Connecticut Department
of Public Health

Statewide Health Care Facilities and Services Plan

2014 Supplement

Suggested Citation
Connecticut Department of Public Health. 2014. *Statewide Health Care Facilities and Services Plan—2014 Supplement.* Hartford, CT: Connecticut Department of Public Health.

STATEWIDE HEALTH CARE FACILITIES AND SERVICES PLAN

2014 SUPPLEMENT

Connecticut Department of Public Health
410 Capitol Avenue
Hartford, Connecticut 06106

February, 2015

CONNECTICUT DEPARTMENT OF PUBLIC HEALTH

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ACKNOWLEDGEMENTS

The *Statewide Health Care Facilities and Services Plan 2014 Supplement* was developed under the direction of Kimberly Martone, Office of Health Care Access Director of Operations.

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We also acknowledge the assistance of the following DPH staff members, who provided input, feedback or information used in the Plan's development:

Ron Ciesones
Paolo Fiducia
Leslie Greer
Kevin Hansted
Margaret Hynes
Steven Lazarus
Barbara Olejarz
Jessica Schaeffer-Helmecki
Kristin Sullivan

We also gratefully acknowledge the contributions of our consultant,

Health Resources in Action
Boston, MA

for facilitating and coordinating the activities of the Plan's Advisory Body and Subcommittees, and for assisting in developing and compiling this Plan, in cooperation with DPH.

LETTER FROM THE COMMISSIONER

Dear Friends of Public Health,

I am pleased to present to you the *Statewide Health Care Facilities and Services Plan 2014 Supplement*. This document aims to align with *Healthy Connecticut 2020* by focusing on implications of the health care environment and availability of and access to health care facilities and services for at-risk and vulnerable populations.

The supplemental plan builds upon the 2012 Plan by updating previous information and discussing how the health care environment has changed in the past two years with the implementation of the Patient Protection and Affordable Care Act. It provides an updated analysis of inpatient bed need, an equitable measure to determine how the state's inpatient acute care hospital beds are distributed and is helpful in identifying areas with unmet need.

The supplemental plan considers multiple determinants of health when examining unmet health care need. This planning effort uses hospital community health needs assessments (CHNAs) to identify geographic areas and population subgroups with potential unmet health care need and, using indices developed from outcomes and health status data, provides a standard for assessing need. Additionally, it presents an overview of current initiatives addressing prevention, reducing health inequities, improving access to primary care and enhancing care coordination.

I thank the many individuals and organizations that participated in this planning process. I encourage you to integrate this document into your organization's or community's ongoing planning activities to improve the health of all Connecticut residents.

Sincerely,

Jewel Mullen, MD, MPH, MPA
Commissioner

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Statewide Health Care Facilities and Services Plan 2014 Supplement

EXECUTIVE SUMMARY

OVERVIEW

The Department of Public Health (DPH) Office of Health Care Access' (OHCA) planning and regulatory activities are intended to increase accessibility, continuity and quality of health services; prevent unnecessary duplication of health resources and provide financial stability and cost containment of health care services. Section 19a-634 of the Connecticut General Statutes (CGS) charges OHCA with the responsibility of developing and maintaining a *Statewide Health Care Facilities and Services Plan (the Plan)*, along with establishing and maintaining an inventory of all Connecticut health care facilities and services and conducting a biennial utilization study.

The supplemental plan, like the 2012 Statewide Health Care Facilities and Services Plan, is intended to be a resource for policymakers and those involved in the CON process. It presents information, policies and projections of need to guide planning for specific health care facilities and services. The primary focus of this supplement is to identify at-risk and vulnerable populations and to uncover areas of unmet health care need. It provides an updated analysis of inpatient bed need, an equitable measure to determine how the state's inpatient acute care hospital beds are distributed and is helpful in identifying areas with unmet need.

The Plan incorporates available health care facilities and services utilization, outcomes and health status data and community health needs assessments (CHNAs) to identify geographic areas and population subgroups with potential unmet health care need. These data serve as a foundation for projecting future health care needs.

KEY ISSUES

The Plan identifies key issues surrounding the delivery of health care in Connecticut:

- Connecticut's health care system landscape continues to transform under the Patient Protection and Affordable Care Act (PPACA). The transformation can be seen in the regulatory arena via Certificate of Need (CON) applications received by OHCA, as providers focus on creating new models of care that bring higher quality at a lower cost, thus delivering greater value in health care.

- Increasingly, Connecticut's hospitals are applying for regulatory approval to become members of larger umbrella corporate health care systems. These affiliations or mergers may be attributed to several factors, including the economic downturn, health care market competition, PPACA requirements and the need to achieve efficiencies in health care administration and delivery.

- Some Connecticut hospitals are pursuing strategies to remain financially viable and independent of large health care systems through the creation of alliances. These alliances seek to enhance purchasing power to extend the economies of scale enjoyed by larger systems and to share best practices and strategies to adapt to the evolving health care environment.

- Based on acute care bed need projections for 2020, Connecticut has an adequate supply of acute care inpatient beds statewide.

- In 2013, the largest proportion of emergency department (ED) visits was among patients with Medicaid (38%).

- From 2009 to 2013, there were almost 8 million visits made to an ED in Connecticut by state residents. Of these visits, one million were for psychiatric, drug or alcohol-related mental disorders

- Of the children visiting the ED for issues relating to behavioral health, nine out of ten were treated for a psychiatric-related disorder.

- The growth of urgent care settings has contributed to some concern that this type of care setting may contribute to fragmentation of care, inadequate follow-up and preventive care, and misdiagnoses, particularly for clinics that are not affiliated with a health care system.

- While Connecticut has an overall favorable health profile compared to the rest of the U.S., the health of Connecticut's residents is not equally distributed across population groups or geographic regions.

- In general, at-risk and vulnerable populations have a higher prevalence of chronic disease than the overall population.

- The Socioeconomic Status Index identifies 20 Connecticut towns as at-risk for unmet health care need.

- Black non-Hispanics and Hispanics were more likely than White non-Hispanics to have a potentially preventable hospitalization, avoidable ED visit or to visit the ED more than ten times within a year.

- One hundred forty Connecticut towns have better health outcomes than the state. Twenty-three of the remaining twenty-nine were urban core or urban periphery towns.

- Nearly all the CHNAs identified chronic disease, overweight, obesity, nutrition and physical activity as overlapping and major health issues regardless of socioeconomic status.

- More than one-half of the assessments identified substance abuse and mental health care as priority health needs in the community.

- A reconvened ED focus group identified the need for the coordination of mental health and substance abuse care.

RECOMMENDATIONS

Recommendations are intended to build upon the efforts and discussions conducted during the initial 2011-2012 planning process and reflect additional discussions held during the planning process for the 2014 supplemental plan.

Behavioral Health

1) Determine the resources available and options and approaches for further exploration of ways that Connecticut's behavioral health service delivery system can be measured to determine capacity as it relates to need and access to care;
2) Develop further understanding of recovery supports and how they relate to the overall care for behavioral health clients across all age groups;
3) Determine the feasibility of and resources available for a future inventory of distinct service levels as opposed to broad categorization of facilities using behavioral health licensure categories;
4) Provide more focus in future plans which specifically discuss the coordination, interrelation, provision or co-location of mental health, primary care and/or oral health services within the various settings and how such interrelationship will benefit the behavioral health patient population.

Acute Care/Ambulatory Surgery

5) Investigate the development of planning regions that best facilitate the ability to assess the availability of and future demand for care, taking into consideration existing hospital service areas;
6) Research, investigate and quantify the use of observation stays in Connecticut hospitals and determine how these data can be standardized in a way that would allow them to be incorporated in the acute care bed need model;
7) With respect to ambulatory surgery standards and guidelines, discuss and consider including backlogs in the service area, ability of physicians to schedule block times, patient throughput at other facilities, the quality of care at other facilities as additional factors for consideration in the next Plan, if such data is available to OHCA to verify and analyze.

Primary Care

8) The DPH Primary Care Office will collect and report real-time health workforce data and will support the analyses necessary to interpret this data to estimate both current and future health workforce needs;[1]
9) Utilize data from Behavioral Risk Factor Surveillance System and/or other surveys which have large enough samples so that results for questions related to health care access may be used for town, city or county level assessment and solutions;
10) Consider assessing/evaluating primary care provided by hospital-affiliated entities (e.g., urgent care centers) and determine if beneficial to patients;

11) Provide additional Plan focus on the provision of mental health and oral health services in primary care settings and assess the interrelation of these services with primary care.
12) Align OHCA planning efforts with SIM Grant activities (e.g., physician data collection, goals and objectives, etc.) and other relevant State planning efforts.

NEXT STEPS

As providers continue to assess their organizations, service array and delivery structures, OHCA's planning efforts will focus on the evolving health care system and available data to determine how best to meet the unmet need of residents in ways that benefit the community and assist providers in transforming to meet those needs. Future OHCA planning activities will include:

- Analyzing health care service specific data by health care systems, utilization and physician referral patterns to determine if there could be logical regionalization of certain services;
- Evaluating patient data and provider revenue patterns to identify shifts in demand for inpatient to outpatient services and between types of services for geographic regions;
- Identifying modalities through which the state may direct and/or assist providers to be more responsive to health care needs of communities;
- Analyzing all payer claims data to identify availability of and access to health care services, utilization patterns and the impact of expanded health insurance coverage through the PPACA.
- Monitoring the various settings where health care is now being delivered as additional data sources become available to OHCA.
- Reviewing CON statutes and regulations to ensure they are responsive to the evolving health care environment and make recommendations to better align the process with health care reform.
- Providing consumers with access to all available data.

Additionally, as more information becomes available to OHCA, the next plan will attempt to:

- Address the impact that technology may have on the demand, capacity or need for health care services;
- Facilitate communication between appropriate state agencies concerning innovations or changes that may affect future health planning.

DATA AVAILABILITY AND CHALLENGES

- Data-related challenges and gaps are important considerations when planning for appropriate allocation of health care facilities and services. The success of such planning is dependent upon the availability of comprehensive data spanning numerous service delivery settings. Discussion of data gaps and efforts to resolve them will help to build the foundation for better planning and greater understanding of the evolving health care system.

INTRODUCTION

LEGAL MANDATE AND PURPOSE

Section 19a-634 of the Connecticut General Statutes (see Appendix A) requires the Department of Public Health (DPH) Office of Health Care Access (OHCA) to conduct an annual statewide health care facility utilization study, establish and maintain an inventory of all Connecticut health care facilities, and services and certain equipment and to develop and maintain a Statewide Health Care Facilities and Services Plan. The Plan is intended to be a blueprint for health care delivery in Connecticut, serving as a resource guide for planning for specific health care facilities and services. In 2012, OHCA issued its first Statewide Health Care Facilities and Services Plan (Plan). This publication is a supplement to the 2012 Plan. It includes an updated discussion of the current health care environment in Connecticut and adds a "population health" and "health equity" perspective, focusing on those who have experienced social or economic disadvantages. While the 2012 Plan focused on standards, guidelines and methodologies, which will be codified into regulation for use in the Certificate of Need (CON) review process, this Plan focuses on the unmet health care need of vulnerable and at-risk populations and the alignment of public health and health care initiatives that aim to address these needs. The 2014 planning process also involved updating the 2012 inventory of health care facilities, services and equipment, available at http://www.ct.gov/dph/cwp/view.asp?a=3902&q=557564.

RELATIONSHIP TO THE CONNECTICUT STATE HEALTH ASSESSMENT AND IMPROVEMENT PLAN

Section 19a-7 of the Connecticut General Statutes (see Appendix B) establishes DPH as the "lead agency for public health planning," and charges the department with "assist[ing] communities in the development of collaborative health planning activities which address public health issues on a regional basis or which respond to public health needs having state-wide significance." DPH is required to prepare a multiyear assessment of the health of Connecticut's population and the availability of health facilities and a plan that includes: (1) policy recommendations regarding allocation of resources; (2) public health priorities; (3) quantitative goals and objectives with respect to the appropriate supply, distribution and organization of public health resources; and (4) evaluation of the implications of new technology for the organization, delivery and equitable distribution of services.

Healthy Connecticut 2020, available at http://www.ct.gov/dph/hct2020, includes the State Health Assessment (SHA) and the State Health Improvement Plan (SHIP), which were developed in 2013-2014 to identify priority public health needs and facilitate public health planning for residents of Connecticut.

Key findings from the SHA include:

- Chronic diseases and injuries are the leading causes of premature death and morbidity;
- Racial/ethnic minority groups suffer from many conditions at disproportionately higher rates;
- Specific age groups such as youth/young adults and older adults are more at risk for certain conditions;
- Unhealthy behaviors such as binge drinking and prescription drug misuse have increased over the last decade; and
- HIV, smoking and teen pregnancy rates have declined over the last decade.

The SHIP provides an integrating framework for agencies, coalitions, individuals and groups to use in leveraging resources, coordinating and aligning efforts at the community and state levels and sharing data and best practices to improve the health of the citizens of Connecticut in a focused and purposeful way. *Healthy Connecticut 2020* was shaped by the national framework of "Healthy People 2020" initiative, particularly in targeted health-related outcomes for 2020 and the evidence-based and informed strategies that can be implemented to reach these targets.

The 2014 Statewide Health Care Facilities and Services Plan aims to align with *Healthy Connecticut 2020* by taking a population health approach to how access and services within the health care system affect a community's health, particularly among vulnerable and at-risk populations. *Healthy Connecticut 2020* provides the overarching frame for discussion of the intersection of public health and health care and how change within the health care system can help achieve the triple aim of improving the individual experience of care, improving the health of populations and reducing the per capita costs of care for populations.

GUIDING FRAMEWORKS: POPULATION HEALTH AND HEALTH EQUITY

The Plan's "population health" approach examines the health of a group of individuals and variations in the patterning of health outcomes within and across groups.[2] In considering the health of populations, it is critical to understand the determinants of these health patterns, variations in the patterning of these factors across and within groups and over the life course and why some populations have better health outcomes than others.[3] This framework considers the influence of multiple determinants of health outcomes. These determinants include the social, physical, economic and political context in which persons and groups live, work and age; access to and quality of health care; individual behaviors and the complex relationship between these factors.[4]

Health--and opportunities to promote health--are not equally distributed across populations or across the life course. Racial or ethnic minorities, low-income populations, residents of urban or rural regions, homeless persons, persons with disabilities, veterans and sexual minorities may experience barriers to the opportunities to live a healthy life.[5] The social, physical and economic environments in which Connecticut's residents are embedded often influence access to resources such as money, knowledge, power, social relationships and health-promoting advancements.[6] The relationships between race, ethnicity, geography and socioeconomic status are often interconnected.[7] It is important to consider the complex relationships between these factors and their impact on the determinants of health patterns of at-risk populations.

In this report, health and health care patterns are presented for Connecticut and for particular population groups. An examination of these patterns is important for facilities and services planning and for developing data-driven, evidence-based approaches used to formulate equitable public health policies and programs.

The 2012 Plan identified the following key issues pertaining to the delivery of health care in Connecticut:

- Major changes to Connecticut's health care system to improve health care efficiency, integration and quality in response to the 2010 Patient Protection and Affordable Care Act (PPACA);

- A need to continue to assess whether the clinician mix, size and distribution of the health care workforce meets the demand across the State following changes to Connecticut's health care system under the PPACA;
- A need to investigate whether there are unmet bed needs in particular regions of the State and an adequate supply of inpatient beds in the aggregate;
- A need to determine whether care is coordinated effectively between EDs and community-based behavioral health services as behavioral health needs are increasingly being treated in EDs due to a limited access to these services;
- A growing number of hospitals acquiring imaging equipment from free-standing imaging centers; and
- A shift in behavioral health care to focus on treatment, recovery assistance and resilience enabling:
    a) the provision of some behavioral health services by primary care providers and some primary care services by behavioral health providers; and
    b) an assessment of the demand for primary care services following changes from the PPACA, which are expected to increase demand for primary care.

In response to these findings, the Advisory Body, subcommittees and reviewers of the 2012 Plan provided numerous recommendations focusing on developing more robust data systems, evaluating health care capacity in the state around emergency services and behavioral health, examining health care access at a more local geographic area and enhancing outpatient behavioral health services and coordination of care. A discussion of the full list of recommendations from the 2012 plan can be found at http://www.ct.gov/dph/lib/dph/ohca/hc_facilities_advisory_body/ohcastatewide_facilities_and_services_chapter_10next_steps-recommendations.pdf.

The goal of the 2014 Plan supplement is to build on the 2012 plan by updating information when appropriate, discussing how the health care environment has changed in the past two years and revisiting and developing recommendations for the future. Moving forward, OHCA will develop supplemental updates every two years.

ADVISORY BODY AND STRUCTURE

Since the 2012 Plan was published, the Advisory Body and subcommittees have engaged in discussions on the drafting of CON standards and regulations. During that time, the Behavioral Health and Primary Care subcommittees also worked to develop action plans for implementing the 2012 Facilities Plan recommendations.

In December 2013, the Advisory Body met to discuss the methodology and approach for the 2014 Plan. Members provided feedback and guidance on steps to move forward. An additional meeting was held in July 2014 to discuss preliminary findings of the Plan and elicit feedback. A focus group was held in August 2014 with representatives involved in the 2012 Plan to discuss the relationship between emergency department utilization and the limited availability of mental health and substance abuse treatment.

In addition, each subcommittee (Acute Care/Ambulatory Surgery, Behavioral Health and Primary Care) met in a virtual manner from June to September 2014 to discuss the development of future recommendations. These meetings were facilitated by Health Resources in Action (HRiA), a non-profit

public health organization and consultant for the 2014 Plan.

The Advisory Body have provided OHCA with valuable insight about the operation and delivery of health care facilities and services and assisted in addressing a number of complex issues, including the unmet health need of vulnerable and at-risk populations. Advisory Body and subcommittee participants can be found in Appendix C.

1

Current Health Care Environment

- Mergers and Acquisitions
- Insurance Coverage
- Current Initiatives
- Recent Legislation

CHAPTER 1. CURRENT HEALTH CARE ENVIRONMENT

With the 2010 passage of the Patient Protection and Affordable Care Act, health care providers must now deliver more effective care while being held accountable for patient outcomes. In response to health care reform mandates and other forces, Connecticut's health care system landscape continues to transform. The transformation can be seen in the regulatory arena via Certificate of Need (CON) applications received by OHCA, as providers focus on creating new models of care that bring higher quality at a lower cost, thus delivering greater value in health care.

OHCA, which administers the CON Program in accordance with Sections 19a-638 (see Appendix D) and 19a-639 (see Appendix E) of the Connecticut General Statutes, has recently seen considerable activity among health care providers it regulates in anticipation of or in response to health care reform mandates. Change in ownership, termination of service, merger of general hospitals and for-profit conversion applications received by OHCA in the past two years have specifically mentioned the PPACA as a reason, in part, for the proposed action. For example, recent CON applications have cited the need to consolidate and remove excess costs to keep pace with decreasing reimbursements; emphasized the importance of reducing fragmentation, collaborative care and patient centered medical homes and stressed the need to comply with federal "meaningful use" requirements and adopt technology that promotes coordinated care as reasons for applying for such CONs.

Table 1 below notes the type and number of applications received over the past two years.

Table 1. Certificate of Need Applications, Connecticut, 2012 and 2013

CON Type	Number of CON Applications 2012	Number of CON Applications 2013
Change in ownership	4	7
Medical equipment (e.g., MRI, CT, PET-CT, CT simulator)	10	6
Termination of services	6	5
New facilities (e.g., behavioral health, outpatient surgical facilities)	2	4
Cardiac Services – elective angioplasty	4	0
Behavioral health – new outpatient services	4	4
486 joint venture (profit/non-profit)	1	2
Affiliation of general hospital with a health care system	1	1
Relocation of services	0	1
Merger of two general hospitals	0	1
Additional acute care beds	1	0

Source: Connecticut Department of Public Health. *Summary of Application Received by OHCA in Calendar Year 2012, 2013*. Office of Health Care Access, Connecticut Department of Public Health.

MERGERS AND ACQUISITIONS

Increasingly, Connecticut's hospitals are applying for regulatory approval to become members of larger umbrella corporate health care systems, and in some cases, out-of-state hospital systems.[8] **Table 2** identifies the parent corporations for those Connecticut hospitals that are, at the time of publication, affiliated with other hospitals and **Table 3** identifies the parent corporations of those health systems that do not include more than one hospital. Although corporate systems that hold hospitals as well as other medical and non-medical entities dates back to before the managed care trends in the 1990s, there has been a significant increase in affiliations between hospitals under the same umbrella organization. These affiliations or mergers may be attributed to several factors, including the economic downturn that began in 2008, health care market competition, anticipation of health systems changes under the PPACA, payer contract negotiations and improving efficiencies in health care administration and delivery.[9]

To illustrate this trend, in the past year alone the following has occurred: in December 2013, OHCA authorized a Certificate of Need (CON) for the affiliation of Norwalk Health Service Corporation, the parent corporation of Norwalk Hospital, and Western Connecticut Health Network, Inc. (the parent corporation of Danbury Hospital and New Milford Hospital, Inc.). On January 1, 2014, these parties became formally affiliated and Norwalk Hospital now operates within the Western Connecticut Health Network system. In June 2014, a CON was issued to New Milford Hospital Inc., Danbury Hospital, and Western Connecticut Health Network, Inc., approving a consolidation of the operations of Danbury Hospital and New Milford Hospital under a single general hospital license. With this licensure change on October 1, 2014, this combined hospital now operates with one license and two hospital campuses, similar to the change that occurred in September 2012 when Yale acquired the Hospital of Saint Raphael.

In contrast, some Connecticut hospitals are pursuing strategies to remain financially viable and independent of large health care systems. In September 2014, five Connecticut health care systems announced the formation of the "Value Care Alliance."[10] The hospitals that are part of these systems include Danbury Hospital, Griffin Hospital, Lawrence + Memorial Hospital, Middlesex Hospital, Norwalk Hospital and St. Vincent's Medical Center. The alliance was formed to extend the economies of scale enjoyed by large health care systems, while preserving and supporting each hospital's independence. The benefits sought include enhanced purchasing power in a tight financial environment, the sharing of best practices and strategies to adapt to the evolving health care environment.

Table 2. Hospitals and Parent Companies for Affiliated Hospitals, Connecticut, FY 2013

CORPORATE AFFILIATIONS BETWEEN HOSPITALS (Affiliated Hospitals) (ordered by higher level parent name)			
Hospital (Full Legal Name)	**Parent Corporation (Full Legal Name)**	**Higher Level Parent Corporation (Full Legal Name)**	**Other acute care hospitals currently under the same parent corporation**
St. Vincent's Medical Center	St. Vincent's Health Services Corporation	Ascension Health, Inc.	Multiple hospitals across the U.S. under larger parent, Ascension Health Alliance. No others within Connecticut.
Manchester Memorial Hospital	Eastern Connecticut Health Network, Inc. (ECHN)	N/A	Manchester Memorial Hospital Rockville General Hospital
Rockville General Hospital		N/A	
Essent Healthcare of Connecticut, Inc. d/b/a Sharon Hospital	Sharon Hospital Holding Company	Essent HealthCare, Inc.	Multiple across the U.S. under larger parent, RegionalCare Hospital Partners, Inc. No others within Connecticut
Hartford Hospital	Hartford Healthcare Corporation	N/A	Hartford Hospital Hospital of Central Connecticut MidState Medical Center William W. Backus Hospital Windham Community Memorial Hospital
MidState Medical Center	Hartford Healthcare Corporation	N/A	
Hospital of Central Connecticut	Central Connecticut Health Alliance, Inc.	Hartford Healthcare Corporation	
William W. Backus Hospital	Backus Corporation	Hartford Healthcare Corporation	
Windham Community Memorial Hospital, Inc.	Hartford Healthcare Corporation	N/A	
Lawrence+Memorial Hospital, Inc.	Lawrence + Memorial Corporation	N/A	LMW Healthcare, Inc. d/b/a Westerly Hospital (in Westerly, RI)

Danbury Hospital,[a] The	Western Connecticut Health Network, Inc.	N/A	Danbury Hospital Norwalk Hospital
Norwalk Hospital Association, The	Norwalk Health Services Corporation	Western Connecticut Health Network, Inc.	
Bridgeport Hospital	Yale-New Haven Network Corporation, Inc.[b]	N/A	Bridgeport Hospital Greenwich Hospital Yale-New Haven Hospital
Greenwich Hospital	Greenwich Healthcare Services, Inc.	Yale-New Haven Health Services Corporation	
Yale-New Haven Hospital	Yale-New Haven Health Services Corporation[c]	N/A	

[a] On October 1, 2014, Danbury and New Milford Hospitals began operating under a single license.
[b] On May 15, 2014, the former parent corporation of Bridgeport Hospital, called Bridgeport Hospital & Healthcare Services, Inc., merged into Bridgeport Hospital. The Hospital is now a direct subsidiary of the larger parent corporation, Yale-New Haven Health Services Corporation.
[c] On May 15, 2014, the former parent corporation of Yale-New Haven Hospital, called YNH Network Corporation, merged into Yale-New Haven Hospital. The Hospital is now a direct subsidiary of the larger parent corporation, Yale-New Haven Health Services Corporation.

Information current though publication of FY 2013 Financial Stability Report

Table 3. Hospitals and Parent Companies for Non-Affiliated Hospitals, Connecticut, FY 2013

HEALTH SYSTEMS THAT DO NOT INCLUDE MORE THAN ONE HOSPITAL (Non Affiliated Hospitals) (ordered by higher level parent name)				
Hospital (Full Legal Name)	**Parent Corporation (Full Legal Name)**	**Higher Level Parent Corporation (Full Legal Name)**	**Other acute care hospitals currently under the same parent corporation**	**Town Hospital Service Area**
Bristol Hospital, Inc.	Bristol Hospital & Healthcare Group	N/A	N/A	Bristol, Plymouth, Plainville
Charlotte Hungerford Hospital	N/A	N/A	N/A	Litchfield, Torrington, Winchester
Day Kimball Healthcare, Inc. d/b/a Day Kimball Hospital	Day Kimball Healthcare, Inc.	N/A	N/A	Killingly, Putnam, Plainfield, Brooklyn, Thompson
Connecticut Children's Medical Center	CCMC Corporation, Inc.	N/A	N/A	Avon, Bloomfield, Bristol, Canton, Colchester, Danbury, East Hartford, Enfield, Farmington, Glastonbury, Hartford, Manchester, Meriden, Middletown, Naugatuck, New Britain, Newington, Norwich, Plainfield, Plainville, Rocky Hill, Simsbury, South Windsor, Southington, Tolland, Torrington, Vernon, Waterbury, West Hartford, Wethersfield, Windham, Windsor
Waterbury Hospital	Greater Waterbury Health Network, Inc.	N/A	N/A	Waterbury, Naugatuck, Watertown, Southbury, Wolcott
Griffin Hospital	Griffin Health Services Corporation	N/A	N/A	Shelton, Ansonia, Seymour, Derby, Oxford, Naugatuck
Johnson Memorial Medical Center	Johnson Memorial Medical Center, Inc.	N/A	N/A	Enfield, Stafford+Union, Somers, Suffield
Middlesex Hospital	Middlesex Health System, Inc.	N/A	N/A	Middletown, Cromwell, East Hampton, Old Saybrook, Portland, Clinton, Haddam, East Haddam, Colchester, Westbrook, Essex, Durham, Chester, Old Lyme+Lyme
Milford Hospital	Milford Health & Medical, Inc.	N/A	N/A	Milford, West Haven, Orange

St. Francis Hospital and Medical Center	Saint Francis Care, Inc.	N/A	N/A	Hartford, East Hartford, West Hartford, Bloomfield, Enfield, Manchester, Windsor, South Windsor, Windsor Locks, Vernon, Wethersfield, Glastonbury, Simsbury, Bristol, Newington, Rocky Hill, Suffield, New Britain, East Windsor
St. Mary's Hospital	Saint Mary's Health System, Inc.	N/A	N/A	Waterbury, Naugatuck, Wolcott, Watertown
Stamford Hospital	Stamford Health System	N/A	N/A	Stamford, Norwalk
John Dempsey Hospital	University of Connecticut Health Center	N/A	N/A	Farmington, West Hartford, New Britain, Hartford, Bristol, Avon, Simsbury, Canton, East Hartford, Newington, Bloomfield, Plainville, Southington, Manchester, Torrington, Rocky Hill

INSURANCE COVERAGE

Connecticut is one of 28 states that expanded Medicaid coverage to childless adults through an option within the Affordable Care Act. In 2010, the State launched Husky D, which transitioned very low income adults from State Administered General Assistance (SAGA) into Medicaid. In 2014, it further expanded coverage for childless adults by raising the income limit to 138 percent of FPL. In January 2014, an estimated 286,000 Connecticut residents were uninsured. According to Access Health CT (the quasi-public insurance marketplace) an estimated 147,000 residents remained uninsured in October 2014.[11]

Data available for this Plan does not reflect increases in Medicaid or commercial coverage resulting from the 2014 Medicaid expansion or Access Health CT open enrollment, which runs through February 15, 2015.

CURRENT INITIATIVES

Two key activities related to the current health care environment have emerged since the publication of the 2012 Plan. Both the State Innovation Model (SIM) Grant and the Round Table on Hospitals and Health Care have implications for the future of the state's health care delivery system.

State Innovation Model (SIM) Grant from the Center for Medicare and Medicaid Innovation

In 2013, Connecticut received a $2.8 million planning grant from the Center for Medicaid and Medicare Innovation (CMMI) to develop a health care innovation plan to achieve three goals: (1) improve the health of Connecticut's residents while reducing health inequities; (2) improve health care quality; and (3) slow the growth of health care costs in Connecticut. After engaging stakeholders across sectors in efforts to prioritize and evaluate health care innovation strategies, Connecticut's Program Management Office submitted a State Innovation Model (SIM) grant to the CMMI. This plan, known as the *CT Health Care Innovation Plan*, seeks to support the development of innovative strategies to improve health care and health care delivery by enhancing primary care and improving community health.[12] The Innovation Plan identified the following impediments to improving health and health care in Connecticut: access barriers, fragmented delivery, lack of transparency with respect to cost and performance and payment methods based on the quantity of health care services versus the quality of service.

The Innovation Plan proposes the development of a "whole-person-centered care" model that integrates a "social determinants of health" framework into strategies to improve medical, oral and behavioral health. This is achieved through three strategies: incorporating an advanced medical home model into primary care practice; improving community health by coordinating prevention strategies among community-based organizations, health care providers, consumers, and public health agencies; and empowering consumers by strengthening opportunities to solicit consumer feedback, incentivizing a positive health care experience and sharing health information with consumers to enable them to make informed health care decisions.

Connecticut was one of eleven states awarded State Innovation Model Test Grant funding in December 2014. Connecticut will receive up to $45 million to implement a number of initiatives designed to improve population health, strengthen primary care, promote value-based payment and insurance design, and obtain multi-payer alignment on quality, health equity and care experience measures. Connecticut's plan includes more than $6 million to measure and improve community health and health equity, address increasing rates of obesity and diabetes and strengthen primary care. The state also plans to implement a Medicaid Quality Improvement Shared Savings Program that will reward providers that invest in delivering better care (i.e., improved quality, equity and patient experience) for Medicaid beneficiaries.[13] Further information on this plan can be found at http://www.healthreform.ct.gov/.

Round Table on Hospitals and Health Care

In October 2014, the legislature announced the formation of a bi-partisan Round Table on Hospitals and Health Care, with the goal of monitoring the implementation of recent legislation, discussing the rapid changes in the market and developing policy recommendations to help ensure continued access to affordable quality care in Connecticut. Discussions focused on what is occurring in the current environment, especially as it relates to the consolidation of hospitals into large networks, the conversion of non-profit hospitals to for-profit entities and the purchase of medical practices by hospitals. Further information on the Round Table's activities can be found at http://www.cga.ct.gov/ph/taskforce.asp?TF=20141015_Bipartisan%20Roundtable%20on%20Hospitals%20and%20Healthcare.

RECENT LEGISLATION

Since publication of the 2012 Plan, several public acts related to Connecticut's health care system have been signed into law or implemented. This section provides a brief summary of relevant public acts passed or implemented in 2013 or 2014.

Certificate of Need (CON)

A recent law mandates greater regulatory oversight and strict new financial reporting requirements on the sale or conversion of non-profit hospitals. Public Act 14-168 bolsters existing laws that mandate the approval of the Attorney General and DPH Commissioner for the sale of a non-profit hospital or conversion of the non-profit hospital's legal status to a for-profit entity.[14] The law requires any new for-profit hospital to provide continued access to high quality affordable care and authorizes both the DPH and Attorney General to impose conditions upon any new hospital owner to guarantee those commitments. Furthermore, it requires that, prior to the CON application, a public hearing is held in the municipality where the hospital is located. The act also ensures greater oversight of large physician practice acquisitions by hospitals and other entities by requiring CON approval.

Under Connecticut General Statutes (Conn. Gen Stat.) § 19a-639, when reviewing Certificate of Need (CON) applications, OHCA must consider the implications of the proposed action on vulnerable populations. Under the act, OHCA must consider the current provision of services to Medicaid recipients and indigent populations and the implications of the requests in the CON application for these populations.[15]

In addition, OHCA is currently in the process of drafting CON regulations pertaining to the acquisition of imaging equipment, criteria for determining bed need, outpatient surgical facilities, and cardiac services.

Medical Foundations

Public Act 14-168, passed in the spring of 2014, allows for-profit hospitals and health systems to create or join a medical foundation, which was previously only available to non-profit entities.[16] The initial Medical Foundation law passed in 2009 allowed hospitals or health systems to create these types of legal entities in order to employ physicians or other practitioners directly. A medical foundation is a separate legal entity from the hospital or its parent corporation and is governed by its own board of directors, but operates under the same corporate umbrella as the hospital and health system.

There are currently 12 entities structured as medical foundations in the State:[17]

1. Alliance Medical Group, Inc. (part of Waterbury Hospital)
2. Bristol Hospital Multispecialty Group, Inc. (part of Bristol Hospital and Health Care Group, Inc.)
3. Community Medical Partners, Inc. (part of Backus Corporation)
4. Connecticut Geriatric Specialty Group, Inc. (part of Hebrew Health Care, Inc.)
5. Day Kimball Medical Group, Inc. (part of Day Kimball Healthcare, Inc.)
6. Eastern Connecticut Medical Professionals Foundation, Inc. (part of ECHN)
7. HHC PhysiciansCare, Inc. (part of Hartford HealthCare Corporation)
8. L&M Physician Association, Inc. (part of Lawrence & Memorial Corporation)
9. MHS Primary Care, Inc. (part of Middlesex Health System, Inc.)
10. Northeast Medical Group, Inc. (part of Yale-New Haven Health Services Corporation)
11. St. Vincent's Multispecialty Group, Inc. (part of Saint Vincent's Medical Center)
12. Western Connecticut Medical Group, Inc. (part of Western Connecticut Health Network, Inc.)

Physician Reimbursement and Intensive Case Management (ICM) for Medicaid Recipients

Several recently-passed acts affect the health care of and reimbursements for Medicaid recipients. PA 14-160 allows for emergency department (ED) physicians who meet particular requirements to enroll separately as a Medicaid provider and to become eligible for direct reimbursement for emergency services provided in the ED to the Medicaid recipient.[18] Further, PA 14-62 mandates intensive case management for Medicaid patients by identifying EDs where a large number of Medicaid patients frequent, creating ICM teams to work with ED physicians, and assessing and encouraging Medicaid patients to use primary care and behavioral health providers.[19]

Under PA 14-217, the Medicaid state plan is extended to provide coverage for behavioral health services to Medicaid recipients age 21 or older.[20] The Act also provides that acute care and children's hospitals will be reimbursed for care to Medicaid recipients based on diagnostic related groups.[21] Further, this act requires a Medicaid rate increase for private psychiatric residential treatment facilities.

Patient-Centered Medical Homes

Patient-centered medical homes (PCMHs) are medical bases where patients receive ongoing care from primary care physicians and where primary care physicians coordinate patient care.[22] The SHIP and SIM identify PCMHs as critical to improving the delivery and integration of health care. Medical homes are associated with improvements in health outcomes and health equity and with reductions in health care costs, which are attributed to the coordination and continuity of care.[23] Characteristics of PCMHs that may contribute to the reduction of health disparities include: developing an individualized care plan for each patient, tracking and coordinating care, ensuring language access throughout the health care experience, using multiple forms of communication between the primary care team and patient, creating medical homes for racial and ethnic minorities and measuring and improving health care performance.[24]

In 2011, the Medicaid PCMH was established and was informed by the Joint Commission and National Committee for Quality Assurance (NCQA) medical home models. In January 2012, Connecticut implemented a PCMH initiative as part of the HUSKY Health program, which has also expanded eligibility to persons with disabilities and low-income residents.[25] Under this model, practices and clinics that meet PCMH standards receive new payment incentives through Medicaid. Connecticut is also offering the Glide Path Program to support practices incrementally transitioning into PCMHs and becoming eligible for enhanced incentives.[26] The majority of federally qualified health centers in Connecticut participated in Glide and many are now recognized as PCMHs.

Through the SIM grant, and with support from Medicare, Medicaid, and commercial payers, Connecticut is implementing an initiative to support the transformation of primary care practices to advanced medical homes, with a goal of at least 90% of practices achieving advanced medical home status by 2020.

Behavioral Health Determinants and Services

As discussed in the SHIP, SIM and numerous hospital community health needs assessments (CHNAs), improving access to treatment for mental health and substance abuse is a priority for the State as a whole and each of the communities in Connecticut. In response to recent gun violence and subsequent discussions of the influence of mental health on mass tragedies and trauma recovery, several acts were implemented in 2013 to promote care for mental health and substance abuse. Public Act 13-3 established a 20-member task force to investigate behavioral health care services in Connecticut, particularly for persons aged 16 to 25 years.[27] Under this act, the task force must assess and provide recommendations to improve behavioral health screening, early intervention and treatment, improve the number of behavioral health providers and the use of involuntary outpatient commitment. Findings and recommendations based on this study were due February 1, 2014. The report can be accessed at http://www.cga.ct.gov/ph/tfs/20130701_Task%20Force%20to%20Study%20The%20Provisions%20of%20Behavioral%20Health%20Services%20For%20Young%20Adults/Final%20Report%20for%20the%20Task%20Force%20to%20Study%20the%20Provision%20of%20Behavioral%20Health%20Services%20for%20Young%20Adults.pdf.

This act also mandated the implementation of a person-centered, recovery-based mental health program for persons diagnosed with severe mental illness in communities that had not yet implemented this program.

Also in 2013, PA 13-178 created a task force to investigate the influence of nutrition, genetics, complementary and alternative treatments, and psychotropic drugs on children's mental, emotional, and behavioral health.[28] This task force is mandated to submit a report to the Department of Children and Family Services by September 30, 2014.

The Act also required DCF and the Office of Early Childhood to collaborate with other agencies to develop a comprehensive plan to address children's mental, emotional and behavioral health needs including coordinating home visitation programs for vulnerable families with young children and creating a public information and education campaign. The report can be accessed at http://www.plan4children.org/final-plan/.

Two acts passed in the 2014 legislative session are intended to improve access to behavioral health services. PA 14-138 codified practices that allow DMHAS clients to receive behavioral health services outside of the mental health region in which they reside.[29] PA 14-115 mandated that the Office of the Healthcare Advocate establish a behavioral health provider referral service by January 1, 2015 and thereafter report any gaps in services and resources to improve care.[30]

Chronic Disease Care Coordination

PA 14-148 requires the DPH Commissioner to develop and implement a strategic plan to reduce the incidence of chronic disease, improve care coordination, and improve outcomes for conditions associated with chronic diseases.[31]

All Payer Claims Database

With the passage of Public Act 13-247, the Connecticut General Assembly authorized Access Health CT (Connecticut's health insurance exchange) to oversee the planning, implementation and administration of an all-payer claims database program for the purpose of collecting, assessing and reporting health care information relating to safety, quality, cost-effectiveness, access and efficiency for all levels of health care. The requirements of the APCD are being implemented in phases, with full implementation targeted in January 2016.

Once established, the all-payer claims database will provide information about how and where health care dollars are being spent and will help answer important questions for consumers, business owners and policy makers. The APCD will include medical, pharmacy, dental, provider, and eligibility data files that will be used to report on health care utilization costs and quality of services for health care consumers and public and private entities conducting health assessments.[32,33,34]

Consistent with the initiatives proposed in the SIM grant, the APCD is intended to facilitate health system measurement and improvement strategies. Information regarding disease incidence, treatment costs, and health outcomes, and geographic or demographic variations therein, may inform the development and evaluation of policies and programs.[35] Payers and providers will be able to utilize APCD data to compare payment rates, assess clinical quality and evaluate performance.[36] Health care quality and cost information that is easily accessible may also be of use for consumers.[37] Finally, it is hoped that the collection and integration of comprehensive claims information will help the State understand the evolving needs of the health care system.

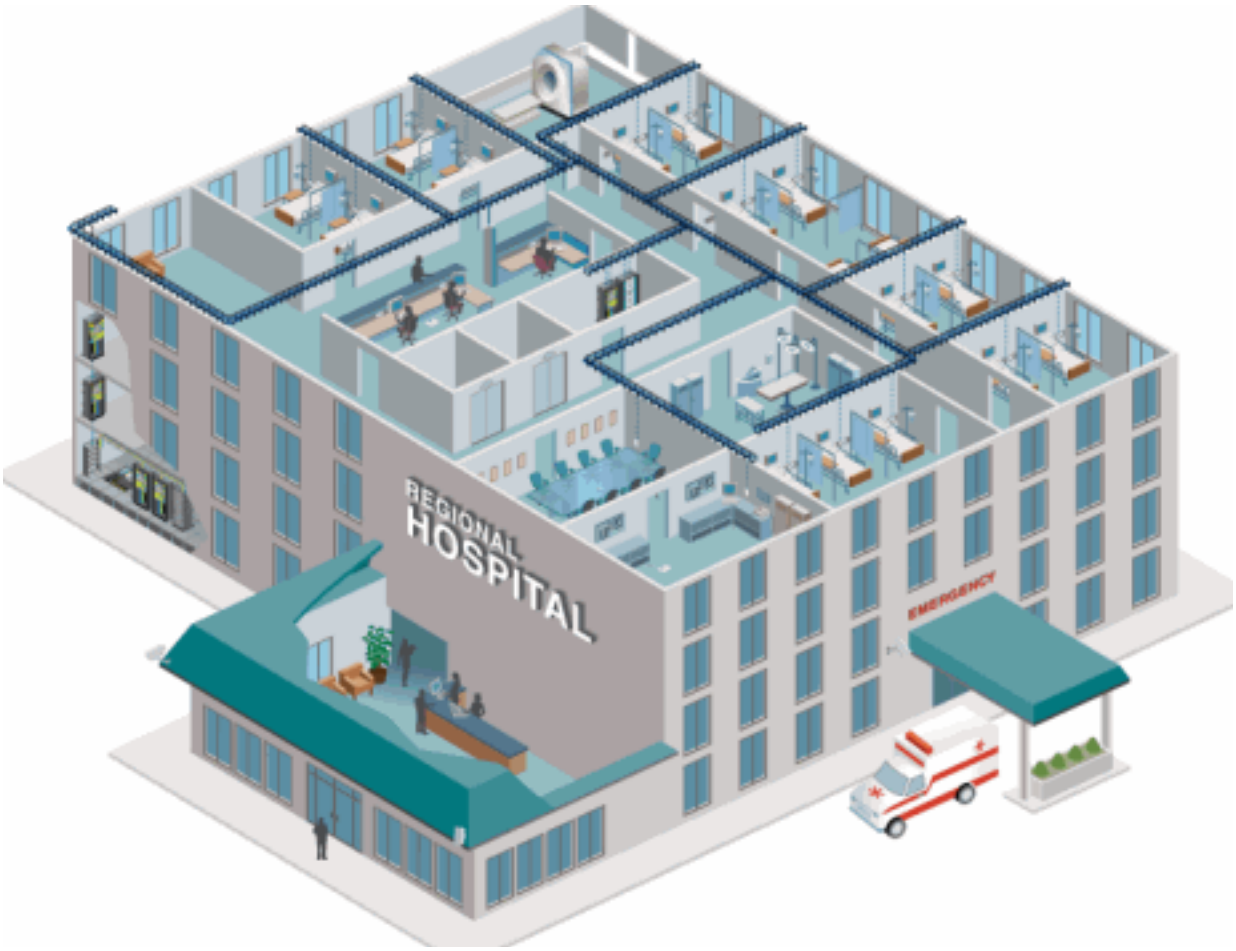
Outpatient Surgery Data

Connecticut General Statute Sections 19a-634 and 19a-654 require outpatient surgical facilities, short-term acute care general and children's hospital and any facility that provides outpatient surgical services as part of the outpatient surgery department of a short-term acute care hospital to report patient data to DPH OHCA. Reporting will begin in July 1, 2015. With the support of the Outpatient Data Workgroup, the Connecticut Hospital Association and the Connecticut Association for Ambulatory Surgery Centers, OHCA piloted data collection with 12 hospital based or affiliated surgery department/centers, four free standing outpatient surgical facilities. The pilot was initiated to assess the data collection and submission ability of a representative sample of facilities, the data submission requirements and process, ease of use of the submission web portal and quality of the data submitted. Results from the pilot are expected to facilitate cost effective and efficient data submission and collection. The mandates also required short-term acute care general and children's hospital to provide patient identifiable emergency department data to OHCA.

2

Acute Care Facilities, Utilization and Trends

- Acute Care



CHAPTER 2. ACUTE CARE FACILITIES, UTILIZATION AND TRENDS

To meet the complex needs of its residents, Connecticut has a health care system with a diverse array of services providing primary and specialty care. This chapter specifically focuses on the services and utilization related to acute care, emergency care, outpatient surgery and imaging.

ACUTE CARE

Acute care encompasses health care that is generally short in duration for conditions related to a severe injury, an urgent medical condition or recovery from surgery. Types of acute care services include ED visits, hospital stays, treatment in an ambulatory surgery center, diagnostic services, surgery, or follow-up care in an outpatient community setting.

Distribution of Acute Care Across Connecticut

Figure 1 shows the location and service areas of acute care hospitals throughout Connecticut (with the exception of four hospitals). For greater clarity, **Figure 2** focuses on these four hospitals—Hartford, John Dempsey, St. Francis and Yale-New Haven Hospitals. These maps highlight that the majority of acute care hospitals are located in the central or southwestern regions of Connecticut. Hospitals in Connecticut range from small community hospitals in rural regions to large hospitals in urban regions offering a broad array of specialty care. Towns in white indicate those communities that are not included in a hospital's primary service area (i.e., the towns that make up the top 75% of a hospital's discharges).

Figure 1. Map of Primary Services Areas for Acute Care Hospitals, Connecticut, October 2014 (excludes Hartford, John Dempsey, St. Francis and Yale-New Haven Hospitals)

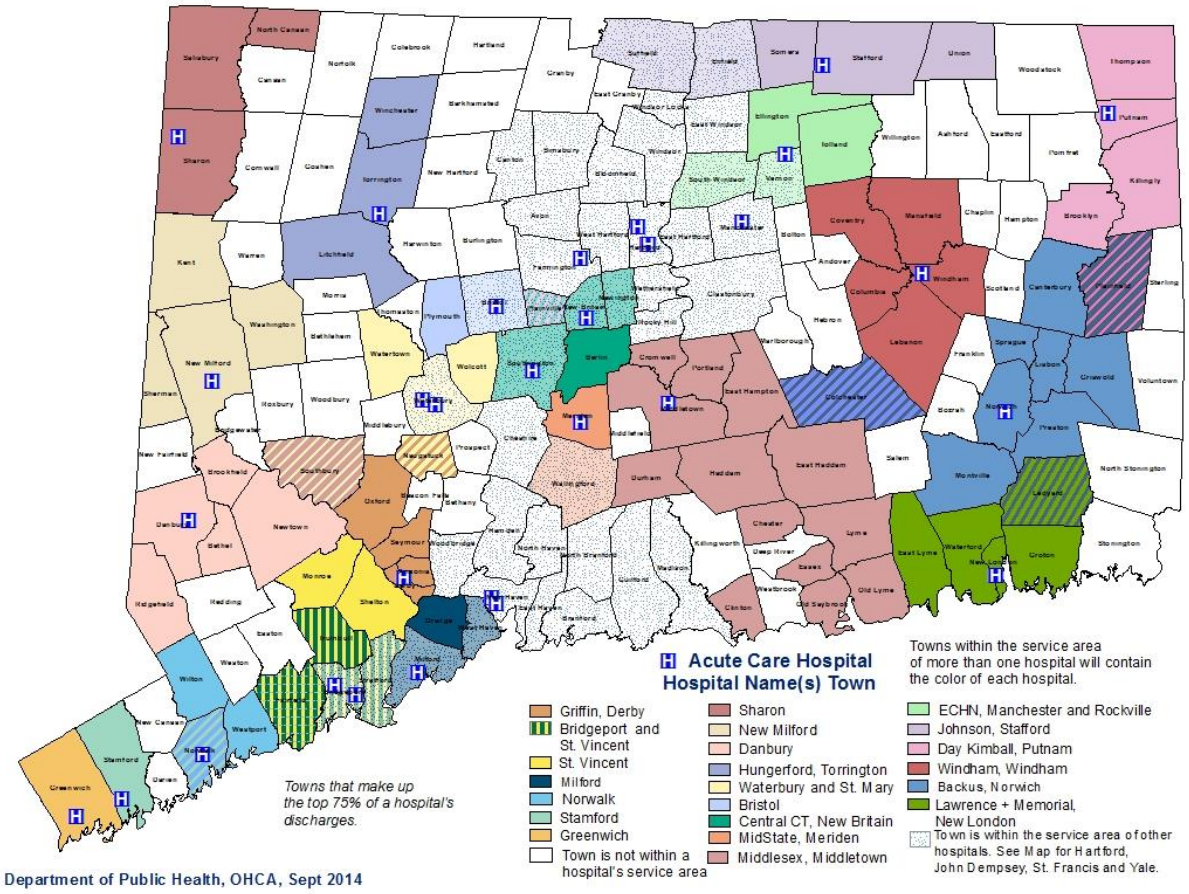
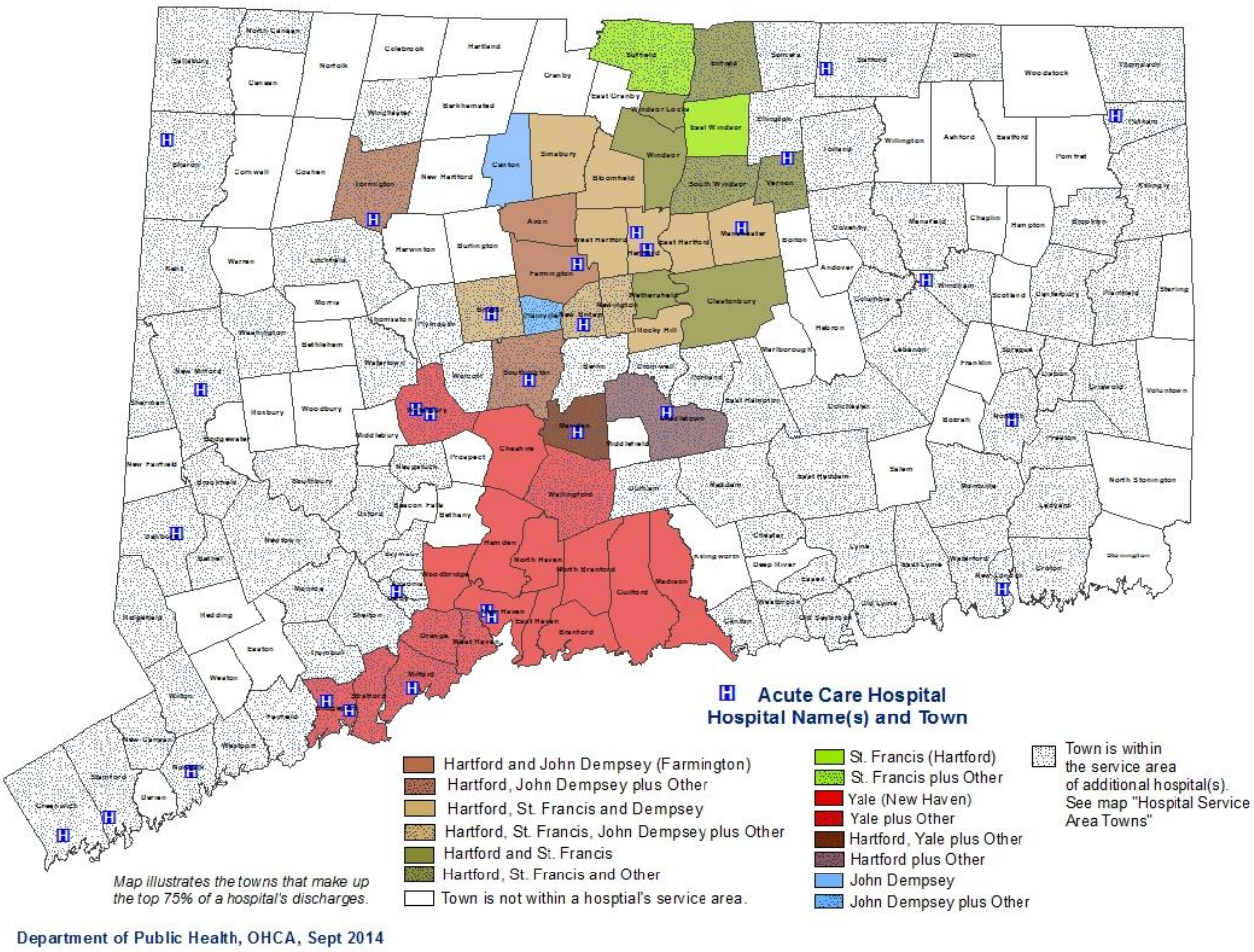


Figure 2. Map of Primary Service Areas for Hartford, John Dempsey, St. Francis and Yale-New Haven Hospitals, Connecticut, October 2014



Utilization Patterns

Leading Cause of Hospitalizations

As shown in **Table 4**, the leading cause of hospitalization varies by age. For children younger than 5 years of age, respiratory issues (i.e., asthma, COPD, pneumonia and influenza) were the leading cause of hospitalization in 2012. Mental disorders were the leading cause of hospitalization for males and females 5 to 14, 15 to 24 and 25 to 44 years of age. For persons 45 to 64 years of age, a diagnosis for mental disorders was the leading cause of hospitalization for males. For females in the 45 to 64 age group, digestive system (i.e., hernia/intestinal obstruction, colitis/enteritis, diverticula of the intestine) diagnoses were the leading cause of hospitalization. Heart disease was the leading cause of hospitalization for males and females 65 years of age or older.

