012, HPC analysis of Center for Health Information and Analysis Hospital Inpatient Discharge Database, 2014; Leapfrog Group

v Only hospitals with the highest 15 discharges are within the graphic. The median line represents median episode spending for all hospitals that were analyzed. These 15 hospitals represent 78 percent of all discharges.

vi When results refer to individual hospitals, the sample only includes those hospitals with more than 15 total episodes; 43 hospitals meet this criterion. See **Technical Appendix**.

Exhibit 7.2: Average spending for normal deliveries by hospital, all hospitals, 2011 – 2012

			Episode Spending	Procedural Spending			
Hospital	Hospital Cohort	Corporate Affiliation	Pregnancy Episode Spending	Vaginal Delivery Spending	C-Section Spending	2014 Commercial Discharges	C-Section Rate
Massachusetts General Hospital	AMC	Partners	$18,475	$14,763	$19,542	1847	D
Brigham and Women's Hospital	AMC	Partners	$17,312	$14,042	$18,002	3897	20%
North Shore Medical Center	Community	Partners	$16,405	$11,652	$16,785	311	D
Steward St. Elizabeth's Hospital	Teaching	Steward	$15,987	*	*	409	26%
Newton Wellesley Hospital	Community	Partners	$15,718	$12,148	$15,846	2795	25%
Hallmark Health System	Community	Independent	$15,561	$10,599	$13,796	406	27%
UMass Memorial Medical Center	AMC	UMass	$15,266	$12,284	$15,432	1437	22%
Tufts Medical Center	AMC	Independent	$15,262	*	*	432	36%
South Shore Hospital	Community	Independent	$14,745	$11,492	$14,539	1910	31%
Milford Regional Medical Center	Community	Independent	$14,564	$10,270	$13,127	406	24%
Beth Israel Deaconess Medical Center	AMC	BID	$14,534	$11,414	$12,884	2631	25%
Emerson Hospital	Community	Independent	$14,497	$10,705	$13,291	597	25%
Cooley Dickinson Hospital	Community	Partners	$14,381	*	*	339	28%
Berkshire Medical Center	Teaching	Berkshire Health	$14,249	*	*	246	21%
Falmouth Hospital	Community	Cape Cod	$14,219	*	*	141	30%
Southcoast Charlton Memorial Hospital	Community	Independent	$13,956	$10,367	$13,175	959	D
Steward Holy Family Hospital	Community	Steward	$13,880	*	*	305	43%
Cape Cod Hospital	Community	Cape Cod	$13,772	$9,622	$12,787	232	24%
Beth Israel Deaconess - Plymouth	Community	BID	$13,694	*	*	298	24%
Baystate Medical Center	Teaching	Baystate	$13,611	$10,734	$15,291	1262	23%
Metrowest Medical Center	Community	Tenet	$13,557	*	*	213	27%
Southcoast St. Luke's Hospital	Community	Independent	$13,455	$10,199	$11,787	*	D

Table continued on page 52

			Episode Spending	Procedural Spending			
Hospital	Hospital Cohort	Corporate Affiliation	Pregnancy Episode Spending	Vaginal Delivery Spending	C-Section Spending	2014 Commercial Discharges	C-Section Rate
Winchester Hospital	Community	Lahey	$13,385	$9,889	$12,223	987	33%
Signature Brockton Hospital	Community	Independent	$13,320	*	*	239	27%
Steward Good Samaritan Medical Center	Community	Steward	$13,090	$9,137	$11,975	165	36%
North Adams Regional Hospital	Community	Independent	$12,849	*	*	8	N/A
Northeast Hospital	Community	Lahey	$12,817	$9,917	$12,038	1048	28%
Harrington Hospital	Community	Independent	$12,789	*	*	60	14%
Steward Norwood Hospital	Community	Steward	$12,704	*	*	165	28%
Lawrence General Hospital	Community	Independent	$12,656	*	*	284	22%
Lowell General Hospital	Community	Wellforce	$12,437	$9,573	$12,326	803	25%
Mercy Hospital	Community	Independent	$12,374	*	*	353	25%
Boston Medical Center	AMC	Independent	$12,261	*	*	299	30%
Mount Auburn Hospital	Teaching	Independent	$12,247	$9,570	$12,433	1208	21%
St. Vincent Hospital	Teaching	Tenet	$12,221	$9,616	$12,641	894	27%
HealthAlliance Hospital	Community	UMass	$12,201	$9,692	$11,973	281	D
Sturdy Memorial Hospital	Community	Independent	$11,980	*	*	289	31%
Steward Morton Hospital	Community	Steward	$11,945	*	*	116	34%
Baystate Franklin Hospital	Community	Baystate	$11,906	*	*	166	30%
Southcoast Tobey Hospital	Community	Independent	$11,706	*	*	*	D
Anna Jacques Hospital	Community	Independent	$11,602	*	*	332	30%
Cambridge Health Alliance	Teaching	Independent	$11,601	*	*	257	19%
Heywood Hosp	Community	Heywood Healthcare	$9,772	*	*	164	19%

Note: "D" indicates that the hospital declined to voluntarily submit rates. "N/A" indicates that the hospital was not eligible to submit rates. Both vaginal and C-section deliveries are included in episode spending. C-section rate is the nulliparous term singleton vertex (NTSV) C-section rate.

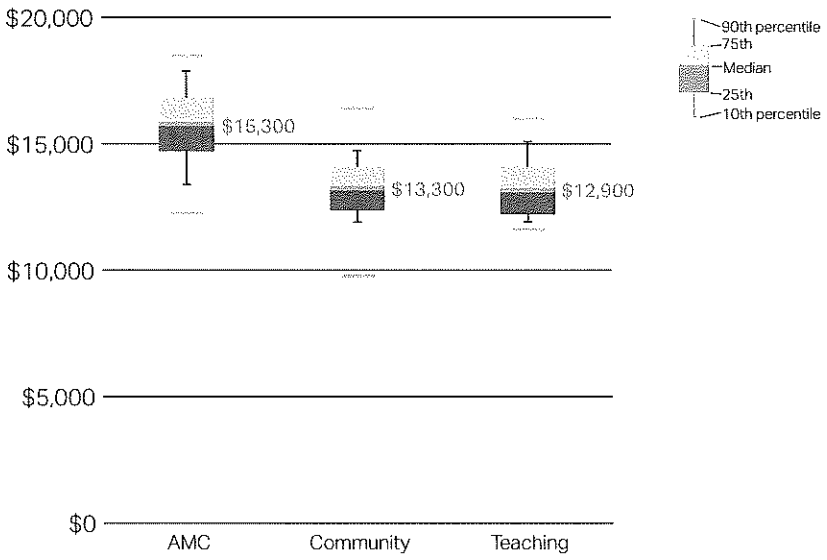
Source: HPC analysis of the Massachusetts All-Payer Claims Database, 2011-2012; Center for Health Information and Analysis Hospital Inpatient Discharge Database, 2014; Leapfrog group

When hospitals were grouped by type, the HPC found that episode costs were higher at academic medical centers (AMCs) than at major teaching or community hospitals. The median cost at an AMC was $15,300, 19 percent higher than the median cost at major teaching hospitals and 15 percent higher than the median cost at community hospitals (see **Exhibit 7.3**).

Within hospital types, there was also significant variation in spending. Episode costs at AMCs ranged from $18,465 to $12,261, at teaching hospitals from $15,987 to $11,600, and at community hospitals from $16,405 to $9,772. Notably, the two Partners HealthCare System's (Partners') AMCs were higher cost than the four other AMCs, and two Partners community hospitals (North Shore and Newton Wellesley) were the highest cost of the 31 community hospitals. Partners has no teaching hospitals.

Exhibit 7.3: Average spending for normal deliveries by hospital type, all hospitals, 2011 – 2012

Spending per episode, dollars



Note: Both vaginal and C-section deliveries are included in episode spending.
Source: HPC analysis of the Massachusetts All-Payer Claims Database, 2011-2012

Variation in episode payments may be driven by prices or the quantity of services. To study the price aspect of episode costs for maternity care, the HPC examined procedure prices for vaginal deliveries and C-sections.[vii] On average, when vaginal deliveries and C-sections were combined, the average procedure price was $11,851 and represented 80 percent of the average cost of the episode.[viii] Not only did the cost of the procedure make up 80 percent of the episode-level cost; hospital-level variation in the cost of the delivery procedure drove 85-90 percent of variation in the cost of the episode.

The hospitals with the highest episode costs also accounted for a large percentage of the total volume of normal deliveries. In 2014, six hospitals accounted for 50 percent of births, and five of them had above-average episode costs for the commercial payers in the agency's study.[ix] Massachusetts General Hospital and Brigham and Women's Hospital, the two Partners AMCs, were the two hospitals in the state with the highest costs per episode and together accounted for 23 percent of all births. This concentration of births in higher-cost settings has not changed in recent years.

vii The procedure price was defined as all spending from the admit date to the discharge date for the delivery inpatient stay.

viii For vaginal deliveries, the average procedure price was $11,378 and the average episode price was $14,178; for C-sections, these numbers were $14,143 and $17,054. Hospital-level episode costs for vaginal deliveries and C-sections were highly correlated: rho=.88, p<.001.

ix In order of cost, the five with above-average costs were Massachusetts General Hospital, Brigham and Women's Hospital, Newton Wellesley Hospital, South Shore Hospital, and Beth Israel Deaconess Medical Center. The final hospital was Mount Auburn. While the study of episodes costs was based on data from 2011 and 2012, HPC analysis of relative price data demonstrates that relative prices among hospitals have been stable over time.

VARIATION IN QUALITY AND EFFICIENCY: C-SECTION RATES AND ULTRASOUNDS

To study the quality and efficiency of maternity care, the HPC first focused on C-sections and pre-natal ultrasounds, two areas where the HPC observed considerable practice pattern variation and where there is evidence of excess utilization. Considerable evidence concludes that C-sections increase risk for obstetric hemorrhage and infection, which are the most frequent causes of maternal morbidity related to childbirth.[3,4] A C-section delivery also substantially increases a mother's likelihood of a C-section delivery in subsequent births. Further, delivery by C-section is associated with potential short and long term medical implications for the infant.[5,6,7,8,9]

Based on data for 38 Massachusetts hospitals from Leapfrog Group, 26.2 percent of first-time mothers with pregnancies that were unlikely to need interventions (NTSV pregnancies) had C-sections, above the target rate of 23.9 percent[x] proposed in the Federal Government's Healthy People 2020 initiative, and well above the optimal C-Section rate of 19 percent, according to recent medical recommendations.[4] Among 33 states, Massachusetts was ranked 19th for its C-section rate (1=best).[xi] In 2014, NTSV C-section rates varied at Massachusetts hospitals,[xii] from a high of 42.7 percent at Steward Holy Family Hospital to a low of 14.3 percent at Harrington Memorial Hospital. (see **Exhibit 7.2**)[10]

Beyond being a key indicator of quality, the high statewide C-section rate contributed to overall spending levels; the average procedure cost for a C-section was 24 percent higher ($2,765) than the procedure cost for a vaginal delivery. However, the variation in C-section rates was not an important driver of the hospital-level variation in episode costs, accounting for roughly 2 percent of the total variation in the agency's study sample.

Imaging is another area where services may be over-used. The American College of Obstetricians and Gynecologists recommends one ultrasound in the first trimester, if necessary to confirm the expected delivery date, and one ultrasound in the second trimester for all mothers. It discourages overuse beyond that number.[11] The HPC found that all Massachusetts hospitals perform more than the recommended number; at 27 hospitals, the average number of ultrasounds per patient was greater than four.

Higher spending, driven either by price or utilization, would hypothetically represent good value if higher spending was associated with better outcomes or better care. However, available data do not demonstrate such an association. Higher episode spending was not correlated with better quality outcomes,[12] as measured by the neonatal injury rate[xiii] and the obstetrical trauma rate.[xiv]

POLICIES TO IMPROVE QUALITY AND EFFICIENCY

Innovative payment models and benefit designs may create incentives that encourage high-value choices by both providers and consumers that could improve health outcomes while reducing cost.

Blended payment

Current payment methods pay more for C-sections than for vaginal deliveries, creating a financial environment that may favor C-sections, despite the clinical consensus that this procedure is overused. Blended-bundled payment, which pays a single amount independent of whether the delivery is vaginal or by C-section, has the potential to both lower spending and reduce use of low-value obstetrical care (see **Sidebar: "Blended bundled payment"**). Such payment creates financial incentives for hospitals to lower their rates of primary C-section, unnecessary ultrasounds, and other low-value services. Minnesota's Medicaid program offers a single blended payment for all deliveries, whether vaginal or cesarean. The program intends to lower the cesarean delivery rate by 5 percent.[13]

x Leapfrog Group, accessed December 2015. Each hospital's result is based on 12 months of data, ending either 12/31/2014 or 6/30/2015.

xi The Leapfrog Hospital Survey uses a tested, validated measure endorsed by the Joint Commission, National Quality Forum (NQF) and CMS. The NTSV C-section measure identifies pregnancies that are unlikely to need surgical intervention during labor. More specifically, NTSV refers to a first-time pregnancy (nulliparous) that has reached its 37th week or later (term) and consists of one fetus (singleton) in the head-down position (vertex).

xii Massachusetts General Hospital, North Shore Medical Center, Southcoast Hospital Group, Health Alliance Hospital declined to report their C-section Rates.

xiii Patient Safety Indicator 17: Birth Trauma Rate-Injury to Neonates. R=.03, p=.86.

xiv Patient Safety Indicator 19: Obstetric Trauma-Vaginal Delivery without instrument. R=-.10, p=.53.

Blended bundled payment

"Bundled payment" is an alternative payment method that makes a single payment for all services to treat a given condition or provide a given treatment, such as a single payment for an episode of care. For example, for a normal delivery, bundled payment might cover prenatal physician services, imaging, delivery, etc. In some cases, "bundles" are defined according to the specific treatment employed; for example, a system might offer one bundled payment for a vaginal delivery and a different, higher bundled payment for a C-section. In contrast, "blended bundled payment" is the term used to distinguish cases where the bundle is defined according to the patient's condition (e.g. normal pregnancy), and a single level of payment is used for multiple treatment pathways (e.g. vaginal or cesarean delivery). All bundled payment rewards efficient care, and, for maternity care, blended bundled payment explicitly provides incentives for hospitals and physicians to reduce the use of cesareans by removing the financial incentive to use this procedure.

As with other APMs, when blended-bundled payment is used, outcomes are monitored to ensure that providers maintain high quality and do not skimp on necessary care. Bundled payment may be more or less comprehensive. For example, a more comprehensive bundled payment might include both maternal and neo-natal care, thereby supporting providers who invest in prenatal care to improve the health of the infant and lower costs in the neonatal phase of the pregnancy.

Reference pricing

Maternal care is a service where reference pricing could be effective. Given that deliveries are common and expensive, mothers often research and select providers in advance and could incorporate information on quality and price into their decisions (see **Chapter 5: "Hospital Outpatient Spending"** for explanation of reference pricing). With reference pricing, if a mother-to-be selected a hospital where average costs were above a benchmark, then her cost-sharing would be higher than if she selected a hospital where average prices were at or below the benchmark. With reference pricing, patient cost-sharing is typically tied to the provider's average cost for all patients, not the actual cost incurred by the individual patient. The HPC simulated the savings that could occur with a reference price for pregnancy bundled payment set at $12,662, the spending associated with a pregnancy episode at Mount Auburn Hospital.[xv] The HPC found that spending referenced to that level would reduce commercial spending for pregnancies between 6 and 17 percent.[xvi] These savings would occur as some mothers elect to give birth at lower-cost facilities and some hospitals lower their prices in response to the change in benefit design.

Evidence-based patient-centered care models

Some evidence-based care models use low-intensity settings, and particularly focus on the mother's well-being. Appropriate providers may contribute to improving the quality and value of maternal and infant care. Studies conducted by the National Health Service have found that midwife-led birthing units and home births are safer for low-risk pregnancies than births in an obstetrician-led hospital unit. While it is hard to generalize these results to the U.S., research from other countries suggests that having midwives properly integrated into a healthcare infrastructure may lead to lower costs and higher quality.[14] Moreover, C-section rates are higher for lower income and African-American women. Midwifery care has been shown to reduce these disparities.[xvii,15,16]

Birthing units offer a mother the opportunity to give birth at a facility that offers a family-centered experience. Birthing centers are usually run by a team of certified nurse midwives and are integrated into or partnered with a hospital obstetric unit to ensure rapid transport and communication in case of complications. Even though some evidence suggests that birthing centers are a low-cost alternative with maternal and infant outcomes equal to or better than a hospital birth,[17,18] Massachusetts has only one licensed birthing center, which is owned and operated by Cambridge Health Alliance in Somerville.

In addition, coverage reforms that encourage patient-centered care models could contribute to lowering the statewide C-section rate. While a midwife is a clinical provider responsible for the medical care of both the mother and the baby, a doula's primary responsibility is caring for the physical and psychosocial well-being of the mother. The use of doulas has been endorsed by the American College of Obstetricians and Gynecologists and the Society of Fetal Medicine as an effective method to lower cost and improve quality of a pregnancy.[19] Doulas are currently not covered by MassHealth or any of the major payers,

xv Mount Auburn Hospital was chosen as the reference hospital because it is one of the 15 highest-volume hospitals in the state, and, of those hospitals, has one of the lowest costs for pregnancy episode and one of the lowest C-section rates (a measure of quality).

xvi For context, total spending in the APCD for pregnancy, with delivery was $442,595,642.

xvii Based on 2013 national vital statistics, the NTSV C-section rate for non-Hispanic white women was 25.9, for non-Hispanic black women 30.8, and for Hispanic women 26.6.

creating a barrier to access, especially for low-income women. Medicaid programs in Oregon and Minnesota have already begun to reimburse for doula services during a pregnancy. A 2013 study estimated that if doulas were covered by MassHealth and reimbursed at rates equal to Minneapolis' Medicaid program, MassHealth could save $9.5 million through savings generated through a lower C-section rate.[20]

Episode-level spending for a normal pregnancy and delivery varies among hospitals. Most of the variation can be explained by the variation in procedural price, with no demonstrable relationship between episode spending and the quality of care. Despite payment reform efforts to date, volume is increasingly concentrated in high-cost hospitals. The statewide NTSV C-section rate is higher than optimal. Changes in payment and benefit design may reduce spending and drive volume to more efficient settings, while evidence-based models of care may improve outcomes or experience for mothers and infants.

REFERENCES

1 Queally K, Sanger-Katz M. The Experts Were Wrong About the Best Places for Better and Cheaper Health Care. 2015.

2 Eguchi M, White C. Reference Pricing: A Small Piece of the Health Care Price and Quality Puzzle: Mathematica Policy Research;2014.

3 Hannah ME. Planned elective cesarean section: A reasonable choice for some women? CMAJ2004. p. 813-4.

4 Molina G, Weiser TG, Lipsitz SR, Esquivel MM, Uribe-Leitz T, Azad T, et al. Relationship Between Cesarean Delivery Rate and Maternal and Neonatal Mortality. Jama. 2015; 314:2263-70.

5 Morrison JJ, Rennie JM, Milton PJ. Neonatal respiratory morbidity and mode of delivery at term: influence of timing of elective caesarean section. British journal of obstetrics and gynaecology. 1995; 102:101-6.

6 Smith GC, Pell JP, Dobbie R. Caesarean section and risk of unexplained stillbirth in subsequent pregnancy. Lancet (London, England). 2003; 362:1779-84.

7 Huang L, Chen Q, Zhao Y, Wang W, Fang F, Bao Y. Is elective cesarean section associated with a higher risk of asthma? A meta-analysis. Journal of Asthma. 2014; 52:16-25.

8 Heaman M. Infant and Neonatal Mortality for Primary Cesarean and Vaginal Births to Women With "No Indicated Risk," United States, 1998–2001 Birth Cohorts. MCN: The American Journal of Maternal/Child Nursing. 2007; 32:130.

9 Li Y, Caufield P, Dasanayake A, Wiener H, Vermund S. Mode of delivery and other maternal factors influence the acquisition of Streptococcus mutans in infants. Journal of dental research. 2005; 84:806-11.

10 The Leapfrog Group. C-Section Rates by Hospital. The Leapfrog Group; 2015 [cited 2015 Dec 22]; Available from: http://www.leapfroggroup.org/patients/c-section.

11 Reddy UM, Abuhamad AZ, Levine D, Saade GR. Fetal imaging: executive summary of a joint Eunice Kennedy Shriver National Institute of Child Health and Human Development, Society for Maternal-Fetal Medicine, American Institute of Ultrasound in Medicine, American College of Obstetricians and Gynecologists, American College of Radiology, Society for Pediatric Radiology, and Society of Radiologists in Ultrasound Fetal Imaging Workshop. Journal of ultrasound in medicine : Official Journal of the American Institute of Ultrasound in Medicine. 2014; 33:745-57.

12 Center for Health Information and Analysis. A Focus on Provider Quality. Boston, MA: Center for Health Information and Analysis; 2015.

13 Medicaid and CHIP Payment and Access Commission. Maternity Services: Examining Eligibility and Coverage in Medicaid and CHIP. Washington, DC: Medicaid and CHIP Payment and Access Commission; 2013.

14 National Institute for Health and Care Excellence. Intrapartum care for healthy women and babies | Guidance and guidelines | National Institute for Health and Care Excellence. 2015.

15 MacDorman M, Declercq E, Menacker F. Recent trends and patterns in cesarean and vaginal birth after cesarean (VBAC) deliveries in the United States. Clinics in perinatology. 2011; 38:179-92.

16 MacDorman MF, Singh GK. Midwifery care, social and medical risk factors, and birth outcomes in the USA. Journal of Epidemiology and Community Health. 1998; 52:310-7.

17 Declercq ER. Midwifery care and medical complications: the role of risk screening. Birth. 1995; 22:68-73.

18 Garvey M. The national birth center study II: Research confirms low Cesarean rates and health care costs at birth centers. Midwifery today with international midwife. 2013:40, 68.

19 American Congress of Obstetricians and Gynecologists. Safe Prevention of the Primary Cesarean Delivery. 2014. Available from: http://www.acog.org/Resources-And-Publications/Obstetric-Care-Consensus-Series/Safe-Prevention-of-the-Primary-Cesarean-Delivery.

20 Kozhimannil KB, Hardeman RR, Attanasio LB, Blauer-Peterson C, O'Brien M. Doula Care, Birth Outcomes, and Costs Among Medicaid Beneficiaries. Am J Public Health. 2013; 103:e113-21.

Avoidable Hospital Use

In the 2014 Cost Trends Report, the Health Policy Commission (HPC) identified excessive hospital use, including readmissions, preventable hospital admissions, and preventable emergency department (ED) use as areas of ongoing focus. While the rate of hospital admissions is falling in Massachusetts and across the nation,[1] Massachusetts continues to use hospital care at rates greater than the rest of the country[2] (see **Exhibit 8.1**). This chapter briefly reviews recent performance on readmissions and preventable admissions in the Commonwealth before examining ED utilization in more depth. It concludes with emerging opportunities to reduce utilization of acute hospital services.

As in recent years, inpatient and ED utilization in Massachusetts are 11 and 14 percent higher than the national average, respectively. Massachusetts' outpatient utilization is more than 50 percent higher than the national average, placing it among the 5 highest utilizing states on that measure. Medicare readmissions rates are also higher than the national average.[i] The next sections focus on potentially avoidable or unnecessary hospital use and highlight opportunities to reduce such utilization and increase efficiency in the delivery system.

Exhibit 8.1: Hospital use in Massachusetts and the U.S., 2014

	Units, year	MA	US	Difference	MA Rank (1=best)
Inpatient Days	Per 1,000 persons	625	577	8.3%	33
Inpatient Admissions	Per 1,000 persons	118	106	11.3%	36
Outpatient Visits	Per 1,000 persons	3,302	2,145	53.9%	47
ED Visits	Per 1,000 persons	481	423	13.7%	29
Medicare Readmission Rate	Percent	17.4%	17.0%	.4 percentage points	34

Source: Kaiser Family Foundation analysis of American Hospital Association data, Centers for Medicare and Medicaid Services

i Inpatient days, inpatient admissions, outpatient visits, and ED visits are unadjusted rates. Based on data from 2010, the Health Policy Commission found that, after adjusting for age, Massachusetts inpatient days were 5 percent above the U.S. average, inpatient admissions 10 percent above, outpatient visits 72 percent above, and ED visits 13 percent above. Medicare readmissions rates are adjusted for clinical and demographic characteristics.

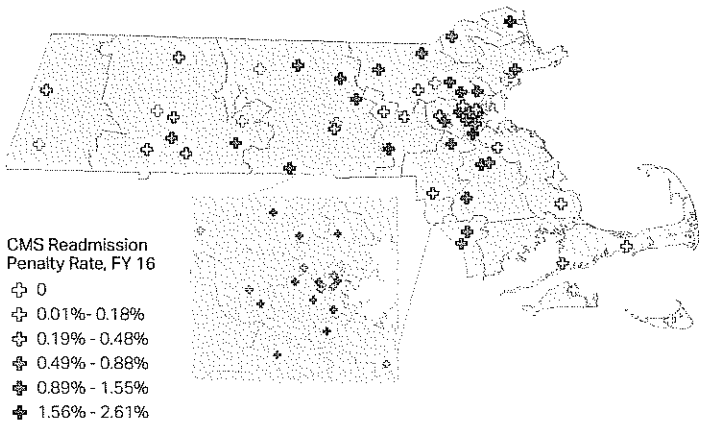
READMISSIONS

Readmission of patients to a hospital within 30 days of discharge may indicate incomplete treatment in the hospital setting, poor care after return to the community, or poor coordination as patients transition across sites of care. Massachusetts' 30-day, all-cause, all-payer, risk-standardized readmission rate was 15 percent in FY2013, a slight improvement relative to the 15.9 percent in FY2011.[ii,3] Reducing readmissions has been an ongoing focus of state and national quality-improvement efforts for nearly a decade, and there is some evidence that the observed decline may result from these efforts.[iii] The all-payer readmission rate for individual hospitals, excluding specialty hospitals, varied from 13.3 percent to 17.3 percent, suggesting opportunities to improve performance, including through more effective community partnerships and sharing best practices.[iv]

Measuring and reducing readmissions has been a particular emphasis in the Medicare program. Massachusetts' 30-day, all-cause, risk-standardized readmission rate for Medicare members was 17.4 percent in FY2013, a slight improvement relative to the 18.2 percent in FY2012.[v,1] Consistent with the fact that the Massachusetts all-cause Medicare readmission rate was above the national average, Massachusetts had higher readmission rates than the U.S. for five of the seven conditions reported by the Centers for Medicare and Medicaid Services (CMS). Rates were higher for acute myocardial infarction (MA/U.S.=17.3/17.0), chronic obstructive pulmonary disease (20.9/20.2), heart failure (22.3/22.0), pneumonia (17.1/16.9), and stroke (13.2/12.7). Rates were lower for hip and knee replacements (4.5/4.8) and coronary artery bypass graft (14.3/14.9).[4] Similar to the all-payer case, variation among hospitals in Medicare all-cause readmission rates was substantial, ranging from 11.6 percent to 17.1 percent,[3] and condition-specific rates varied as well.

As part of a strategy to align payment with measurable indicators of quality and efficiency, CMS penalizes hospitals with above-average readmissions rates. Seventy-eight percent of acute-care facilities in Massachusetts that were eligible for this CMS penalty will be penalized in 2016, compared to 54 percent of eligible hospitals nationwide. Penalty amounts range from .01 percent to 2.61 percent of the hospital's total Medicare inpatient revenue (see **Exhibit 8.2**).[5]

Exhibit 8.2: Massachusetts hospitals penalized for readmissions and assessment rate, FY 2016



Note: Excludes Specialty and VA Hospitals. Penalty rates apply to Original Medicare payments for inpatient care.
Source: Kaiser Family Foundation; analysis of Centers for Medicare and Medicaid Services data; Centers for Medicare and Medicaid Services data

Reducing readmissions is important both to improve patients' experience and to reduce unnecessary spending, and national efforts demonstrate the progress is possible.[6] Hospitals that voluntarily participate in initiatives—such as the State Action on Avoidable Re-hospitalizations (STARR) and the Hospitals to Home (H2H), which are designed to lower readmission rates through better care coordination

ii This measure is a single composite risk-standardized readmission rate (RSRR), derived from the volume-weighted results of five different models, one for each of the following specialty cohorts (groups of related discharge condition categories or procedure categories): surgery/gynecology, general medicine, cardio-respiratory, cardiovascular, and neurology. This measure is not adjusted for patients' socio-economic status. As a result, the measure may be used to track disparities by socio-economic status, but, at the same time, comparisons across hospitals and readmissions penalties may disadvantage hospitals that serve low-income patients, to the extent that socio-economic characteristics have a direct influence on the likelihood of readmissions. National all-payer data are not available for comparison.

iii For example, MedPAC's June 2013 Report to the Congress indicated that, at a national level, all-cause readmissions for the three reported conditions had a larger decrease in readmissions over the three-year measurement period than readmissions for all conditions, suggesting a strong connection between public reporting and implementation of the Hospital Readmissions Reduction Program.

iv Specialty Hospitals were excluded from the hospital-level analysis

v The Medicare hospital-wide readmission rate is calculated using the same algorithm as CHIA's all-payer readmission rate.

between the patient's community practitioners[vi]—have been moderately successful, lowering readmission rates up to 1.3 percentage points.[7] Results were better when hospitals employed multiple strategies and had the flexibility to implement their own programs tailored to the circumstances of their targeted populations.[8] Through the Hospital Engagement Network (HEN), CMS and the American Hospital Association have employed a target rate of a 20 percent reduction in readmissions over three years. This target was first used as part of HEN 1.0, and 1,263 reporting hospitals achieved a collective decrease in readmissions of 18 percent between 2011 and 2014 by reducing preventable complications during transitions from one care setting to another. In HEN 2.0, hospitals were again challenged to reduce avoidable readmissions by an additional 20 percent by September 2016.

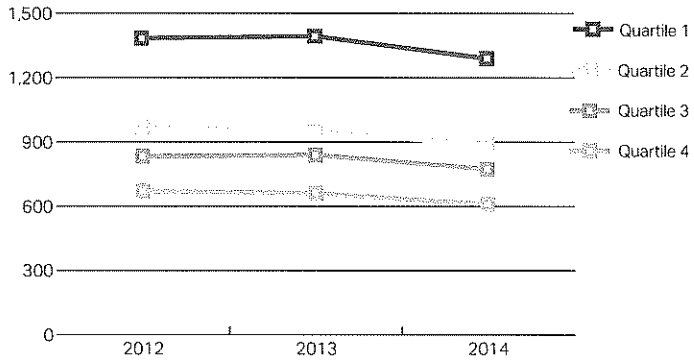
PREVENTABLE HOSPITAL ADMISSIONS

Consistent with Massachusetts' high rates of total hospital use, the HPC's past reports have also identified room for improvement in the state's rates of preventable hospital admissions, defined as admissions that could have been prevented through better access to primary care. In 2014, Massachusetts had preventable hospitalization rates significantly higher than the national average for patients with congestive heart failure (MA/U.S.=361/321)[vii] and younger adults with asthma (54/46), but lower rates than the national average for diabetes complications (52/64) and COPD (487/496).[9]

The HPC's past reports have highlighted that rates of preventable hospital admissions also vary systematically with community income, with higher rates in lower income communities, a troubling signal of ongoing disparities in access within the state (see **Exhibit 8.3**). Rates of preventable inpatient hospital use improved slightly between 2013 and 2014, consistent with an overall decline in hospital utilization, but rates of preventable hospitalizations in lower income communities (median family income below $52,000) remained twice as high as rates in higher income communities (median family income > $87,000). This community-level variation (like the hospital-level variation in readmissions) indicates the potential for improvement in lower performing and lower income communities, particularly with improvement in access to primary care. Ideally, policy and payment reforms will reduce this disparity between higher and lower income communities, in addition to improving cost and quality of care overall.

Exhibit 8.3: Chronic preventable hospital admissions by income quartile, 2012 – 2014

Age and sex adjusted hospitalizations per 100,000 residents



Note: Income Quartiles range from $0 - $52K, 52K - 69K, 69K - 87K, and 87K+.
Source: HPC analysis of Center for Health Information and Analysis Hospital Inpatient Discharge Database, 2012-2014

EMERGENCY DEPARTMENT (ED) UTILIZATION

Like readmissions and preventable admissions, Massachusetts' high rates of ED use may result both from inefficient use (patients using the ED for conditions that could have been addressed in a less-intensive setting) and from poor access to care, especially poor access to primary care. This leads to emergencies that could have been avoided with earlier or better treatment.[10] More generally, ED use is higher among women, non-white, and lower income individuals.[11]

While the number of ED visits per Massachusetts resident climbed steadily between 2010 and 2013, it dropped 2.2 percent in 2014 to a level just below the 2010 total, leading to a -0.4 percent decline across the four-year period.[viii]

ED visits by type

In 2014, seven percent of ED visits were for a behavioral health condition, based on a primary diagnosis code relat-

vi The initiatives created six strategies that hospitals could choose to implement: (1) partnering with community physicians or physician groups to reduce readmissions; (2) partnering with local hospitals to reduce readmissions; (3) having nurses responsible for medication reconciliation; (4) arranging a follow-up appointment before discharge; 5) having a process in place to send all discharge paper or electronic summaries directly to the patient's primary physician; and (6) assigning staff to follow up on test results that return after the patient is discharged. All were correlated with a lower readmission rate in the program's evaluation.

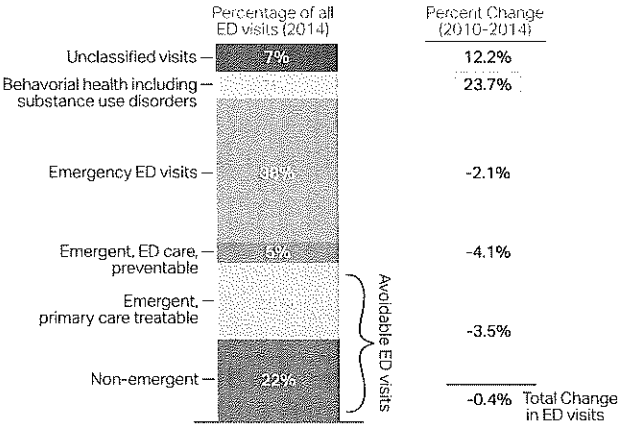
vii All avoidable hospitalization rates are measured per 100,000 residents.

viii This finding may be a preliminary sign that access to care is improving in Massachusetts, potentially as a result of the ACA.

ed to mental health, alcohol, or substance abuse.[ix] While standard, this measure of visits related to behavioral health is very conservative because it does not include visits where a behavioral health condition was a secondary diagnosis or where a medical problem (such as injuries from a motor vehicle accident) had a behavioral health condition as its root cause. When secondary diagnoses were included, a behavioral health condition was a factor in 14 percent of all ED visits.