Table 4. Leading Cause of Hospitalization and Rate per 100,000 Population, Connecticut 2012

Gender	Age Group						
	0-4[1,2,3]	**5-14**[1,2,3]	**15-24**[1,2,3]	**25-44**[1,2,3]	**45-64**[1,2,3]	**65+**[1,2,3]	**All ages**[1,2,3]
Males	Respiratory (1,598.8)	Mental (451.2)	Mental (1,011.0)	Mental (1,257.1)	Mental (1,354.8)	Heart (5,357.2)	Heart (1,061.8)
Females	Respiratory (1,172.9)	Mental (442.2)	Mental (1,068.1)	Mental (959.0)	Digestive (1,213.4)	Heart (4,272.2)	Digestive (972.7)

Source: Connecticut Department of Public Health, Hospital Discharge Tables, 2012, Table H-1 and H-1-All Ages.
[1] Diagnostic categories are based on *International Classification of Diseases*, *9th Revision, Clinical Modification*, except for conditions related to pregnancy and childbirth, which are based on diagnosis related groups (MS-DRGs 765-782).
[2] First-listed diagnosis codes, except for "amputation with diabetes". First-listed procedure code 84.1 (amputation of lower limb), together with first-listed diagnosis code 249-250 (diabetes mellitus).
[3] Connecticut population groupings were based on *Estimates for the July 1, 2012 United States resident population from the Vintage 2012 postcensal series by year, county, age, sex, race and Hispanic origin,* prepared under a collaborative arrangement with the U.S. Census Bureau. http://www.cdc.gov/nchs/nvss/bridged_race.htm Backus, K, Mueller, LM (2013) State-level Bridged Race Estimates for Connecticut, 2012, Connecticut Department of Public Health, Office of Health Care Quality, Statistics, Analysis & Reporting, Hartford, CT. Rates are per 100,000 population.
Denominators were for total population (males plus females), except for female breast cancer (female population only) and prostate cancer and hyperplasia of prostate (male only). Bridged estimates were used to assign individuals to a single race even if they reported more than one.

Leading cause of hospitalization also varies by race and ethnicity (**Table 5**). In 2012, diseases of the heart were the leading cause of hospitalization for white non-Hispanics. Black non-Hispanics were admitted more frequently for diseases of the respiratory system and diseases of the digestive system were the leading reason for hospitalizations of Hispanics.

Table 5. Leading Cause of Hospitalization and Rate per 100,000 Population, by Race/Ethnicity, Connecticut, 2012

	White non-Hispanic[5]			Black non-Hispanic[5]			Hispanic[5]		
Diagnostic Group (ICD-9 CM Code)[2,4]	**Rank**	**No.[1]**	**Rate[3]**	**Rank**	**No.[1]**	**Rate[3]**	**Rank**	**No.[1]**	**Rate[3]**
Disease of the heart (391-392.0, 393-398, 402, 404, 410-416, 420-429)	1	30,444	812.6	4	3,273	1067.0	5	2,162	799.2
Diseases of the respiratory system (460-519)	3	24,918	732.0	1	4,218	1,285.7	3	3,484	979.4
Diseases of the digestive system (520-579)	2	28,480	901.9	3	4,011	1,217.2	1	4,278	1,129.8
Mental disorders (290-319)	5	21,744	835.3	2	4,185	1,127.7	2	4,159	835.1

[1] Numbers of discharges represent events, not unique persons hospitalized.
[2] Diagnostic categories are based on *International Classification of Diseases, 9th Revision, Clinical Modification*, except for conditions related to pregnancy and childbirth, which are based on diagnosis related groups (MS-DRGs 765-782).
[3] Connecticut population groupings were based on *Estimates for the July 1, 2012 United States resident population from the Vintage 2012 postcensal series by year, county, age, sex, race and Hispanic origin,* prepared under a collaborative arrangement with the U.S. Census Bureau. http://www.cdc.gov/nchs/nvss/bridged_race.htm Backus, K, Mueller, LM (2013) State-level Bridged Race Estimates for Connecticut, 2012, Connecticut Department of Public Health, Office of Health Care Quality, Statistics, Analysis & Reporting, Hartford, CT. Rates are per 100,000 population.
Denominators were for total population (males plus females), except for female breast cancer (female population only) and prostate cancer and hyperplasia of prostate (male only). Bridged estimates were used to assign individuals to a single race even if they reported more than one.
[4] First-listed diagnosis codes, except for "amputation with diabetes". First-listed procedure code 84.1 (amputation of lower limb), together with first-listed diagnosis code 249-250 (diabetes mellitus).
[5] The three racial and ethnic categories used here are mutually exclusive. Discharge records of persons of Asian, American Indian, Alaska Native, Hawaiian, or other Pacific Islander race when reported along with non-Hispanic ethnicity are not included due to small numbers.

Acute Care Discharges and Patient Days

From FY 2009 to FY 2013, the number of acute care discharges and patient days decreased by 4% and 2%, respectively (**Table 6**). The greatest decrease in patient volume occurred between FY 2011 and FY2012.

Table 6. Acute Care Discharges & Patient Days, Connecticut, FY 2009-FY 2013

CT Acute Care	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	% chg (09-13)
Discharges	430,159	428,428	426,235	417,009	412,071	-4%
Patient Days	2,076,937	2,053,724	2,074,265	2,025,886	2,026,012	-2%

Source: CT DPH Office of Health Care Access Acute Care Hospital Discharge Database

Acute Care Discharges by Primary Coverage

In FY 2013, two thirds of patients discharged from acute care hospitals had primary health care coverage that was government-based (**Table 7**). Correspondingly, from FY 2011 to FY 2013, the number of patients with Medicaid as their primary coverage increased by 3%, while commercially insured coverage fell 8%.

Table 7. Acute Care Discharges by Primary Coverage, Connecticut, FY 2011-FY 2013

Payer	FY 2011	FY 2012	FY 2013	FY 2013 Share	Change FY 11-13	Change FY 12-13
Medicare	177,624	174,061	173,037	42%	-3%	-1%
Commercial	143,859	137,811	132,077	32%	-8%	-4%
Medicaid	93,070	93,246	95,548	23%	3%	2%
Uninsured*	8,794	8,930	8,510	2%	-3%	-5%
Other Public	2,888	2,961	2,899	1%	0%	-2%
Total	426,235	417,009	412,071	100%	-3%	-1%

Source: CT DPH Office of Health Care Access Acute Care Hospital Discharge Database
*Includes self-pay, no charge and other

Hospital Utilization by Service Line

As shown below, the number of discharges and patient days in Connecticut from FY 2011 to FY 2013 has declined by 3.3% and 2.3%, respectively (**Table 8**). The greatest decline in discharges was seen for cardiac medical or surgery services, with a 9.1% decline from FY 2011 to FY 2013 (**Table 9**). The greatest decline in patient days over this period occurred in women's health (9.0%) and ophthalmology (9.0%) services. From FY 2011 to FY 2013 there was a 1.9% increase in discharges and a 1.7% increase in patient days for medical services. Of note and in contrast to the vast majority of inpatient hospital services, there was a 3.8% increase in discharges and a 5.3% increase in patient days for behavioral health services (see Appendix F for individual hospital utilization).

Table 8. Hospital Utilization by Service Line, Discharges and Patient Days, Connecticut, FY 2011-FY 2013

Service	FY 2011		FY 2012		FY 2013		FY 2011-2013 % chg	
	D-chrgs	P-Days	D-chrgs	P-Days	D-chrgs	P-Days	D-chrgs	P-Days
Cardiac Med/Surg	57,252	241,178	54,311	231,129	52,016	233,453	-9.1%	-3.2%
Cancer Care Med/Surg	10,691	66,271	11,033	69,421	10,406	64,518	-2.7%	-2.6%
Neuro Med/Surg	27,542	161,907	27,396	159,925	26,837	151,793	-2.6%	-6.2%
Renal Med/Surg	21,501	98,007	21,191	96,815	20,486	95,665	-4.7%	-2.4%
Women s Health	48,451	141,202	45,919	133,592	44,374	128,453	-8.4%	-9.0%
Ortho Med/Surg	26,254	104,757	25,875	102,724	25,656	102,558	-2.3%	-2.1%
Respiratory	36,438	189,883	35,046	174,544	35,753	179,376	-1.9%	-5.5%
Medicine	87,554	420,730	87,628	419,212	89,241	427,867	1.9%	1.7%
General/Other Surgery	33,357	217,654	32,107	206,794	30,965	205,068	-7.2%	-5.8%
Newborn	39,666	154,707	38,443	151,200	37,864	147,126	-4.5%	-4.9%
Trauma Med/Surg	5,527	27,889	5,420	27,895	5,329	27,180	-3.6%	-2.5%
Behavioral Health	31,063	246,885	31,766	249,534	32,234	259,951	3.8%	5.3%
Ophthalmology	585	1,947	542	1,940	570	1,772	-2.6%	-9.0%
Dental	349	1,215	326	1,149	326	1,190	-6.6%	-2.1%
Total[1]	**426,235**	**2,074,265**	**417,009**	**2,025,886**	**412,071**	**2,026,012**	**-3.3%**	**-2.3%**

Source: CT DPH Office of Health Care Access Acute Care Hospital Discharge Database

[1] Total includes 5 additional discharges/33 patient days in FY 2011, 6 discharges/12 patient days in FY 2012 and 14 discharges/42 patient days in FY 2013 that did not match any of the service categories.

Acute Care Bed Need Projections by County and Hospital

As in the 2012 Plan, OHCA developed, with the Acute Care and Ambulatory Surgery Subcommittee, a standard methodology for calculating bed need. The purpose of this analysis was to assist in evaluating the availability of acute care services, help identify areas with unmet need and provide an equitable measure to determine how acute care beds are distributed throughout the state.

OHCA is currently developing proposed regulations that will provide guidance on the criteria for determining bed need and due to their increasing frequency, will include a provision to consider observation stays. According to hospital administrators, observation stays are occurring more frequently in Connecticut. Recent studies indicate that observation stays are on the rise nationally as well. One analysis of Medicare enrollment and claims data from 2007 to 2009 found an increase in the prevalence and length of hospital observation stays for fee-for-service Medicare patients that corresponded with a decline in inpatient admissions.[38] This study also reported a 7% increase in the number of hours that beneficiaries were held for observation, with observation stays averaging 26.2 hours in 2007 and 28.2 hours in 2009. Approximately half of Medicare beneficiaries were under observation for at least 24 hours; approximately 40% stayed between 24 and 47 hours and more than 10% were under observation for 48 or more hours. The authors speculate that these patterns may be a consequence of Medicare payment structures that are intended to reduce hospital admissions. Similarly, a Medicare and Medicaid research review identified a significant decline in inpatient admission stays, from 283.4 stays per 1,000 Medicare beneficiaries in 2011 to 271.3 inpatient admission stays per 1,000 population in 2012.[39] The number of observation stays within 30 days of a hospitalization increased slightly over this period, from 3.4% in 2011 to 3.7% in 2012. CMS has expressed concerns about increases in

observation stays among Medicare beneficiaries because beneficiaries must absorb more of the financial costs for the stay and for drugs administered during the observation time and are not eligible for a Medicare-financed skilled nursing care.[40]

Based on the acute care bed need projections for 2020, Connecticut has a statewide surplus of 1,444 inpatient beds (**Table 9**). Each county has a projected excess bed capacity from a low of 60 surplus beds in Middlesex County to a high of 416 surplus beds in Hartford County. Since the bed need calculation now utilizes counties instead of DEMHS—formerly known as the Department of Emergency Management and Homeland Security—regions to estimate population growth/attrition factors, the results listed below are not comparable to the 2012 Plan.

Table 9. Acute Care Hospital 2020 Bed Need, Connecticut

County	FY 2011 Patient Days[1]	FY 2012 Patient Days[1]	FY 2013 Patient Days[1]	Weighted ADC	Projected ADC 2020	Beds Needed	Licensed Beds[2]	Excess (-) or Deficit (+)
Fairfield	480,275	460,793	457,685	1,267	1,348	1,762	1,998	-236
Hartford	569,493	572,292	580,516	1,578	1,664	2,156	2,572	-416
Litchfield	47,174	43,456	44,023	122	134	172	272	-100
Middlesex	54,505	53,708	57,199	152	167	215	275	-60
New Haven	588,812	568,092	571,628	1,571	1,662	2,144	2,521	-377
New London	115,720	112,707	107,227	303	328	423	493	-70
Tolland	27,206	28,888	27,840	77	86	108	194	-86
Windham	36,373	34,750	32,768	93	104	135	234	-99
Statewide	**1,919,558**	**1,874,686**	**1,878,886**	**5,162**	**5,493**	**7,115**	**8,559**	**-1,444**

Source: Source: CT DPH Office of Health Care Access Acute Care Hospital Discharge Database
[1] Excludes Newborn service category
[2] Excludes bassinets (861)

Projected county bed need is presented from **Table 10** through **Table 17**. Data are provided by service lines of medical/surgical, maternity, psychiatric, rehabilitation and pediatric as well as by age group of patient (see individual hospital bed need in Appendix G).

Table 10. Acute Care Hospital 2020 Bed Need, Fairfield County

County	Services[1]	FY 2011 patient days	FY 2012 patient days	FY 2013 patient days	FY 2011 ADC	FY 2012 ADC	FY 2013 ADC	Weighted ADC	Fairfield County Pop chg 2015 to 2020[2]	Projected ADC	Target Occupancy	Beds Needed 2020	Licensed Beds[3]	Excess (-) or Deficit (+)
Fairfield County	Medical/Surgical													
	0-14	30	32	24	0.1	0.1	0.1	0.1	0.94156	0.1	0.80	0		
	15 - 44	42,120	38,796	36,278	115.4	106.3	99.4	104.4	1.01179	105.6	0.80	132		
	45 - 64	100,563	101,911	99,598	275.5	279.2	272.9	275.4	1.00638	277.2	0.80	346		
	65+	216,285	206,419	209,785	592.6	565.5	574.8	574.6	1.12096	644.2	0.80	805		
	Sub Total	**358,998**	**347,158**	**345,685**	**983.6**	**951.1**	**947.1**	**954.5**		**1027.0**		**1284**		
	Maternity													
	0-14	28	11	13	0.1	0.0	0.0	0.0	0.94081	0.0	0.50	0		
	15 - 44	38,704	36,975	36,344	106.0	101.3	99.6	101.2	1.00774	102.0	0.50	204		
	45 - 64	282	236	203	0.8	0.6	0.6	0.6	1.01051	0.6	0.50	1		
	65+	0	0	0	0.0	0.0	0.0	-	1.09873	0.0	0.50	0		
	Sub Total	**39,014**	**37,222**	**36,560**	**106.9**	**102.0**	**100.2**	**101.9**		**102.7**		**205**		
	Psychiatric													
	0-14	2,603	2,097	2,233	7.1	5.7	6.1	6.2	0.94156	5.8	0.80	7		
	15 - 44	23,892	23,497	24,861	65.5	64.4	68.1	66.4	1.01179	67.2	0.80	84		
	45 - 64	17,068	17,962	18,034	46.8	49.2	49.4	48.9	1.00638	49.2	0.80	62		
	65+	8,751	8,125	8,583	24.0	22.3	23.5	23.2	1.12096	26.0	0.80	32		
	Sub Total	**52,314**	**51,681**	**53,711**	**143.3**	**141.6**	**147.2**	**144.7**		**148.2**		**185**		
	Rehabilitation													
	0-14	0	0	0	0.0	0.0	0.0	-	0.94156	0.0	0.80	0		
	15 - 44	1,168	1,179	1,036	3.2	3.2	2.8	3.0	1.01179	3.1	0.80	4		
	45 - 64	6,050	5,188	5,178	16.6	14.2	14.2	14.6	1.00638	14.7	0.80	18		
	65+	16,186	13,692	11,963	44.3	37.5	32.8	36.3	1.12096	40.7	0.80	51		
	Sub Total	**23,404**	**20,059**	**18,177**	**64.1**	**55.0**	**49.8**	**53.9**		**58.4**		**73**		
	Pediatric													
	0-19	6,545	4,673	3,552	17.9	12.8	9.7	12.1	0.94908	11.5	0.80	14		
	20+	0	0	0	0.0	0.0	0.0	-	1.03582	0.0	0.80	0		
	Sub Total	**6,545**	**4,673**	**3,552**	**17.9**	**12.8**	**9.7**	**12.1**		**11.5**		**14**		
Total		**480,275**	**460,793**	**457,685**	**1,316**	**1,262**	**1,254**	**1,267.1**		**1347.8**		**1762**	**1,998**	**-236**

[1] Excludes Newborn service category
[2] Source: CT State Data Center (CTSDC)
[3] Excludes bassinets

Table 11. Acute Care Hospital 2020 Bed Need, Hartford County

County	Services1	FY 2011 patient days	FY 2012 patient days	FY 2013 patient days	FY 2011 ADC	FY 2012 ADC	FY 2013 ADC	Weighted ADC	Hartford County Pop chg 2015 to 20202	Projected ADC	Target Occupancy	Beds Needed 2020	Licensed Beds3	Excess (-) or Deficit (+)
Hartford County	Medical/Surgical													
	0-14	14	16	13	0.0	0.0	0.0	0.0	0.96707	0.0	0.80	0		
	15 - 44	55,161	54,326	53,013	151.1	148.8	145.2	147.4	1.01227	149.2	0.80	187		
	45 - 64	140,278	141,768	144,405	384.3	388.4	395.6	391.3	0.98238	384.4	0.80	481		
	65+	234,253	238,025	244,425	641.8	652.1	669.7	659.2	1.13688	749.4	0.80	937		
	Sub Total	429,706	434,135	441,856	1,177.3	1,189.4	1,210.6	1,198.0		1283.1		1604		
	Maternity													
	0-14	22	33	32	0.1	0.1	0.1	0.1	0.96778	0.1	0.50	0		
	15 - 44	38,978	37,287	35,522	106.8	102.2	97.3	100.5	1.00881	101.4	0.50	203		
	45 - 64	168	81	89	0.5	0.2	0.2	0.3	0.98553	0.3	0.50	1		
	65+	0	0	0	0.0	0.0	0.0	-	1.11856	0.0	0.50	0		
	Sub Total	39,168	37,401	35,643	107.3	102.5	97.7	100.9		101.7		203		
	Psychiatric													
	0-14	8,275	8,475	8,522	22.7	23.2	23.3	23.2	0.96707	22.4	0.80	28		
	15 - 44	34,738	34,797	36,177	95.2	95.3	99.1	97.2	1.01227	98.4	0.80	123		
	45 - 64	23,976	24,007	25,387	65.7	65.8	69.6	67.6	0.98238	66.5	0.80	83		
	65+	7,695	7,741	7,963	21.1	21.2	21.8	21.5	1.13688	24.4	0.80	31		
	Sub Total	74,684	75,020	78,049	204.6	205.5	213.8	209.5		211.7		265		
	Rehabilitation													
	0-14	64	0	84	0.2	0.0	0.2	0.1	0.96707	0.1	0.80	0		
	15 - 44	95	23	82	0.3	0.1	0.2	0.2	1.01227	0.2	0.80	0		
	45 - 64	15	0	0	0.0	0.0	0.0	0.0	0.98238	0.0	0.80	0		
	65+	0	0	0	0.0	0.0	0.0	-	1.13688	0.0	0.80	0		
	Sub Total	174	23	166	0.5	0.1	0.5	0.3		0.3		0		
	Pediatric													
	0-19	25,761	25,713	24,802	70.6	70.4	68.0	69.2	0.96673	66.9	0.80	84		
	20+	0	0	0	0.0	0.0	0.0	-	1.03196	0.0	0.80	0		
	Sub Total	25,761	25,713	24,802	70.6	70.4	68.0	69.2		66.9		84		
Total		569,493	572,292	580,516	1,560	1,568	1,590	1,577.9		1663.8		2156	2,572	-416

[1] Excludes Newborn service category
[2] Source: CT State Data Center (CTSDC)
[3] Excludes bassinets

Table 12. Acute Care Hospital 2020 Bed Need, Litchfield County

County	Services1	FY 2011 patient days	FY 2012 patient days	FY 2013 patient days	FY 2011 ADC	FY 2012 ADC	FY 2013 ADC	Weighted ADC	Litchfield County Pop chg 2015 to 20202	Projected ADC	Target Occupancy	Beds Needed 2020	Licensed Beds3	Excess (-) or Deficit (+)
Litchfield County	Medical/Surgical													
	0-14	0	3	9	0.0	0.0	0.0	0.0	0.88581	0.0	0.80	0		
	15 - 44	3,358	3,152	3,187	9.2	8.6	8.7	8.8	0.98490	8.6	0.80	11		
	45 - 64	10,663	9,596	9,836	29.2	26.3	26.9	27.1	0.96706	26.2	0.80	33		
	65+	24,603	23,361	24,171	67.4	64.0	66.2	65.7	1.20043	78.8	0.80	99		
	Sub Total	**38,624**	**36,112**	**37,203**	**105.8**	**98.9**	**101.9**	**101.6**		**113.7**		**142**		
	Maternity													
	0-14	0	1	0	0.0	0.0	0.0	0.0	0.88634	0.0	0.50	0		
	15 - 44	2,195	2,277	1,975	6.0	6.2	5.4	5.8	0.97955	5.7	0.50	11		
	45 - 64	5	4	8	0.0	0.0	0.0	0.0	0.97230	0.0	0.50	0		
	65+	0	0	0	0.0	0.0	0.0	-	1.18059	0.0	0.50	0		
	Sub Total	**2,200**	**2,282**	**1,983**	**6.0**	**6.3**	**5.4**	**5.8**		**5.7**		**11**		
	Psychiatric													
	0-14	0	0	0	0.0	0.0	0.0	-	0.88581	0.0	0.80	0		
	15 - 44	1,867	1,491	1,618	5.1	4.1	4.4	4.4	0.98490	4.4	0.80	5		
	45 - 64	1,693	1,640	1,599	4.6	4.5	4.4	4.5	0.96706	4.3	0.80	5		
	65+	2,598	1,767	1,504	7.1	4.8	4.1	4.9	1.20043	5.8	0.80	7		
	Sub Total	**6,158**	**4,898**	**4,721**	**16.9**	**13.4**	**12.9**	**13.8**		**14.5**		**18**		
	Rehabilitation													
	0-14	0	0	0	0.0	0.0	0.0	-	0.88581	0.0	0.80	0		
	15 - 44	0	0	0	0.0	0.0	0.0	-	0.98490	0.0	0.80	0		
	45 - 64	0	0	0	0.0	0.0	0.0	-	0.96706	0.0	0.80	0		
	65+	0	0	0	0.0	0.0	0.0	-	1.20043	0.0	0.80	0		
	Sub Total	**0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**-**		**0.0**		**0**		
	Pediatric													
	0-19	192	164	116	0.5	0.4	0.3	0.4	0.90723	0.4	0.80	0		
	20+	0	0	0	0.0	0.0	0.0	-	1.03251	0.0	0.80	0		
	Sub Total	**192**	**164**	**116**	**0.5**	**0.4**	**0.3**	**0.4**		**0.4**		**0**		
Total		**47,174**	**43,456**	**44,023**	**129**	**119**	**121**	**121.5**		**134.3**		**172**	**272**	**-100**

[1] Excludes Newborn service category
[2] Source: CT State Data Center (CTSDC)
[3] Excludes bassinets

Table 13. Acute Care Hospital 2020 Bed Need, Middlesex County

County	Services[1]	FY 2011 patient days	FY 2012 patient days	FY 2013 patient days	FY 2011 ADC	FY 2012 ADC	FY 2013 ADC	Weighted ADC	Middlesex County Pop chg 2015 to 2020[2]	Projected ADC	Target Occupancy	Beds Needed 2020	Licensed Beds[3]	Excess (-) or Deficit (+)
Middlesex County	Medical/Surgical													
	0-14	11	4	2	0.0	0.0	0.0	0.0	0.90103	0.0	0.80	0		
	15 - 44	4,029	3,830	4,020	11.0	10.5	11.0	10.8	0.98633	10.7	0.80	13		
	45 - 64	12,915	12,835	13,999	35.4	35.2	38.4	36.8	0.97358	35.8	0.80	45		
	65+	28,391	27,516	30,147	77.8	75.4	82.6	79.4	1.20478	95.6	0.80	120		
	Sub Total	**45,346**	**44,185**	**48,168**	**124.2**	**121.1**	**132.0**	**127.0**		**142.2**		**178**		
	Maternity													
	0-14	0	0	0	0.0	0.0	0.0	-	0.90155	0.0	0.50	0		
	15 - 44	3,156	3,094	2,866	8.6	8.5	7.9	8.2	0.98063	8.0	0.50	16		
	45 - 64	2	3	10	0.0	0.0	0.0	0.0	0.97791	0.0	0.50	0		
	65+	0	0	0	0.0	0.0	0.0	-	1.19360	0.0	0.50	0		
	Sub Total	**3,158**	**3,097**	**2,876**	**8.7**	**8.5**	**7.9**	**8.2**		**8.1**		**16**		
	Psychiatric													
	0-14	0	0	0	0.0	0.0	0.0	-	0.90103	0.0	0.80	0		
	15 - 44	2,643	3,085	2,366	7.2	8.5	6.5	7.3	0.98633	7.2	0.80	9		
	45 - 64	2,557	2,738	3,018	7.0	7.5	8.3	7.8	0.97358	7.6	0.80	9		
	65+	784	599	767	2.1	1.6	2.1	2.0	1.20478	2.4	0.80	3		
	Sub Total	**5,984**	**6,422**	**6,151**	**16.4**	**17.6**	**16.9**	**17.0**		**17.1**		**21**		
	Rehabilitation													
	0-14	0	0	0	0.0	0.0	0.0	-	0.90103	0.0	0.80	0		
	15 - 44	0	0	0	0.0	0.0	0.0	-	0.98633	0.0	0.80	0		
	45 - 64	0	0	0	0.0	0.0	0.0	-	0.97358	0.0	0.80	0		
	65+	0	0	0	0.0	0.0	0.0	-	1.20478	0.0	0.80	0		
	Sub Total	**0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**-**		**0.0**		**0**		
	Pediatric													
	0-19	17	4	4	0.0	0.0	0.0	0.0	0.92096	0.0	0.80	0		
	20+	0	0	0	0.0	0.0	0.0	-	1.03553	0.0	0.80	0		
	Sub Total	**17**	**4**	**4**	**0.0**	**0.0**	**0.0**	**0.0**		**0.0**		**0**		
Total		**54,505**	**53,708**	**57,199**	**149**	**147**	**157**	**152.3**		**167.4**		**215**	**275**	**-60**

[1] Excludes Newborn service category
[2] Source: CT State Data Center (CTSDC)
[3] Excludes bassinets

Table 14. Acute Care Hospital 2020 Bed Need, New Haven County

County	Services[1]	FY 2011 patient days	FY 2012 patient days	FY 2013 patient days	FY 2011 ADC	FY 2012 ADC	FY 2013 ADC	Weighted ADC	New Haven County Pop chg 2015 to 2020[2]	Projected ADC	Target Occupancy	Beds Needed 2020	Licensed Beds[3]	Excess (-) or Deficit (+)
New Haven County	Medical/Surgical													
	0-14	0	0	0	0.0	0.0	0.0	-	0.97443	0.0	0.80	0		
	15 - 44	67,280	72,263	64,808	184.3	198.0	177.6	185.5	1.01313	187.9	0.80	235		
	45 - 64	157,705	144,808	149,007	432.1	396.7	408.2	408.4	0.98400	401.8	0.80	502		
	65+	245,606	232,125	236,189	672.9	636.0	647.1	647.7	1.14363	740.7	0.80	926		
	Sub Total	**470,591**	**449,196**	**450,004**	**1,289.3**	**1,230.7**	**1,232.9**	**1,241.6**		**1330.5**		**1663**		
	Maternity													
	0-14	28	46	10	0.1	0.1	0.0	0.1	0.97102	0.1	0.50	0		
	15 - 44	33,367	31,760	31,296	91.4	87.0	85.7	87.1	1.01253	88.2	0.50	176		
	45 - 64	107	113	151	0.3	0.3	0.4	0.4	0.98578	0.4	0.50	1		
	65+	0	0	0	0.0	0.0	0.0	-	1.12499	0.0	0.50	0		
	Sub Total	**33,502**	**31,919**	**31,457**	**91.8**	**87.4**	**86.2**	**87.5**		**88.6**		**177**		
	Psychiatric													
	0-14	8,882	8,863	8,916	24.3	24.3	24.4	24.4	0.97443	23.7	0.80	30		
	15 - 44	26,814	27,540	31,128	73.5	75.5	85.3	80.0	1.01313	81.1	0.80	101		
	45 - 64	18,309	18,621	19,460	50.2	51.0	53.3	52.0	0.98400	51.2	0.80	64		
	65+	6,581	5,214	6,646	18.0	14.3	18.2	16.9	1.14363	19.3	0.80	24		
	Sub Total	**60,586**	**60,238**	**66,150**	**166.0**	**165.0**	**181.2**	**173.3**		**175.3**		**219**		
	Rehabilitation													
	0-14	0	0	0	0.0	0.0	0.0	-	0.97443	0.0	0.80	0		
	15 - 44	44	56	96	0.1	0.2	0.3	0.2	1.01313	0.2	0.80	0		
	45 - 64	773	739	468	2.1	2.0	1.3	1.7	0.98400	1.6	0.80	2		
	65+	3,188	2,847	2,072	8.7	7.8	5.7	6.9	1.14363	7.9	0.80	10		
	Sub Total	**4,005**	**3,642**	**2,636**	**11.0**	**10.0**	**7.2**	**8.8**		**9.7**		**12**		
	Pediatric													
	0-19	20,128	23,097	21,381	55.1	63.3	58.6	59.6	0.96530	57.5	0.80	72		
	20+	0	0	0	0.0	0.0	0.0	-	1.03672	0.0	0.80	0		
	Sub Total	**20,128**	**23,097**	**21,381**	**55.1**	**63.3**	**58.6**	**59.6**		**57.5**		**72**		
Total		**588,812**	**568,092**	**571,628**	**1,613**	**1,556**	**1,566**	**1,570.7**		**1661.7**		**2,144**	**2,521**	**-377**

[1] Excludes Newborn service category
[2] Source: CT State Data Center (CTSDC)
[3] Excludes bassinets

Table 15. Acute Care Hospital 2020 Bed Need, New London County

County	Services[1]	2011 patient days	2012 patient days	2013 patient days	2011 ADC	2012 ADC	2013 ADC	Weighted ADC	New London County Pop chg 2015 to 2020[2]	Projected ADC	Target Occupancy	Beds Needed	Licensed Beds[3]	Excess (-) or Deficit (+)
New London County	Medical/Surgical													
	0-14	0	0	0	0.0	0.0	0.0	-	0.95225	0.0	0.80	0		
	15 - 44	10,968	10,372	9,221	30.0	28.4	25.3	27.1	0.99490	27.0	0.80	34		
	45 - 64	31,501	29,172	27,987	86.3	79.9	76.7	79.4	0.97130	77.1	0.80	96		
	65+	51,547	50,883	49,334	141.2	139.4	135.2	137.6	1.19137	163.9	0.80	205		
	Sub Total	**94,016**	**90,427**	**86,542**	**257.6**	**247.7**	**237.1**	**244.1**		**268.0**		**335**		
	Maternity													
	0-14	2	2	0	0.0	0.0	0.0	0.0	0.94942	0.0	0.50	0		
	15 - 44	6,925	6,660	6,285	19.0	18.2	17.2	17.9	0.98704	17.6	0.50	35		
	45 - 64	3	12	8	0.0	0.0	0.0	0.0	0.97794	0.0	0.50	0		
	65+	0	0	0	0.0	0.0	0.0	-	1.17099	0.0	0.50	0		
	Sub Total	**6,930**	**6,674**	**6,293**	**19.0**	**18.3**	**17.2**	**17.9**		**17.6**		**35**		
	Psychiatric													
	0-14	8	0	0	0.0	0.0	0.0	0.0	0.95225	0.0	0.80	0		
	15 - 44	3,971	4,510	4,832	10.9	12.4	13.2	12.6	0.99490	12.5	0.80	16		
	45 - 64	3,980	4,443	4,162	10.9	12.2	11.4	11.6	0.97130	11.2	0.80	14		
	65+	1,307	1,293	837	3.6	3.5	2.3	2.9	1.19137	3.5	0.80	4		
	Sub Total	**9,266**	**10,246**	**9,831**	**25.4**	**28.1**	**26.9**	**27.1**		**27.2**		**34**		
	Rehabilitation													
	0-14	0	0	0	0.0	0.0	0.0	-	0.95225	0.0	0.80	0		
	15 - 44	230	345	242	0.6	0.9	0.7	0.8	0.99490	0.7	0.80	1		
	45 - 64	972	1,142	918	2.7	3.1	2.5	2.7	0.97130	2.7	0.80	3		
	65+	3,546	3,267	2,979	9.7	9.0	8.2	8.7	1.19137	10.3	0.80	13		
	Sub Total	**4,748**	**4,754**	**4,139**	**13.0**	**13.0**	**11.3**	**12.2**		**13.8**		**17**		
	Pediatric													
	0-19	760	606	422	2.1	1.7	1.2	1.5	0.95388	1.4	0.80	2		
	20+	0	0	0	0.0	0.0	0.0	-	1.03192	0.0	0.80	0		
	Sub Total	**760**	**606**	**422**	**2.1**	**1.7**	**1.2**	**1.5**		**1.4**		**2**		
Total		**115,720**	**112,707**	**107,227**	**317**	**309**	**294**	**302.7**		**328.0**		**423**	**493**	**-70**

[1] Excludes Newborn service category
[2] Source: CT State Data Center (CTSDC)
[3] Excludes bassinets

Table 16. Acute Care Hospital 2020 Bed Need, Tolland County

County	Services[1]	FY 2011 patient days	FY 2012 patient days	FY 2013 patient days	FY 2011 ADC	FY 2012 ADC	FY 2013 ADC	Weighted ADC	Tolland County Pop chg 2015 to 2020[2]	Projected ADC	Target Occupancy	Beds Needed 2020	Licensed Beds[3]	Excess (-) or Deficit (+)
Tolland County	Medical/Surgical													
	0-14	0	0	0	0.0	0.0	0.0	-	0.93074	0.0	0.80	0		
	15 - 44	2,226	2,171	2,264	6.1	5.9	6.2	6.1	1.00969	6.2	0.80	8		
	45 - 64	6,201	6,830	6,421	17.0	18.7	17.6	17.9	0.98044	17.5	0.80	22		
	65+	15,396	16,246	15,615	42.2	44.5	42.8	43.3	1.20444	52.1	0.80	65		
	Sub Total	**23,823**	**25,247**	**24,300**	**65.3**	**69.2**	**66.6**	**67.2**		**75.8**		**95**		
	Maternity													
	0-14	0	0	0	0.0	0.0	0.0	-	0.93517	0.0	0.50	0		
	15 - 44	833	608	562	2.3	1.7	1.5	1.7	1.00881	1.7	0.50	3		
	45 - 64	0	0	0	0.0	0.0	0.0	-	0.99659	0.0	0.50	0		
	65+	0	0	0	0.0	0.0	0.0	-	1.19032	0.0	0.50	0		
	Sub Total	**833**	**608**	**562**	**2.3**	**1.7**	**1.5**	**1.7**		**1.7**		**3**		
	Psychiatric													
	0-14	0	0	0	0.0	0.0	0.0	-	0.93074	0.0	0.80	0		
	15 - 44	1,113	1,420	1,346	3.0	3.9	3.7	3.6	1.00969	3.7	0.80	5		
	45 - 64	1,107	1,418	1,342	3.0	3.9	3.7	3.6	0.98044	3.6	0.80	4		
	65+	259	137	257	0.7	0.4	0.7	0.6	1.20444	0.7	0.80	1		
	Sub Total	**2,479**	**2,975**	**2,945**	**6.8**	**8.2**	**8.1**	**7.9**		**8.0**		**10**		
	Rehabilitation													
	0-14	0	0	0	0.0	0.0	0.0	-	0.93074	0.0	0.80	0		
	15 - 44	0	0	0	0.0	0.0	0.0	-	1.00969	0.0	0.80	0		
	45 - 64	0	0	0	0.0	0.0	0.0	-	0.98044	0.0	0.80	0		
	65+	0	0	0	0.0	0.0	0.0	-	1.20444	0.0	0.80	0		
	Sub Total	**0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**-**		**0.0**		**0**		
	Pediatric													
	0-19	71	58	33	0.2	0.2	0.1	0.1	0.94612	0.1	0.80	0		
	20+	0	0	0	0.0	0.0	0.0	-	1.04017	0.0	0.80	0		
	Sub Total	**71**	**58**	**33**	**0.2**	**0.2**	**0.1**	**0.1**		**0.1**		**0**		
Total		**27,206**	**28,888**	**27,840**	**75**	**79**	**76**	**76.9**		**85.6**		**108**	**194**	**-86**

[1] Excludes Newborn service category
[2] Source: CT State Data Center (CTSDC)
[3] Excludes bassinets

Table 17. Acute Care Hospital 2020 Bed Need, Windham County

County	Services[1]	FY 2011 patient days	FY 2012 patient days	FY 2013 patient days	FY 2011 ADC	FY 2012 ADC	FY 2013 ADC	Weighted ADC	Windham County Pop chg 2015 to 2020[2]	Projected ADC	Target Occupancy	Beds Needed 2020	Licensed Beds[3]	Excess (-) or Deficit (+)
Windham County	Medical/Surgical													
	0-14	0	0	0	0.0	0.0	0.0	-	0.95771	0.0	0.80	0		
	15 - 44	2,977	2,758	2,499	8.2	7.6	6.8	7.3	1.00029	7.3	0.80	9		
	45 - 64	8,213	7,852	7,168	22.5	21.5	19.6	20.7	1.01073	21.0	0.80	26		
	65+	18,167	17,186	16,181	49.8	47.1	44.3	46.2	1.22440	56.5	0.80	71		
	Sub Total	**29,357**	**27,796**	**25,848**	**80.4**	**76.2**	**70.8**	**74.2**		**84.8**		**106**		
	Maternity													
	0-14	5	2	0	0.0	0.0	0.0	0.0	0.95605	0.0	0.50	0		
	15 - 44	2,408	2,623	2,464	6.6	7.2	6.8	6.9	0.99720	6.9	0.50	14		
	45 - 64	10	2	0	0.0	0.0	0.0	0.0	1.01070	0.0	0.50	0		
	65+	0	0	0	0.0	0.0	0.0	-	1.19786	0.0	0.50	0		
	Sub Total	**2,423**	**2,627**	**2,464**	**6.6**	**7.2**	**6.8**	**6.9**		**6.9**		**14**		
	Psychiatric													
	0-14	0	0	6	0.0	0.0	0.0	0.0	0.95771	0.0	0.80	0		
	15 - 44	2,400	2,396	2,497	6.6	6.6	6.8	6.7	1.00029	6.7	0.80	8		
	45 - 64	1,368	1,550	1,206	3.7	4.2	3.3	3.7	1.01073	3.7	0.80	5		
	65+	546	160	590	1.5	0.4	1.6	1.2	1.22440	1.5	0.80	2		
	Sub Total	**4,314**	**4,106**	**4,299**	**11.8**	**11.2**	**11.8**	**11.6**		**11.9**		**15**		
	Rehabilitation													
	0-14	0	0	0	0.0	0.0	0.0	-	0.95771	0.0	0.80	0		
	15 - 44	0	0	0	0.0	0.0	0.0	-	1.00029	0.0	0.80	0		
	45 - 64	0	0	0	0.0	0.0	0.0	-	1.01073	0.0	0.80	0		
	65+	0	0	0	0.0	0.0	0.0	-	1.22440	0.0	0.80	0		
	Sub Total	**0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**-**		**0.0**		**0**		
	Pediatric													
	0-19	279	221	157	0.8	0.6	0.4	0.5	0.96487	0.5	0.80	1		
	20+	0	0	0	0.0	0.0	0.0	-	1.05121	0.0	0.80	0		
	Sub Total	**279**	**221**	**157**	**0.8**	**0.6**	**0.4**	**0.5**		**0.5**		**1**		
Total		**36,373**	**34,750**	**32,768**	**100**	**95**	**90**	**93.2**		**104.1**		**135**	**234**	**-99**

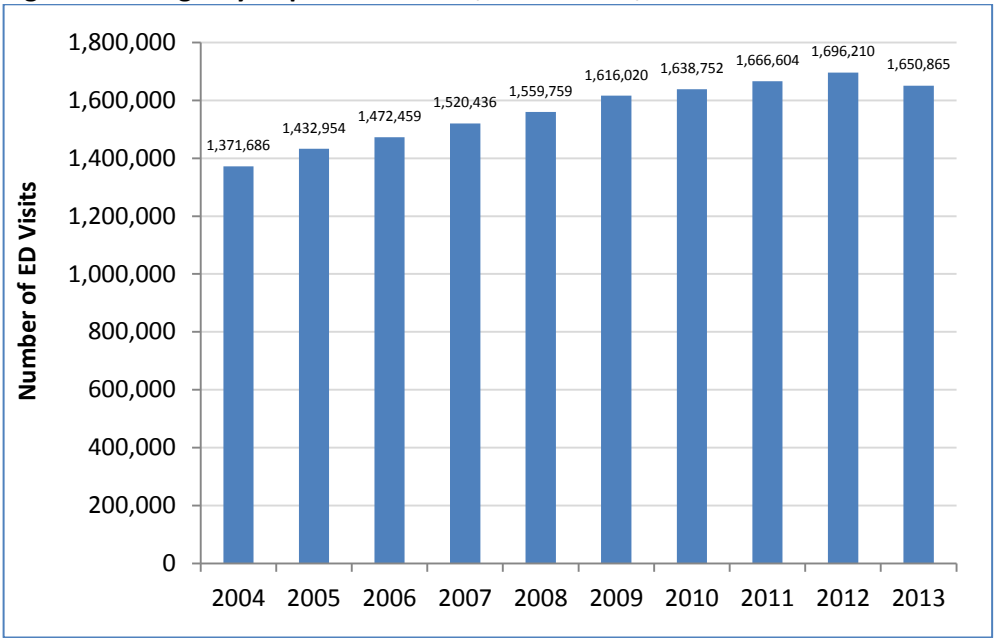
[1] Excludes Newborn service category
[2] Source: CT State Data Center (CTSDC)
[3] Excludes bassinets

Emergency Departments

Connecticut has emergency departments in each of its acute care hospitals. The emergency department (ED) provides initial treatment and assessment to patients with a broad range of illnesses and injuries, some of which may be life threatening.

As shown in **Figure 3**, in 2004, there were 1,371,686 visits made to the emergency departments (EDs) of Connecticut's acute care general hospitals. By 2013, the number of visits rose to 1,650,865, an increase of 20%. Residents of the state made 96% of those visits. The annual rate for Connecticut residents visiting the ED was 350 visits per 1,000 residents in 2004 and 459 visits in 2013. Females make up 51.3% of the population and comprised 53.5% visits to the ED in 2013 (485 visits per 1,000 females); males visited the ED at the rate of 433 per 1,000, a rate that is 12% lower than women.

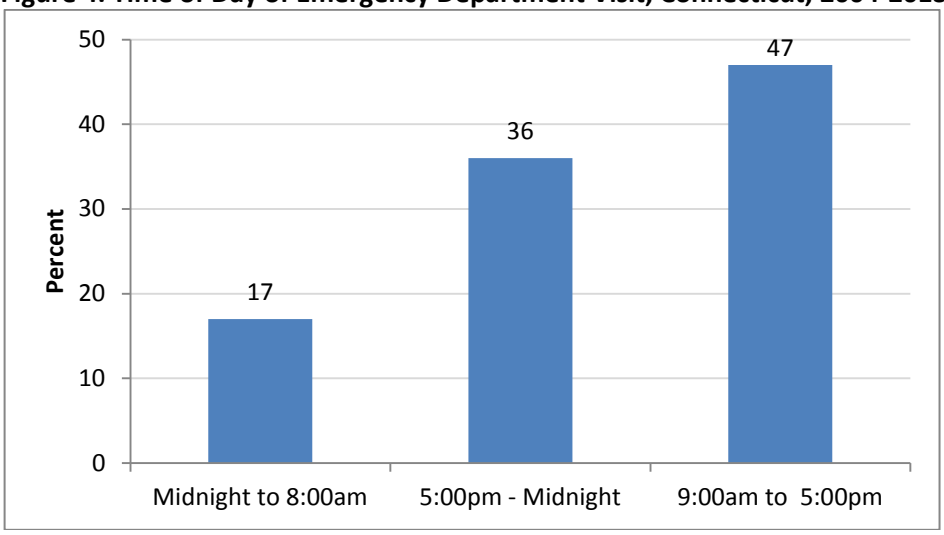
Figure 3. Emergency Department Visits, Connecticut, 2004-2013



Prepared by: Connecticut Department of Public Health, Office of Health Care Access
Source: Connecticut Hospital Association's ChimeData

From 2004 to 2013, there has been little change in the time of day that people visit the ED (**Figure 4**). The largest percentage of persons who visited the ED did so between 9:00 am and 5:00 pm (47%).

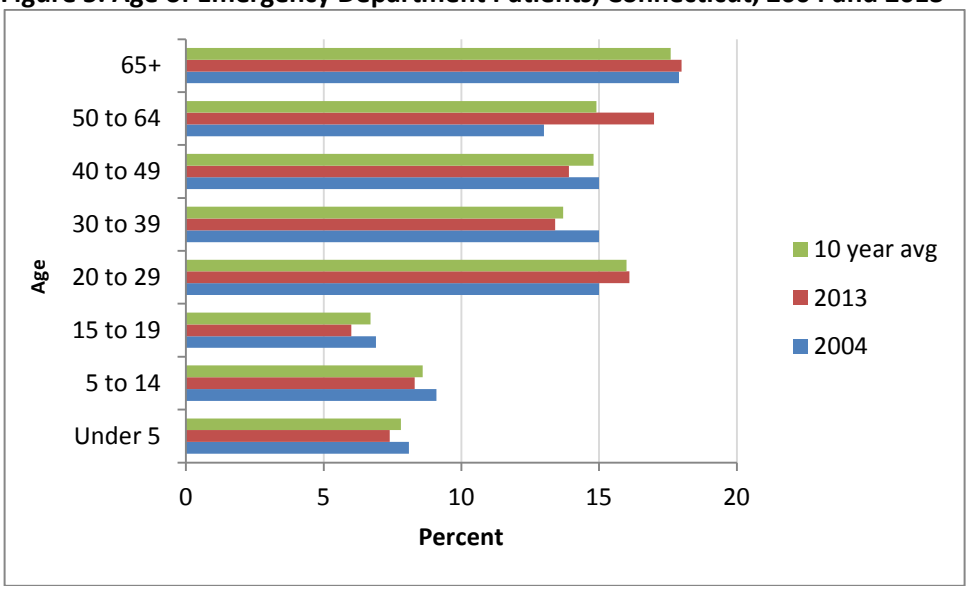
Figure 4. Time of Day of Emergency Department Visit, Connecticut, 2004-2013



Prepared by: Connecticut Department of Public Health, Office of Health Care Access
Source: Connecticut Hospital Association's ChimeData

As shown in **Figure 5**, in 2004 and 2013 the largest proportion of emergency department visits were among persons age 65 and older, followed by those age 20 to 29 and age 50 to 64. Over this period, there was a 4% increase in the number of persons age 50 to 64 who visited the ED.

Figure 5. Age of Emergency Department Patients, Connecticut, 2004 and 2013

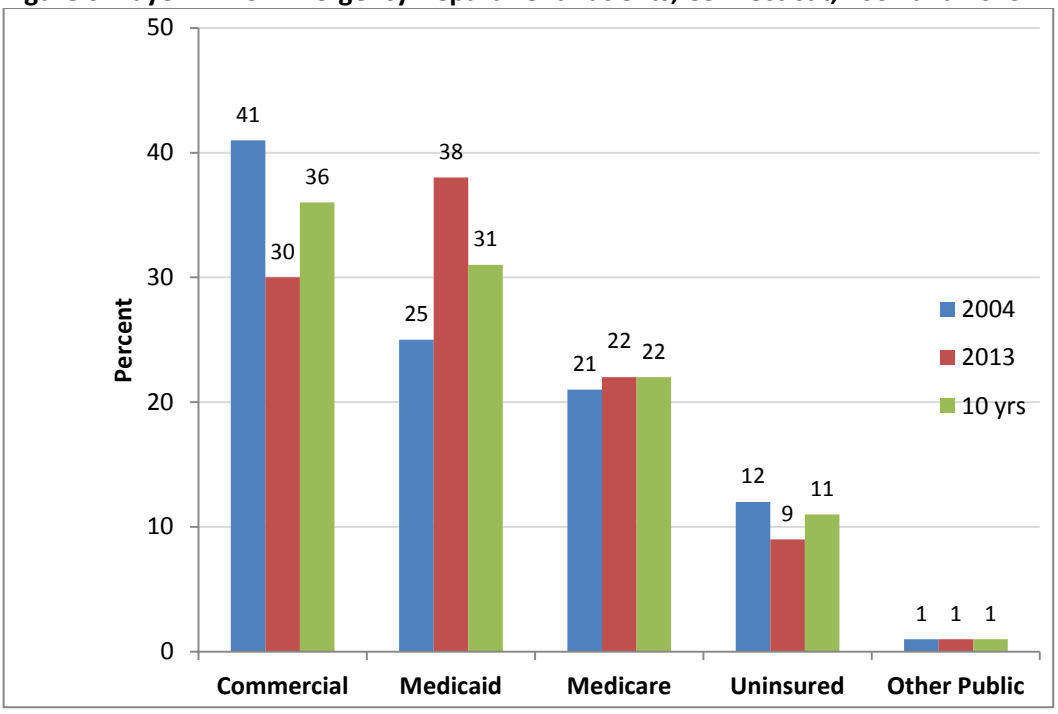


Prepared by: Connecticut Department of Public Health, Office of Health Care Access
Source: Connecticut Hospital Association's ChimeData

In 2004 (**Figure 6**), the largest proportion of emergency department visits was among patients with commercial health insurance (41%), followed by patients with Medicaid (25%) and Medicare (21%). In contrast, in 2013, the largest proportion of emergency department visits was among patients with Medicaid (38%), followed by patients with commercial insurance (30%) and Medicare (22%). From 2004 to 2013, the percentage of uninsured patients fell from 11.7% to 9.2%.

A central goal of the Affordable Care Act (ACA) is to reduce the number of uninsured by providing a continuum of affordable coverage options through Medicaid and the health insurance marketplaces. Connecticut is one of 28 states that implemented expansion of Medicaid. This is evidenced by the increase in the number of Medicaid covered persons visiting the ED in 2013, as well as the decrease in the number of uninsured persons.

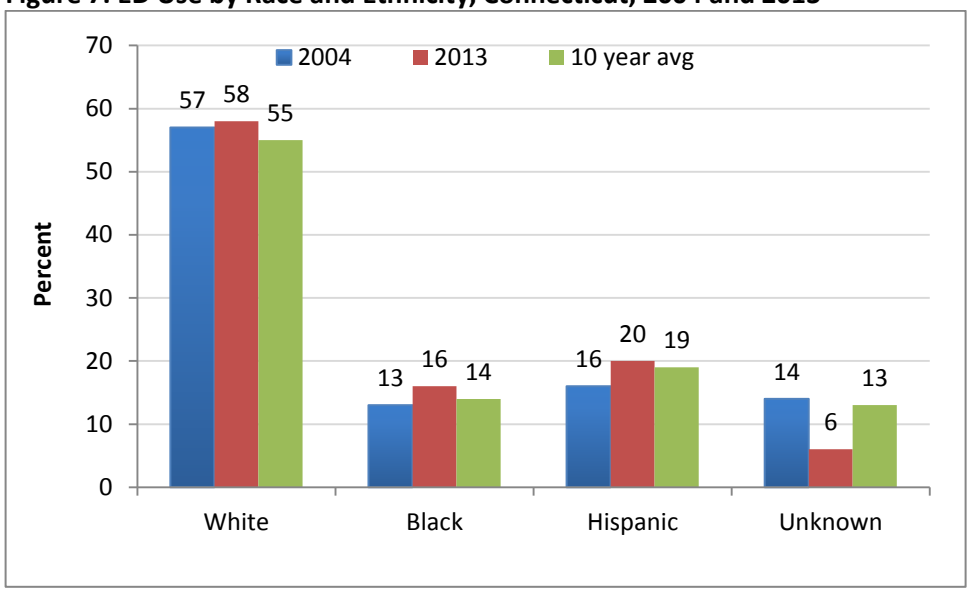
Figure 6. Payer Mix of Emergency Department Patients, Connecticut, 2004 and 2013



Prepared by: Connecticut Department of Public Health, Office of Health Care Access
Source: Connecticut Hospital Association's ChimeData

Federal law requires that providers collect information concerning a patient's race and ethnicity (**Figure 7**). In 2013, the reported race and ethnicity of ED patients was collected more thoroughly and accurately than in previous years. The number of persons reported as "Unknown" decreased from 14% in 2004 to 6% in 2013. Future reporting will make rate information based on populations of the various races and ethnicities meaningful and useful for health care planning. Collecting accurate demographic data is important, as health disparities have been identified among racial and ethnic minorities (see Chapter 3 for additional detail).

Figure 7. ED Use by Race and Ethnicity, Connecticut, 2004 and 2013



Prepared by: Connecticut Department of Public Health, Office of Health Care Access
Source: Connecticut Hospital Association's ChimeData

An alternate method of looking at the rate of ED use is by county (**Table 18**). Connecticut's largest cities are within one of the following counties: Fairfield, New Haven and Hartford. However, New London had the highest rate of ED visits. There may be several reasons for the higher rate, one being that New London County was previously identified as an area of the state with the highest rate of avoidable ED visits.[41]

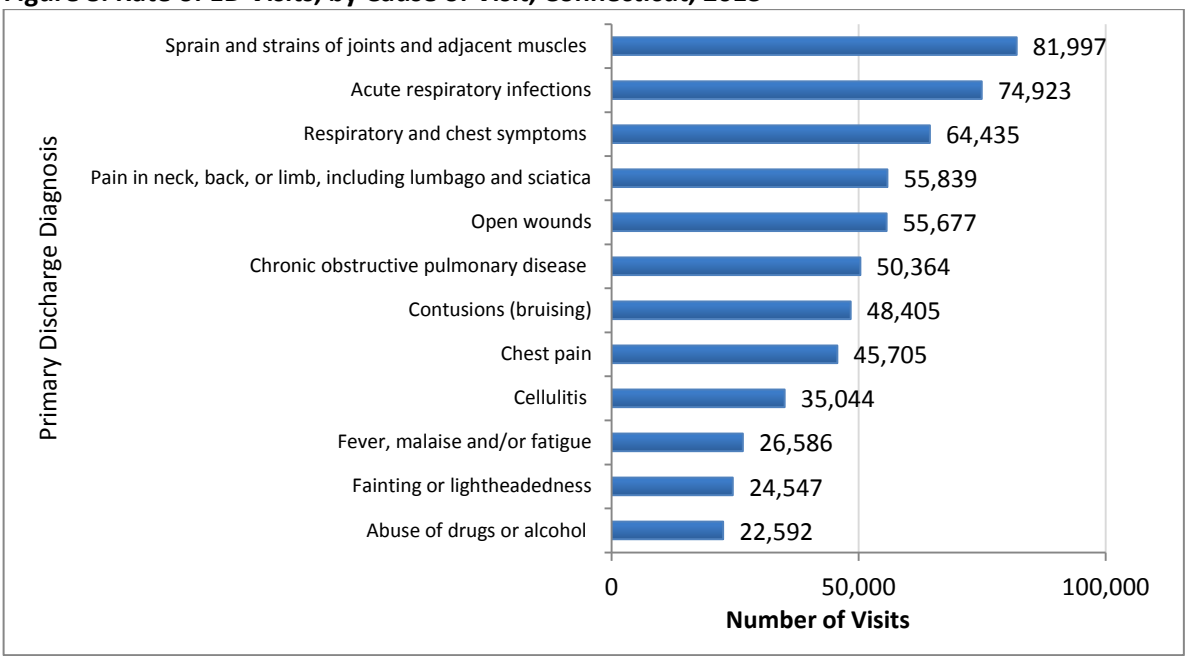
Table 18. Number of ED Visits per 1,000 Persons, Connecticut, 2004 and 2013

Number of ED Visits per 1,000 Persons		
County	**FY 2004**	**FY 2013**
Fairfield	316	370
Hartford	393	484
Litchfield	367	406
Middlesex	376	424
New Haven	417	476
New London	469	528
Tolland	284	343
Windham	376	462

Prepared by: Connecticut Department of Public Health, Office of Health Care Access
Source: Connecticut Hospital Association's ChimeData

In FY 2013, 37% of all ED visits were for one of 12 reasons (**Figure 8**). Joint and muscle sprains and strains were the primary reasons for going to the ED, accounting for nearly 82,000 ED visits. Acute respiratory infections and respiratory and chest symptoms were the second and third top reasons for ED visits.

Figure 8. Rate of ED Visits, by Cause of Visit, Connecticut, 2013



Prepared by: Connecticut Department of Public Health, Office of Health Care Access
Source: Connecticut Hospital Association's ChimeData

ED Use for Psychiatric/Drug or Alcohol Related Disorders

From 2009 to 2013, there were almost 8 million visits made to an ED in Connecticut by state residents. Of these visits, one million were for psychiatric, drug or alcohol-related mental disorders**. Table 19** reports selected demographic information for these visits.

Table 19. Connecticut Residents ED Visits for Psychiatric and Drug or Alcohol-Related Mental Disorders, 2009 to 2013

Category	Group	5- year Percentage	
		Drug or Alcohol Related ED Visits	Psychiatric Related ED Visits
Sex	Male	72.5%	47.9%
	Female	27.5%	52.1%
Race/Ethnicity	White	60.3%	58.3%
	Black	14.2%	13.5%
	Hispanic	15.3%	17.1%
	Other/Unknown	10.2%	11.0%
Age Group	Under 18	2.5%	15.1%
	18 to 39	36.5%	40.3%
	40 to 64	56.7%	35.5%
	65 and Over	4.3%	9.1%
Town Grouping	Urban Core	49.9%	43.4%
	Urban Periphery	32.2%	33.8%
	Rural	5.9%	9.3%
	Suburban	6.5%	7.6%
	Wealthy	5.6%	5.9%
Primary Payer	Medicaid	48.9%	43.3%
	Uninsured	18.5%	8%
	Commercial	19.2%	24.5%
	Medicare	13.4%	24.3%
Disposition	Discharged Home	80.2%	61.1%
	Admitted as Inpatient	15.4%	31.1%
Admission Time	9 a.m. to 5 p.m.	34.4%	47.7%
	5 p.m. to Midnight	43.1%	37.2%
	Midnight to 9 a.m.	22.5%	15.0%

Prepared by: Connecticut Department of Public Health, Office of Health Care Access
Source: Connecticut Hospital Association's ChimeData
Table reflects ICD-9 Codes 290-316

Adults

Drug or Alcohol-Related ED Visits

- Men make three times more drug and alcohol-related ED visits than women. White males and females, ages 40 to 64 and living in an urban core or urban periphery town make up 20% of these visits. Almost six out of ten visits involve alcohol, including drunkenness, psychoses and physical complications or long-term alcohol use.

Psychiatric-related ED Visits

- For all age groups, the primary reasons for visiting the ED are for a nonpsychotic disorder such as anxiety or depression or affective psychoses, such as bipolar disorders. In persons 65 and older, dementia also becomes one of the primary reasons. Almost one-third of persons have needed to be admitted for inpatient treatment.

Children

Of the children visiting the ED for issues relating to behavioral health, nine out of ten were treated for a psychiatric-related disorder. Common diagnoses made are episodic mood disorder, anxiety and depression. Disorders considered specific to childhood, such as oppositional defiant disorder, attention deficit disorder and disruptive behaviors are also common. Medicaid is the primary payer (57%) for children.

For ED visits by Connecticut state residents overall, Medicaid is the primary payer for drug and alcohol related disorders (48.9%) and for psychiatric disorders (43.3%). It is also the primary payer for those patients that reside in an urban core or urban periphery town.

Public Act 14-217 requires that the Department of Social Services, the state agency that oversees the Medicaid program, amend the Medicaid state plan to include services provided to Medicaid recipients age 21 or older by licensed behavioral health clinicians, psychologist, clinical social workers, drug and alcohol counselors, professional counselors and marriage and family therapists.

Alternative Sources for Urgent or Immediate Care

Published studies point toward a continued misuse of the ED for non-emergent care or visits for health issues that could be more appropriately treated in other settings. Ideally, non-emergency care should be treated at a medical home, such as a patient's regular private practitioner or community health center. Both an emergency department and a walk-in health care setting, which lack a comprehensive or continuing relationship with the patient, may be less ideal than receiving care through a medical home. However, there is growth in the models available and use of "walk-in" care. With the proliferation of urgent care settings easily available to serve patients, questions have been raised as to how patients are using such urgent care centers and other retail-based health clinics and whether they are reducing misuse of the ED.

Urgent Care Centers, Including Retail-Based Clinics

Urgent care centers (immediate care centers, walk-in clinics) have existed for a number of decades. However, different models of care in this setting continue to evolve and the overall numbers of these services appear to be increasing. Urgent care centers can be licensed by the state as an Outpatient Clinic, such as Enfield Ambulatory Care Center, LLC; as a satellite to a general hospital, such as Saint Vincent's Urgent Care Walk-In Center or, like the vast majority in Connecticut, under a private physician's or advanced practice registered nurse's (APRNs) license. There is not a single license category for the urgent care setting or a statutory definition for this term. As such, it remains difficult to fully inventory, categorize or discuss this level of service in the state. However, the issue has increased in prominence as these sites may relieve EDs of unnecessary patient visits for non-emergent care, but also may syphon off patient visits that would be better seen at a regular private practitioner or medical home, familiar with the patient and the patient's medical history. In the last several years, the issue of retail-based care (urgent care offered in a convenient retail setting) has jumped to the forefront of discussions of appropriate placement for patient care. A summarization of this follows based on literature available regarding the models of urgent care and its effect on the health care system overall.

Unlike EDs, which are generally open 24 hours/7 days a week and provide services for life-threatening issues, urgent care centers provide walk-in, extended hour access for acute illness and injury care, but are generally not equipped to address major medical trauma or conditions.[42] Urgent care centers often have on-site x-ray machines and laboratory testing.[43, 44] There are more than 9,000 urgent care centers across the nation, seeing approximately 115,596,000 patient visits each year and costing about $100 each due to lower overhead costs.[45, 46, 47] Growth in this industry, which is a $14.5 billion market, is largely driven by investments from private equity firms; a rise in the insured population; growing demand for convenient alternatives to long waits at EDs and limited office hours at physician's offices; and greater use of electronic health records, patient portals and e-prescribing to facilitate access to health care records.[48]

Urgent care centers may exacerbate health care inequities as they may not accept Medicaid or treat persons who do not have health insurance, whereas hospital's EDs are mandated to treat everyone.[49] There is also some concern in the field regarding the quality of care and potential fragmentation of care through these urgent care centers.[50] Most states do not require urgent care centers to be licensed.[51]

Retail-based health clinics are clinics that offer basic health care services and are located within a retail setting such as a drug store, pharmacy, grocery store or superstore.[52] An APRN alone or physician's assistant, under the supervision of an off-site physician, provides clinic services. Health care services and costs are clearly indicated and diagnostics may be protocol-driven. Services are available daily and generally do not require an appointment.[53] Basic services generally cost $45 to $75 on average, not including prescription costs.[54] Treatment at these settings may be limited to minor illnesses (e.g., allergy symptoms, sore throat).

The concept of retail clinics began in 2000 and grew by a 65% annual growth rate from 2000 to 2007, with an estimated 15% growth rate from 2008 to 2009. Estimates from 2009 anticipate a 10-15% growth rate from 2010 to 2012 and more than 30% growth rate from 2013 to 2014.[55] Estimates indicate that from 2007 to 2009, use of retail clinics grew four- to ten-fold.[56, 57] Retail clinics account for approximately 6 million annual visits.[58] Initially, clinic visits were not paid for through health insurance.[59] However, insurance companies are increasingly covering care received at retail clinics.[60]

One study indicates a shift in the population and health care needs addressed by the growing retail clinic industry. Compared to patients who visited retail clinics from 2000 to 2006, those who visited clinics in 2007 to 2009 were more likely to be 65 years of age or older. Further, preventive care (e.g., influenza vaccine) comprised a larger share of the clinic visits than in prior years.[61] From 2007 to 2009, 44.4% of retail clinic visits occurred during the weekend or weekday evenings, when most physicians' offices are closed.[62]

Implications for Primary Care and Emergency Department Usage

The growth of urgent care settings, such as retail clinics has contributed to some concern in the field and among several medical associations that this type of care setting may contribute to the fragmentation of care, inadequate follow-up and preventive care, and misdiagnoses, particularly for clinics that are not affiliated with a health care system.[63, 64] One study based on an analysis of claims data from 2007 to 2009 found that retail clinics may disrupt two aspects of primary care: whether patients go to a primary care physician (PCP) first for new conditions and for continuity of care. However, this study found that retail clinics do not adversely impact preventive care or diabetes management.[65]

An analysis of retail clinic utilization from 2000 to 2007 indicates the ten common clinical conditions that retail clinics address comprise 30.1% of pediatric primary care visits, 13.0% of primary care visits for adults, 23.2% of pediatric ED visits and 8.3% of ED visits for adults.[66] In another study, estimates based on retail clinic claims data from 2007 indicate that 13.7% of all ED visits could be addressed at retail clinics.[67] Utilization of retail clinics and urgent care centers, rather than the ED, are estimated to save potentially $.4.4 billion annually.[68]

While urgent care settings and models appear to be experiencing continued growth, their effect on Connecticut's health care system is not clear. As DPH is only made aware of the location of those entities that it licenses as outpatient clinics or satellites of hospitals, the agency is limited in its ability to assess the Connecticut-specific impact of this level of care. Questions remain, including how the population should use these settings and whether or not their continued growth has or will alleviate inappropriate use of the hospital emergency department for non-emergent care.

Safety Net Preservation

Hospitals and their EDs serve as critical safety net providers of health care to many Connecticut residents, treating a substantial number of patients who are uninsured, have limited ability to pay or are indigent. As OHCA's mission is to ensure access to a quality health care delivery system, it is important that the Certificate of Need (CON) process consider how health care facility and service changes will affect the viability of the overall health care system and to preserve safety net providers. These factors along with impending changes resulting from the Affordable Care Act (ACA) spurred CON reform in 2010.

The goal of CON reform was to improve CON review criteria to address the financial stability of the health care delivery system, preserve access to safety net services and to align better with federal health care reform. To align better with new value driven models of health care delivery (as opposed to volume driven), OHCA sharpened the focus of CON oversight to include two services identified as being of concern for potential overutilization, outpatient surgical facilities and imaging.

In order to better assess community need for these services, OHCA in its initial Health Care Facilities and Services Plan, developed an inventory of providers and gathered some preliminary aggregate utilization data to learn more about the use and distribution of these services. Gaps in the data, however, were evident. As a result, more comprehensive data will be collected from outpatient surgical facilities beginning in July 2015 to help OHCA assess the need for these services.

The information available regarding outpatient surgery and imaging is summarized in **Table 20** and **Table 21** below:

Table 20. Outpatient Surgical Specialty by Facility Type, Connecticut, 2014

Surgery Type	Hospital-Based Surgical Location	Hospital Satellite Surgical Location	Outpatient Surgical Facility
Gastroenterology	30	12	25
General	28	14	10
Gynecology	28	12	11
Neurosurgery	24	6	6
Ophthalmology	27	14	15
Oral	22	7	5
Orthopedic	28	13	18
Otolaryngology	27	12	7
Pain Management	16	11	18
Plastic	25	14	18
Podiatry	26	11	9
Urology	27	12	6
Other Services	11	4	7

Source: Connecticut Department of Public Health, Office of Health Care Access, Health Care Facilities and Services Survey 2014

Table 21. Imaging Services by Facility Type, Connecticut, 2014

Type of Imaging Service	Number of Facilities that Provide Imaging Service	Quantity of Imaging Technology
MRI	**110**	**131**
Acute Care Hospitals	29	46
Hospital Satellite Locations	29	32
Non-Hospital Provider Sites	52	53
CT Scanner	**102**	**129**
Acute Care Hospitals	29	55
Hospital Satellite Locations	27	28
Non-Hospital Provider Sites	46	46
PET/PET-CT	**25**	**26**
Acute Care Hospitals	16	17
Hospital Satellite Locations	7	7
Non-Hospital Providers	2	2

Source: Connecticut Department of Public Health, Office of Health Care Access, Health Care Facilities and Services Survey, 2014.

3

At-Risk and Vulnerable Populations and Unmet Need

- Overview
- Unmet Need Composite Index Methodology
- Health Outcomes of Connecticut's At-Risk and Vulnerable Populations
- Unmet Need Composite Index
- Hospital Service Availability
- Hospital Community Needs Assessment and Implementation Plans Across Connecticut

CHAPTER 3. AT-RISK AND VULNERABLE POPULATIONS AND UNMET NEED

OVERVIEW

In addition to the projections of future acute care bed needs, this 2014 supplementary plan focuses on the issue of unmet health care need. It is important to understand that unmet health needs are disproportionately experienced among population sub-groups and geographic areas across Connecticut.

To align efforts and inform a data-driven planning process, the Connecticut Department of Public Health, in partnership with other state, local and regional entities, recently completed the *Healthy Connecticut 2020* State Health Assessment (SHA).[69] The SHA provides a detailed overview of the social, economic, physical well-being and mental health of our state's population. Guided by findings from the SHA, the partnership also developed the *Healthy Connecticut 2020* State Health Improvement Plan (SHIP)[70] to inform policy and program changes intended to improve the health of and health equity among Connecticut's residents. The SHIP includes recommendations for improving health care access and quality in an effort to achieve these objectives. Data and narrative in this section align with the *Healthy Connecticut 2020* reports and process.

This section provides a review of the health status, outcomes and unmet health care need of at-risk or vulnerable populations in Connecticut and attempts to identify communities most likely to have unmet health need in addition to those identified by hospitals in their community health needs assessments.

Persons At-Risk and Vulnerable Populations in Connecticut

While the state has an overall favorable health profile compared to the rest of the nation, the health of Connecticut's residents is not equally distributed across population groups or geographic regions. Barriers to the opportunities to live a healthy life may be disproportionately concentrated among certain populations, such as racial and ethnic minorities, low-income populations and the less educated. The influences of socioeconomic factors on health patterns and outcomes are often intertwined and demonstrably result in health disparities.

DPH's working definition of health disparities and priority populations among which they occur is: "*the differences in disease risk, incidence, prevalence, morbidity, mortality and other adverse conditions, such as unequal access to quality care that exist among specific population groups in Connecticut. Population groups may be based on race, ethnicity, age, gender, socioeconomic position, immigrant status, sexual minority status, language, disability, homelessness and geographic area of residence. Specifically, health disparities refer to those avoidable differences in health that result from cumulative social disadvantages.*"[71]

At-risk or vulnerable populations include the elderly; residents with incomes below 200% of the federal poverty level; residents in urban core areas, defined as towns with the highest poverty and most dense population; racial or ethnic minorities such as Black non-Hispanics, Hispanics, American Indians, Asians and other non-White groups; residents of rural areas; persons who do not have insurance; homeless populations; non-English speakers; lesbian, gay, bisexual and transgender (LGBTQ) residents and immigrants.

Table 22 provides an estimate of Connecticut's at-risk or vulnerable residents and the percentage in poor health in 2012 (these population groups are not mutually exclusive). Overall, about 2.9% of the state's residents were estimated to be in poor health. In general, Connecticut's at-risk or vulnerable residents were more likely to be in poor health than other residents. For example, Connecticut residents with low-income

(4.5%) or elderly (5.1%), less than a high school education (9.9%) or disabled (15.4%) were much more likely to be in poor health than the overall population.

Table 22. Connecticut At-Risk or Vulnerable Populations by Health Status

Priority Population Group	Description of Connecticut Priority Population Group	Number of CT Population	% of CT Population	% of Priority Population in Poor Health[7]
Total population[1]	Total Connecticut population	3,590,347	100.0%	2.9%
Elderly[1]	Population 65 years of age or older	532,024	14.8%	5.1%
Low income[2]	Population with incomes below the federal poverty level	384,167	10.7%	4.5%
Less than college education[3]	Population <25 years old with less than a college education	1,546,841	43.1%	5.8%
	Less than high school: 10.1%			9.9%
	Graduated high school/GED: 27.8%			4.3%
	Some college: 25.0%			6.3%
Unemployed	Population age 16 and older who are in the civilian labor force and are unemployed	189,561	6.6%	3.9%
Racial or ethnic minority[1]	Population of non-White racial or ethnic backgrounds	1,077,574	21.9%	4.3%
	Black or African American only: 9.4%			5.0%
	Asian only: 4.1%			2.9%
	American Indian only: <0.01%			N/A
	Other/2+ races: 2.0%			11.3%
	Hispanic, any race: 14.2%			3.9%
Immigrants[3]	Immigrants: Population born outside of U.S.	495,421	13.8%	4.1%
	Non-English speaking: Population who speak a language other than English at home, among population 5+ years of age	755,297	22.2%	N/A
	Speak English less than "very well"	288,142	8.5%	N/A
Uninsured[2]	Population under age 65 that is uninsured	321,972	9.0%	1.7%
	Children (<18 years old): 3.8%			
	Adults (18-64 years old): 12.9%			1.9%
Homeless[4]	Population spending the night in emergency shelter, a transitional housing facility, or an unsheltered situation	4,506		N/A
Persons with a disability (by age group)[5]	Population with disability	376,618	10.7%	15.4%
	<5 years old: 0.7%			N/A
	5 to 17 years old: 5.0%			N/A
	18 to 64 years old: 8.2%			18.6%
	65+ years old: 31.7%			12.9%
Transportation[6]	Population with no vehicle available among occupied housing units	123,561	9.1%	N/A

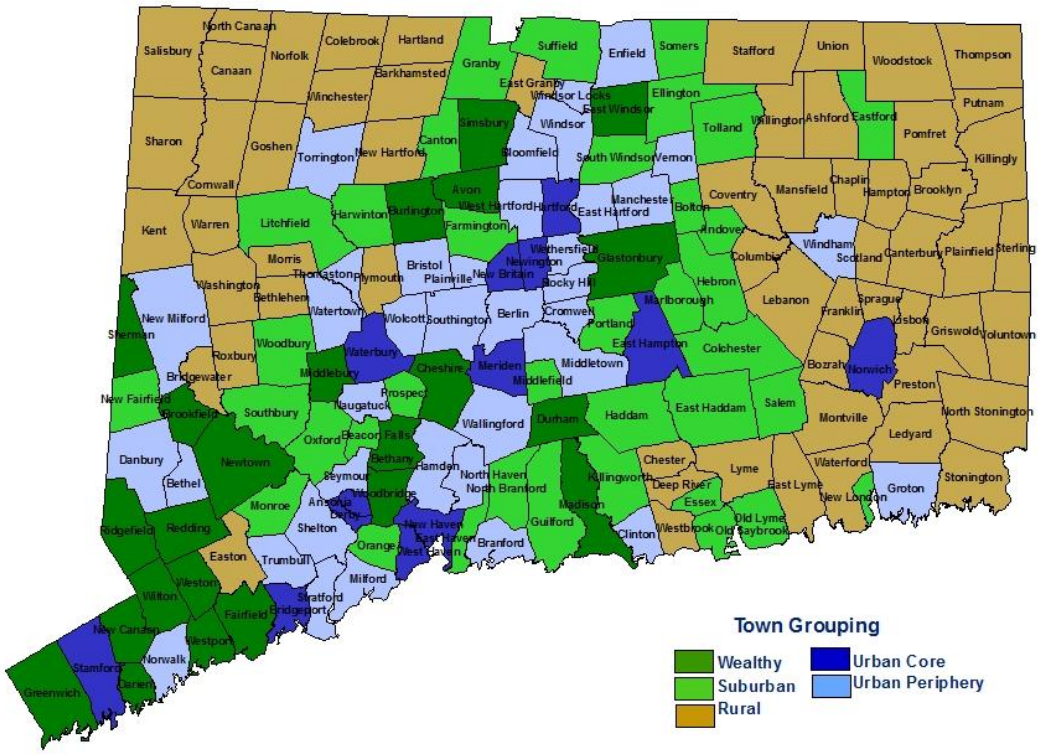
[1] U.S. Census Bureau, American Community Survey, 2012, 1-Year Estimates, DP05 File.
[2] U.S. Census Bureau, American Community Survey, 2012, 1-Year Estimates, DP03 File.
[3] U.S. Census Bureau, American Community Survey, 2012, 1-Year Estimates, DP02 File.
[4] Connecticut Coalition to End Homelessness, 2013 *Homeless Point in Time Count*, 2013.
[5] U.S. Census, American Community Survey, 2012, 1-Year Estimates, S1810 File.
[6] U.S. Census Bureau, American Community Survey, 2012, 1-Year Estimates, CP04 File.
[7] U.S. Census Bureau, Current Population Survey, Annual Social & Economic Supplements, 2013
NOTE: N/A indicates data not available

Town Socioeconomic Grouping: the "Five Connecticuts"

Disparities in health status, outcomes and unmet need also exist among communities in the state. Much work has already been done in Connecticut in examining the clustering of communities with similar socioeconomic characteristics in order to understand the wide variation in populations across the state. In 2009, the Connecticut State Data Center analyzed socioeconomic data for Connecticut's 169 towns and organized them into five distinct groups based on three characteristics: population density, median family income and percent of population living below the federal poverty level. They found that this combination clearly and accurately described population distribution in Connecticut.

The distribution of the "Five Connecticuts" across the state is shown in **Figure 9**. The classification categories range from "Wealthy" (exceptionally high income, low poverty and moderate population density) to "Urban Core" (lowest income, highest poverty and highest population density). In many cases, towns categorized in these extreme groups are found side-by-side or sandwiched between one another (e.g., Stamford between Greenwich and New Canaan or Waterbury between Middlebury and Cheshire).

Figure 9. Town Socioeconomic Grouping: the "Five Connecticuts," 2009



Source: Connecticut State Data Center. The Changing Demographics of Connecticut: the Five Connecticuts. Recreated graph from updated 2009 data provided through personal communication.

Numerous studies establish the strong relationship among socioeconomic status, geographic location, health outcomes, access to health care services and unmet health care need. The unmet need discussion that follows builds off of this previous work in understanding how a greater expanse of socioeconomic characteristics is distributed across Connecticut and the effect on health outcomes.

Unmet Health Care Need Definition

As in the *2012 Connecticut Health Care Facilities and Services Plan*, unmet health care need is defined using a two-pronged definition.

First, unmet need is defined as the inadequate availability of health care services deemed necessary to address a particular health problem.[72, 73] Using this definition, the barriers to accessing care may be one or more of the following:

- Physical unavailability of service or professional shortage;
- Mismatched services for the needs of the people -- that is, the health care system is unresponsive;
- Inferior available services as compared to the norm;

- Lack of knowledge regarding what services are available locally or how to access them;
- Lack of enabling services such as translation services to non-English speaking immigrants or transportation to facilitate access, especially in rural areas;
- Insufficient coordination between different providers of different levels and types of services;
- Complex health insurance payer rules such as eligibility for Medicare and/or Medicaid and for accessing services; and
- Inadequate collaboration among governmental agencies and/or community providers.

Second, unmet need is defined as when individuals of a distinct socio-demographic group, such as the uninsured or people with low income, forego or delay accessing needed available health care services because the associated costs are unaffordable. The Institute of Medicine (IOM) has identified lack of insurance as a significant driver of health disparities.[74]

These definitions of unmet health need aim to take into account the complexity of factors that have an adverse impact on health status as a result of limited or disproportionate access to care. Whichever definition is used, unmet need has to be quantified to determine the appropriate intervention(s) or policy change(s). The expected result is a more integrated health care delivery system in which resources are allocated efficiently based on agreed priorities to improve health status and eliminate inequalities.

UNMET NEED COMPOSITE INDEX METHODOLOGY

To assess unmet need in Connecticut, three indices were created. The Socioeconomic Status (SES) index comprises measures that are important determinants of health; the Health Outcomes (Outcomes) Index includes indicators that are proxies for a community's health and its overall health system; and the Unmet Need Index, which is a combination of the SES and Outcomes indices. These indices were developed using town-level U.S. Census Bureau sociodemographic and DPH hospitalizations and mortality data. Multi-year data for the most recent periods available were used for more reliable and precise estimates, particularly for smaller towns.

Using a simplified hybrid of the Oregon[75] and the Middling[76] approaches, these indices were created using several steps:

- For each measure or indicator within an index, divide the town or city prevalence rate by the rate for the state;
- Sum the results for the group of measures or indicators to obtain the index for the town or city;
- Each indicator for the state is assigned a value of 1, so the Connecticut index value is the number of indicators included in the index;
- Compare the index for the town or city to the Connecticut index value;
- An index value for a town or city below, equal, or above the Connecticut index value implies that the health or health care profile of the town or city is better than, equal to, or worse than the profile for the state. An index higher than the state's indicates the town or city has a higher probability of unmet health care need. A lower value implies the town or city has a better profile than the state and is less likely to have unmet need.

Socioeconomic Status (SES) Index

The SES index consists of social, demographic and economic factors established in the literature as having a significant impact on population health. This index includes U.S. Census five-year average (2008 to 2012) estimates of the following measures:

- Poverty status: percent of the population below the federal poverty level
- Educational attainment: percent of the population age 25 and older with less than a high school education or without a high school diploma
- Employment status: percent of the population age 16 and older that is unemployed
- Transportation: percent of the population age 16 or older that do not own a car
- Language proficiency: percent of the population that speaks English "less than very well"
- Health insurance status: percent of the population aged 18 to 64 that is uninsured
- Disability status: percent of the population that is disabled
- Age: percent of the population that is age 65 or older
- Racial or ethnic minority status: percent of the population that is non-white, non-Hispanic
- Medicaid coverage: percent of the population with Medicaid coverage

These indicators were selected for the SES index because they have all been found to have a significant association with health. For example, both lower education and lower income levels are highly correlated with poorer health outcomes; education may influence health outcomes through noneconomic pathways such as health-related knowledge, literacy and problem-solving skills.[77] Income may affect health through access to economic resources.[78] Additionally, evidence indicates that poverty is associated with adverse health outcomes.[79] Conversely, employment is associated with more favorable health outcomes,[80] since it provides income, benefits such as health insurance and other programs that are conducive to health, access to health care and economic stability.

Racial and ethnic minorities experience higher rates of morbidity and mortality compared to White non-Hispanics. For example, *Healthy Connecticut 2020* noted that Black non-Hispanic residents have greater morbidity, premature mortality and hospitalizations relative to White non-Hispanic residents.[81] While Hispanics may appear to have favorable or similar health patterns relative to White non-Hispanics, evidence indicates that adjusting for socioeconomic status unmasks health disparities among Hispanics.[82]

Persons without health insurance coverage experience barriers to receiving needed medical care are more likely to have poor health and experience premature mortality than persons with health insurance.[83] Medicaid is an important safety net program that provides health care access to the most economically vulnerable. Relative to the general population, Medicaid participants tend to have lower income and less education,[84] factors that are associated with worse health outcomes and limited health care access. Medicaid recipients are also known to experience difficulties in accessing specialty health care services.[85]

The population of older adults is the fastest growing age group in the U.S. and this population experiences increased risk of chronic conditions, dementia and related hospitalizations.[86] In Connecticut, the population of adults age 65 years and older is expected to increase by 64% by 2030.[87]

Persons with limited English language proficiency may experience challenges when communicating with health care providers. Ensuring the availability of translation services and health care materials in the language of persons with limited English language proficiency is critical for reducing disparities in health care, quality of care, medical errors and access.[88, 89]

Disability, which may affect persons across the life span, is associated with greater risk for unemployment, physical inactivity, tobacco use, overweight and obesity, chronic disease, distress and barriers to health care.[90]

Residents of rural communities may encounter unique barriers to accessing health care, as identified in the Connecticut Rural Health Report.[91] For example, accessing primary and specialty health care services that are a distance from rural communities may be a significant challenge, particularly for persons with limited access to transportation. Consequently, such residents may delay accessing care until their conditions become acute.

Given that there are ten indicators in the SES index, each assigned a value of 1 for the state, the Connecticut index summed to a value of 10. A value greater than 10 implies that the health or health care profile of the town or city is worse than the profile for the state and therefore has a higher probability of an unmet health care need. A value that is lower than the overall value for Connecticut implies that the town or city has a better profile than the state and is less likely to have an unmet health care need.

Health Outcomes Index

The health outcomes index is a measure of the community's health and includes five indicators of population health and access to health care services:

- Infant mortality rate: rate of infant deaths within the first year per 1,000 live births (2007-2009)
- Crude mortality rate per 100,000 population (2006-2010)
- Hospitalization rate for ambulatory care sensitive conditions per 100,000 population (2010-2012)
- Avoidable emergency department use rate per 100,000 populations (2011-2013)
- All-cause 30-day readmissions rate per 100 discharges (2011-2013)

These key measures are routinely used to indicate the health of a community and may represent differential access to prevention and treatment. The infant mortality and crude death rates provide a profile of health over the lifespan. The infant mortality rate is a measure of child survival and social, economic and environmental conditions in which children live. The crude death rate is influenced by the age distribution of specific populations because it reflects characteristics of the town or city, such as the age of the population. Avoidable hospitalizations, ED use and readmission rates may be used to assess the overall health care delivery system. Avoidable hospitalizations or ED use may also represent instances of hospital care for chronic and acute health conditions more appropriately treated or managed in a less expensive outpatient setting. Some readmissions are preventable and are symptomatic of a fragmented health care system, such as poor coordination of care between hospitals and community health providers, limited community-based care and insufficient hospital discharge planning.[92]

The five indicators comprise the health outcomes index and each indicator is assigned a value of 1 at the state-level, therefore the Connecticut health outcomes index summed to 5. A value greater than 5 implies that the health or health care profile of the town or city is worse than the profile for the state and therefore has a higher probability of an unmet health care need. A value that is lower than the overall value for Connecticut implies that the town or city has a better profile than the state and is less likely to have an unmet health care need.

Unmet Need Composite Index

The unmet need composite index is the sum of the SES and health outcomes indices and is an indicator of which towns or cities may have an unmet health care need. These assessments are not measures of exact need. The state-level index has a value of 15, which is the sum of the health status index (10) and the health care services access index (5). Thus, a value greater than 15 implies that the health or health care profile of the town or city is worse than the profile for the state and therefore has a higher probability of an unmet health care need. A value that is lower than 15 implies that the town or city has a better profile than the state and is less likely to have an unmet health care need.

Socioeconomic Factors, Health Outcomes and Unmet Need

This section discusses the factors included in the indices in more detail and presents the findings on unmet need in communities around the state.

There are a number of social and economic factors that influence health. Too many people experience substantial barriers to opportunity to be healthy and engaged in health-promoting behaviors. Examples of barriers facing individuals and families include living in unsafe neighborhoods and communities or having limited access to nutritious, affordable food or safe places to exercise; or experiencing violent relationships at home, in their neighborhoods or at school.[93] Marginalized populations, such as racial and ethnic minorities, homeless persons, persons with disabilities and the LGBTQ community, among others, may disproportionately experience these barriers to the opportunity to live a healthy life. Understanding factors that contribute to different health patterns for these populations can facilitate identification of data-driven and evidence-based strategies to promote well-being.

Health Status: Chronic Conditions

An issue exacerbating the differential access to health care services is that at-risk and vulnerable populations generally have a greater prevalence of chronic diseases than the overall population. **Table 23** provides an overview of selected leading chronic conditions and reasons why Connecticut residents seek health care. Prevalence and incidence of these conditions vary among population groups.

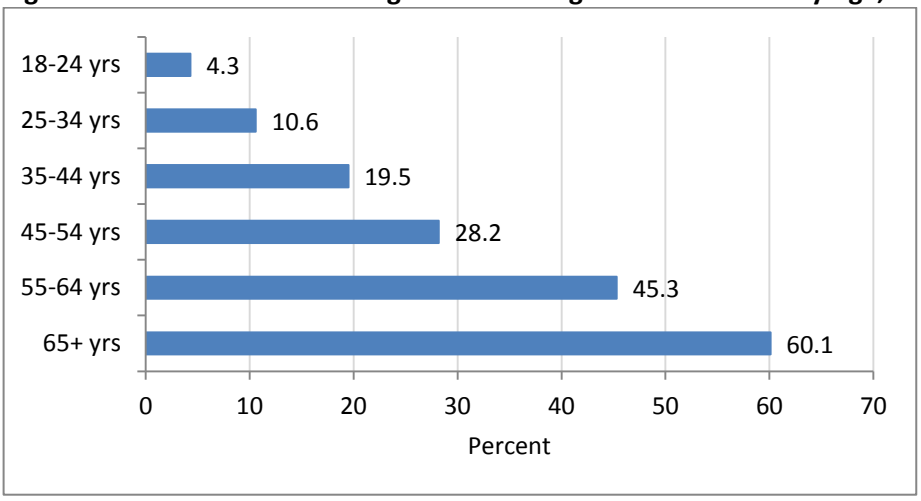
Table 23. Selected Leading Causes of Morbidity and Mortality, Connecticut

Health Condition	Incidence per 100,000/% Share
Cancer (Incidence)[1]	491.8 cases per 100,000 population
Heart Disease (Hospitalizations)[2]	875.2 cases per 100,000 population
Stroke (Hospitalizations)[2]	219.7 cases per 100,000 population
High cholesterol[3]	36.2%
Hypertension[3]	29.8%
Depressive disorder[4]	16.7%
Asthma[4]	
Children (<18 yrs)	18.7%
Adults (18+ yrs)	14.3%
Diabetes[4]	9.1%

[1] Connecticut Tumor Registry, Connecticut Department of Public Health, 2008-2010.
[2] Connecticut Department of Public Health, Hospitalization Tables, 2011, Table H-1.
[3] Connecticut Department of Public Health, Connecticut Behavioral Risk Factor Surveillance System, 2011.
[4] Connecticut Department of Public Health, Connecticut Behavioral Risk Factor Surveillance System, 2012.

For example, prevalence of high blood pressure and diabetes are patterned by age, race and ethnicity, education and income. In 2011, the prevalence of diagnosed high blood pressure among adults increased with age, varying from 4.3% among persons 18 to 24 years of age, to 60.1% for persons 65 years of age and older (**Figure 10**). These patterns reflect national trends in the increased risk of chronic conditions for older adults, the fastest growing age group in the U.S. and Connecticut.[94]

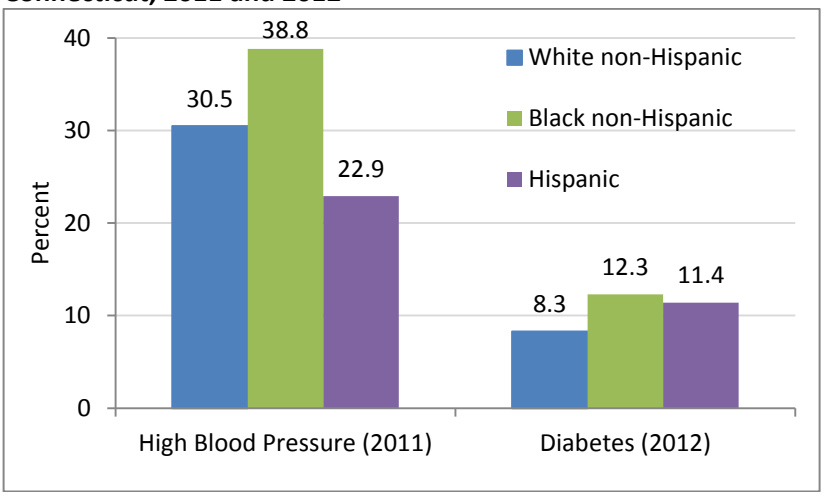
Figure 10. Percent of Adults Diagnosed with High Blood Pressure by Age, Connecticut, 2011



Source: Connecticut Behavioral Risk Factor Surveillance System, 2011, CDC.

Consistent with findings from the *Healthy Connecticut 2020* State Health Assessment, the prevalence of diagnosed high blood pressure and diabetes also varied by race and ethnicity (**Figure 11**). The rates ranged from a low of 22.9% for Hispanics, to a high of 38.8% for Black non-Hispanics for high blood pressure and 8.3% for White non-Hispanics to 12.3% for Hispanics for diabetes. Small sample sizes preclude an examination of the patterning of these chronic conditions by socioeconomic status for each of these racial or ethnic groups. However, evidence suggests that racial and ethnic disparities in health may be partially, but not fully, explained by socioeconomic inequalities concentrated among non-White racial and ethnic groups.[95]

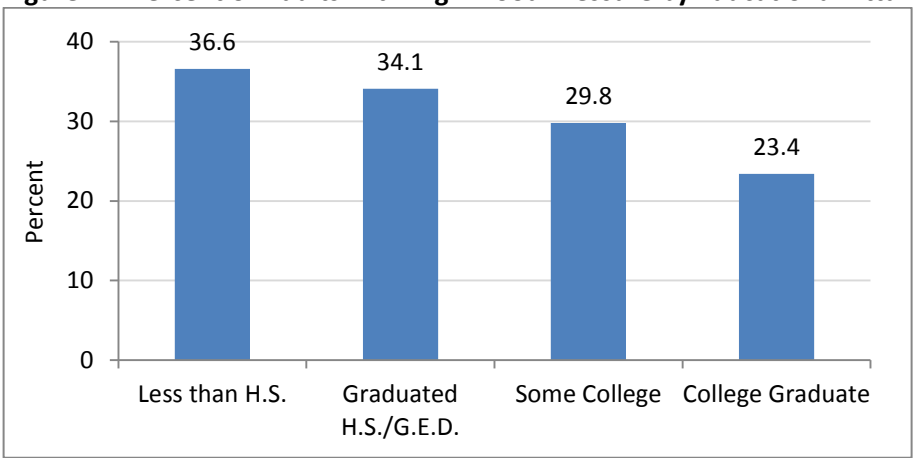
Figure 11. Percent of Adults Diagnosed with High Blood Pressure or Diabetes by Race and Ethnicity, Connecticut, 2011 and 2012



Source: Connecticut Department of Public Health, Behavioral Risk Factor Surveillance System, 2011 (high blood pressure) and 2012 (diabetes).

Evidence links lower levels of education and income with adverse health outcomes.[96] There is an inverse relationship between certain health conditions and education and income level. In 2011, the proportion of Connecticut adults diagnosed with high blood pressure was significantly lower among those with a college degree (23.4%) than among adults with less than a college education (**Figure 12**).

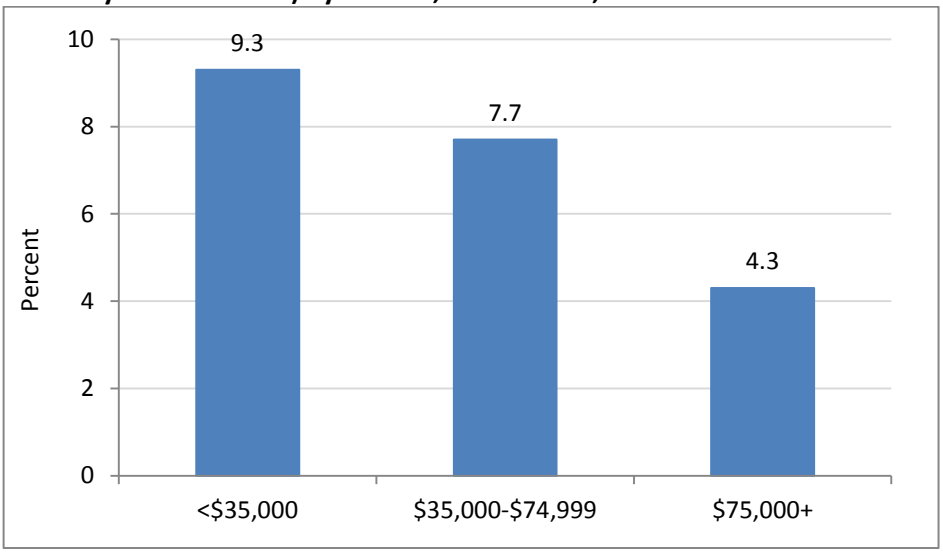
Figure 12. Percent of Adults with High Blood Pressure by Educational Attainment, Connecticut, 2011



Source: Connecticut Department of Public Health, Behavioral Risk Factor Surveillance System, 2011.

As shown in **Figure 13**, a greater proportion of adults with lower household income have at least one heart disease experience (heart attack, stroke or coronary heart disease) relative to adults with higher household income.

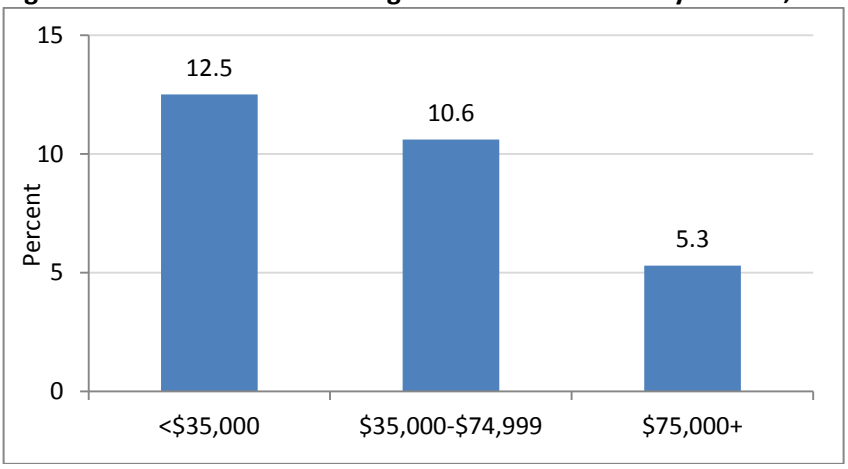
Figure 13. Percent of Adults Who Have at Least One Heart Disease Experience (Heart Attack, Stroke, Coronary Heart Disease) by Income, Connecticut, 2012



Source: Connecticut Department of Public Health, Behavioral Risk Factor Surveillance System, 2012.

Prevalence of diabetes among adults in Connecticut in 2012 differed by income (**Figure 14**). A significantly greater percent of adults with incomes less than $35,000 (12.5%) were diagnosed with diabetes as compared to those with incomes of $75,000 or more (5.3%). These patterns are similar for many conditions and risk behaviors.

Figure 14. Percent of Adults Diagnosed with Diabetes by Income, Connecticut, 2012

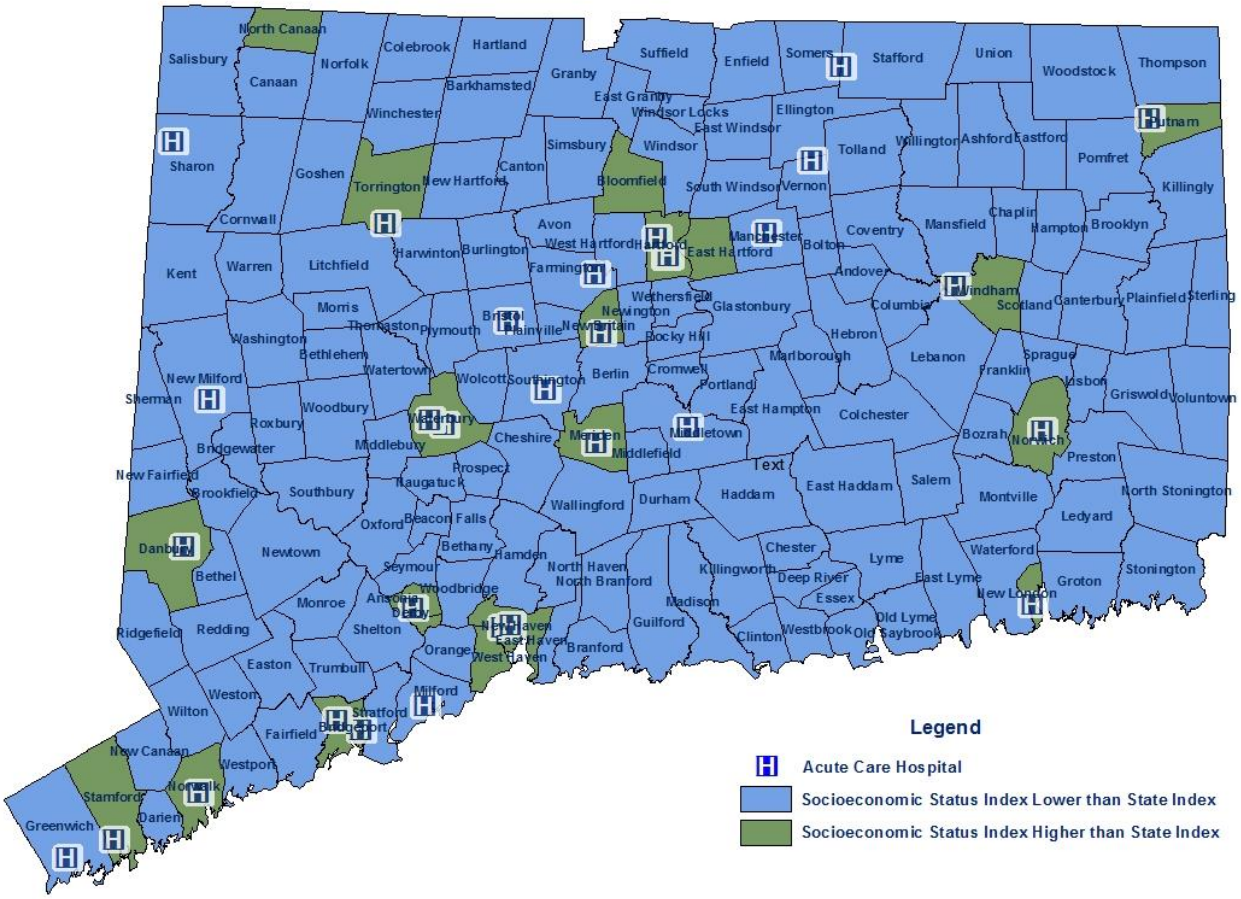


Source: Connecticut Department of Public Health, Behavioral Risk Factor Surveillance System, 2012.