Within the 0.4 percent drop in overall ED use, the trend for visits related to a behavioral health condition was notable. The number of ED visits related to behavioral health grew by 23.7 percent between 2010 and 2014, while the number of other visits fell by 1.8 percent (see **Exhibit 8.4**).[x]

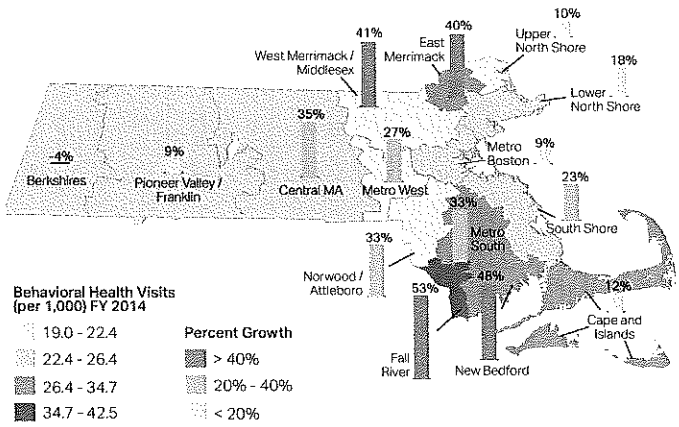
Exhibit 8.4: Emergency Department visits by type, 2010 – 2014



Note: Definition for avoidable ED visits based on NYU Billings Algorithm.
Source: NYU Center for Health and Public Service Research; HPC analysis of Center for Health Information and Analysis Hospital Inpatient Discharge Database, FY2010-2014

Adjusted for age and sex, behavioral health ED visits varied by more than two-fold between regions, from 20 per 1,000 residents in West Merrimack/Middlesex to 43 per 1,000 in the Fall River area. The latter is driven by a dramatic 53 percent increase from 2010 to 2014 (see **Exhibit 8.5**). This variation and recent trend indicates important opportunities for the state and market participants to collectively address pressing community need. In preliminary research, the HPC has observed a strong negative correlation (-0.5) between numbers of behavioral health providers in each region (particularly psychologists and other providers) and rates of behavioral health-related ED visits. The HPC will continue to refine and develop this analysis.

Exhibit 8.5: Behavioral health-related emergency department visits per 1,000 residents, 2010 – 2014
Vertical bars show growth in visits



Note: Behavioral health includes mental health and substance use disorders. All conditions are based on primary diagnosis. All rates are adjusted for age and sex.
Source: NYU Center for Health and Public Service Research HPC analysis of Center for Health Information and Analysis Hospital Inpatient Discharge Database, FY2010-2014

Exhibit 8.4 further categorizes the state's ED visits that were not related to behavioral health according to whether they represented emergencies, events that could have been prevented with more effective primary care, events that could have been treated in a primary care setting, or events that were not emergent.[xi] Despite the overall decline in ED use, the HPC continues to find that more than 40 percent of ED visits were either non-emergency or could have been treated in primary care, suggesting opportunities to improve patients' access to primary care and other non-emergency services. Moreover, adjusted for age and sex, residents of communities in the lowest income quartile had more than three times the avoidable ED rate of those in the highest income quartile (271 versus 81 per thousand residents, respectively), a troubling finding that signals significant opportunity for addressing disparities.[xii]

ix The HPC used the Billings algorithm to categorize ED visits as emergent, avoidable, preventable, or behavioral health (mutually exclusive categories).

x When secondary diagnoses are included, the number of ED visits related to behavioral health grew by 28 percent.

xi While some ED visits related to behavioral health are likely preventable or avoidable, the Billings algorithm treats "behavioral health," "preventable," and "avoidable" as mutually exclusive categories and groups all visits with a primary behavioral health diagnosis in the "behavioral health" category.

xii To assess the percentage of visits that are avoidable, the Billings algorithm analyzes the diagnoses recorded on emergency department claims and assigns a probability that each ED visit could have been prevented. This algorithm is intended as measure of the overall quality of primary care for a population and is not suitable for assessing individual visits or for use in payment.

Individuals with very high ED use

The HPC's 2014 Cost Trends Report's analysis of high-cost patients showed ED spending was highly concentrated, with less than 1 percent of the commercial population accounting for 8 percent of commercial ED spending, and less than 1 percent of the Medicare population accounting for 5 percent of commercial ED spending. Several studies have also shown that a relatively small number of ED patients were responsible for a disproportionate share of ED visits.[12,13,14] High utilizers have been a topic of concern in emergency medicine because EDs are not the optimal setting to take care of repeat patients with complex conditions that require continuous, frequent attention.

The research literature indicates that frequent users of the ED were generally heavy users of other health care services, including office visits and other hospital services.[15] These patients also had a higher incidence of mental illness and were in poorer health than non-frequent users.[15,13] In analyzing the Massachusetts ED data, the HPC found that patients with at least five visits in 2014 (7 percent of patients) accounted for one-third of ED visits in that year and those with between two and four visits accounted for another one-third (see **Exhibit 8.6**). Behavioral health conditions[xiii] were more prevalent among frequent ED users (5+ visits) than other users, 11 percent versus 5 percent.[xiv] These findings highlight an opportunity to reduce spending and improve care for a small targeted population through better access to and coordination of care, which can have a large impact on overall ED spending.[16]

Strategies to reduce ED use

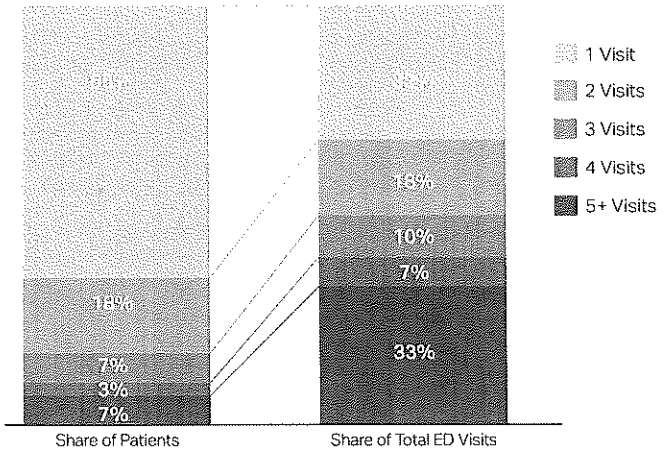
Reducing avoidable ED use requires a variety of strategies. In the past, the HPC has suggested community collaboration and care management as ways to reduce avoidable ED use among patients with complex medical conditions. Other strategies to reduce avoidable ED use include expanding after-hours access, promoting appropriate ED use among patients with financial incentives and education, and redesigning care.

Expanding after-hours access

Demand for EDs is driven, in part, by the fact that they are open at all hours and do not require appointments.[17] Consistent with the evidence that lack of access to care after-hours drives ED use,[11,18,19] research has also found

Exhibit 8.6: Emergency Department visits by patient visit frequency, 2014

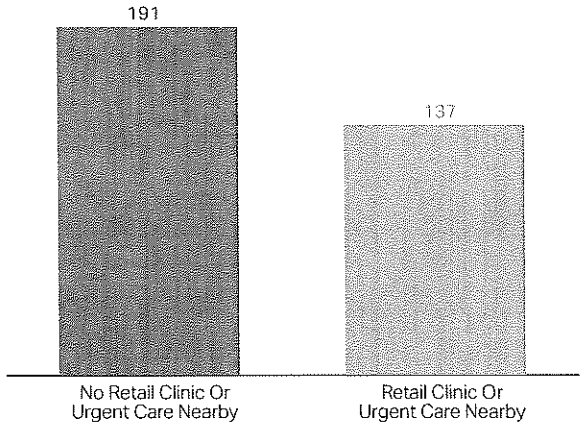
Visits per year



Source: HPC analysis of Center for Health Information and Analysis Hospital Inpatient Discharge Database, FY2014

Exhibit 8.7: Avoidable Emergency Department use by proximity to retail clinic or urgent-care sites, 2014

Number of avoidable ED visits per 1,000 residents



Note: Residents shown all live within 5 miles of an ED. Residents who do not live within 5 miles of an ED are excluded from figure.

Source: HPC analysis of Center for Health Information and Analysis Hospital Inpatient Discharge Database FY2014; Massachusetts Department of Public Health

that the availability of retail clinics was associated with a reduction in emergency department visits.[20] The HPC's work shows that, in 2014, for Massachusetts residents who lived within five miles of an ED, avoidable ED use was 30 percent lower if there was also an urgent-care center or retail clinic within five miles (see **Exhibit 8.7**). This finding suggests that improved access to alternative sites of care could significantly reduce unnecessary utilization of EDs.[xv]

xiii Behavioral health conditions were identified based on the primary diagnosis only.

xiv Analyses of high ED utilizers conducted by hospitals participating in the HPC's CHART investment program reinforced that behavioral health conditions, and economic and social challenges, are common among patients with frequent ED use.

xv This finding does not control for income, which is correlated with the locations of urgent care centers and retail clinics; the effect is lower when this adjustment is made. The HPC plans to present additional research on primary care access in 2016.

In addition, removal of practice restrictions for nurse practitioners has been linked to a 20 percent reduction in ambulatory-care sensitive ED visits in national data (see **Chapter 9: Access to Primary Care**).[21] Removal of such restrictions could also lower costs for, and boost the expansion of retail clinics, which are related to reduction in avoidable ED visits.[22]

Another possible way to enhance access to care is through telemedicine and other technology. Extending patients' ability to communicate with health professionals on nights and weekends or when transportation barriers exist may avoid unnecessary visits to EDs. For example, since 2006, New Mexico has been operating a 24/7 registered-nurse call center that is free to all residents. This hotline fields 15,000 calls per month and diverts 65 percent of callers from EDs at a savings of $41 per call.[23] While some Massachusetts residents have access to such services today through providers, insurers, or add-on services offered by their employers, many Massachusetts residents do not.

Promoting appropriate ED use with incentives and education

Insurers play an important role in directing enrollees to lower-cost settings of care where possible. Tufts Health Plan and the Group Insurance Commission promote the use of urgent-care centers for non-emergent visits through their member newsletters. They also highlight conditions for which patients should be seen at an urgent-care setting and the co-pay differential between a non-emergency ED visit and urgent-care visit. Primary care physicians (PCPs) can also promote appropriate use of the ED by educating patients about conditions that merit emergency room visits and telling patients when urgent-care and retail clinics are good alternatives. For better proactive outreach to patients, providers must be aware of their patients' ED visits, which is facilitated by access to better data, including utilization histories and event notification systems (ENS) (see **Sidebar: "Event notification system"**).

Appropriate triage of medical emergency

Finally, providers may be able to intervene at the time of care to direct patients to appropriate settings. For example, Project Ethan (Emergency TeleHealth and Navigation), which started in December 2014, is a Houston, Texas-based ED telehealth intervention aimed at reducing the number of unnecessary trips to the ED by using technology that allows emergency physicians to communicate with patients in their homes. When responding to a 911 call, paramedics are able to use a computer tablet to connect a patient to an emergency-medicine physician while the patient is still at home. In many cases, the physician is able to address the symptoms via the tablet or redirect the patient to an alternative site. Another approach for hospitals to reduce unnecessary ED use is to run parallel EDs and urgent-care centers. When appropriate, patients are stabilized in the former and transferred to the latter.

MASSACHUSETTS INITIATIVES TO REDUCE AVOIDABLE HOSPITAL USE

The HPC's Community Hospital Acceleration, Revitalization, and Transformation (CHART) program invests in Massachusetts community hospitals to enhance their delivery of efficient, effective care. The HPC has invested more than $60 million to maximize appropriate hospital use and enhance behavioral health care. For example, through CHART, Holyoke Medical Center is investing $3.9 million to develop a cross-setting care team that serves patients with a history of recurrent ED utilization and behavioral health diagnoses. ED nurses trained in behavioral health screen, stabilize, and triage behavioral health patients. They are supported by a multi-disciplinary ambulatory intensive care unit (an outpatient clinic for intensive behavioral health treatment, care planning, and linkage to community resources). The overall initiative is focused on reducing ED utilization for patients with behavioral health conditions by 20 percent. In addition, as part of a state-wide effort to tackle this dramatic increase in behavioral health related ED use, the state FY2016 budget included $250,000 to develop a pilot behavioral health triage program in the greater Quincy area.

Health information technology generally supports providers in providing patient-centered, integrated, and efficient care in general, and specifically to reduce unnecessary hospital use. The HPC and other market participants are actively investing in telehealth technologies that allow patient-to-provider or provider-to-provider consultations when the parties are in different locations. Given significant behavioral health capacity challenges and morbidity in the Commonwealth, one of the more promising applications of telehealth is promoting behavioral health integration.[24,25,26,27] Emerging evidence from Wyoming, Georgia, New York, and Vermont indicates that the use of telehealth can enhance access by overcoming integration barriers and workforce limitations. This can decrease total health care spending and provide services at equal or

Event notification system (ENS)

Population health management is increasingly viewed as a means of reducing avoidable hospital use, and providers are turning to tools to enable related processes like effective care coordination and care transitions. One promising tool is an event notification system (ENS). An ENS has the potential to rapidly and automatically deliver essential information to PCPs on when and where their patients are accessing high-intensity settings.

When a patient is registered at or discharged from a hospital or post-acute care facility, often, the patient's PCP is not aware this has happened. In a typical ENS, a message is automatically generated with the patient's name and other basic identifiers (such as medical record number or date of birth) and the name of the provider where the patient is being seen. This message is routed to a centralized database that compares the patient identifiers to a roster of patients of each primary care practice and accountable care organization (ACO) in the state. If a match is found, the patient's PCP is notified via an e-mail, a page, or an alert in the electronic health record (EHR). This translation of data on the patient to a provider takes just seconds to complete. With a near real-time notification in hand, a primary care practice or ACO can choose to intercede on behalf of the patient in a meaningful way. For example, a case manager might be deployed to the ED to help avoid a preventable hospitalization, or the PCP might call and consult with the emergency physician.

When used this way, an ENS serves as an information backbone to help PCPs and ACOs ensure patients are receiving the appropriate level of care. ENSs have been widely regarded as one of the most crucial tools for population health management in Maryland, which has had tremendous early success in driving down all-cause hospital utilization since implementing an ENS in 2013. Similarly, a recent study of event notifications in Rhode Island found that practices utilizing notifications to help track and coordinate care for their patients experienced a readmission rate 11 percent lower than those practices that did not.

ENS currently operates in Massachusetts across a number of providers. Within systems, providers have long-established notification tools that inform their PCPs when a patient comes to an affiliated hospital. These notifications are either enabled by a shared EHR between primary care and affiliated hospitals, or technology connections that have been built directly between two providers. Although these direct-connection systems provide some clinical value, they leave substantial cracks in the network of providers patients might encounter as they move in and out of the health care system. A statewide ENS would address these challenges.

The Commonwealth has taken on this challenge and is currently exploring opportunities to develop a statewide ENS. Doing so may also involve re-examining statutory consent requirements and making the changes necessary to broaden patients' participation in health information exchange, while balancing privacy concerns. Many stakeholders view the current consent requirements as a barrier to broad participation in the Massachusetts Health Information Exchange (Mass Hlway).

higher quality than in-person care.[28,29,xvi] The HPC received $500,000 from the Massachusetts Legislature to pilot enhanced telehealth applications in the Commonwealth; this initiative will begin in early 2016 and will augment current HPC telehealth investments in four CHART hospitals, thereby enabling patients to receive care without visiting the hospital. Blue Cross Blue Shield is also piloting mobile-phone-based video-conferencing between providers and patients with two physician organizations with a goal of expanding the offering to all members covered under risk-based contracts.[30] If successful, these programs could be expanded to similar or new populations.

In addition, health information technology enables providers to access information on patients' clinical condition or use of care often in real-time. Event notification offers providers immediate information on their patients' use of care, including hospital admissions, discharges, and transfers, thereby facilitating informed and effective care.

In summary, Massachusetts residents use more hospital, ED, and outpatient care than the rest of the U.S. Readmissions rates are high relative to the national average and vary among hospitals. Avoidable hospital use, both inpatient and ED, varies with community income. While rates of potentially avoidable ED visits were lower in 2014 than in 2010, those years also saw a dramatic surge in behavioral health-related ED visits, particularly in some parts of the state. These high rates of hospital use, and high rates of avoidable hospital use, contribute to high health care spending, and represent a key area for focus and improvement—in redirecting care to more appropriate settings, redesigning care, and offering timely treatment to avoid unnecessary complications of health conditions.

xvi Wyoming found that using telehealth to treat children with behavioral health issues in the state's Medicaid program reduced use of psychotropic medications in young children by 42 percent and had a 1.82:1 return on investment. Georgia uses telehealth for mental health and substance use disorders in its corrections system at a savings of $500 per encounter (through staff savings and reduce cost of transportation to care providers). Use of telehealth to increase access to behavioral health services for patients in skilled nursing facilities in Vermont and New York also derived substantial savings.

REFERENCES

1 Centers for Medicare and Medicaid Services. State Table - Beneficiaries 65 and older. 2015.

2 The Henry J. Kaiser Family Foundation. Hospital Utilization. Menlo Park, CA: The Henry J. Kaiser Family Foundation; [cited 2015 Dec 22]; Available from: http://kff.org/state-category/providers-service-use/hospital-utilization/.

3 Center for Health Information and Analysis. Hospital-Wide Adult All-Payer Readmissions in Massachusetts: 2011-2013. Boston, MA: Center for Health Information and Analysis; 2015.

4 Centers for Medicare and Medicaid Services. Hospital Compare datasets. Baltimore, MD: Centers for Medicare and Medicaid Services; 2015.

5 Rau J. Half Of Nation's Hospitals Fail Again To Escape Medicare's Readmission Penalties. Kaiser Health News; 2015 [cited 2015 Dec 22]; Available from: http://khn.org/news/half-of-nations-hospitals-fail-again-to-escape-medicares-readmission-penalties/.

6 Joshi M CC. Partnership for Patients Hospital Engagement Network. Chicago, IL: The American Hospital Association/Health Research and Educational Trust Hospital Engagement Network2014.

7 Bradley EH, Sipsma H, Horwitz LI, Nsumele CD, Brewster AL, Curry LA, et al. Hospital Strategy Uptake and Reductions in Unplanned Readmission Rates for Patients with Heart Failure: A Prospective Study. Journal of general internal medicine. 2015; 30:605-11.

8 Bradley EH, Curry L, Horwitz LI, Sipsma H, Wang Y, Walsh MN, et al. Hospital strategies associated with 30-day readmission rates for patients with heart failure. Circulation: Cardiovascular Quality and Outcomes. 2013; 6:444-50.

9 Center for Health Information and Analysis. A Focus on Provider Quality. Boston, MA: Center for Health Information and Analysis; 2015.

10 The Commonwealth Fund. Commonwealth Scorecard on State Health System Performance. 2015.

11 Rust G, Ye J, Baltrus P, Daniels E, Adesunloye B, Fryer GE. Practical barriers to timely primary care access: impact on adult use of emergency department services. Archives of internal medicine. 2008; 168:1705-10.

12 Blank FS, Li H, Henneman PL, Smithline HA, Santoro JS, Provost D, et al. A descriptive study of heavy emergency department users at an academic emergency department reveals heavy ED users have better access to care than average users. Journal of Emergency Nursing. 2005; 31:139-44.

13 Zuckerman S, Shen Y-C. Characteristics of occasional and frequent emergency department users: do insurance coverage and access to care matter? Medical care. 2004; 42:176-82.

14 Fuda KK, Immekus R. Frequent users of Massachusetts emergency departments: a statewide analysis. Annals of emergency medicine. 2006; 48:16. e1-. e9

15 Byrne M, Murphy AW, Plunkett PK, McGee HM, Murray A, Bury G. Frequent attenders to an emergency department: a study of primary health care use, medical profile, and psychosocial characteristics. Annals of emergency medicine. 2003; 41:309-18.

16 Gill JM, Mainous III AG, Nsereko M. The effect of continuity of care on emergency department use. Archives of family medicine. 2000; 9:333.

17 Center for Health Information and Analysis. Findings From The 2014 Massachusetts Health Insurance Survey. Boston, MA: Center for Health Information and Analysis; 2015.

18 Lowe RA, Localio AR, Schwarz DF, Williams S, Tuton LW, Maroney S, et al. Association between primary care practice characteristics and emergency department use in a Medicaid managed care organization. Medical care. 2005; 43:792-800.

19 Piehl MD, Clemens CJ, Joines JD. Narrowing the gap: decreasing emergency department use by children enrolled in the Medicaid program by improving access to primary care. Archives of pediatrics & adolescent medicine. 2000; 154:791-5.

20 Sussman A, Dunham L, Snower K, Hu M, Matlin OS, Shrank WH, et al. Retail clinic utilization associated with lower total cost of care. The American journal of managed care. 2013; 19:e148-57.

21 Traczynski J, Udalova V, editors. Nurse practitioner independence, health care utilization, and health outcomes. Fourth Annual Midwest Health Economics Conference, Madison, WI; 2013.

22 Spetz J, Parente ST, Town RJ, Bazarko D. Scope-of-practice laws for nurse practitioners limit cost savings that can be achieved in retail clinics. Health Affairs. 2013; 32:1977-84.

23 Vestal C. New Mexico's Nurse Hotline Touted as a Model in States. Washington, DC: The Pew Charitable Trusts; 2015 Feb 25; Available from: http://www.pewtrusts.org/en/research-and-analysis/blogs/stateline/2015/2/25/new-mexicos-nurse-hotline-touted-as-model-in-states

24 Townley C, Yalowich R. Improving Behavioral Health Access & Integration Using Telehealth & Teleconsultation: A Health Care System for the 21st Century. National Academy for State Health Policy; 2015.

25 Deslich S, Stec B, Tomblin S, Coustasse A. Telepsychiatry in the 21st Century: Transforming Healthcare with Technology. Perspect Health Inf Manag. 2013.

26 Hilty DM, Ferrer DC, Parish MB, Johnston B, Callahan EJ, Yellowlees PM. The effectiveness of telemental health: a 2013 review. Telemedicine journal and e-health : the official journal of the American Telemedicine Association. 2013; 19:444-54.

27 Markwick L, McConnochie K, Wood N. Expanding Telemedicine to Include Primary Care for the Urban Adult. Journal of health care for the poor and underserved. 2015; 26:771-6.

28 Hilt RJ, Barclay RP, Bush J, Stout B, Anderson N, Vignali JR. A Statewide Child Telepsychiatry Consult System Yields Desired Health System Changes and Savings. Telemedicine journal and e-health : the official journal of the American Telemedicine Association. 2015; 21:533-7.

29 Rabinowitz T, Murphy KM, Amour JL, Ricci MA, Caputo MP, Newhouse PA. Benefits of a telepsychiatry consultation service for rural nursing home residents. Telemedicine journal and e-health: the official journal of the American Telemedicine Association. 2010; 16:34-40.

30 Monegain B. Two Blues go for telehealth. Healthcare IT News; 2013.

Access to Primary Care

New models of care, such as patient-centered medical homes (PCMHs) and accountable care organizations (ACOs), rely on a robust backbone of primary care services accessible to all residents. Literature demonstrates that when people have better access to primary care, treatment occurs earlier, leading to fewer preventable emergency department (ED) visits and hospital admissions.[1] Areas with higher ratios of primary care providers (PCPs) to the population have also been associated with lower total health care costs, possibly because better preventative care leads to fewer hospitalizations and serious medical events.[1] This chapter describes access to primary care in Massachusetts including an analysis based on the number of PCPs per resident and a discussion of policy options to improve access.

Massachusetts enjoys a relatively high percentages of residents reporting a "usual source of care" - a metric often interpreted to be reflective of having a PCP and routine doctor visits.[2] Yet having a usual source of care or accessing routine office visits do not necessarily imply availability of primary care when it is most needed. Analysis of a 2014 survey of more than 4,000 Massachusetts households conducted by the Center for Health Information and Analysis (CHIA) found that, among respondents who had been to the ED in the past year, over half said they had done so because they could not get an appointment at their usual source of care when needed.[3]

Furthermore, access to primary care may vary by population and region. A 2013 survey of Massachusetts residents found that one in five individuals with public coverage had difficulty finding a PCP, more than twice the rate of those with private insurance.[4] With respect to geography, a substantial number of respondents to that survey also reported unmet needs due to provider location. Lack of PCPs in one's geographic area can hamper access.

The federal government has defined Health Professional Shortage Areas based on numbers of PCPs in an area, and seeks to improve access by directing grants and other initiatives to those areas.[i] As of 2014, Massachusetts had roughly 500,000 residents living in such areas, 20 times the number in New Jersey, for example, despite Massachusetts' lower population and greater number of providers.[5,6]

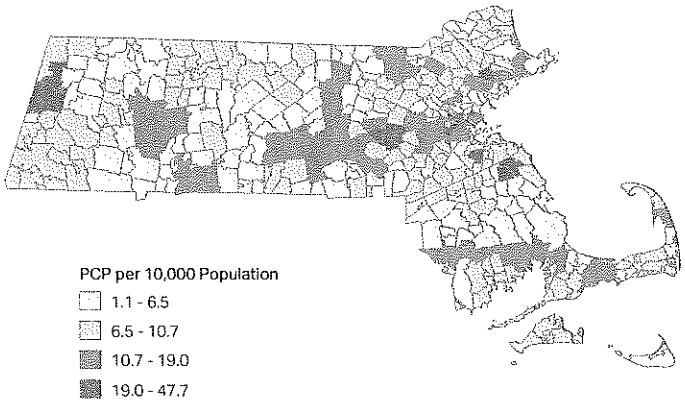
REGIONAL VARIATION IN SUPPLY OF CARE PRIMARY CARE PROVIDERS

To further explore regional access to PCPs in Massachusetts, The HPC analyzed numbers of per-capita providers by primary care service area (PCSA) across Massachusetts (see **Exhibit 9.1**). These service areas are defined by the federal government based on typical distances traveled for primary care services and do not necessarily correspond to market-based definitions of service areas used in anti-trust considerations. The HPC included numbers of full-time equivalent family physicians, general internists, geriatricians, and general pediatricians as well as primary care nurse practitioners (NPs), and physician assistants (PAs).[ii]

i The Health Resources and Services Administration (HRSA) defines Health Professional Shortage Areas (HPSA) as localities with ratios of primary care physicians to population greater than 1:3,500. As of 2014, Massachusetts had 67 HPSAs. HPSA designation benefits include access to state and federal programs providing physician recruitment assistance and financial incentives, such as student loan forgiveness, Medicare bonuses, as well as preferential status for other grant programs.

ii For purposes of this section, the state is divided into 158 regions called Primary Care Service Areas (PCSAs). These areas were developed by researchers associated with the Dartmouth Atlas of Health Care, working with the U.S. Health Resources and Services Agency, and represent a geographic approximation of patients' travel patterns to obtain to primary care services. Also, according to common practice, the HPC weighted nurse practitioners and physician assistants as equivalent to .75 relative to a physician, given historical data on productivity. Data on physicians and physician assistants are from the Massachusetts Department of Public Health (DPH) while data on nurse practitioners derive from the SK&A database.

Exhibit 9.1: Number of primary care providers per 10,000 Massachusetts residents, by primary care service area
Full-time equivalent physicians, nurse practitioners and physician assistants



Note: Massachusetts is divided into 158 regions called Primary Care Service Areas (PCSAs). These areas were developed by researchers associated with the Dartmouth Atlas of Health Care and represent a geographic approximation of patients' travel patterns to obtain to primary care services. According to common practice, Nurse Practitioners and Physician Assistants weighted as equivalent to .75 relative to a physician. See **Technical Appendix**.
Source: SK&A Office Based Physician Database, September 30, 2015; Massachusetts Department of Public Health: Health Care Workforce Center

The HPC found more than 30-fold variation in the number of PCPs per 10,000 residents - from highs of 47.7 in Cambridge and 34.1 in Boston, to lows of 2.1 in Bellingham and 1.6 in South Weymouth. In general, the western and northwestern regions of the state had fewer PCPs per resident. Areas of low population density also had fewer PCPs, consistent with national trends.[7] In the most rural quartile of the state, there were 8.1 PCPs per 10,000 residents versus 12.0 in most populous.[iii] This Report next discusses opportunities to increase primary care capacity in the state, highlighting a particular option that is within the direct purview of the state legislature.[iv]

OPPORTUNITIES TO EXPAND ACCESS TO PRIMARY CARE PROVIDERS

There are many ways to expand access to primary care services. One method is to simply increase the number of PCPs by investing in training, recruitment, and retention programs. Currently, the Commonwealth's Department of Public Health Workforce Center runs one such program that offers loan repayment and grants to medical students in an effort to incentivize them to choose primary care residencies.

Other strategies for increasing access are found within the PCMH model, including practicing team-based care and providing access beyond traditional office houses and face-to-face office visit means. Team-based care focuses on increasing the responsibilities of non-physician licensed providers to free up physicians to see additional patients. Studies show that up to 60 percent of preventative services, 25 percent of chronic care, and 10 percent of acute care can be reallocated to non-physician team members such as nurses, health educators, therapists, and social workers.[8] One estimate suggests that 45 percent of a physician's day is spent outside the exam room working on documentation and follow-up and that many of these tasks can be reallocated to clerical staff.[9] Thus, delegating clerical tasks, such as prescription renewals, to non-licensed providers can also expand a physician's capacity and allow them to see more patients, increasing access. With regard to new modes of access, research shows that up to 10 percent of a real-time office-based care, both chronic and preventative, can be delivered remotely by providers to patients either by telephone or email.[10,11] Adopting telehealth and e-communication technologies not only expands coverage in low-provider areas ameliorating geographic maldistributions of providers, but also increases face-to-face time for patients needing more traditional visits.

As more and more primary care practices in Massachusetts adopt the PCMH model, the Commonwealth should expect to see improvements in overall patient access to primary care. In 2015, 25 percent of Massachusetts primary care physicians practiced in recognized PCMHs, up from 20 percent in 2014.[v] A variety of efforts are underway across the state to increase this percentage over the coming years, including the HPC's PCMH and ACO certification programs.

Scope of practice reform

Another important step the Commonwealth could take to increase access to primary care is to remove or lessen scope of practice restrictions on NPs. There are more than 8,000 licensed NPs in Massachusetts, approximately half of whom are clinically active providers of primary care.[12] NPs are registered nurses with additional education (usually a master's degree and sometimes a doctorate), including a minimum number of clinical hours of practice. Given

iii Areas were defined based on the population density of the PCSA.

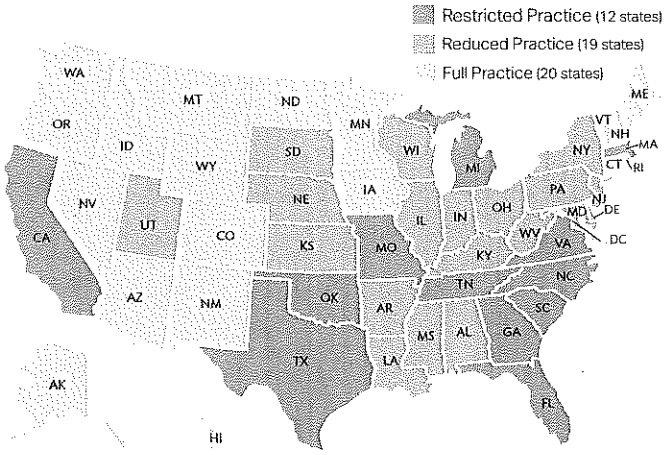
iv Related topics, including the availability of after-hours care and the relationship between provider access and ED visits are discussed further in **Chapter 8: Avoidable Hospital Use**.

v These data are based on numbers of providers who have achieved National Committee for Quality Assurance (NCQA) 2011 and 2014 PCMH recognition at Level 1, 2 or 3.

the shorter educational pathway (compared to physicians) and strong interest in the profession in recent years, the number of NPs in the U.S. is expected to double between 2010 and 2025, compared to much slower growth in the numbers of primary care physicians.[13] Studies have shown comparable quality of care between NPs and primary care physicians across all domains that have been measured. NPs provide care at lower costs and are more likely to treat Medicaid patients and practice in rural areas.[14] In Massachusetts, CHIA's 2015 household survey found that low income individuals were less likely than high income individuals to have had a primary care physician visit in the past 12 months, but more likely to have had a visit with an NP, PA, or nurse midwife.[3]

The extent to which primary care NPs are able to meet demand for primary care services is influenced by state scope of practice (SOP) laws, which vary widely across the U.S.[15] With respect to these laws, Massachusetts is the only New England state that maintains significant restrictions on practice—particularly, the requirement that NPs must collaborate with physicians to develop treatment plans and prescribe drugs.[vi,16] The American Association of Nurse Practitioners has rated Massachusetts as one of the nation's 12 most restrictive states for NPs to practice (see **Exhibit 9.2**).

Exhibit 9.2: Nurse practitioner state practice environment, 2014



Note: States are defined primarily based on laws governing requirements surrounding physician collaboration and supervision.
Source: American Association of Nurse Practitioners

Effectively, to practice fully in accordance with their education, NPs are dependent on finding physicians who are willing to allow them to practice. This dependency can cause critical care delays if collaborating physicians relocate or otherwise decide to end any given agreement, and often result in side-payments from nurses to physicians to maintain the agreements.[17]

In recent years, several organizations (the National Governors' Association, the Institute of Medicine, and the Federal Trade Commission) have conducted their own research on the appropriate level of supervision and collaboration required and have generally recommended the expansion of SOP for NPs.[18,19] The Federal Trade Commission concluded, for example, that SOP restrictions created undue barriers to practice and limited access to care without providing a benefit in terms of quality of care based on evidence.[20] One researcher found that when states removed NP practice barriers, access to care improved markedly, and such access led to 20 percent fewer ambulatory-care sensitive ED visits.[21] Another found that Medicare beneficiaries cared for by NPs incurred roughly 20 percent lower costs than those cared for by primary care physicians.[22] A study of retail clinics, which are typically staffed by NPs, found lower costs and more services provided in states with less restrictive SOP laws.[23] Finally, a study of states that changed their laws found that those that removed practice restrictions for NPs enjoyed a 30 percent increase in the effective supply of NPs, which could result from NPs relocating from other states, from more students enrolling in programs in the state, or existing NPs increasing their labor supply.[24]

As of this writing (January 2016) specific legislation that would remove practice restrictions on NPs is currently pending in the state Legislature and has been recommended by the U.S. Federal Trade Commission.[25] Efforts to remove practice restrictions on NPs and other advanced practice registered nurses can foster the provision of high-quality, low-cost care to all residents of Massachusetts.

vi Also, any advance-practice nursing regulations governing the ordering of tests, therapeutics, and prescribing of medication requires both the Board of Registration in Nursing and Board of Registration in Medicine to meet and concur. Thus, the physician board can delay or block new legislative action removing restrictions on advanced-practice registered nurses.

REFERENCES

1 Starfield B, Shi L, Macinko J. Contribution of primary care to health systems and health. Milbank quarterly. 2005; 83:457-502.

2 The Commonwealth Fund. Commonwealth Scorecard on State Health System Performance. 2015.

3 Center for Health Information and Analysis. Massachusetts Health Insurance Survey Databook. Boston, MA 2014.

4 Long SK, Dimmock TH. Monitoring Access to Care in Massachusetts: Comparing Public Coverage with Employer-Sponsored Insurance Coverage. Boston, MA: Blue Cross Blue Shield of Massachusetts Foundation 2015.