Distribution of Socioeconomic Status Index among Towns and Cities

The SES index is an indication of towns with the propensity to have poor health status and thus increased predisposition to having unmet health care need. The SES index for most towns and cities was lower than the state except for 20 communities, shaded in green on the map on the following page (**Figure 15**). The 20 communities are represented by 13 large towns and cities (e.g., Hartford and Bridgeport); 5 urban periphery towns (e.g., Danbury and Windham) and 2 rural towns (e.g., North Canaan and Putnam). Residents in these towns had a higher proportion of unfavorable socioeconomic conditions making them more likely to have unmet need and poorer health. While only these 20 towns and cities, as a whole, had a greater disproportionate share of vulnerable populations, several other towns and cities had at least one of their vulnerable subpopulations with an index above the state's and therefore remain at risk for an unmet health care need.

Figure 15. Socioeconomic Status Index, by Town



Source: US Census Bureau's American Community Survey 5-year Estimates.
DPH, OHCA, December 2014

HEALTH OUTCOMES OF CONNECTICUT'S AT-RISK OR VULNERABLE POPULATIONS

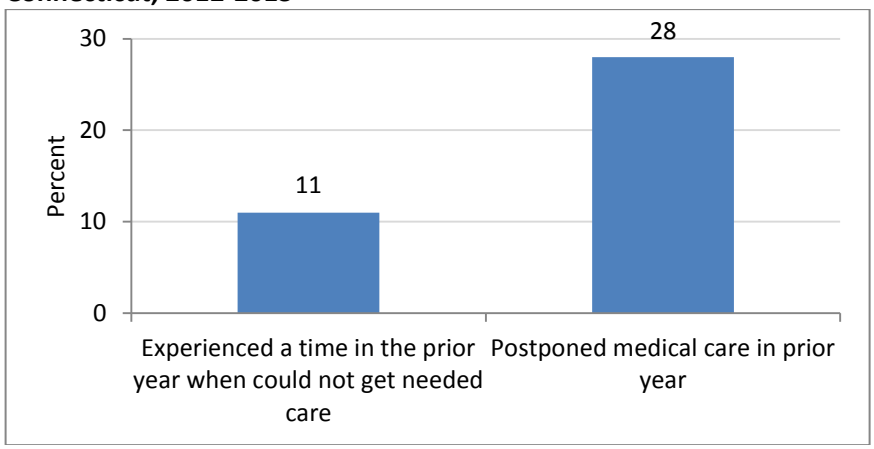
In addition to SES characteristics of a population, another significant reason for differences in health status and outcomes in the state is the differential access to health care services for prevention and treatment. The following presents a portrait of at-risk and vulnerable populations' challenges in accessing the health care system.

Health Care Access and Utilization Among At-Risk and Vulnerable Populations

Health Care Access

As discussed in *Healthy Connecticut 2020* state health assessment and improvement plan, health care access continues to be a challenge for many Connecticut residents. **Figure 16** shows that as many as 11% of adults could not get needed health care at a point in time and 28% postponed medical care in the past year. The proportion of adults citing unmet medical needs was lower among adults who were 65 years of age or older relative to younger age groups.[97] Among adults who reported unmet medical needs, 59% identified cost as the main barrier.[98]

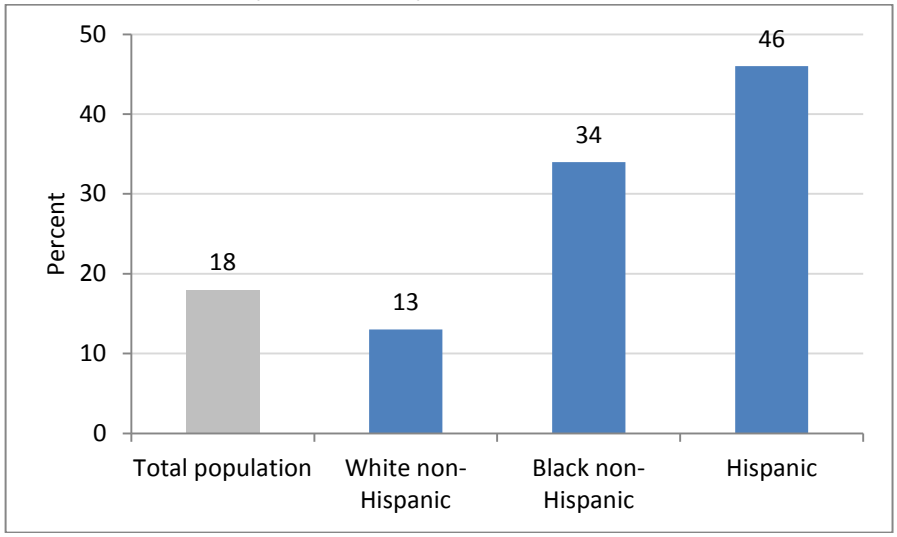
Figure 16. Percent of Adults Who Did Not Get Needed Medical Care or Postponed Medical Care in Prior Year, Connecticut, 2012-2013



Source: University of Massachusetts Medical School. Connecticut Health Care Survey: Executive Summary. 2014. Office of Survey Research, Center for Health Policy and Research, University of Massachusetts Medical School.

Overall, eighty-six percent (86%) of adults in Connecticut reported having a usual source of health care. Of those respondents with a usual source, approximately eight out of ten reported the source as a doctor's office and nearly two out of ten listed a clinic or health center. When examining patterns by race and ethnicity (**Figure 17)**, Black non-Hispanic (34%) and Hispanic (46%) residents were far more likely to use a clinic or health care center as their usual source of care, compared to White non-Hispanic residents (13%).

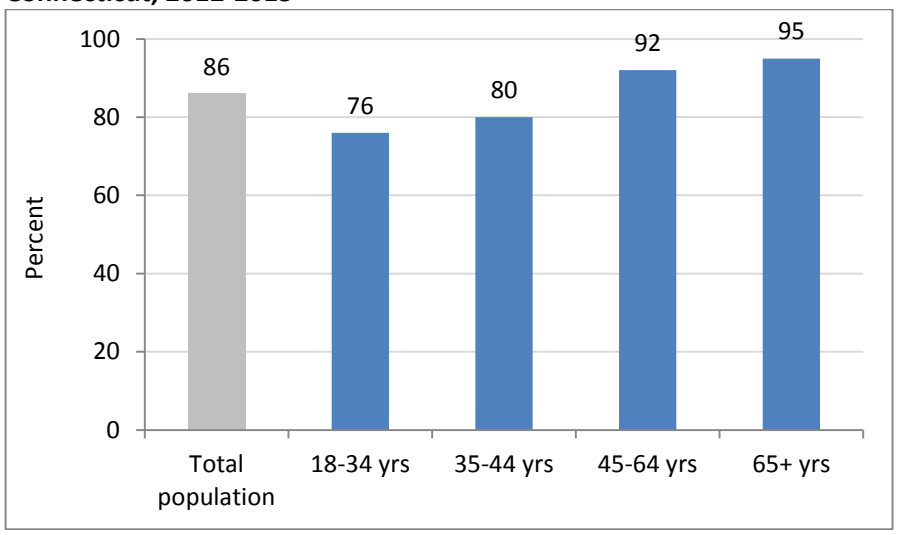
Figure 17. Percent of Adults with a Usual Source of Care Who Identified a Clinic or Health Center as Their Usual Source of Care, Connecticut, 2012-2013



Source: University of Massachusetts Medical School. Connecticut Health Care Survey: Executive Summary. 2014. Office of Survey Research, Center for Health Policy and Research, University of Massachusetts Medical School.

Among adults with a usual source of care, 86% reported always seeing the same provider (**Figure 18**). However, these patterns varied by age, with a smaller proportion of younger adults reporting that they always had been treated by the same provider as compared to older adults. The proportion of adults that always were treated by the same provider increased by age cohort, that is, from 76% of persons 18-34 years of age to 95% of persons 65 years of age or older. Studies show that continuity of care improves the quality of care, reduces emergency room visits by nearly half and results in shorter hospital stays.[99]

Figure 18. Percent of Adults with a Usual Source of Care Who Report Always Seeing the Same Provider, Connecticut, 2012-2013



Source: University of Massachusetts Medical School. Connecticut Health Care Survey: Executive Summary. 2014. Office of Survey Research, Center for Health Policy and Research, University of Massachusetts Medical School.

Lack of access to a usual source of care and care coordination has been determined to lead to avoidable emergency department use, hospitalizations and readmissions. The rates of occurrence in a community are an indicator of the quality of its primary health care system and transitions between care settings. At-risk persons are disproportionately represented among Connecticut residents whose hospitalizations or ED visits may have been avoided with timely and effective primary care. Connecticut residents 65 years and older are about 14% of the populations but account for 58% of preventable hospitalizations and 46% of readmissions (**Table 24**). Black non-Hispanics and Hispanics were more likely than White non-Hispanics to have a potentially preventable hospitalization, avoidable ED visit or to visit the ED more than ten times within a year. Connecticut communities with relatively higher concentrations of White non-Hispanic adults ages 65 years and older, Black non-Hispanics, Hispanics, residents suffering from a chronic condition or in proximity of an acute care hospital were at greater risk for such hospitalizations or ED visits.

Table 24: Acute Care Preventable Hospitalizations, Readmissions and ED Use, Connecticut, 2010-2013

Characteristics	Preventable Hospitalizations CY 2010-2012[1]	Readmissions within 30 Days of Discharge FY 2011-2013[2]	Avoidable ED Use CY 2010-2013[3]	ED Frequent Users FY 2011-2013[4]
Hospitalizations/visits	44,420	54,292	706,031	68,986
% of all	11	13	44	5
Patient Days	220,199	324,429	n/a	n/a
% of all	11	16		n/a
Total Charges	$1,273,249,189	$2,192,607,773	n/a	$121,229,580
% of all	10	15		5
Age in years (%)				
<18	9	6	20	3
18 – 44	10	20	46	55
45 – 64	23	29	23	37
65+	58	46	11	5
Race/Ethnicity (per 100,000)				
CT	1,239	1,515	21,507	1,925
White, non-Hispanic	1,280	1,574	14,490	1,369
Black, Non-Hispanic	1,763	2,114	37,240	3,612
Hispanic	923	1,027	35,972	3,192
Other	42	62	45,262	176
Primary Payer (%)				
Medicare	63	53	16	21
Medicaid	17	22	45	64
Private	18	23	29	7
Uninsured	2	2	10	6
UConn Five Town Grouping (%)				
Urban core	36	36	48	59
Urban periphery	38	37	31	30
Rural	8	8	8	5
Suburban	10	11	7	3
Wealthy	9	8	5	3

Source: CT DPH Office of Health Care Access Acute Care Hospital Discharge Database, Connecticut Hospital Association's ChimeData and U.S. Census Bureau 2010-2012 American Community Survey 3-year estimates, Table DP05.

[1] Instances of inpatient care for health conditions or illness typically treated or managed in an outpatient setting. Instances determined with Agency for Healthcare Research and Quality WinQI 4.5 tool.

[2] Scheduled and unscheduled readmissions to the same hospital

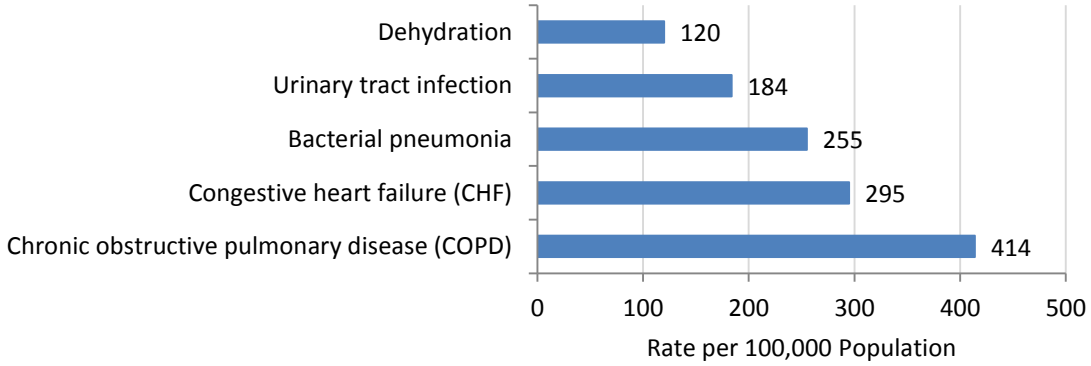
[3] ED non-admit visits that may have been avoided. New York University algorithm applied.

[4] ED non-admits with ten or more ED visits per year.

There is increasing concern about patients who utilize a disproportionate share of emergency department services, otherwise called "super users."[100] The identification of characteristics of super users can inform interventions to improve preventive or specialty care or to enhance the integration of care among these populations and thus to reduce inappropriate utilization of acute care services and health care expenditures.[101] For example, the Camden, New Jersey emergency department utilization study showed that a relatively small proportion of the patient population (13%) was generating the majority (80%) of the total cost associated with treating 98,000 patients over 7 years. Approximately 95% of the population was determined to be Medicaid-eligible.[102] Other studies have examined the specific health conditions or other risk factors that are common among super users. One study identified alcohol-related diagnoses as the leading cause of ED use. Mental health and drug-related diagnoses were also common among ED super users.[103]

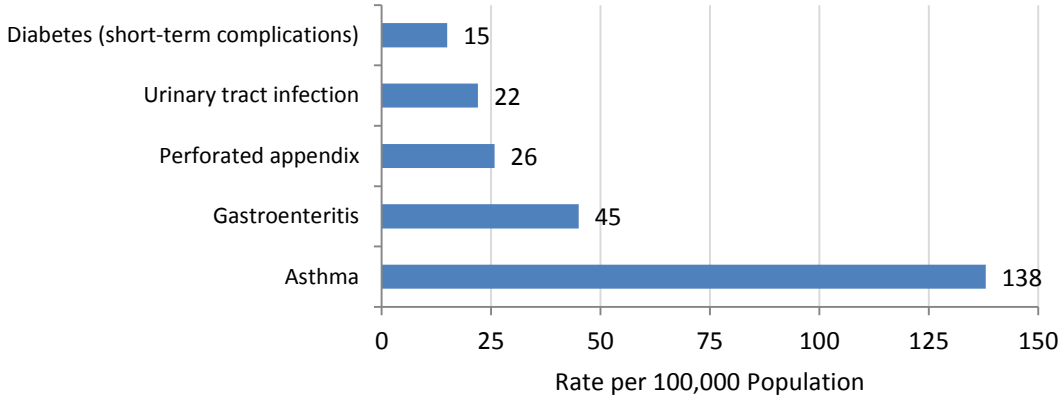
The leading causes of preventable hospitalization among Connecticut adults (**Figure 19**) and children (**Figure 20**) were chronic conditions; 414 per 100,000 adult population were hospitalized for chronic obstructive pulmonary disease (COPD) and 138 per 100,000 of child population were hospitalized for asthma in 2012.

Figure 19. Leading Causes of Preventable Hospitalizations among Adults, Connecticut, 2012



Source: CT DPH Office of Health Care Access, 2014 Preventable Hospitalizations Report

Figure 20. Leading Causes of Preventable Hospitalizations among Children, Connecticut, 2012



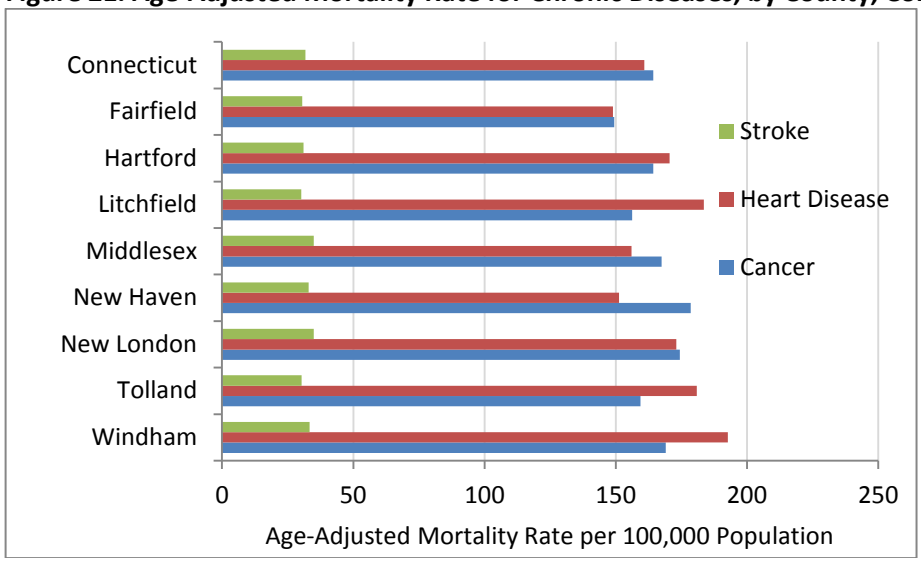
Source: CT DPH Office of Health Care Access, 2014 Preventable Hospitalizations Report

Literature shows that hospital readmissions are over-concentrated among Medicare and Medicaid beneficiaries and uninsured patients, and that the leading causes of readmissions vary by payer type. In 2010, the leading causes of hospital readmissions among Medicare beneficiaries included complications for congestive heart failure, septicemia, pneumonia, COPD and bronchiectasis, cardiac dysrhythmias and urinary tract infections. For Medicaid beneficiaries, the leading causes of hospital readmissions were for mood disorders, schizophrenia and other psychotic disorders, diabetes, pregnancy complications, alcohol-related disorders and early or threatened labor. Leading causes of hospital readmissions among uninsured patients include mood disorders, alcohol-related disorders, diabetes, pancreatic disorders, skin and subcutaneous tissue infections and chest pain. Among patients with private insurance, maintenance chemotherapy or radiotherapy, mood disorders, surgical complications or complications of medical care, complications of devices, implants, or grafts, septicemia and diabetes were the leading reasons for hospital readmission.[104]

Mortality

Since disease incidence and health status are socially patterned, it is important to consider the wide socio-demographic variation across Connecticut in examining mortality data. **Figure 21** shows the age-adjusted mortality rate (AAMR) for each county for three chronic conditions, heart disease, cancer and stroke, which are also the leading causes of illness and mortality in the state. The age-adjusted mortality rate for cancer was highest in New Haven and New London counties; Windham and Litchfield counties had the leading heart disease mortality rate; Middlesex and New London counties had the highest stroke mortality rate.

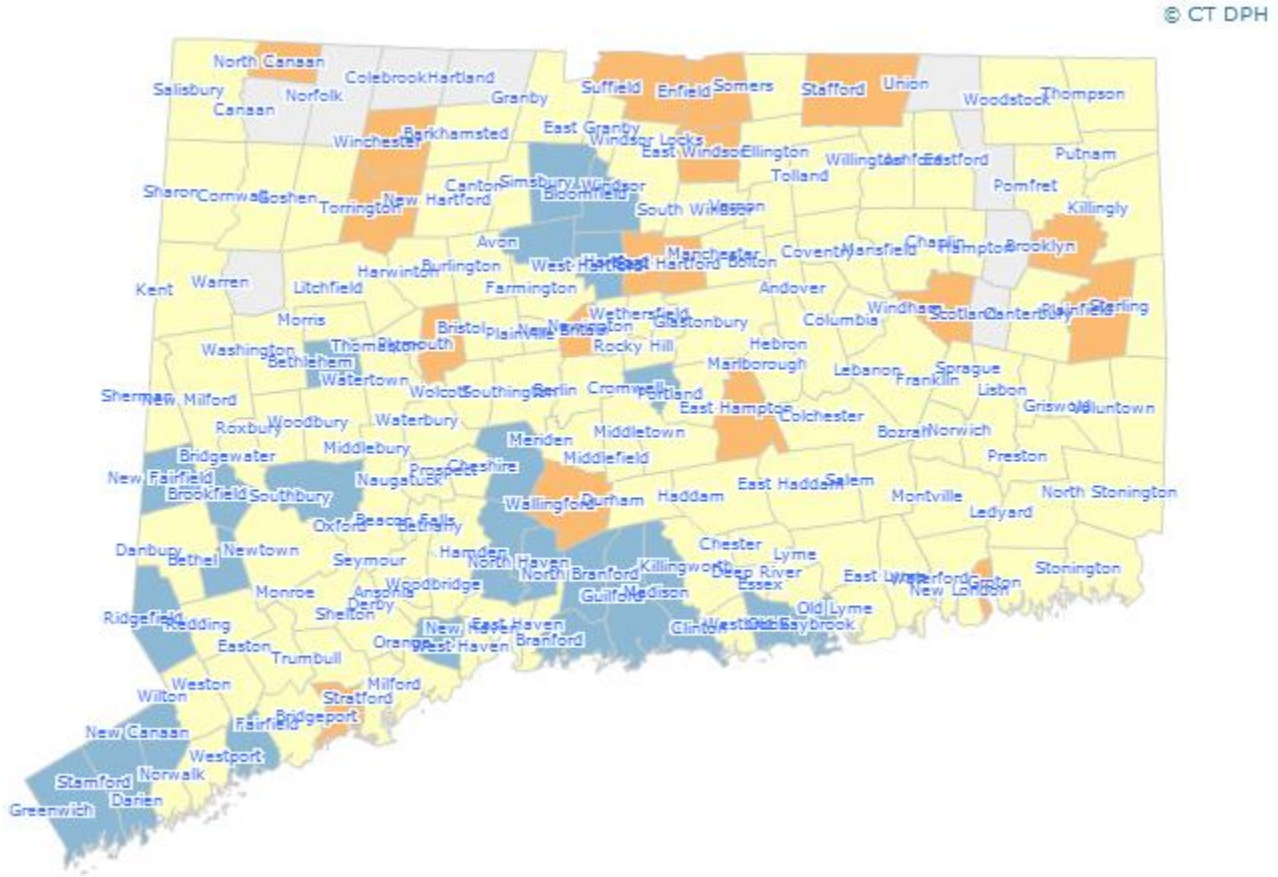
Figure 21. Age-Adjusted Mortality Rate for Chronic Diseases, by County, Connecticut, 2006-2010



Source: Connecticut Department of Public Health, 2006-2010.

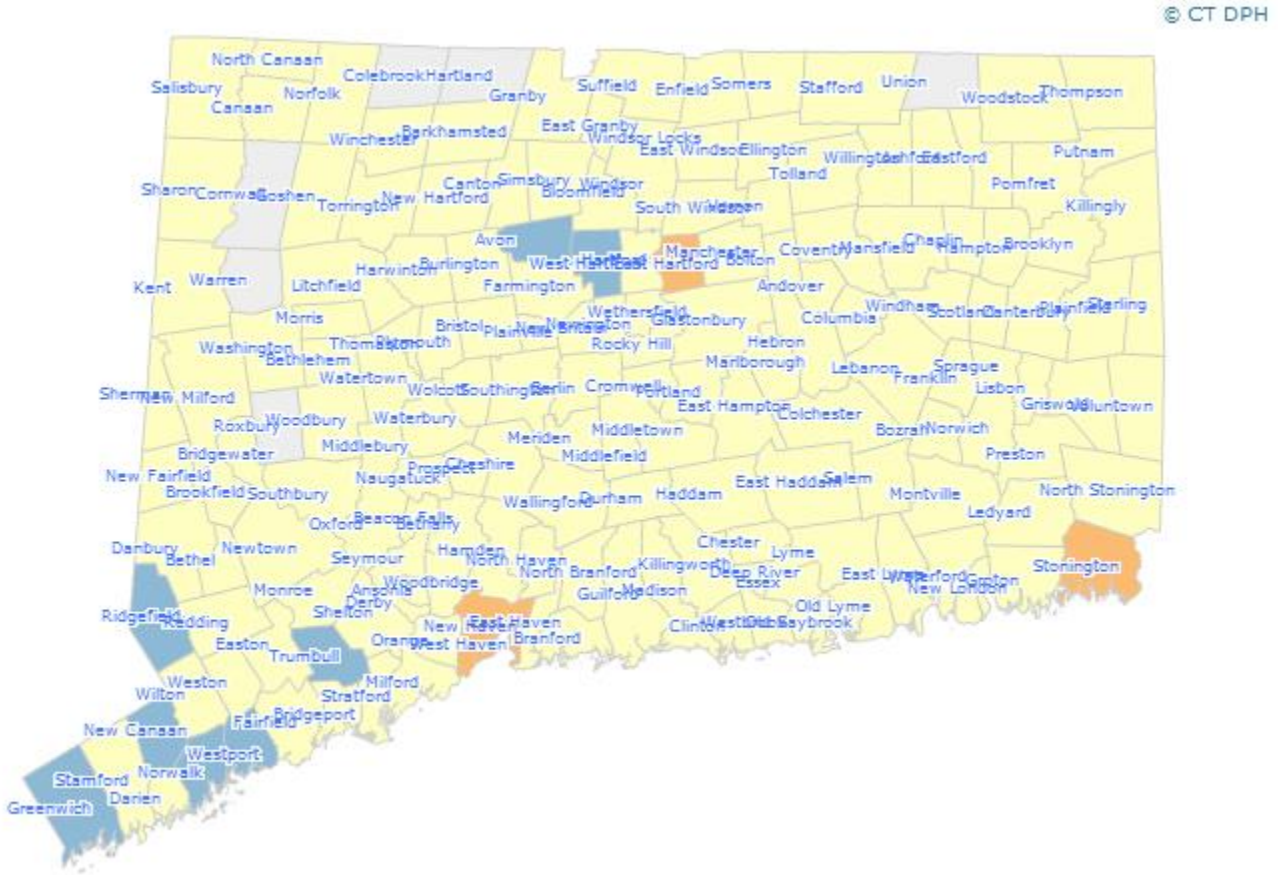
The variation in outcomes among counties also occurs among smaller geographic areas and population groups. For example, **Figure 22** shows that the AAMR for heart disease exceeded the state average in towns in northern Connecticut that are predominantly rural or suburban and several towns in central Connecticut that may be urban, suburban, or rural. Also, in **Figure 23**, the AAMR for cancer exceeded the state average in Stonington, a rural town and several urban core towns, including East Hartford, New Haven and West Haven. As presented in **Figure 24**, the AAMR for stroke exceeded the state average in wealthy Durham and urban core Meriden. The urban periphery towns of Bristol and Windham had chronic lower respiratory disease AAMRs that were greater than the state average (**Figure 25**).

Figure 22. Age-Adjusted Mortality due to Heart Disease, by Town, Connecticut, 2006-2010



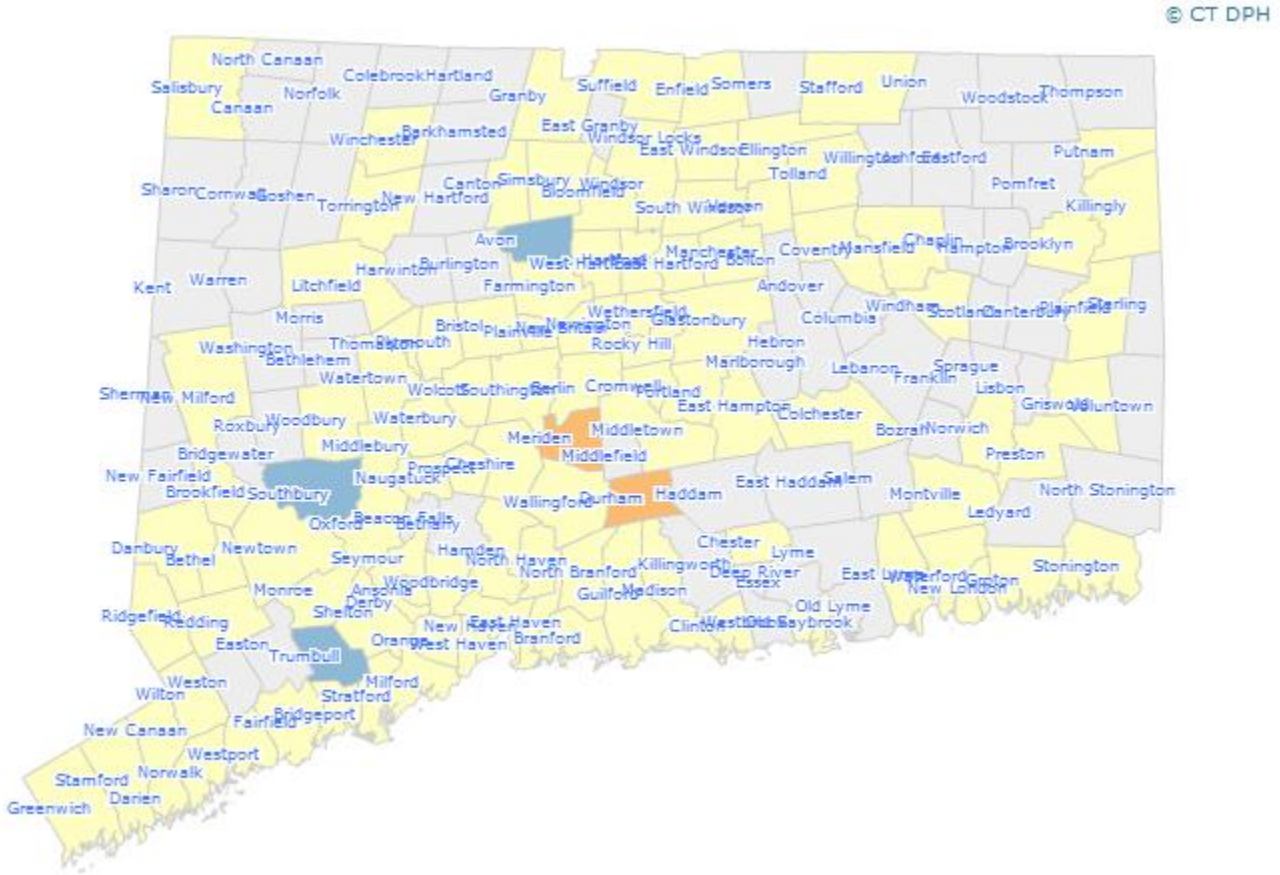
Source: Connecticut Department of Public Health, Instant Atlas, 2006-2010.
Note: Orange indicates mortality rates that exceed the State average;
Blue indicates mortality rates below the State average;
Yellow signifies mortality rates that do not differ from the State average;
Grey shading indicates data that were suppressed.

Figure 23. Age-Adjusted Mortality Due to Cancer, by Town, Connecticut, 2006-2010



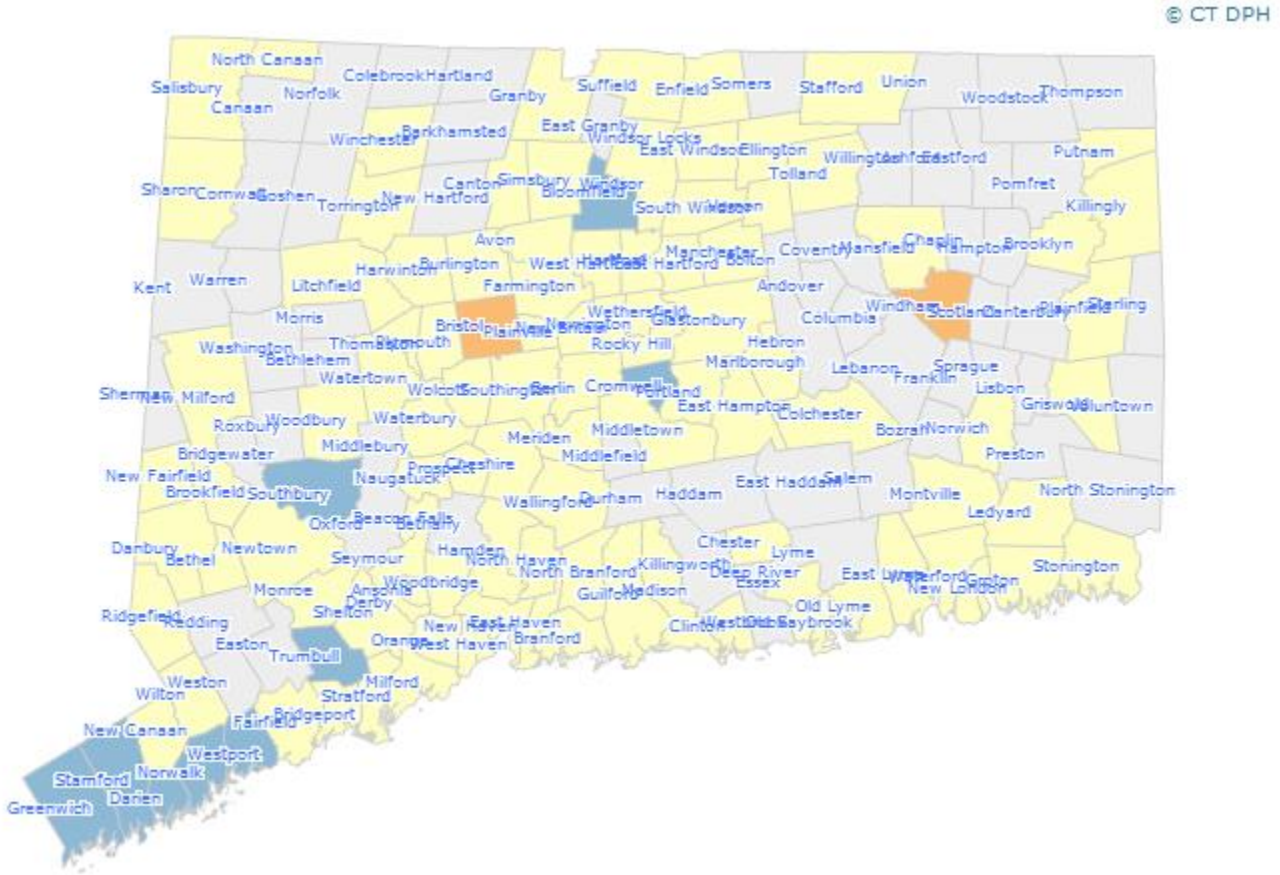
Source: Connecticut Department of Public Health, Instant Atlas, 2006-2010.
Note: Orange indicates mortality rates that exceed the State average;
Blue indicates mortality rates below the State average;
Yellow signifies mortality rates that do not differ from the State average;
Grey shading indicates data that were suppressed.

Figure 24. Age-Adjusted Mortality Due to Stroke, by Town, Connecticut, 2006-2010



Source: Connecticut Department of Public Health, Instant Atlas, 2006-2010.
Note: Orange indicates mortality rates that exceed the State average;
Blue indicates mortality rates below the State average;
Yellow signifies mortality rates that do not differ from the State average;
Grey shading indicates data that were suppressed.

Figure 25. Age-Adjusted Mortality Due to Chronic Lower Respiratory Disease, by Town, Connecticut, 2006-2010



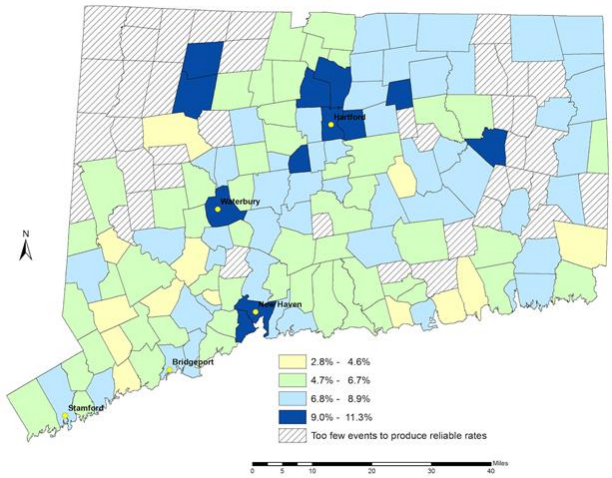
Source: Connecticut Department of Public Health, Instant Atlas, 2006-2010.
Note: Orange indicates mortality rates that exceed the State average;
Blue indicates mortality rates below the State average;
Yellow signifies mortality rates that do not differ from the State average;
Grey shading indicates data that were suppressed.

Low Weight and Pre-term Births

Low weight and preterm births are important predictors of infant survival, child development and physical well-being and can serve as proxy indicators for the health of a community.[105] Prevalence of preterm and low weight births is highest in urban core communities in Connecticut. From 2007 to 2011 combined, preterm and low weight births were more heavily concentrated in urban core towns, including Waterbury, Hartford, New Haven, Norwich and periphery communities (**Figure 26, Figure 27**).

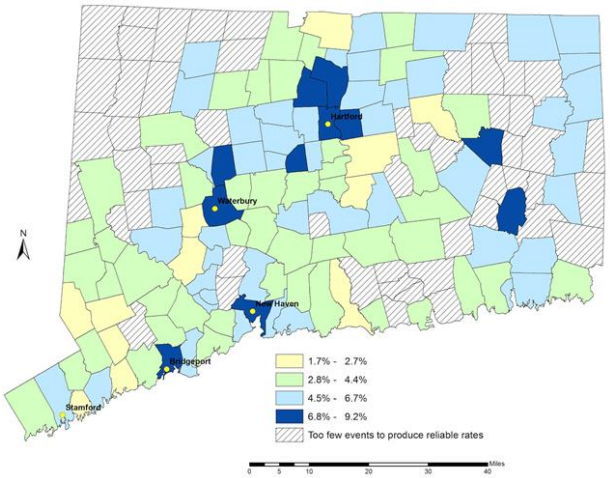
As with the rest of the nation, in Connecticut there are racial disparities in the prevalence of preterm and low weight births.[106] In particular, as identified in the *Healthy Connecticut 2020* State Health Assessment, a greater proportion of infants born to Black non-Hispanic women are low weight or preterm, relative to infants born to White non-Hispanic women.[107] This racial disparity and greater concentration of preterm and low weight births in Connecticut's largest towns suggest that it is important to consider the intersection of social inequalities within and across communities when examining disparities in health patterns.

Figure 26. Percent of Preterm Births, by Town, Connecticut, 2007-2011



Source: Connecticut Department of Public Health, Health Statistics & Surveillance, Statistics & Analysis Reporting, 2007-2011.

Figure 27. Percent of Low Birth Weight Births, by Town, Connecticut 2007-2011



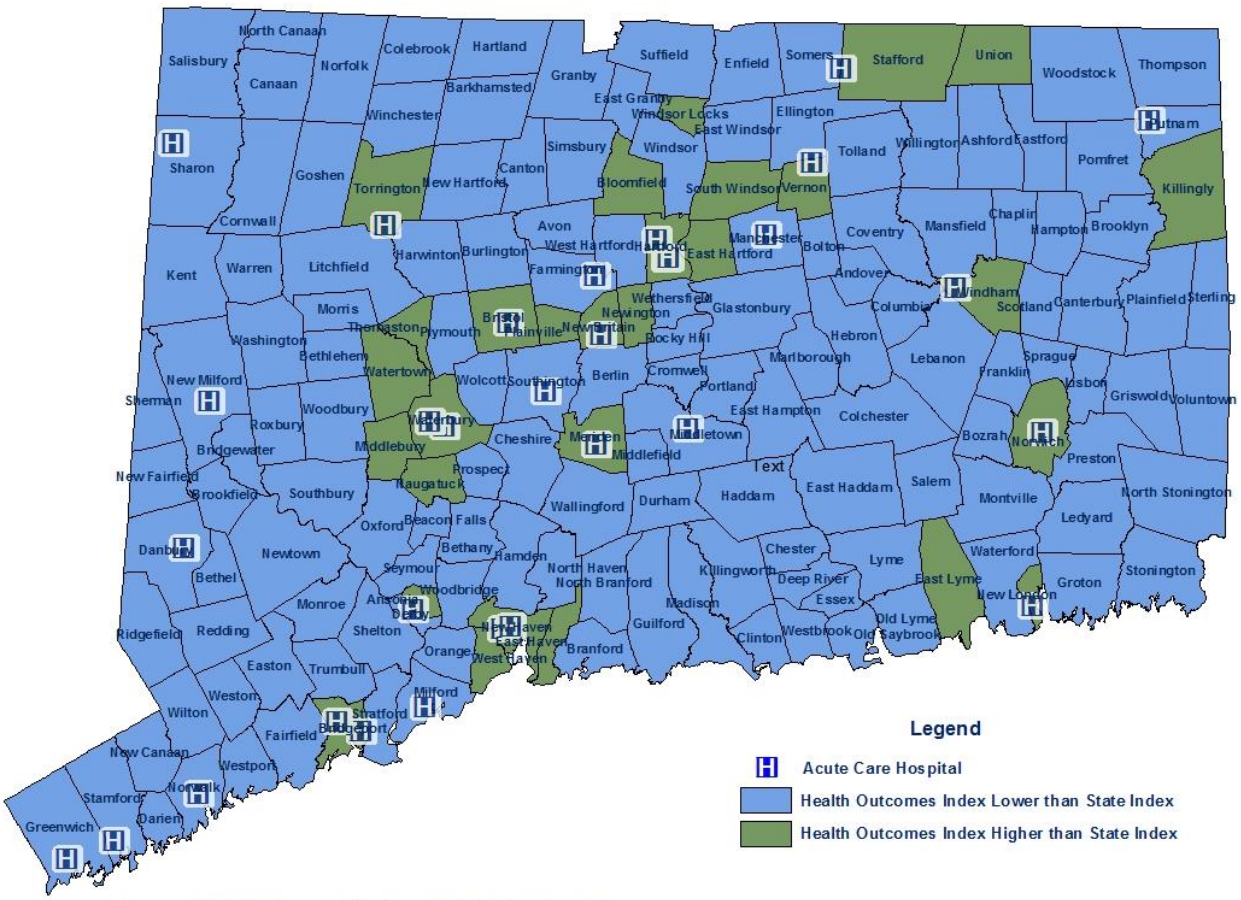
Source: Connecticut Department of Public Health, Health Statistics & Surveillance, Statistics & Analysis Reporting, 2007-2011.

Distribution of Health Outcomes Index Among Towns and Cities

The health outcomes index score examines five indicators that serve as proxies to the health of a community, due to differential access and outcomes. Looking at these by town and standardizing the scores allows for identification of towns that are significantly higher or lower than the state overall in their health outcomes.

Figure 28 shows the health outcomes index score for each town and city compared to the Connecticut index. The state health outcome index is 5; a score lower than 5 implies an individual town has better health outcomes compared to the state. Although the vast majority of towns compared favorably to the state, 29 towns had scores higher than the Connecticut index, indicating poorer health outcomes. Twenty-three of the 29 communities were urban core cities (e.g., Hartford and New Haven) and urban periphery towns (e.g., Bloomfield and Vernon); three were rural towns (Killingly, Stafford and Union); two were suburbs (East Lyme and South Windsor) and one wealthy town (Middlebury), which had an excessively high readmission rate compared to the state. Some towns and cities had at least one indicator which exceeded the state rate and remain at risk for unmet need for those indicators.

Figure 28. Health Outcomes Index, by Town

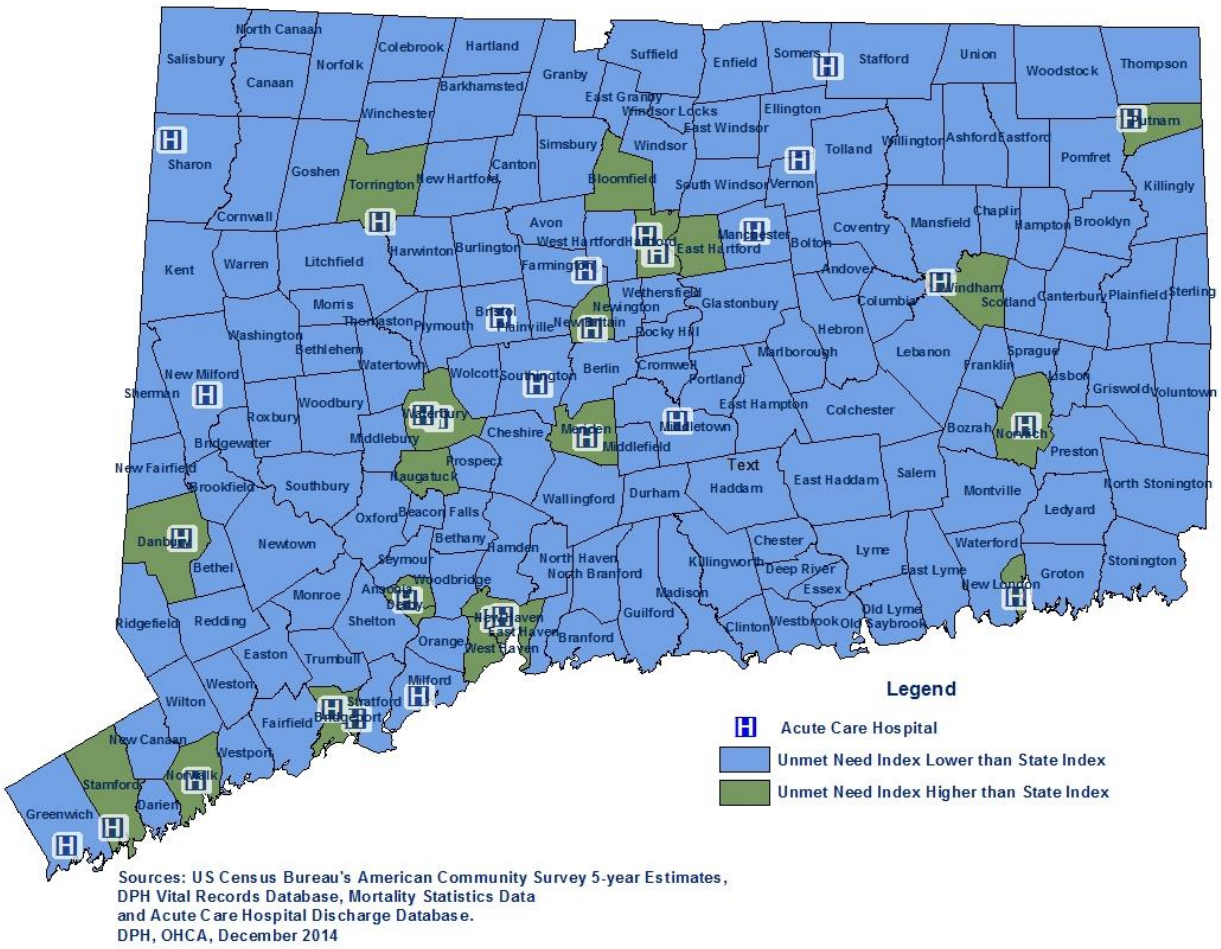


UNMET NEED COMPOSITE INDEX

Like the nation as a whole, populations in Connecticut with lower socioeconomic status are disproportionately affected by negative health outcomes. Additionally, health outcome indicators do not only show the different rates of disease, but are potential proxies for differential access to services. The unmet need composite index examines a range of SES characteristics and health outcomes compared to state rates and provide an overall indicator of unmet health care need.

The unmet need composite index is the sum of the SES and health outcome indices described in previous sections, which sum to 15 for the overall state. The index is an indicator of which towns and cities are most likely to have unmet health care need compared to the state. Most towns and cities had an index score lower than 15, except 20 communities (**Figure 29**). The exceptions were large towns and cities like Hartford, Danbury and Bridgeport, urban periphery towns like Naugatuck, Bloomfield and Windham or hospital towns like Putnam and Torrington. There were more residents in these towns with unfavorable socioeconomic status, which predisposed them to have residents with unmet need. In addition, while only 20 towns and cities had a greater disproportionate share of vulnerable populations, several towns and cities had proportions of at least one of the vulnerable subpopulations greater than the state level and remain at risk for unmet health care need. (See Appendix H).

Figure 29. Unmet Need Composite Index, by Town



In addition to the indices, this Plan reviews hospital primary service areas, service availability, community health needs assessments (CHNAs) and strategic implementation plans (SIPS) to determine: hospital service geographic coverage; "orphan" towns and cities not in a hospital service area or covered by a CHNA; health care needs identified and planned interventions to alleviate any unmet health care need identified. Although the Plan focuses on in-state providers and services to address unmet need, it should be noted that some Connecticut residents living in border towns may utilize health care services in neighboring states.

HOSPITAL SERVICE AVAILABILITY

To assess health care service availability, OHCA administered a hospital survey and reviewed individual hospital's CHNAs and SIPs. The survey and review were designed to enhance the understanding of communities included in CHNAs, identify towns not covered in CHNAs, examine decisions that influenced which towns were included in CHNAs and uncover any identified needs.

Comparison of Hospital Primary Service Area and CHNAs

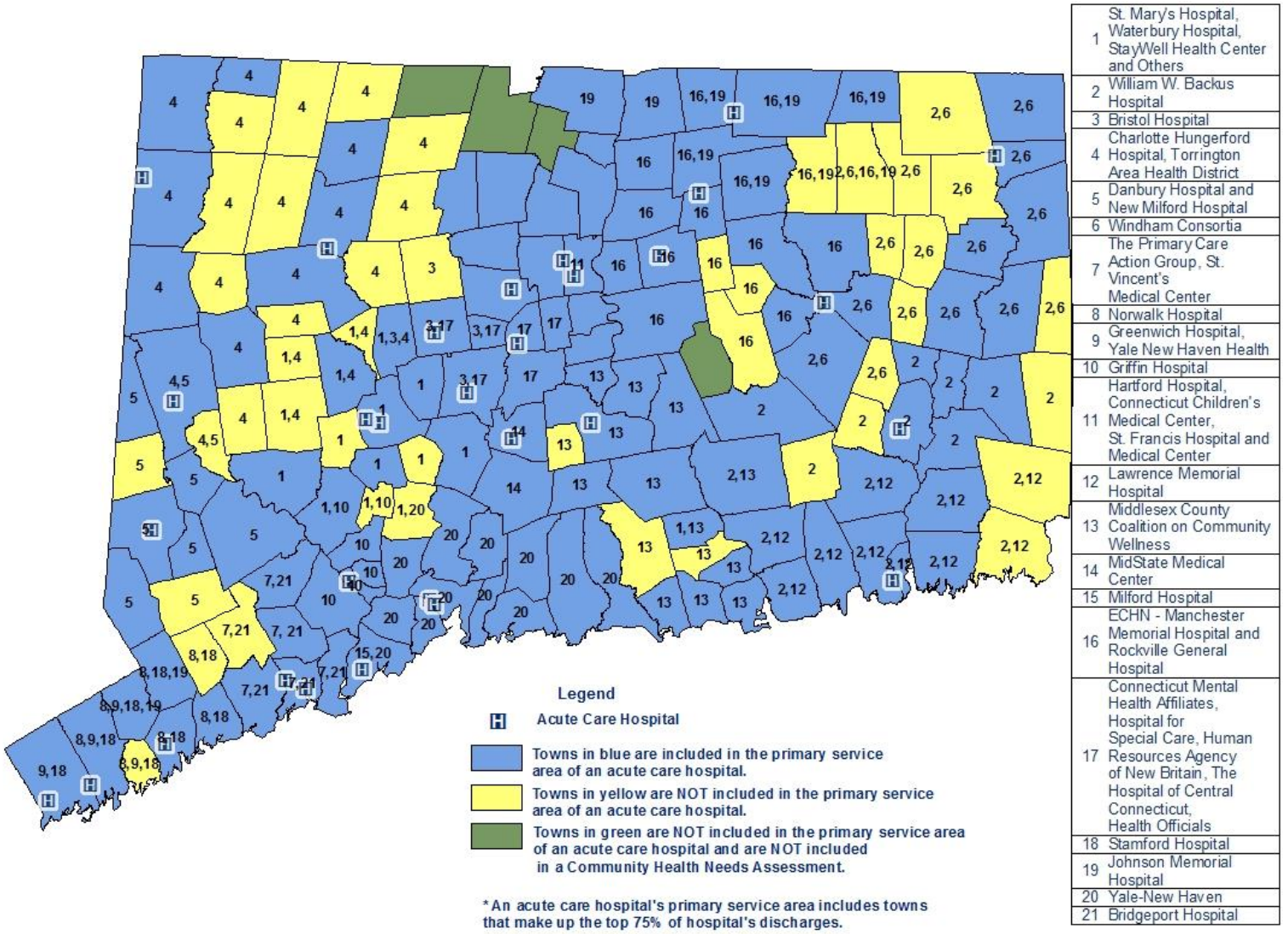
The PPACA mandates that non-profit hospitals conduct a triennial community health needs assessment and develop an implementation strategy as a requirement to maintain their tax-exempt status. This mandate offers an opportunity for hospitals and other entities to work collaboratively across sectors to identify and address health needs in their communities. A complete listing of Connecticut hospital CHNAs is available at http://www.chime.org/advocacy/community-health/.