5 Bureau of Health Workforce, Health Resources and Services Administration, US Department of Health and Human Services. Designated Health Professional Shortage Area Statistics. 2015.

6 American Association of Medical Colleges. 2015 State Physician Workforce Data Book. Washington, DC 2015.

7 McElistrem-Evenson A. Informing Rural Primary Care Workforce Policy: What Does the Evidence Tell Us? A Review of Rural Health Research Center Literature, 2000–2010 (Rural Health Research Gateway, April 2011).

8 Bodenheimer TS, Smith MD. Primary care: proposed solutions to the physician shortage without training more physicians. Health Affairs. 2013; 32:1881-6.

9 Shipman SA, Sinsky CA. Expanding primary care capacity by reducing waste and improving the efficiency of care. Health Affairs. 2013; 32:1990-7.

10 Weiner JP, Yeh S, Blumenthal D. The impact of health information technology and e-health on the future demand for physician services. Health Affairs. 2013; 32:1998-2004.

11 Bodenheimer T, Pham HH. Primary care: current problems and proposed solutions. Health Affairs. 2010; 29:799-805.

12 Health Resources and Services Administration Bureau of Health Professions. National Sample Survey of Nurse Practitioners. 2012.

13 Auerbach DI. Nurse-managed health centers and patient-centered medical homes could mitigate expected primary care physician shortage. Health Affairs. 2013; 32:1933-41.

14 Buerhaus PI, DesRoches CM, Dittus R, Donelan K. Practice characteristics of primary care nurse practitioners and physicians. Nursing outlook. 2015; 63:144-53.

15 Yee T. Primary care workforce shortages: nurse practitioner scope-of-practice laws and payment policy: National Institute for Health Care Reform 2013.

16 Advanced Practice Registered Nursing (2014). Available at: http://www.bartonassociates.com/nurse-practitioners/nurse-practitioner-scope-of-practice-laws/.

17 Massachusetts Action Coalition. The Advanced Practice Nurse in Massachusetts. Boston, MA: Massachusetts Action Coalition; 2014 Nov.

18 National Governors Association. The Role of Nurse Practitioners in Meeting Increasing demand for Primary Care Washington, DC: National Governors Association; 2012.

19 Institute of Medicine of the National Academies. The Future of Nursing: Leading Change, Advancing Health. Washington, DC: Institute of Medicine of the National Academies 2011.

20 Federal Trade Commission. Competition and the Regulation of Advanced Practice Nurses: Federal Trade Commission 2014.

21 Traczynski J, Udalova V. Nurse Practitioner Independence, Health Care Utilization, and Health Outcomes. working paper. May 4, 2014.

22 Perloff J, DesRoches CM, Buerhaus P. Comparing the Cost of Care Provided to Medicare Beneficiaries Assigned to Primary Care Nurse Practitioners and Physicians. Health services research. 2015.

23 Spetz J, Parente ST, Town RJ, Bazarko D. Scope-of-practice laws for nurse practitioners limit cost savings that can be achieved in retail clinics. Health Affairs. 2013; 32:1977-84.

24 Kalist DE, Spurr SJ. The effect of state laws on the supply of advanced practice nurses. International Journal of Health Care Finance and Economics. 2004; 4:271-81.

25 Federal Trade Commission Staff Comment. Letter to the Hon. Kay Khan, Massachusetts House of Representatives. 2014 Jan 7.

Maximizing Value in Post-Acute Care

Following discharge from an acute hospital, a variety of post-acute care (PAC) services are available to patients needing nursing or rehabilitative care. PAC services include home health care and a range of institutional settings that vary in clinical capabilities and requirements, including skilled nursing facilities (SNFs), inpatient rehabilitation facilities (IRFs), and long-term care hospitals (LTCHs). The selection of appropriate PAC setting at discharge, quality of the PAC provider, and level of coordination of care as patients transition between settings have important implications for patient experience, clinical outcomes, and healthcare spending in the Commonwealth. Previous Health Policy Commission (HPC) research found that PAC use in Massachusetts is higher than the U.S. overall across all payer types. This chapter presents updated data and trends over time regarding differences in discharge patterns between Massachusetts and the nation overall, as well as variation between hospitals in the Commonwealth, particularly in the context of the growth of alternative payment methods (APMs).

PAC represents a significant share of annual health expenditures. In 2013, PAC accounted for about 16 percent of Original Medicare spending.[1] Controlling for population factors, an Institute of Medicine report found that differences in PAC spending accounted for 73 percent of all regional differences in Medicare spending.[2] These findings underscore the potential influence of local practice patterns on service use and opportunities to provide higher-value care. Different PAC settings have different capabilities, but there is overlap in the kinds of patients treated by the various PAC service types (see 2014 Cost Trends Report for overview of settings). Furthermore, the average cost of care differs enormously by setting, and all institutional settings are markedly more costly, on average, than home health. The choice of PAC setting also has implications for patient experience, particularly with respect to patient recovery occurring at home or an institutional facility.

The institutional PAC facilities are distinct, and where possible, the HPC considered each separately. However, limitations in the coding of some of the datasets complicated efforts to distinguish between the different institutional sites of care. For this reason, the HPC grouped SNFs, IRFs, and LTCHs together into one "institutional" category for many of the agency's analyses.

Choosing the appropriate setting of PAC is important in ensuring optimal care and has significant effects on the cost of an episode of care for many patients.[i] While some conditions, such as a traumatic brain injury or severe stroke, almost always require intensive institutional PAC, other conditions typically rely on more clinical discretion to determine the appropriate setting for PAC. Differences in practice patterns may be seen more clearly by examining trends following procedures around which less consensus exists regarding appropriate post-operative care, particularly with respect to the duration and intensity of rehabilitation, and thus discharge destination. The HPC has focused on joint replacements without major complications or comorbidities (DRG 470). PAC practice patterns following joint replacements represent a particularly important service area to track, given that the procedure is high volume, frequently requires some PAC, and may have greater opportunities for care improvement and relative standardization of PAC protocols, given that the procedure is typically non-emergent and elective.

i An episode of care includes all services provided to a patient with a medical problem, within a specific time period.

OVERVIEW OF PAC USE

PAC use in Massachusetts and the U.S.

PAC use in Massachusetts is higher than in the U.S. overall across all payer types. Overall, in 2012, 39 percent of patients in Massachusetts had some form of PAC following an inpatient stay, compared to only 28 percent of patients nationwide (see **Exhibit 10.1**). These differences are observed for both public and private payers, and for home health care and institutional care. There was little change in discharge patterns in both Massachusetts and the U.S. from 2011 to 2012 (see **Technical Appendix** for 2011 numbers).

Exhibit 10.1: Distribution of Massachusetts and U.S. discharge destination by payer, all DRGs, 2012
Percentage of patients discharged to each category of care

For all discharges												
	Commercial			Medicare			Medicaid			Total		
	MA	US	Difference	MA	US	Difference	MA	US	Difference	MA	US	Difference
Routine	77.8	85.9	-8.1	39.1	50.8	-11.7	79.9	88.7	-8.8	60.9	71.6	-10.7
Home Health	14.6	7.8	6.8	24.9	18.5	6.5	11.7	5.2	6.5	18.7	11.7	7.0
Institutional	7.6	6.3	1.3	36.0	30.8	5.3	8.5	6.2	2.3	20.4	16.7	3.8
All PAC	22.2	14.1	8.1	60.9	49.2	11.7	20.2	11.3	8.8	39.1	28.4	10.7

Note: Institutional includes Skilled Nursing Facility; Short-term hospital; Intermediate Care Facility (ICF); and Another Type of Facility.
Source: HPC analysis of Healthcare Cost and Utilization Project (HCUPs) Massachusetts State Inpatient Database & Nationwide Inpatient Sample Survey, 2012

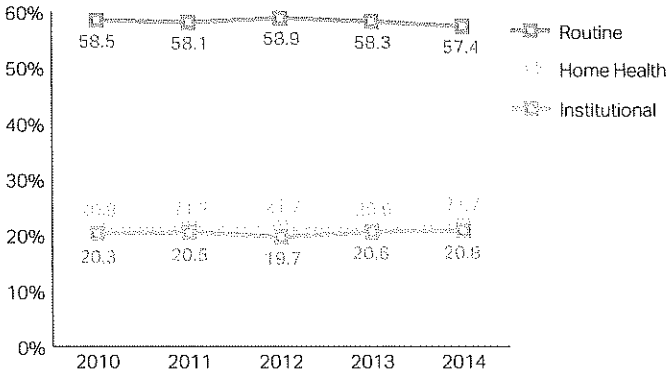
Hospital-level variation in PAC use within Massachusetts

In addition to higher average PAC use in Massachusetts compared to the U.S. overall, discharge patterns among hospitals in the Commonwealth continue to vary substantially in 2014— even adjusting for multiple factors, including age, admission source, and length of stay, among others. The probability of discharge to any PAC, versus routine home care, across all DRGs ranged from 23.4 percent at the 10th percentile to 50.8 percent at the 90th percentile. The HPC also found substantial variation in the probability of discharge to institutional care by hospital, which ranged from 6.5 percent at the 10th percentile to 13.6 percent at the 90th percentile. The range of hospital-level variation in discharges to institutional PAC remained fairly similar from 2010 to 2014 (see **Technical Appendix** for data).

Change in PAC use over time

From 2010 to 2014, the HPC found that the overall probability of discharge to institutional care increased slightly. However, adjusting for changes in case mix in the population over time, the HPC found that patterns of care overall changed little over time in Massachusetts. From 2010 to 2014, the probability of discharge to home health and the probability of discharge to an institutional setting each changed by less than one percentage point, adjusting for changes in case mix (see **Exhibit 10.2**).

Exhibit 10.2: Adjusted percentage of discharges to post-acute care, all DRGs, 2010 – 2014



Note: Probabilities adjusted for changes in case mix over time. UMass is excluded due to coding irregularities in the database. Institutional includes skilled nursing facilities, inpatient rehabilitation facilities, and long-term care hospitals.
Source: HPC analysis of Center for Health Information and Analysis Hospital Inpatient Discharge Database, 2014 and Massachusetts Health Data consortium inpatient discharge database, 2010-2013

Spending on PAC

While PAC discharge patterns remained fairly constant over time, total spending across commercial and Medicare enrollees declined by 11.4 percent between 2011 and 2013. Total spending increased by 1.0 percent in the commercial population, and decreased by 11.8 percent in the Original Medicare population (see **Exhibit 10.3**). Over this time period, Medicare spending in Massachusetts declined more than in the U.S. overall.[ii] Total spending numbers reflect changes in prices for PAC services, intensity of services used (such as changes in average SNF length of stay), and overall PAC use in the population. While PAC discharge patterns have remained fairly consistent, the total number of PAC users has declined, likely due largely to a decline in inpatient hospital use over time.[iii] For Medicare enrollees who used PAC, average spending per user declined by 10.4 percent in SNFs, while spending increased in home health and most other service types. For commercial enrollees, spending per PAC user increased in most service types.

Exhibit 10.3: Post-acute care spending for commercial and Medicare enrollees, 2011 – 2013

	Commercial			Medicare		
	2011	2013	% change 2011 - 2013	2011	2013	% change 2011 - 2013
Total spending ($ millions)						
All PAC	$47.8	$48.3	1.0%	$1,420	$1,252	-11.8%
Institutional PAC	$28.1	$26.9	-4.3%	$1,197	$1,043	-12.8%
SNF	$19.6	$20.1	2.6%	$890	$761	-14.6%
IRF	$5.1	$5.7	11.8%	$144	$140	-2.5%
LTCH	$3.3	$1.1	-66.7%	$163	$143	-12.3%
Home Health	$19.7	$21.4	8.6%	$223	$209	-6.1%
Mean spending per user						
All PAC	$2,422	$2,568	6.0%	$15,439	$14,662	-5.0%
Institutional PAC	$8,800	$8,964	1.9%	$21,325	$19,724	-7.5%
SNF	$6,871	$7,381	7.4%	$17,827	$15,970	-10.4%
IRF	$17,509	$18,603	6.2%	$21,975	$22,734	3.5%
LTCH	$28,033	$25,799	-8.0%	$36,492	$39,137	7.2%
Home Health	$1,037	$1,178	13.6%	$3,012	$3,242	7.6%

Notes: Estimates include PAC utilization through December 31, starting within 60 days of an acute hospital discharge on or after January 1 of the calendar year. Spending includes insurer and enrollee payments for covered services.
Source: HPC analysis of the Massachusetts All-Payer Claims Database, 2011 and 2013

ii From 2011 to 2013, Medicare spending for all use of SNF, IRF, LTCH and home health services (including those not preceded by an inpatient hospital stay) declined 7.4 percent in Massachusetts, compared to a decline of 5.4 percent in the U.S. overall, based on HPC analysis of data from the Institute of Medicine.

iii From 2009 to 2013, total inpatient discharge volume in Massachusetts declined by about 6 percent, based on HPC analysis of data from MHDC.

PAC USE FOLLOWING JOINT REPLACEMENTS

PAC use in Massachusetts and the U.S.

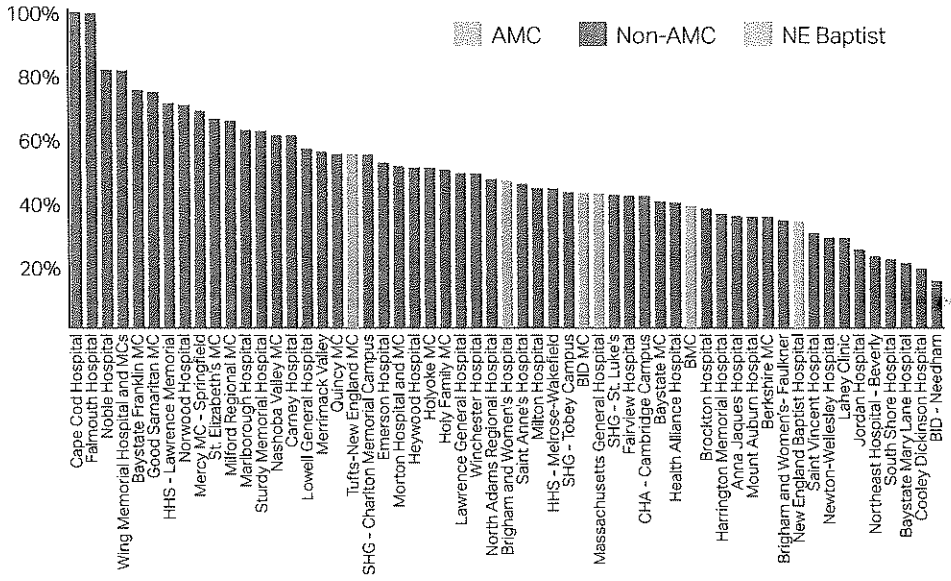
For joint replacements, the difference in PAC use between Massachusetts and the nation was more pronounced, suggesting that practice patterns in Massachusetts favor more intensive PAC use where more variation exists and there is less consensus among providers with respect to appropriate post-operative care. In 2012, only 5.1 percent of Massachusetts patients had a routine discharge following a joint replacement, compared to 25.6 percent of patients nationwide (see **Exhibit 10.4**). Discharges to institutional care account for a large portion of the difference: in Massachusetts, 49.1 percent of discharges following joint replacement are to institutional settings compared to 35.6 percent in the U.S. overall. However, PAC use following joint replacements declined in both Massachusetts and the U.S. from 2011 to 2012, with care patterns changing more dramatically in Massachusetts. Across all patients, on average, institutional discharges following joint replacement declined 2.5 percentage points in Massachusetts (from 51.6 percent to 49.1 percent) compared to 0.5 percentage points in the U.S. (from 36.2 percent to 35.7 percent) from 2011 to 2012. Institutional discharges following joint replacements declined across all payers, including commercial (decline of 3.7 percentage points), Medicare (decline of 3.4 percentage points), and Medicaid (decline of 0.9 percentage points).

Exhibit 10.4: Discharge destination by payer following joint replacement (DRG 470), Massachusetts and the U.S., 2012
Percentage of discharges to each post-acute care setting

For DRG 470 (joint replacement)												
	Commercial			Medicare			Medicaid			Total		
	MA	US	Difference	MA	US	Difference	MA	US	Difference	MA	US	Difference
Routine	6.4	35.5	-29.1	3.4	18.9	-15.4	13.1	31.5	-18.4	5.1	25.6	-20.6
Home Health	67.2	48.2	19.0	29.7	32.5	-2.8	47.9	39.5	8.5	45.9	38.7	7.2
Institutional	26.4	16.3	10.1	66.8	48.6	18.2	38.9	29.0	9.9	49.1	35.7	13.4
All PAC	93.6	64.5	29.1	96.6	81.1	15.4	86.9	68.5	18.4	95.0	74.4	20.6

Note: Institutional includes Skilled Nursing Facility; Short-term hospital; Intermediate Care Facility (ICF); Diagnosis-related group (DRG); and Another Type of Facility.
Source: HPC analysis of Healthcare Cost and Utilization Project (HCUPs) Massachusetts State Inpatient Database & Nationwide Inpatient Sample Survey, 2012

Exhibit 10.5: Percent of discharge to institutional post-acute care following joint replacement (DRG 470), by hospital, 2014
Adjusted share of discharges to an institutional setting versus home health or routine care



Note: Probabilities for each hospital were calculated after adjusting for the following: age, sex, payer group, income, admission source of the patient, and length of stay. The agency's sample included only adult patients who were discharged to routine care or some form of PAC. Specialty hospitals, except New England Baptist, were excluded from the display table and the average hospital rate. UMass is excluded due to coding irregularities in the database. Institutional includes skilled nursing facilities, inpatient rehabilitation facilities, and long-term care hospitals. DRG= diagnosis-related group; NE Baptist= New England Baptist; AMC= Academic Medical Center (see Technical Appendix).

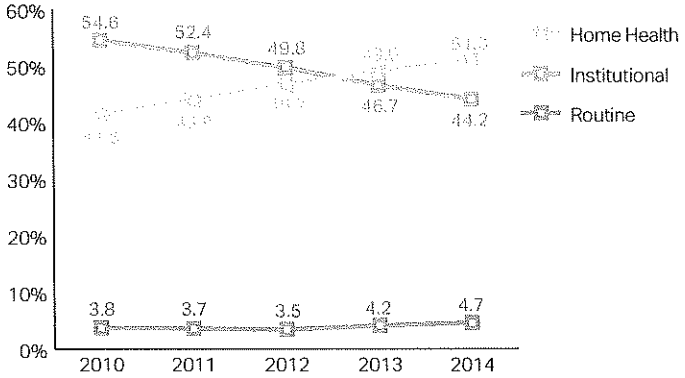
Source: HPC analysis of Center for Health Information and Analysis Hospital Inpatient Discharge Database, 2014

Hospital-level variation in PAC use within Massachusetts

Within Massachusetts, hospitals varied in the extent to which they discharge patients to institutional PAC following joint replacement surgery. For patients recovering from joint replacement surgery, the probability of discharge to institutional PAC ranged from 70.6 percent at the 90th percentile to 28.3 percent at the 10th percentile (see **Exhibit 10.5**).

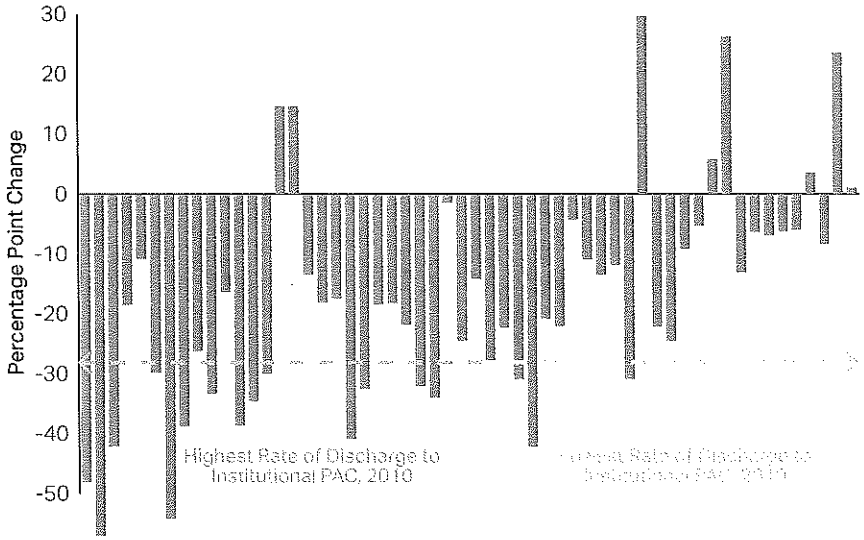
In the last five years, care patterns following joint replacement changed dramatically in Massachusetts (comparable data for the U.S. over this time period is not available). From 2010 to 2014, the share of patients discharged to institutional care following a joint replacement fell by 10.4 percentage points, from 54.6 percent in 2010 to 44.2 percent in 2014 (see **Exhibit 10.6**). Meanwhile, over this time period there was a 9.5 percentage point increase in share of patients discharged to home health care, suggesting a shift in the type of PAC setting following a joint replacement. At an individual hospital level, 49 out of 57 hospitals in the sample[iv] decreased the probability of discharge to institutional PAC (versus to home health or routine care) following joint replacement from 2010 to 2014, with an average decrease of 17.7 percentage points (see **Exhibit 10.7**). While this change in discharge patterns may reflect a focus on adopting best practices for discharge, these changes can also reflect improved care practices for surgery and other hospital care, which can serve to improve patient status at discharge, increasing the likelihood of discharge with home health (or a routine discharge), rather than a need for institutional care.

Exhibit 10.6: Discharge destination of patients following joint replacement (DRG 470), 2010 – 2014
Percentage discharged to each setting



Note: UMass is excluded due to coding irregularities in the database. Institutional includes skilled nursing facilities, inpatient rehabilitation facilities, and long-term care hospitals.
Source: HPC analysis of Center for Health Information and Analysis Hospital Inpatient Discharge Database, 2014 and Massachusetts Health Data consortium inpatient discharge database, 2010-2013

Exhibit 10.7: Change in percentage of discharges to institutional post-acute care following joint replacement (DRG 470), by hospital, from 2010 to 2014
Percentage point change



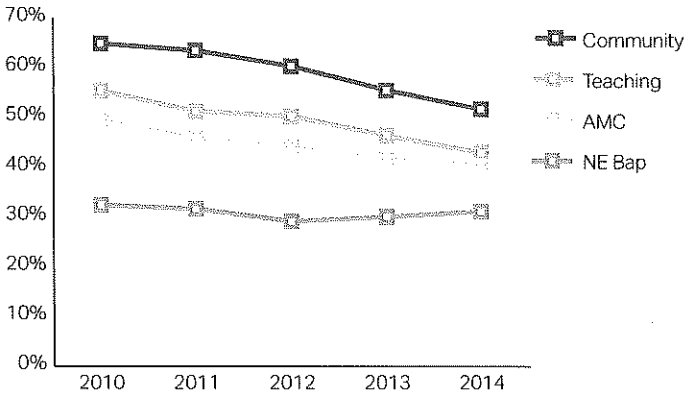
Note: Hospitals ranked by rate of institutional PAC use in 2010. Hospitals with fewer than 15 joint replacement discharges in 2010 were excluded. Probabilities for each hospital were calculated after adjusting for the following: age, sex, payer group, income, admission source of the patient, and length of stay. The agency's sample included only adult patients who were discharged to routine care or some form of PAC. Specialty hospitals, except New England Baptist, were excluded. UMass is excluded due to coding irregularities in the database. Institutional includes skilled nursing facilities, inpatient rehabilitation facilities, and long-term care hospitals. DRG= diagnosis-related group; (see **Technical Appendix**).
Source: HPC analysis of Center for Health Information and Analysis Hospital Inpatient Discharge Database, 2014 and Massachusetts Health Data consortium inpatient discharge database, 2010-2013

iv Hospitals with fewer than 15 discharges in 2010 were excluded. UMass was excluded due to coding inconsistencies in the database.

Discharge to institutional care following joint replacement surgery decreased substantially among all hospital types. The largest magnitude of change was in community hospitals (13 percentage points), although this hospital group also started with the highest institutional discharge rate in 2010 (see **Exhibit 10.8**).

The dramatic change in joint replacements was fairly unique among DRGs. Among the top 20 most common DRGs in 2010 , including joint replacement surgery, the share of patients discharged to an institutional setting increased for 10 DRGs and decreased for 10 (see **Technical Appendix**). Massachusetts' hospitals efforts in joint replacements narrowed the gap in practice patterns on joint replacements with the U.S. overall, highlighting the opportunity for improvement in PAC practice patterns.

Exhibit 10.8: Percent of patients discharged to institutional post-acute care following joint replacement (DRG 470), by hospital type, 2010 – 2014



Note: The agency's sample included only adult patients who were discharged to routine care or some form of PAC. Specialty hospitals, except New England Baptist, were excluded. UMass is excluded due to coding irregularities in the database. Institutional includes skilled nursing facilities, inpatient rehabilitation facilities, and long-term care hospitals. DRG= diagnosis-related group. (See Technical Appendix).

Source: HPC analysis of Center for Health Information and Analysis Hospital Inpatient Discharge Database, 2014 and Massachusetts Health Data consortium inpatient discharge database, 2010-2013

Spending on PAC following joint replacements

From 2011 to 2013, total spending for PAC following joint replacements declined in both the commercial and Medicare population, by 12.5 percent and 3.8 percent, respectively, despite a total increase in the number of inpatient joint replacement surgeries over this time period (see **Exhibit 10.9**).[v] Total commercial spending on SNFs declined dramatically at 27.1 percent (compared to an increase of 2.6% in total commercial SNF spending across all DRGs), possibly reflecting a shift from SNF use to home health use in this population.

Exhibit 10.9: Post-acute care spending following joint replacement (DRG 470), for commercial and Medicare enrollees, 2011 – 2013

	Commercial			Medicare		
	2011	2013	% change 2011 - 2013	2011	2013	% change 2011 - 2013
Total spending (dollars in thousands)						
All PAC	$10,494	$9,167	-12.6%	$88,873	$85,509	-3.8%
Institutional PAC	$5,206	$3,848	-26.1%	$64,424	$59,147	-8.2%
SNF	$4,845	$3,534	-27.1%	$54,968	$49,121	-10.6%
IRF	$290	$314	8.3%	$8,942	$9,544	6.7%
LTCH	$72	$0	N/A	$514	$482	-6.2%
Home Health	$5,288	$5,319	0.5%	$24,449	$26,363	7.8%
Mean spending per user						
All PAC	$2,777	$2,629	-5.3%	$10,705	$9,580	-10.5%
Institutional PAC	$4,368	$4,548	4.1%	$10,773	$9,952	-7.6%
SNF	$4,187	$4,315	3.1%	$9,971	$8,899	-10.8%
IRF	$8,520	$11,625	36.4%	$16,467	$18,144	10.2%
LTCH	$23,940	N/A	N/A	$24,479	$34,405	40.5%
Home Health	$1,462	$1,576	7.8%	$3,429	$3,534	3.1%

Note: DRG = diagnosis-related group.

Source: HPC analysis of Massachusetts All-Payer Claims Database, 2011 and 2013

v From 2010 to 2014, the total number of Medicare inpatient discharges for DRG 470 increased 17 percent; the total number of commercial inpatient discharges for DRG 470 increased 15 percent.

POLICY CONSIDERATIONS

To support continued efforts to ensure that patients are discharged to appropriate high-quality PAC providers, particular priority areas of focus include: 1) supporting use of evidence-based discharge planning; and 2) increasing the ability of PAC providers to compete on quality for accountable care organization (ACO) provider networks, including PAC providers collecting standardized patient assessment and quality information.

Improving evidence-based discharge planning

Variation in PAC discharge patterns across hospitals suggests opportunity for improvement. In addition to clinical factors, a variety of non-clinical factors influence discharge decisions, including the availability of PAC facilities or open beds, the hospital's or family's proximity to PAC providers, patient or family preference, and the presence of a spouse or other caregiver at home. Planning tools rationalize this process and enable systematic consideration of key factors; greater adoption of discharge planning tools and a broader consensus on guidelines for patient discharge planning are critically needed.

Evidence-based discharge assessment tools can support providers in making the appropriate discharge decisions for their patients. A number of tools exist, factoring assessment of patient functional and cognitive status, with some also factoring social factors, such as level of available assistance at home. Massachusetts General Hospital has recently created one such tool for use with their trauma patients.[vi] Many of the functional status assessment tools for inpatient discharge planning are versions of tools that can be used across different PAC settings as well to standardize assessment of quality improvement across settings, such as the Continuity Assessment Record and Evaluation tool, or Boston University's Activity Measure of Post-Acute Care (AM-PAC) tool. However, few hospitals routinely use these tools, and more work is needed to develop guidelines for patient discharge planning. As discharge best practices become clearer, hospitals can then set internal goals. For example, in its 2015 Pre-filed Testimony, Cape Cod Hospital cited their goal of reducing the number of patients they send to SNFs and increasing the number sent home following total knee replacement (TKR) and total hip replacements (THR). They cited coming to this conclusion after reviewing their Medicare Spending per Beneficiaries (MSPB) reports and concluding that that a high number of their TKR and THR patients were discharged to SNFs, even though best practice models dictate that many of these patients can safely be discharged with home health.

A federal law enacted in 2014 requires PAC providers to report data from a standardized patient assessment tool, data on quality measures, and data on resource use and other measures by 2019 or earlier.[vii] This requirement will allow data to be more easily exchanged among acute and PAC providers, in order to facilitate coordinated care and improved patient outcomes. Sharing data for these purposes should be an important goal for providers. Hospitals could also use items from the standard assessment tool at discharge from the hospital to inform placement decisions.

ACO provider networks and quality improvement

In addition to recommending an appropriate setting of care for discharge (such as SNF versus home health), recommending a high-quality provider is important, particularly in the context of APMs (see **Sidebar: "Post-acute care and alternative payment methods"**). Accountability for PAC spending and PAC-related quality measures has made strategic partnerships with SNFs a critical success factor for Medicare ACOs. By partnering with high-quality PAC providers, ACOs can reduce length of stay and hospital readmissions, thereby improving quality and generating cost savings. Preferred-provider networks are not limited to ACOs, nor are they limited to SNF-hospital partnerships, as many providers also have relationships with home health agencies. However, SNFs are the most commonly used PAC institutional setting, and they account for half of Medicare post-acute spending nationally.[4] Considerable variation exists in SNF performance. In 2011, the average national 30-day re-hospitalization from SNFs was 20 percent, but some SNFs reported only a 10 percent re-hospitalization rate.[5]

vi Personal communication with Haytham Kaafarani, physician at Massachusetts General Hospital.

vii Improving Medicare Post-Acute Care Transformation Act of 2014 (IMPACT Act of 2014).

Post-acute care and alternative payment methods

The Centers for Medicare and Medicaid Services (CMS) has implemented a number of national reform initiatives for Medicare payments in recent years that create incentives for providers to efficiently manage PAC utilization and spending. Massachusetts providers have been active in these initiatives. Massachusetts currently has 62 sites participating in Bundled Payments for Care Improvement Initiative (BPCI) and 10 accountable care organizations (ACOs).[6,7] The BPCI, which began in 2013, links payments for multiple services including hospitals, post-acute care providers, physicians and other practitioners.[6,8] By aligning provider incentives, BPCI encourages close collaboration across settings and specialties. ACOs are financially accountable for the cost and quality outcomes of a population, even if patients receive services from providers who are not part of the ACO (see **Chapter 11: "Alternative Payment Methods"**). Given that PAC services are a frequent component of Medicare beneficiaries' care, PAC services play an important role in the ACOs' care continuum.

Furthermore, early national evaluations of Medicare ACO performance suggest that many ACOs have identified PAC as an important area for improvement and have been successful in changing practices. Analysis of the round 1 and 2 Medicare Shared Savings Program (MSSP) revealed that the most significant decrease in total ACO spending during the first year occurred in SNF expenditures. The decrease in SNF expenditures ranged from 4.1 percent to 23.5 percent, with an average reduction in expenditures of 16.9 percent compared to baseline.[9] Spending reductions may have come from reduced length of stay in SNFs, in addition to reduced initiation. Evaluations also showed that utilization of home health were increasing, which may represent ACOs substituting lower-cost, lower-acuity facilities for higher-cost settings.

Currently, qualified Pioneer ACOs can take advantage of a 3-day inpatient stay requirement waiver, which allows qualified beneficiaries to be admitted to affiliate SNFs, either directly or with an inpatient-stay, without the otherwise required 3 day inpatient stay. In order to qualify, Pioneer ACOs must demonstrate that their SNF affiliates have the appropriate staff capacity and infrastructure to carry out coordinated care activities and that SNF affiliates have CMS quality ratings of three or more stars. In addition to the 3 day stay waiver, CMS' Next Generation ACOs program offers providers the ability to consider a preferred SNF networks as within the ACO network for the beneficiary reward, which gives patients who receive a majority of their care within the ACO a financial reward each year.

Despite competing business interests, the five Pioneer ACOs in Massachusetts have joined together to develop a set of standards for SNFs that participate in their three day stay waiver (see **Sidebar: "Post-acute care and alternative payment methods"**). In coordination, Partners Healthcare System (Partners) launched the SNF Collaborative Network in October 2013. Partners used a two-staged process in developing its SNF network: using publically available data (CMS Stars) to create an initial threshold and then using data provided by SNFs regarding days of clinical coverage and the rate that physicians see admitted patients within 24 and 48 hours to select the final 47 SNFs. Atrius Health (Atrius) conducted its own study to review the success of its SNF preferred provider network. Based on historical discharge patterns, Atrius created a network of 35 SNFs out of an original 100 that they worked with. After reviewing this network, Atrius found that their preferred SNFs had an average length of stay (LOS) of 15.8 days versus 22.3 in the out-of-network SNFs, and a readmission rate that was 25 percent lower as compared to non-preferred SNFs.[10] In addition to quality improvements, preferred networks also decrease hospital managerial and administrative burden. The ability to reward preferred providers with higher volume offers a valuable opportunity for hospitals to demand higher quality care from their SNF partners, potentially leading to reduced costs.

The CMS Five Star score is a common SNF quality metric that provides an objective and comparable quality measures, but it does not necessarily encompass SNF characteristics relevant to ACOs such as the ability to coordinate care, reduce readmissions, and provide quality medical coverage within facilities. SNFs can gain significant volume as a result of their strategic relationships with ACOs and affiliated hospitals, and thus it may benefit them to focus on quality improvement. Research identifies important metrics for choosing SNF partners, including: staffing ratios and mix, LOS, minimal use of temporary-agency personnel, warm handoffs, prompt patient intake screenings, medication management, rates of re-hospitalization, activities of daily living (ADL) scores, rates of catheter-associated UTIs (CAUTIs) and number of patients scheduled to see a primary care physician within seven days of PAC discharge.[11] Many of these improved quality strategies can also lead to reduced costs.

ACOs and hospitals may even be able to discourage patient selection by incorporating certain measures in their partnership criteria. Unfortunately, it is not uncommon for PAC providers to avoid accepting patients with certain medical complexities, behavioral health comorbidities, or socio-economic factors that are associated with higher costs of care for the PAC provider, such as patients with substance abuse disorder or those who are homeless.[3,12] Furthermore, these can make the PAC provider appear to be lower cost to a potential ACO partner. Delays in discharging patients who are medically ready to leave a hospital drives longer length of stay in hospitals, increasing costs for the hospital, and delaying patient access to rehabilitative services. ACOs can monitor a SNF's acceptance rate of patients with behavioral health comorbidities and decide to exclude a SNF that does not regularly accept those patients.

As quality measures are increasingly used, there is need for continued emphasis on identifying and validating risk-adjusted measures. Without validated measures, SNFs that accept sicker patients may look comparatively worse even if they successfully prevent readmission, which in turn may incent some SNFs to select healthier patients. Massachusetts Pioneer ACOs use one such tool, the PointRight Pro 30 Rehospitalization measure, which risk adjusts for 33 different clinical variables and compares a hospital's observed rehospitalization rate to their case mix adjusted rate and national benchmarks.

While Medicare has made great strides through its ACO programs in incenting high quality, more efficient PAC, Medicaid beneficiaries also represent a substantial share of users of PAC services and SNF services in particular. The movement of MassHealth toward payment models that support ACOs and total cost-of-care accountability is crucial to fully realizing the impact of ACOs on the PAC market in the Commonwealth. The HPC anticipates that ACOs, particularly with Medicare and Medicaid total cost-of-care risk, will continue to put pressure on the PAC market to improve, and the agency will monitor these changes over time.

In summary, PAC continues to represent an area for improvement in Massachusetts. The shift from institutional care to home health following joint replacement surgery suggests the opportunity to improve PAC practice patterns, particularly for cases around which less consensus exists regarding appropriate post-operative care. To this end, opportunities for providers include adopting evidence-based tools to improve discharge planning. Additionally, as APM use continues to grow in the Commonwealth, hospitals and PAC providers can consider partnership opportunities that focus on quality to ensure that high-quality care continues along the entire care spectrum.

REFERENCES

1 The Commonwealth Fund. Commonwealth Scorecard on State Health System Performance. 2015

2 Institute of Medicine. Variation in Health Care Spending: Target Decision Making, Not Geography. Newhouse JP, Garber AM, Graham RP, McCoy MA, Mancher M, Kibria A, editors. Washington, DC: Institute of Medicine; 2013.

3 Hwabejire JO, Kaafarani HM, Imam AM, Solis CV, Verge J, Sullivan NM, et al. Excessively Long Hospital Stays After Trauma Are Not Related to the Severity of Illness: Let's Aim to the Right Target! JAMA surgery. 2013; 148:956-61.

4 Mechanic RE. Mandatory Medicare Bundled Payment—Is It Ready for Prime Time? New England Journal of Medicine. 2015; 373:1291-3.

5 Kozhimannil KB, Hardeman RR, Attanasio LB, Blauer-Peterson C, O'Brien M. Doula Care, Birth Outcomes, and Costs Among Medicaid Beneficiaries. Am J Public Health. 2013; 103:e113-21.

6 Center for Medicare & Medicaid Innovation. Bundled Payments for Care Improvement (BPCI) Initiative: General Information. Washington, DC: Center for Medicare & Medicaid Innovation; 2015 [2015 Aug 25]; Available from: http://innovation.cms.gov/initiatives/bundled-payments.

7 Centers for Medicare and Medicaid Services. 2014 SSP ACO interactive dataset. Centers for Medicare and Medicaid Services; 2014 [cited 2015 Aug 25]; Available from: https://data.cms.gov/Public-Use-Files/2014-Shared-Savings-Program-SSP-Accountable-Care-O/888n-akbg.

8 Zezza MA, Guterman S, Smith J. The Bundled Payment for Care Improvement Initiative: Achieving High-Value Care with a Single Payment. Commwealth Fund Blog. 2012.

9 Tu T, Bennion L, Lamplin M. The Right Care for the Right Cost: Post-Acute Care and the Triple Aim. 2014.

10 Evans M. Hospitals select preferred SNFs to improve post-acute outcomes. Modern Healthcare. May 9, 2015.

11 Hegwer LR. Bridging Acute and Post-Acute Care. Healthcare Financial Management Association 2013.

12 Medicare Payment Advisory Commission. Report to Congress: Medicare Payment Policy. Washington, DC Medicare Payment Advisory Commission 2015 March.

Alternative Payment Methods

Chapter 224 of the Acts of 2012 calls for a transition to alternative payment methods (APMs) as a key strategy to promote high-quality, efficient care and reduce healthcare costs. Broadly speaking, APMs aim to change incentives so that providers benefit financially from keeping patients healthy, rather than from maximizing services rendered and associated revenue. APMs are intended to encourage providers to both reduce unnecessary services and to compensate providers for activities that promote effective, coordinated care, such as care transition management, longer patient visits, and between-visit communications. At the Health Policy Commission's (HPC's) 2015 Health Care Cost Trends Hearings, many payers and providers testified to the potential of such models to accelerate and support improvements in the efficiency and quality of patient care, including caring for patients in their home communities and introducing innovative telehealth technology. At the same time, evidence from a variety of sources highlights that there is room for innovation and improvement to extend the reach of APMs and to design APMs in a manner that consistently and equitably reinforces quality and efficiency (see **Sidebar: "Provider-to-provider discount arrangements"**). This chapter reviews the progress of APMs in Massachusetts and elsewhere and comments on opportunities to advance them.

TARGETS FOR APMs IN MASSACHUSETTS

Chapter 224 requires commercial health plans to reduce the use of fee-for-service (FFS) payments to the maximum extent possible[i] and requires all health plans (both commercial and public) to annually report about their use of APMs. The Massachusetts Health Connector, the Group Insurance Commission (GIC), and MassHealth are also required to implement APMs to the maximum extent possible. The law establishes benchmarks for the percentage of MassHealth members to be covered under

i Section 280(c): Private health plans shall to the maximum extent feasible reduce the use of fee-for-service payment mechanisms in order to promote high-quality, efficient care delivery.

Provider-to-provider discount arrangements

APMs such as global payment or shared savings are intended to align financial incentives between payers and risk-bearing providers in a manner that promotes the use of high-value services and providers. Through its notice of material change process, the HPC has become increasingly aware of the existence of provider-to-provider discount arrangements entered into by providers that have risk contracts. Through such discount arrangements, providers under risk typically agree to send their risk patients to a preferred provider, and the preferred provider agrees to pay a discount back to the referring provider for the services rendered to the risk patients. The discount is typically a pre-determined percentage of the preferred provider's negotiated rates.

When the preferred provider treats the referring provider's risk patient, the preferred provider receives payment from the payer pursuant to the preferred provider's own negotiated rates with the payer. Generally, at the end of the year, the provider under risk goes through a settlement process with both the preferred provider and the payer(s) with which they have risk contracts. In the settlement with the preferred provider, the preferred provider transmits to the referring provider the discount amount for the risk patients they treated. While the payers generally are notified of such arrangements, the discount is typically not transmitted back to the payer, reflected in the total medical spending for the risk patients, or accounted for during the global budget settlement process between the provider under risk and the payer. The discount that is transmitted to the referring provider is treated as additional revenue for them.

The HPC has typically observed these types of arrangements in the context of global-budget contracts, where the provider under risk shares the risk with the payer. Thus, where a provider under risk has a discount arrangement in the place, they may receive a sum of money that could either offset any deficit owed to the payer, or supplement any received surplus; the payer will not receive such funds.

The HPC plans to monitor these arrangements in order to better understand and evaluate their potential impact on market functioning, including whether such arrangements lessen the incentives for providers under risk to refer to more efficient providers. Other agencies, such as CHIA, DOI, or the AGO, may also have an interest in better understanding these arrangements.

APMs: 25 percent by July 2013, 50 percent by July 2014, and 80 percent by July 2015. The GIC requires its plans to cover at least 75 percent of GIC members under risk-based contracts by FY2016 through its Integrated Risk-Bearing Organizations (IRBO) model. Further, state-funded insurance programs are required to give preferential contracting to providers in accountable care organizations (ACOs) or patient-centered medical homes (PCMHs), meeting standards set by the Health Policy Commission (HPC).

In its 2014 Cost Trend Report, the HPC noted that the expansion of APM coverage had stalled in the commercial sector, and called for payers and providers to continue to focus on increasing adoption of APMs, and increasing the effectiveness of APMs in promoting high-quality, efficient care, identifying the two specific goals:

- **APMs for HMO patients.** All commercial payers should increase the use of global APMs to pay for at least 60 percent of their HMO-covered lives in 2016.
- **APMs for PPO patients.** Market participants should begin introducing APMs for PPO with the goal of reaching at least one-third of their PPO lives in 2016.

In addition, the HPC encouraged payers and providers to develop and adopt arrangements to include behavioral health spending in APM budgets, and to agree on and institute a common methodology for risk adjustment.

NATIONAL DEVELOPMENTS IN APMs

In early 2015, the U.S. Department of Health and Human Services set the goal of linking 30 percent of FFS Medicare payments to value through APMs by the end of 2016, and tying 50 percent of payments to these models by the end of 2018.[1] Centers for Medicare and Medicaid Services' (CMS) leading ACO programs that meet these payment model requirements are the Medicare Shared Savings Program (MSSP) and the Pioneer ACO Program—both available to providers caring for patients in Original Medicare.

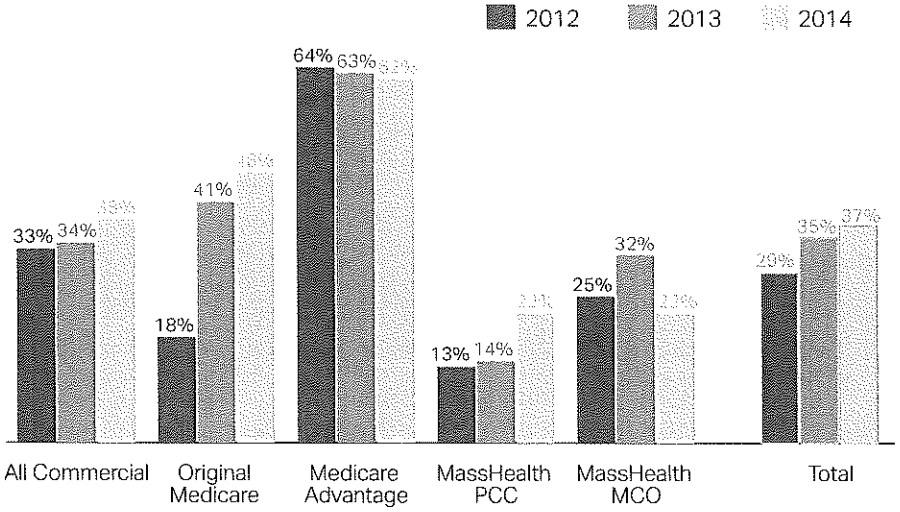
At present, more than 400 physician organizations have joined the MSSP. Among them, 11 MSSP provider organizations are primarily located in Massachusetts, and another five MSSP ACOs are located in neighboring states but operate in Massachusetts. In addition, 32 advanced provider systems joined the Pioneer program at its inception in 2012, with 19 remaining after three years. Three Massachusetts providers (Atrius, Beth Israel Deaconess Care Organization (BIDCO), and Partners) have participated in the program for four years, while two (Mount Auburn Cambridge IPA (MACIPA) and Steward), joined the program in 2012 but dropped out in 2015. Both MACIPA and Steward plan to join CMS' Next Generation model, the newest ACO model from CMS, which offers a higher level of provider risk, new beneficiary engagement possibilities, and the ability to switch to a capitated payment model in later years.[2]

In addition to its ACO programs, Medicare launched two bundled-payment initiatives—one voluntary and one mandatory. The Bundled Payments for Care Improvement Initiative (BCPI) is a voluntary program that began in 2013. Participating providers choose to receive a bundled payment for one or more episodes of care (ranging from congestive heart failure to diabetes to joint replacement) and also choose the extent of the bundle (inpatient only, inpatient plus post-acute care (PAC), PAC only, inpatient plus professional).[3,4] Sixty-two provider groups or organizations in Massachusetts participate in the BPCI, including Signature Healthcare Brockton Hospital, Lawrence General Hospital, and Steward Health System. The Comprehensive Care for Joint Replacement (CCJR) payment model requires hospitals in 75 geographic regions to accept bundled payments for inpatient hip and knee replacements for five years starting January 1, 2016. None of the mandatory service areas are in Massachusetts.

RECENT DEVELOPMENTS IN OTHERS STATES

As ACO contracts have become increasingly prevalent among commercial and Medicare contracts, they are also becoming more common among state Medicaid programs.[5] To date, nine states have launched Medicaid ACO programs.[6] These programs vary in their specific target populations, contracting arrangements, and care-integration plans, such as inclusion of mental and behavioral health under their managed care contracts.[7] Evidence of their impact is limited, but several states, including Minnesota and Colorado, have reported encouraging results thus far.[8,9,10]

Exhibit 11.1: APM coverage by payer type, 2012 – 2014



Source: HPC analysis of Center for Health Information and Analysis Annual Report: Alternative Payment Methods Data Book: Centers for Medicare & Medicaid Services, 2012-2014

LEVELS AND TRENDS OF APMs IN MASSACHUSETTS

In Massachusetts, 37 percent of plan members across all public and private payers were covered by APMs in 2014, essentially unchanged from 35 percent in 2013 (see **Exhibit 11.1**). In the commercial sector, the rate of APM coverage increased from 34 to 38 percent between 2013 and 2014, after increasing from 33 to 34 percent between 2012 and 2013. Virtually all of the commercial and Medicare members covered under APMs were covered by global-payment contracts. MassHealth's 2014 APM approach was bundled payment for primary care, combined with the opportunity to share in savings (optional downside risk) and to earn quality incentive payments.[ii]

Commercial payers

Commercial payers have been very successful in introducing APMs into their HMO contracts. In fact, in 2014, all three major commercial carriers already met the HPC's target: that 60 percent of HMO members receive care via an APM contract by 2016. Blue Cross Blue Shield of Massachusetts' (BCBS) Alternative Quality Contract (AQC), a global-budget contract for HMO patients with significant downside risk, leads the market, with 91 percent of HMO members in an APM (see **Exhibit 11.2**), while Harvard Pilgrim Health Care (HPHC) was the only major payer to substantially improve its APM coverage between 2013 and 2014, due to a focused effort to extend APM coverage within self-insured HMO accounts. The percentage of BCBS' HMO members covered by APMs has been stable at about 90 percent for two years now, suggesting that 90 percent may be the current ceiling on coverage and that the remaining providers may not have scale to take on the AQC.

ii The available data do not indicate either the extent to which other payment methods (limited budget or bundled payments) occurred in conjunction with the global payment, or how the incentives in these contracts reached the individual provider level.

Exhibit 11.2: APM coverage by HMO and PPO, commercial payers, 2014

	HMO members as percent of all members	Percent of HMO members covered by APMs	PPO members as percent of all members	Percent of PPO members covered by APMs	Percent of all members covered by APMs
BCBS	53%	* 91%	47%	0%	48%
HPHC HPI	71%	* 65%	27%	0%	46%
Tufts/ Network	67%	* 60%	33%	11%	43%
Other	40%	33%	47%	2%	15%
Total	**55%**	**68%**	**42%**	**2%**	**38%**

Source: HPC analysis of Center for Health Information and Analysis Annual Report: Alternative Payment Methods Data Book, 2014

* Met HMO coverage goal from 2014 Cost Trends Report

In 2014, APMs were largely confined to HMO-insurance products.[iii] Employing global APMs in preferred provider organization (PPO) products is more complex than in HMOs, as PPOs do not require members to select a primary care physician (PCP). In addition, the majority of PPO accounts are self-insured and thus bear the full cost of the APM. Given that employers often enter into annual contracts with insurance companies, they often resist the initial up-front costs of an APM despite the promise of savings in later years.[iv] Indeed, coverage rates in PPO products were low in 2014: 2 percent, all of which were members of GIC plans.

The three major payers vary in the extent to which their global-budget APMs include some downside risk: BCBS, always; Tufts Health Plan for 85 percent of members; HPHC for 67 percent.[v]

In contrast to the widespread use of global budget contracts in Massachusetts, bundled payments covering episodes of care have not yet taken hold among commercial payers in Massachusetts—despite their potential to strengthen and broaden incentives for efficient care. In pre-filed testimony, HPHC reported that its bundled-payment program for tonsillectomy had led to cost savings in 2015, and they planned to expand the bundled payment program to include additional procedures and partners in 2016. Tufts Health Plan is also exploring bundled payments, but BCBS is currently directing all efforts toward global-budget contracts. Bundled payments may have a positive effect on quality and expenditures by creating the incentive for hospitals and specialists to deliver care efficiently. But bundled payments also redistribute the financial gains from improved efficiency from the primary risk-holder in the global budget contract, typically the PCP, to the hospital or specialist, and thereby reduce the incentives and resources available to the primary care team.

iii As described in the Alternative Payment Methods Supplement of the Center for Health Information and Analysis' 2014 Annual Report on the Performance of the Massachusetts Health Care System, Tufts Health Plan did report the use of global payments for 3 percent of their PPO members in 2013. All of those members were enrolled in a GIC plan.

iv In testimony at the 2015 Cost Trends Hearings, BCBS noted that in order to extend APMs to PPOs, they had to create a product that offered employers savings in the first year.

v HPC analysis of CHIA APM data, supplemental file.

Medicare

As a result of Massachusetts providers' robust participation in Medicare's MSSP and Pioneer ACO programs, the percentage of individuals with Original Medicare (as opposed to individuals enrolled in Medicare Advantage plans) covered by APMs in Massachusetts was 41 percent in 2013 and rose to 46 percent in 2014. The state's level of coverage via Pioneer and MSSP is high relative to the U.S. as a whole, as 16 percent of Original Medicare members nationwide were covered by one of these two payment initiatives. Among Medicare Advantage members, APM coverage was essentially flat: 62 percent were covered under an APM in 2014, compared to 63 percent in 2013.

MassHealth

In 2014, MassHealth launched the Primary Care Payment Reform Initiative (PCPRI), a delivery- and-payment model oriented toward comprehensive, patient-centered care. PCPRI combined a capitated payment for primary care with shared savings based on total cost of care, and places a particular emphasis on behavioral health integration with primary care. As of March 2014, 28 practices were enrolled in PCPRI, with eight opting to include some outpatient behavioral health services in the capitated payment; approximately 22 percent of the PCC population was covered by this initiative. In 2014 and 2015, MassHealth continued this progress by launching an extensive stakeholder engagement process to help develop an ACO payment and support model. In MassHealth's commercial MCOs, APM coverage declined from 32 percent of members in 2013 to 22 percent in 2014. Declines occurred in four of six MCOs, including the three largest (BMC, Neighborhood, and Network Health/Tufts), and were likely related to MCOs expanding their provider networks and entering new geographic areas in response to ACA enrollment increases; new contracts often use fee-for-service payment initially and shift to APMs over time.

EXTENDING APMs

Extending APMs to PPO products and within HMO products

An important step towards extending APMs is to offer the payment model to providers for members enrolled in PPO products and on behalf of self-insured employers. At the HPC's 2015 Cost Trends Hearings, BCBS announced that it had signed global-budget risk contracts for PPO members with four provider systems in the Commonwealth (Lahey Health, Partners Community Healthcare Inc., Steward Healthcare, and MACIPA) to start in 2016; approximately one-third of BCBS' PPO lives will be covered by an APM as a result of these agreements. In developing this arrangement, BCBS and the providers relied upon the shared principles for attributing patients to providers that were developed by a coalition of Massachusetts payers and providers in 2014. Neither HPHC nor Tufts Health Plan have yet committed specifically to using APMs for PPO members. In their testimony for the HPC's annual Cost Trends Hearings, these plans noted that while providers seek to align payment across lines of business, they are often reluctant to assume risk for patients with whom they do not have a formalized PCP relationship. These plans noted other more general challenges to expanding APMs, such as difficulty predicting costs, an issue exacerbated by rising drug spending, and that some providers are not qualified to take on risk due to small patient panels.

GIC's Integrated Risk-bearing Organizations (IRBO) program, which requires GIC-participating carriers to meet targets relative to percentage of GIC members covered under a risk contract, has been an important catalyst in driving PPO-based risk contracting as well. However, in July 2015, HPHC and Tufts Health Plan converted their GIC PPO plans to Point of Service (POS) plans, thereby requiring members to select a PCP, although the benefit design remained akin to a PPO product. As a result, measured levels of APM coverage within PPO will drop in 2015.

Extending APMs in MassHealth

A second important step for Massachusetts to extend the reach and impact of APMs statewide would be for MassHealth to continue increasing the share of its members covered by APMs. Supporting accountable care organizations with appropriate APMs is a top priority for the Executive Office of Human Services, and, in 2015, MassHealth initiated an intensive stakeholder engagement and policy development process with the intention of launching a range of ACO models at scale over the next one to two years. Integration of both behavioral health and long-term services and supports are core components of the proposed ACO models. One component of the process was a series of work groups in 2015 to establish guiding principles and a payment framework to support a MassHealth ACO and thereby to support providers in integrating and coordinating care, enhancing population health, and taking responsibility for the total cost of

MassHealth members' care.[vi] In 2016, MassHealth also plans to propose a five-year 1115 waiver agreement with CMS that would bring in significant federal investment to accelerate and support the adoption of ACOs and real changes in the delivery of care.[vii]

Cultivating APMs

The great progress in implementing APMs across public and private payers in the Commonwealth has resulted in a diverse assortment of payment models, including diverse approaches to measuring and rewarding the quality of care. Further, the data and reporting that comes along with the models is equally varied in quality and timeliness. As a result, provider systems are developing multiple governance structures as well as financial and quality analytic processes. Providers are managing a different set of quality measures, risk adjustment and attribution methodologies, financial benchmarks, and set of reports from each payer with whom they accept a global budget contract. In testimony at the 2015 Cost Trends Hearings, providers emphasized that their contracts' varied approaches to spending and quality have made it challenging to change their care delivery practices in whole, and that financing the necessary infrastructure has been expensive, especially for smaller providers. Ultimately, APMs must be structured in a way that allows providers to succeed, if they are to reach a broader share of the population and influence care delivery in the manner desired.

Aligning APMs across payers

Alignment of the technical aspects of APMs is necessary to enable care-delivery transformation at scale. Promisingly, a coalition of the three major payers and four large providers came together to develop shared principles for attributing PPO patient to providers. The group released its final report, Consensus Guidelines for Commercial Non-HMO Patient Attribution Methodology, in August 2015 and payers have committed to using the guidelines in future contracts. The extent to which the carriers are actually using the Consensus Guidelines is unknown.

Several opportunities exist to increase alignment and to thereby increase the effectiveness of APMs. First, whenever possible and appropriate, MassHealth could make the elements of its ACO consistent with corresponding aspects of commercial and Medicare global-budget models. Such alignment both enables MassHealth to benefit from the experience of more mature APMs and makes participation simpler, and potentially more attractive, for providers.

Second, private payers could work to align other technical aspects of their global-budget contracts—especially, risk-adjustment methods, quality measures, and reports. Many stakeholders, including the HPC, have also called for a statewide standard for risk adjustment to add consistency, transparency, and efficiency. At the 2015 Cost Trends Hearings, the representatives of both HPHC and Tufts Health Plan Health Plan indicated that they believed that the market could agree on a common approach to risk adjustment, as it had for attribution, and that their organizations would participate if a coalition were formed for this purpose.

At the Cost Trends Hearings in 2013, 2014, and 2015, providers have also consistently called for statewide alignment on quality measures, both to simplify reporting and to create clear direction for focusing quality-improvement efforts. The Statewide Quality Advisory Committee (SQAC) is a public-private body, managed by CHIA, with expertise in quality measurement, which could provide guidance toward aligning the quality measures used in global-budget contracts. While such work is outside of the statutory charge of the committee, it is a reasonable extension of the committee's responsibilities to establish a shared set of measures for tiered-product design and public reporting at the plan and provider level.

Improvement in APM design and implementation

In pre-filed testimony for the 2015 Cost Trends Hearing and in other public statements, many providers have highlighted the limitations of the methods used to establish APM budgets and of the data and reporting they currently receive from payers. In particular, the risk-adjustment methods used by the plans in setting budgets are not uniform, and the variation impedes providers' ability to effectively manage patients within budgets. In addition, the methods in wide use do not account for socio-economic disparities, which influence the need for medical care, and do not accurately account for the resources required for pediatric patients. Finally, most APM budgets are based on historical spending and thus perpetuate historical inequities in spending between different provider groups and service categories (e.g., behavioral health and preventive

vi Chapter 224 requires 50 percent of MassHealth members to be covered by APMs by July 2014 and 80 percent by July 2015, but does not require global APMs or otherwise specify the nature of the APMs..

vii Section 1115 waivers give states additional flexibility to design and improve their Medicaid and children's health insurance programs.

services). The HPC plans to convene stakeholders early in 2016 to seek consensus on a common risk-adjustment methodology and an approach that better accounts for social and demographic factors.

A second concern, consistently voices by providers, is that the data they receive for payers is not sufficient to fully support their success in new payment models. Often, providers do not receive information about their own performance on quality, clinical outcomes, and patient experience or any benchmarking information until at last a year after the services are rendered. Financial data are a bit more current; however, providers often do not know how their performance compares to their budget or to relevant trends until well after the performance period. Highlighting the importance of progress in this area, HPHC improved various aspects of its provider reports, as well as its internal infrastructure, in conjunction with its 2015 APM expansion.

A final area for refinement and improvement is the treatment of behavioral health care. When behavioral health is fully incorporated into contracts, providers have the incentive and the mandate to fully integrate behavioral health and medical care and to give both equal attention and resources. With integrated payment, providers benefit financially when the treatment of a behavioral health condition produces cost offset in the use of medical services. BCBS and Tufts Health Plan generally include behavioral health in their APM contracts, but HPHC and many other Massachusetts payers do not.

Payers that not only exclude behavioral health from risk contracts but also subcontract with managed behavioral health organizations to manage behavioral health claims, may create structures and incentives that weaken efforts to foster accountability for total cost of care. Under these arrangements, behavioral health care provided by behavioral health providers is reimbursed by the subcontracted entity, while behavioral health care provided by medical providers (such as PCPs) is reimbursed by the payer. The payer bears no risk for the majority of behavioral health costs, and the subcontracted payer bears no risk for medical costs; neither has reason to encourage providers to coordinate and streamline a patient's care.

At the same time, many PCPs may find it difficult to assume financial accountability for behavioral health care, given their lack of experience with integrated care, the gaps in the delivery system, and the shortcomings of the available data. While federal privacy regulation imposes some limits on the use and distribution of behavioral health data, most notably data on substance use disorder treatment, it does not bar payers from distributing de-identified or aggregate reports to contracted providers.[11] Thus, efforts to develop APMs that include behavioral health are closely tied – and critical to - other efforts to shore up improve the integration of the delivery system for patients with behavioral health needs.

REFERENCES

1 Burwell SM. Setting value-based payment goals--HHS efforts to improve U.S. health care. N Engl J Med. 2015; 372:897-9.

2 Tu T, Muhlestein D, Kocot SL, White R. The Impact of Accountable Care: Origins and Future of Accountable Care Organizations: Brookings Institution 2015.

3 Zezza M, Guterman S, Smith J. The Bundled Payment for Care Improvement Initiative: achieving high-value care with a single payment: The Commonwealth Fund 2012.

4 Center for Medicare & Medicaid Innovation. Bundled Payments for Care Improvement (BPCI) Initiative: General Information. Washington, DC: Center for Medicare & Medicaid Innovation; 2015 [2015 Aug 25]. Available from: http://innovation.cms.gov/initiatives/bundled-payments.

5 Petersen M, Muhlestein D, Gardner P. Growth and dispersion of accountable care organizations: August 2013 update. Salt Lake City, UT: Leavitt Partners 2013.

6 Center for Health Care Strategies. Medicaid Accountable Care Organizations: State Update. Center for Health Care Strategies, Inc. 2015.

7 The Henry J. Kaiser Family Foundation. Emerging Medicaid Accountable Care Organizations. The Role of Managed Care. 2012.

8 Minnesota Department of Human Services. Minnesota's Medicaid reform initiative saves $61.5 million in 2nd year. St. Paul, MN: Minnesota Department of Human Services; 2015 Jun 19 [cited 2015 Aug 25]. Available from: http://mn.gov/dhs/media/news/news-detail.jsp?id=252-166076.

9 Minnesota Department of Human Services. Health Reform Minnesota. St. Paul, MN: Minnesota Department of Human Services; [cited 2015 Oct 23]. Available from: http://www.dhs.state.mn.us/main/idcplg?IdcService=GET_DYNAMIC_CONVERSION&RevisionSelectionMethod=LatestReleased&dDocName=SIM_home.

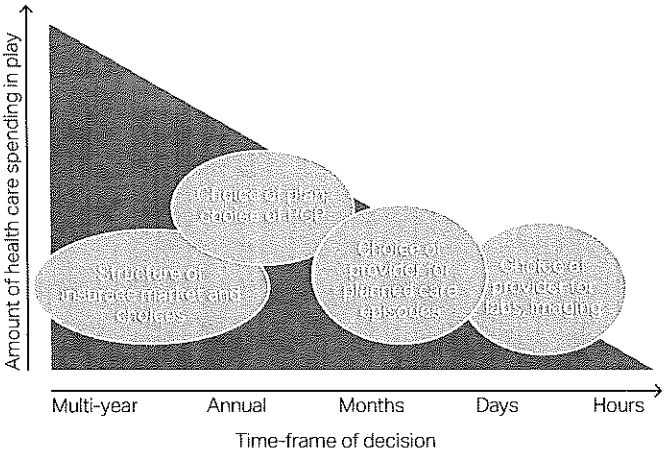
10 Colorado Department of Health Care Policy & Financing. Creating a Culture of Change, Accountable Care Collaborative: 2014 Annual Report. Denver, CO: Colorado Department of Health Care Policy & Financing.

11 Confidentiality of Alcohol and Drug Abuse Patient Records. 42 C.F.R. part 2.

Demand-Side Incentives

A well-functioning healthcare market should reward providers of care for making cost-effective care decisions, such as using alternative payment methods (APMs) to shift incentives to better align with delivery system goals (see **Chapter 11: "Alternative Payment Methods"**). It should also reward *purchasers of care* (including employers, payers, and consumers; the "demand side") for choosing high-value providers and high-value modes of care (see **Chapter 5: "Hospital Outpatient"**). Such strategies are complementary and both should be pursued to achieve a well-balanced, high value health care system.

Exhibit 12.1: A framework for demand-side incentives



Different demand-side strategies can be used at different points along the continuum of care (see **Exhibit 12.1**), and have different impacts on healthcare spending. At the left of the diagram, employers have an opportunity to offer employees a menu of plans with incentives to choose lower-cost plans. If employees do respond to such incentives and choose lower-cost plans (or select Primary Care Physicians (PCPs) within lower-cost health systems), they can be rewarded with lower monthly premiums. Once a plan has been chosen (toward the middle of the diagram), when patients face choices of providers for non-emergency procedures, for example, incentives such as reference pricing or tiering can steer patients toward high-value hospitals or provider groups. These choices can result in reduced copays when choosing preferred providers. On the far right of the diagram, though fewer health care dollars are ultimately at play, pointed incentives such as cash-back rebates can help steer employees to low-cost providers of imaging or blood tests, resulting in immediate savings.

In addition to saving money for employees, these incentives can have ripple effects throughout the health care system. When employees have stronger incentives to choose lower-cost plans, high-cost plans are pressured to adopt measures to reduce costs (such as eliminating high-cost providers from networks) to compete for patient volume. When employees choose lower-cost providers, responding to incentives in tiered network products or cash-back programs, they place pressure on high-cost providers to lower their costs to compete for patient volume.

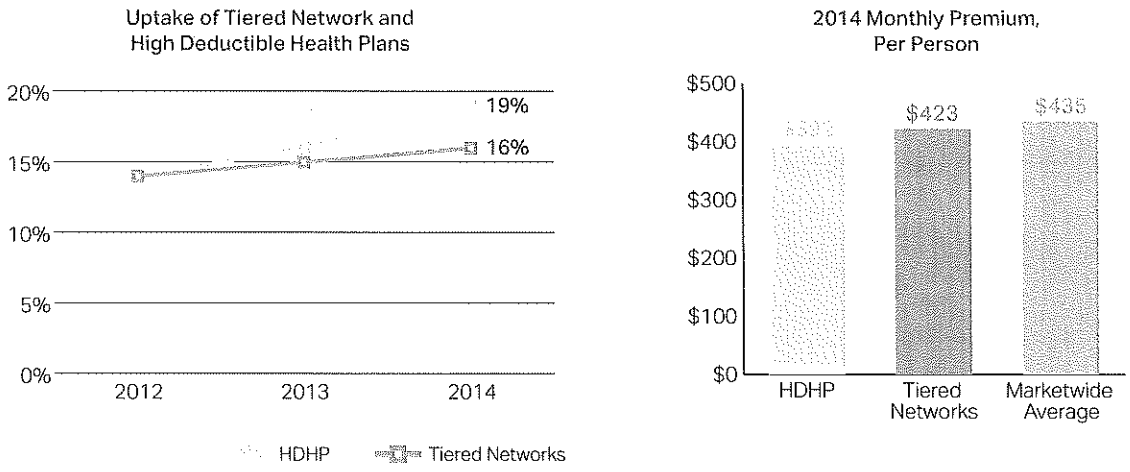
The 2014 Cost Trends Report discussed broadly many of the demand-side strategies that fall at different places along the continuum in **Exhibit 12.1**. In this chapter, the HPC provides an update on two areas of focus for the Commonwealth, tiered network products and price transparency (which supports a host of strategies along the continuum). The HPC is currently undertaking a study of the structure of insurance offerings by employers, public and private exchanges, and the role of brokers. The HPC plans to return to a discussion of these issues at a later date. A preliminary finding is that many employers, especially smaller ones, lack the expertise or resources to offer multiple plan choices to their employees and to provide them with strong incentives to seek high-value plans, though they are supportive of these concepts in principle. While the Massachusetts Health Connector (for smaller firms) and private exchanges embed many of these features, many firms are unaware of these options and face information and complexity hurdles in availing themselves of these options.

TIERED NETWORK PRODUCTS

Tiered network plans seek to direct care to high-value providers through the use of financial incentives. Plans place providers (e.g. hospitals) in different tiers based on cost and quality information and impose higher cost-sharing when enrollees seek care from providers in higher-cost (non-preferred) tiers. A recent study on patients enrolled in tiered Blue Cross Blue Shield (BCBS) products in Massachusetts found that the tiered structure did result in movement away from low-value hospitals (defined by BCBS) in the case of planned admissions. Results implied that if all members were in tiered products, the proportion of planned admissions taking place at low-value hospitals would drop by 7.6 percentage points.[1]

Tiered products have not resulted in an overall net shift of members toward lower-cost providers in Massachusetts over the last few years,[2] though this is not surprising given the limited penetration of these products in the Massachusetts market overall (tiered products made up 16 percent of the commercial market in 2014, up from 14.5 percent in 2013 – see **Exhibit 12.2**). Low growth in take-up of tiered products, particularly in contrast with the higher growth in high-deductible plans, could be due to lesser premium savings in tiered products compared to high deductible plans[i].