Of the 21 unique CHNAs published since 2008, seven CHNAs were collaborations among multiple hospitals, while the remaining 14 were by individual hospitals. Several hospitals conducted CHNAs with their local health department and other organizations as part of a larger collaboration. While the CHNA process is being conducted throughout the state, it is unclear whether all communities in the state are included in the assessment and planning process.

The OHCA CHNA survey showed that hospitals varied in their approaches to selecting which towns to include in the CHNA. The inclusion criteria were based on primary service area of a single hospital or for all collaborators, area or town with the highest patient volume and need, or large geographic region. In several instances, CHNAs focused on a geographic area that did not fully match the primary service area of the hospital(s).

Numbers shown in **Figure 30** indicate the geographic area covered by a CHNA and match the conducting entity or entities listed on the right hand side of the map. The map shows that 14 towns in the state were not covered by a CHNA; they were a mix of rural (1), suburban (5), urban periphery (6) and wealthy (2) towns. The majority (119) of cities and towns, shaded in blue, were within the primary service area of a Connecticut hospital. As previously noted, the primary service area includes towns that make up the top 75% of a hospital's discharges. About 30% or 46 towns, shaded in yellow, were not in any hospital primary service area. Four towns shaded in green where neither part of a hospital's primary service area nor covered by a CHNA. Bloomfield was the only town with an unmet need index higher than the state that was not covered by a CHNA. The other 19 towns with an unmet health need index score higher than the state were all covered by a CHNA (See Appendix H for details).

Figure 30. Map of Hospital Community Health Needs Assessment Geographic Coverage and Primary Service Area, October, 2014



Source: Manual Review of Connecticut's Hospital CHNAs
Department of Public Health, Office of Health Care Access, December 2014

HOSPITAL COMMUNITY HEALTH NEEDS ASSESSMENT AND IMPLEMENTATION PLANS ACROSS CONNECTICUT

Identified Needs across the State

In reviewing the 21 community health needs assessments, several consistent areas of need were identified specifically among at-risk and vulnerable populations. **Table 25** provides a summary.

Nearly all the CHNAs identified chronic disease, overweight, obesity, nutrition and physical activity as overlapping and major health needs, regardless of the socioeconomic status of communities (except those in northeastern Connecticut). More than one-half of the assessments identified substance abuse and mental health care as priority health needs for predominantly urban and rural communities and for all communities statewide (except southeastern Connecticut). This highlights the interconnection between these two health issues.

Table 25. Top Health Needs Identified through CHNA Process, Connecticut, 2008-2014

Health Needs	Number of Assessments Identifying This Health Need	Region of State
Chronic Disease	18	All communities
Overweight, Obesity, Nutrition, & Physical Activity	16	All communities
Gaps in Primary Care	13	All communities
Substance Abuse	12*	All communities
Mental Health	12*	All communities
Gaps in Mental Health Care	7**	Rural, Urban Core, Urban Periphery
Respiratory Health	5	Urban Core, Urban Periphery, Suburban
Maternal & Child Health	5	All communities
Healthy Aging	4	Rural, Urban Core, Urban Periphery
Housing	4	Urban Core, Urban Periphery

*10 out of the 12 CHNAs identifying substance abuse as a health need also identified mental health.
**6 out of 7 CHNAs identifying gaps in mental health care also identified mental health as a health status-specific need.

New London County, several parts of Hartford County and the New Haven area identified improving respiratory health as a priority. Bridgeport, Bristol, Danbury and Milford Hospital's health assessments all cited healthy aging as a concern in their communities.

With respect to health care need, 13 assessments identified gaps in primary care as major for urban towns, but were cited for the other socioeconomic categories of communities. Gaps in mental health and dental care were identified as priority health needs for predominantly rural and urban towns; while need for specialty care was crosscutting for towns of all categories.

Housing and maternal and child health were health needs reported in central Connecticut and healthy aging was identified as a need in central and southeastern Connecticut.

Some health assessments also identified the social determinants of health, including community socioeconomic disadvantage, housing conditions, a limited transportation infrastructure and safety as priority health concerns.

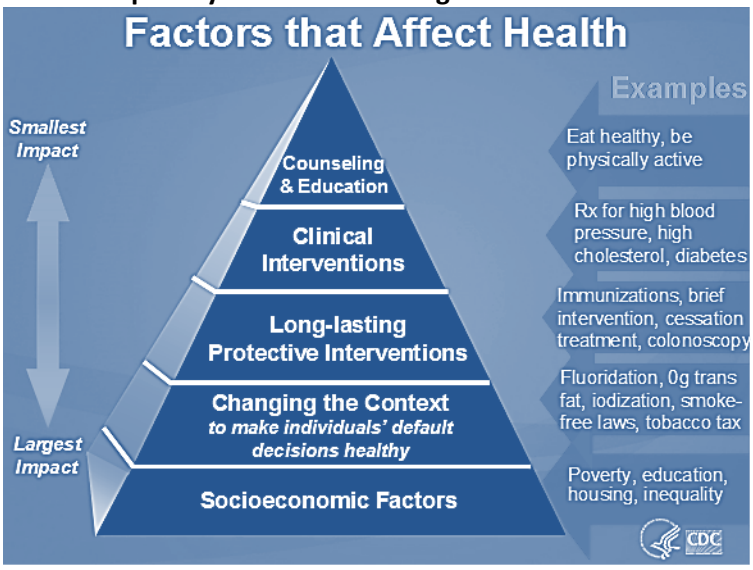
Responses to the OHCA Community Needs Assessment Survey reflected the identified needs in the CHNAs. Responding hospitals cited overweight and obesity, chronic disease, access to care, care coordination, sexual health, mental health, substance abuse, asthma, aging and tobacco-free living as priority health needs. Hospitals also identified disparities in specialty care, non-urgent ED use, barriers in accessing health care, a lack of health insurance or underinsurance, cost of care, transportation, mental health, substance abuse and oral health.

Hospital Strategic Implementation Plans to Address Community Needs

As part of the IRS mandate for non-profit hospitals, hospitals must also develop a SIP every three years that discusses how it will address the identified needs from the CHNA or whether these needs are being addressed by other community providers. In the OHCA CHNA survey, 7 out of the 10 hospitals indicated towns covered by the SIP matched the CHNA criteria such as areas of highest need and hospital primary service area.

SIPs differed in the level of focus of proposed strategies to address the health needs identified in CHNAs. Approaches include improving the health of individuals and populations, as outlined in **Figure 31**. These approaches have implications for the anticipated health impact of the intervention strategies on population health. Strategies that address factors at the base of the pyramid, or the social determinants of health, such as socioeconomic factors and improving the conditions in which people live, work and play to promote health, may yield larger improvements in population health as these strategies may reach and promote the health of a larger population.[108] Individually-focused strategies located toward the top of the pyramid, such as counseling, health education and clinical interventions may produce a smaller impact on the health of the population, as these interventions are often more intensive and reach a smaller subset of the population.[109]

Figure 31. Health Impact Pyramid: Considering the Social Determinants of Health



Source: Frieden, Thomas R. A Framework for Public Health Action: The Health Impact Pyramid. *American Journal of Public Health*. April 2010, 100(4), 590-595.

These different approaches to mitigating health needs have implications for non-profit hospitals and their interpretation of community benefit categorization. For example, systems change initiatives such as strategies to improve access to quality mental health care (e.g., hiring more mental health clinicians) have the potential to sustainably address the health care needs of the identified community. However, many community benefits offices are not clear on how to "count" these systems change types of initiatives as a community benefit. Instead, community benefits programs tend to focus on charity care as well as more individual and interpersonal-focused initiatives such as community health education and health fairs because they are easier to classify for tax purposes. However, such programmatic strategies may have a limited health impact for a small proportion of the population under the hospital service area and may not provide sustainable solutions to improving the health of the community.

Ten SIPs proposed system level changes to address the health needs that emerged from the CHNAs.

These proposed system level changes include strategies:

- to improve access to primary, urgent and specialty care;
- to address unmet mental health care and substance abuse treatment needs; and
- to reduce overweight, obesity and chronic disease.

Some SIPs identified opportunities to improve access to quality health care by:

- collaborating with the Connecticut Health Insurance Exchange to ensure that residents who are eligible for health insurance enroll in the exchange;
- creating a supply of community health workers (CHWs) to facilitate the enrollment of eligible patients in the health insurance marketplace;
- considering opportunities to improve access to primary and urgent care;
- developing nurse navigator programs; and
- increasing access to specialty care for uninsured patients.

SIPs that prioritize improving access to and quality of mental health and substance abuse services proposed strategies such as:

- creating a crisis center or outpatient behavioral health walk-in center;
- establishing an ambulatory detoxification program;
- improving emergency department discharge practices for homeless psychiatric patients; and
- advocating for improved health insurance reimbursement for mental health services.

Proposed systems-level approaches to reducing overweight, obesity and chronic disease include strategies to:

- improve access to healthy and affordable foods, such as considering opportunities to collaborate with other organizations to support a community Farmer's Market, local food coop, or community garden;
- identify opportunities to improve food choices in hospital; and
- institutionalize support for increased physical activity among students in child care settings and schools and among adults.

All SIPs focus some or most of their strategies on health education and prevention related health promotion activities such as, holding community education programs (e.g., cooking class, promotion of healthy lifestyle messages, weight loss challenges, chronic disease management training), chronic disease screening, investing in smoking cessation programs or support groups and raising awareness of existing social and health care services.

This 2014 Plan builds on the 2012 Plan, with a particular focus on implications of the health care environment and availability of and access to health care facilities and services for at risk and vulnerable populations. Whereas aggregate data suggest a general availability of health care services, there is ample evidence from outcomes data, hospital CHNAs and unmet need indices that unmet health care need exists and is unequally distributed across Connecticut's population subgroups. The SES, Outcomes and unmet need indices can provide a standard for identifying the geographic areas and subgroups with a potential unmet health care need. Specifics of the needs may further be determined through community health needs assessments.

There are several initiatives at OHCA and DPH, in collaboration with hospitals and local leadership, which are addressing prevention, reducing health inequities, improving access to primary care and enhancing the coordination of care. Some of these initiatives are briefly described in the following chapter.

4

Current Initiatives to Address Unmet Health Care Need and Vulnerable Populations

- Overview
- Promoting Healthy Lifestyles
- Health Care Systems Changes

CHAPTER 4. CURRENT INITIATIVES TO ADDRESS UNMET HEALTH CARE NEED / VULNERABLE POPULATIONS

OVERVIEW

Since the publication of the 2012 Plan, several state-level initiatives have emerged. The Connecticut SHA, SHIP, SIM Grant and Chronic Disease Plan will impact the facilities, services and equipment needed to address health care needs of Connecticut residents.

These initiatives are aligned in their commitment to improving health and health care for vulnerable populations; to supporting public health activities and primary care; and to improving and supporting the integration of public health and health care, in an effort to prevent and reduce morbidity and mortality in Connecticut.

These goals would be achieved through promoting healthy lifestyles to reduce the prevalence of modifiable risk factors for chronic diseases, and systems and policy change to support disease prevention, screening, diagnosis, treatment and management. This report aims to further enhance and articulate the alignment across the multiple statewide initiatives and hospital CHNAs, particularly with the focus of meeting the health care needs of at-risk and vulnerable populations.

Table 26 provides an overview of statewide health care initiatives and those areas on which OHCA focuses.

Table 26. Connecticut Health Care Initiatives

		Prevention	Acute Care	Cardiac Care	Cancer Care	Primary Care	Imaging	Behavioral Care
Promoting Healthy Lifestyles	• SHIP	X	X			X	X	X
	• SIM	X				X	X	X
	• CHIPs	X				X		X
	• Chronic Disease Plan	X				X		
	• Children's Behavioral Health Plan	X						X
Health Equity	• SHIP	X				X		
	• SIM	X	X			X		X
	• CHIPs	X				X		X
	• Chronic Disease Plan	X						
	• Children's Behavioral Health Plan	X						X
Health care costs, access and quality	• SHIP	X			X	X	X	
	• SIM	X	X		X	X	X	X
	• CHIPs	X						
	• Chronic Disease Plan	X				X		
	• Children's Behavioral Health Plan	X	X					X

Following is an overview of state- and community-level initiatives to promote healthy lifestyles among Connecticut residents and systems and policy changes to support and promote health and address the needs of at-risk and vulnerable populations.

PROMOTING HEALTHY LIFESTYLES

State-level initiatives and community health improvement implementation plans (CHIPs) outline strategies for reducing the prevalence of modifiable risk factors for chronic diseases, though the level of intervention differs. Most CHIPs propose implementing or continuing to support existing health education programs such as healthy lifestyle messaging programs, diabetes prevention programs, blood pressure and cholesterol screening, mental health and substance abuse screening by primary care providers and tobacco cessation programs. Some CHIPs also plan to implement community health promotion activities to support environments conducive to healthy eating and physical activity, such as working with farmer's markets to subsidize market coupons, implementing programs to improve the availability of healthy foods in food

desserts, increasing physical activity among children in school and improving access to spaces for physical activity in the community.

In contrast, state-level initiatives advocate for insurance incentives and legislative changes to support and promote healthy lifestyles. State initiatives include advocating for insurance incentives that support the reduction of modifiable risk factors for chronic disease incidence and management and vaccination completion. Legislative changes include, but are not limited to, tax parity for tobacco products in Connecticut, creating more smoke-free environments, reducing the sale of tobacco products to minors, improving access to tobacco cessation products, healthy foods, bikeways and alternate routes.

HEALTH CARE SYSTEMS CHANGES

State-level initiatives have proposed several systems-level changes to promote health and integration of care among providers and health care systems.

Health Equity

The Commission on Health Equity and the Bioscience Connecticut Health Disparities Institute are two initiatives established by legislative mandate to support state-level activities to reduce health and health care inequities experienced by minority and underserved populations. The Commission on Health Equity is charged with improving the health of residents based on race, ethnicity, gender and language use. The Bioscience Connecticut Health Disparities Institute is intended to enhance research related to and improve the delivery of care to minority and underserved populations.

There are also activities underway to consider proposing changes to Medicaid reimbursement schedules and policies to support the integration of health and health care. Proposed changes include, but are not limited to, supporting patients within medical homes to improve the social determinants of health; delivering culturally-appropriate services; collaborating across a care team representing a variety of public health and health care skillsets to address the health needs of patients and considering primary care payment incentives for obstetricians and gynecologists.

As part of “Championing Health Equity,” a goal of DPH’s 2013-2018 strategic plan, staff-led work groups have developed recommendations for promoting and integrating concepts of health equity at DPH. Also, the Department revised its mission statement in 2012 to include the principle of health equity defined as: “Promoting the equal enjoyment of the highest attainable standard of health, which is a human right and a priority of the state.” Health equity is also an overarching, integrative theme for the SHIP 2014-2020.

Pursuant to PA 14-231, Governor Malloy signed into law the establishment of an Office of Health Equity within DPH to replace the Office of Multicultural Health, effective October 1, 2014.

The responsibility of the Office of Health Equity is “to improve the health of all Connecticut residents by working to eliminate differences in disease, disability and death rates among ethnic, racial and other population groups that are known to have adverse health status or outcomes. Such population groups may be based on race, ethnicity, age, gender, socioeconomic position, immigrant status, sexual minority status, language, disability, homelessness, mental illness or geographic area of residence.”

Changes to the name and mission statement of the office are consistent with federal and state initiatives that emphasize the principle of health as a human right and social good for all people, as well as a recognition that

Connecticut residents hold multiple socioeconomic statuses in addition to race and ethnicity that may predispose them toward health inequities.

Health Care Access, Quality and Cost

Health Insurance Exchange: Access Health CT

The PPACA's individual mandate requires that most Americans obtain health insurance by 2014 or pay a tax penalty. The law enabled the creation of health insurance exchanges where individuals and small employers with fewer than 100 employees could purchase health insurance coverage in an organized and competitive marketplace. Health insurance exchanges provide consumers a choice of health plans at competitive rates developed with set rules for offering plans and pricing in the market.

In July 2011, the Connecticut Health Insurance Exchange was signed into law through Public Act 11-53. The Exchange, known as "Access Health CT," was established as a quasi-public agency and its power vested in a 14-member board.

Connecticut has received nearly $115 million in federal funding since September 2010 to establish and launch Access Health CT.[110] In addition, Connecticut is a member of the consortium of New England states that received a federal Early Innovator Grant of $44 million to develop, share and leverage insurance exchange technology. The multi-state consortium also includes Rhode Island, Maine, Vermont and Massachusetts with the University of Massachusetts Medical School as the grant holder.[111]

Insurance coverage has increased in Connecticut with the health insurance exchange. Between October 1, 2013 and March 31, 2014, a total of 79,192 individuals had selected a plan via Access Health CT[112] out of 113,390 state residents eligible to enroll in a marketplace plan and 138,908 eligible for Medicaid or CHIP.

Prevention Service Centers (SIM)

Prevention Service Centers (PSCs) are part of an initiative to support alignment with Advanced Medical Home providers and patients. This program enhances communication between providers and community-based organizations and local health departments. In doing so, this program supports the integration of public health and health care to improve community health through evidence-based illness prevention and disease management programs. These collaborations are intended to improve access to evidence-based community services such as diabetes prevention programs, home-based environmental health assessments and programs to prevent falls among older adults.

Healthy Connecticut 2020: State Health Improvement Plan (SHIP)

To date, there are 35 recent health improvement and strategic plans issued by the DPH. Inter- and intra-agency overlap of activities is common, with the same diseases, health conditions, population health issues or services being addressed by several agencies or several programs within a single agency. As a result, these efforts may be duplicative and lack alignment and coordination. These issues are compounded by fragmented administrative and organizational infrastructures, lack of resources and different data sources for decision-making. To this end, the *Healthy Connecticut 2020*, *State Health Improvement Plan* was developed in 2013-2014 to help facilitate coordinated public health planning. It provides an integrating framework for agencies, coalitions, individuals and groups to use in leveraging resources, coordinating and aligning efforts and sharing data and best practices to improve the health of the citizens of Connecticut in a focused and purposeful way. The full report can be found at http://www.ct.gov/dph/lib/dph/state_health_planning/ship/hct2020/hct2020_state_hlth_impv_032514.pdf.

Live Healthy Connecticut: Connecticut's Chronic Disease Prevention Plan

In April 2014, the DPH completed the coordinated chronic disease prevention and health promotion plan - *Live Healthy Connecticut*. With a focus on health equity, the plan aims to elevate policy and systems change approaches which are likely to have the broadest and longest lasting impact across the state and among the most vulnerable populations. *Live Healthy Connecticut* identifies 12 priority areas, including health equity, nutrition, physical activity, obesity, tobacco, heart health, cancer, diabetes, asthma, genomics and oral health. A comprehensive set of indicators track progress in each of these priority areas with a particular focus on vulnerable populations. The strategies and interventions in this plan fall into three broad categories:

1. Environmental approaches that promote health and support and reinforce healthful behaviors (e.g., smoke free policies, healthy food procurement by large purchasers);
2. Health system interventions to improve the delivery and use of clinical preventive services (e.g., cancer screenings, quality dental care, blood pressure control and comprehensive diabetes care); and
3. Coordinated strategies to improve linkages between community resources and clinical settings (e.g., home-based asthma interventions, diabetes education and prevention programs and use of community health workers to gather family health history).

The Plan aligns with *Healthy Connecticut 2020* and focuses on addressing chronic disease via a collaborative, coordinated approach. The full report can be found at http://www.ct.gov/dph/lib/dph/hems/chronic_dis/connecticut_chronic_disease_plan__april_2014.pdf.

School-Based Health Care

Strategies to improve the health and health care experiences of children and youth also focus on improving health care communication and health education curriculum at schools. These proposed strategies include the adoption of a coordinated school health model for all schools and supporting a health coordinator and comprehensive school health education program.

Worksite Wellness Programs

Some health improvement initiatives also intend to leverage the worksite to promote and protect health through activities such as supporting and incentivizing worksite wellness programs and facilitating partnerships between health enhancement communities (described below) and worksites.

Community Health

Health Enhancement Communities (HECs) are a new initiative intended to support the prevention of illness by enhancing and coordinating community resources in vulnerable populations and communities with the greatest burden of disease. Building on community health initiatives that are currently underway in Connecticut, HECs are partnerships across sectors that include leadership and implementation at the state-level that is based on a collaborative relationship with local health departments and stakeholders; the coordination of state and local initiatives addressing the health of HECs; multi-level interventions (e.g., policies, system-level and environmental interventions); a focus on vulnerable populations; incorporation of SIM's clinical initiatives; and collaboration among other partners.

Several initiatives are also underway that involve partnerships between local prevention task forces and community coalitions that currently focus on reducing modifiable risk factors, substance use, housing, socioeconomic issues and community-based care transitions initiatives to reduce hospital readmission rates.

Primary Care

In addition to supporting community health efforts, improvements in primary care access and models of primary care are critical to reaching the goals of improving population health in Connecticut and reducing health inequities experienced by vulnerable populations. These strategies include the recruitment and retention of primary care providers; supporting the expansion of Patient-Centered Medical Homes and Community-Based Health Services; expanding case management; expanding use of and leveraging health information technology and investing in emerging health disciplines. Proposed strategies to support the expansion of medical homes include advocating for the implementation of patient-centered medical home model in primary care practices and providing incentives for Patient-Centered Medical Home accreditation.

Current initiatives also support increasing the number of community-based health services in communities who have demonstrated need and/or vulnerable populations to create a more robust, integrated statewide safety net system and promoting case management and chronic disease management.

Health information technology (HIT) is also seen as an important resource for improving primary care. Proposed strategies to help expand the use of HIT include providing incentives for providers to adopt electronic health records technology, supporting providers to exchange health data across care settings through the use of national interoperability standards, supporting providers to achieve Meaningful Use and enhancing communication through health information technology to improve quality of care and to support the adoption of preventive health strategies and chronic disease screening.

Other suggested avenues for improving primary care include increasing access to, referrals and reimbursements for lifestyle change programs for the prevention of chronic conditions and investing in emerging health disciplines such as community health workers, patient navigators and certified medical translators to improve the delivery of preventive and primary care.

Cancer Screening

Current initiatives are also advocating for legislation to improve access to cancer screening. These include, for example, advocating for universal access to cancer-related screenings mandated by the PPACA regardless of insurance status; genetic risk assessment and BRCA testing; and expanding patient eligibility for free HPV vaccination available through the Connecticut Vaccine Program to include all age-eligible children.

Behavioral Health

The DCF and DMHAS have also released several reports based on task force reviews of mental health and substance about needs and improving access to care. Proposed strategies include addressing barriers to integrating behavioral health and primary care services; promoting depression screening by primary care providers and supporting reciprocal referrals between mental health and primary care providers.

The DCF Connecticut Children's Behavioral Health Plan proposes redesigning publicly financed behavioral health care for children to reduce existing fragmentation and inefficiencies in this system. Related activities include identifying mechanisms to pool resources across state agencies; identifying a continuum of services for care; streamlining access to and management of services; investigating areas of concern; improving and integrating behavioral health care data collection, management, analysis and management across systems; implementing behavioral health screening in primary care and home visit settings; improving clinical competency of behavioral health providers; ensuring that resources are available to vulnerable populations; addressing high ED utilization rates for behavioral issues; supporting schools in addressing behavioral health needs of students; improving connections between pediatric primary care and mental health services; incorporating families and youth in initiatives to improve behavioral health care and investing in workforce development.

The findings from these reports support themes from the behavioral health and substance abuse ED focus group convened for the preparation of this Plan. Focus group participants identified pressures to reduce ED admissions and length of stays as an external pressure that may strain the availability of EDs to provide acute care for mental health and substance abuse. Participants also identified the need for the coordination of mental health and substance abuse care.

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Recommendations and Next Steps

- Recommendations
  - Behavioral Health
  - Acute Care/Ambulatory Surgery
  - Primary Care
- Next Steps

CHAPTER 5. RECOMMENDATIONS AND NEXT STEPS

RECOMMENDATIONS

As planning is a dynamic process and planning for the rapidly changing health care environment covered by the CON program is especially so, planning practices and the standards used by OHCA should reflect and incorporate current best practices, whenever possible. OHCA will be continuously attentive to technological advances, research findings, demographic changes, shifting economic incentives and significant changes in the organization and delivery of health care and planning and quality standards.

Next steps and recommendations address and are grouped by behavioral health, acute care/ambulatory surgery and primary care categories. These recommendations were suggested by, or evolved from discussion with subcommittee and advisory body members, or provided by various OHCA staff or reviewers of the Plan.

The next steps/recommendations are intended to build upon the efforts of and discussions that occurred during the initial planning process in 2011 – 2012 and further discussions held for this supplemental plan in 2014.

Behavioral Health

1) Determine the resources available and options and approaches for further exploration of ways that Connecticut's behavioral health service delivery system can be measured to determine capacity as it relates to need and access to care;
2) Develop further understanding of recovery supports and how they relate to the overall care for behavioral health clients across all age groups;
3) Determine the feasibility of and resources available for a future inventory of distinct service levels as opposed to broad categorization of facilities using behavioral health licensure categories;
4) Provide more focus in future plans which specifically discuss the coordination, interrelation, provision or co-location of mental health, primary care and/or oral health services within the various settings and how such interrelationship will benefit the behavioral health patient population.

Acute Care/Ambulatory Surgery

5) Investigate the development of planning regions that best facilitate the ability to assess the availability of and future demand for care, taking into consideration existing hospital service areas;
6) Research, investigate and quantify the use of observation stays in Connecticut hospitals and determine how these data can be standardized in a way that would allow them to be incorporated in the acute care bed need model;
7) With respect to ambulatory surgery standards and guidelines, discuss and consider including backlogs in the service area, ability of physicians to schedule block times, patient throughput at other facilities, the quality of care at other facilities as additional factors for consideration in the next Plan, if such data is available to OHCA to verify and analyze.

Primary Care

8) The DPH Primary Care Office will collect and report real-time health workforce data and will support the analyses necessary to interpret this data to estimate both current and future health workforce needs;[113]
9) Utilize data from Behavioral Risk Factor Surveillance System and/or other surveys which have large enough samples so that results for questions related to health care access may be used for town, city or county level assessment and solutions;
10) Consider assessing/evaluating primary care provided by hospital-affiliated entities (e.g., urgent care centers) and determine if beneficial to patients;
11) Provide additional Plan focus on the provision of mental health and oral health services in primary care settings and assess the interrelation of these services with primary care.
12) Align OHCA planning efforts with SIM Grant activities (e.g., physician data collection, goals and objectives, etc.) and other relevant State planning efforts.

NEXT STEPS

As discussed in Chapters 5 and 6, OHCA is charged with evaluating the unmet need of persons at risk and vulnerable populations and projecting future demand for health care services. In addition, the mandate allows OHCA to recommend expansion, reduction or modification of health care facilities or services and requires OHCA to develop a process, in consultation with hospitals, to incorporate the Plan into hospital long-range planning efforts.

In C.G.S. 19a-613(b)(2), OHCA is charged with overseeing and coordinating Connecticut's health system planning. Using information and data currently available, **Table 27** provides:

- hospital financial performance measures grouped into an A, B or C category based on results of a comparative analysis of three year average ratios benchmarked against the statewide average of each ratio (see Appendix I for detail);
- the availability and need for inpatient beds indicated by excess or deficit of staffed or licensed beds;
- towns that may have unmet need based on indicators of residents' health status and access to care;
- priority health needs identified in hospitals' CHNAs; and
- towns not covered by any CHNA and not considered part of any hospital's primary service area.

It should be noted that, utilization data used in this table is limited to hospital inpatient and emergency department care; outpatient care, a significant portion of health care utilization, is not included as data is currently unavailable to OHCA. In addition, while hospitals have been grouped based on counties of location, a hospital may be part of a system or affiliated with one or more hospitals, as shown in **Table 27**. This may influence a hospital's financial performance like other factors such as location, sociodemographic characteristics of communities it serves, service offerings, proximity to other hospitals and their service offerings, patient payer mix and discount rates negotiated with payers. As a result, the information in the table may not be used to make direct, hospital-specific findings.

Rather, the table provides a starting point for examining potential opportunities to transform existing health care systems to better meet the health care needs of Connecticut's communities. For example, while all Connecticut counties are shown to have an excess of licensed acute care beds, future demand for services and evolving age demographics may require the reallocation of hospital resources. For example, additional staffing of medical/surgical, maternity and psychiatric beds may be necessary to satisfy 2020 patient demand for inpatient services. Additionally, CHNAs show the need to increase availability and access to outpatient care, especially primary, substance abuse, mental and dental care, to manage identified health priorities, gaps in health care systems and address health inequities. The table also helps to identify communities most likely to have unfavorable health care outcomes compared to the state. The latter could serve as a guide to hospitals in determining what communities or geographic areas to cover in their health needs assessments and/or in their CON applications to terminate, expand or modify their service offerings.

Table 27: Hospital Overall Performance and Unmet Health Care Need, FYs 2011-2013

						Unmet Health Care Needs											
						Additional Inpatient Beds Needed to be Staffed or Licensed by 2020 - Excess (-) or Deficit (+)[5]						Towns Below Overall State Health Status and Access Indicators					
		Hospital Financial Measures[1]				Staffed						Health Status		Access to Care			
County	Hospitals	Profitability[2]	Liquidity[3]	Solvency[4]	Licensed Beds	Medical/ Surgical	Maternity	Psychiatric	Rehabilitation	Pediatric	Total Licensed	Towns	Indicators	Town	Indicators	Hospital Community Needs Assessments Priority Health Needs	Towns neither covered by a CHNA nor in a hospital primary service area
Fairfield	Bridgeport Hospital	A	C	A	373	136	79	36	16	-5	-236	Bridgeport Danbury Norwalk Stamford	Poverty Education Unemployment Transportation Language proficiency Disability Uninsured Minority	Bridgeport	ACSC Infant mortality	Overweight & obesity Chronic disease Nutrition Physical activity Tobacco use Substance abuse Mental health Primary care Specialist care	
	Danbury Hospital, The	A	A	A	345												
	Greenwich Hospital	C	A	A	174												
	Norwalk Hospital Association, The	A	A	A	328												
	St. Vincent's Medical Center	A	B	A	473												
	Stamford Hospital	A	C	C	305												
Hartford	Bristol Hospital, Inc.	C	C	C	134	34	72	-13	0	-25	-416	Bloomfield East Hartford Hartford New Britain Newington	Poverty Education Unemployment Transportation Language proficiency Disability Uninsured Minority Elderly	Bloomfield Bristol Hartford New Britain Newington Plainsville East Hartford South Windsor Windsor Locks	Mortality ACSC 30-day readmission Infant mortality	Overweight & obesity Chronic disease Maternal & child health Healthy aging Substance abuse Mental health Dental care Primary care Specialist care	East Granby Granby Hartland Malborough
	Connecticut Children's Medical Center	C	C	B	115												
	Hartford Hospital	C	C	A	819												
	Hospital of Central Connecticut	A	C	A	414												
	John Dempsey Hospital	C	B	A	224												
	Manchester Memorial Hospital	C	C	C	249												
	Saint Francis Hospital and Medical Center	C	A	C	617												

						Unmet Health Care Needs											
						Additional Inpatient Beds Needed to be Staffed or Licensed by 2020 - Excess (-) or Deficit (+)[5]						Towns Below Overall State Health Status and Access Indicators					
		Hospital Financial Measures[1]				Staffed						Health Status		Access to Care			
County	Hospitals	Profitability[2]	Liquidity[3]	Solvency[4]	Licensed Beds	Medical/ Surgical	Maternity	Psychiatric	Rehabilitation	Pediatric	Total Licensed	Towns	Indicators	Town	Indicators	Hospital Community Needs Assessments Priority Health Needs	Towns neither covered by a CHNA nor in a hospital primary service area
Litchfield	Charlotte Hungerford Hospital	C	B	A	109	35	3	-5	0	-1	-100	North Canaan Torrington	Poverty Education Unemployment Disability Uninsured Elderly Medicaid	Thomaston Torrington Watertown	Mortality ACSC 30-day readmission	Overweight & obesity Chronic disease Tickborne disease Primary care	
	Essent Healthcare of Connecticut, Inc. d/b/a Sharon Hospital	C	C	B	78												
	New Milford Hospital, Inc.	A	C	B	85												
Middlesex	Middlesex Hospital	A	B	A	275	24	7	4	0	0	-60	-	-	Westbrook	-	Chronic disease Nutrition Physical activity Tobacco use	
New Haven	Griffin Hospital	C	C	C	160	-32	65	33	-6	-31	-377	Ansonia Derby Meriden New Haven Waterbury West Haven	Poverty Education Unemployment Transportation Language proficiency Disability Uninsured Minority Elderly Medicaid	Ansonia East Haven Middlebury Naugatuck New Haven Meriden Waterbury West Haven	30-day readmission Mortality ACSC Avoidable ED use Infant mortality	Overweight & obesity Chronic disease Respiratory health Tobacco use Substance abuse Mental health Maternal & child health Influenza Healthy aging Mental health care Primary care Socioeconomic disadvantage Transportation Housing Safety	
	Midstate Medical Center	A	B	B	144												
	Milford Hospital, Inc.	C	C	C	106												
	Saint Mary's Hospital, Inc.	A	C	B	347												
	The Hospital of Saint Raphael	C	C	B	-												
	Waterbury Hospital	C	C	A	357												
	Yale New Haven Hospital	A	B	C	1,407												

						Unmet Health Care Needs											
						Additional Inpatient Beds Needed to be Staffed or Licensed by 2020 - Excess (-) or Deficit (+)[5]						Towns Below Overall State Health Status and Access Indicators					
		Hospital Financial Measures[1]				Staffed						Health Status		Access to Care			
County	Hospitals	Profitability[2]	Liquidity[3]	Solvency[4]	Licensed Beds	Medical/ Surgical	Maternity	Psychiatric	Rehabilitation	Pediatric	Total Licensed	Towns	Indicators	Town	Indicators	Hospital Community Needs Assessments Priority Health Needs	Towns neither covered by a CHNA nor in a hospital primary service area
New London	Lawrence & Memorial Hospital, Inc.	A	A	A	280	7	-4	-2	1	-4	-70	Norwich New London	Poverty Education Unemployment Transportation Language proficiency Disability Uninsured Minority	East Lyme New London Norwich	Mortality ACSC Avoidable ED use 30-day Readmission Infant mortality	Overweight & obesity Chronic disease Respiratory health Substance abuse Maternal & child health Primary care	
	William W. Backus Hospital	A	A	A	213												
Tolland	Johnson Memorial Hospital	C	C	C	92	3	-1	-7	0	0	-86	-	-	Stafford Union Vernon	Mortality Avoidable ED use Infant mortality	Overweight & obesity Chronic disease Nutrition Physical activity Tobacco use Substance abuse Mental health care	
	Rockville General Hospital	C	C	C	102												
Windham	Windham	C	C	C	104	-1	-5	2	0	1	-99	Windham Putnam	Poverty Education Unemployment Transportation Language Disability Uninsured Minority	Killingly Windham	Mortality ACSC Avoidable ED use Infant mortality	Mental health care Dental care Specialist care Transportation	
	Windham Community Memorial Hospital, Inc.	C	C	C	130												

Source: CT DPH Office of Health Care Access Financial Stability Report, 2011-2013; Almanac of Hospital Financial and Operating Indicators, OPTUM, 2014; Also, see Appendix I; Hospital Inpatient Discharge Database; CT Hospitals Community Health Needs Assessments and U.S. Census Bureau.

[1]Three year average ratios for each measure were benchmarked against their respective three year statewide average for FYs 2011, 2012 and 2013. A measure for a hospital is assigned:

"A" if the number of ratios above statewide averages exceed the number below statewide averages

"B" if the number of ratios above statewide averages equal the number below statewide averages

"C" if the number of ratios above statewide averages was less than the number below statewide averages.

[2]Measures hospital's ability to generate earnings and is based on three year average of hospital operating, non-operating, and total margin ratios.

[3]Measures hospital's ability to quickly convert assets to cash and is based on three year average of hospital current ratio, days cash on hand, days revenue in patient accounts receivable and average payment period.

[4]Measures hospital's ability to repay total debt and is based on three year average hospital equity ratio, cash flow to total debt ratio, long-term debt to capitalization ratio, and debt service coverage ratio.

[5]Number represents difference between 2014 bed need methodology estimated 2020 bed need and Hospital Reporting System Report 400 FY 2013 staffed and licensed beds. Please note that staffed beds reported in the Hospital Reporting System Report 400 is the average number of staffed beds over the fiscal year and may be higher or lower depending on patient volumes.

The PPACA's requirements for value-based care are driving providers to focus on creating new models of care that bring higher quality and improved outcomes at a lower cost. Providers will need to continue to assess their organizations, service array and delivery structures in order to best manage population health through efficient and effective care across all settings.

In future planning efforts, OHCA will examine available data and the evolving health care systems in an attempt to determine how to best meet the unmet needs of residents in ways that benefit the community and assist providers in transforming to meet those needs. Activities that may be undertaken to facilitate this realignment of care around community needs for more integrated health care delivery systems include:

- Analyzing health care service specific data by health care systems, utilization and physician referral patterns to determine if there could be logical regionalization of certain services;
- Evaluating patient data and provider revenue patterns to identify shifts in demand for inpatient to outpatient services and between types of services for geographic regions;
- Identifying modalities through which the state may direct and/or assist providers to be more responsive to health care needs of communities;
- Analyzing all payer claims data to identify availability of and access to health care services, utilization patterns and the impact of expanded health insurance coverage through the PPACA;
- Monitoring the various settings where health care is now being delivered as additional data sources become available to OHCA;
- Reviewing Certificate of Need statutes and regulations to ensure they are responsive to the evolving health care environment and make recommendations to better align the process with health care reform;
- Providing consumers with access to all available data.

Additionally, as more information becomes available to OHCA, the next Plan will attempt to:

- Address the impact that technology may have on the demand, capacity or need for health care services; and
- Facilitate communication between appropriate state agencies concerning innovations or changes that may affect future health planning.

6

Methods

- Overview

CHAPTER 6. METHODS

OVERVIEW

The following section provides an overview of the methods and data sources discussed throughout this document, including secondary data, bed need projections, a new unmet health care need index, a review of hospital community health needs assessments and strategic implementation plans and the inventory of health care facilities.

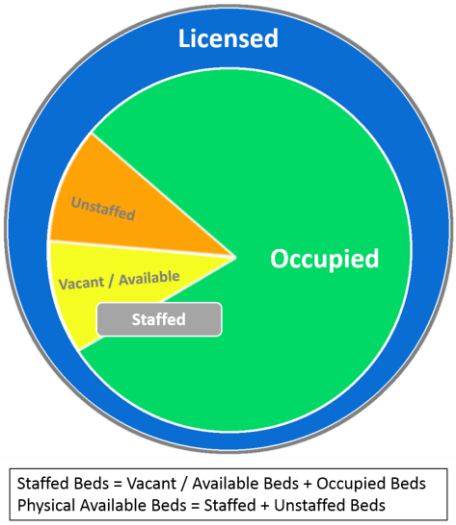
Secondary Data

Secondary social, economic and health data for this report were obtained from a variety of sources. Due to data availability, in some instances, health and health care data are presented for fiscal years (FY), while in other instances, calendar year (CY) data are provided. Data presented by fiscal year are noted with an FY prior to the year. Demographic, social and economic indicators were derived from the U.S. Census American Community Survey and Current Population Survey. Data regarding mortality, birth outcomes, emergency department use and hospitalizations were from databases managed by the Connecticut Department of Public Health. Indicators of chronic disease were from the Behavioral Risk Factor Surveillance System (BRFSS) and most of the data from these surveys were analyzed by the Connecticut Department of Public Health in preparation for the *Healthy Connecticut 2020 State Health Assessment*. Estimates of health care experiences and health insurance coverage were drawn from the Connecticut Health Care Survey, a telephone survey. This survey was sponsored by six health care foundations and administered by the Office of Survey Research at the University of Massachusetts Medical School between June 2012 and February 2013. Fully 5,447 surveys were completed, with 4,608 surveys pertaining to Connecticut adults and 839 surveys regarding children in their households. The sample was stratified by geographic location. Particular geographic strata were oversampled to ensure sufficient sample sizes for populations that experience health inequities.

Bed Need Projections

The Agency for Healthcare Research and Quality (AHRQ) defines licensed beds as the maximum number of beds that a hospital is licensed to operate, though not all licensed beds need to be available or staffed (**Figure 32**). Hospitals have the flexibility to staff all or a portion of their licensed beds according to the demand for services and the availability of appropriate health care practitioners. Thus, staffed beds relate to efficiency measures while licensed beds represent overall inpatient capacity. The bed need methodology focuses on licensed beds due to the factors mentioned above to estimate inpatient bed demand throughout the state.

Figure 32. Conceptual Model of Licensed Hospital Beds, as Defined by AHRQ



Source: Agency for Health Care Research and Quality. Replicated on September 17, 2014 from http://archive.ahrq.gov/research/havbed/definitions.htm.

The bed need methodology used for the 2012 Plan was repeated for the 2014 Plan, with one significant change. The 2012 Plan presented data by the five Department of Emergency Management and Homeland Security (DEMHS) planning regions. Because of the wide variation within each of these regions, the 2014 analysis examined bed need at a more granular level. This report presents these findings by county and by hospital.

The bed need model is designed to project need for licensed inpatient beds (excludes bassinets) and relates inpatient bed utilization to licensed bed need. Bed utilization is calculated using patient days (excluding newborn service category) from three consecutive federal fiscal years. Patient days are broken down by county, hospital, service category and age group. Patient days are then divided by the number of days in the year to calculate an average daily census for each year, which is weighted with the greatest weight given to the most current year. The weighted average daily census is multiplied by a factor representing projected population growth or attrition of the county. The resulting figure is divided by the target occupancy factors provided by the Acute Care/Ambulatory Surgery Subcommittee to determine the number of beds needed. The beds needed column is summed and then deducted from a hospital's licensed bed total to determine the number of excess or additional beds that are required.

It should be noted that this model does not include other types of beds, such as ED beds or incorporate patient days used for observation stays.

Observation stays are outpatient services furnished by a hospital on the hospital's premises, including use of a bed and periodic monitoring by the hospital's nursing or other staff.[114] Such services may be necessary to evaluate an outpatient's condition or determine the need for a possible admission to the hospital. These services are covered only when provided by the order of a physician or another individual authorized by State licensure law and hospital staff bylaws to admit patients to the hospital or to order outpatient tests. The reason for observation must be stated in the orders for observation.

Observation stays are generally considered as an outpatient service and can occur in different parts of the hospital. If the observation is occurring in an inpatient ward, inpatient bed resources are being used, but may

not be accurately reflected in the model. If the patient is being observed in the ED (outpatient setting), these beds are not included in the overall licensed bed count and are appropriately excluded from the model.

Recently, there has been an increase in patients considered under "observation." Older patients are more likely to be considered in "observational" status because Medicare reimburses better for observations. These patterns contribute to concern in the field regarding how to collect information about and incorporate observation stays into bed need models.

Unmet Health Care Index

Three indices were created to assess unmet need in each town in Connecticut relative to the state overall. The Socioeconomic Status (SES) Index comprises measures that are important determinants of health; the Health Outcomes Index includes indicators that are proxies for a community's health; and the Unmet Need Index is a combination of the SES and Outcomes indices. These indices were developed using town-level U.S. Census and DPH hospitalization and mortality data. Data are for the most recent multiple-year period for which data are available to ensure the most reliable and precise estimates, particularly for smaller towns in Connecticut. Each indicator within the index was estimated for each town or city in Connecticut.

Using a simplified hybrid of the Oregon[115] and the Middling[116] approaches, these indices were created using several steps. First, for each indicator within the index, the town or city prevalence rate was divided by the rate for the state of Connecticut. Second, results for each indicator were summed to obtain the index for the town or city. Third, the index for the town or city was then compared to the CT index value. A value greater than the CT overall index value implies that the health or health care profile of the town or city is worse than the profile for the state and therefore has a higher probability of unmet health care need. A value that is lower than the overall value for Connecticut implies that the town or city has a better profile than the state and is less likely to have unmet health care need. Each indicator for Connecticut was assigned a value of one and the Connecticut index is equal to the number of indicators included in the index.

Socioeconomic Status (SES) Index

The SES index consists of social, demographic and economic factors that have been established in the literature as having a significant impact on population health. This index includes the following measures: poverty status, educational attainment, employment status, transportation, language proficiency, health insurance status, disability status, age, racial or ethnic minority status and Medicaid coverage.

Health Outcomes Index

The health outcomes index includes several indicators of population health and access to health care services: the infant mortality rate (rate of infant deaths within the first year per 1,000 live births; 2007-2009); the crude mortality rate per 100,000 population (2006-2010), the hospitalization rate for ambulatory care sensitive conditions per 100,000 population (2010-2012), the avoidable emergency department use rate per 100,000 population (2011-2013) and the all-cause 30-day readmission rates per 100 discharges (2011-2013). These are key measures that are routinely used to indicate the health of a community and may represent differential access to health care for prevention and treatment as well as the socioeconomic factors that have an impact on health.

A more detailed description on these indicators is discussed in the At-Risk and Vulnerable Population section of this report. The overall unmet need composite index is the sum of the socioeconomic status and health outcomes indices and is interpreted as an indicator of which towns may have unmet health care needs.

Review of Community Health Needs Assessment and Strategic Implementation Plans

For this report, the community health needs assessments (CHNAs) and strategic implementation plans (SIPs) were reviewed thematically to identify consistent findings across Connecticut hospitals and their service areas as well as unique issues to specific geographic regions. Of the 27 Connecticut hospitals, 21 reports were reviewed, as several hospitals combined the planning processes with each other and community partners (e.g., health departments, federally qualified health centers) in a collaborative effort. Thus, several hospitals submitted the same reports. Only one of these collaborative reports was included in the review process.

OHCA Community Needs Assessment Survey

OHCA administered a Community Needs Assessment Survey to Connecticut hospitals to enhance understanding of the CHNA and CHIP decision-making processes. OHCA fielded the survey to fulfill part of the requirements of Connecticut General Statutes Section 19a-649(c) and to obtain information for the Plan. Information solicited included how each hospital had defined and covered health disparity, unmet health need and/or vulnerable/at-risk populations and primary service area and to determine if each Connecticut town or city was covered by a Community Health Needs Assessment (CHNA). The Connecticut Hospital Association assisted OHCA in refining the questionnaire by testing it on members of a standing workgroup consisting of hospital planners. Also, CHA administered the final survey on Survey Monkey to all its 28 member hospitals in June. To date, only ten hospitals have responded. Some had difficulty in responding because they did not have the information requested. Other hospitals worked with affiliated hospitals. CHA offered to forward hospitals' Community Health Improvement Plans (CHIPs) to supplement survey responses.

Health Care Facilities and Services Inventory – Surveyed Information

OHCA administered the 2014 Facilities and Services Survey during 2014. The survey aimed to capture data and information for the purpose of maintaining an inventory of all health care facilities, services and imaging equipment in the State of Connecticut. OHCA contracted with Health Resources in Action (HRiA), to provide assistance in the administration of the facility survey. The 2014 survey instrument consisted of four questionnaires to collect information from facilities or practitioners that provide the following services:

1. Acute-care hospital-based service lines
2. Hospital-based primary care services
3. Imaging services
4. Surgical services

Health Care Facilities and Services Inventory – Non-Surveyed Information

The majority of the Inventory Tables facilities are sourced by OHCA, primarily using the DPH licensure files and information provided by the Department of Children and Families (DCF). The tables that rely on the licensure files provide basic information, such as facility name, address and the number of beds by the DPH or DCF license categories. OHCA has determined that the DPH and DCF licensure files are the most accessible and reliable sources for the information on non-surveyed facilities for purposes of this publication.

The full Inventory of Health Care Facilities, Services and Equipment for 2014 can be found at http://www.ct.gov/dph/cwp/view.asp?a=3902&q=557564

APPENDICES

APPENDIX A. CONNECTICUT GENERAL STATUTE SECTION 19A-634

Sec. 19a-634. (Formerly Sec. 19a-150). State-wide health care facility utilization study. State-wide health care facilities and services plan. Inventory of health care facilities, equipment and services.

(a) The Office of Health Care Access shall conduct, on a biennial basis, a state-wide health care facility utilization study. Such study may include an assessment of: (1) Current availability and utilization of acute hospital care, hospital emergency care, specialty hospital care, outpatient surgical care, primary care and clinic care; (2) geographic areas and subpopulations that may be underserved or have reduced access to specific types of health care services; and (3) other factors that the office deems pertinent to health care facility utilization. Not later than June thirtieth of the year in which the biennial study is conducted, the Commissioner of Public Health shall report, in accordance with section 11-4a, to the Governor and the joint standing committees of the General Assembly having cognizance of matters relating to public health and human services on the findings of the study. Such report may also include the office's recommendations for addressing identified gaps in the provision of health care services and recommendations concerning a lack of access to health care services.

(b) The office, in consultation with such other state agencies as the Commissioner of Public Health deems appropriate, shall establish and maintain a state-wide health care facilities and services plan. Such plan may include, but not be limited to: (1) An assessment of the availability of acute hospital care, hospital emergency care, specialty hospital care, outpatient surgical care, primary care and clinic care; (2) an evaluation of the unmet needs of persons at risk and vulnerable populations as determined by the commissioner; (3) a projection of future demand for health care services and the impact that technology may have on the demand, capacity or need for such services; and (4) recommendations for the expansion, reduction or modification of health care facilities or services. In the development of the plan, the office shall consider the recommendations of any advisory bodies which may be established by the commissioner. The commissioner may also incorporate the recommendations of authoritative organizations whose mission is to promote policies based on best practices or evidence-based research. The commissioner, in consultation with hospital representatives, shall develop a process that encourages hospitals to incorporate the state-wide health care facilities and services plan into hospital long-range planning and shall facilitate communication between appropriate state agencies concerning innovations or changes that may affect future health planning. The office shall update the state-wide health care facilities and services plan not less than once every two years.

(c) For purposes of conducting the state-wide health care facility utilization study and preparing the state-wide health care facilities and services plan, the office shall establish and maintain an inventory of all health care facilities, the equipment identified in subdivisions (9) and (10) of subsection (a) of section 19a-638, and services in the state, including health care facilities that are exempt from certificate of need requirements under subsection (b) of section 19a-638. The office shall develop an inventory questionnaire to obtain the following information: (1) The name and location of the facility; (2) the type of facility; (3) the hours of operation; (4) the type of services provided at that location; and (5) the total number of clients, treatments, patient visits, procedures performed or scans performed in a calendar year. The inventory shall be completed biennially by health care facilities and providers and such health care facilities and providers shall not be required to provide patient specific or financial data.

APPENDIX B. CONNECTICUT GENERAL STATUTE SECTION 19A-7

Sec. 19a-7. (Formerly Sec. 19-3a). Public health planning. State health plan. Access to certain health care data. Regulations.

(a) The Department of Public Health shall be the lead agency for public health planning and shall assist communities in the development of collaborative health planning activities which address public health issues on a regional basis or which respond to public health needs having state-wide significance. The department shall prepare a multiyear state health plan which will provide an assessment of the health of Connecticut's population and the availability of health facilities. The plan shall include: (1) Policy recommendations regarding allocation of resources; (2) public health priorities; (3) quantitative goals and objectives with respect to the appropriate supply, distribution and organization of public health resources; and (4) evaluation of the implications of new technology for the organization, delivery and equitable distribution of services. In the development of the plan the department shall consider the recommendations of any advisory bodies which may be established by the commissioner.

(b) For the purposes of establishing a state health plan as required by subsection (a) of this section and consistent with state and federal law on patient records, the department is entitled to access hospital discharge data, emergency room and ambulatory surgery encounter data, data on home health care agency client encounters and services, data from community health centers on client encounters and services and all data collected or compiled by the Office of Health Care Access division of the Department of Public Health pursuant to section 19a-613.

(c) The Commissioner of Public Health shall adopt regulations in accordance with the provisions of chapter 54 to assure the confidentiality of personal data and patient-identifiable data collected or compiled pursuant to this section.