Exhibit 12.2: Tiered and high-deductible products in Massachusetts, 2012 – 2014



Note: Premiums include fully insured market only and are net of rebates and scaled to account for partial benefits. Market penetration percentages include both fully and self-insured markets.
Source: Center for Health Information and Analysis, 2015

i The figure of $423 in per member premium payments shown in **Exhibit 12.2** compared to the marketwide average represents a 3% difference, while high-deductible plans were $43 (10%) lower per member per month. When controlling for other factors such as group size and enrollee demographics, however tiered network products were 12% cheaper than non-tiered products (CHIA Tiered product report, January 2016). This suggests that tiered products have thus far enrolled disproportionately higher-risk enrollees.

The issues of limited effectiveness and limited take-up could be mutually reinforcing. If tiered products do not significantly reduce premiums by effectively steering volume to lower-cost providers, they may not be perceived as attractive enough to be offered by employers (and selected by employees) – especially given the downside of limiting employee choice of provider and the complexity of explaining the structure to employees. To increase effectiveness, the Attorney General's Office (AGO) has recommended that plans increase the cost-sharing differentials across tiers.[2] This recommendation is supported by a series of focus groups conducted on behalf of the HPC in 2014 around factors influencing patient choice of providers.[ii] That study suggested that small cost differences would not likely sway patient choices of hospital, and that PCPs' referrals and recommendations weighed heavily in such choices (consistent with prior literature findings).[3] Building on the strength of physician referrals in directing subsequent care, the AGO also recommended introducing a financial incentive at the point where individuals choose a PCP. This strategy could effectively drive patient volume to high-value health systems (as shown earlier in this report, most PCPs are affiliated with health systems) by moving decision-making further upstream (see **Exhibit 12.1**) – when patients may be better able to respond to financial incentives rather than when in the midst of a health issue.

Another strategy that could supplement tiered-network products is offering cash rebates for choosing low-cost providers. While tiered products offer reduced cost-sharing in exchange for choosing low-cost providers, some payers (including Fallon and Harvard Pilgrim Health Care (HPHC)) have begun offering consumers direct cash rebates upon choice of a provider from higher-value tiers. These programs overcome the problem of patients having exceeded their out-of-pocket maximum (after which cost-sharing differentials have no impact). Furthermore, the prospect of receiving a check in the mail may be particularly attractive to some enrollees (versus paying less in cost-sharing). To increase participation, these programs use proactive outreach strategies – for example, contacting patients who have been pre-authorized for an imaging service to inform them of low-cost providers in their area (and facilitating switching a pre-existing appointment) or contacting patients who have recently used a high-cost service vendor about how much they could save by using another provider for a future use of that service.

ii Health Policy Commission, Community Hospital Study (forthcoming), 2016.

PRICE TRANSPARENCY

To the extent that employers and individuals are motivated to seek high-value care through incentives, available price and quality information are helpful. Availability of price and quality information is associated with lower total claims payments for health care services, such as imaging services and clinician office visits and lower costs and use of hospital-based facilities for MRI scans.[4,5] Price transparency has been a focus of Chapter 224 of the Acts of 2012, which required that all health plans and third-party administrators offer a toll-free number and website with accessible price information for enrollees as of October 1, 2014. The law also requires providers to disclose the allowed amount or charge for procedures and services within two business days. Types of procedures highlighted by payers as frequently requested included lab tests and imaging, pregnancy-related procedures, colonoscopies, mammography, and shoulder and knee arthroscopies. These tools were the subject of inquiry in theHPC's 2015 Health Care Cost Trends Hearing. Although all major payers active in Massachusetts cite that they have met the requirements of Chapter 224 in establishing the sites and offering information across a wide spectrum of domains, the use of these sites thus far has been limited to fewer than 50 inquiries per 1,000 members per year for the largest three payers in Massachusetts.[6,iii]

It is unclear whether the low usage rate has been due to poor usability or low consumer awareness of the sites, but the rates are consistent with national rates.[7] In 2015, Health Care for All created a report card on the consumer cost estimation tools built by BCBS, HPHC, and Tufts Health Plan.[8] These tools were graded in terms of effectiveness in assisting with consumer decision-making as well as their general level of accessibility and comprehensiveness. BCBS received a "C-" grade while the other two payers received a "C" grade. Health Care for All reported that price information was generally difficult to find, cost data was not presented in conjunction with easily understandable quality information, and high-value choice options were not highlighted.

Chapter 224 also required providers to make price information available for consumers. A study by the Pioneer Institute involved 22 hospitals and 10 free-standing clinics in Massachusetts that were contacted for cost informa-

iii That is, BCBS, Tufts Health Plan and HPHC. Aetna, an insurer with a relatively small market presence in Massachusetts, reported far more price inquiries per 1,000 members, though it is not entirely clear if those included inquiries made by out-of-state residents.

tion regarding a relatively common procedure: an MRI of the knee without contrast.[9] Investigators found that obtaining price information from clinics was a relatively straightforward process. However, while 21 out of 22 hospitals were able to eventually provide investigators with price information, "persistence and diligence" was often required on behalf of the investigators. Investigators reported confusion from some hospitals as to how to obtain the requested information, with no apparent systems in place to respond to such inquiries. The average time to obtain requested price information was between two to four days.

Overall, demand-side incentives can support supply-side incentives (such as provider payment reform) to help foster an efficient health care delivery system in Massachusetts. These incentives can act across the continuum of the health care systems when engaged patients or enrollees, informed with sufficient cost and quality information, have the ability to choose efficient providers and be rewarded for such choices. Although these options, in themselves, are not sufficient to reform the health care system, they offer promise in supporting supply-side incentives and the HPC encourages continued steps to strengthen them.

REFERENCES

1 Frank MB, Hsu J, Landrum MB, Chernew ME. The Impact of a Tiered Network on Hospital Choice. Health services research. 2015; 50: 1628-48.

2 Massachusetts Office of the Attorney General. Examination of Health Care Cost Trends and Cost Drivers: Pursuant to G.L. c. 12, &11N 2015. Sep 18.

3 Sinaiko AD. How do quality information and cost affect patient choice of provider in a tiered network setting? Results from a survey. Health services research. 2011; 46:437-56.

4 Whaley C, Chafen JS, Pinkard S, Kellerman G, Bravata D, Kocher R, et al. Association between availability of health service prices and payments for these services. Jama. 2014; 312:1670-6.

5 Wu S-j, Sylwestrzak G, Shah C, DeVries A. Price transparency for MRIS increased use of less costly providers and triggered provider competition. Health Affairs. 2014; 33:1391-8.

6 Health Policy Commission. Pre-filed Testimony pursuant to the 2015 Annual Cost-Trends Hearings. 2015.

7 White C, Ginsburg PB, Tu HT, Reschovsky JD, Smith JM, Liao K. Healthcare Price Transparency: Policy Approaches and Estimated Impacts on Spending: Mathematica Policy Research2014.

8 Health Care for All. Consumer Cost Transparency Report Card. Boston, MA: Health Care for All.

9 Pioneer Institute. Mass. Healthcare Price Transparency Law Still Not a Reality. Boston, MA: Pioneer Institute; 2015 Aug 12; Available from: http://pioneerinstitute.org/healthcare/mass-healthcare-price-transparency-law-still-not-a-reality/.

Conclusion and Recommendations

The HPC publishes an annual report describing health care cost trends, documenting the health sector's performance relative to the statewide growth benchmark, and identifying opportunities for improvement in cost, quality, and access. In light of the findings presented in this 2015 Cost Trends Report, as well as other analytic and policy work throughout the year, the HPC has developed recommendations for market participants, policy makers, and other government agencies.

DASHBOARD OF KEY HPC METRICS

In keeping with a recommendation from the 2014 Cost Trends Report, the HPC has developed a set of measures to track health system performance (see **Exhibit 13.1**), drawing upon findings for the 2015 Cost Trends Report. This set of key metrics, or "dashboard," is intended to track Massachusetts health system performance in areas identified by the HPC as priorities for ongoing attention and improvement. For the dashboard, the HPC selected measures with a credible, regular, and up-to-date data source to present trend over time in Massachusetts and to compare performance in the Commonwealth to a national benchmark, where available. For some measures, the HPC will also track performance against targets for improvement.

RECOMMENDATIONS

Consistent with past reports, the recommendations are organized into four primary areas of opportunity for improving the health care system in Massachusetts:

1. **Fostering a value-based market** in which providers and payers openly compete to provide services, and in which consumers and employers have appropriate information and incentives to make high-value choices for their coverage and care options
2. **Promoting an efficient, high-quality delivery system** with patients and primary care providers at the center in which providers efficiently deliver coordinated care that integrates behavioral health and physical health and produces better outcomes and improved health status
3. **Advancing alternative payment methods** that support and equitably reward providers for delivering high-quality care while holding them accountable for slowing the rate of health spending across the Commonwealth
4. **Enhancing transparency and data availability** necessary for providers, payers, purchasers, and policy makers to successfully implement reforms and evaluate progress over time.

FOSTERING A VALUE-BASED MARKET

A transparent and competitive health care market that rewards high-value providers is essential for constraining growth in health care costs and meeting the health care cost growth benchmark in the future. As documented in this Report, the majority of care in the Commonwealth is provided by a relatively small number of large provider systems, and both hospitals and physicians have continued to align with large systems. This degree of consolidation in the marketplace can impact health care costs, quality, and access. The HPC finds that price and spending variation among providers has persisted, and the share of patient volume served by high-cost providers continues to be significantly higher than that of lower-cost providers.

In the insurance market, enrollment in high-deductible health plans increased from 14 percent of the market in 2012 to 19 percent in 2014, while enrollment in tiered network plans grew more slowly (from 14 percent to 16 percent). In 2014, Massachusetts payers launched online price information tools, but consumer use of these tools was low.

To advance the goal of a more value-based market in 2016, in which consumers, armed with information on cost and quality, have meaningful options and are rewarded for making high-value coverage and care choices, the HPC recommends:

1. Payers and employers should continue to enhance strategies that enable consumers to make high-value choices, including increasing the transparency of comparative prices and quality. Specifically:

a. Payers should continue to improve value-oriented products such as tiered and limited plan designs that create incentives, such as financial rewards for choosing high-value services and providers, through strategies including:
   i. Using transparent, aligned methods to tier providers.
   ii. Increasing the cost-sharing differentials between preferred and non-preferred tiers to better reflect value-based differences among providers.
   iii. Improving educational and outreach efforts to help employers and employees better understand the products and their benefits and tradeoffs.
   iv. Exploring limited network products that are associated with one or more high performing accountable care organizations (ACOs).

b. Payers should continue to innovate and provide new mechanisms that reward consumers for making high value choices, through strategies including:
   i. Providing cash-back rebates for choosing low-cost providers.
   ii. Offering members incentives at the time of primary care provider (PCP) selection, with the level of incentives tied to differences in the total cost of care associated with this PCP.

c. When feasible, employers should offer employees a choice of plans and use defined-contribution and other strategies to reward employees for choosing lower-cost plans. In particular, employers who offer high-deductible health plans should pair them with health savings accounts (HSAs) or health reimbursement accounts (HRAs) and should also offer a choice of other value-based insurance products in addition to these plans. All such plans should be monitored to ensure that they do not impose an undue and unavoidable cost-sharing burden on members, especially lower income members.

d. Information, coupled with incentives and choice, is an essential element of a well-functioning market for health care. Payers should continue to improve the use and usability of online price and quality information available to members and should link that information with opportunities and incentives to make high-value choices.

2. The Commonwealth should enhance transparency of drug prices and spending, and payers should consider opportunities to maximize value. Given the current national regulatory framework, many aspects of drug spending are outside the direct control of payers and providers in Massachusetts, and change would require Federal action. However, levers for action are available at the state level, some requiring new legislation. In addition, public and commercial payers should consider opportunities to maximize value. Specifically, to address spending growth associated with pharmaceuticals:

a. All payers should pursue the use of value-based benchmarks when negotiating prices and consider opportunities for the use of risk-based contracting with manufacturers.

b. The Legislature should require increased transparency in drug pricing and manufacturer rebates.

c. The Legislature should add pharmaceutical and medical device manufacturers to the list of mandatory market participant witnesses at the HPC's Annual Health Care Cost Trends Hearing.

d. Public and commercial payers and purchasers should consider a range of opportunities for group purchasing and joint negotiation.

e. State and federal lawmakers should advocate for legislation to allow Medicare to negotiate prescription drug prices.

In addition, payers and providers should work to ensure efficient utilization of prescription drugs:

f. Stakeholders should work together to develop and use treatment protocols and guidelines that make appropriate use of lower-cost drugs when available and to achieve consensus on appropriate use when new high cost drugs enter the market.

   All such policies should be developed in a manner that ensures patients' access to necessary therapies.

3. The Commonwealth should take action to implement safeguards for consumers and improve market function related to out-of-network billing. Consumers may face high charges from out-of-network hospitals and physicians in certain circumstances, including in emergency situations and when services are received at in-network facilities but provided by out-of-network providers without the consumer's informed agreement. These high out-of-network charges can create financial burdens for consumers and also raise significant challenges to healthy market functioning. Drawing on models from other states (such as New York), the Legislature should require providers to inform consumers whether they are in- or out-of-network before services are delivered. The Legislature should also require that carriers hold their members harmless in cases of out-of-network emergency services and enhance consumer awareness of existing "surprise billing" protections. Finally, the Legislature should establish a maximum reasonable price for such services, to ensure that these protections for consumers do not increase overall spending or have other unintended consequences.

4. The Commonwealth should take action to equalize payments for the same services for similar patients between hospital outpatient departments and physician offices. In some cases, the same service can be provided in different settings of care. In particular, hospital outpatient department rates can be substantially higher than physician office rates for the same service, encouraging providers to provide services in hospital outpatient departments unnecessarily. The following proposals would improve financial incentives to provide care efficiently:

a. **The Legislature should limit the types of provider locations that can bill payers and patients as a hospital outpatient department.** The ability to earn higher payment rates as a hospital outpatient department rather than as a physician practice has incentivized hospitals to acquire physician practices and enable those practices to bill as hospital outpatient departments. These higher payments for services, due to the addition of hospital facility fees, may inappropriately increase total medical spending for payers and patients, as well as cause confusion for patients who may face increased cost-sharing. All payers should monitor such billing practices. Following recent Congressional action limiting eligibility for hospital outpatient department payments in Medicare from providers within 250 yards of a hospital's main campus, the Legislature should similarly limit the definition of those providers eligible for hospital outpatient payments and require all payers to adopt these policies, at a minimum, for both newly licensed hospital outpatient departments and existing sites.

b. **Payers should implement site neutral payments for select services for similar patients.** The Medicare Payment Advisory Commission has recommended that the Medicare program equalize payment rates of hospital outpatient departments with lower physician office rates for evaluation and management visits and a select set of other services. Payers in Massachusetts should identify select appropriate services and implement site neutral payments for these services.

5. The Commonwealth should act to reduce unwarranted variation in provider prices. Extensive variation in prices paid to health care providers for the same sets of services is a persistent issue in the Commonwealth, driving increased health care spending and perpetuating inequities in the distribution of health care resources. However, unwarranted variation in provider prices is not likely to decrease absent direct policy action. To inform the necessary action, the HPC will undertake additional research and analyeses and will engage with stakeholders (including the HPC Advisory Council) to discuss specific, data-driven policy options for consideration by the Legislature, other policy makers, and market participants in the first half of 2016.

CARE DELIVERY

Over its three-year history and in the current report, the HPC's research has highlighted Massachusetts' high levels of spending and high use of hospital and post-acute care. Within the state, the HPC has also noted variation among providers and communities in spending and practice patterns. Moreover, the HPC has identified ongoing opportunities to improve quality and efficiency in the areas of care coordination and clinical integration across settings, identifying and managing high-cost patients, screening and treatment of behavioral health conditions, caring for patients in efficient and community settings, and leveraging technology to support these efforts. The HPC continues to support providers in addressing these opportunities through investment, technical assistance, and certification programs. The increased adoption of effective APMs should further align provider incentives around quality and efficiency in care delivery

To advance the goal of an efficient, high-quality care delivery system in 2016, the HPC recommends:

6. The Commonwealth should continue to focus on enhancing community-based, integrated care and reducing the unnecessary utilization of costly acute settings. As part of this focus, the Commonwealth should develop the necessary strategies and apply the necessary resources to attain the following:

a. **Reductions in all-cause 30-day hospital readmissions:** The Commonwealth should achieve a 20 percent reduction in all-cause, all-payer 30-day hospital readmissions relative to the 2013 level, attaining an all-payer readmission rate below 13 percent by 2019. In particular, action should be focused on patients who frequently utilize hospital services, who represented 59 percent of all readmissions in 2013.

b. **Increased use of the patient-centered medical home model:** In 2015, 25 percent of Massachusetts primary care providers were practicing within patient-centered medical home (PCMH) practices recognized by the National Committee on Quality Assurance (NCQA). A third of all primary care providers should be practicing within NCQA-recognized PCHMs by 2017 and 20 percent of all primary care providers should be practicing within a HPC-certified PCMH PRIME practice (medical homes with integrated behavioral health) by 2017.

7. To improve access to low-cost, high-quality care, particularly for low income and underserved populations, the Massachusetts Legislature should remove scope of practice restrictions for Advanced Practice Registered Nurses (APRNs). The Legislature should consider adopting models used in other states that allow for such providers to practice to the full extent of their license and training.

8. The Commonwealth should be a national leader in the use of enabling technologies to advance care delivery transformation through the expanded adoption of health information exchange, telehealth, and other digital health innovations. Market participants should adopt technology tools that enhance access to care, including behavioral health care; keep more patients in community settings; support real-time information exchange; and enable effective care coordination, care transitions, and other activities of population health management. As part of this focus, the Commonwealth should examine and address policy and payment barriers to increased use of telehealth. Finally, Massachusetts payers, providers, and the health care innovation community should partner together to develop, test, and leverage the technology and service advances pioneered by Massachusetts-based start-up companies and established firms.

ALTERNATIVE PAYMENT METHODS (APMS)

Effective APMs offer incentives that support value-based and patient-centered care. Between 2012 and 2014, the statewide rate of APM coverage increased eight percentage points, but the market should extend APMs to preferred provider organizations (PPO) in order to achieve continued gains in commercial APM coverage. APMs should be made more comprehensive and aligned to attain the desired benefits. In addition, global budgets alone may not be sufficient to alter the incentives facing many hospitals and specialists, sectors which are essential to health system transformation and cost containment.

To advance the goal of expanded adoption of effective APMs in 2016, the HPC recommends:

9. Payers and providers should continue to focus on increasing the adoption of alternative payment methods (APMs) and on increasing the effectiveness of APMs in promoting high quality, efficient care. Market participants should advance the following:

a. **APMs for HMO patients**. All commercial payers should increase the use of APMs with the goal of having 80 percent of the state HMO population in APMs by 2017.

b. **APMs for PPO patients**. Commercial payers should also seek to increase the use of APMs for members enrolled in PPO plans, with the initial goal of having one third of the state PPO population in APMs by 2017.

c. **Bundled payment**. As a complement to global payment APMs, payers and providers should follow the lead of the Centers for Medicare and Medicaid Services (CMS) and implement bundled payments for common and costly episodes of care, such as joint replacement, acute myocardial infarction, cancer treatment, and maternity stays. These bundles should include care provided both within and outside of the hospital in an appropriate clinical window.

d. **Disparities in payment levels**. As part of a strategy to reduce spending, payers should develop plans to

lessen the unwarranted disparity in global budgets paid to different providers by establishing stricter targets for spending growth for highly paid providers or by moving away from historical spending as the basis of global budgets.

e. **Include behavioral health and long-term services and support.** Payers should include behavioral health services in their global budget models, and develop plans for including long-term supports and services in such models where applicable to the patient population.

f. **The Group Insurance Commission (GIC) should make payment reform a core component of its next health plan procurement as it continues to increase the number of GIC members covered by APMs.** The GIC launched the Integrated Risk Bearing Organizations (IRBO) program in its 2013 procurement, requiring plans to meet targets for increasing percentages of GIC members seen by a provider in this ACO-type model. The HPC encourages the GIC to use its upcoming health plan procurement process to closely align with the HPC certification standards and reporting requirements for ACOs.

10. The Commonwealth should develop alternative payment models to catalyze delivery system reform in MassHealth. Developing a comprehensive care delivery and payment reform model that promotes coordination of care, improves population health, and enhances accountability for total cost of care is a top priority for the Executive Office of Health and Human Services. In developing this strategy, MassHealth has initiated an intensive stakeholder engagement and policy development process with the goal of launching a range of ACO models at scale over the next one to two years.

The HPC strongly supports these efforts and believes such reforms, paired with broad federal support, will accelerate overall health care system transformation in Massachusetts. Furthermore, the HPC specifically encourages MassHealth to consider the following design elements:

a. A payment model the supports the integration of behavioral health and long term supports and services with medical care, and incentivizes the development of cross-continuum partnerships, especially with existing high-performing community-based providers;

b. A payment model that moves away from historically-based spending targets that entrench price variation toward an absolute performance benchmark;

c. Mechanisms to increase member engagement (e.g., active member selection, member incentives to maintain care in ACO), as patient engagement is a critical part of achieving better outcomes; and,

d. Alignment, where appropriate, with commerical payers and CMS on technical elements of their payment model such as quality measures, risk adjustment, reporting, and attribution logic.

Finally, the HPC encourages MassHealth to consider prioritizing state and federal funds to support care redesign and capacity building at the safety-net and community-based providers who predominantly serve Medicaid members. Provider investments should be subject to system governance reform, as well as progress on reducing unnecessary utilization of costly acute settings, reallocation of spending within the total cost of care, and optimizing capacity to support the new care delivery models.

11. Payers and providers should seek to align technical aspects of their global budget contracts, including quality measures, risk adjustment methods, and reports to providers. The HPC plans to convene stakeholders early in 2016 to continue this important work.

DATA AND MEASUREMENT FOR TRANSPARENCY AND ACCOUNTABILITY

The importance of transparency and data availability surface throughout the discussions of spending trends, care delivery, APMs, and demand-side incentives. Data are essential to all aspects of system transformation, including setting priorities, harnessing the power of consumer choice, strengthening care delivery, designing and succeeding in new payment models, and monitoring progress.

To advance the goal of greater transparency and data availability in 2016, the HPC recommends:

12. The Commonwealth should develop a coordinated quality strategy that is aligned across public agencies and market participants. Relevant and credible quality measures are essential for many system goals, including value-based product design, payment, and consumer choice. Measures that pertain to behavioral health, long-term services and supports, and measures derived from patient reported outcomes are especially needed. The Legislature should refine the current process for developing the Standard Quality Measure Set (SQMS) to allow for the designation of limited sets of high priority measures for specific uses such as global budgets, consumer transparency,

and tiered or limited network product design, and should better define the role of the Statewide Quality Advisory Committee (SQAC) in providing input and guidance on the Commonwealth's overall strategy for quality measurement, improvement, and alignment.

13. To support transformation and accountability, CHIA should continue to improve and document its data resources and develop key spending measures. Specifically:

a. **Behavioral health data**. CHIA should continue efforts to collect discharge data from freestanding psychiatric and substance use disorder hospitals.

b. **Data on drug rebates**. CHIA should explore options to collect aggregate drug rebate amounts and reflect this information in estimates of total health care expenditures.

c. **Data on "discount arrangements."** As required by statute, CHIA should consider requiring reporting of agreements through which a provider offers to another provider a discount, rebate, or any other type of payment that is in any way related to the provision of health care services.

d. **The All-Payer Claims Database (APCD)**. The APCD is a critical tool for evaluating and monitoring system performance and represents a significant investment on the part of the state's payers. To enhance the return on this asset, by the end of 2016, CHIA should:

   i. Implement a master provider index in connection with the HPC Registration of Provider Organization programs.

   ii. Work with MassHealth to establish and publish a credible method to use APCD data to calculate enrollment, spending, and other essential measures for the MassHealth population and for key segments within it.

   iii. Attribute patients to providers and develop additional measures of spending.

   iv. Seek to make data, including data from public payers, available in a more timely fashion.

e. **Total Medical Expenditures for PPO populations**. CHIA should prioritize the development of a total medical expenditure measure for PPO populations that draws upon the APCD and uses the consensus attribution algorithm to identify accountable provider organizations. As an interim step, CHIA should consider collecting aggregate data on TME for PPO populations directly from payers in a manner that parallels the current HMO reporting.

f. **Provider-level measures of spending growth**. In 2016, CHIA should work with the HPC and other stakeholders to develop and implement measures of spending growth for hospitals and specialist physician groups, adding other provider types as necessary and feasible.

g. **Cross-payer pricing comparisons**. In order to facilitate comparisons of payer performance in the health care market, CHIA should refine its relative price methodology to allow for cross-payer comparison.

In the coming year, the HPC will pursue the activities noted above and work collaboratively with the Baker-Polito Administration, the Legislature, the Massachusetts health care industry, employers, consumers, and other stakeholders to advance the goals of a more affordable, effective, and transparent health care system in Massachusetts.

Dashboard of HPC System Performance Metrics

Exhibit 13.1: Dashboard of HPC system performance metrics

Key Area	Measure	MA Time Trend		Direction of Change	U.S. Comparison (1 = best)	MA relative to U.S.	Target
Benchmark and spending	**1. Growth of THCE per capita (performance assessed relative to 3.6% benchmark)**	2.4% (2012-2013)	4.8% (2013 - 2014)	■	4.2% (2013-2014)	■	<3.6%
	2. Growth in premiums	Family: 1.7% Single: 2.8% (2012-2013)	Family: 1.6% Single: 0.9% (2013-2014)	▲	Family: 3.9% Single: 4.7% (2013-2014)	▲	
	2a. Level of premiums	Family: $17,424 Single: $6,290 (2013)	Family: $17,702 Single: $6,348 (2014)	N/A	Family: $16,655 Single: $5,832 (2014)	■	
	3. Individuals with high out-of-pocket spending relative to income	N/A	11% (2013 and 2014 average)	N/A	MA ranked 2nd out of 51 (US = 15%) (2013 and 2014 average)	▲	
Efficient, high-quality care delivery	**4. Readmission rate (Medicare 65+)**	19.4% (2010) 18.2% (2012)	17.4% (2013)	▲	MA ranked 39th out of 51 (US = 17.0%) (2013)	■	
	4a. Readmission rate (All payer)	15.9% (2011)	15.0% (2013)	▲	N/A	N/A	<13% by 2019
	5. ED utilization (per 1,000 persons)	361 (2010) 357 (2013)	349 (2014)	▲	MA ranked 35th out of 51 (2013)	■	
	5a. Behavioral health ED utilization (per 1,000 persons)	21(2010) 24 (2013)	25 (2014)	■	N/A	N/A	
	6. Percentage of inpatient cases discharged to institutional PAC	20.6% (2013)	20.8% (2014)	●	MA = 20.4% (2012) US = 16.7% (2012)	■	
	7. At-risk adults without a doctor visit	7% (2013)	7% (2014	●	13% (2014)	▲	
	8. Percentage of primary care physicians practicing in certified PCMHs	1,580 20.3% of all PCPs (2014)	2,024 25.3% of all PCPs (2015)	▲	15.2% of all PCPs (2015)	▲	33% by 2017; 20% in Prime practice by 2017

▲ Better performance
● Similar performance
■ Worse performance

Key Area	Measure	MA Time Trend		Direction of Change	U.S. Comparison (1 = best)	MA relative to U.S.	Target
APMs	**9. Percentage of original Medicare members in APMs**	41% (2013)	46% (2014)	▲	16% (2014)	▲	
APMs	**10. Percentage of commercial HMO members in APMs**	61% (2013)	68% (2014)	▲	N/A	N/A	80% by 2017
APMs	**11. Percentage of commercial PPO members in APMs**	~1% (2013)	2% (2014)	▲	N/A	N/A	33% by 2017
APMs	**12. Percentage of MassHealth members in APMs**	PCC: 14% (2013) MCO: 32% (2013)	PCC: 22% (2014) MCO: 22% (2014)	▲	N/A	N/A	
Value-based markets	**13. Enrollment in tiered network products**	Tiered: 14.5% (2013)	Tiered: 16.0% (2014)	▲	N/A	N/A	
Value-based markets	**14. Percentage of discharges in top 5 systems**	51% (2012) 53% (2013)	56% (2014)	■	N/A	N/A	
Value-based markets	**15. Percentage of discharges from hospitals with relative price of 1.0 or above**	69% (2010) 72% (2013)	73% (2014)	■	N/A	N/A	

Note: THCE = total health care expenditures; ED = Emergency Department; HMO = health maintenance organization; PPO = preferred provider organization; APM = alternative payment method; PCMH = patient-centered medical home.

Source:

Measure 1-MA: Centers for Health Information and Analysis Annual Report, 2015

Measure 1-US: Centers for Medicare and Medicaid Services National Health Expenditure Data, 2013-2014

Measures 2,2a: HPC analysis of Medical Expenditure Panel Survey data, 2012-2014

Measure 3: Commonwealth Fund Scorecard on State Health System Performance, 2015

Measure 4: Institute of Medicine analysis of CMS Medicare Geographic Variation Data Files, 2015

Measure 4a: Center for Health Information and Analysis Hospital-Wide Adult All-Payer Readmissions in Massachusetts: 2011-2013 (Report)

Measures 5, 5a-MA: HPC analysis of Center for Health Information and Analysis Emergency Department Data Base , 2010-2014

Measures 5-US and MA comparison: Kaiser Family Foundation State Health Facts, accessed 2015

Measure 6-MA: HPC analysis of Center for Health Information and Analysis Hospital Discharge Database, 2013-2014

Measure 6-US and MA comparison: HPC analysis of HCUP Nationwide Inpatient Sample and State Inpatient Database, 2012

Measure 7: Commonwealth Fund Scorecard on State Health System Performance, 2015

Measure 8: HPC analysis of National Commission on Quality Assurance Clinician Directory and of American Association of Medical Colleges State Physician Workforce Database, 2014-2015

Measure 9: HPC analysis of Centers for Medicare and Medicaid Services ACO performance data , 2013-2014

Measure 10,11: HPC analysis of Center for Health Information and Analysis 2015 Annual Report: 2013-2014 Data Book

Measure 12: MassHealth personal communication, 2014 and HPC analysis of Center of Health Information and Analysis 2015 Annual Report: 2013-2014 Data Book

Measure 13: HPC analysis of Center for Health Information and Analysis 2015 Annual Report: 2013-2014 Data Book

Measure 14: HPC analysis of Center for Health Information and Analysis Hospital Discharge Database, 2012-2014

Measure 15: HPC analysis of Center for Health Information and Analysis Relative Price Data Book, 2009-2014

List of Technical Appendices

Acknowledgments

COMMISSIONERS

Dr. Stuart Altman,
Chair

Dr. Wendy Everett,
Vice Chair

Dr. Carole Allen

Mr. Martin Cohen

Dr. David Cutler

Dr. Paul Hattis

Ms. Kristen Lepore,
Secretary of Administration and Finance

Mr. Rick Lord

Mr. Ron Mastrogiovanni

Ms. Marylou Sudders,
Secretary of Health and Human Services

Ms. Veronica Turner

EXECUTIVE DIRECTOR

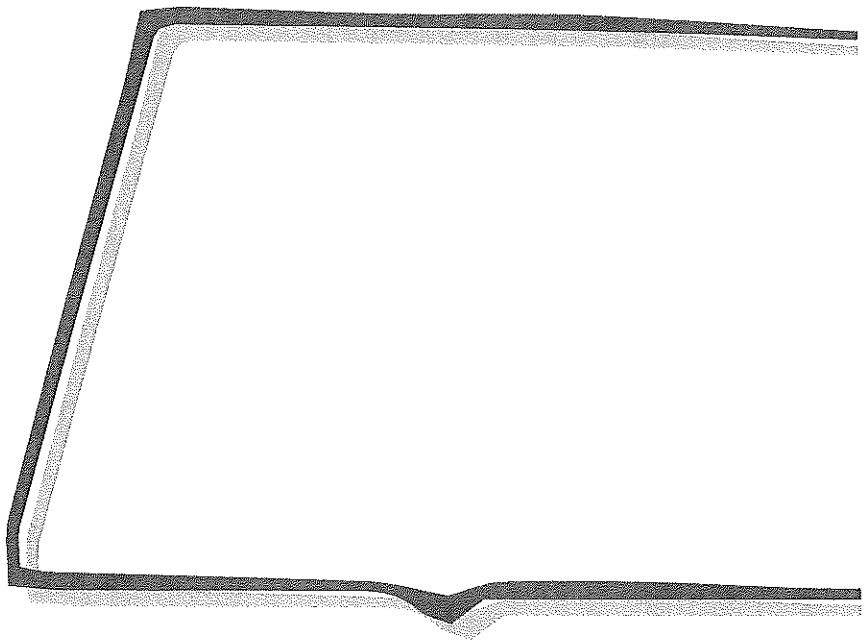
Mr. David Seltz

The HPC's Research and Cost Trends staff, Dr. Marian V. Wrobel, Dr. David Auerbach, Sara Sadownik, Marit Boiler, Karbert Ng, Aaron Pervin, Natasha Reese-McLaughlin, and Dr. Huong Trieu, prepared this report with guidance from Executive Director David Seltz, Dr. Stuart Altman, Board Chair, Dr. Wendy Everett, Vice Chair, and Dr. David Cutler, Chair of the HPC's Cost Trends and Market Performance Committee. Other commissioners provided recommendations and guidance.

Many HPC staff contributed significantly to the preparation of this report, including Kelly Mercer and Megan Wulff. Ashley Johnston designed the report. Coleen Elstermeyer, Lois Johnson, Iyah Romm, Katherine Scarborough Mills, and Katherine Shea Barrett all reviewed and commented upon the contents. We would also like to thank our fellows and interns, Daniel Hafner, Sophia Herzlinger, Nina Jolani, Emma Sandoe, Zirui Song, and Charlie Upton.

The HPC acknowledges the efforts of other government agencies in the development of this report, including the Center for Health Information and Analysis (CHIA); the federal Centers for Medicare & Medicaid Services (CMS); the Office of MassHealth within the Commonwealth's Executive Office of Health and Human Services (EOHHS); and the Massachusetts Attorney General's Office (AGO).

The HPC would like to thank its Advisory Council and other market participants and stakeholders for insightful input and comments. The HPC acknowledges our contractor, Mathematica Policy Research, for analyses of the All-Payer Claims Database (APCD).



MASSACHUSETTS
HEALTH POLICY COMMISSION

50 Milk Street, 8th Floor
Boston, MA 02109
www.mass.gov/HPC

lab changes

Brown, Curtland M.D.
Sent: Tuesday, August 22, 2017 9:31 PM
To: Sanchez, Harold M.D.

August 22, 2017

To Whom It May Concern,

I would like to express my opposition to the proposed changes in protocols involving the processing of outpatient laboratory work done in physician offices and blood drawing stations associated with the Hospital of Central Connecticut (THOCC).

I am a pulmonary physician in Southington and have been very satisfied with the function of the THOCC laboratories at both the Bradley and New Britain campuses.

Currently routine outpatient lab work for common studies such as complete blood counts (CBC's) basic metabolic profiles (BMP's) and prothrombin time/international normalized ratios (PT/INR's) are processed locally and results available within hours. It is particularly helpful that PT/INR's are available on the same day of the draw before my office closes and I can act promptly on abnormal results.

It is my understanding that the proposed changes would involve sending these specimens to Marlborough, Massachusetts for processing. I consider this unnecessary and inappropriate as I would wait longer for results and the risk of specimens being mishandled or lost would be greater.

Yours truly,

Curtland C. Brown III M.D., F.C.C.P.

August 17, 2017

Dear Committee Members,

I am writing to you regarding the public hearing on docket number **17-32170-CON**. I would like to express my concern not only as an employee of the Hospital of Central Connecticut (HOCC), but also as a patient, a voice from the community that needs the service of the hospital.

As an employee, I was taught and trained to perform my job accordingly with the Core values of the hospital: doing the right thing, the caring thing, the safe thing, and the best thing. There are many wonderful stories about my colleagues whose dedication and expertise positively affected the lives of the patients and their families in our care. A woman walked in for a routine blood check up and even before getting back home, she got a call from her doctor, advising somebody should bring her to the ER immediately because of her critical low glucose, which untreated could cause seizures or unconsciousness. Another time, a man was leaving from a routine blood draw, when less than an hour later, he was called back to be admitted in ER for his critical high potassium which, again, untreated could possibly lead to a cardiac arrest. Now, I wonder, when the HOCC decides to sell all of our outpatient Laboratory services to Quest, an out-of-state facility, would it still be the safe thing, the caring thing, the right thing for our patients and for the community?

For the sake of argument, to compare the services of the HOCC and Quest Laboratories, let's say both Laboratories have first rate technology and both lab teams are dedicated and professional. The key here is the turnaround time. It is impossible for the out-of-state Quest Laboratories to have a better turnaround time than the HOCC Laboratories! And sometimes, the matter between life and death is just a few hours difference. I have proudly worn the core values of the HOCC as a badge of honor to serve our patients and our community for more than 25 years. Please, stop the sale so I can continue being proud with our core values. I am only a tech, so I do not know about the financial benefit of the sale to the HOCC, but is it still true that hospitals are nonprofit organizations and our priority is the well-being of our patients, their family, and the community that we serve?

As patient, I would like to voice not only my feelings, but my family's, my friends' and neighbors' whom I have been talking to. It would be unfair, when we do not have a choice for our laboratory service. Coming to the same draw station, we could the different name on the door, but would we know that our blood will be sent out of state? Would we know that the turnaround time is no longer as good as before? Would we be able to have our blood drawn early the day of the office visit and get most of the results back when we see our doctors like before? What if we want a local laboratory service, similar to when we go to the supermarket and decide to support local farmers? We are concerned citizens about our state's economy. We are frustrated to see many companies leaving Connecticut and do not understand why we have to

send the work to another state when we have great laboratory services right in our own community.

Thank you very much for listening to our concerns. We hope that you would take them to your consideration in the upcoming hearing.

Sincerely,

Bachloan Phan

15 Skip Lane

STATE OF CONNECTICUT

DEPARTMENT OF PUBLIC HEALTH

Office of Health Care Access

AGENDA

Docket Number: 17-32170-CON

The Hospital of Central Connecticut

Termination of 5 Outpatient Blood Drawing Locations

August 23, 2017 at 10:00 a.m.

I. Convening of the Public Hearing

II. Applicant's Direct Testimony (10 minutes)

III. Intervenor's Direct Testimony (10 minutes)

IV. Applicant's cross-examination of Intervenor

V. OHCA's Questions

VI. Public Comment

VII. Closing Remarks

VIII. Public Hearing Adjourned

STATE OF CONNECTICUT

DEPARTMENT OF PUBLIC HEALTH

Office of Health Care Access

TABLE OF THE RECORD

APPLICANT: **The Hospital of Central Connecticut**

DOCKET NUMBER: **17-32170-CON**

PUBLIC HEARING: **August 23, 2017 at 10:00 am**

PLACE: **Department of Public Health, Office of Health Care Access**
410 Capitol Avenue, Third Floor Hearing Room
Hartford, CT 06134

EXHIBIT	DESCRIPTION
A	Letter from The Hospital of Central Connecticut (Applicant) dated May 22, 2017 enclosing the Certificate of Need (CON) application for the termination of 5 outpatient blood drawing locations under Docket Number 17-32170, received by OHCA on May 24, 2017. (90 Pages)
B	Letter from the City of New Britain dated May 22, 2017 in support of the application under Docket Number 17-32170, received by OHCA on June 1, 2017. (1 page)
C	Letter to OHCA dated June 5, 2017 requesting a public hearing in the matter of the CON application under Docket Number 17-32170, received by OHCA on June 5, 2017 (3 Pages)
D	OHCA's letter dated June 6, 2017 responding to a request for hearing in The matter of the CON application under Docket Number 17-32170, (1 Page)
E	OHCA's letter to the Applicant dated June 16, 2017, requesting Additional information and/or clarification in the matter of the CON application under Docket Number 17-32170.(4 Pages)
F	Applicant's responses to OHCA's letter of June 16, 2017, dated June 30, 2017 in the matter of the CON application under Docket Number 17-32170, received by OHCA on June 16, 2017. (15 Pages)
G	OHCA's letter to the Applicant dated July 21, 2017 deeming the application complete in the matter of the CON application filed under Docket Number 17-32170. (1 page)
H	OHCA's letter to hearing requestor dated July 21, 2017 informing them that the application has been deemed complete in the matter of the CON application filed under Docket Number 17-32170. (1 page)

I	Letter to OHCA from one of the hearing petitioners dated June 21, 2017 requesting withdrawal of public hearing request in the matter of the CON application filed under Docket Number 17-32170, received by OHCA on July 31, 2017. (1 page)
J	OHCA's request for legal notification in *Hartford Courant* and and *New Britain Herald* and OHCA's Notice to the Applicant of the public hearing scheduled for August 23, 2017 and in the matter of the CON application under Docket Number 17-32170, dated August 1, 2017. (6 pages)
K	Designation of Hearing Officer in the in the matter of the CON application under Docket Number 17-32170, dated August 1, 2017. (1 page)
L	OHCA's letter to the Applicant dated August 15, 2017 requesting prefile testimony in the matter of the CON application under Docket Number 17-32170. (2 pages)
M	Letter from the from Harold Sanchez ("Petitioner") to OHCA dated August 17, 2017 requesting intervenor status in the matter of the CON application under Docket Number 17-32170, received by OHCA on August 17, 2017. (10 pages)
N	OHCA's letter to the Applicant dated August 17, 2017 modifying timeline for filing prefile in the matter of the CON application under Docket Number 17-32170. (1 page)
O	Public Comment received on August 17, 2017 in the matter of the CON application under Docket Number 17-32170. (1 page)
P	Applicant's letter to OHCA dated August 18, 2017 enclosing Notice of Appearance and partial objection to request for intervenor status in the matter of the CON application under Docket Number 17-32170, received by OHCA on August 18, 2017. (3 pages)
Q	OHCA's Ruling on a Petition filed by Harold Sanchez to be designated as an Intervenor with Limited Rights in the matter of the CON application under Docket Number 17-32170, dated August 18, 2017. (1 page)
R	Letter of Support dated August 18, 2017 in the matter of the CON application under Docket Number 17-32170, received by OHCA on August 1, 2017. (2 pages)
S	Letter from the Applicant to OHCA dated August 21, 2017, enclosing Prefile Testimony in the matter of the CON application under Docket Number 17-32170, received by OHCA on August 21, 2017. (29 pages)
T	Letter from the from Intervenor to OHCA dated August 21, 2017 enclosing Prefile Testimony in the matter of the CON application under Docket Number 17-32170, received by OHCA on August 21, 2017. (12 pages)

U	OHCA's letter to the Intervenor dated August 21, 2017 enclosing the Applicant's Prefile Testimony in the matter of the CON application under Docket Number 17-32170, dated August 21, 2017. (29 pages)
V	Letter from the Intervenor to OHCA dated August 21, 2017 enclosing a modified version of the Prefile Testimony in the matter of the CON application under Docket Number 17-32170, received by OHCA on August 21, 2017. (31 pages)

Office of Health Care Access

Intervenors

(Only persons speaking on behalf of Intervenors must sign in)

PUBLIC HEARING-SIGN UP SHEET

August 23, 2017

10:00am

Docket Number: 17-32170-CON

The Hospital of Central Connecticut

Termination of 5 Outpatient Blood Drawing Locations

PRINT NAME	Phone	Email	Representing Organization (Intervenor Name)
Harold Sanchez	(203) 314-1009		Harold Sanchez

Office of Health Care Access

GENERAL PUBLIC

(Only persons speaking as general public must put their names on this list)

PUBLIC HEARING-SIGN UP SHEET

August 23, 2017
10:00am

Docket Number: 17-32170-CON The Hospital of Central Connecticut Termination of 5 Outpatient Blood Drawing Locations	
PRINT NAME	**Representing Organization (If applicable) or Self**
Barbara Kwassman	Harold Sanchez
Donna Carroccia	Harold Sanchez
Chris Aniello	Harold Sanchez

Office of Health Care Access

APPLICANT

(Only persons speaking on behalf of Applicants must sign in)

PUBLIC HEARING-SIGN UP SHEET

August 23, 2017

10:00 am

Docket Number: 17-32170-CON
The Hospital of Central Connecticut
Termination of 5 Outpatient Blood Drawing Locations

PRINT NAME	Phone	Email	Title
Garrett Havican	(860) 681-6635	Gary.havican@hhchealth.org	Regional Vice President, Operations
Jeff Jasenski	(860) 224-5900	Jeff.jasenski@hhchealth.org	Centrlosiehal Region Budget Director
Fred Sorbo	(860) 696-6244	Fred.sorbo@hhchealth.org	VP-Budgeting Hartford HeathCare
Kim Urc	(973) 194-2264	Kim.m.unc@questdiagnostic.com	Assistant General /Counsel, Quest Diagnostic
Dan Kalosieh	(860) 972-9266	Daniel.kalosieh@hhchealth.org	Associate General Counsel

Docket Number: 17-32170-CON
The Hospital of Central Connecticut
Termination of 5 Outpatient Blood Drawing Locations

PRINT NAME	Phone	Email	Title
Gregory Makowski	(860) 696-8024	Gregory.malkowski@hhchealth.org	VP, Clinical Laboratory Services - HHC
Nancy Albert	(860) 972-2550	Nancy.albert@hhchealth.org	Admin Director, Lab Services – HHC
Peter Fraser	(860) 729-1953	Peter.fraser@hhchealth.org	Regional Vice President
Bimal Patel	(860) 462-2961	Bimal.patel@hhchealth.org	SVP, HHC
Donna Dupre	(203) 232-4584	Donna.dupre@hhchealth.org	
Jean Kennedy	(860) 987-3144	Jean.kennedy@hhchealth.org	Lab Supervisor
Nancy Benkowski	(860) 558-0483		Lab Supervisor
Spencer Erman, MD	(860) 670-0864	sgermanmd@aol.com	VP & CMIO - HHC
Salim Kabawats	(774) 863-3522	kabawats@questdiagnostic.com	Medical Director
Todd Raymond		raymondt@questdiagnostic.com	

Applicant Sign up-*Only persons speaking behalf of the Applicant may put their names on this sheet*

Docket Number: 17-32170-CON
The Hospital of Central Connecticut
Termination of 5 Outpatient Blood Drawing Locations

Print Name	Phone	Email	Title
Lucille Janatka	(203) 537-0193	Lucille.janatka@hhchealth.org	President, HOCC
Tina Akowitz	(203) 641-4374	Tina.akowitz@hhchealth.org	HR Director
Jeffrey A. Flaks	(860) 263-3555		President & CEO

Applicant Sign up-*Only persons speaking behalf of the Applicant may put their names on this sheet*

Office of Health Care Access

GENERAL PUBLIC

(Only persons speaking as general public must put their names on this list)

PUBLIC HEARING-SIGN UP SHEET

August 23, 2017
10:00am

Docket Number: 17-32170-CON The Hospital of Central Connecticut Termination of 5 Outpatient Blood Drawing Locations	
PRINT NAME	**Representing Organization (If applicable) or Self**
Jeff Flaks	HOCC

Office of Health Care Access

APPLICANT

(Only persons speaking on behalf of Applicants must sign in)

PUBLIC HEARING-SIGN UP SHEET

August 23, 2017
10:00 am

Docket Number: 17-32170-CON
The Hospital of Central Connecticut
Termination of 5 Outpatient Blood Drawing Locations

PRINT NAME	Phone	Email	Title
Garrett Havican	(860) 681-6635	Gary.Havican CHHChealth.org	Regional Vice President, Operations
JEFF JASENSKI	860-224 5900	JEFF.JASENSKI @HHCHEALTH.ORG	CENTRAL REGION BUDGET MANAGER
Fred Sorbo	860-696-6244	Fred.Sorbo CHHChealth.org	VP-Budgeting Hartford HealthCare
Kim Uve	973-254-2264	Kim.M.Uve@questdiagnostics.com	Assistant General Counsel, Quest Diagnostics
Dan Kalosieh	~~973~~ 860-972-9266	Daniel.Kalosieh @hhchealth.org	Associate Gen Counsel

Docket Number: 17-32170-CON
The Hospital of Central Connecticut
Termination of 5 Outpatient Blood Drawing Locations

PRINT NAME	Phone	Email	Title
Gregory Makowski	860-696-8024	gregory.makowski @hhchealth.org	VP. Clinical Laboratory Services, HHC
Nancy Albert	860-972-2555	nancy.albert @hhchealth.org	Admin Dir. Lab Services, HHC
Peter FRASER	8607499153	peter.fraser @HHCHEALTH.org	REGIONAL VICE PRESIDENT
Bimal Patel	860-462-2961	Bimal.patel@hhchealth.org	SVP HHC
Donna Dupre	203-232-4584	Donna.Dupre@HHCHeath.org	Phlebotomy + Processing Coordinator
Jean Kennedy	860-987-3144	jean.kennedy@HHCHealth.org	Lab Supervisor
Nancy Benkowski	8105580483	nbenkosio@yahoo.com	Lab supervisor
Spencer Erman, MD	860-670-0864	SGERMANMD@AOL.COM	VP & CMIO HHC

Applicant Sign up-*Only persons speaking behalf of the Applicant may put their names on this sheet*

Docket Number: 17-32170-CON
The Hospital of Central Connecticut
Termination of 5 Outpatient Blood Drawing Locations

Print Name	Phone	Email	Title
SAZIA KARSAN	774-843-3522	kabawats@greatdiagnostics.com	Medical Director
Todd Raymond	7748433355	[illegible]	Director
Lucille Tanaka	2035370193	lucilletanaka@hhchealth.org	President HOCC
Tina Akowitz	2036414374	Tina.Akowitz@hhchealth.org	HR Director
Jeffrey A. Flaks	860 263 3555		President & COO
[illegible]	[illegible]	Casey.Lajoie@[illegible]	Research + Data Analyst
[illegible]	[illegible]	[illegible]	[illegible]
# Chris Ariello	[illegible]		[illegible]

Applicant Sign up-*Only persons speaking behalf of the Applicant may put their names on this sheet*

Office of Health Care Access

Intervenors

(Only persons speaking on behalf of Intervenors must sign in)

PUBLIC HEARING-SIGN UP SHEET

August 23, 2017
10:00am

Docket Number: 17-32170-CON
The Hospital of Central Connecticut
Termination of 5 Outpatient Blood Drawing Locations

PRINT NAME	Phone	Email	Representing Organization (Intervenor Name)
HAROLD SÁNCHEZ	203-314-1009	# PATHGRUNT@GMAIL.com	HAROLD SÁNCHEZ
PUBLIC Barbara Kwassman	860-977-2951	mamdotcom34@hotmail.com	Harold Sanchez
Donna Carroccia	860-977-0895	donnacarroccia@gmail.com	Harold Sanchez
Chris Aniello	860-286-8291		Harold Sanchez

STATE OF CONNECTICUT

DEPARTMENT OF PUBLIC HEALTH

OFFICE OF HEALTH CARE ACCESS

THE HOSPITAL OF CENTRAL CONNECTICUT

TERMINATION OF 5 OUTPATIENT BLOOD DRAWING LOCATIONS

DOCKET NO. 17-32170-CON

AUGUST 23, 2017

10:08 A.M.

DEPARTMENT OF PUBLIC HEALTH
410 CAPITOL AVENUE
HARTFORD, CONNECTICUT

POST REPORTING SERVICE
HAMDEN, CT (800) 262-4102

. . .Verbatim proceedings of a hearing before the State of Connecticut, Department of Public Health, Office of Health Care Access, in the matter of Termination of 5 Outpatient Blood Drawing Locations, held at the Department of Public Health, 410 Capitol Avenue, Hartford, Connecticut, on August 23, 2017 at 10:08 a.m. . . .

HEARING OFFICER KEVIN HANSTED: Good morning, everyone. Sorry for the tight space here. I'm trying to work that out.

This public hearing before the Office of Health Care Access, identified by Docket No. 17-32170-CON, is being held on August 23, 2017 to consider the Hospital of Central Connecticut's application for the termination of five outpatient blood drawing locations.

This public hearing is being held pursuant to Connecticut General Statute 19a-639a and will be conducted as a contested case, in accordance with the provisions of Chapter 54 of the Connecticut General Statutes.

My name is Kevin Hansted, and I have been

designated by Commissioner Pino of the Department of Public Health to act as the Hearing Officer today.

Here to assist me in this case are Kaila Riggott, Jessica Schaeffer-Helmecki and Michaela Mitchell. The hearing is being recorded by Post Reporting Services.

In making its decision, OHCA will consider and make written findings concerning the principles and guidelines set forth in Section 19a-639 of the Connecticut General Statutes.

Specifically, OHCA will consider the following; whether there is a clear public need for the proposed transaction; whether the Applicant has satisfactorily demonstrated how the proposal will impact the financial strength of the healthcare system in the State, or that the proposal is financially-feasible for the Applicant; whether the Applicant has satisfactorily demonstrated how the proposal will improve quality, accessibility and cost effectiveness of healthcare delivery in the region; and whether the Applicant has satisfactorily demonstrated that the proposal will not negatively impact the diversity of healthcare providers and patient choice in the geographic region.

The Hospital of Central Connecticut has

been designated as a party in this proceeding. Dr. Harold Sanchez has been designated as an intervener with limited rights. This means that Dr. Sanchez is not permitted to Cross-Examine the Applicant's witnesses, however, the Applicant is entitled to Cross-Examine Dr. Sanchez.

At this time, I will ask staff to read into the record those documents appearing in OHCA's Table of the Record in this matter.

All documents have been identified in the Table for reference purposes.

MS. JESSICA SCHAEFFER-HELMECKI: On behalf of OHCA, we'd like to request that Exhibits A through V be entered into the record.

HEARING OFFICER HANSTED: And is there anything else that needs to be added?

MR. VINCENZO CARANNANTE: Yes, Attorney Hansted. There was one. I spoke to Ms. Helmecki about it previously. We informed OHCA during one of our completeness questions that we would have a redacted form of the APA, or Asset Purchase Agreement, delivered to OHCA when it was ready. It is.

I was informed that I could bring it to today's hearing and add it to the record. I do have it,

so, if it's okay, I would like to present it to OHCA right now.

HEARING OFFICER HANSTED: Yes, please. And, also, provide Dr. Sanchez with a copy.

MR. CARANNANTE: Certainly.

HEARING OFFICER HANSTED: Thank you. That will be Exhibit W. Counsel, do you have any objections to any of the other exhibits in the Table?

MR. CARANNANTE: I do not.

HEARING OFFICER HANSTED: Thank you. Okay. Today, how we will proceed is the Applicant will be the first to present its Direct testimony, followed by the Intervenor's Direct testimony.

Afterwards, as I stated before, the Applicant may Cross-Examine Dr. Sanchez, and then OHCA will have some questions for the Applicant and possibly the Intervenor. I'm not sure yet. Then we will hear any public comment.

It's my understanding that we may have some elected officials appearing here today. Whenever those elected officials arrive, I always defer to them and allow them to make their presentation, because they usually have tight schedules and need to leave, so don't be surprised if I interrupt you while you're talking and

have them come up. We will resume immediately thereafter.

At this time, I would ask that any individuals, who are going to testify, please stand, raise your right hand and be sworn in by the court reporter.

(Whereupon, the parties were duly sworn in.)

HEARING OFFICER HANSTED: Thank you, everyone. And just as a reminder, for those folks, who have presented pre-filed testimony, before you give your presentation, just please adopt your pre-filed testimony for the record.

Let me just reach out. Are there any elected officials here now? Okay, hearing and seeing none, the Applicant may proceed with its Direct.

MR. CARANNANTE: Attorney Hansted, just the one thing we spoke about. I'd like to have Mr. Jeffrey Flaks give two minutes as part of the public comments.

HEARING OFFICER HANSTED: Yes. I apologize. Yes. Mr. Flaks, come on up. Just for the record, Mr. Flaks needs to leave for another appointment, so I am allowing him to give his public comment at this

time.

(Whereupon, Jeffrey Flaks presented public comment.)

MR. CARANNANTE: Attorney Hansted, at this time, we can proceed with our Direct testimony?

HEARING OFFICER HANSTED: You may.

MS. LUCILLE JANATKA: Good morning. My name is Lucille Janatka, and I adopt the pre-filed testimony as my own.

HEARING OFFICER HANSTED: Thank you.

MS. JANATKA: I'm a Hartford HealthCare Senior Vice President and the President of the Hospital of Central Connecticut.

I appreciate this opportunity to be here today and tell you why this application and the transition of our five PSCs to Quest Diagnostic should be approved by OHCA.

As the hospital President, it's my responsibility really to lead HOCC, so it can fulfill its mission and vision. It's really all about serving our community and ensuring that we have the resources and that we're focused on our core services to continue to serve the community way into the future.

As an actual fiduciary of the hospital,

I'm charged with this responsibility and have to allocate these resources in an effective and efficient manner, and, as you can imagine, it's a challenge from the perspective of not only our State budget and our declining reimbursements, but, also, our Federal Medicare program and the changes that occur there all has to go into play as we look at the needs of our community.

So one of the things that I look at is really to focus on our core strengths and services. I look at it as those things that the hospital is needed for in the community and those things that someone, if there are things that someone else can provide, it's their core service, then maybe we don't need to provide that service, and this is one of those examples, as we look at our PSCs.

The Intervenor is neither a fiduciary, nor steward of HOCC. He's not even an employee. The Intervenor is a member of a private practice, who is a service provider and vendor of HOCC.

The proposal before you today is not unique to Hartford HealthCare. These transactions are occurring across the country, and it's also not unique to not only HOCC and Hartford HealthCare, as you just heard Jeff Flaks explain, as we look at our ongoing challenges,

we are looking at these types of proposals.

So, contrary, one other point I do want to make to the Intervenor's misstatements, HHC and its member hospitals and providers are very happy with the quality and responsiveness of the services that are now provided by Quest, and, for your reference, we noted a letter of support submitted to OHCA by our Chief of Pathology at Hartford Hospital.

The letter clearly indicates a success of the arrangement and partnership between Hartford Hospital and Quest.

So, finally, I do want to stress today that we are not closing five PSCs. We're transitioning them to Quest, where access will actually be enhanced and improved, and my colleagues will explain that as they speak after me today.

Quest is a world leader in the provision of quality laboratory and diagnostic services. Its expertise in clinical quality is undeniable.

In addition, if OHCA has any questions with respect to quality and services provided by Quest, the next speakers will be Joe Vaccarelli, our Administrative Director of Pathology at the Hospital of Central Connecticut, and Dr. Salim Kabawat, who is

Quest's Medical Director for the North Region.

In conclusion, I respectfully request that OHCA approve this application. Thank you.

HEARING OFFICER HANSTED: Thank you.

MR. CARANNANTE: Attorney Hansted, next is Joseph Vaccarelli.

MR. JOSEPH VACCARELLI: Good morning.

HEARING OFFICER HANSTED: Good morning.

MR. VACCARELLI: My name is Joseph Vaccarelli, and I adopt the pre-filed testimony as my own.

For the past 10 years, I have served as the Administrative Director for Pathology and Laboratory Medicine, as well as Diagnostic Imaging and our outpatient clinics at the Hospital of Central Connecticut.

As noted by Ms. Janatka, we are here today to seek approval to transition to Quest the five PSCs located at the addresses set forth in our application.

Please note that this application does not include any of HOCC's inpatient nor outpatient diagnostic laboratories, and, most importantly, it does not seek to terminate any of the laboratory testing and services offered by HOCC or provided by HOCC to these inpatients

and outpatients.

Again, HOCC's present proposal specifically relates to five PSCs, and HOCC is not eliminating any diagnostic services that it currently provides to any inpatient or outpatient of the hospital.

Contrary to assertions, Quest will offer and present many advantages to the patients when it relates to blood draw stations or patient service centers. Among the most important aspects is access and the type of access.

If OHCA approves this proposal subsequent to the transition to Quest, patient access will not only be maintained, but, more importantly, it will be enhanced.

In addition to the five PSCs at issue today, Quest operates 15 other PSCs within an eight-mile radius of HOCC's New Britain campus and another 12 PSCs within eight miles of HOCC's Southington campus. Quest's numerous proximally located PSCs will maintain and enhance access to the patients.

In addition, Quest PSCs offer appointment scheduling. At this time, we do not. This allows the patients to make an appointment ahead of time to avoid delays and risk of delays, and that can occur with walk-

ins.

And, moreover, Quest permits patient check-in electronically. This system also includes a waiting room management feature, which informs the patient approximately how long until that patient will be seen, and this feature will allow patients to determine if they want to wait, come back later, or return another day. Again, this is a function not currently available at HOCC.

These aforementioned capabilities not being at HOCC obviously affects the patient experience and is one of the reasons we look to Quest.

As a reminder, this proposal is in relation to the transition of five PSCs to Quest, however, and relevant to OHCA, we, conjunction with Quest, are more than happy to discuss the other aspects of our partnership with Quest and the reasons why our patients and associated physicians will benefit from this arrangement.

Accordingly, we have invited here today Dr. Salim Kabawat, Quest's Regional Medical Director for the North Region. Dr. Kabawat will be more than happy to answer any questions OHCA may have with respect to why Quest facilities' services, policies and procedures will

enhance the services provided to HOCC's patients and physicians. Thank you.

MR. CARANNANTE: One more. Dr. Kabawat.

DR. SALIM KABAWAT: Good morning, Mr. Hansted.

HEARING OFFICER HANSTED: Good morning.

DR. KABAWAT: My name is Dr. Salim Kabawat, and I adopt the pre-filed testimony as my own.

HEARING OFFICER HANSTED: Thank you.

DR. KABAWAT: I am the Regional Medical Director for Quest Diagnostics for the North Region, which includes all of New England. I am also the Laboratory Director of the lab in Marlborough, Massachusetts, where most of the testing is done in New England.

I oversee Quest quality programs, including all phases of the testing; pre-analytical, analytical and post-analytical.

One important thing to say at the beginning is I am here to support the transition of five HOCC patient service centers to Quest Diagnostics.

Now can Quest Diagnostics do it? Of course, we can. We've done it with hundreds of hospitals around the country, and, more importantly and

significantly, we have done it here in Hartford with Hartford Hospital, which was a lot more complex and larger in scope than this particular application.

A lot was made in the Intervenor's submission about the quality of specimen collection, about the quality of transfer or specimens and about the quality of testing, so, since this is my area of responsibility at Quest, I'd like to address this.

Quest, as you have heard, has introduced many innovations in its Patient Service Centers. It has made it easier on patients to pre-book their appointment by going online, and, in fact, we have apps available for the patients' Smartphones, if they want to do that on a Smartphone. The nice thing about the Smartphone app is that they can also receive the results back there.

When you arrive to the Patient Service Center, there is a capability of e-check-in, so there is a console there that looks just like a bank ATM, where you can enter your demographics.

Sixty percent of the physicians in Connecticut send us their orders by electronic means, so the electronic order is already there in the PSC in 60 percent of the cases, so, as the patient comes in and they log into this electronic console for e-check-in,

their demographics come in, and the order is already presented. It makes their experience a lot shorter.

Nobody likes their blood to be drawn. We like to make it a little bit more pleasant for them.

A lot was made about the transfer of specimens. We do have an extensive logistic system that transfers specimens all around New England, from Northern Maine to Southern Rhode Island and Connecticut to Marlborough.

It’s only about 90 miles from here to Marlborough. The reason we chose Marlborough as being the site for our lab is because Marlborough is very much central to New England. It is at the intersection of several highways.

Our logistic personnel in their cars they have a scanner, like what you see with shipping companies. Those scanners have for them the schedule of where they should stop.

These scanners are also able to scan bar codes at the origin of specimens, so they are able to document the receipt of specimen and its origin.

The scanner will also keep track of the temperature of shipping for these specimens, so if they need to be frozen, they are put in a frozen container.

If not, they put it in a cooler and so on.

As we receive the specimens from the drivers at the laboratory, we also scan them in using these bar code scanners, so we document the receipt of these specimens. Everything is well-tracked. We don't like to lose specimens. We seldom do.

Biopsies were an area of antithesis by the Intervenor. Biopsies have this system, but, also, we add to it a chain of custody document that comes with the biopsies. They are signed on every step of the way from the origin, the doctor's office, to the driver, to the person, who receives them.

As we receive them at the lab in Marlborough, we do follow them electronically through a system called Assist with bar coding, so, at every step of the way, from the receipt of the biopsy, to its gross description, to the production of the slide, to the staining of the slide, to the shipment of the slide back to the hospitals, if that is what is intended, that is all being very well followed through that bar code scanning system.

Our laboratory in Marlborough is a state-of-the-art laboratory. It was completed about a couple of years ago. 2014 is when we started building it, when

we opened it. That laboratory has state-of-the-art automation system with an automation line, 640 feet, more or less, of automation line. The specimens go on these lines. They usually are prepared at the Patient Service Center with bar coding, so, when they go on the automation line, they immediately go to the places where they are supposed to go to be tested. That cuts on the turnaround time.

More importantly, when that is done on the automation line, it decreases the amount of blood that is needed from each patient, because we use that blood very efficiently by the line that does split the sample into smaller samples, if need be, and it uses only the amount of blood that it needs.

Again, it is an advantage to your patients, patients of Connecticut, because they will have less blood drawn from them.

On the post-analytical side, we are interfaced with all doctors, all of our clients. The reports are conveyed to the electronically at the minute of the end of the testing. Ninety percent of our testing is done by 8:00 in the morning the next day.

I could go on, and I'm always proud about what we have done. I'm proud to work for Quest

Diagnostics, the leader in laboratory services, but I think the time is limited, as I could see, but let me end with one thing first, again, because I support the application, but, also, I need to say, I want to say that the relation between us and the pathologists at HOCC needs not be adversarial.

All through the country, it should be cooperative. We do have this relation with Hartford Hospital. We have very good relations with the pathologists there. Dr. Mandavilli and I speak often about problems. We address quality issues, if any arise.

He helps us with feedback about our processes, and we appreciate all of the feedback that we get from them.

I am looking forward to working with the pathologists at HOCC. Thank you.

MR. CARANNANTE: One more thing.

DR. KABAWAT: Oh, yeah. That’s right. That’s an important point. I’m sorry I missed it.

About healthcare costs, we are all interested in cutting healthcare costs. Obviously, making things more efficient.

Quest does provide efficient systems to be able to alleviate the cost, so when I was looking in

preparation for this, I found a report by Massachusetts Health Policy Commission from 2015 that emphasizes the trends of difference in billing between different hospitals and laboratories like ours, and, because of our efficiency, our lab can provide testing at a lower price.

In fact, in that report, we are stated to be at about one-half of what it costs -- it costs you to have a test with us at about one-half of the cost for it to be done at a hospital.

So, again, we are all trying to decrease healthcare costs, which will be a benefit for the patients. No question about that. This is another contribution that Quest can provide with this project.

HEARING OFFICER HANSTED: Thank you, Doctor.

MR. CARANNANTE: Thank you. Attorney Hansted, that closes the Applicant's Direct testimony.

HEARING OFFICER HANSTED: Okay. Dr. Sanchez, if you'd like to proceed, you may.

DR. HAROLD SANCHEZ: Yes. I'd like to accept my pre-hearing testimony as my own.

HEARING OFFICER HANSTED: Thank you.

DR. SANCHEZ: My name is Harold Sanchez. I've been working as a pathologist at the Hospital of

Central Connecticut since 1995, originally as an employee, and, as was stated earlier, as a contractor now.

I'm here today with a small group of other folks, who work in the lab, in various sections of the lab.

I want to start out by saying, just the same way that you're proud of your lab, we're very proud of our lab, and we love the hospital, and we're very committed to the care of our patients and to the community work, and that's what brings us here.

I'd also like to say before I start that I have nothing but respect for our administration, and I know that they have a responsibility to the bottom line, to the patients, and that their job isn't easy.

None of my remarks are meant to impugn the motives of either the patients, I'm sorry, of the Applicant or Quest Diagnostics.

We've used Quest Diagnostics as a reference lab for years, and, so, I have absolutely no argument with the characterization of Quest as a state-of-the-art diagnostic lab.

We've used their services for a long time and we like them, but I do have some serious objections

about the proposed sale of the outreach business to Quest, and I'd like to thank you all for giving me an opportunity to outline a few of them for you today.

I'll try to go through these quickly, and please just let me know if I'm approaching my time.

Just a few things. It's been mentioned that the Hospital of Central Connecticut is planning to close these Patient Service Centers, so that they can focus on core services, so the idea is that the money from the sale and the savings will be applied to other services and some of the infrastructure that was mentioned.

It's my contention and the contention of other people that I've spoken to that the laboratory is a core service, and, in my written arguments, I've outlined some of the downstream adverse effects that have followed in the past at the hospital when other outpatient, or, I'm sorry, outreach laboratory work was sold to Quest.

To summarize, I can tell you that it is never just the laboratories or just the biopsies that are going away. Even if the lab continues to handle inpatient services, the volume follows those biopsies, and the volume and the income from those things, the experience provided to the pathologists, suffers as a

result.

The hospital, or, rather, the Applicants suggest that the laboratory work in question can be performed better and more efficiency at Quest than at HOCC, and this I have to take exception with. Yes?

MR. CARANNANTE: I apologize. Who is this taping?

HEARING OFFICER HANSTED: I don't know. Sir?

MR. DONALD STACOM: Donald Stacom of the Courant.

HEARING OFFICER HANSTED: Okay. He's a reporter with the Courant.

MR. CARANNANTE: He's a reporter, okay. I just wanted to know. I sincerely apologize. I just didn't know who was taping.

HEARING OFFICER HANSTED: That's okay.