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APPENDIX D. CONNECTICUT GENERAL STATUTE SECTION 19A-638

Section 19a-638 of the 2014 supplement to the general statutes is repealed and the following is substituted in lieu thereof (Effective July 1, 2014):

(a) A certificate of need issued by the office shall be required for:

(1) The establishment of a new health care facility;
(2) A transfer of ownership of a health care facility;
(3) A transfer of ownership of a group practice to any entity other than a physician or group of physicians, except when the parties have signed a sale agreement to transfer such ownership on or before September 1, 2014;
(4) The establishment of a freestanding emergency department;
(5) The termination of inpatient or outpatient services offered by a hospital, including, but not limited to, the termination by a short-term acute care general hospital or children's hospital of inpatient and outpatient mental health and substance abuse services;
(6) The establishment of an outpatient surgical facility, as defined in section 19a-493b, or as established by a short-term acute care general hospital;
(7) The termination of surgical services by an outpatient surgical facility, as defined in section 19a-493b, or a facility that provides outpatient surgical services as part of the outpatient surgery department of a short-term acute care general hospital, provided termination of outpatient surgical services due to (A) insufficient patient volume, or (B) the termination of any subspecialty surgical service, shall not require certificate of need approval;
(8) The termination of an emergency department by a short-term acute care general hospital;
(9) The establishment of cardiac services, including inpatient and outpatient cardiac catheterization, interventional cardiology and cardiovascular surgery;
(10) The acquisition of computed tomography scanners, magnetic resonance imaging scanners, positron emission tomography scanners or positron emission tomography-computed tomography scanners, by any person, physician, provider, short-term acute care general hospital or children's hospital, except as provided for in subdivision (22) of subsection (b) of this section;
(11) The acquisition of nonhospital based linear accelerators;
(12) An increase in the licensed bed capacity of a health care facility;
(13) The acquisition of equipment utilizing technology that has not previously been utilized in the state;
(14) An increase of two or more operating rooms within any three-year period, commencing on and after October 1, 2010, by an outpatient surgical facility, as defined in section 19a-493b, or by a short-term acute care general hospital; and
(15) The termination of 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.

(b) A certificate of need shall not be required for:
(1) Health care facilities owned and operated by the federal government;
(2) The establishment of offices by a licensed private practitioner, whether for individual or group practice, except when a certificate of need is required in accordance with the requirements of section 19a-493b or subdivision [(9) or (10)] (3), (10) or (11) of subsection (a) of this section;
(3) A health care facility operated by a religious group that exclusively relies upon spiritual means through prayer for healing;
(4) Residential care homes, nursing homes and rest homes, as defined in subsection (c) of section 19a-490;
(5) An assisted living services agency, as defined in section 19a-490;
(6) Home health agencies, as defined in section 19a-490;

(7) Hospice services, as described in section 19a-122b;
(8) Outpatient rehabilitation facilities;
(9) Outpatient chronic dialysis services;
(10) Transplant services;
(11) Free clinics, as defined in section 19a-630, as amended by this act;
(12) School-based health centers, community health centers, as defined in section 19a-490a, not-for-profit outpatient clinics licensed in accordance with the provisions of chapter 368v and federally qualified health centers;
(13) A program licensed or funded by the Department of Children and Families, provided such program is not a psychiatric residential treatment facility;
(14) Any nonprofit facility, institution or provider that has a contract with, or is certified or licensed to provide a service for, a state agency or department for a service that would otherwise require a certificate of need. The provisions of this subdivision shall not apply to a short-term acute care general hospital or children's hospital, or 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;
(15) A health care facility operated by a nonprofit educational institution exclusively for students, faculty and staff of such institution and their dependents;
(16) An outpatient clinic or program operated exclusively by or contracted to be operated exclusively by a municipality, municipal agency, municipal board of education or a health district, as described in section 19a-241;

(17) A residential facility for persons with intellectual disability licensed pursuant to section 17a-227 and certified to participate in the Title XIX Medicaid program as an intermediate care facility for individuals with intellectual disabilities;
(18) Replacement of existing imaging equipment if such equipment was acquired through certificate of need approval or a certificate of need determination, provided a health care facility, provider, physician or person notifies the office of the date on which the equipment is replaced and the disposition of the replaced equipment;
(19) Acquisition of cone-beam dental imaging equipment that is to be used exclusively by a dentist licensed pursuant to chapter 379;
(20) The partial or total elimination of services provided by an outpatient surgical facility, as defined in section 19a-493b, except as provided in subdivision (6) of subsection (a) of this section and section 19a-639e;
(21) The termination of services for which the Department of Public Health has requested the facility to relinquish its license; or
(22) Acquisition of any equipment by any person that is to be used exclusively for scientific research that is not conducted on humans.

(c) (1) Any person, health care facility or institution that is unsure whether a certificate of need is required under this section, or (2) any health care facility that proposes to relocate pursuant to section 19a-639c shall send a letter to the office that describes the project and requests that the office make a determination as to whether a certificate of need is required. In the case of a relocation of a health care facility, the letter shall include information described in section 19a-639c. A person, health care facility or institution making such request shall provide the office with any information the office requests as part of its determination process.

(d) The Commissioner of Public Health may implement policies and procedures necessary to administer the provisions of this section while in the process of adopting such policies and procedures as regulation, provided the commissioner holds a public hearing prior to implementing the policies and procedures and prints notice of intent to adopt regulations in the Connecticut Law Journal not later than twenty days after the date of implementation. Policies and procedures implemented pursuant to this section shall be valid until the time final regulations are adopted. Final regulations shall be adopted by December 31, 2011.

APPENDIX E. CONNECTICUT GENERAL STATUTE SECTION 19A-639

Section 19a-639 of the 2014 supplement to the general statutes is repealed and the following is substituted in lieu thereof (Effective July 1, 2014):

(a) In any deliberations involving a certificate of need application filed pursuant to section 19a-638, as amended by this act, the office shall take into consideration and make written findings concerning each of the following guidelines and principles:

(1) Whether the proposed project is consistent with any applicable policies and standards adopted in regulations by the Department of Public Health;
(2) The relationship of the proposed project to the state-wide health care facilities and services plan;
(3) Whether there is a clear public need for the health care facility or services proposed by the applicant;
(4) 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;
(5) 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, and (B) the impact upon the cost effectiveness of providing access to services provided under the Medicaid program;
(6) 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;
(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;
(8) The utilization of existing health care facilities and health care services in the service area of the applicant;
(9) 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; [and]
(10) 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;
(11) 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; and
(12) Whether the applicant has satisfactorily demonstrated that any consolidation resulting from the proposal will not adversely affect health care costs or accessibility to care.

(b) In deliberations as described in subsection (a) of this section, there shall be a presumption in favor of approving the certificate of need application for a transfer of ownership of a group practice, as described in subdivision (3) of subsection (a) of section 19a-638, as amended by this act, when an offer was made in response to a request for proposal or similar voluntary offer for sale.

(c) The office, as it deems necessary, may revise or supplement the guidelines and principles through regulation prescribed in subsection (a) of this section.

APPENDIX F. ACUTE CARE HOSPITAL INPATIENT SERVICE VOLUMES

Acute Care Hospital Inpatient Volumes by Service, Connecticut, FY 2011 – FY 2013

Hospital	Service	FY 2011		FY 2012		FY 2013		FY 2011-2013 % chg	
		D-chrgs	P-Days	D-chrgs	P-Days	D-chrgs	P-Days	D-chrgs	P-Days
Statewide	Cardiac Med/Surg	57,252	241,178	54,311	231,129	52,016	233,453	-9.1%	-3.2%
	Cancer Care Med/Surg	10,691	66,271	11,033	69,421	10,406	64,518	-2.7%	-2.6%
	Neuro Med/Surg	27,542	161,907	27,396	159,925	26,837	151,793	-2.6%	-6.2%
	Renal Med/Surg	21,501	98,007	21,191	96,815	20,486	95,665	-4.7%	-2.4%
	Women s Health	48,451	141,202	45,919	133,592	44,374	128,453	-8.4%	-9.0%
	Ortho Med/Surg	26,254	104,757	25,875	102,724	25,656	102,558	-2.3%	-2.1%
	Respiratory	36,438	189,883	35,046	174,544	35,753	179,376	-1.9%	-5.5%
	Medicine	87,554	420,730	87,628	419,212	89,241	427,867	1.9%	1.7%
	General/Other Surgery	33,357	217,654	32,107	206,794	30,965	205,068	-7.2%	-5.8%
	Newborn	39,666	154,707	38,443	151,200	37,864	147,126	-4.5%	-4.9%
	Trauma Med/Surg	5,527	27,889	5,420	27,895	5,329	27,180	-3.6%	-2.5%
	Behavioral Health	31,063	246,885	31,766	249,534	32,234	259,951	3.8%	5.3%
	Ophthalmology	585	1,947	542	1,940	570	1,772	-2.6%	-9.0%
	Dental	349	1,215	326	1,149	326	1,190	-6.6%	-2.1%
	Miscellaneous	5	33	6	12	14	42	180.0%	27.3%
	Total	**426,235**	**2,074,265**	**417,009**	**2,025,886**	**412,071**	**2,026,012**	**-3.3%**	**-2.3%**

Source: CT Department of Public Health, Office of Health Care Access Acute Care Hospital Inpatient Discharge Database.

Inpatient Volumes by Service, Backus Hospital, FY 2011 – FY 2013

Hospital	Service	FY 2011		FY 2012		FY 2013		FY 2011-2013 % chg	
		D-chrgs	P-Days	D-chrgs	P-Days	D-chrgs	P-Days	D-chrgs	P-Days
Backus	Cardiac Med/Surg	1,449	4,561	1,402	4,383	1,245	4,261	-14.1%	-6.6%
	Cancer Care Med/Surg	429	2,523	514	2,665	423	2,469	-1.4%	-2.1%
	Neuro Med/Surg	924	3,812	918	3,262	821	3,012	-11.1%	-21.0%
	Renal Med/Surg	770	2,663	754	2,770	701	2,725	-9.0%	2.3%
	Women s Health	1,172	2,654	1,104	2,483	986	2,231	-15.9%	-15.9%
	Ortho Med/Surg	698	2,754	619	2,607	681	2,842	-2.4%	3.2%
	Respiratory	1,296	6,568	1,402	6,648	1,354	6,416	4.5%	-2.3%
	Medicine	2,386	10,154	2,530	11,280	2,608	11,144	9.3%	9.7%
	General/Other Surgery	1,061	6,359	903	5,643	906	5,594	-14.6%	-12.0%
	Newborn	953	2,115	914	1,871	851	1,852	-10.7%	-12.4%
	Trauma Med/Surg	89	425	103	417	96	433	7.9%	1.9%
	Behavioral Health	712	4,980	653	4,912	611	5,044	-14.2%	1.3%
	Ophthalmology	11	36	9	73	9	38	-18.2%	5.6%
	Dental	8	51	11	88	7	36	-12.5%	-29.4%
	Miscellaneous	-	-	-	-	-	-	na	na
	Total	**11,958**	**49,655**	**11,836**	**49,102**	**11,299**	**48,097**	**-5.5%**	**-3.1%**

Inpatient Volumes by Service, Bridgeport Hospital, FY 2011 – FY 2013

Hospital	Service	FY 2011		FY 2012		FY 2013		FY 2011-2013 % chg	
		D-chrgs	P-Days	D-chrgs	P-Days	D-chrgs	P-Days	D-chrgs	P-Days
Bridgeport	Cardiac Med/Surg	2,329	11,663	2,268	10,939	2,136	10,426	-8.3%	-10.6%
	Cancer Care Med/Surg	451	2,835	513	3,195	521	2,807	15.5%	-1.0%
	Neuro Med/Surg	1,294	10,054	1,373	10,597	1,282	8,453	-0.9%	-15.9%
	Renal Med/Surg	858	4,428	895	4,364	909	4,644	5.9%	4.9%
	Women s Health	2,836	8,598	2,818	8,545	2,757	7,914	-2.8%	-8.0%
	Ortho Med/Surg	999	4,477	1,018	4,296	987	4,188	-1.2%	-6.5%
	Respiratory	1,630	8,393	1,509	8,061	1,382	8,028	-15.2%	-4.3%
	Medicine	3,728	21,172	3,888	21,916	4,076	24,454	9.3%	15.5%
	General/Other Surgery	1,124	9,170	1,049	8,743	1,019	8,194	-9.3%	-10.6%
	Newborn	2,303	8,902	2,059	6,012	1,908	4,564	-17.2%	-48.7%
	Trauma Med/Surg	531	3,240	473	3,259	429	3,081	-19.2%	-4.9%
	Behavioral Health	1,121	11,970	1,248	11,411	1,228	11,490	9.5%	-4.0%
	Ophthalmology	18	39	16	54	14	52	-22.2%	33.3%
	Dental	17	69	12	44	10	31	-41.2%	-55.1%
	Miscellaneous	-	-	-	-	3	10	na	na
	Total	**19,239**	**105,010**	**19,139**	**101,436**	**18,661**	**98,336**	**-3.0%**	**-6.4%**

Inpatient Volumes by Service, Bristol Hospital, FY 2011 – FY 2013

Hospital	Service	FY 2011		FY 2012		FY 2013		FY 2011-2013 % chg	
		D-chrgs	P-Days	D-chrgs	P-Days	D-chrgs	P-Days	D-chrgs	P-Days
Bristol	Cardiac Med/Surg	670	2,559	887	2,876	839	3,016	25.2%	17.9%
	Cancer Care Med/Surg	105	438	96	431	103	414	-1.9%	-5.5%
	Neuro Med/Surg	304	1,092	335	1,309	298	1,116	-2.0%	2.2%
	Renal Med/Surg	357	1,419	379	1,489	395	1,585	10.6%	11.7%
	Women s Health	786	1,934	768	1,869	696	1,729	-11.5%	-10.6%
	Ortho Med/Surg	239	997	236	958	232	1,029	-2.9%	3.2%
	Respiratory	840	4,001	801	3,641	820	3,713	-2.4%	-7.2%
	Medicine	1,548	6,531	1,703	7,063	1,735	7,421	12.1%	13.6%
	General/Other Surgery	490	2,685	550	2,843	532	2,775	8.6%	3.4%
	Newborn	622	1,637	627	1,552	572	1,408	-8.0%	-14.0%
	Trauma Med/Surg	36	141	32	104	46	171	27.8%	21.3%
	Behavioral Health	1,071	4,929	1,119	5,067	1,123	5,178	4.9%	5.1%
	Ophthalmology	8	23	3	9	2	9	-75.0%	-60.9%
	Dental	1	2	5	19	2	3	100.0%	50.0%
	Miscellaneous	-	-	-	-	-	-	na	na
	Total	**7,077**	**28,388**	**7,541**	**29,230**	**7,395**	**29,567**	**4.5%**	**4.2%**

Inpatient Volumes by Service, Central CT Hospital, FY 2011 – FY 2013

Hospital	Service	FY 2011		FY 2012		FY 2013		FY 2011-2013 % chg	
		D-chrgs	P-Days	D-chrgs	P-Days	D-chrgs	P-Days	D-chrgs	P-Days
Central CT	Cardiac Med/Surg	3,258	10,018	2,766	8,738	2,522	8,432	-22.6%	-15.8%
	Cancer Care Med/Surg	431	2,609	383	2,270	318	2,010	-26.2%	-23.0%
	Neuro Med/Surg	1,196	6,194	918	5,635	923	4,823	-22.8%	-22.1%
	Renal Med/Surg	1,085	4,267	973	3,755	1,006	3,683	-7.3%	-13.7%
	Women s Health	2,218	5,890	2,142	5,821	1,923	5,189	-13.3%	-11.9%
	Ortho Med/Surg	999	3,843	929	3,478	902	3,529	-9.7%	-8.2%
	Respiratory	2,051	9,125	1,717	7,382	1,722	7,419	-16.0%	-18.7%
	Medicine	4,641	18,134	4,123	15,938	4,326	17,557	-6.8%	-3.2%
	General/Other Surgery	1,550	8,394	1,454	8,292	1,310	8,196	-15.5%	-2.4%
	Newborn	1,757	5,702	1,683	5,732	1,617	5,505	-8.0%	-3.5%
	Trauma Med/Surg	149	577	126	558	138	498	-7.4%	-13.7%
	Behavioral Health	1,181	8,338	1,012	8,687	1,180	8,996	-0.1%	7.9%
	Ophthalmology	24	57	11	37	15	33	-37.5%	-42.1%
	Dental	7	15	2	10	8	37	14.3%	146.7%
	Miscellaneous	-	-	-	-	-	-	na	na
	Total	**20,547**	**83,163**	**18,239**	**76,333**	**17,910**	**75,907**	**-12.8%**	**-8.7%**

Inpatient Volumes by Service, CTCMC Hospital, FY 2011 – FY 2013

Hospital	Service	FY 2011		FY 2012		FY 2013		FY 2011-2013 % chg	
		D-chrgs	P-Days	D-chrgs	P-Days	D-chrgs	P-Days	D-chrgs	P-Days
CTCMC	Cardiac Med/Surg	206	1,488	187	1,140	206	1,366	0.0%	-8.2%
	Cancer Care Med/Surg	278	1,674	285	1,718	298	1,392	7.2%	-16.8%
	Neuro Med/Surg	455	3,732	579	3,901	670	4,899	47.3%	31.3%
	Renal Med/Surg	242	1,202	345	919	245	978	1.2%	-18.6%
	Women s Health	43	103	56	132	43	106	0.0%	2.9%
	Ortho Med/Surg	264	858	259	833	253	748	-4.2%	-12.8%
	Respiratory	1,014	3,882	1,015	3,888	983	4,041	-3.1%	4.1%
	Medicine	2,054	7,590	1,911	7,161	1,825	6,917	-11.1%	-8.9%
	General/Other Surgery	759	4,599	822	5,323	748	3,745	-1.4%	-18.6%
	Newborn	650	10,855	946	19,143	911	20,542	40.2%	89.2%
	Trauma Med/Surg	100	463	125	588	128	412	28.0%	-11.0%
	Behavioral Health	27	265	39	211	32	164	18.5%	-38.1%
	Ophthalmology	27	61	15	39	26	78	-3.7%	27.9%
	Dental	13	51	18	47	14	66	7.7%	29.4%
	Miscellaneous	-	-	-	-	-	-	na	na
	Total	**6,132**	**36,823**	**6,602**	**45,043**	**6,382**	**45,454**	**4.1%**	**23.4%**

Inpatient Volumes by Service, Danbury Hospital, FY 2011 – FY 2013

Hospital	Service	FY 2011		FY 2012		FY 2013		FY 2011-2013 % chg	
		D-chrgs	P-Days	D-chrgs	P-Days	D-chrgs	P-Days	D-chrgs	P-Days
Danbury	Cardiac Med/Surg	2,881	11,270	2,585	10,422	2,320	10,127	-19.5%	-10.1%
	Cancer Care Med/Surg	457	3,023	456	2,728	436	2,706	-4.6%	-10.5%
	Neuro Med/Surg	1,653	7,802	1,521	7,120	1,281	6,866	-22.5%	-12.0%
	Renal Med/Surg	830	3,971	868	4,204	776	4,088	-6.5%	2.9%
	Women s Health	2,371	6,946	2,279	6,676	2,235	6,358	-5.7%	-8.5%
	Ortho Med/Surg	1,505	5,952	1,499	6,183	1,428	5,905	-5.1%	-0.8%
	Respiratory	1,599	8,603	1,542	8,230	1,573	8,693	-1.6%	1.0%
	Medicine	4,538	22,392	4,161	20,950	4,020	21,851	-11.4%	-2.4%
	General/Other Surgery	1,594	9,490	1,424	7,707	1,196	8,162	-25.0%	-14.0%
	Newborn	2,052	8,408	2,053	8,734	2,033	7,962	-0.9%	-5.3%
	Trauma Med/Surg	275	1,356	285	1,180	257	1,267	-6.5%	-6.6%
	Behavioral Health	927	7,209	898	7,652	856	7,211	-7.7%	0.0%
	Ophthalmology	24	81	21	49	17	62	-29.2%	-23.5%
	Dental	19	57	15	40	12	67	-36.8%	17.5%
	Miscellaneous	-	-	-	-	-	-	na	na
	Total	**20,725**	**96,560**	**19,607**	**91,875**	**18,440**	**91,325**	**-11.0%**	**-5.4%**

Inpatient Volumes by Service, Day Kimball Hospital, FY 2011 – FY 2013

Hospital	Service	FY 2011		FY 2012		FY 2013		FY 2011-2013 % chg	
		D-chrgs	P-Days	D-chrgs	P-Days	D-chrgs	P-Days	D-chrgs	P-Days
Day Kimball	Cardiac Med/Surg	795	2,245	731	2,009	529	1,741	-33.5%	-22.4%
	Cancer Care Med/Surg	52	205	41	137	37	141	-28.8%	-31.2%
	Neuro Med/Surg	160	553	154	513	143	474	-10.6%	-14.3%
	Renal Med/Surg	124	430	116	417	112	421	-9.7%	-2.1%
	Women s Health	625	1,456	678	1,685	628	1,532	0.5%	5.2%
	Ortho Med/Surg	353	1,211	354	1,220	333	1,162	-5.7%	-4.0%
	Respiratory	658	2,740	543	2,290	469	2,134	-28.7%	-22.1%
	Medicine	896	3,169	911	3,502	818	3,047	-8.7%	-3.8%
	General/Other Surgery	219	1,062	221	981	231	1,302	5.5%	22.6%
	Newborn	555	1,281	620	1,532	590	1,408	6.3%	9.9%
	Trauma Med/Surg	15	45	20	62	6	25	-60.0%	-44.4%
	Behavioral Health	723	4,137	709	4,158	603	4,268	-16.6%	3.2%
	Ophthalmology	1	1	2	3	3	6	200.0%	500.0%
	Dental	1	1	-	-	1	2	0.0%	100.0%
	Miscellaneous	-	-	-	-	-	-	na	na
	Total	**5,177**	**18,536**	**5,100**	**18,509**	**4,503**	**17,663**	**-13.0%**	**-4.7%**

Inpatient Volumes by Service, John Dempsey Hospital, FY 2011 – FY 2013

Hospital	Service	FY 2011		FY 2012		FY 2013		FY 2011-2013 % chg	
		D-chrgs	P-Days	D-chrgs	P-Days	D-chrgs	P-Days	D-chrgs	P-Days
John Dempsey	Cardiac Med/Surg	1,132	4,581	1,040	4,471	1,049	4,135	-7.3%	-9.7%
	Cancer Care Med/Surg	333	1,847	316	1,871	253	1,514	-24.0%	-18.0%
	Neuro Med/Surg	604	2,322	583	2,216	722	3,399	19.5%	46.4%
	Renal Med/Surg	515	2,245	490	2,250	409	1,852	-20.6%	-17.5%
	Women s Health	918	4,235	796	3,313	823	3,818	-10.3%	-9.8%
	Ortho Med/Surg	753	2,650	778	2,643	624	2,335	-17.1%	-11.9%
	Respiratory	641	2,937	547	2,421	605	2,833	-5.6%	-3.5%
	Medicine	1,725	8,512	1,827	8,985	1,962	8,790	13.7%	3.3%
	General/Other Surgery	647	4,796	662	4,478	698	4,511	7.9%	-5.9%
	Newborn	817	10,723	441	1,105	461	1,187	-43.6%	-88.9%
	Trauma Med/Surg	98	423	57	333	77	357	-21.4%	-15.6%
	Behavioral Health	879	6,095	822	6,175	879	5,895	0.0%	-3.3%
	Ophthalmology	11	193	7	14	6	14	-45.5%	-92.7%
	Dental	13	64	7	16	12	44	-7.7%	-31.3%
	Miscellaneous	-	-	-	-	-	-	na	na
	Total	**9,086**	**51,623**	**8,373**	**40,291**	**8,580**	**40,684**	**-5.6%**	**-21.2%**

Inpatient Volumes by Service, Greenwich Hospital, FY 2011 – FY 2013

Hospital	Service	FY 2011		FY 2012		FY 2013		FY 2011-2013 % chg	
		D-chrgs	P-Days	D-chrgs	P-Days	D-chrgs	P-Days	D-chrgs	P-Days
Greenwich	Cardiac Med/Surg	1,447	4,685	1,307	4,077	1,299	5,101	-10.2%	8.9%
	Cancer Care Med/Surg	340	1,709	202	1,114	230	1,395	-32.4%	-18.4%
	Neuro Med/Surg	858	4,135	671	3,428	629	4,291	-26.7%	3.8%
	Renal Med/Surg	585	2,724	427	2,122	483	2,705	-17.4%	-0.7%
	Women s Health	2,549	7,941	2,268	7,097	2,411	7,725	-5.4%	-2.7%
	Ortho Med/Surg	844	3,457	791	3,319	940	3,796	11.4%	9.8%
	Respiratory	955	4,865	837	4,132	878	4,552	-8.1%	-6.4%
	Medicine	2,159	8,091	2,018	7,849	2,189	9,858	1.4%	21.8%
	General/Other Surgery	860	4,653	753	4,351	682	3,970	-20.7%	-14.7%
	Newborn	2,292	7,667	2,057	6,831	2,223	7,809	-3.0%	1.9%
	Trauma Med/Surg	98	523	80	414	90	378	-8.2%	-27.7%
	Behavioral Health	524	2,260	410	1,646	290	988	-44.7%	-56.3%
	Ophthalmology	7	21	13	25	11	36	57.1%	71.4%
	Dental	7	43	9	30	9	39	28.6%	-9.3%
	Miscellaneous	-	-	3	9	-	-	na	na
	Total	**13,525**	**52,774**	**11,846**	**46,444**	**12,364**	**52,643**	**-8.6%**	**-0.2%**

Inpatient Volumes by Service, Griffin Hospital, FY 2011 – FY 2013

Hospital	Service	FY 2011		FY 2012		FY 2013		FY 2011-2013 % chg	
		D-chrgs	P-Days	D-chrgs	P-Days	D-chrgs	P-Days	D-chrgs	P-Days
Griffin	Cardiac Med/Surg	1,161	4,128	968	3,440	871	3,239	-25.0%	-21.5%
	Cancer Care Med/Surg	121	539	120	623	115	582	-5.0%	8.0%
	Neuro Med/Surg	468	2,028	431	1,827	510	2,163	9.0%	6.7%
	Renal Med/Surg	348	1,561	276	1,182	307	1,426	-11.8%	-8.6%
	Women s Health	798	2,108	760	2,016	741	1,939	-7.1%	-8.0%
	Ortho Med/Surg	343	1,418	295	1,258	275	1,224	-19.8%	-13.7%
	Respiratory	744	3,649	714	3,327	829	3,902	11.4%	6.9%
	Medicine	1,364	5,923	1,440	5,991	1,456	6,077	6.7%	2.6%
	General/Other Surgery	580	2,702	562	2,954	482	3,427	-16.9%	26.8%
	Newborn	650	1,703	627	1,573	623	1,485	-4.2%	-12.8%
	Trauma Med/Surg	49	198	31	125	53	281	8.2%	41.9%
	Behavioral Health	698	4,884	660	4,371	749	4,882	7.3%	0.0%
	Ophthalmology	3	12	7	23	9	19	200.0%	58.3%
	Dental	3	14	1	3	2	7	-33.3%	-50.0%
	Miscellaneous	-	-	-	-	-	-	na	na
	Total	**7,330**	**30,867**	**6,892**	**28,713**	**7,022**	**30,653**	**-4.2%**	**-0.7%**

Inpatient Volumes by Service, Hartford Hospital, FY 2011 – FY 2013

Hospital	Service	FY 2011		FY 2012		FY 2013		FY 2011-2013 % chg	
		D-chrgs	P-Days	D-chrgs	P-Days	D-chrgs	P-Days	D-chrgs	P-Days
Hartford	Cardiac Med/Surg	5,865	33,305	5,917	34,233	6,198	37,460	5.7%	12.5%
	Cancer Care Med/Surg	1,196	8,511	1,241	9,348	1,163	7,862	-2.8%	-7.6%
	Neuro Med/Surg	2,824	21,723	3,109	24,335	2,964	21,749	5.0%	0.1%
	Renal Med/Surg	2,366	10,406	2,382	11,317	2,306	10,814	-2.5%	3.9%
	Women s Health	5,022	15,196	4,790	14,823	4,662	13,956	-7.2%	-8.2%
	Ortho Med/Surg	2,408	10,240	2,491	11,271	2,701	11,409	12.2%	11.4%
	Respiratory	2,108	13,627	2,193	13,846	2,043	12,478	-3.1%	-8.4%
	Medicine	6,375	34,307	6,884	36,942	7,562	40,230	18.6%	17.3%
	General/Other Surgery	3,627	25,552	3,582	24,085	3,607	25,124	-0.6%	-1.7%
	Newborn	3,846	9,328	3,711	9,075	3,559	8,876	-7.5%	-4.8%
	Trauma Med/Surg	673	4,215	745	4,669	732	4,408	8.8%	4.6%
	Behavioral Health	4,394	36,073	4,280	38,120	4,306	40,592	-2.0%	12.5%
	Ophthalmology	47	141	45	145	47	178	0.0%	26.2%
	Dental	24	86	35	190	27	139	12.5%	61.6%
	Miscellaneous	-	-	-	-	-	-	na	na
	Total	**40,775**	**222,710**	**41,405**	**232,399**	**41,877**	**235,275**	**2.7%**	**5.6%**

Inpatient Volumes by Service, Charlotte Hungerford Hospital, FY 2011 – FY 2013

Hospital	Service	FY 2011		FY 2012		FY 2013		FY 2011-2013 % chg	
		D-chrgs	P-Days	D-chrgs	P-Days	D-chrgs	P-Days	D-chrgs	P-Days
Charlotte Hungerford	Cardiac Med/Surg	632	2,096	705	2,349	651	2,069	3.0%	-1.3%
	Cancer Care Med/Surg	153	852	139	673	94	447	-38.6%	-47.5%
	Neuro Med/Surg	393	1,513	370	1,341	329	1,308	-16.3%	-13.5%
	Renal Med/Surg	339	1,357	329	1,230	333	1,421	-1.8%	4.7%
	Women s Health	449	995	431	1,047	509	1,217	13.4%	22.3%
	Ortho Med/Surg	361	1,426	315	1,183	418	1,473	15.8%	3.3%
	Respiratory	962	4,740	840	3,812	910	4,149	-5.4%	-12.5%
	Medicine	1,558	6,175	1,616	6,355	1,607	6,283	3.1%	1.7%
	General/Other Surgery	462	2,875	401	2,246	493	2,954	6.7%	2.7%
	Newborn	371	799	385	917	458	1,095	23.5%	37.0%
	Trauma Med/Surg	43	161	39	151	41	150	-4.7%	-6.8%
	Behavioral Health	769	4,466	756	3,897	682	3,920	-11.3%	-12.2%
	Ophthalmology	5	10	4	7	3	4	-40.0%	-60.0%
	Dental	-	-	1	2	1	4	na	na
	Miscellaneous	-	-	-	-	-	-	na	na
	Total	**6,497**	**27,465**	**6,331**	**25,210**	**6,529**	**26,494**	**0.5%**	**-3.5%**

Inpatient Volumes by Service, Johnson Hospital, FY 2011 – FY 2013

Hospital	Service	FY 2011		FY 2012		FY 2013		FY 2011-2013 % chg	
		D-chrgs	P-Days	D-chrgs	P-Days	D-chrgs	P-Days	D-chrgs	P-Days
Johnson	Cardiac Med/Surg	320	1,336	342	1,447	309	1,418	-3.4%	6.1%
	Cancer Care Med/Surg	51	356	71	500	33	186	-35.3%	-47.8%
	Neuro Med/Surg	70	312	71	304	78	473	11.4%	51.6%
	Renal Med/Surg	168	896	174	902	170	820	1.2%	-8.5%
	Women s Health	285	752	249	651	234	619	-17.9%	-17.7%
	Ortho Med/Surg	164	762	156	723	164	846	0.0%	11.0%
	Respiratory	469	2,567	483	2,747	529	2,957	12.8%	15.2%
	Medicine	643	2,745	672	3,103	599	2,741	-6.8%	-0.1%
	General/Other Surgery	248	1,729	215	1,586	173	1,390	-30.2%	-19.6%
	Newborn	241	549	209	468	200	449	-17.0%	-18.2%
	Trauma Med/Surg	13	37	18	79	12	58	-7.7%	56.8%
	Behavioral Health	577	3,558	589	3,709	608	4,001	5.4%	12.5%
	Ophthalmology	-	-	-	-	-	-	na	na
	Dental	2	10	1	9	-	-	-100.0%	-100.0%
	Miscellaneous	-	-	-	-	3	5	na	na
	Total	**3,251**	**15,609**	**3,250**	**16,228**	**3,112**	**15,963**	**-4.3%**	**2.3%**

Inpatient Volumes by Service, Lawrence + Memorial Hospital, FY 2011 – FY 2013

Hospital	Service	FY 2011		FY 2012		FY 2013		FY 2011-2013 % chg	
		D-chrgs	P-Days	D-chrgs	P-Days	D-chrgs	P-Days	D-chrgs	P-Days
Lawrence + Memorial	Cardiac Med/Surg	1,874	7,040	1,806	6,288	1,816	6,708	-3.1%	-4.7%
	Cancer Care Med/Surg	262	1,492	227	1,263	218	1,150	-16.8%	-22.9%
	Neuro Med/Surg	1,158	5,900	1,145	5,275	1,037	4,450	-10.4%	-24.6%
	Renal Med/Surg	780	3,882	696	3,513	779	3,662	-0.1%	-5.7%
	Women s Health	1,861	5,058	1,788	4,924	1,719	4,592	-7.6%	-9.2%
	Ortho Med/Surg	987	3,815	1,065	4,028	1,100	4,109	11.4%	7.7%
	Respiratory	1,397	7,850	1,290	6,649	1,438	6,927	2.9%	-11.8%
	Medicine	3,681	20,328	3,601	20,405	3,379	18,239	-8.2%	-10.3%
	General/Other Surgery	787	6,385	783	5,973	604	4,596	-23.3%	-28.0%
	Newborn	1,616	5,762	1,547	5,574	1,576	5,589	-2.5%	-3.0%
	Trauma Med/Surg	126	726	120	625	124	547	-1.6%	-24.7%
	Behavioral Health	786	5,641	865	6,465	777	5,957	-1.1%	5.6%
	Ophthalmology	9	18	12	32	11	24	22.2%	33.3%
	Dental	14	45	10	35	8	21	-42.9%	-53.3%
	Miscellaneous	-	-	1	1	-	-	na	na
	Total	**15,338**	**73,942**	**14,956**	**71,050**	**14,586**	**66,571**	**-4.9%**	**-10.0%**

Inpatient Volumes by Service, Manchester Hospital, FY 2011 – FY 2013

Hospital	Service	FY 2011		FY 2012		FY 2013		FY 2011-2013 % chg	
		D-chrgs	P-Days	D-chrgs	P-Days	D-chrgs	P-Days	D-chrgs	P-Days
Manchester	Cardiac Med/Surg	687	2,952	599	2,934	688	2,983	0.1%	1.1%
	Cancer Care Med/Surg	182	871	190	1,151	183	1,081	0.5%	24.1%
	Neuro Med/Surg	224	1,274	197	1,315	237	1,442	5.8%	13.2%
	Renal Med/Surg	461	2,017	447	2,240	465	2,099	0.9%	4.1%
	Women s Health	1,428	3,739	1,328	3,697	1,282	3,510	-10.2%	-6.1%
	Ortho Med/Surg	482	2,135	499	2,387	522	2,216	8.3%	3.8%
	Respiratory	870	5,246	773	4,637	727	4,325	-16.4%	-17.6%
	Medicine	1,547	7,863	1,523	8,319	1,896	10,269	22.6%	30.6%
	General/Other Surgery	621	3,899	515	4,377	519	4,253	-16.4%	9.1%
	Newborn	1,204	3,623	1,196	4,062	1,206	3,537	0.2%	-2.4%
	Trauma Med/Surg	33	159	38	291	34	174	3.0%	9.4%
	Behavioral Health	1,451	9,671	1,446	9,666	1,528	10,626	5.3%	9.9%
	Ophthalmology	9	24	4	12	5	12	-44.4%	-50.0%
	Dental	4	28	4	10	2	11	-50.0%	-60.7%
	Miscellaneous	-	-	-	-	-	-	na	na
	Total	**9,203**	**43,501**	**8,759**	**45,098**	**9,294**	**46,538**	**1.0%**	**7.0%**

Inpatient Volumes by Service, Middlesex Hospital, FY 2011 – FY 2013

Hospital	Service	FY 2011		FY 2012		FY 2013		FY 2011-2013 % chg	
		D-chrgs	P-Days	D-chrgs	P-Days	D-chrgs	P-Days	D-chrgs	P-Days
Middlesex	Cardiac Med/Surg	1,593	5,405	1,635	5,300	1,833	5,647	15.1%	4.5%
	Cancer Care Med/Surg	239	1,252	283	1,374	248	1,258	3.8%	0.5%
	Neuro Med/Surg	760	2,918	848	3,296	999	3,483	31.4%	19.4%
	Renal Med/Surg	839	3,476	780	3,201	791	3,023	-5.7%	-13.0%
	Women s Health	1,320	3,460	1,313	3,389	1,266	3,173	-4.1%	-8.3%
	Ortho Med/Surg	1,110	4,388	1,151	4,384	1,198	4,703	7.9%	7.2%
	Respiratory	1,493	7,141	1,391	6,144	1,559	7,167	4.4%	0.4%
	Medicine	2,893	13,081	3,076	13,135	3,516	14,829	21.5%	13.4%
	General/Other Surgery	994	6,514	964	5,902	1,024	6,495	3.0%	-0.3%
	Newborn	1,093	2,991	1,140	3,355	1,077	2,845	-1.5%	-4.9%
	Trauma Med/Surg	57	259	63	297	77	291	35.1%	12.4%
	Behavioral Health	889	6,574	1,001	7,222	1,042	7,056	17.2%	7.3%
	Ophthalmology	9	19	17	45	26	61	188.9%	221.1%
	Dental	6	18	5	19	5	13	-16.7%	-27.8%
	Miscellaneous	-	-	-	-	-	-	na	na
	Total	**13,295**	**57,496**	**13,667**	**57,063**	**14,661**	**60,044**	**10.3%**	**4.4%**

Inpatient Volumes by Service, MidState Hospital, FY 2011 – FY 2013

Hospital	Service	FY 2011		FY 2012		FY 2013		FY 2011-2013 % chg	
		D-chrgs	P-Days	D-chrgs	P-Days	D-chrgs	P-Days	D-chrgs	P-Days
MidState	Cardiac Med/Surg	1,217	4,432	1,381	4,554	1,244	4,258	2.2%	-3.9%
	Cancer Care Med/Surg	192	1,300	212	1,296	163	874	-15.1%	-32.8%
	Neuro Med/Surg	493	2,305	553	2,030	561	2,046	13.8%	-11.2%
	Renal Med/Surg	695	3,234	694	2,934	607	2,712	-12.7%	-16.1%
	Women s Health	1,299	3,198	1,132	2,870	1,092	2,730	-15.9%	-14.6%
	Ortho Med/Surg	547	2,332	649	2,521	680	2,623	24.3%	12.5%
	Respiratory	1,125	6,702	1,026	5,259	988	4,934	-12.2%	-26.4%
	Medicine	2,324	11,003	2,514	11,467	2,382	11,367	2.5%	3.3%
	General/Other Surgery	749	4,919	729	4,393	771	5,051	2.9%	2.7%
	Newborn	1,038	2,493	942	2,282	924	2,232	-11.0%	-10.5%
	Trauma Med/Surg	58	244	53	236	51	220	-12.1%	-9.8%
	Behavioral Health	417	2,496	394	2,828	345	2,894	-17.3%	15.9%
	Ophthalmology	5	13	8	21	6	15	20.0%	15.4%
	Dental	7	17	6	20	6	20	-14.3%	17.6%
	Miscellaneous	-	-	-	-	-	-	na	na
	Total	**10,166**	**44,688**	**10,293**	**42,711**	**9,820**	**41,976**	**-3.4%**	**-6.1%**

Inpatient Volumes by Service, Milford Hospital, FY 2011 – FY 2013

Hospital	Service	FY 2011		FY 2012		FY 2013		FY 2011-2013 % chg	
		D-chrgs	P-Days	D-chrgs	P-Days	D-chrgs	P-Days	D-chrgs	P-Days
Milford	Cardiac Med/Surg	591	2,066	515	1,738	466	1,676	-21.2%	-18.9%
	Cancer Care Med/Surg	40	217	36	142	25	63	-37.5%	-71.0%
	Neuro Med/Surg	172	728	148	673	131	599	-23.8%	-17.7%
	Renal Med/Surg	218	951	215	1,033	200	1,037	-8.3%	9.0%
	Women s Health	534	1,544	230	659	151	418	-71.7%	-72.9%
	Ortho Med/Surg	524	1,771	552	1,847	589	1,814	12.4%	2.4%
	Respiratory	428	2,090	378	1,863	440	2,042	2.8%	-2.3%
	Medicine	979	4,208	947	4,016	925	3,847	-5.5%	-8.6%
	General/Other Surgery	266	1,819	230	1,582	208	1,425	-21.8%	-21.7%
	Newborn	468	1,435	201	590	92	284	-80.3%	-80.2%
	Trauma Med/Surg	19	73	10	31	18	69	-5.3%	-5.5%
	Behavioral Health	37	181	41	240	36	155	-2.7%	-14.4%
	Ophthalmology	2	3	1	2	-	-	-100.0%	-100.0%
	Dental	-	-	2	10	-	-	na	na
	Miscellaneous	-	-	-	-	-	-	na	na
	Total	**4,278**	**17,086**	**3,506**	**14,426**	**3,281**	**13,429**	**-23.3%**	**-21.4%**

Inpatient Volumes by Service, New Milford Hospital, FY 2011 – FY 2013

Hospital	Service	FY 2011		FY 2012		FY 2013		FY 2011-2013 % chg	
		D-chrgs	P-Days	D-chrgs	P-Days	D-chrgs	P-Days	D-chrgs	P-Days
New Milford	Cardiac Med/Surg	278	1,027	252	726	193	637	-30.6%	-38.0%
	Cancer Care Med/Surg	31	182	36	182	29	146	-6.5%	-19.8%
	Neuro Med/Surg	233	521	144	393	148	390	-36.5%	-25.1%
	Renal Med/Surg	104	432	130	580	124	433	19.2%	0.2%
	Women s Health	298	773	271	728	68	172	-77.2%	-77.7%
	Ortho Med/Surg	265	976	235	879	227	803	-14.3%	-17.7%
	Respiratory	296	1,336	281	1,361	313	1,481	5.7%	10.9%
	Medicine	531	2,290	531	2,077	523	1,993	-1.5%	-13.0%
	General/Other Surgery	154	850	120	723	103	590	-33.1%	-30.6%
	Newborn	267	674	244	630	55	139	-79.4%	-79.4%
	Trauma Med/Surg	17	72	4	41	13	58	-23.5%	-19.4%
	Behavioral Health	36	220	39	230	29	178	-19.4%	-19.1%
	Ophthalmology	1	5	3	13	-	-	-100.0%	-100.0%
	Dental	1	20	1	3	-	-	-100.0%	-100.0%
	Miscellaneous	-	-	-	-	-	-	na	na
	Total	**2,512**	**9,378**	**2,291**	**8,566**	**1,825**	**7,020**	**-27.3%**	**-25.1%**

Inpatient Volumes by Service, Norwalk Hospital, FY 2011 – FY 2013

Hospital	Service	FY 2011		FY 2012		FY 2013		FY 2011-2013 % chg	
		D-chrgs	P-Days	D-chrgs	P-Days	D-chrgs	P-Days	D-chrgs	P-Days
Norwalk	Cardiac Med/Surg	1,857	7,111	1,936	7,189	1,484	5,587	-20.1%	-21.4%
	Cancer Care Med/Surg	259	1,550	293	1,827	264	1,279	1.9%	-17.5%
	Neuro Med/Surg	890	4,221	905	4,585	786	4,200	-11.7%	-0.5%
	Renal Med/Surg	653	2,385	621	2,335	519	2,045	-20.5%	-14.3%
	Women s Health	1,876	5,364	1,839	5,322	1,610	4,643	-14.2%	-13.4%
	Ortho Med/Surg	807	3,386	754	3,253	733	3,453	-9.2%	2.0%
	Respiratory	1,292	6,320	1,317	6,464	1,287	6,994	-0.4%	10.7%
	Medicine	3,701	21,443	3,586	18,400	3,009	14,490	-18.7%	-32.4%
	General/Other Surgery	1,194	8,095	1,153	6,976	1,023	6,945	-14.3%	-14.2%
	Newborn	1,645	5,024	1,664	5,902	1,474	5,184	-10.4%	3.2%
	Trauma Med/Surg	209	1,011	212	920	161	651	-23.0%	-35.6%
	Behavioral Health	759	4,348	740	4,204	705	4,236	-7.1%	-2.6%
	Ophthalmology	24	62	13	33	27	85	12.5%	37.1%
	Dental	17	58	14	53	10	32	-41.2%	-44.8%
	Miscellaneous	5	33	1	1	8	27	60.0%	-18.2%
	Total	**15,188**	**70,411**	**15,048**	**67,464**	**13,100**	**59,851**	**-13.7%**	**-15.0%**

Inpatient Volumes by Service, Rockville Hospital, FY 2011 – FY 2013

Hospital	Service	FY 2011		FY 2012		FY 2013		FY 2011-2013 % chg	
		D-chrgs	P-Days	D-chrgs	P-Days	D-chrgs	P-Days	D-chrgs	P-Days
Rockville	Cardiac Med/Surg	354	1,570	338	1,677	310	1,271	-12.4%	-19.0%
	Cancer Care Med/Surg	33	144	42	237	35	157	6.1%	9.0%
	Neuro Med/Surg	192	842	320	987	342	1,042	78.1%	23.8%
	Renal Med/Surg	153	860	165	820	189	751	23.5%	-12.7%
	Women s Health	59	158	10	30	4	5	-93.2%	-96.8%
	Ortho Med/Surg	226	907	116	572	98	513	-56.6%	-43.4%
	Respiratory	442	2,683	470	2,946	450	2,467	1.8%	-8.1%
	Medicine	718	3,408	811	4,167	878	4,423	22.3%	29.8%
	General/Other Surgery	212	1,277	192	1,352	203	1,419	-4.2%	11.1%
	Newborn	54	132	-	-	-	-	-100.0%	-100.0%
	Trauma Med/Surg	20	64	10	38	15	54	-25.0%	-15.6%
	Behavioral Health	34	231	34	268	40	203	17.6%	-12.1%
	Ophthalmology	1	2	6	22	2	12	100.0%	500.0%
	Dental	-	-	4	12	1	9	na	na
	Miscellaneous	-	-	-	-	-	-	na	na
	Total	**2,498**	**12,278**	**2,518**	**13,128**	**2,567**	**12,326**	**2.8%**	**0.4%**

Inpatient Volumes by Service, St. Francis Hospital, FY 2011 – FY 2013

Hospital	Service	FY 2011		FY 2012		FY 2013		FY 2011-2013 % chg	
		D-chrgs	P-Days	D-chrgs	P-Days	D-chrgs	P-Days	D-chrgs	P-Days
St. Francis	Cardiac Med/Surg	5,098	24,932	5,117	25,693	4,851	25,004	-4.8%	0.3%
	Cancer Care Med/Surg	801	5,403	797	5,075	814	5,129	1.6%	-5.1%
	Neuro Med/Surg	2,077	10,463	2,040	10,749	2,158	11,511	3.9%	10.0%
	Renal Med/Surg	1,298	6,580	1,420	6,983	1,499	7,572	15.5%	15.1%
	Women s Health	4,022	12,716	3,776	11,554	3,564	10,784	-11.4%	-15.2%
	Ortho Med/Surg	3,246	11,072	3,389	11,567	3,190	10,834	-1.7%	-2.1%
	Respiratory	2,102	12,600	2,101	11,642	2,296	13,109	9.2%	4.0%
	Medicine	4,942	25,476	5,135	25,736	5,704	28,893	15.4%	13.4%
	General/Other Surgery	2,471	15,900	2,457	15,790	2,310	15,321	-6.5%	-3.6%
	Newborn	3,006	12,867	3,013	12,570	2,949	12,270	-1.9%	-4.6%
	Trauma Med/Surg	511	2,357	489	2,308	496	2,224	-2.9%	-5.6%
	Behavioral Health	2,252	17,466	2,426	17,351	2,517	17,609	11.8%	0.8%
	Ophthalmology	39	104	19	52	30	110	-23.1%	5.8%
	Dental	28	84	14	67	20	46	-28.6%	-45.2%
	Miscellaneous	-	-	-	-	-	-	na	na
	Total	**31,893**	**158,020**	**32,193**	**157,137**	**32,398**	**160,416**	**1.6%**	**1.5%**

Inpatient Volumes by Service, Sharon Hospital, FY 2011 – FY 2013

Hospital	Service	FY 2011		FY 2012		FY 2013		FY 2011-2013 % chg	
		D-chrgs	P-Days	D-chrgs	P-Days	D-chrgs	P-Days	D-chrgs	P-Days
Sharon	Cardiac Med/Surg	295	911	321	1,001	295	848	0.0%	-6.9%
	Cancer Care Med/Surg	49	241	41	193	32	168	-34.7%	-30.3%
	Neuro Med/Surg	226	1,429	260	1,730	306	2,233	35.4%	56.3%
	Renal Med/Surg	101	362	96	353	136	525	34.7%	45.0%
	Women s Health	265	707	280	724	304	750	14.7%	6.1%
	Ortho Med/Surg	158	701	128	626	120	514	-24.1%	-26.7%
	Respiratory	318	1,477	300	1,442	305	1,247	-4.1%	-15.6%
	Medicine	590	2,213	643	2,530	675	2,618	14.4%	18.3%
	General/Other Surgery	155	774	106	527	134	650	-13.5%	-16.0%
	Newborn	218	549	225	591	249	588	14.2%	7.1%
	Trauma Med/Surg	16	72	22	71	23	79	43.8%	9.7%
	Behavioral Health	306	2,903	240	2,015	295	2,100	-3.6%	-27.7%
	Ophthalmology	4	14	4	15	-	-	-100.0%	-100.0%
	Dental	-	-	-	-	3	11	na	na
	Miscellaneous	-	-	-	-	-	-	na	na
	Total	**2,701**	**12,353**	**2,666**	**11,818**	**2,877**	**12,331**	**6.5%**	**-0.2%**

Inpatient Volumes by Service, Saint Mary's Hospital, FY 2011 – FY 2013

Hospital	Service	FY 2011		FY 2012		FY 2013		FY 2011-2013 % chg	
		D-chrgs	P-Days	D-chrgs	P-Days	D-chrgs	P-Days	D-chrgs	P-Days
Saint Mary's	Cardiac Med/Surg	1,862	7,097	1,839	6,986	1,733	6,913	-6.9%	-2.6%
	Cancer Care Med/Surg	210	1,302	214	1,271	181	957	-13.8%	-26.5%
	Neuro Med/Surg	994	4,405	961	3,930	985	3,820	-0.9%	-13.3%
	Renal Med/Surg	616	3,048	593	2,816	567	2,933	-8.0%	-3.8%
	Women s Health	1,477	3,738	1,387	3,417	1,272	3,138	-13.9%	-16.1%
	Ortho Med/Surg	526	2,483	444	1,721	479	2,101	-8.9%	-15.4%
	Respiratory	1,254	6,552	1,078	5,388	1,149	6,419	-8.4%	-2.0%
	Medicine	2,529	12,029	2,515	11,293	2,533	11,909	0.2%	-1.0%
	General/Other Surgery	1,079	6,842	1,056	6,400	1,002	5,461	-7.1%	-20.2%
	Newborn	1,109	3,408	1,028	3,104	976	2,941	-12.0%	-13.7%
	Trauma Med/Surg	159	848	180	680	184	611	15.7%	-27.9%
	Behavioral Health	661	4,218	729	4,413	743	4,428	12.4%	5.0%
	Ophthalmology	14	44	17	65	18	42	28.6%	-4.5%
	Dental	5	20	11	27	4	13	-20.0%	-35.0%
	Miscellaneous	-	-	-	-	-	-	na	na
	Total	**12,495**	**56,034**	**12,052**	**51,511**	**11,826**	**51,686**	**-5.4%**	**-7.8%**