MR. CARANNANTE: Thank you.

DR. SANCHEZ: So, as I was saying, it's the quality issue that we'd really like to focus on for a few minutes.

Quest Diagnostics is a wonderful lab. We have sent them our reference lab work for a long time. They have the most complete menu you can imagine of

esoteric tests.

We don't need a new agreement for that. We already take advantage of that. What we are sending them, in addition to that, is our routine outreach work, and, for routine outreach work, it is my contention, and I think I can support this, that there is absolutely no difference in quality of the work that's being performed.

Specifically, the collection tubes, the collection containers, the instruments that they are analyzed on, the protocols that are used all identical or extraordinarily comparable.

The technologists, and I will get no argument on this, we have the best technologists you can have. I'm very proud to work with them, committed folks, who have been there for years, as good or better than technologists anywhere else.

So, for automated testing, we are going to do as good a job every time for routine tests for the things that are on our menu as the folks over at Quest, and that I take as a given. I'd be happy to entertain questions about that.

What is different is what happens after the specimen is collected. The specimens, biopsies, what have you, are going to go 90 miles away, and they are

going to, in the case of slides, they're going to have to transition 90 miles back. There is no magic here.

The turnaround time will suffer. In aggregate, it will suffer. They have turnaround times 90 percent by 8:00 a.m. the next day. We do better than that every single day, okay? Every single day.

They have an impressive tracking system. They have an impressive system of bar coding and chain of custody for the biopsies, automation, etcetera, to improve their turnaround time, and I admire that, but we don't need that.

We don't need that, because we are not sending specimens 90 miles away. The system works beautifully as it is setup right now.

So, again, I have absolutely no problem with continuing to use Quest as a reference lab, but I refuse to admit that they do the routine work any better than we do.

The efficiency issue I think I've already addressed, and then, finally, despite their best efforts, safety, all right?

I have introduced literature from the Institute of Medicine and some peer review journals that talk about the importance of keeping things, whenever

possible, simple and reducing the number of handoffs as a means to reduce opportunities for error.

This system that is proposed to you is of necessity more complex and involves more handoffs. I don't think there can be any argument about that, and those are things that you never want to introduce in a system that you are putting together.

Nobody, who is putting this together with only an eye towards efficiency and quality, would put together a system like this.

Skip that. Finally, so, the emphasis has been placed several times on the fact that the Patient Service Centers are the only thing at issue here and that Quest Diagnostics does a wonderful job of blood drawing and minimizing the impact on the patient and I won't dispute that.

What I do dispute, however, is that that's the only thing at issue, so it isn't just blood draws. It is also office biopsies. It is also all sorts of other things that happen there and the downstream effects that I've already mentioned to you that go with this.

This is not simply changing the name on the door from Hospital of Central Connecticut to Quest Diagnostics. There is a whole lot more that goes

downstream from this.

The hospital, and I admit that there are compelling economic arguments, but they have also said that the transition that occurred over at Hartford HealthCare, without any undue effects, I would submit to you that we don't know that that's true.

There are no complaints from the majority of physicians. I can tell you, as a hospital physician, myself, that we will work in any environment that we're provided with, and the fact that we're not complaining every day doesn't mean we're happy.

Dr. Mandavilli, you know, I trust him and I believe what he says, but I can point out to you that, when the transition was made at Hartford HealthCare, there was a group of physicians, who were not satisfied, who insisted that their biopsy work be brought back into the hospital to Hartford, this isn't disputed, and they were accommodated.

My point is that hospital physicians should not have to advocate that vociferously on behalf of their patients, in order to get the same level of service.

There shouldn't be several levels of service. Those are those people, who can speak up on

behalf of those patients and those people, who are, you know, too busy to do so.

There is no outcry on the basis, on the part of physicians for this sort of thing. I haven't heard it. The number of clinical physicians, who have said anything about this, unknown to me.

I, in fact, have had no one come to me, I have spoken to no one, and I have heard no one, who disputes the fact that our hospital provides the same quality of service for the stuff that we do than anyone else.

Finally, in terms of one of the other issues that is mentioned in the requirements for a Certificate of Need, is access to health care and choice.

I think it goes without saying that, by eliminating Hospital of Central Connecticut as an outpatient provider or an outreach provider, you're limiting patient choice.

You're limiting patient choice, and you're limiting a menu of services that is offered at our hospital. The hospital, again, has to be sized in an appropriate way, but every time we decrease hospital services, we decrease the services offered to the immediate area and make it more difficult for people, who

want to use those services.

For all these reason, I'm hoping that you will consider what we -- sorry. Just one other thing.

So it's incumbent on the Applicant, not on me as the Intervenor, to show a preponderance of evidence in favor of their arguments, so I have tried to offer, in addition to my spoken testimony, expert opinion in my submitted testimony, literature support and hospital data.

The hospital claims that the proposed sale is a financial necessity, but I don't see anything in the application to suggest that other things were considered, besides this.

The Applicant offers unsubstantiated claims of improved quality, but no literature to support that they're doing anything better.

They say that the same approach has worked well in other hospitals, but they have no objective data to support this. There is no comparison of turnaround times before and after, despite the fact that that data is available.

The Applicant says that this will improve service to clinicians and patients, but hasn't shown any evidence that they have solicited the opinion of either

group, so all these shortcomings I believe could be addressed with data that's readily available to the Applicant, but they haven't been yet.

And I believe that the application, as it's written, fails to meet the required standards, and, for these reasons, I ask that OHCA reject the application.

HEARING OFFICER HANSTED: Thank you, Dr. Sanchez. Counsel, do you have any Cross-Examination?

MR. CARANNANTE: We do not.

HEARING OFFICER HANSTED: Okay. We're going to take a quick 10-minute break, and then we'll go back on the record for OHCA's questions.

MR. CARANNANTE: Okay.

HEARING OFFICER HANSTED: Thank you.

(Off the record)

HEARING OFFICER HANSTED: Okay, we're back on the record. Okay, welcome back, everyone.

Counsel, there was testimony before the break with reference to the Massachusetts Health Policy Commission report. I believe the doctor dated it 2015. Do you have a copy of that report?

MR. CARANNANTE: Yes, we do. I will also provide a copy to Dr. Sanchez.

HEARING OFFICER HANSTED: Okay, thank you.

DR. SANCHEZ: Thank you.

HEARING OFFICER HANSTED: Thank you, counsel. I'm going to add that to the record. It's going to be Exhibit X. Yes.

Okay. At this time, OHCA has some questions for the Applicant. Who wants to start?

MS. SCHAEFFER-HELMECKI: Hi. Good afternoon.

MR. CARANNANTE: Good afternoon.

MS. SCHAEFFER-HELMECKI: First, we just have some clarification background questions. First, if you could please walk us through that HOCC process from sample drawing to the point the patient receives their test results?

MR. CARANNANTE: Sure. If that's okay with OHCA, I'd like to figure out who the best person to answer that question is.

HEARING OFFICER HANSTED: Absolutely. Take your time.

MR. CARANNANTE: Okay.

MR. VACCARELLI: So a typical patient would first have -- I'm sorry?

MS. SCHAEFFER-HELMECKI: Excuse me. Could

you please just state your name for the record again?

MR. VACCARELLI: Oh, sure. It's Joseph Vaccarelli.

MS. SCHAEFFER-HELMECKI: Okay, thank you.

MR. VACCARELLI: Yes. In the Patient Service Center scenario, a patient would present. They would need a physician's order, identifying what tests needed to be performed.

They would be registered in our system. The tests would be ordered in our system. A phlebotomist would obtain the appropriate number of tubes, and, depending on time of day and location of that particular PSC, there are scheduled courier pickups, so that specimen or specimens would be preserved appropriately at the Patient Service Center, refrigerated, if necessary, and then, at the time the courier pickup occurs, it would come back to the hospital.

That's where the intake and processing would occur. Its specimen is sent to the appropriate areas for testing, and test results are then entered in the computer system, and physicians receive results by a variety of mechanisms.

It could be electronic, it could be paper reports, and that completes the cycle.

MS. SCHAEFFER-HELMECKI: Okay, thank you. And now how would that process vary under Quest Diagnostics?

MR. VACCARELLI: I think the process would essentially be the same. There might be some things that would facilitate it, as we pointed out.

At the time of collection, the patients would be able to, number one, make an appointment, which they don't now, so the wait time may be decreased and most likely would be decreased.

The preponderance of the orders, I believe, would be electronic. Quest has a very robust information system, and their ability, from what I can see and, you know, from what I understand, has some pretty remarkable abilities to allow remote order entry by physicians, remote order -- reasonable access by physicians.

MS. SCHAEFFER-HELMECKI: Okay, now, will you be transferring some of the anatomic pathology service testing to Quest, as well?

MR. VACCARELLI: Yes. There will be some specimens.

MS. SCHAEFFER-HELMECKI: Like the biopsies?

MR. VACCARELLI: Yes, or what's called the technical component, which is the preparation of that slide, so the specimen would go to Quest, it would be processed and then returned back to the hospital to be read by our pathologists.

MS. SCHAEFFER-HELMECKI: So is that the area of testing where there seems to be the greatest variance in the number of transfers or the transfer time?

MR. VACCARELLI: I'm sorry. Can you just repeat your question?

MS. SCHAEFFER-HELMECKI: So is it for that specimen testing, that anatomic pathology services? It seemed like in your application you were saying that there were some areas where the slides did have to be transferred back and forth from the lab back to the hospital and possibly back to the lab, and now is it just for that anatomic pathology services, where that phenomenon occurs?

MR. VACCARELLI: To the best of my knowledge, I'm thinking anything in what we call clinical pathology, which is a blood specimen.

I mean there may be examples that I'm not thinking of, but I can't see that those seem to be uni-directional. They would be drawn, they would go to

Quest, they would be tested, and the results would be obtained.

MS. SCHAEFFER-HELMECKI: Okay, thank you. And if you could just clarify the difference between outreach visits and hospital outpatient visits?

MR. VACCARELLI: Sure. An outpatient is typically someone, who is registered in our system and having -- perhaps by example might be the best way. An outpatient might be someone, who is coming in for a surgical procedure, a same-day surgery.

They would come in. They might have some blood drawn. They might have a chest x-ray. They might have an EKG. They may have a biopsy performed same day. That would be considered outpatient.

If something were to be drawn or collected in a physician’s office, a biopsy done in an office procedure, that would be considered outreach.

MS. SCHAEFFER-HELMECKI: Okay and now these questions I don’t know if you’d like to continue answering them, but these have to deal a little bit with the background of the agreement and the other providers in the area.

MR. CARANNANTE: Can I just offer a point of clarity, as far as -- if this is clear, then tell me

to just be quiet, but as far as the five PSCs, there is no anatomic pathology. It's only clinical pathology or it's urine, blood, and that's what's transported directly to the laboratory. Anatomic pathology, as Joe was mentioning, was when you get a biopsy.

Phlebotomists don't have the qualifications to do that. It's done by a physician or some other provider in the hospital or a physician outside, so those are the two main differences.

MS. SCHAEFFER-HELMECKI: Okay. Actually, just excuse me one moment.

Now if someone could please just describe how the proposal will affect the diversity of providers available in the area?

MR. BIMAL PATEL: Hi. My name is Bimal Patel. I'm the Senior Vice President of Hartford HealthCare.

If I may ask to repeat the question, so I understand?

MS. SCHAEFFER-HELMECKI: Sure. Sure. I just wanted a description of how this proposal would affect the diversity of providers or blood drawing locations that would be available to patients and how this will impact patients' choice in the area.

MR. PATEL: Sure. I believe in the application we have provided not just our five locations of HOCC Patient Service Centers, which are the draw stations, but, also, other in the area, in the region.

To my best knowledge, it is not intended through the transaction that any of the five that are going through this transition are going to be closed, so, you know, to the best of my understanding.

As far as access is concerned, I think it will be very important for us to recognize that, if we have a patient, who is traveling and has a blood order in their hand, they can go to any Quest facility, and their provider in our community would get the results, so they're not limited to the five PSCs. They are open to the whole network of Quest.

I think that's a great value for anybody, who is mobile. Most of the patients in the PSCs that you see are walking or driving themselves to the PSC for a routine blood draw, so, as far as their urgency of the results are concerned, are normally pre-drawn for a visit for a physician, for the most part.

Hospital retains all the urgent/emergent type of menu items of laboratory service, so we do not give away, because of this transaction, a set of services

that we otherwise would provide at the hospital. It remains the same, so the menu for us remains the same, so in terms of the access to the patient or the providers is not limited. As a matter of fact, it is enhanced.

MS. SCHAEFFER-HELMECKI: So if I, as an individual looking just to have regular blood drawing performed and, for whatever reason, I didn't feel comfortable going to Quest, I could still go to the hospital's main campus and have my blood drawn?

MR. PATEL: That is only if you're an outpatient, or if you are an ED patient, or if you are a patient, who came in for a procedure or you had surgical services scheduled and there is a related blood draw that you can perform. Those are the ones that you are to provide.

There are other Patient Service Centers available through a variety of different mechanisms that are open in the marketplace, and the list I believe is provided into the application.

MS. SCHAEFFER-HELMECKI: They were mostly Health Quest, though, I believe, correct?

MR. CARANNANTE: Quest.

MS. SCHAEFFER-HELMECKI: Excuse me. Quest Diagnostics. Excuse me. We had a similarly-named

application recently. But are you aware of how many others are non-Quest affiliated in the area?

MR. PATEL: Not clearly to answer, but I'm sure that there are, you know, other competing organizations; LabCorp, Sonic, or somebody else is available. I'm not clear about how many.

MS. SCHAEFFER-HELMECKI: All right, thank you. And now what factors did you consider when selecting Quest Diagnostics to partner with?

MR. CARANNANTE: Sure. Again, it's Bimal Patel.

MR. PATEL: I think it's a very good question, and I want to expand on what our President/COO described as a strategic intervention from Hartford HealthCare's perspective.

First and foremost, we want to make sure that both access, quality and cost remain favorable in anything we do. That said, evaluation of RFP process of other providers, like Quest, they're national providers, three of them, be evaluated and went through a long drawn process facilitated by independent third party, who are experts in laboratory sciences, helping us making the right choice.

Ultimately, it comes down to the culture

and visibility, because this was not a transaction for us. This is a long-term relationship partnership for us, and here's the reason why.

We have ambitions to manage population health as Hartford HealthCare. We cover north of 20 percent of the Connecticut's marketplace and providing so the largest and the mostly equipped organization in laboratory sciences is important to us equally.

So this is extremely important, that we view through different scales or different screens, rather, to give a weighted scale of expertise in this different arena to decide that Quest was our best partner.

MS. SCHAEFFER-HELMECKI: And, so, you said you did go through an RFP process?

MR. PATEL: Yes.

MS. SCHAEFFER-HELMECKI: Great. Thank you. Now how many laboratories and Patient Service Centers in total does Hartford HealthCare intend to transfer over to Quest in the near term future?

MR. PATEL: I think these are the last five left.

MS. SCHAEFFER-HELMECKI: All right and now we have some questions pertaining to how quality is going

to be maintained with this proposal.

MR. PATEL: Can I add one more thing into my answer to the last question?

MS. SCHAEFFER-HELMECKI: Absolutely.

MR. PATEL: So it is also important to note that, when Hartford HealthCare made this strategic decision, we had a totally independent organization. Connecticut Children's Medical Center went through the same thing with us, and their outreach is now provided by Quest, so it's not only Hartford HealthCare, but this is happening along the side, even including Children's.

MS. SCHAEFFER-HELMECKI: Thank you.

HEARING OFFICER HANSTED: I have one question. I want to jump back to the whole anatomical pathology discussion we were having before, because I thought I was clear on it, but the more I'm sitting here thinking about it I'm not.

With respect to the five labs, and this is what the --

MR. CARANNANTE: Five PSCs?

HEARING OFFICER HANSTED: Yes. Yes. The subject of this application.

MR. CARANNANTE: Okay.

HEARING OFFICER HANSTED: Are we talking

about just the blood drawing samples will be sent to Quest, or are the anatomical pathology samples going to be sent there, as well, to make slides and then sent back?

MR. PATEL: Can I answer that?

MR. CARANNANTE: Yes, of course.

MR. PATEL: Large number of -- so the application really pertains to five PSCs, however, it is true that the AP work where the biopsies occur by physicians or physician offices, they will be technologically be processed at Quest from other office.

This concern was 10 times magnified for Hartford Hospital before by our own providers, as well as anybody, who worked within our service area of large geography.

They wanted the continuity of providers, who read those slides. That’s where the magic occurs from the pathology work perspective, and, so, Quest agreed to do an arrangement with our own pathologists, who are working at our hospital, who has years of relationship and clinical trust between surgeon and a pathologist.

Based on that judgment, they can make a cut on a patient. That has been retained intact, so,

despite the fact that the sample may be traveling, the core element of clinical decision, trust and the judgment of clinicians, who have years of relation in our town, in our communities remain intact, and that's where the real experience of both community physicians, surgeons and any other specialist, including pathologists, come into picture, and that's why you have HPA, which is Hartford Pathology Associates, the largest group in our region, with 25-plus specialty, multi-specialty within pathology, have supported our application for that very reason, because they know that the core element of care and the quality has remained intact.

HEARING OFFICER HANSTED: But the biopsies aren't actually coming out of the five PSCs.

MR. PATEL: No.

HEARING OFFICER HANSTED: They're coming from the doctor's office.

MR. PATEL: Some physician offices.

HEARING OFFICER HANSTED: Okay.

MR. PATEL: And, to that point, if that biopsy occurred at the hospital, that would be a hospital outpatient.

HEARING OFFICER HANSTED: Okay. All right, now I understand. Thank you.

MR. PATEL: Okay.

HEARING OFFICER HANSTED: Thank you.

MS. MICHAELA MITCHELL: Is there any difference in the licensing and accreditation process at Hospital of Central Connecticut versus Quest?

DR. KABAWAT: I mean the Quest Diagnostics, all of our Patient Service Centers, are licensed by the Department of Health of Connecticut. They are inspected by the Department, so, from that point of view, we are under the same regulatory environment.

As for our lab in Marlborough, it is also inspected and approved by the Department of Health in Massachusetts, but, in addition to that, we are also accredited by the College of American Pathologists, which is a body that gives us the accreditation, based on inspection that they do every two years with a large team of inspectors, and it's given only if you satisfy a certain number of requirements.

MR. VACCARELLI: It's a similar license, but there's no major or any difference that I know of between whether it's a Quest laboratory in Marlborough, the PSCs, our PSCs are over in hospital-based labs. It's regulated by the same structure.

MS. MITCHELL: Okay. Did Quest and the

Hospital of Central Connecticut have any discussions about safety protocols and best practice kind of guidelines to ensure that you preserved quality at the PSCs?

MR. CARANNANTE: Just as far as clarity, are you talking about in general or a specific time? I mean all hospital services we discuss how to minimize error and risk and maximize quality, so I didn't know whether it was a specific moment in time.

MS. MITCHELL: So prior to the decision to actually make the transfer of the PSCs from HOCC to Quest.

MR. CARANNANTE: Did we ever have conversations about maximizing quality and minimizing risk?

MS. MITCHELL: Just in general about safety protocols, about best practices, in terms of blood draw.

MR. PATEL: I think I can answer that. I mean you heard already both the physicians on both sides of the aisle talk about in their pre-filed testimony, as well, that the quality of both laboratories are comparable, so I don't think it's an issue of laboratory services.

As far as the PSCs are concerned, the quality issues, if they are raised by either party, we go ahead and address it. That even happens as we speak today. Quality improvement is an ongoing process. It's not one point in time.

As far as the best practices are concerned, and this is my assessment, that five PSCs in a part of Connecticut versus a national company with 50-plus states and international presence and their requirement and their quality control measures, if nothing, they'll be at least comparable. If not, better.

So, you know, in terms of obtaining standard of practice, I think, if that's what you're going to, of course that's always a part of the conversation.

MS. MITCHELL: What about any discussion about any disagreement about the process or any feedback from physicians with regard to process? Have you discussed how that is going to be addressed?

MR. PATEL: I can reflect on the past 16 to 18 months' worth of work that we've doing with Quest on a larger scale at Hartford with large pathology group that is six, seven times larger than HOCC's pathology group.

They continue to work together, so Dr. Kabawat and Dr. Mandavilli have a routine dialogue, in terms of how to improve reporting and reporting that physicians are used to, what they used to get from Hartford Hospital at the time, and even formatting how a report looks, not the quality of the report. It's just how the reports looks.

They work together to customize to the need of the end customer. Largely, in this situation, physicians rather than patients.

Patients are agnostic really when biopsies occur where their biopsies go. They don't ask that question. It's mostly surgeons' preference, so that conversation has, you know, there are lots of probably reasons why a physician would want to see certain things a certain way, and I believe that has been done, and Dr. Kabawat can explain a little more about any specifics.

DR. KABAWAT: Yes. I mean, first, Quest has a robust quality management program by which we look at the full aspect of testing, and we continuously gather statistics on our performance in each one of these PSCs. For instance, patient wait is important. We try to limit it to, you know, nothing more than, say, 15 minutes, and we keep statistics of that.

We give patients a questionnaire, so that they can answer and we could track all of the answers, especially people, who said they had a positive experience.

We also keep track of any kind of lab accident that could have happened. If a specimen was drawn in the wrong tube, we try to learn from that experience.

Quest, from a general way of approaching things, we are a Six Sigma company, meaning we do follow strict quality measurements that we keep track of and try to create goals and reach these goals and improve on them from time-to-time, but, also, we do receive feedback from other clients, such as Hartford Hospital in this case.

In fact, this whole issue of biopsies being done at Hartford Hospital, as opposed to being done at Quest, the agreement was for Quest to do the technical component, meaning create a slide and stain the slide for the pathologist at Hartford Hospital, at HPA, Hartford Pathology Associates, to look at, so that was our technical component, as was Quest. The professional was Hartford Hospital.

At the beginning of the process, when we decided to listen to some feedback from some surgeons,

saying that, no, we'd rather have the stains done for breast biopsies to be done at Hartford Hospital. We don't want them to be stained at Quest, because we are used to a certain technology. We do have the technology at Quest, but they wanted that particular technology, so we accepted that, so we did not take that technical component back to Quest. We kept it at the hospital. I think that was mentioned as a problem that was discovered.

It was not a problem that was discovered. In fact, it was in the pre-planning. It was listening to the voice of the customer, to the surgeon asking us to please keep that particular work at the hospital and we did.

Again, it is important in our listening and cooperating with the hospital, listening to and cooperating with the hospital.

MS. SCHAEFFER-HELMECKI: Is there a formal setup or arrangement, though, to ensure that that kind of communication would continue with this proposal, so that there's a formalized standard process, whereby, if a physician noticed something like this, like had some ongoing issue, whatever it may be, that there is an actual in-place procedure that they can pursue?

DR. KABAWAT: Yeah. I'm sorry. Why don't you go ahead?

MR. PATEL: So Hartford has adopted a quarterly Steering Committee meeting. They're face-to-face these issues that are addressed, but I've seen appropriate communication on an ongoing basis that goes between two pathologists, a Hartford-based pathologist or a surgeon in our case, and Quest Diagnostics' medical leadership, as well, to address any questions that may arise, but there is a quarterly meeting for appropriate follow-up and reviews.

MS. MITCHELL: So I believe that I read in the application that HOCC pathologists will have to be using Quest's software to enter and access reports. I just want to make sure that I understood that correctly, and, if so, are they going to be provided training to do that?

DR. KABAWAT: Yeah. I can speak that, yeah. That relates to the anatomic pathology part. The same thing was done at Hartford Hospital.

As I mentioned before, the technical component to slice are prepared by Quest, and then they are returned to the hospital.

Now we need to have a mechanism by which

the hospital pathologist conveys the results to the clinician through our interface.

The best way to do that is for them to enter the results into our pathology system. It's called Path Quest, Quest Proprietary Pathology System. Yes, we did train the pathologists on that. I spent a couple of days, myself, at Hartford Hospital to work with them on that, but, also, our manager, anatomic pathology manager, spent a lot more time, until everybody is proficient in that.

MR. CARANNANTE: And I have the Chief Informatics Officer for all of Hartford HealthCare here, who can add a little light and flavor to that, as well. Is that okay?

MS. MITCHELL: Yes.

DR. SPENCER ERMAN: Thank you. My name Spencer Erman, M.D., that's E-R-M-A-N, and I'm the Chief Medical Informatics Officer for Hartford HealthCare, and I've been a practicing family medicine physician for over 30 years, including in the Avon area for about 15 of them. Could you repeat the question for me, please?

MS. MITCHELL: Sure. So we wanted to know if the HOCC pathologists were going to receive training, in order to use Quest's software.

DR. ERMAN: As was previously stated, absolutely. You don't start a software program without training.

MR. CARANNANTE: And can you add anything about the system, itself?

DR. ERMAN: As a practicing physician, we've been using Quest. Quest has been in the marketplace since I've been in town, so many, many years. Never had a problem with them. We also use the other lab that was mentioned, CLP.

A point that needs to made that was made briefly, the pathology specimens are not included in the PSCs at all.

MS. MITCHELL: Okay.

DR. ERMAN: They bypass that totally.

MS. MITCHELL: Okay.

DR. ERMAN: Results that come out of Quest, if they're automated, if there's a blood test, they go automatically into their computer system, which interfaces directly with HHC's computer system, Epic, so it's seamless, it's automatic. As soon as they're available at Quest, they're available at HOCC.

The only difference is with the pathology specimens. When they are read at HOCC, they will need to

be entered manually into the Quest system. Right now, they're entered manually into the Epic system or the CoPath system, so it's really not a change in workflow. It's just a different software system.

MR. CARANNANTE: Did that respond to your question?

MS. MITCHELL: I think so.

MR. CARANNANTE: Anything else for Dr. Erman?

HEARING OFFICER HANSTED: No, I think we're all set. Thank you, Doctor.

MS. MITCHELL: How will staffing levels, if you know, compare, Quest Diagnostics compared to current staffing levels at the HOCC PSCs?

MR. CARANNANTE: Sure. That would be Mr. Patel. Can you just repeat the question?

MS. MITCHELL: Sure.

MR. CARANNANTE: Are talking about the staffing levels, what's going to happen to the staff at the five PSCs?

MS. MITCHELL: So we're just wondering if the staffing levels are going to be comparable once the termination occurs, once the transition occurs.

MR. CARANNANTE: At the five PSCs?

MS. MITCHELL: Yes.

MR. CARANNANTE: Okay. I think Bimal can.

MR. PATEL: I think that's Todd, because he's the one, who is from Quest and is receiving --

MR. TODD RAYMOND: I'd be happy to. So my name is Todd Raymond with Quest Diagnostics. I'm our Director Business Development in the North Region.

With respect to staffing, so we have taken a look at the five facilities, and we've looked at the patient volumes that go into those facilities by day and actually by a.m. and p.m., and then we looked at staffing levels that are currently there today that are provided by HOCC and what we believe Quest will need, and the staffing levels will be very similar.

There could be some adjustments both up and down, depending on what we've seen, and we're going to make sure that wait times are minimal and the customer service remains very high.

We do have a specific plan. I don't have that with me, but I can tell you that the levels will be very similar as a whole. Does that answer your question?

MS. MITCHELL: I believe so, yes. Thank you.

MR. RAYMOND: You're very welcome.

MS. MITCHELL: And just one last question from me, at least. To what extent, if any, will the termination of service or transition of service to Quest impact referral patterns to HOCC? Just as a point of clarification, when I was looking at page two of Dr. Sanchez's testimony, there was a statement that he made that, when a patient's lab work leaves the hospital, the rest of that patient's care may follow, so I'm just wondering if you can kind of respond to that.

MR. PATEL: I can answer. I can't really say whether it would be true or not, but if I could use my patient, me, as a patient, hat and say, if I go to Quest for my blood draw, Quest doesn't offer any other services, other than laboratory services, so I don't know whether I would go for EKG to Quest, or for GI biopsy, or a cardiac transplant to Quest.

I mean I don't understand what other services that Quest would provide that would go away if the blood went that way, and patients normally don't know that the blood is being transported and diagnosed by Quest laboratories.

In many instances, we even send from the hospital to Quest, so I don't think that I clinically or operationally understand why would the patient go away if

they went for their blood draw to the Quest station, that all the services would go away.

MS. MITCHELL: Okay. That was all I have.

HEARING OFFICER HANSTED: Nothing? Okay. All right, that concludes OHCA's questions. Is there anyone from the public that would like to comment on the application? Okay, we have a few people.

Leslie, do you have the sign-up sheet? Those folks that raised their hands, did you sign up on the sheet? Okay. They said they signed up, Leslie.

(Whereupon, the public comment portion of the hearing commenced.)

HEARING OFFICER HANSTED: At this point, counsel, I'm going to give you an opportunity to respond, or anyone on the side of the Applicant, to respond to some of the comments we heard here today. Would you like that opportunity?

MR. CARANNANTE: When you say comments, the public comments?

HEARING OFFICER HANSTED: The public comments, yes.

MR. CARANNANTE: Are there any, in particular, that you are interested in?

HEARING OFFICER HANSTED: Whatever ones

you feel need to be addressed.

MR. CARANNANTE: Could we have a --

HEARING OFFICER HANSTED: Let's take a five-minute break.

MR. CARANNANTE: Five minute break? Please.

(Off the record)

HEARING OFFICER HANSTED: All right, we're back on the record. Counsel?

MR. CARANNANTE: Sure. Thank you, Attorney Hansted. We'd like to respond to three main comments or opinions. First will be Dr. Kabawat in relation to comments about batching and waiting for days and those things that we feel are factually inaccurate and we'd like to respond to, but we'll first present Dr. Kabawat.

DR. KABAWAT: Yes. There were issues that were raised regarding patient safety, as it relates to patients, who are critically ill.

So it is written in our submission, but I didn't talk about it during my time. We do have five rapid response laboratories in Connecticut; in Wallingford, in Hartford, in Torrington, in Stratford and in Norwich.

These would handle the critical patients on a stat basis, so if the doctor orders a stat, it will go to these labs, and the results will be done in four hours or less, so that will be same day.

The other thing about Coumadin therapy was raised, too. That is the test called the prothrombin INR to monitor Coumadin.

Again, we will deliver that same day in these stat laboratories, so it’s an important point to raise.

There was a point that was said about the presence of pathologists on site for consultation, and we, again, I put that in the submission, but I didn’t talk about it.

Because of our relation with the University of Massachusetts, we do have scientists on site in Marlborough. We have seven MDs and Ph.D.s that are on the Massachusetts clinical pathology faculty that are there to answer all questions regarding technical matters, whether they are internal questions for our tech or even questions that would come from the hospital.

Another point was raised regarding the shuttling of the specimen for 92 miles. That, in the grand scheme of things, is not a large distance.

We do move specimens around the Midwest for a lot more, almost 1,000 miles. We do have means to make sure that these specimens are kept in an acceptable, stable way, and, in fact, we do take specimens from the hospital, as it is now, and we send them to our lab in Chantilly, Virginia, using our Quest Air, so they go to Marlborough, and then, from Marlborough, we take them to Worcester Airport, they get on the plane, our planes, Quest Air, and they are flown to Virginia, so a lot more than 92 miles.

And then, finally, one last one regarding the access to PSCs. It is important. That is point was made, but I'd like to reemphasize it. Because it is with Quest PSCs, because the order is now into our computer, in our laboratory information system, that order could be accessed anywhere in New England, so even if a patient lives in New Britain, say, but they are vacationing on the Cape, or they are somewhere in Southern Connecticut, they can go to any PSC and ask for blood to be drawn.

The order will be immediately put into the computer, and they we know exactly what the doctor wants and where the results should go to, so that access, in fact, has increased. It's not decreased for patients around New Britain.

MR. CARANNANTE: Do you have any questions?

DR. KABAWAT: I'm sorry. If I may? There's one other thing that was mentioned about batching, that we batch specimens, we wait for them to have like enough of them, so we can test them. That is not the case.

What we do is we -- it's a continuous flow. We service University of Massachusetts Medical Center, which is about 12 miles from our lab.

We have to keep testing. We cannot wait for a batch, so that idea about batching was there sometimes in the past. That's not how we do business. We do it on a continuous flow, especially with the help of the automation system.

HEARING OFFICER HANSTED: Okay, thank you. I just have one question.

MR. CARANNANTE: For Dr. Kabawat?

HEARING OFFICER HANSTED: Yes. Yes. The stat labs, so, every sample that goes to one of those labs, the result is returned in four hours?

DR. KABAWAT: Correct.

HEARING OFFICER HANSTED: Okay, thank you. Do you have any questions? Go ahead.

MS. SCHAEFFER-HELMECKI: But that's only if the physician requests it immediately, so if they're not -- if they don't specifically know that they're looking for some life-threatening potential condition, then it would still go through the normal process?

DR. KABAWAT: It would go through the normal. Because it's a continuous flow, it would go through the normal, so we start testing them as they arrive, so it's possible that we have the results by 7:00, or 8:00, or even during the night.

If we have a critical value, we do have a critical value calling policy, so if somebody has leukemia, we're not waiting until morning to give the result. We will call the doctor, and usually doctors either answer the phone or they have another doctor covering for them, so this result is complete in a timely manner.

MS. SCHAEFFER-HELMECKI: Thank you.

HEARING OFFICER HANSTED: Okay. Thank you, Doctor.

MR. CARANNANTE: Next, I'd like to -- oh, he's already here. Mr. Joseph Vaccarelli. Just like as one of the commenters was offended by our alleged actions, we are also personally offended by allegations

that we somehow intimidated or threatened any people, who were looking to sign on the petition, so I wanted to give a voice to that, with respect to someone, who was actually in the room when such, you know, conversations were being had.

MR. VACCARELLI: Thank you. I was in the room, and I was in the room with Dr. Barry Jacobs, who is the Chief of the Department and member of the group to which Dr. Sanchez belongs.

I just want to take one step back and talk about what prompted those meetings. There were at least three individuals, who came to Dr. Jacobs and myself, and this was shortly after signing the petition, and said we weren't even sure what we were signing. We'd like to have our names withdrawn. This was before we had met with anybody.

I talked to Dr. Jacobs, and we decided that it would probably be best to talk with all of the signatories and at least explain our position and why we were supporting this process, and we did meet individually, but I think to describe the conversations as intimidating is a gross overstatement, especially if anyone knows Dr. Barry Jacobs and me.

As I said, our intent was to make certain

that everyone understood what they were signing, everyone understood our position, Dr. Jacobs' and mine, as to why we felt this was an appropriate course to take.

There was a document that they could use to withdraw their signature, if they so choose. We actually had encouraged them to take the document with them. Over half of the individuals didn't even want to leave the room without signing the document.

After hearing our explanation, they actually took the paper from our hand and said I would like to sign it right now before I leave.

To hear that there was something misconstrued as intimidation was, again, totally misrepresenting what occurred in that room.

It was an exchange of information. It was in a very casual environment, and, as I said, there could not be two less intimidating individuals, I think, so I just wanted to make sure that that was on the record.

HEARING OFFICER HANSTED: Okay, thank you.

MR. CARANNANTE: Lastly, I just wanted to bring up Dr. Spencer Erman again with respect to, you know, patients and their choice of where their specimens or which laboratories test their tissues or specimen.