Inpatient Volumes by Service, St. Raphael Hospital, FY 2011 – FY 2013

Hospital	Service	FY 2011		FY 2012		FY 2013		FY 2011-2013 % chg	
		D-chrgs	P-Days	D-chrgs	P-Days	D-chrgs	P-Days	D-chrgs	P-Days
St. Raphael	Cardiac Med/Surg	3,642	16,076	2,655	12,247	-	-	-100.0%	-100.0%
	Cancer Care Med/Surg	467	2,928	403	2,505	-	-	-100.0%	-100.0%
	Neuro Med/Surg	1,568	8,772	1,355	7,255	-	-	-100.0%	-100.0%
	Renal Med/Surg	1,515	7,654	1,353	6,089	-	-	-100.0%	-100.0%
	Women s Health	1,486	4,459	1,384	4,061	-	-	-100.0%	-100.0%
	Ortho Med/Surg	2,053	7,654	1,918	7,038	-	-	-100.0%	-100.0%
	Respiratory	2,276	12,909	1,869	10,293	-	-	-100.0%	-100.0%
	Medicine	5,319	28,032	4,639	24,710	-	-	-100.0%	-100.0%
	General/Other Surgery	2,000	14,479	1,729	12,199	-	-	-100.0%	-100.0%
	Newborn	1,211	4,305	1,109	3,721	-	-	-100.0%	-100.0%
	Trauma Med/Surg	247	1,064	238	1,173	-	-	-100.0%	-100.0%
	Behavioral Health	1,321	14,162	1,261	13,190	-	-	-100.0%	-100.0%
	Ophthalmology	24	86	20	75	-	-	-100.0%	-100.0%
	Dental	11	50	14	44	-	-	-100.0%	-100.0%
	Miscellaneous	-	-	-	-	-	-	na	na
	Total	**23,140**	**122,630**	**19,947**	**104,600**	**-**	**-**	**-100.0%**	**-100.0%**

Inpatient Volumes by Service, St. Vincent's Hospital, FY 2011 – FY 2013

Hospital	Service	FY 2011		FY 2012		FY 2013		FY 2011-2013 % chg	
		D-chrgs	P-Days	D-chrgs	P-Days	D-chrgs	P-Days	D-chrgs	P-Days
St. Vincent's	Cardiac Med/Surg	3,826	15,601	3,436	14,599	3,004	14,541	-21.5%	-6.8%
	Cancer Care Med/Surg	472	2,923	563	4,343	542	3,481	14.8%	19.1%
	Neuro Med/Surg	1,413	9,878	1,438	9,037	1,322	7,568	-6.4%	-23.4%
	Renal Med/Surg	1,243	5,662	1,268	6,563	1,093	5,662	-12.1%	0.0%
	Women s Health	1,542	4,115	1,429	3,627	1,327	3,426	-13.9%	-16.7%
	Ortho Med/Surg	1,147	5,150	1,147	5,393	1,071	4,998	-6.6%	-3.0%
	Respiratory	1,591	9,262	1,794	9,830	1,688	9,301	6.1%	0.4%
	Medicine	4,514	23,067	4,783	23,414	4,500	24,081	-0.3%	4.4%
	General/Other Surgery	1,570	11,708	1,487	10,210	1,546	11,121	-1.5%	-5.0%
	Newborn	1,192	3,736	1,054	3,313	1,023	3,280	-14.2%	-12.2%
	Trauma Med/Surg	381	1,431	365	1,495	266	1,485	-30.2%	3.8%
	Behavioral Health	3,175	30,667	3,217	30,890	3,035	32,193	-4.4%	5.0%
	Ophthalmology	16	48	26	66	18	65	12.5%	35.4%
	Dental	17	69	21	54	19	61	11.8%	-11.6%
	Miscellaneous	-	-	-	-	-	-	na	na
	Total	**22,099**	**123,317**	**22,028**	**122,834**	**20,454**	**121,263**	**-7.4%**	**-1.7%**

Inpatient Volumes by Service, Stamford Hospital, FY 2011 – FY 2013

Hospital	Service	FY 2011		FY 2012		FY 2013		FY 2011-2013 % chg	
		D-chrgs	P-Days	D-chrgs	P-Days	D-chrgs	P-Days	D-chrgs	P-Days
Stamford	Cardiac Med/Surg	1,448	6,472	1,329	5,765	1,442	6,016	-0.4%	-7.0%
	Cancer Care Med/Surg	248	1,648	329	2,153	290	1,823	16.9%	10.6%
	Neuro Med/Surg	839	6,090	819	5,973	802	6,915	-4.4%	13.5%
	Renal Med/Surg	686	3,037	627	2,877	652	2,660	-5.0%	-12.4%
	Women s Health	2,686	8,777	2,487	8,342	2,610	8,538	-2.8%	-2.7%
	Ortho Med/Surg	704	3,009	613	2,668	603	2,653	-14.3%	-11.8%
	Respiratory	1,009	5,616	970	4,895	963	4,552	-4.6%	-18.9%
	Medicine	2,898	16,032	2,884	14,901	3,061	15,847	5.6%	-1.2%
	General/Other Surgery	1,013	8,110	881	7,167	913	6,751	-9.9%	-16.8%
	Newborn	2,318	9,101	2,208	8,666	2,338	8,288	0.9%	-8.9%
	Trauma Med/Surg	311	1,006	243	893	213	1,150	-31.5%	14.3%
	Behavioral Health	706	6,045	845	5,845	922	6,062	30.6%	0.3%
	Ophthalmology	12	39	7	18	19	40	58.3%	2.6%
	Dental	21	59	13	35	18	59	-14.3%	0.0%
	Miscellaneous	-	-	-	-	-	-	na	na
	Total	**14,899**	**75,041**	**14,255**	**70,198**	**14,846**	**71,354**	**-0.4%**	**-4.9%**

Inpatient Volumes by Service, Waterbury Hospital, FY 2011 – FY 2013

Hospital	Service	FY 2011		FY 2012		FY 2013		FY 2011-2013 % chg	
		D-chrgs	P-Days	D-chrgs	P-Days	D-chrgs	P-Days	D-chrgs	P-Days
Waterbury	Cardiac Med/Surg	2,034	8,039	1,905	7,732	1,609	6,805	-20.9%	-15.4%
	Cancer Care Med/Surg	130	785	178	983	152	784	16.9%	-0.1%
	Neuro Med/Surg	737	3,564	798	3,927	654	2,978	-11.3%	-16.4%
	Renal Med/Surg	616	2,815	664	3,106	537	2,738	-12.8%	-2.7%
	Women s Health	1,358	3,545	1,329	3,543	1,379	3,649	1.5%	2.9%
	Ortho Med/Surg	1,109	4,025	905	3,316	739	2,823	-33.4%	-29.9%
	Respiratory	995	5,302	896	4,365	1,079	5,310	8.4%	0.2%
	Medicine	2,628	12,757	2,533	12,262	2,418	10,838	-8.0%	-15.0%
	General/Other Surgery	854	6,133	770	5,666	717	4,988	-16.0%	-18.7%
	Newborn	1,126	3,590	1,145	3,651	1,177	3,669	4.5%	2.2%
	Trauma Med/Surg	171	818	133	524	136	662	-20.5%	-19.1%
	Behavioral Health	979	7,463	1,093	8,365	1,234	10,225	26.0%	37.0%
	Ophthalmology	17	57	14	29	8	20	-52.9%	-64.9%
	Dental	4	40	4	21	3	5	-25.0%	-87.5%
	Miscellaneous	-	-	-	-	-	-	na	na
	Total	**12,758**	**58,933**	**12,367**	**57,490**	**11,842**	**55,494**	**-7.2%**	**-5.8%**

Inpatient Volumes by Service, Windham Hospital, FY 2011 – FY 2013

Hospital	Service	FY 2011		FY 2012		FY 2013		FY 2011-2013 % chg	
		D-chrgs	P-Days	D-chrgs	P-Days	D-chrgs	P-Days	D-chrgs	P-Days
Windham	Cardiac Med/Surg	586	2,131	650	2,329	561	2,216	-4.3%	4.0%
	Cancer Care Med/Surg	93	537	93	490	69	329	-25.8%	-38.7%
	Neuro Med/Surg	244	1,353	199	1,233	169	872	-30.7%	-35.6%
	Renal Med/Surg	221	1,145	265	1,243	253	1,102	14.5%	-3.8%
	Women s Health	487	1,151	475	1,149	431	1,056	-11.5%	-8.3%
	Ortho Med/Surg	235	1,113	229	1,057	210	900	-10.6%	-19.1%
	Respiratory	594	3,001	559	2,696	579	3,031	-2.5%	1.0%
	Medicine	1,340	5,764	1,185	5,191	1,165	5,168	-13.1%	-10.3%
	General/Other Surgery	406	2,443	367	2,013	245	1,404	-39.7%	-42.5%
	Newborn	396	883	407	901	384	849	-3.0%	-3.9%
	Trauma Med/Surg	41	158	41	218	22	127	-46.3%	-19.6%
	Behavioral Health	54	309	32	144	47	294	-13.0%	-4.9%
	Ophthalmology	1	1	-	-	2	2	100.0%	100.0%
	Dental	4	12	4	10	3	12	-25.0%	0.0%
	Miscellaneous	-	-	-	-	-	-	na	na
	Total	**4,702**	**20,001**	**4,506**	**18,674**	**4,140**	**17,362**	**-12.0%**	**-13.2%**

Inpatient Volumes by Service, Yale-New Haven Hospital, FY 2011 – FY 2013

Hospital	Service	FY 2011		FY 2012		FY 2013		FY 2011-2013 % chg	
		D-chrgs	P-Days	D-chrgs	P-Days	D-chrgs	P-Days	D-chrgs	P-Days
Yale-New Haven[1]	Cardiac Med/Surg	7,865	34,381	7,492	33,847	10,313	49,552	31.1%	44.1%
	Cancer Care Med/Surg	2,586	16,375	2,719	17,663	3,137	21,914	21.3%	33.8%
	Neuro Med/Surg	4,119	31,972	4,233	31,749	5,550	35,218	34.7%	10.2%
	Renal Med/Surg	2,715	12,898	2,749	13,208	3,923	19,549	44.5%	51.6%
	Women s Health	6,381	19,892	6,322	19,398	7,647	23,536	19.8%	18.3%
	Ortho Med/Surg	2,198	9,795	2,341	9,495	4,159	17,015	89.2%	73.7%
	Respiratory	3,989	18,099	4,410	18,245	6,395	28,755	60.3%	58.9%
	Medicine	12,805	56,841	13,038	60,154	17,894	82,686	39.7%	45.5%
	General/Other Surgery	5,611	33,441	5,970	36,312	7,566	49,254	34.8%	47.3%
	Newborn	4,596	24,465	4,988	27,743	6,358	31,289	38.3%	27.9%
	Trauma Med/Surg	982	5,723	1,065	6,115	1,391	7,259	41.6%	26.8%
	Behavioral Health	3,597	35,126	4,168	36,182	5,792	53,106	61.0%	51.2%
	Ophthalmology	212	733	218	962	236	755	11.3%	3.0%
	Dental	95	232	82	231	119	402	25.3%	73.3%
	Miscellaneous	-	-	1	1	-	-	na	na
	Total	**57,751**	**299,973**	**59,796**	**311,305**	**80,480**	**420,290**	**39.4%**	**40.1%**

[1]Yale percentages may be higher, in part, due to added volumes resulting from the St Raphael acquisition

APPENDIX G. 2020 ACUTE CARE INPATIENT BED NEED

Acute Care Hospital 2020 Bed Need, Bridgeport Hospital

Hospital	Services[1]	FY 2011 patient days	FY 2012 patient days	FY 2013 patient days	FY 2011 ADC	FY 2012 ADC	FY 2013 ADC	Weighted ADC	Fairfield County Pop chg 2015 to 2020[2]	Projected ADC	Target Occupancy	Beds Needed 2020	Licensed Beds[3]	Excess (-) or Deficit (+)
Bridgeport	Medical/Surgical													
	0-14	0	0	0	0.0	0.0	0.0	-	0.94156	0.0	0.80	0		
	15 - 44	9,567	9,087	9,435	26.2	24.9	25.8	25.6	1.01179	25.9	0.80	32		
	45 - 64	20,676	22,985	22,874	56.6	63.0	62.7	61.8	1.00638	62.2	0.80	78		
	65+	39,236	39,106	37,983	107.5	107.1	104.1	105.7	1.12096	118.4	0.80	148		
	Sub Total	**69,479**	**71,178**	**70,292**	**190.4**	**195.0**	**192.6**	**193.0**		**206.5**		**258**		
	Maternity													
	0-14	21	1	4	0.1	0.0	0.0	0.0	0.94081	0.0	0.50	0		
	15 - 44	7,865	7,850	7,386	21.5	21.5	20.2	20.9	1.00774	21.0	0.50	42		
	45 - 64	44	11	20	0.1	0.0	0.1	0.1	1.01051	0.1	0.50	0		
	65+	0	0	0	0.0	0.0	0.0	-	1.09873	0.0	0.50	0		
	Sub Total	**7,930**	**7,862**	**7,410**	**21.7**	**21.5**	**20.3**	**21.0**		**21.1**		**42**		
	Psychiatric													
	0-14	0	10	0	0.0	0.0	0.0	0.0	0.94156	0.0	0.80	0		
	15 - 44	3,625	3,066	3,073	9.9	8.4	8.4	8.7	1.01179	8.8	0.80	11		
	45 - 64	2,657	2,942	2,980	7.3	8.1	8.2	8.0	1.00638	8.0	0.80	10		
	65+	4,651	4,086	4,269	12.7	11.2	11.7	11.7	1.12096	13.1	0.80	16		
	Sub Total	**10,933**	**10,104**	**10,322**	**30.0**	**27.7**	**28.3**	**28.4**		**29.9**		**37**		
	Rehabilitation													
	0-14	0	0	0	0.0	0.0	0.0	-	0.94156	0.0	0.80	0		
	15 - 44	253	309	441	0.7	0.8	1.2	1.0	1.01179	1.0	0.80	1		
	45 - 64	1,624	1,805	1,829	4.4	4.9	5.0	4.9	1.00638	4.9	0.80	6		
	65+	3,178	2,947	3,172	8.7	8.1	8.7	8.5	1.12096	9.5	0.80	12		
	Sub Total	**5,055**	**5,061**	**5,442**	**13.8**	**13.9**	**14.9**	**14.4**		**15.5**		**19**		
	Pediatric													
	0-19	2,711	1,219	306	7.4	3.3	0.8	2.8	0.94908	2.6	0.80	3		
	20+	0	0	0	0.0	0.0	0.0	-	1.03582	0.0	0.80	0		
	Sub Total	**2,711**	**1,219**	**306**	**7.4**	**3.3**	**0.8**	**2.8**		**2.6**		**3**		
Total		**96,108**	**95,424**	**93,772**	**263**	**261**	**257**	**259.5**		**275.6**		**360**	**373**	**-13**

Acute Care Hospital 2020 Bed Need, Danbury Hospital

Hospital	Services[1]	FY 2011 patient days	FY 2012 patient days	FY 2013 patient days	FY 2011 ADC	FY 2012 ADC	FY 2013 ADC	Weighted ADC	Fairfield County Pop chg 2015 to 2020[2]	Projected ADC	Target Occupancy	Beds Needed 2020	Licensed Beds[3]	Excess (-) or Deficit (+)
Danbury	Medical/Surgical													
	0-14	30	32	24	0.1	0.1	0.1	0.1	0.94156	0.1	0.80	0		
	15 - 44	7,063	6,281	5,738	19.4	17.2	15.7	16.8	1.01179	17.0	0.80	21		
	45 - 64	19,314	18,683	19,334	52.9	51.2	53.0	52.4	1.00638	52.7	0.80	66		
	65+	44,434	40,557	41,565	121.7	111.1	113.9	114.3	1.12096	128.1	0.80	160		
	Sub Total	**70,841**	**65,553**	**66,661**	**194.1**	**179.6**	**182.6**	**183.5**		**197.9**		**247**		
	Maternity													
	0-14	7	3	2	0.0	0.0	0.0	0.0	0.94081	0.0	0.50	0		
	15 - 44	6,487	6,345	6,025	17.8	17.4	16.5	17.0	1.00774	17.1	0.50	34		
	45 - 64	35	34	25	0.1	0.1	0.1	0.1	1.01051	0.1	0.50	0		
	65+	0	0	0	0.0	0.0	0.0	-	1.09873	0.0	0.50	0		
	Sub Total	**6,529**	**6,382**	**6,052**	**17.9**	**17.5**	**16.6**	**17.1**		**17.2**		**34**		
	Psychiatric													
	0-14	10	5	7	0.0	0.0	0.0	0.0	0.94156	0.0	0.80	0		
	15 - 44	2,481	2,637	2,700	6.8	7.2	7.4	7.2	1.01179	7.3	0.80	9		
	45 - 64	2,663	3,007	2,390	7.3	8.2	6.5	7.2	1.00638	7.3	0.80	9		
	65+	1,208	1,157	1,140	3.3	3.2	3.1	3.2	1.12096	3.6	0.80	4		
	Sub Total	**6,362**	**6,806**	**6,237**	**17.4**	**18.6**	**17.1**	**17.7**		**18.2**		**23**		
	Rehabilitation													
	0-14	0	0	0	0.0	0.0	0.0	-	0.94156	0.0	0.80	0		
	15 - 44	298	129	180	0.8	0.4	0.5	0.5	1.01179	0.5	0.80	1		
	45 - 64	1,402	1,120	1,381	3.8	3.1	3.8	3.6	1.00638	3.6	0.80	4		
	65+	2,279	2,643	2,308	6.2	7.2	6.3	6.6	1.12096	7.4	0.80	9		
	Sub Total	**3,979**	**3,892**	**3,869**	**10.9**	**10.7**	**10.6**	**10.7**		**11.5**		**14**		
	Pediatric													
	0-19	441	508	544	1.2	1.4	1.5	1.4	0.94908	1.3	0.80	2		
	20+	0	0	0	0.0	0.0	0.0	-	1.03582	0.0	0.80	0		
	Sub Total	**441**	**508**	**544**	**1.2**	**1.4**	**1.5**	**1.4**		**1.3**		**2**		
Total		**88,152**	**83,141**	**83,363**	**242**	**228**	**228**	**230.4**		**246.1**		**321**	**345**	**-24**

Acute Care Hospital 2020 Bed Need, Greenwich Hospital

Hospital	Services[1]	FY 2011 patient days	FY 2012 patient days	FY 2013 patient days	FY 2011 ADC	FY 2012 ADC	FY 2013 ADC	Weighted ADC	Fairfield County Pop chg 2015 to 2020[2]	Projected ADC	Target Occupancy	Beds Needed 2020	Licensed Beds[3]	Excess (-) or Deficit (+)
Greenwich	Medical/Surgical													
	0-14	0	0	0	0.0	0.0	0.0	-	0.94156	0.0	0.80	0		
	15 - 44	3,708	3,104	2,863	10.2	8.5	7.8	8.4	1.01179	8.5	0.80	11		
	45 - 64	7,885	7,418	7,943	21.6	20.3	21.8	21.3	1.00638	21.4	0.80	27		
	65+	25,305	21,620	26,045	69.3	59.2	71.4	67.0	1.12096	75.1	0.80	94		
	Sub Total	**36,898**	**32,142**	**36,851**	**101.1**	**88.1**	**101.0**	**96.7**		**105.0**		**131**		
	Maternity													
	0-14	0	0	0	0.0	0.0	0.0	-	0.94081	0.0	0.50	0		
	15 - 44	7,480	6,710	7,376	20.5	18.4	20.2	19.6	1.00774	19.8	0.50	40		
	45 - 64	86	92	61	0.2	0.3	0.2	0.2	1.01051	0.2	0.50	0		
	65+	0	0	0	0.0	0.0	0.0	-	1.09873	0.0	0.50	0		
	Sub Total	**7,566**	**6,802**	**7,437**	**20.7**	**18.6**	**20.4**	**19.9**		**20.0**		**40**		
	Psychiatric													
	0-14	0	0	0	0.0	0.0	0.0	-	0.94156	0.0	0.80	0		
	15 - 44	33	55	29	0.1	0.2	0.1	0.1	1.01179	0.1	0.80	0		
	45 - 64	37	49	46	0.1	0.1	0.1	0.1	1.00638	0.1	0.80	0		
	65+	150	168	83	0.4	0.5	0.2	0.3	1.12096	0.4	0.80	0		
	Sub Total	**220**	**272**	**158**	**0.6**	**0.7**	**0.4**	**0.6**		**0.6**		**1**		
	Rehabilitation													
	0-14	0	0	0	0.0	0.0	0.0	-	0.94156	0.0	0.80	0		
	15 - 44	0	0	0	0.0	0.0	0.0	-	1.01179	0.0	0.80	0		
	45 - 64	0	0	0	0.0	0.0	0.0	-	1.00638	0.0	0.80	0		
	65+	0	0	0	0.0	0.0	0.0	-	1.12096	0.0	0.80	0		
	Sub Total	**0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**-**		**0.0**		**0**		
	Pediatric													
	0-19	423	397	388	1.2	1.1	1.1	1.1	0.94908	1.0	0.80	1		
	20+	0	0	0	0.0	0.0	0.0	-	1.03582	0.0	0.80	0		
	Sub Total	**423**	**397**	**388**	**1.2**	**1.1**	**1.1**	**1.1**		**1.0**		**1**		
Total		**45,107**	**39,613**	**44,834**	**124**	**109**	**123**	**118.2**		**126.7**		**173**	**174**	**-1**

Acute Care Hospital 2020 Bed Need, Norwalk Hospital

Hospital	Services[1]	FY 2011 patient days	FY 2012 patient days	FY 2013 patient days	FY 2011 ADC	FY 2012 ADC	FY 2013 ADC	Weighted ADC	Fairfield County Pop chg 2015 to 2020[2]	Projected ADC	Target Occupancy	Beds Needed 2020	Licensed Beds[3]	Excess (-) or Deficit (+)
Norwalk	Medical/Surgical													
	0-14	0	0	0	0.0	0.0	0.0	-	0.94156	0.0	0.80	0		
	15 - 44	5,504	5,250	4,156	15.1	14.4	11.4	13.0	1.01179	13.2	0.80	16		
	45 - 64	13,686	13,878	12,455	37.5	38.0	34.1	36.0	1.00638	36.2	0.80	45		
	65+	29,111	28,648	27,203	79.8	78.5	74.5	76.7	1.12096	86.0	0.80	107		
	Sub Total	**48,301**	**47,776**	**43,814**	**132.3**	**130.9**	**120.0**	**125.7**		**135.4**		**169**		
	Maternity													
	0-14	0	3	7	0.0	0.0	0.0	0.0	0.94081	0.0	0.50	0		
	15 - 44	4,978	5,013	4,445	13.6	13.7	12.2	12.9	1.00774	13.0	0.50	26		
	45 - 64	45	24	14	0.1	0.1	0.0	0.1	1.01051	0.1	0.50	0		
	65+	0	0	0	0.0	0.0	0.0	-	1.09873	0.0	0.50	0		
	Sub Total	**5,023**	**5,040**	**4,466**	**13.8**	**13.8**	**12.2**	**13.0**		**13.1**		**26**		
	Psychiatric													
	0-14	7	1	9	0.0	0.0	0.0	0.0	0.94156	0.0	0.80	0		
	15 - 44	1,251	1,024	1,292	3.4	2.8	3.5	3.3	1.01179	3.3	0.80	4		
	45 - 64	1,177	1,368	1,248	3.2	3.7	3.4	3.5	1.00638	3.5	0.80	4		
	65+	394	375	538	1.1	1.0	1.5	1.3	1.12096	1.4	0.80	2		
	Sub Total	**2,829**	**2,768**	**3,087**	**7.8**	**7.6**	**8.5**	**8.0**		**8.3**		**10**		
	Rehabilitation													
	0-14	0	0	0	0.0	0.0	0.0	-	0.94156	0.0	0.80	0		
	15 - 44	325	241	159	0.9	0.7	0.4	0.6	1.01179	0.6	0.80	1		
	45 - 64	1,486	670	294	4.1	1.8	0.8	1.7	1.00638	1.7	0.80	2		
	65+	5,887	3,727	1,624	16.1	10.2	4.4	8.3	1.12096	9.3	0.80	12		
	Sub Total	**7,698**	**4,638**	**2,077**	**21.1**	**12.7**	**5.7**	**10.6**		**11.6**		**15**		
	Pediatric													
	0-19	1,536	1,340	1,223	4.2	3.7	3.4	3.6	0.94908	3.4	0.80	4		
	20+	0	0	0	0.0	0.0	0.0	-	1.03582	0.0	0.80	0		
	Sub Total	**1,536**	**1,340**	**1,223**	**4.2**	**3.7**	**3.4**	**3.6**		**3.4**		**4**		
Total		**65,387**	**61,562**	**54,667**	**179**	**169**	**150**	**161.0**		**171.8**		**225**	**328**	**-103**

Acute Care Hospital 2020 Bed Need, Saint Vincent's Hospital

Hospital	Services[1]	FY 2011 patient days	FY 2012 patient days	FY 2013 patient days	FY 2011 ADC	FY 2012 ADC	FY 2013 ADC	Weighted ADC	Fairfield County Pop chg 2015 to 2020[2]	Projected ADC	Target Occupancy	Beds Needed 2020	Licensed Beds[3]	Excess (-) or Deficit (+)
Saint Vincent's	Medical/Surgical													
	0-14	0	0	0	0.0	0.0	0.0	-	0.94156	0.0	0.80	0		
	15 - 44	10,087	9,768	8,045	27.6	26.8	22.0	24.5	1.01179	24.8	0.80	31		
	45 - 64	25,763	26,342	24,291	70.6	72.2	66.6	69.1	1.00638	69.5	0.80	87		
	65+	50,671	50,491	50,454	138.8	138.3	138.2	138.4	1.12096	155.1	0.80	194		
	Sub Total	**86,521**	**86,601**	**82,790**	**237.0**	**237.3**	**226.8**	**232.0**		**249.5**		**312**		
	Maternity													
	0-14	0	0	0	0.0	0.0	0.0	-	0.94081	0.0	0.50	0		
	15 - 44	3,669	3,139	3,001	10.1	8.6	8.2	8.7	1.00774	8.7	0.50	17		
	45 - 64	16	16	15	0.0	0.0	0.0	0.0	1.01051	0.0	0.50	0		
	65+	0	0	0	0.0	0.0	0.0	-	1.09873	0.0	0.50	0		
	Sub Total	**3,685**	**3,155**	**3,016**	**10.1**	**8.6**	**8.3**	**8.7**		**8.8**		**18**		
	Psychiatric													
	0-14	2,584	2,077	2,214	7.1	5.7	6.1	6.1	0.94156	5.8	0.80	7		
	15 - 44	13,726	14,837	15,479	37.6	40.6	42.4	41.0	1.01179	41.5	0.80	52		
	45 - 64	8,560	8,595	9,657	23.5	23.5	26.5	25.0	1.00638	25.1	0.80	31		
	65+	1,927	1,689	1,955	5.3	4.6	5.4	5.1	1.12096	5.7	0.80	7		
	Sub Total	**26,797**	**27,198**	**29,305**	**73.4**	**74.5**	**80.3**	**77.2**		**78.1**		**98**		
	Rehabilitation													
	0-14	0	0	0	0.0	0.0	0.0	-	0.94156	0.0	0.80	0		
	15 - 44	173	235	147	0.5	0.6	0.4	0.5	1.01179	0.5	0.80	1		
	45 - 64	544	832	1,015	1.5	2.3	2.8	2.4	1.00638	2.4	0.80	3		
	65+	1,834	1,467	1,697	5.0	4.0	4.6	4.5	1.12096	5.0	0.80	6		
	Sub Total	**2,551**	**2,534**	**2,859**	**7.0**	**6.9**	**7.8**	**7.4**		**8.0**		**10**		
	Pediatric													
	0-19	27	33	13	0.1	0.1	0.0	0.1	0.94908	0.1	0.80	0		
	20+	0	0	0	0.0	0.0	0.0	-	1.03582	0.0	0.80	0		
	Sub Total	**27**	**33**	**13**	**0.1**	**0.1**	**0.0**	**0.1**		**0.1**		**0**		
Total		**119,581**	**119,521**	**117,983**	**328**	**327**	**323**	**325.4**		**344.4**		**437**	**473**	**-36**

Acute Care Hospital 2020 Bed Need, Stamford Hospital

Hospital	Services[1]	FY 2011 patient days	FY 2012 patient days	FY 2013 patient days	FY 2011 ADC	FY 2012 ADC	FY 2013 ADC	Weighted ADC	Fairfield County Pop chg 2015 to 2020[2]	Projected ADC	Target Occupancy	Beds Needed 2020	Licensed Beds[3]	Excess (-) or Deficit (+)
Stamford	Medical/Surgical													
	0-14	0	0	0	0.0	0.0	0.0	-	0.94156	0.0	0.80	0		
	15 - 44	6,191	5,306	6,041	17.0	14.5	16.6	15.9	1.01179	16.1	0.80	20		
	45 - 64	13,239	12,605	12,701	36.3	34.5	34.8	35.0	1.00638	35.2	0.80	44		
	65+	27,528	25,997	26,535	75.4	71.2	72.7	72.7	1.12096	81.4	0.80	102		
	Sub Total	**46,958**	**43,908**	**45,277**	**128.7**	**120.3**	**124.0**	**123.6**		**132.8**		**166**		
	Maternity													
	0-14	0	4	0	0.0	0.0	0.0	0.0	0.94081	0.0	0.50	0		
	15 - 44	8,225	7,918	8,111	22.5	21.7	22.2	22.1	1.00774	22.3	0.50	45		
	45 - 64	56	59	68	0.2	0.2	0.2	0.2	1.01051	0.2	0.50	0		
	65+	0	0	0	0.0	0.0	0.0	-	1.09873	0.0	0.50	0		
	Sub Total	**8,281**	**7,981**	**8,179**	**22.7**	**21.9**	**22.4**	**22.3**		**22.4**		**45**		
	Psychiatric													
	0-14	2	4	3	0.0	0.0	0.0	0.0	0.94156	0.0	0.80	0		
	15 - 44	2,776	1,878	2,288	7.6	5.1	6.3	6.1	1.01179	6.2	0.80	8		
	45 - 64	1,974	2,001	1,713	5.4	5.5	4.7	5.1	1.00638	5.1	0.80	6		
	65+	421	650	598	1.2	1.8	1.6	1.6	1.12096	1.8	0.80	2		
	Sub Total	**5,173**	**4,533**	**4,602**	**14.2**	**12.4**	**12.6**	**12.8**		**13.1**		**16**		
	Rehabilitation													
	0-14	0	0	0	0.0	0.0	0.0	-	0.94156	0.0	0.80	0		
	15 - 44	119	265	109	0.3	0.7	0.3	0.4	1.01179	0.5	0.80	1		
	45 - 64	994	761	659	2.7	2.1	1.8	2.1	1.00638	2.1	0.80	3		
	65+	3,008	2,908	3,162	8.2	8.0	8.7	8.4	1.12096	9.4	0.80	12		
	Sub Total	**4,121**	**3,934**	**3,930**	**11.3**	**10.8**	**10.8**	**10.9**		**11.9**		**15**		
	Pediatric													
	0-19	1,407	1,176	1,078	3.9	3.2	3.0	3.2	0.94908	3.0	0.80	4		
	20+	0	0	0	0.0	0.0	0.0	-	1.03582	0.0	0.80	0		
	Sub Total	**1,407**	**1,176**	**1,078**	**3.9**	**3.2**	**3.0**	**3.2**		**3.0**		**4**		
Total		**65,940**	**61,532**	**63,066**	**181**	**169**	**173**	**172.7**		**183.2**		**246**	**305**	**-59**

Acute Care Hospital 2020 Bed Need, Bristol Hospital

Hospital	Services[1]	FY 2011 patient days	FY 2012 patient days	FY 2013 patient days	FY 2011 ADC	FY 2012 ADC	FY 2013 ADC	Weighted ADC	Hartford County Pop chg 2015 to 2020[2]	Projected ADC	Target Occupancy	Beds Needed 2020	Licensed Beds[3]	Excess (-) or Deficit (+)
Bristol	Medical/Surgical													
	0-14	0	0	0	0.0	0.0	0.0	-	0.96707	0.0	0.80	0		
	15 - 44	2,859	3,137	3,095	7.8	8.6	8.5	8.4	1.01227	8.5	0.80	11		
	45 - 64	6,064	6,752	7,284	16.6	18.5	20.0	18.9	0.98238	18.6	0.80	23		
	65+	12,619	12,655	12,838	34.6	34.7	35.2	34.9	1.13688	39.7	0.80	50		
	Sub Total	**21,542**	**22,544**	**23,217**	**59.0**	**61.8**	**63.6**	**62.2**		**66.8**		**83**		
	Maternity													
	0-14	0	0	0	0.0	0.0	0.0	-	0.96778	0.0	0.50	0		
	15 - 44	1,716	1,669	1,542	4.7	4.6	4.2	4.4	1.00881	4.5	0.50	9		
	45 - 64	0	0	3	0.0	0.0	0.0	0.0	0.98553	0.0	0.50	0		
	65+	0	0	0	0.0	0.0	0.0	-	1.11856	0.0	0.50	0		
	Sub Total	**1,716**	**1,669**	**1,545**	**4.7**	**4.6**	**4.2**	**4.4**		**4.5**		**9**		
	Psychiatric													
	0-14	0	0	0	0.0	0.0	0.0	-	0.96707	0.0	0.80	0		
	15 - 44	1,867	1,706	1,694	5.1	4.7	4.6	4.7	1.01227	4.8	0.80	6		
	45 - 64	1,094	1,341	1,314	3.0	3.7	3.6	3.5	0.98238	3.5	0.80	4		
	65+	376	319	334	1.0	0.9	0.9	0.9	1.13688	1.0	0.80	1		
	Sub Total	**3,337**	**3,366**	**3,342**	**9.1**	**9.2**	**9.2**	**9.2**		**9.3**		**12**		
	Rehabilitation													
	0-14	0	0	0	0.0	0.0	0.0	-	0.96707	0.0	0.80	0		
	15 - 44	0	0	0	0.0	0.0	0.0	-	1.01227	0.0	0.80	0		
	45 - 64	0	0	0	0.0	0.0	0.0	-	0.98238	0.0	0.80	0		
	65+	0	0	0	0.0	0.0	0.0	-	1.13688	0.0	0.80	0		
	Sub Total	**0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**-**		**0.0**		**0**		
	Pediatric													
	0-19	156	99	55	0.4	0.3	0.2	0.2	0.96673	0.2	0.80	0		
	20+	0	0	0	0.0	0.0	0.0	-	1.03196	0.0	0.80	0		
	Sub Total	**156**	**99**	**55**	**0.4**	**0.3**	**0.2**	**0.2**		**0.2**		**0**		
Total		**26,751**	**27,678**	**28,159**	**73**	**76**	**77**	**76.1**		**80.8**		**104**	**134**	**-30**

Acute Care Hospital 2020 Bed Need, CCMC Hospital

Hospital	Services[1]	FY 2011 patient days	FY 2012 patient days	FY 2013 patient days	FY 2011 ADC	FY 2012 ADC	FY 2013 ADC	Weighted ADC	Hartford County Pop chg 2015 to 2020[2]	Projected ADC	Target Occupancy	Beds Needed 2020	Licensed Beds[3]	Excess (-) or Deficit (+)
CCMC	Medical/Surgical													
	0-14	0	0	0	0.0	0.0	0.0	-	0.96707	0.0	0.80	0		
	15 - 44	1,315	1,093	1,005	3.6	3.0	2.8	3.0	1.01227	3.0	0.80	4		
	45 - 64	0	0	0	0.0	0.0	0.0	-	0.98238	0.0	0.80	0		
	65+	0	0	0	0.0	0.0	0.0	-	1.13688	0.0	0.80	0		
	Sub Total	**1,315**	**1,093**	**1,005**	**3.6**	**3.0**	**2.8**	**3.0**		**3.0**		**4**		
	Maternity													
	0-14	0	0	0	0.0	0.0	0.0	-	0.96778	0.0	0.50	0		
	15 - 44	0	3	2	0.0	0.0	0.0	0.0	1.00881	0.0	0.50	0		
	45 - 64	0	0	0	0.0	0.0	0.0	-	0.98553	0.0	0.50	0		
	65+	0	0	0	0.0	0.0	0.0	-	1.11856	0.0	0.50	0		
	Sub Total	**0**	**3**	**2**	**0.0**	**0.0**	**0.0**	**0.0**		**0.0**		**0**		
	Psychiatric													
	0-14	316	74	55	0.9	0.2	0.2	0.3	0.96707	0.3	0.80	0		
	15 - 44	44	130	101	0.1	0.4	0.3	0.3	1.01227	0.3	0.80	0		
	45 - 64	0	0	0	0.0	0.0	0.0	-	0.98238	0.0	0.80	0		
	65+	0	0	0	0.0	0.0	0.0	-	1.13688	0.0	0.80	0		
	Sub Total	**360**	**204**	**156**	**1.0**	**0.6**	**0.4**	**0.6**		**0.6**		**1**		
	Rehabilitation													
	0-14	64	0	84	0.2	0.0	0.2	0.1	0.96707	0.1	0.80	0		
	15 - 44	95	23	82	0.3	0.1	0.2	0.2	1.01227	0.2	0.80	0		
	45 - 64	0	0	0	0.0	0.0	0.0	-	0.98238	0.0	0.80	0		
	65+	0	0	0	0.0	0.0	0.0	-	1.13688	0.0	0.80	0		
	Sub Total	**159**	**23**	**166**	**0.4**	**0.1**	**0.5**	**0.3**		**0.3**		**0**		
	Pediatric													
	0-19	24,134	24,577	23,583	66.1	67.3	64.6	65.8	0.96673	63.6	0.80	79		
	20+	0	0	0	0.0	0.0	0.0	-	1.03196	0.0	0.80	0		
	Sub Total	**24,134**	**24,577**	**23,583**	**66.1**	**67.3**	**64.6**	**65.8**		**63.6**		**79**		
Total		**25,968**	**25,900**	**24,912**	**71**	**71**	**68**	**69.6**		**67.5**		**84**	**115**	**-31**

Acute Care Hospital 2020 Bed Need, Hartford Hospital

Hospital	Services[1]	FY 2011 patient days	FY 2012 patient days	FY 2013 patient days	FY 2011 ADC	FY 2012 ADC	FY 2013 ADC	Weighted ADC	Hartford County Pop chg 2015 to 2020[2]	Projected ADC	Target Occupancy	Beds Needed 2020	Licensed Beds[3]	Excess (-) or Deficit (+)
Hartford	Medical/Surgical													
	0-14	0	0	0	0.0	0.0	0.0	-	0.96707	0.0	0.80	0		
	15 - 44	22,585	23,178	22,043	61.9	63.5	60.4	61.7	1.01227	62.4	0.80	78		
	45 - 64	58,389	59,915	59,243	160.0	164.2	162.3	162.5	0.98238	159.7	0.80	200		
	65+	83,502	90,131	93,257	228.8	246.9	255.5	248.2	1.13688	282.2	0.80	353		
	Sub Total	**164,476**	**173,224**	**174,543**	**450.6**	**474.6**	**478.2**	**472.4**		**504.3**		**630**		
	Maternity													
	0-14	8	19	13	0.0	0.1	0.0	0.0	0.96778	0.0	0.50	0		
	15 - 44	13,446	13,108	12,545	36.8	35.9	34.4	35.3	1.00881	35.6	0.50	71		
	45 - 64	35	28	26	0.1	0.1	0.1	0.1	0.98553	0.1	0.50	0		
	65+	0	0	0	0.0	0.0	0.0	-	1.11856	0.0	0.50	0		
	Sub Total	**13,489**	**13,155**	**12,584**	**37.0**	**36.0**	**34.5**	**35.4**		**35.7**		**71**		
	Psychiatric													
	0-14	4,856	4,904	4,910	13.3	13.4	13.5	13.4	0.96707	13.0	0.80	16		
	15 - 44	16,478	17,595	18,421	45.1	48.2	50.5	48.8	1.01227	49.4	0.80	62		
	45 - 64	10,068	10,430	11,123	27.6	28.6	30.5	29.4	0.98238	28.8	0.80	36		
	65+	3,708	3,792	4,565	10.2	10.4	12.5	11.4	1.13688	13.0	0.80	16		
	Sub Total	**35,110**	**36,721**	**39,019**	**96.2**	**100.6**	**106.9**	**103.0**		**104.2**		**130**		
	Rehabilitation													
	0-14	0	0	0	0.0	0.0	0.0	-	0.96707	0.0	0.80	0		
	15 - 44	0	0	0	0.0	0.0	0.0	-	1.01227	0.0	0.80	0		
	45 - 64	0	0	0	0.0	0.0	0.0	-	0.98238	0.0	0.80	0		
	65+	0	0	0	0.0	0.0	0.0	-	1.13688	0.0	0.80	0		
	Sub Total	**0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**-**		**0.0**		**0**		
	Pediatric													
	0-19	307	224	253	0.8	0.6	0.7	0.7	0.96673	0.7	0.80	1		
	20+	0	0	0	0.0	0.0	0.0	-	1.03196	0.0	0.80	0		
	Sub Total	**307**	**224**	**253**	**0.8**	**0.6**	**0.7**	**0.7**		**0.7**		**1**		
Total		**213,382**	**223,324**	**226,399**	**585**	**612**	**620**	**611.5**		**644.9**		**833**	**819**	**14**

Acute Care Hospital 2020 Bed Need, HOCC Hospital

Hospital	Services[1]	FY 2011 patient days	FY 2012 patient days	FY 2013 patient days	FY 2011 ADC	FY 2012 ADC	FY 2013 ADC	Weighted ADC	Hartford County Pop chg 2015 to 2020[2]	Projected ADC	Target Occupancy	Beds Needed 2020	Licensed Beds[3]	Excess (-) or Deficit (+)
HOCC	Medical/Surgical													
	0-14	14	16	13	0.0	0.0	0.0	0.0	0.96707	0.0	0.80	0		
	15 - 44	7,242	6,482	6,210	19.8	17.8	17.0	17.7	1.01227	18.0	0.80	22		
	45 - 64	18,996	17,024	18,314	52.0	46.6	50.2	49.3	0.98238	48.4	0.80	61		
	65+	38,788	34,539	33,899	106.3	94.6	92.9	95.7	1.13688	108.8	0.80	136		
	Sub Total	**65,040**	**58,061**	**58,436**	**178.2**	**159.1**	**160.1**	**162.8**		**175.2**		**219**		
	Maternity													
	0-14	8	4	8	0.0	0.0	0.0	0.0	0.96778	0.0	0.50	0		
	15 - 44	5,312	5,211	4,738	14.6	14.3	13.0	13.7	1.00881	13.8	0.50	28		
	45 - 64	14	18	7	0.0	0.0	0.0	0.0	0.98553	0.0	0.50	0		
	65+	0	0	0	0.0	0.0	0.0	-	1.11856	0.0	0.50	0		
	Sub Total	**5,334**	**5,233**	**4,753**	**14.6**	**14.3**	**13.0**	**13.7**		**13.8**		**28**		
	Psychiatric													
	0-14	0	1	0	0.0	0.0	0.0	0.0	0.96707	0.0	0.80	0		
	15 - 44	2,763	3,196	2,997	7.6	8.8	8.2	8.3	1.01227	8.4	0.80	10		
	45 - 64	2,719	2,862	2,929	7.4	7.8	8.0	7.9	0.98238	7.7	0.80	10		
	65+	1,004	819	702	2.8	2.2	1.9	2.2	1.13688	2.5	0.80	3		
	Sub Total	**6,486**	**6,878**	**6,628**	**17.8**	**18.8**	**18.2**	**18.3**		**18.6**		**23**		
	Rehabilitation													
	0-14	0	0	0	0.0	0.0	0.0	-	0.96707	0.0	0.80	0		
	15 - 44	0	0	0	0.0	0.0	0.0	-	1.01227	0.0	0.80	0		
	45 - 64	0	0	0	0.0	0.0	0.0	-	0.98238	0.0	0.80	0		
	65+	0	0	0	0.0	0.0	0.0	-	1.13688	0.0	0.80	0		
	Sub Total	**0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**-**		**0.0**		**0**		
	Pediatric													
	0-19	601	429	585	1.6	1.2	1.6	1.5	0.96673	1.4	0.80	2		
	20+	0	0	0	0.0	0.0	0.0	-	1.03196	0.0	0.80	0		
	Sub Total	**601**	**429**	**585**	**1.6**	**1.2**	**1.6**	**1.5**		**1.4**		**2**		
Total		**77,461**	**70,601**	**70,402**	**212**	**193**	**193**	**196.3**		**209.1**		**272**	**414**	**-142**

Acute Care Hospital 2020 Bed Need, John Dempsey Hospital

Hospital	Services[1]	FY 2011 patient days	FY 2012 patient days	FY 2013 patient days	FY 2011 ADC	FY 2012 ADC	FY 2013 ADC	Weighted ADC	Hartford County Pop chg 2015 to 2020[2]	Projected ADC	Target Occupancy	Beds Needed 2020	Licensed Beds[3]	Excess (-) or Deficit (+)
John Dempsey	Medical/Surgical													
	0-14	0	0	0	0.0	0.0	0.0	-	0.96707	0.0	0.80	0		
	15 - 44	5,454	5,155	4,948	14.9	14.1	13.6	14.0	1.01227	14.1	0.80	18		
	45 - 64	10,108	10,554	11,151	27.7	28.9	30.6	29.5	0.98238	29.0	0.80	36		
	65+	15,580	14,679	14,713	42.7	40.2	40.3	40.7	1.13688	46.2	0.80	58		
	Sub Total	**31,142**	**30,388**	**30,812**	**85.3**	**83.3**	**84.4**	**84.2**		**89.4**		**112**		
	Maternity													
	0-14	2	4	2	0.0	0.0	0.0	0.0	0.96778	0.0	0.50	0		
	15 - 44	3,819	3,134	3,534	10.5	8.6	9.7	9.4	1.00881	9.5	0.50	19		
	45 - 64	47	6	25	0.1	0.0	0.1	0.1	0.98553	0.1	0.50	0		
	65+	0	0	0	0.0	0.0	0.0	-	1.11856	0.0	0.50	0		
	Sub Total	**3,868**	**3,144**	**3,561**	**10.6**	**8.6**	**9.8**	**9.5**		**9.6**		**19**		
	Psychiatric													
	0-14	6	0	0	0.0	0.0	0.0	0.0	0.96707	0.0	0.80	0		
	15 - 44	2,140	2,170	1,789	5.9	5.9	4.9	5.4	1.01227	5.5	0.80	7		
	45 - 64	2,252	2,105	2,090	6.2	5.8	5.7	5.8	0.98238	5.7	0.80	7		
	65+	1,284	1,376	1,214	3.5	3.8	3.3	3.5	1.13688	4.0	0.80	5		
	Sub Total	**5,682**	**5,651**	**5,093**	**15.6**	**15.5**	**14.0**	**14.7**		**15.2**		**19**		
	Rehabilitation													
	0-14	0	0	0	0.0	0.0	0.0	-	0.96707	0.0	0.80	0		
	15 - 44	0	0	0	0.0	0.0	0.0	-	1.01227	0.0	0.80	0		
	45 - 64	15	0	0	0.0	0.0	0.0	0.0	0.98238	0.0	0.80	0		
	65+	0	0	0	0.0	0.0	0.0	-	1.13688	0.0	0.80	0		
	Sub Total	**15**	**0**	**0**	**0.0**	**0.0**	**0.0**	**0.0**		**0.0**		**0**		
	Pediatric													
	0-19	193	3	31	0.5	0.0	0.1	0.1	0.96673	0.1	0.80	0		
	20+	0	0	0	0.0	0.0	0.0	-	1.03196	0.0	0.80	0		
	Sub Total	**193**	**3**	**31**	**0.5**	**0.0**	**0.1**	**0.1**		**0.1**		**0**		
Total		**40,900**	**39,186**	**39,497**	**112**	**107**	**108**	**108.6**		**114.3**		**150**	**224**	**-74**

Acute Care Hospital 2020 Bed Need, Manchester Hospital

Hospital	Services[1]	FY 2011 patient days	FY 2012 patient days	FY 2013 patient days	FY 2011 ADC	FY 2012 ADC	FY 2013 ADC	Weighted ADC	Hartford County Pop chg 2015 to 2020[2]	Projected ADC	Target Occupancy	Beds Needed 2020	Licensed Beds[3]	Excess (-) or Deficit (+)
Manchester	Medical/Surgical													
	0-14	0	0	0	0.0	0.0	0.0	-	0.96707	0.0	0.80	0		
	15 - 44	2,828	2,499	2,660	7.7	6.8	7.3	7.2	1.01227	7.3	0.80	9		
	45 - 64	7,925	8,170	8,710	21.7	22.4	23.9	23.0	0.98238	22.6	0.80	28		
	65+	16,271	17,664	18,175	44.6	48.4	49.8	48.5	1.13688	55.1	0.80	69		
	Sub Total	**27,024**	**28,333**	**29,545**	**74.0**	**77.6**	**80.9**	**78.7**		**85.0**		**106**		
	Maternity													
	0-14	0	0	0	0.0	0.0	0.0	-	0.96778	0.0	0.50	0		
	15 - 44	3,499	3,573	3,411	9.6	9.8	9.3	9.5	1.00881	9.6	0.50	19		
	45 - 64	6	3	9	0.0	0.0	0.0	0.0	0.98553	0.0	0.50	0		
	65+	0	0	0	0.0	0.0	0.0	-	1.11856	0.0	0.50	0		
	Sub Total	**3,505**	**3,576**	**3,420**	**9.6**	**9.8**	**9.4**	**9.6**		**9.6**		**19**		
	Psychiatric													
	0-14	462	541	600	1.3	1.5	1.6	1.5	0.96707	1.5	0.80	2		
	15 - 44	4,573	4,195	5,031	12.5	11.5	13.8	12.8	1.01227	13.0	0.80	16		
	45 - 64	3,508	3,466	3,753	9.6	9.5	10.3	9.9	0.98238	9.7	0.80	12		
	65+	777	899	641	2.1	2.5	1.8	2.1	1.13688	2.3	0.80	3		
	Sub Total	**9,320**	**9,101**	**10,025**	**25.5**	**24.9**	**27.5**	**26.3**		**26.5**		**33**		
	Rehabilitation													
	0-14	0	0	0	0.0	0.0	0.0	-	0.96707	0.0	0.80	0		
	15 - 44	0	0	0	0.0	0.0	0.0	-	1.01227	0.0	0.80	0		
	45 - 64	0	0	0	0.0	0.0	0.0	-	0.98238	0.0	0.80	0		
	65+	0	0	0	0.0	0.0	0.0	-	1.13688	0.0	0.80	0		
	Sub Total	**0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**-**		**0.0**		**0**		
	Pediatric													
	0-19	29	26	11	0.1	0.1	0.0	0.1	0.96673	0.1	0.80	0		
	20+	0	0	0	0.0	0.0	0.0	-	1.03196	0.0	0.80	0		
	Sub Total	**29**	**26**	**11**	**0.1**	**0.1**	**0.0**	**0.1**		**0.1**		**0**		
Total		**39,878**	**41,036**	**43,001**	**109**	**112**	**118**	**114.6**		**121.2**		**159**	**249**	**-90**