I just wanted to give a voice to someone,

who has been a family physician for 30 or 35 years, who has been -- I don't know. He can testify himself how many of those he's been involved with.

DR. ERMAN: Thank you. I'm wearing the hat as a practicing physician now.

I've been practicing over 30 years. I have performed thousands of pap smears, hundreds, many hundreds of biopsies. Never once did I have a patient ask me where is my specimen going? Is it going to the hospital? Is it going to CLP or Quest? Is it staying in the state or out-of-state?

I've had specimens that went to CLP, then, because there was a difficulty, they sent it to Quest. Quest sent it to Virginia. Patients are agnostic to that fact. They know they're getting the best test available and they're getting it quickly.

As far as blood work, yes, there will be one vendor removed from the marketplace, but patients rarely choose the vendors. It's the insurance companies and the payers that tell them what labs take their insurance, and that is a huge part of the issue.

Many, many years ago, I had patients, whose insurance did not accept Quest. They couldn't go. They went to CLP and, for a short time, vice versa.

So you need to remember that we're increasing the number of PSCs in the area. It's going to be hopefully the same people drawing the blood at those same sites, if everything works out fine, but it's the vendors, who really make the decision, I mean the payers, who make the decision what vendor to go to, what PSC to attend, because they're the ones paying the bills.

HEARING OFFICER HANSTED: Okay, thank you for that clarification, Doctor.

MR. CARANNANTE: That's all we have, Attorney Hansted.

HEARING OFFICER HANSTED: Okay, thank you, counsel. Just one last time, is there anyone else here that would like to give public comment that did not have a chance to do so?

Okay. Hearing and seeing none, I thank you, everyone, both the Applicant and the Intervenor, the public comment. I appreciate everyone being here today to voice your opinions on this matter.

With that, I will adjourn this hearing.

(Whereupon, the hearing adjourned at 12:07 p.m.)

THE HOSPITAL OF CENTRAL CONNECTICUT
AUGUST 23, 2017

AGENDA

CERTIFICATE

I, Paul Landman, a Notary Public in and for the State of Connecticut, and President of Post Reporting Service, Inc., do hereby certify and attest that, to the best of my knowledge, the foregoing record is a correct and verbatim transcription of the audio recording made of the proceeding hereinto set forth.

I further certify that neither the audio operator nor I are attorney or counsel for, nor directly related to or employed by any of the parties to the action and/or proceeding in which this action is taken; and further, that neither the audio operator nor I are a relative or employee of any attorney or counsel employed by the parties, thereto, or financially interested in any way in the outcome of this action or proceeding.

In witness, whereof I have hereunto set my hand and do so attest to the above, 28th day of August, 2017.

Paul Landman
President

Post Reporting Service
1-800-262-4102

Women's Health
Connecticut

Devoted to women, committed to excellence.

22 Waterville Road
Avon, CT 06001
860-678-3400
860-678-3484 fax
www.womenshealthct.com

August 15, 2017

State of Connecticut
Department of Public Health
Office of Healthcare Access
410 Capitol Avenue
Hartford, CT 06106

Dear OHCA Members:

I would like to take this opportunity to voice my support of the proposed Asset Purchase Agreement of Hartford Healthcare Corporation, Hospital of Central Connecticut and Bradley Memorial Hospital with Quest Diagnostics.

Women's Health Connecticut, which represents a group of over 200 physicians and 30+ collaborative providers at nearly 80 locations across Connecticut, has successfully partnered with Quest to provide operational support services to our physician-owned lab. This arrangement has allowed us to work closely with Quest on all facets of lab operations – from specimen collection through accreditation of our laboratory, from proficiency testing through reporting of results into our EMR, and everything in between. It is from this perspective that I can speak to the level of quality, sophistication, and technical expertise that Quest provides.

But this expertise expands beyond our own lab, as Quest processes thousands of specimens each month for tests ordered by our physicians that cannot be processed at our own lab. This includes a wide array of routine tests and highly-specialized ones as well. While the turnaround times for specimens processed by Quest are outstanding, in those urgent situations where more rapid response times are needed, Quest can direct these STAT tests to one of several "rapid response" labs located within the state, thus ensuring that patient care is not delayed when critical situations arise.

Further, we know that lab testing is critical to the appropriate diagnosis and treatment for patients, yet lab testing often requires specimens that must be collected by a trained phlebotomist at a drawing station. Having convenient access to drawing stations is therefore crucial in ensuring that patients get the testing they need; patients who cannot easily access a drawing station are less likely to have their testing completed. Quest offers more than 100 drawing stations across the state; no other lab offers anywhere near the number of drawing stations that Quest does. And patients who live across the border in other states, or who may be traveling, can access any Quest drawing station across the country.

I see this Asset Purchase Agreement as a win-win for patients, physicians and the healthcare system overall by promoting access to high-quality, convenient testing. Feel free to contact me at 860-678-3404 with any questions.

Sincerely,

Nancy Bernstein
President and CEO, Women's Health Connecticut

User, OHCA

From: Mitchell, Micheala
Sent: Friday, September 01, 2017 4:29 PM
To: pathgrunt@gmail.com; vcarannante@goodwin.com
Cc: User, OHCA; Riggott, Kaila; Hansted, Kevin; Schaeffer-Helmecki, Jessica; Durdy, Barbara
Subject: 17-32170 CON/Closure of Record
Attachments: 17-32170 closure of hearing.pdf

Attorney Carannante and Dr. Sanchez,

Attached is correspondence regarding the hearing in the abovementioned application. Please acknowledge receipt of this email, and the attachment, at your earliest convenience.

Thank you,
Micheala L. Mitchell
Staff Attorney, PHHO/OHCA
Connecticut Department of Public Health
410 Capitol Avenue, MS# 13-HCA, Hartford, CT 06134
Phone: (860) 418-7055
Email: micheala.mitchell@ct.gov

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

Raul Pino, M.D., M.P.H.
Commissioner

Dannel P. Malloy
Governor

Nancy Wyman
Lt. Governor

Office of Healthcare Access

September 1, 2017 VIA EMAIL ONLY

Mr. Vincenzo Carannante, Esq.
Shipman & Goodwin, LLP
One Constitution Plaza
Hartford, CT 06103
vcarannante@goodwin.com

Dr. Harold Sanchez
20 Mulberry Road
Woodbridge, CT 06525
pathgrunt@gmail.com

RE: **Certificate of Need Application, Docket Number 17-32170-CON**
Termination of five (5) outpatient blood drawing locations by The Hospital of Central Connecticut

Dear Attorney Carannante and Dr. Sanchez:

Please be advised, by way of this letter, that the public hearing held on August 23, 2017, in the above referenced docket is hereby closed as of September 1, 2017. The Office of Health Care Access will receive no additional public comments or filings.

If you have any questions regarding this matter, please feel free to contact Kaila Riggott at (860) 418-7037.

Sincerely,

Digitally signed by Kevin T. Hansted
Date: 2017.09.01 10:11:51 -04'00'

Kevin T. Hansted
Hearing Officer

C: Barbara Durdy, Director of Strategic Planning, Hartford HealthCare

Phone: (860) 418-7001• Fax: (860) 418-7053
410 Capitol Avenue, P.O. Box 340308
Hartford, Connecticut 06134-0308
www.ct.gov/dph
Affirmative Action/Equal Opportunity Employer

User, OHCA

From: Carannante, Vincenzo <VCarannante@goodwin.com>
Sent: Friday, September 01, 2017 4:31 PM
To: Mitchell, Micheala
Cc: Pathgrunt; User, OHCA; Riggott, Kaila; Hansted, Kevin; Schaeffer-Helmecki, Jessica; Barbara Durdy
Subject: Re: 17-32170 CON/Closure of Record

Received. Have a great holiday weekend.
Thank you.
Vin

On Sep 1, 2017 at 4:29 PM, <Micheala Mitchell> wrote:

```
Attorney Carannante and Dr. Sanchez,

Attached is correspondence regarding the hearing in the abovementioned application.
Please acknowledge receipt of this email, and the attachment, at your earliest
convenience.

Thank you,
Micheala L. Mitchell
Staff Attorney, PHHO/OHCA
Connecticut Department of Public Health
410 Capitol Avenue, MS# 13-HCA, Hartford, CT 06134
Phone:  (860) 418-7055
Email:  micheala.mitchell@ct.gov
    [http://www.ct.gov/insidedph/lib/insidedph/communications/DPH-Color.gif]
[http://www.phaboard.org/wp-content/uploads/PHAB-SEAL-COLOR.jpg]

CONFIDENTIALITY NOTICE: This electronic message may contain information that is
confidential and/or legally privileged. It is intended only for the use of the
individual(s) and entity named as recipients in the message. If you are not an intended
recipient of the message, please notify the sender immediately and delete the material
from any computer. Do not deliver, distribute, or copy this message, and do not disclose
its contents or take action in reliance on the information it contains. Thank you.
```

User, OHCA

From: Harry Sanchez <pathgrunt@gmail.com>
Sent: Saturday, September 02, 2017 2:59 PM
To: Mitchell, Micheala
Cc: vcarannante@goodwin.com; User, OHCA; Riggott, Kaila; Hansted, Kevin; Schaeffer-Helmecki, Jessica; Durdy, Barbara
Subject: Re: 17-32170 CON/Closure of Record

I have received and read the correspondence. Thank you.

Harry Sanchez

Sent from my iPhone

> On Sep 1, 2017, at 4:29 PM, Mitchell, Micheala <Micheala.Mitchell@ct.gov> wrote:
>
> Attorney Carannante and Dr. Sanchez,
>
> Attached is correspondence regarding the hearing in the abovementioned application. Please acknowledge receipt of this email, and the attachment, at your earliest convenience.
>
> Thank you,
> Micheala L. Mitchell
> Staff Attorney, PHHO/OHCA
> Connecticut Department of Public Health
> 410 Capitol Avenue, MS# 13-HCA, Hartford, CT 06134
> Phone: (860) 418-7055
> Email: micheala.mitchell@ct.gov<mailto:micheala.mitchell@ct.gov>
> [http://www.ct.gov/insidedph/lib/insidedph/communications/DPH-Color.gif] [http://www.phaboard.org/wp-content/uploads/PHAB-SEAL-COLOR.jpg]
>
> CONFIDENTIALITY NOTICE: This electronic message may contain information that is confidential and/or legally privileged. It is intended only for the use of the individual(s) and entity named as recipients in the message. If you are not an intended recipient of the message, please notify the sender immediately and delete the material from any computer. Do not deliver, distribute, or copy this message, and do not disclose its contents or take action in reliance on the information it contains. Thank you.
>
> <17-32170 closure of hearing.pdf>

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

Raul Pino, M.D., M.P.H.
Commissioner

Dannel P. Malloy
Governor

Nancy Wyman
Lt. Governor

Office of Health Care Access

Certificate of Need
Final Decision

Applicant: **The Hospital of Central Connecticut**
100 Grand Street
New Britain, CT 06050

Docket Number: **17-32170-CON**

Project Title: **Termination of Five Blood Collection Facilities**

Project Description: The Hospital of Central Connecticut ("HoCC" or the "Applicant") seeks authorization to terminate its provision of services at five blood collection facilities, whereupon Quest Diagnostics will assume ownership and operation.

Procedural History: The Applicants published notice of their intent to file a Certificate of Need ("CON") application in *Hartford Courant* on April 29, April 30 and May 1, 2017. On May 25, 2017, the Office of Health Care Access ("OHCA") received the CON application from the Applicants for the above-referenced project and deemed the application complete on July 21, 2017.

On June 5, 2017 OHCA received a written request for a public hearing signed by at least three individuals, in accordance with Connecticut General Statute ("Conn. Gen. Stat.") sec. 19a-639a(e). On August 1, 2017, Commissioner Pino designated Kevin Hansted as the hearing officer in the matter. On that same date OHCA notified the Applicant of the date, time and location of the hearing and the *Hartford Courant* and *New Britain Herald* published public notice regarding the hearing on August 3, 2017. On August 17, 2017 Dr. Harry Sanchez petitioned for intervenor status, which was granted with limited rights on August 18, 2017.

Pursuant to Connecticut General Statutes ("Conn. Gen. Stat.") § 19a-639a(f)(2), a public hearing regarding the CON application was held on August 23, 2017. The public hearing record was closed on September 1, 2017. The hearing was conducted in accordance with the provisions of the Uniform-Administrative Procedure Act (Conn. Gen. Stat. Chapter 54). Deputy Commissioner Addo considered the entire record in this matter.

Findings of Fact and Conclusions of Law

1. The Applicant is an acute care hospital and member of Hartford HealthCare Corporation ("Hartford HealthCare") with its main campuses located at 100 Grand Street, New Britain, and 81 Meriden Avenue, Southington. Ex. A, p. 9.

2. The Applicant offers, among other services, laboratory testing and outpatient specimen collection at its main campuses. It currently also performs blood drawing and specimen collection services at five satellite patient service centers, also known as blood collection facilities ("BCFs"), in New Britain and Southington. Blood and other bodily fluid samples are currently collected at the BCFs and transferred to HoCC-owned laboratories for testing. Ex. A, 12; Ex. F, p. 89.

3. Due to the costs of running its blood draw operations, including billing, marketing, and client services and logistics, the Applicant determined a provider focused solely on sample collection and testing could more efficiently provide BCF services. Ex. A, pp. 17, 86.

4. The Applicant is seeking authorization to terminate its ownership and operation of all five of its satellite BCFs at the following locations:
    - 100 Grand Street, New Britain
    - 61 Hart Street, New Britain
    - 183 North Mountain Road, New Britain
    - 360-361 North Main Street, Southington
    - 55 Meriden Ave, Southington

    Ex. A, 12-13.

5. The above-listed BCFs perform clinical pathology services. According to the Applicant, 99% of the services performed are either blood drawings by a phlebotomist or the collection of urine samples. The BCFs do not perform anatomic pathology services wherein a tissue sample or other biological specimen is obtained via a biopsy in a physician's office, transferred to a laboratory for slides to be developed, which are then sent to a pathologist for review. Ex. S, Pre-file Testimony, Dr. Salim Kabawat, Regional Medical Director of North Region, Quest, p. 3.

6. HoCC is not terminating any services that would otherwise be provided at the hospital and will continue to perform drawings for outpatients, Emergency Department ("ED") patients, and patients requirement sampling for scheduled surgical services at the following locations:
    - 100 Grand Street, New Britain (Out Patient Test Center) – specimen collection for hospital outpatients
    - 183 N. Mountain Road, New Britain (Cancer Center) – limited diagnostic services for cancer center patients

    Ex. F, p. 89; Ex. BB, Transcript, Dr. Bimel Patel, Senior Vice President, Hartford HealthCare, pp. 36-37.

7. The proposal will not impact, affect, limit, reduce and/or terminate any of the laboratory testing services offered by HoCC. HoCC would continue to perform urgent and emergent laboratory services at the following locations:
    - 100 Grand Street, New Britain, CT (New Britain General Campus) – full laboratory testing services

- 81 Meriden Ave, Southington (Bradley Campus) – full service laboratory testing services

Ex. A, p. 13; Ex. F, p. 89; Ex. BB, Transcript, Patel, pp. 36-37.

8. The Applicant and Hartford HealthCare, in conjunction with an independent third party, issued a request for proposals to identify a purchaser for the five BCFs that are the subject of this proposal, as well as those of other Hartford HealthCare-owned hospitals. It sought a purchaser that is an expert in laboratory sciences and capable of handling the large volume of testing required by the Applicant and Hartford HealthCare as a whole. Ex. BB, Transcript, Dr. Bimel Patel, Senior Vice President, Hartford HealthCare, pp. 38-39.

9. The Applicant identified Quest as its preferred purchaser. Quest is a publicly traded company headquartered in Madison, NJ that operates more than 2,200 BCFs nationwide, with at least 187 of those located in Connecticut. Quest Diagnostics, *Fact Sheet*, available at http://newsroom.questdiagnostics.com/index.php?s=30664 (last accessed May 31, 2018); DPH, BCF Licensing and Inspection Records.

10. There will be no change to the services offered at the BCFs subsequent to implementation of the proposal. The same services will be provided in the same locations by Quest. Ex. S, Pre-filed Testimony, Joseph Vaccarelli, Administrative Director, HoCC, p. 6.

11. Following implementation of the proposal, patients visiting one of the five BCFs will have blood or urine samples collected by Quest and transported to a Quest-owned laboratory for testing. Results will be entered into an electronic health records ("EHR") system and be immediately accessible by HoCC physicians. [1] Ex. S, Pre-file Testimony, Kabawat, p. 3-4. Ex. BB, Testimony, Dr. Spencer Erman, Chief Medical Informatics Officer for Hartford HealthCare, p. 51.

12. Quest maintains "My Quest," an online site through which consumers may create an account to view their test results online, schedule appointments, and track their test results over time. Ex. A, p. 16.

13. As a result of the planned conversion to the EPIC EHR system in October 2017, HoCC and Quest will coordinate patients' requisitions and results using a bi-directional data sharing interface. This software is currently in place at other Hartford Healthcare Corporation facilities. Ex. A, p. 17.

14. Hartford HealthCare has implemented quarterly Steering Committee meetings, during which HoCC's pathologists may directly communicate to Quest's medical leadership any concerns or insights that may arise regarding Quest's operation of the BCFs. Ex. BB, Transcript, Patel, p. 49.

15. In addition to the five BCFs that are the subject of this proposal, Quest has seven BCFs in HoCC's primary service area ("PSA"). Physicians have the ability to electronically submit requisition orders to Quest, which may then be accessed and completed by any Quest BCF at

[1] Process varies for anatomical pathology services. For example, generally biopsy samples will be taken at a physician's office--rather than a BCF--and transferred to a Quest-owned and operated laboratory where they will be processed and glass slides will be produced, which will then transported to HoCC for review by its pathologists. Ex. V, Pre-Filed Testimony, Dr. Harold Sanchez, p. 4; Ex. BB, Transcript, Testimony, Kabawat, p. 16.

which the patient presents—be it one of the twelve in the PSA or elsewhere in the region. Ex. BB, Transcript, Kabawat, p. 58.

16. There are 14 existing BCFs in HoCC's primary service area ("PSA"), as shown in the table below.

TABLE 1
EXISTING BCFS IN HOCC'S PSA

Provider Name	Address
Quest	98 Main Street, Southington 365 Queen Street, Southington 7 N. Washington St., Plainville 66 Cedar Street, Newington 955 Main Street, Newington 320 New Britain Rd, Berlin 40 Hart Street, New Britain
Mercy Diagnostics	832 Queen Street, Southington
UConn Health BCF	1115 West Street, Southington
Starling Physicians	300 Kensington Ave, New Britain 1 Lake Street, New Britain 375 Willard Ave, Newington 184 East Street, Plainville 209 Main Street, Southington

Ex. F, p. 92; DPH, BCF Licensing and Inspection Records.

17. Despite the incremental gain in FY 2017, the loss of revenue from operations exceeds the reduction in operating expenses from FY 2018 through FY 2020.

TABLE 2
PROJECTED INCREMENTAL REVENUES AND EXPENSES

	FY 2017	FY 2018	FY 2019	FY 2020
Revenue from Operations	$15,000,000	($5,945,230)	($6,034,052)	($6,124,198)
Total Operating Expenses	$328,942	($5,375,277)	($5,527,501)	($5,684,111)
Gain/Loss from Operations	$14,671,058	($569,953)	($506,550)	($440,086)

Ex. A, pp. 26, 83.

18. The purchase price of Hartford HealthCare's BCF services, of which HoCC's BCFs are a part, is $30 million. Ex. F, p. 91.

19. Quest has a charity care policy in place that qualifies patients for discounts based on their income compared to federal poverty level guidelines and patients may submit an application for billing relief. Quest provides no-charge Noninvasive Prenatal Screening for patients who meet or fall below the federal poverty level and an out-of-pocket maximum charge of $200 for those with incomes between 100% and 400%. Ex. C, p. 90; Quest Diagnostics, *Financial Assistance*, www.questdiagnostics.com/home/about/corporate-citizenship/community-giving/assistance.html (last accessed Aug. 2017).

20. Medicaid payers currently comprise 27% of the Applicant's patients.

TABLE 3
APPLICANT'S LAST COMPLETED PAYER MIX

Payer	CFY 2016	
	Visits	%
Medicare*	33,777	45.2%
Medicaid*	20,210	27%
CHAMPUS & TriCare	67	.1%
Total Government	**54,054**	**72.3%**
Commercial Insurers	19,813	26.5%
Uninsured	793	1%
Workers Compensation	135	.2%
Total Non-Government	**20,741**	**27.7%**
Total Payer Mix	**74,795**	**100.0**

*Includes managed care activity.
Ex. A, p. 29.

21. Quest is enrolled in and a participating service provider in Connecticut's Medicaid program and there is no expected change in the payer mix. Ex. A, p. 17.

22. The Applicant's primary service area is composed of Southington, Plainville, Newington, New Britain and Berlin. There is no expected change to the population to be served. Ex. A, p. 24.

23. As the BCFs will continue to operate in the same location, there is no expected change to the population served. Ex. BB, Transcript, Vaccarelli, p. 36.

24. OHCA is currently in the process of establishing its policies and standards as regulations. Therefore, OHCA has not made any findings as to this proposal's relationship to any regulations not yet adopted by OHCA. (Conn. Gen. Stat. § 19a-639(a)(1)).

25. The Statewide Health Care Facilities and Service Plan does not address BCFs and, as such, there is currently no relationship between them. (Conn. Gen. Stat. § 19a-639(a)(2)).

26. The Applicant has not proposed a health care facility or service for which a demonstration of clear public need is applicable. (Conn. Gen. Stat. § 19a-639(a)(3))

27. The Applicant has demonstrated that the proposal is financially feasible. (Conn. Gen. Stat. § 19a-639(a)(4)). Ex. F, p. 91.

28. The Applicant has demonstrated that the proposal will maintain quality and accessibility and cost effectiveness of health care delivery in the region. (Conn. Gen. Stat.§ 19a-639(a)(5)). Ex. S, Vaccarelli, p. 6; Ex. BB, Transcript, Kabawat, p. 58; Ex. C, p. 90; Ex. X, p. 44.

29. The Applicant has shown that there would be no change in the provision of health care services to the relevant populations and payer mix, including access to services by Medicaid recipients. (Conn. Gen. Stat. § 19a-639(a)(6)). Ex. A, pp. 17, 29.

30. The Applicant has satisfactorily identified the population to be affected by this proposal. (Conn. Gen. Stat. § 19a-639(a)(7)). Ex. A, p. 15.

31. The Applicant's historical provision of treatment in the service area supports this proposal. (Conn. Gen. Stat. § 19a-639(a)(8)). Ex. A, p. 24.

32. The Applicant has satisfactorily demonstrated that the proposal would not result in an unnecessary duplication of existing services in the area. (Conn. Gen. Stat. § 19a-639(a)(9)). Ex. A, p. 28.

33. The Applicant has demonstrated that there will be no reduction in access to services by Medicaid recipients or indigent persons. (Conn. Gen. Stat. § 19a-639(a)(10)). Ex. A, pp. 17, 29.

34. The Applicant has not demonstrated that the proposal will not negatively impact the diversity of health care providers, but patient choice will still exist in the region. (Conn. Gen. Stat. § 19a-639(a)(11)). Ex. F, p. 92.

35. The Applicant has satisfactorily demonstrated that the proposal will not result in any consolidation that would affect health care costs or access to care. (Conn. Gen. Stat. § 19a-639(a)(12)). Ex. A, p. 12.

Discussion

CON applications are decided on a case by case basis and do not lend themselves to general applicability due to the uniqueness of the facts in each case. In rendering its decision, OHCA considers the factors set forth in § 19a-639(a) of the Statutes. The Applicant bears the burden of proof in this matter by a preponderance of the evidence. *Jones v. Connecticut Medical Examining Board, 309 Conn. 727 (2013).*

The Applicant, a member of Hartford HealthCare, is an acute care hospital with its primary campuses in New Britain and Southington. It performs, among other services, laboratory testing and outpatient specimen collection at its main campuses. It additionally performs blood drawing and specimen collection services at five satellite patient outreach centers, also known as blood collection facilities ("BCFs"), in New Britain and Southington. *FF1,2.*

Due to the costs of running its blood draw operations, including billing, marketing, and client services and logistics, the Applicant determined a provider focused solely on sample collection and testing could more efficiently provide BCF services. As a result, the Applicant is proposing terminating its ownership and operation of all five BCFs. *FF3,4.*

The Applicant sought a purchaser for the BCFs with an expertise in laboratory sciences that would also be capable of handling the large volume of testing required by the Applicant and Hartford HealthCare as a whole. *FF8*. Through a request for proposals process, and with assistance from an independent third party, the Applicant identified Quest as its preferred purchaser for $30 million.[2] Quest is a publicly traded company headquartered in Madison, NJ that operates more than 2,200 BCFs nationwide, at least 187 of which are located throughout Connecticut. *FF9,18.*

The BCFs that are the subject of this proposal perform clinical, rather than anatomical, pathology services. Phlebotomists at the facilities draw and collect blood and urine specimens and transfer them to a laboratory for testing, the results of which are then transmitted to HoCC. They do not, in general, obtain tissue specimens via biopsies, a procedure that is performed by a physician rather than a BCF. *FF5.*

Conn. Gen. Stat. sec. 19a-638(a)(5) requires that a hospital terminating outpatient services obtain a CON. It is the Applicant's proposed termination of its BCFs that trigger the provision and CON review. The Applicant has stated that the proposal will not "impact, affect, limit, reduce and/or terminate any of the laboratory testing services offered by HoCC." *FF7.* As such, this CON review is limited in scope to the clinical pathology services performed at the BCFs and does not focus on anatomical services or laboratory practices that are not directly related to the BCFs that are the subject of the Applicant's proposal.

Following the Hospital's termination of its ownership of the BCFs, according to the Applicant, Quest will provide the same services currently provided and in the same locations. *FF10*. HoCC will continue to perform urgent and emergent laboratory services as well as drawings for

[2] Price includes Quest's purchase of additional Hartford HealthCare-owned BCFs.

outpatients, ED patients, and patients requiring sampling for scheduled surgical services. It will not terminate or transfer any services currently offered at the hospital. *FF6,7.*

In addition to the five BCFs that are the subject of this proposal, Quest also owns and operates seven other BCFs in the Hospital's primary service area. *FF16.* Physicians can electronically submit requisition orders to Quest's electronic medical records system, which can be accessed and completed by any Quest BCF at which a patient presents—be it one of the 12 in the PSA or elsewhere in the region. *FF15*. Patients will not need to bring written orders to a particular BCF. As Dr. Kabawat stated by way of illustration, "Because the order is now in our . . . laboratory information system, that order could be accessed anywhere in New England. So, even if a patient lives in New Britain but is . . . somewhere in Southern Connecticut, they can go to any [Quest patient service center] and ask for blood to be drawn."[3] Similarly, HoCC patients with limited transportation options may have access to more conveniently located BCF options that are electronically connected to HoCC physicians. For the above reasons, access will be maintained and potentially improved for patients.

The BCFs will continue to be subject to the same Department of Public Health quality review[4] under Quest's ownership as they have been under the Applicant's. Dr. Kabawat confirmed that all of Quest's BCFs are inspected by DPH.[5] Consequently, OHCA expects that the quality of blood drawing and specimen collection at the BCFs will be maintained.

Quest also has, according to Dr. Kabawat, its own internal quality control procedures measuring performance at its BCFs including patient wait time, satisfaction and any errors that occurred.[6] Hartford HealthCare has also implemented quarterly Steering Committee meetings, during which the Hospital's pathologists may directly communicate to Quest's medical leadership any concerns or insights that may arise regarding Quest's operation of the BCFs. *FF14.*

The quality of laboratory testing of samples drawn from the BCFs is also unlikely to be affected. According to Intervenor Dr. Sanchez, the Applicant is currently sending Quest its routine outreach work and "there is absolutely no difference in the quality of the work that's being performed."[7]

The diversity of providers in the area will, however, be impacted. There are currently 14 BCFs in the Applicant's primary service area, seven of which are Quest owned. Starling Physicians, a multi-specialty group offering lab services, owns five; Mercy Diagnostics owns one; and UConn Health also owns one. *FF16.*The Applicant terminating its ownership will inevitably reduce the diversity of providers in the area. However, there are at least seven other BCF locations that are owned by entities other than Quest in the primary service area. *FF16.*

Medicaid payers currently comprise 27% of the Applicant's patients. *FF22.* Quest is enrolled in and a participating service provider in Connecticut's Medicaid program and there is no expected change to the payer mix. *FF20.*

---

[3] Ex. BB, Transcript, Kabawat, p. 58.
[4] *See* CONN. AGENCIES REGS. §§ 19a-36A-47 through 36A-49.
[5] Ex. BB, Transcript, Kabawat, p. 43.
[6] Ex. BB, Transcript, Kabawat, pp. 46-47.
[7] Ex. BB, Transcript, Sanchez, p. 23.

Quest has a charity care policy in place that qualifies patients for discounts based on their income compared to federal poverty level guidelines and patients may submit an application for billing relief. Therefore, there will be no reduction in services to Medicaid recipients or indigent persons. *FF19.*

Furthermore, the Applicant has satisfactorily identified the patient population it serves and shown there is unlikely to be any impact on it as a result of the proposal. Since there are no new BCFs or services being proposed, the utilization of existing facilities in the area will not be affected and there will be no duplication of services. The Applicant will incur no cost or expenditure and has shown it is financially feasible.

Although the diversity of providers in an area is inevitably negatively impacted by a termination, this proposal will maintain access with no anticipated impact on the cost to consumers, including those who are indigent or covered by Medicaid.

Order

Based upon the foregoing Findings and Discussion and the associated Certificate of Need application, the Hospital of Central Connecticut's request to authorization the termination of five outpatient blood drawing locations is hereby APPROVED.

All of the foregoing constitutes the final order of the Office of Health Care Access in this matter.

By Order of the
Department of Public Health
Office of Health Care Access

9/28/2017
Date

Yvonne T. Addo, MBA
Deputy Commissioner

Olejarz, Barbara

From: Olejarz, Barbara
Sent: Thursday, September 28, 2017 12:06 PM
To: Foreman, Rebecca
Cc: Hansted, Kevin; Martone, Kim
Subject: final decision
Attachments: 32170 decision.pdf

Tracking:

Recipient	Delivery	Read
Foreman, Rebecca	Delivered: 9/28/2017 12:07 PM	
Hansted, Kevin	Delivered: 9/28/2017 12:07 PM	
Martone, Kim	Delivered: 9/28/2017 12:07 PM	Read: 9/28/2017 12:44 PM

9/28/17

Hi Rebecca,

Attached is the final decision for Deputy Commissioner Addo's signature. Deputy Commissioner Addo's requested corrections have been made.

Thank you

Barbara K. Olejarz
Administrative Assistant to Kimberly Martone
Office of Health Care Access
Department of Public Health
Phone: (860) 418-7005
Email: Barbara.Olejarz@ct.gov

Olejarz, Barbara

From: Durdy, Barbara <Barbara.Durdy@hhchealth.org>
Sent: Thursday, September 28, 2017 1:07 PM
To: Olejarz, Barbara
Cc: vcarannante@goodwin.com; pathgrunt@gmail.com
Subject: Re: Final Decision

Thank you Barbara

Sent from my iPhone

On Sep 28, 2017, at 1:05 PM, Olejarz, Barbara <Barbara.Olejarz@ct.gov> wrote:

> 9/28/17
>
> Barbara Durdy and Vincenzo Carannante,
>
> Please see attached final decision for the Hospital of Central Connecticut for the termination of five blood collection facilities under Docket Number 17-32170-CON
>
> Barbara K. Olejarz
> Administrative Assistant to Kimberly Martone
> Office of Health Care Access
> Department of Public Health
> Phone: (860) 418-7005
> Email: Barbara.Olejarz@ct.gov
> <image002.png><image004.jpg>
>
> *Reminder: This e-mail and any attachments are subject to the current HHC email retention policies. Please save or store appropriately in accordance with policy.*
>
> <32170 decision.pdf>

Olejarz, Barbara

From: Carannante, Vincenzo <VCarannante@goodwin.com>
To: Olejarz, Barbara
Sent: Thursday, September 28, 2017 1:06 PM
Subject: Read: Final Decision

Your message

To:
Subject: Final Decision
Sent: Thursday, September 28, 2017 1:06:15 PM (UTC-05:00) Eastern Time (US & Canada)

was read on Thursday, September 28, 2017 1:06:09 PM (UTC-05:00) Eastern Time (US & Canada).

User, OHCA

From: Schaeffer-Helmecki, Jessica
Sent: Friday, September 29, 2017 10:24 AM
To: User, OHCA; Olejarz, Barbara
Subject: FW: CON Final Decision

Barbara—would you please add the below email from the intervenor in 17-32170 to the record?

From: Harry Sanchez [mailto:pathgrunt@gmail.com]
Sent: Thursday, September 28, 2017 1:33 PM
To: Schaeffer-Helmecki, Jessica <Jessica.Schaeffer-Helmecki@ct.gov>
Subject: CON Final Decision

Jessica,

Thank you so much for all of your time and consideration during the CON process. Although I am disappointed with the ultimate findings, I believe that you and your colleagues did a fair job in reviewing the submitted facts and listening to our concerns.

Please thank your colleagues for me.

Sincerely,
Harry Sanchez

Olejarz, Barbara

From: Schaeffer-Helmecki, Jessica
Sent: Friday, September 29, 2017 10:25 AM
To: Olejarz, Barbara; User, OHCA
Subject: FW: Final Decision
Attachments: 32170 decision.pdf

Barbara,

Would you please also add this to the 32170 record, as well?

From: Carannante, Vincenzo [mailto:VCarannante@goodwin.com]
Sent: Thursday, September 28, 2017 1:33 PM
To: Schaeffer-Helmecki, Jessica <Jessica.Schaeffer-Helmecki@ct.gov>
Subject: FW: Final Decision

Hello Jessica: I just wanted to say thank you for all your efforts in getting this decision out.
Again, much appreciated. Vin

Shipman & Goodwin LLP
COUNSELORS AT LAW

Vincenzo Carannante
Partner
One Constitution Plaza
Hartford, CT 06103-1919

Tel (860) 251-5096
Fax (860) 251-5211
vcarannante@goodwin.com
www.shipmangoodwin.com

From: Olejarz, Barbara [mailto:Barbara.Olejarz@ct.gov]
Sent: Thursday, September 28, 2017 1:05 PM
To: Carannante, Vincenzo <VCarannante@goodwin.com>; Barbara Durdy <Barbara.Durdy@hhchealth.org>
Cc: pathgrunt@gmail.com
Subject: Final Decision

9/28/17

Barbara Durdy and Vincenzo Carannante,

Please see attached final decision for the Hospital of Central Connecticut for the termination of five blood collection facilities under Docket Number 17-32170-CON

Barbara K. Olejarz
Administrative Assistant to Kimberly Martone
Office of Health Care Access
Department of Public Health
Phone: (860) 418-7005
Email: Barbara.Olejarz@ct.gov