Acute Care Hospital 2020 Bed Need, St. Francis Hospital

Hospital	Services[1]	FY 2011 patient days	FY 2012 patient days	FY 2013 patient days	FY 2011 ADC	FY 2012 ADC	FY 2013 ADC	Weighted ADC	Hartford County Pop chg 2015 to 2020[2]	Projected ADC	Target Occupancy	Beds Needed 2020	Licensed Beds[3]	Excess (-) or Deficit (+)
St. Francis	Medical/Surgical													
	0-14	0	0	0	0.0	0.0	0.0	-	0.96707	0.0	0.80	0		
	15 - 44	12,878	12,782	13,052	35.3	35.0	35.8	35.4	1.01227	35.9	0.80	45		
	45 - 64	38,796	39,353	39,703	106.3	107.8	108.8	108.0	0.98238	106.1	0.80	133		
	65+	67,493	68,357	71,543	184.9	187.3	196.0	191.2	1.13688	217.4	0.80	272		
	Sub Total	**119,167**	**120,492**	**124,298**	**326.5**	**330.1**	**340.5**	**334.7**		**359.4**		**449**		
	Maternity													
	0-14	4	6	9	0.0	0.0	0.0	0.0	0.96778	0.0	0.50	0		
	15 - 44	11,186	10,589	9,750	30.6	29.0	26.7	28.1	1.00881	28.4	0.50	57		
	45 - 64	66	26	19	0.2	0.1	0.1	0.1	0.98553	0.1	0.50	0		
	65+	0	0	0	0.0	0.0	0.0	-	1.11856	0.0	0.50	0		
	Sub Total	**11,256**	**10,621**	**9,778**	**30.8**	**29.1**	**26.8**	**28.2**		**28.5**		**57**		
	Psychiatric													
	0-14	2,635	2,955	2,957	7.2	8.1	8.1	8.0	0.96707	7.7	0.80	10		
	15 - 44	6,873	5,805	6,144	18.8	15.9	16.8	16.9	1.01227	17.1	0.80	21		
	45 - 64	4,335	3,803	4,178	11.9	10.4	11.4	11.2	0.98238	11.0	0.80	14		
	65+	546	536	507	1.5	1.5	1.4	1.4	1.13688	1.6	0.80	2		
	Sub Total	**14,389**	**13,099**	**13,786**	**39.4**	**35.9**	**37.8**	**37.4**		**37.4**		**47**		
	Rehabilitation													
	0-14	0	0	0	0.0	0.0	0.0	-	0.96707	0.0	0.80	0		
	15 - 44	0	0	0	0.0	0.0	0.0	-	1.01227	0.0	0.80	0		
	45 - 64	0	0	0	0.0	0.0	0.0	-	0.98238	0.0	0.80	0		
	65+	0	0	0	0.0	0.0	0.0	-	1.13688	0.0	0.80	0		
	Sub Total	**0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**-**		**0.0**		**0**		
	Pediatric													
	0-19	341	355	284	0.9	1.0	0.8	0.9	0.96673	0.8	0.80	1		
	20+	0	0	0	0.0	0.0	0.0	-	1.03196	0.0	0.80	0		
	Sub Total	**341**	**355**	**284**	**0.9**	**1.0**	**0.8**	**0.9**		**0.8**		**1**		
Total		**145,153**	**144,567**	**148,146**	**398**	**396**	**406**	**401.2**		**426.1**		**554**	**617**	**-63**

Acute Care Hospital 2020 Bed Need, Charlotte Hungerford Hospital

Hospital	Services1	FY 2011 patient days	FY 2012 patient days	FY 2013 patient days	FY 2011 ADC	FY 2012 ADC	FY 2013 ADC	Weighted ADC	Litchfield County Pop chg 2015 to 20202	Projected ADC	Target Occupancy	Beds Needed 2020	Licensed Beds3	Excess (-) or Deficit (+)
Charlotte Hungerford	Medical/Surgical													
	0-14	0	0	0	0.0	0.0	0.0	-	0.88581	0.0	0.80	0		
	15 - 44	1,944	2,030	1,853	5.3	5.6	5.1	5.3	0.98490	5.2	0.80	7		
	45 - 64	6,488	5,693	6,140	17.8	15.6	16.8	16.6	0.96706	16.0	0.80	20		
	65+	13,601	12,382	13,063	37.3	33.9	35.8	35.4	1.20043	42.5	0.80	53		
	Sub Total	**22,033**	**20,105**	**21,056**	**60.4**	**55.1**	**57.7**	**57.3**		**63.7**		**80**		
	Maternity													
	0-14	0	0	0	0.0	0.0	0.0	-	0.88634	0.0	0.50	0		
	15 - 44	887	965	1,151	2.4	2.6	3.2	2.9	0.97955	2.8	0.50	6		
	45 - 64	5	0	4	0.0	0.0	0.0	0.0	0.97230	0.0	0.50	0		
	65+	0	0	0	0.0	0.0	0.0	-	1.18059	0.0	0.50	0		
	Sub Total	**892**	**965**	**1,155**	**2.4**	**2.6**	**3.2**	**2.9**		**2.8**		**6**		
	Psychiatric													
	0-14	0	0	0	0.0	0.0	0.0	-	0.88581	0.0	0.80	0		
	15 - 44	1,853	1,485	1,584	5.1	4.1	4.3	4.4	0.98490	4.3	0.80	5		
	45 - 64	1,516	1,383	1,375	4.2	3.8	3.8	3.8	0.96706	3.7	0.80	5		
	65+	244	234	171	0.7	0.6	0.5	0.6	1.20043	0.7	0.80	1		
	Sub Total	**3,613**	**3,102**	**3,130**	**9.9**	**8.5**	**8.6**	**8.8**		**8.7**		**11**		
	Rehabilitation													
	0-14	0	0	0	0.0	0.0	0.0	-	0.88581	0.0	0.80	0		
	15 - 44	0	0	0	0.0	0.0	0.0	-	0.98490	0.0	0.80	0		
	45 - 64	0	0	0	0.0	0.0	0.0	-	0.96706	0.0	0.80	0		
	65+	0	0	0	0.0	0.0	0.0	-	1.20043	0.0	0.80	0		
	Sub Total	**0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**-**		**0.0**		**0**		
	Pediatric													
	0-19	128	121	58	0.4	0.3	0.2	0.2	0.90723	0.2	0.80	0		
	20+	0	0	0	0.0	0.0	0.0	-	1.03251	0.0	0.80	0		
	Sub Total	**128**	**121**	**58**	**0.4**	**0.3**	**0.2**	**0.2**		**0.2**		**0**		
Total		**26,666**	**24,293**	**25,399**	**73**	**67**	**70**	**69.2**		**75.5**		**96**	**109**	**-13**

Acute Care Hospital 2020 Bed Need, New Milford Hospital

Hospital	Services1	FY 2011 patient days	FY 2012 patient days	FY 2013 patient days	FY 2011 ADC	FY 2012 ADC	FY 2013 ADC	Weighted ADC	Litchfield County Pop chg 2015 to 20202	Projected ADC	Target Occupancy	Beds Needed 2020	Licensed Beds3	Excess (-) or Deficit (+)
New Milford	Medical/Surgical													
	0-14	0	0	0	0.0	0.0	0.0	-	0.88581	0.0	0.80	0		
	15 - 44	634	537	476	1.7	1.5	1.3	1.4	0.98490	1.4	0.80	2		
	45 - 64	2,003	1,816	1,648	5.5	5.0	4.5	4.8	0.96706	4.7	0.80	6		
	65+	5,307	4,843	4,539	14.5	13.3	12.4	13.1	1.20043	15.7	0.80	20		
	Sub Total	**7,944**	**7,196**	**6,663**	**21.8**	**19.7**	**18.3**	**19.3**		**21.8**		**27**		
	Maternity													
	0-14	0	0	0	0.0	0.0	0.0	-	0.88634	0.0	0.50	0		
	15 - 44	720	686	159	2.0	1.9	0.4	1.2	0.97955	1.1	0.50	2		
	45 - 64	0	0	0	0.0	0.0	0.0	-	0.97230	0.0	0.50	0		
	65+	0	0	0	0.0	0.0	0.0	-	1.18059	0.0	0.50	0		
	Sub Total	**720**	**686**	**159**	**2.0**	**1.9**	**0.4**	**1.2**		**1.1**		**2**		
	Psychiatric													
	0-14	0	0	0	0.0	0.0	0.0	-	0.88581	0.0	0.80	0		
	15 - 44	7	0	15	0.0	0.0	0.0	0.0	0.98490	0.0	0.80	0		
	45 - 64	9	1	9	0.0	0.0	0.0	0.0	0.96706	0.0	0.80	0		
	65+	0	36	11	0.0	0.1	0.0	0.0	1.20043	0.1	0.80	0		
	Sub Total	**16**	**37**	**35**	**0.0**	**0.1**	**0.1**	**0.1**		**0.1**		**0**		
	Rehabilitation													
	0-14	0	0	0	0.0	0.0	0.0	-	0.88581	0.0	0.80	0		
	15 - 44	0	0	0	0.0	0.0	0.0	-	0.98490	0.0	0.80	0		
	45 - 64	0	0	0	0.0	0.0	0.0	-	0.96706	0.0	0.80	0		
	65+	0	0	0	0.0	0.0	0.0	-	1.20043	0.0	0.80	0		
	Sub Total	**0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**-**		**0.0**		**0**		
	Pediatric													
	0-19	24	17	24	0.1	0.0	0.1	0.1	0.90723	0.1	0.80	0		
	20+	0	0	0	0.0	0.0	0.0	-	1.03251	0.0	0.80	0		
	Sub Total	**24**	**17**	**24**	**0.1**	**0.0**	**0.1**	**0.1**		**0.1**		**0**		
Total		**8,704**	**7,936**	**6,881**	**24**	**22**	**19**	**20.6**		**23.1**		**30**	**85**	**-55**

Acute Care Hospital 2020 Bed Need, Sharon Hospital

Hospital	Services1	FY 2011 patient days	FY 2012 patient days	FY 2013 patient days	FY 2011 ADC	FY 2012 ADC	FY 2013 ADC	Weighted ADC	Litchfield County Pop chg 2015 to 20202	Projected ADC	Target Occupancy	Beds Needed 2020	Licensed Beds3	Excess (-) or Deficit (+)
Sharon	Medical/Surgical													
	0-14	0	3	9	0.0	0.0	0.0	0.0	0.88581	0.0	0.80	0		
	15 - 44	780	585	858	2.1	1.6	2.4	2.1	0.98490	2.0	0.80	3		
	45 - 64	2,172	2,087	2,048	6.0	5.7	5.6	5.7	0.96706	5.5	0.80	7		
	65+	5,695	6,136	6,569	15.6	16.8	18.0	17.2	1.20043	20.7	0.80	26		
	Sub Total	**8,647**	**8,811**	**9,484**	**23.7**	**24.1**	**26.0**	**25.0**		**28.2**		**35**		
	Maternity													
	0-14	0	1	0	0.0	0.0	0.0	0.0	0.88634	0.0	0.50	0		
	15 - 44	588	626	665	1.6	1.7	1.8	1.8	0.97955	1.7	0.50	3		
	45 - 64	0	4	4	0.0	0.0	0.0	0.0	0.97230	0.0	0.50	0		
	65+	0	0	0	0.0	0.0	0.0	-	1.18059	0.0	0.50	0		
	Sub Total	**588**	**631**	**669**	**1.6**	**1.7**	**1.8**	**1.8**		**1.7**		**3**		
	Psychiatric													
	0-14	0	0	0	0.0	0.0	0.0	-	0.88581	0.0	0.80	0		
	15 - 44	7	6	19	0.0	0.0	0.1	0.0	0.98490	0.0	0.80	0		
	45 - 64	168	256	215	0.5	0.7	0.6	0.6	0.96706	0.6	0.80	1		
	65+	2,354	1,497	1,322	6.4	4.1	3.6	4.3	1.20043	5.1	0.80	6		
	Sub Total	**2,529**	**1,759**	**1,556**	**6.9**	**4.8**	**4.3**	**4.9**		**5.7**		**7**		
	Rehabilitation													
	0-14	0	0	0	0.0	0.0	0.0	-	0.88581	0.0	0.80	0		
	15 - 44	0	0	0	0.0	0.0	0.0	-	0.98490	0.0	0.80	0		
	45 - 64	0	0	0	0.0	0.0	0.0	-	0.96706	0.0	0.80	0		
	65+	0	0	0	0.0	0.0	0.0	-	1.20043	0.0	0.80	0		
	Sub Total	**0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**-**		**0.0**		**0**		
	Pediatric													
	0-19	40	26	34	0.1	0.1	0.1	0.1	0.90723	0.1	0.80	0		
	20+	0	0	0	0.0	0.0	0.0	-	1.03251	0.0	0.80	0		
	Sub Total	**40**	**26**	**34**	**0.1**	**0.1**	**0.1**	**0.1**		**0.1**		**0**		
Total		**11,804**	**11,227**	**11,743**	**32**	**31**	**32**	**31.7**		**35.7**		**46**	**78**	**-32**

Acute Care Hospital 2020 Bed Need, Middlesex Hospital

Hospital	Services[1]	FY 2011 patient days	FY 2012 patient days	FY 2013 patient days	FY 2011 ADC	FY 2012 ADC	FY 2013 ADC	Weighted ADC	Middlesex County Pop chg 2015 to 2020[2]	Projected ADC	Target Occupancy	Beds Needed 2020	Licensed Beds[3]	Excess (-) or Deficit (+)
Middlesex	Medical/Surgical													
	0-14	11	4	2	0.0	0.0	0.0	0.0	0.90103	0.0	0.80	0		
	15 - 44	4,029	3,830	4,020	11.0	10.5	11.0	10.8	0.98633	10.7	0.80	13		
	45 - 64	12,915	12,835	13,999	35.4	35.2	38.4	36.8	0.97358	35.8	0.80	45		
	65+	28,391	27,516	30,147	77.8	75.4	82.6	79.4	1.20478	95.6	0.80	120		
	Sub Total	**45,346**	**44,185**	**48,168**	**124.2**	**121.1**	**132.0**	**127.0**		**142.2**		**178**		
	Maternity													
	0-14	0	0	0	0.0	0.0	0.0	-	0.90155	0.0	0.50	0		
	15 - 44	3,156	3,094	2,866	8.6	8.5	7.9	8.2	0.98063	8.0	0.50	16		
	45 - 64	2	3	10	0.0	0.0	0.0	0.0	0.97791	0.0	0.50	0		
	65+	0	0	0	0.0	0.0	0.0	-	1.19360	0.0	0.50	0		
	Sub Total	**3,158**	**3,097**	**2,876**	**8.7**	**8.5**	**7.9**	**8.2**		**8.1**		**16**		
	Psychiatric													
	0-14	0	0	0	0.0	0.0	0.0	-	0.90103	0.0	0.80	0		
	15 - 44	2,643	3,085	2,366	7.2	8.5	6.5	7.3	0.98633	7.2	0.80	9		
	45 - 64	2,557	2,738	3,018	7.0	7.5	8.3	7.8	0.97358	7.6	0.80	9		
	65+	784	599	767	2.1	1.6	2.1	2.0	1.20478	2.4	0.80	3		
	Sub Total	**5,984**	**6,422**	**6,151**	**16.4**	**17.6**	**16.9**	**17.0**		**17.1**		**21**		
	Rehabilitation													
	0-14	0	0	0	0.0	0.0	0.0	-	0.90103	0.0	0.80	0		
	15 - 44	0	0	0	0.0	0.0	0.0	-	0.98633	0.0	0.80	0		
	45 - 64	0	0	0	0.0	0.0	0.0	-	0.97358	0.0	0.80	0		
	65+	0	0	0	0.0	0.0	0.0	-	1.20478	0.0	0.80	0		
	Sub Total	**0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**-**		**0.0**		**0**		
	Pediatric													
	0-19	17	4	4	0.0	0.0	0.0	0.0	0.92096	0.0	0.80	0		
	20+	0	0	0	0.0	0.0	0.0	-	1.03553	0.0	0.80	0		
	Sub Total	**17**	**4**	**4**	**0.0**	**0.0**	**0.0**	**0.0**		**0.0**		**0**		
Total		**54,505**	**53,708**	**57,199**	**149**	**147**	**157**	**152.3**		**167.4**		**215**	**275**	**-60**

Acute Care Hospital 2020 Bed Need, Griffin Hospital

Hospital	Services[1]	FY 2011 patient days	FY 2012 patient days	FY 2013 patient days	FY 2011 ADC	FY 2012 ADC	FY 2013 ADC	Weighted ADC	New Haven County Pop chg 2015 to 2020[2]	Projected ADC	Target Occupancy	Beds Needed 2020	Licensed Beds[3]	Excess (-) or Deficit (+)
Griffin	Medical/Surgical													
	0-14	0	0	0	0.0	0.0	0.0	-	0.97443	0.0	0.80	0		
	15 - 44	2,725	2,630	2,578	7.5	7.2	7.1	7.2	1.01313	7.3	0.80	9		
	45 - 64	6,835	6,384	6,548	18.7	17.5	17.9	17.9	0.98400	17.6	0.80	22		
	65+	14,651	13,531	14,994	40.1	37.1	41.1	39.6	1.14363	45.3	0.80	57		
	Sub Total	**24,211**	**22,545**	**24,120**	**66.3**	**61.8**	**66.1**	**64.7**		**70.2**		**88**		
	Maternity													
	0-14	0	3	0	0.0	0.0	0.0	0.0	0.97102	0.0	0.50	0		
	15 - 44	1,860	1,768	1,725	5.1	4.8	4.7	4.8	1.01253	4.9	0.50	10		
	45 - 64	0	4	3	0.0	0.0	0.0	0.0	0.98578	0.0	0.50	0		
	65+	0	0	0	0.0	0.0	0.0	-	1.12499	0.0	0.50	0		
	Sub Total	**1,860**	**1,775**	**1,728**	**5.1**	**4.9**	**4.7**	**4.8**		**4.9**		**10**		
	Psychiatric													
	0-14	0	0	0	0.0	0.0	0.0	-	0.97443	0.0	0.80	0		
	15 - 44	1,039	1,233	1,487	2.8	3.4	4.1	3.6	1.01313	3.7	0.80	5		
	45 - 64	1,618	1,290	1,496	4.4	3.5	4.1	4.0	0.98400	3.9	0.80	5		
	65+	385	282	328	1.1	0.8	0.9	0.9	1.14363	1.0	0.80	1		
	Sub Total	**3,042**	**2,805**	**3,311**	**8.3**	**7.7**	**9.1**	**8.5**		**8.6**		**11**		
	Rehabilitation													
	0-14	0	0	0	0.0	0.0	0.0	-	0.97443	0.0	0.80	0		
	15 - 44	0	0	0	0.0	0.0	0.0	-	1.01313	0.0	0.80	0		
	45 - 64	0	0	0	0.0	0.0	0.0	-	0.98400	0.0	0.80	0		
	65+	0	0	0	0.0	0.0	0.0	-	1.14363	0.0	0.80	0		
	Sub Total	**0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**-**		**0.0**		**0**		
	Pediatric													
	0-19	51	15	9	0.1	0.0	0.0	0.0	0.96530	0.0	0.80	0		
	20+	0	0	0	0.0	0.0	0.0	-	1.03672	0.0	0.80	0		
	Sub Total	**51**	**15**	**9**	**0.1**	**0.0**	**0.0**	**0.0**		**0.0**		**0**		
Total		**29,164**	**27,140**	**29,168**	**80**	**74**	**80**	**78.1**		**83.7**		**108**	**160**	**-52**

Acute Care Hospital 2020 Bed Need, MidState Hospital

Hospital	Services[1]	FY 2011 patient days	FY 2012 patient days	FY 2013 patient days	FY 2011 ADC	FY 2012 ADC	FY 2013 ADC	Weighted ADC	New Haven County Pop chg 2015 to 2020[2]	Projected ADC	Target Occupancy	Beds Needed 2020	Licensed Beds[3]	Excess (-) or Deficit (+)
MidState	Medical/Surgical													
	0-14	0	0	0	0.0	0.0	0.0	-	0.97443	0.0	0.80	0		
	15 - 44	3,765	4,298	3,581	10.3	11.8	9.8	10.5	1.01313	10.7	0.80	13		
	45 - 64	11,049	10,003	10,188	30.3	27.4	27.9	28.1	0.98400	27.7	0.80	35		
	65+	22,666	21,533	21,327	62.1	59.0	58.4	59.2	1.14363	67.7	0.80	85		
	Sub Total	**37,480**	**35,834**	**35,096**	**102.7**	**98.2**	**96.2**	**97.9**		**106.1**		**133**		
	Maternity													
	0-14	0	0	0	0.0	0.0	0.0	-	0.97102	0.0	0.50	0		
	15 - 44	2,752	2,559	2,498	7.5	7.0	6.8	7.0	1.01253	7.1	0.50	14		
	45 - 64	8	5	3	0.0	0.0	0.0	0.0	0.98578	0.0	0.50	0		
	65+	0	0	0	0.0	0.0	0.0	-	1.12499	0.0	0.50	0		
	Sub Total	**2,760**	**2,564**	**2,501**	**7.6**	**7.0**	**6.9**	**7.0**		**7.1**		**14**		
	Psychiatric													
	0-14	0	0	0	0.0	0.0	0.0	-	0.97443	0.0	0.80	0		
	15 - 44	949	1,055	940	2.6	2.9	2.6	2.7	1.01313	2.7	0.80	3		
	45 - 64	825	801	1,066	2.3	2.2	2.9	2.6	0.98400	2.5	0.80	3		
	65+	156	158	139	0.4	0.4	0.4	0.4	1.14363	0.5	0.80	1		
	Sub Total	**1,930**	**2,014**	**2,145**	**5.3**	**5.5**	**5.9**	**5.7**		**5.7**		**7**		
	Rehabilitation													
	0-14	0	0	0	0.0	0.0	0.0	-	0.97443	0.0	0.80	0		
	15 - 44	0	0	0	0.0	0.0	0.0	-	1.01313	0.0	0.80	0		
	45 - 64	0	0	0	0.0	0.0	0.0	-	0.98400	0.0	0.80	0		
	65+	0	0	0	0.0	0.0	0.0	-	1.14363	0.0	0.80	0		
	Sub Total	**0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**-**		**0.0**		**0**		
	Pediatric													
	0-19	25	17	2	0.1	0.0	0.0	0.0	0.96530	0.0	0.80	0		
	20+	0	0	0	0.0	0.0	0.0	-	1.03672	0.0	0.80	0		
	Sub Total	**25**	**17**	**2**	**0.1**	**0.0**	**0.0**	**0.0**		**0.0**		**0**		
Total		**42,195**	**40,429**	**39,744**	**116**	**111**	**109**	**110.6**		**119.0**		**154**	**144**	**10**

Acute Care Hospital 2020 Bed Need, Milford Hospital

Hospital	Services[1]	FY 2011 patient days	FY 2012 patient days	FY 2013 patient days	FY 2011 ADC	FY 2012 ADC	FY 2013 ADC	Weighted ADC	New Haven County Pop chg 2015 to 2020[2]	Projected ADC	Target Occupancy	Beds Needed 2020	Licensed Beds[3]	Excess (-) or Deficit (+)
Milford	Medical/Surgical													
	0-14	0	0	0	0.0	0.0	0.0	-	0.97443	0.0	0.80	0		
	15 - 44	1,003	957	824	2.7	2.6	2.3	2.5	1.01313	2.5	0.80	3		
	45 - 64	3,597	3,457	3,133	9.9	9.5	8.6	9.1	0.98400	8.9	0.80	11		
	65+	9,584	8,770	8,834	26.3	24.0	24.2	24.5	1.14363	28.0	0.80	35		
	Sub Total	**14,184**	**13,184**	**12,791**	**38.9**	**36.1**	**35.0**	**36.0**		**39.4**		**49**		
	Maternity													
	0-14	0	0	0	0.0	0.0	0.0	-	0.97102	0.0	0.50	0		
	15 - 44	1,444	631	321	4.0	1.7	0.9	1.7	1.01253	1.7	0.50	3		
	45 - 64	3	4	0	0.0	0.0	0.0	0.0	0.98578	0.0	0.50	0		
	65+	0	0	0	0.0	0.0	0.0	-	1.12499	0.0	0.50	0		
	Sub Total	**1,447**	**635**	**321**	**4.0**	**1.7**	**0.9**	**1.7**		**1.7**		**3**		
	Psychiatric													
	0-14	0	0	0	0.0	0.0	0.0	-	0.97443	0.0	0.80	0		
	15 - 44	10	0	1	0.0	0.0	0.0	0.0	1.01313	0.0	0.80	0		
	45 - 64	10	9	18	0.0	0.0	0.0	0.0	0.98400	0.0	0.80	0		
	65+	0	8	14	0.0	0.0	0.0	0.0	1.14363	0.0	0.80	0		
	Sub Total	**20**	**17**	**33**	**0.1**	**0.0**	**0.1**	**0.1**		**0.1**		**0**		
	Rehabilitation													
	0-14	0	0	0	0.0	0.0	0.0	-	0.97443	0.0	0.80	0		
	15 - 44	0	0	0	0.0	0.0	0.0	-	1.01313	0.0	0.80	0		
	45 - 64	0	0	0	0.0	0.0	0.0	-	0.98400	0.0	0.80	0		
	65+	0	0	0	0.0	0.0	0.0	-	1.14363	0.0	0.80	0		
	Sub Total	**0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**-**		**0.0**		**0**		
	Pediatric													
	0-19	0	0	0	0.0	0.0	0.0	-	0.96530	0.0	0.80	0		
	20+	0	0	0	0.0	0.0	0.0	-	1.03672	0.0	0.80	0		
	Sub Total	**0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**-**		**0.0**		**0**		
Total		**15,651**	**13,836**	**13,145**	**43**	**38**	**36**	**37.8**		**41.2**		**53**	**106**	**-53**

Acute Care Hospital 2020 Bed Need, Saint Mary's Hospital

Hospital	Services[1]	FY 2011 patient days	FY 2012 patient days	FY 2013 patient days	FY 2011 ADC	FY 2012 ADC	FY 2013 ADC	Weighted ADC	New Haven County Pop chg 2015 to 2020[2]	Projected ADC	Target Occupancy	Beds Needed 2020	Licensed Beds[3]	Excess (-) or Deficit (+)
Saint Mary's	Medical/Surgical													
	0-14	0	0	0	0.0	0.0	0.0	-	0.97443	0.0	0.80	0		
	15 - 44	5,807	6,051	5,933	15.9	16.6	16.3	16.3	1.01313	16.5	0.80	21		
	45 - 64	13,217	13,059	12,510	36.2	35.8	34.3	35.1	0.98400	34.5	0.80	43		
	65+	27,022	23,454	24,218	74.0	64.3	66.4	66.9	1.14363	76.5	0.80	96		
	Sub Total	**46,046**	**42,564**	**42,661**	**126.2**	**116.6**	**116.9**	**118.3**		**127.6**		**160**		
	Maternity													
	0-14	7	9	3	0.0	0.0	0.0	0.0	0.97102	0.0	0.50	0		
	15 - 44	3,259	3,008	2,730	8.9	8.2	7.5	8.0	1.01253	8.1	0.50	16		
	45 - 64	12	2	4	0.0	0.0	0.0	0.0	0.98578	0.0	0.50	0		
	65+	0	0	0	0.0	0.0	0.0	-	1.12499	0.0	0.50	0		
	Sub Total	**3,278**	**3,019**	**2,737**	**9.0**	**8.3**	**7.5**	**8.0**		**8.1**		**16**		
	Psychiatric													
	0-14	0	0	0	0.0	0.0	0.0	-	0.97443	0.0	0.80	0		
	15 - 44	1,657	1,345	1,635	4.5	3.7	4.5	4.2	1.01313	4.3	0.80	5		
	45 - 64	1,508	1,171	1,470	4.1	3.2	4.0	3.8	0.98400	3.7	0.80	5		
	65+	105	287	241	0.3	0.8	0.7	0.6	1.14363	0.7	0.80	1		
	Sub Total	**3,270**	**2,803**	**3,346**	**9.0**	**7.7**	**9.2**	**8.6**		**8.7**		**11**		
	Rehabilitation													
	0-14	0	0	0	0.0	0.0	0.0	-	0.97443	0.0	0.80	0		
	15 - 44	0	0	0	0.0	0.0	0.0	-	1.01313	0.0	0.80	0		
	45 - 64	0	0	0	0.0	0.0	0.0	-	0.98400	0.0	0.80	0		
	65+	0	0	0	0.0	0.0	0.0	-	1.14363	0.0	0.80	0		
	Sub Total	**0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**-**		**0.0**		**0**		
	Pediatric													
	0-19	32	21	1	0.1	0.1	0.0	0.0	0.96530	0.0	0.80	0		
	20+	0	0	0	0.0	0.0	0.0	-	1.03672	0.0	0.80	0		
	Sub Total	**32**	**21**	**1**	**0.1**	**0.1**	**0.0**	**0.0**		**0.0**		**0**		
Total		**52,626**	**48,407**	**48,745**	**144**	**133**	**134**	**135.0**		**144.5**		**187**	**347**	**-160**

Acute Care Hospital 2020 Bed Need, Waterbury Hospital

Hospital	Services[1]	FY 2011 patient days	FY 2012 patient days	FY 2013 patient days	FY 2011 ADC	FY 2012 ADC	FY 2013 ADC	Weighted ADC	New Haven County Pop chg 2015 to 2020[2]	Projected ADC	Target Occupancy	Beds Needed 2020	Licensed Beds[3]	Excess (-) or Deficit (+)
Waterbury	Medical/Surgical													
	0-14	0	0	0	0.0	0.0	0.0	-	0.97443	0.0	0.80	0		
	15 - 44	4,909	4,237	3,702	13.4	11.6	10.1	11.2	1.01313	11.3	0.80	14		
	45 - 64	13,981	12,815	11,680	38.3	35.1	32.0	34.1	0.98400	33.5	0.80	42		
	65+	26,535	25,650	23,553	72.7	70.3	64.5	67.8	1.14363	77.5	0.80	97		
	Sub Total	**45,425**	**42,702**	**38,935**	**124.5**	**117.0**	**106.7**	**113.1**		**122.4**		**153**		
	Maternity													
	0-14	2	0	2	0.0	0.0	0.0	0.0	0.97102	0.0	0.50	0		
	15 - 44	3,167	3,293	3,377	8.7	9.0	9.3	9.1	1.01253	9.2	0.50	18		
	45 - 64	0	2	9	0.0	0.0	0.0	0.0	0.98578	0.0	0.50	0		
	65+	0	0	0	0.0	0.0	0.0	-	1.12499	0.0	0.50	0		
	Sub Total	**3,169**	**3,295**	**3,388**	**8.7**	**9.0**	**9.3**	**9.1**		**9.2**		**18**		
	Psychiatric													
	0-14	186	302	354	0.5	0.8	1.0	0.8	0.97443	0.8	0.80	1		
	15 - 44	3,281	3,810	5,170	9.0	10.4	14.2	12.1	1.01313	12.2	0.80	15		
	45 - 64	2,522	2,657	2,623	6.9	7.3	7.2	7.2	0.98400	7.1	0.80	9		
	65+	647	956	1,271	1.8	2.6	3.5	2.9	1.14363	3.3	0.80	4		
	Sub Total	**6,636**	**7,725**	**9,418**	**18.2**	**21.2**	**25.8**	**23.0**		**23.4**		**29**		
	Rehabilitation													
	0-14	0	0	0	0.0	0.0	0.0	-	0.97443	0.0	0.80	0		
	15 - 44	0	0	0	0.0	0.0	0.0	-	1.01313	0.0	0.80	0		
	45 - 64	0	0	0	0.0	0.0	0.0	-	0.98400	0.0	0.80	0		
	65+	0	0	0	0.0	0.0	0.0	-	1.14363	0.0	0.80	0		
	Sub Total	**0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**-**		**0.0**		**0**		
	Pediatric													
	0-19	113	117	84	0.3	0.3	0.2	0.3	0.96530	0.3	0.80	0		
	20+	0	0	0	0.0	0.0	0.0	-	1.03672	0.0	0.80	0		
	Sub Total	**113**	**117**	**84**	**0.3**	**0.3**	**0.2**	**0.3**		**0.3**		**0**		
Total		**55,343**	**53,839**	**51,825**	**152**	**148**	**142**	**145.4**		**155.3**		**201**	**357**	**-156**

Acute Care Hospital 2020 Bed Need, Yale-New Haven Hospital

Hospital	Services[1]	FY 2011 patient days	FY 2012 patient days	FY 2013 patient days	FY 2011 ADC	FY 2012 ADC	FY 2013 ADC	Weighted ADC	New Haven County Pop chg 2015 to 2020[2]	Projected ADC	Target Occupancy	Beds Needed 2020	Licensed Beds[3]	Excess (-) or Deficit (+)
Yale-New Haven	Medical/Surgical													
	0-14	0	0	0	0.0	0.0	0.0	-	0.97443	0.0	0.80	0		
	15 - 44	49,071	54,090	48,190	134.4	148.2	132.0	137.8	1.01313	139.6	0.80	175		
	45 - 64	109,026	99,090	104,948	298.7	271.5	287.5	284.0	0.98400	279.5	0.80	349		
	65+	145,148	139,187	143,263	397.7	381.3	392.5	389.6	1.14363	445.6	0.80	557		
	Sub Total	**303,245**	**292,367**	**296,401**	**830.8**	**801.0**	**812.1**	**811.5**		**864.7**		**1081**		
	Maternity													
	0-14	19	34	5	0.1	0.1	0.0	0.0	0.97102	0.0	0.50	0		
	15 - 44	20,885	20,501	20,645	57.2	56.2	56.6	56.5	1.01253	57.2	0.50	114		
	45 - 64	84	96	132	0.2	0.3	0.4	0.3	0.98578	0.3	0.50	1		
	65+	0	0	0	0.0	0.0	0.0	-	1.12499	0.0	0.50	0		
	Sub Total	**20,988**	**20,631**	**20,782**	**57.5**	**56.5**	**56.9**	**56.9**		**57.6**		**115**		
	Psychiatric													
	0-14	8,696	8,561	8,562	23.8	23.5	23.5	23.5	0.97443	22.9	0.80	29		
	15 - 44	19,878	20,097	21,895	54.5	55.1	60.0	57.4	1.01313	58.2	0.80	73		
	45 - 64	11,826	12,693	12,787	32.4	34.8	35.0	34.5	0.98400	34.0	0.80	42		
	65+	5,288	3,523	4,653	14.5	9.7	12.7	12.0	1.14363	13.7	0.80	17		
	Sub Total	**45,688**	**44,874**	**47,897**	**125.2**	**122.9**	**131.2**	**127.5**		**128.8**		**161**		
	Rehabilitation													
	0-14	0	0	0	0.0	0.0	0.0	-	0.97443	0.0	0.80	0		
	15 - 44	44	56	96	0.1	0.2	0.3	0.2	1.01313	0.2	0.80	0		
	45 - 64	773	739	468	2.1	2.0	1.3	1.7	0.98400	1.6	0.80	2		
	65+	3,188	2,847	2,072	8.7	7.8	5.7	6.9	1.14363	7.9	0.80	10		
	Sub Total	**4,005**	**3,642**	**2,636**	**11.0**	**10.0**	**7.2**	**8.8**		**9.7**		**12**		
	Pediatric													
	0-19	19,907	22,927	21,285	54.5	62.8	58.3	59.2	0.96530	57.1	0.80	71		
	20+	0	0	0	0.0	0.0	0.0	-	1.03672	0.0	0.80	0		
	Sub Total	**19,907**	**22,927**	**21,285**	**54.5**	**62.8**	**58.3**	**59.2**		**57.1**		**71**		
Total		**393,833**	**384,441**	**389,001**	**1,079**	**1,053**	**1,066**	**1,063.8**		**1118.0**		**1441**	**1,407**	**34**

Acute Care Hospital 2020 Bed Need, Backus Hospital

Hospital	Services[1]	FY 2011 patient days	FY 2012 patient days	FY 2013 patient days	FY 2011 ADC	FY 2012 ADC	FY 2013 ADC	Weighted ADC	New London County Pop chg 2015 to 2020[2]	Projected ADC	Target Occupancy	Beds Needed 2020	Licensed Beds[3]	Excess (-) or Deficit (+)
Backus	Medical/Surgical													
	0-14	0	0	0	0.0	0.0	0.0	-	0.95225	0.0	0.80	0		
	15 - 44	4,591	4,359	4,318	12.6	11.9	11.8	12.0	0.99490	11.9	0.80	15		
	45 - 64	14,256	13,840	13,569	39.1	37.9	37.2	37.7	0.97130	36.7	0.80	46		
	65+	21,398	21,921	21,464	58.6	60.1	58.8	59.2	1.19137	70.5	0.80	88		
	Sub Total	**40,245**	**40,120**	**39,351**	**110.3**	**109.9**	**107.8**	**108.9**		**119.1**		**149**		
	Maternity													
	0-14	0	2	0	0.0	0.0	0.0	0.0	0.94942	0.0	0.50	0		
	15 - 44	2,339	2,208	2,017	6.4	6.0	5.5	5.8	0.98704	5.8	0.50	12		
	45 - 64	0	4	6	0.0	0.0	0.0	0.0	0.97794	0.0	0.50	0		
	65+	0	0	0	0.0	0.0	0.0	-	1.17099	0.0	0.50	0		
	Sub Total	**2,339**	**2,214**	**2,023**	**6.4**	**6.1**	**5.5**	**5.9**		**5.8**		**12**		
	Psychiatric													
	0-14	0	0	0	0.0	0.0	0.0	-	0.95225	0.0	0.80	0		
	15 - 44	2,289	2,119	2,297	6.3	5.8	6.3	6.1	0.99490	6.1	0.80	8		
	45 - 64	1,951	2,088	2,000	5.3	5.7	5.5	5.5	0.97130	5.4	0.80	7		
	65+	357	441	401	1.0	1.2	1.1	1.1	1.19137	1.3	0.80	2		
	Sub Total	**4,597**	**4,648**	**4,698**	**12.6**	**12.7**	**12.9**	**12.8**		**12.8**		**16**		
	Rehabilitation													
	0-14	0	0	0	0.0	0.0	0.0	-	0.95225	0.0	0.80	0		
	15 - 44	0	0	0	0.0	0.0	0.0	-	0.99490	0.0	0.80	0		
	45 - 64	0	0	0	0.0	0.0	0.0	-	0.97130	0.0	0.80	0		
	65+	0	0	0	0.0	0.0	0.0	-	1.19137	0.0	0.80	0		
	Sub Total	**0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**-**		**0.0**		**0**		
	Pediatric													
	0-19	359	249	173	1.0	0.7	0.5	0.6	0.95388	0.6	0.80	1		
	20+	0	0	0	0.0	0.0	0.0	-	1.03192	0.0	0.80	0		
	Sub Total	**359**	**249**	**173**	**1.0**	**0.7**	**0.5**	**0.6**		**0.6**		**1**		
Total		**47,540**	**47,231**	**46,245**	**130**	**129**	**127**	**128.2**		**138.3**		**177**	**213**	**-36**

Acute Care Hospital 2020 Bed Need, Lawrence + Memorial Hospital

Hospital	Services[1]	2011 patient days	2012 patient days	2013 patient days	2011 ADC	2012 ADC	2013 ADC	Weighted ADC	New London County Pop chg 2015 to 2020[2]	Projected ADC	Target Occupancy	Beds Needed	Licensed Beds[3]	Excess (-) or Deficit (+)
Lawrence + Memorial	Medical/Surgical													
	0-14	0	0	0	0.0	0.0	0.0	-	0.95225	0.0	0.80	0		
	15 - 44	6,377	6,013	4,903	17.5	16.5	13.4	15.1	0.99490	15.0	0.80	19		
	45 - 64	17,245	15,332	14,418	47.2	42.0	39.5	41.6	0.97130	40.4	0.80	51		
	65+	30,149	28,962	27,870	82.6	79.3	76.4	78.4	1.19137	93.4	0.80	117		
	Sub Total	**53,771**	**50,307**	**47,191**	**147.3**	**137.8**	**129.3**	**135.1**		**148.9**		**186**		
	Maternity													
	0-14	2	0	0	0.0	0.0	0.0	0.0	0.94942	0.0	0.50	0		
	15 - 44	4,586	4,452	4,268	12.6	12.2	11.7	12.0	0.98704	11.9	0.50	24		
	45 - 64	3	8	2	0.0	0.0	0.0	0.0	0.97794	0.0	0.50	0		
	65+	0	0	0	0.0	0.0	0.0	-	1.17099	0.0	0.50	0		
	Sub Total	**4,591**	**4,460**	**4,270**	**12.6**	**12.2**	**11.7**	**12.0**		**11.9**		**24**		
	Psychiatric													
	0-14	8	0	0	0.0	0.0	0.0	0.0	0.95225	0.0	0.80	0		
	15 - 44	1,682	2,391	2,535	4.6	6.6	6.9	6.4	0.99490	6.4	0.80	8		
	45 - 64	2,029	2,355	2,162	5.6	6.5	5.9	6.0	0.97130	5.9	0.80	7		
	65+	950	852	436	2.6	2.3	1.2	1.8	1.19137	2.2	0.80	3		
	Sub Total	**4,669**	**5,598**	**5,133**	**12.8**	**15.3**	**14.1**	**14.3**		**14.4**		**18**		
	Rehabilitation													
	0-14	0	0	0	0.0	0.0	0.0	-	0.95225	0.0	0.80	0		
	15 - 44	230	345	242	0.6	0.9	0.7	0.8	0.99490	0.7	0.80	1		
	45 - 64	972	1,142	918	2.7	3.1	2.5	2.7	0.97130	2.7	0.80	3		
	65+	3,546	3,267	2,979	9.7	9.0	8.2	8.7	1.19137	10.3	0.80	13		
	Sub Total	**4,748**	**4,754**	**4,139**	**13.0**	**13.0**	**11.3**	**12.2**		**13.8**		**17**		
	Pediatric													
	0-19	401	357	249	1.1	1.0	0.7	0.9	0.95388	0.8	0.80	1		
	20+	0	0	0	0.0	0.0	0.0	-	1.03192	0.0	0.80	0		
	Sub Total	**401**	**357**	**249**	**1.1**	**1.0**	**0.7**	**0.9**		**0.8**		**1**		
Total		**68,180**	**65,476**	**60,982**	**187**	**179**	**167**	**174.5**		**189.7**		**246**	**280**	**-34**

Acute Care Hospital 2020 Bed Need, Johnson Hospital

Hospital	Services[1]	FY 2011 patient days	FY 2012 patient days	FY 2013 patient days	FY 2011 ADC	FY 2012 ADC	FY 2013 ADC	Weighted ADC	Tolland County Pop chg 2015 to 2020[2]	Projected ADC	Target Occupancy	Beds Needed 2020	Licensed Beds[3]	Excess (-) or Deficit (+)
Johnson	Medical/Surgical													
	0-14	0	0	0	0.0	0.0	0.0	-	0.93074	0.0	0.80	0		
	15 - 44	1,172	1,238	1,101	3.2	3.4	3.0	3.2	1.00969	3.2	0.80	4		
	45 - 64	3,033	3,381	3,135	8.3	9.3	8.6	8.8	0.98044	8.6	0.80	11		
	65+	7,679	7,561	7,791	21.0	20.7	21.3	21.1	1.20444	25.4	0.80	32		
	Sub Total	**11,884**	**12,180**	**12,027**	**32.6**	**33.4**	**33.0**	**33.0**		**37.2**		**46**		
	Maternity													
	0-14	0	0	0	0.0	0.0	0.0	-	0.93517	0.0	0.50	0		
	15 - 44	687	596	560	1.9	1.6	1.5	1.6	1.00881	1.6	0.50	3		
	45 - 64	0	0	0	0.0	0.0	0.0	-	0.99659	0.0	0.50	0		
	65+	0	0	0	0.0	0.0	0.0	-	1.19032	0.0	0.50	0		
	Sub Total	**687**	**596**	**560**	**1.9**	**1.6**	**1.5**	**1.6**		**1.6**		**3**		
	Psychiatric													
	0-14	0	0	0	0.0	0.0	0.0	-	0.93074	0.0	0.80	0		
	15 - 44	1,106	1,410	1,344	3.0	3.9	3.7	3.6	1.00969	3.7	0.80	5		
	45 - 64	1,092	1,415	1,335	3.0	3.9	3.7	3.6	0.98044	3.5	0.80	4		
	65+	250	129	235	0.7	0.4	0.6	0.6	1.20444	0.7	0.80	1		
	Sub Total	**2,448**	**2,954**	**2,914**	**6.7**	**8.1**	**8.0**	**7.8**		**7.9**		**10**		
	Rehabilitation													
	0-14	0	0	0	0.0	0.0	0.0	-	0.93074	0.0	0.80	0		
	15 - 44	0	0	0	0.0	0.0	0.0	-	1.00969	0.0	0.80	0		
	45 - 64	0	0	0	0.0	0.0	0.0	-	0.98044	0.0	0.80	0		
	65+	0	0	0	0.0	0.0	0.0	-	1.20444	0.0	0.80	0		
	Sub Total	**0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**-**		**0.0**		**0**		
	Pediatric													
	0-19	41	30	13	0.1	0.1	0.0	0.1	0.94612	0.1	0.80	0		
	20+	0	0	0	0.0	0.0	0.0	-	1.04017	0.0	0.80	0		
	Sub Total	**41**	**30**	**13**	**0.1**	**0.1**	**0.0**	**0.1**		**0.1**		**0**		
Total		**15,060**	**15,760**	**15,514**	**41**	**43**	**43**	**42.5**		**46.8**		**60**	**92**	**-32**

Acute Care Hospital 2020 Bed Need, Rockville Hospital

Hospital	Services[1]	FY 2011 patient days	FY 2012 patient days	FY 2013 patient days	FY 2011 ADC	FY 2012 ADC	FY 2013 ADC	Weighted ADC	Tolland County Pop chg 2015 to 2020[2]	Projected ADC	Target Occupancy	Beds Needed 2020	Licensed Beds[3]	Excess (-) or Deficit (+)
Rockville	Medical/Surgical													
	0-14	0	0	0	0.0	0.0	0.0	-	0.93074	0.0	0.80	0		
	15 - 44	1,054	933	1,163	2.9	2.6	3.2	2.9	1.00969	3.0	0.80	4		
	45 - 64	3,168	3,449	3,286	8.7	9.4	9.0	9.1	0.98044	8.9	0.80	11		
	65+	7,717	8,685	7,824	21.1	23.8	21.4	22.2	1.20444	26.7	0.80	33		
	Sub Total	**11,939**	**13,067**	**12,273**	**32.7**	**35.8**	**33.6**	**34.2**		**38.6**		**48**		
	Maternity													
	0-14	0	0	0	0.0	0.0	0.0	-	0.93517	0.0	0.50	0		
	15 - 44	146	12	2	0.4	0.0	0.0	0.1	1.00881	0.1	0.50	0		
	45 - 64	0	0	0	0.0	0.0	0.0	-	0.99659	0.0	0.50	0		
	65+	0	0	0	0.0	0.0	0.0	-	1.19032	0.0	0.50	0		
	Sub Total	**146**	**12**	**2**	**0.4**	**0.0**	**0.0**	**0.1**		**0.1**		**0**		
	Psychiatric													
	0-14	0	0	0	0.0	0.0	0.0	-	0.93074	0.0	0.80	0		
	15 - 44	7	10	2	0.0	0.0	0.0	0.0	1.00969	0.0	0.80	0		
	45 - 64	15	3	7	0.0	0.0	0.0	0.0	0.98044	0.0	0.80	0		
	65+	9	8	22	0.0	0.0	0.1	0.0	1.20444	0.1	0.80	0		
	Sub Total	**31**	**21**	**31**	**0.1**	**0.1**	**0.1**	**0.1**		**0.1**		**0**		
	Rehabilitation													
	0-14	0	0	0	0.0	0.0	0.0	-	0.93074	0.0	0.80	0		
	15 - 44	0	0	0	0.0	0.0	0.0	-	1.00969	0.0	0.80	0		
	45 - 64	0	0	0	0.0	0.0	0.0	-	0.98044	0.0	0.80	0		
	65+	0	0	0	0.0	0.0	0.0	-	1.20444	0.0	0.80	0		
	Sub Total	**0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**-**		**0.0**		**0**		
	Pediatric													
	0-19	30	28	20	0.1	0.1	0.1	0.1	0.94612	0.1	0.80	0		
	20+	0	0	0	0.0	0.0	0.0	-	1.04017	0.0	0.80	0		
	Sub Total	**30**	**28**	**20**	**0.1**	**0.1**	**0.1**	**0.1**		**0.1**		**0**		
Total		**12,146**	**13,128**	**12,326**	**33**	**36**	**34**	**34.4**		**38.8**		**49**	**102**	**-53**

Acute Care Hospital 2020 Bed Need, Day Kimball Hospital

Hospital	Services[1]	FY 2011 patient days	FY 2012 patient days	FY 2013 patient days	FY 2011 ADC	FY 2012 ADC	FY 2013 ADC	Weighted ADC	Windham County Pop chg 2015 to 2020[2]	Projected ADC	Target Occupancy	Beds Needed 2020	Licensed Beds[3]	Excess (-) or Deficit (+)
Day Kimball	Medical/Surgical													
	0-14	0	0	0	0.0	0.0	0.0	-	0.95771	0.0	0.80	0		
	15 - 44	929	1,091	893	2.5	3.0	2.4	2.6	1.00029	2.6	0.80	3		
	45 - 64	3,049	3,098	3,084	8.4	8.5	8.4	8.4	1.01073	8.5	0.80	11		
	65+	7,754	7,087	6,596	21.2	19.4	18.1	19.0	1.22440	23.3	0.80	29		
	Sub Total	**11,732**	**11,276**	**10,573**	**32.1**	**30.9**	**29.0**	**30.1**		**34.5**		**43**		
	Maternity													
	0-14	2	0	0	0.0	0.0	0.0	0.0	0.95605	0.0	0.50	0		
	15 - 44	1,364	1,585	1,475	3.7	4.3	4.0	4.1	0.99720	4.1	0.50	8		
	45 - 64	0	2	0	0.0	0.0	0.0	0.0	1.01070	0.0	0.50	0		
	65+	0	0	0	0.0	0.0	0.0	-	1.19786	0.0	0.50	0		
	Sub Total	**1,366**	**1,587**	**1,475**	**3.7**	**4.3**	**4.0**	**4.1**		**4.1**		**8**		
	Psychiatric													
	0-14	0	0	6	0.0	0.0	0.0	0.0	0.95771	0.0	0.80	0		
	15 - 44	2,354	2,395	2,493	6.4	6.6	6.8	6.7	1.00029	6.7	0.80	8		
	45 - 64	1,335	1,514	1,203	3.7	4.1	3.3	3.6	1.01073	3.7	0.80	5		
	65+	411	144	453	1.1	0.4	1.2	0.9	1.22440	1.2	0.80	1		
	Sub Total	**4,100**	**4,053**	**4,155**	**11.2**	**11.1**	**11.4**	**11.3**		**11.5**		**14**		
	Rehabilitation													
	0-14	0	0	0	0.0	0.0	0.0	-	0.95771	0.0	0.80	0		
	15 - 44	0	0	0	0.0	0.0	0.0	-	1.00029	0.0	0.80	0		
	45 - 64	0	0	0	0.0	0.0	0.0	-	1.01073	0.0	0.80	0		
	65+	0	0	0	0.0	0.0	0.0	-	1.22440	0.0	0.80	0		
	Sub Total	**0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**-**		**0.0**		**0**		
	Pediatric													
	0-19	57	61	52	0.2	0.2	0.1	0.2	0.96487	0.1	0.80	0		
	20+	0	0	0	0.0	0.0	0.0	-	1.05121	0.0	0.80	0		
	Sub Total	**57**	**61**	**52**	**0.2**	**0.2**	**0.1**	**0.2**		**0.1**		**0**		
Total		**17,255**	**16,977**	**16,255**	**47**	**47**	**45**	**45.7**		**50.3**		**66**	**104**	**-38**

Acute Care Hospital 2020 Bed Need, Windham Hospital

Hospital	Services[1]	FY 2011 patient days	FY 2012 patient days	FY 2013 patient days	FY 2011 ADC	FY 2012 ADC	FY 2013 ADC	Weighted ADC	Windham County Pop chg 2015 to 2020[2]	Projected ADC	Target Occupancy	Beds Needed 2020	Licensed Beds[3]	Excess (-) or Deficit (+)
Windham	Medical/Surgical													
	0-14	0	0	0	0.0	0.0	0.0	-	0.95771	0.0	0.80	0		
	15 - 44	2,048	1,667	1,606	5.6	4.6	4.4	4.7	1.00029	4.7	0.80	6		
	45 - 64	5,164	4,754	4,084	14.1	13.0	11.2	12.3	1.01073	12.4	0.80	16		
	65+	10,413	10,099	9,585	28.5	27.7	26.3	27.1	1.22440	33.2	0.80	41		
	Sub Total	**17,625**	**16,520**	**15,275**	**48.3**	**45.3**	**41.8**	**44.1**		**50.3**		**63**		
	Maternity													
	0-14	3	2	0	0.0	0.0	0.0	0.0	0.95605	0.0	0.50	0		
	15 - 44	1,044	1,038	989	2.9	2.8	2.7	2.8	0.99720	2.8	0.50	6		
	45 - 64	10	0	0	0.0	0.0	0.0	0.0	1.01070	0.0	0.50	0		
	65+	0	0	0	0.0	0.0	0.0	-	1.19786	0.0	0.50	0		
	Sub Total	**1,057**	**1,040**	**989**	**2.9**	**2.8**	**2.7**	**2.8**		**2.8**		**6**		
	Psychiatric													
	0-14	0	0	0	0.0	0.0	0.0	-	0.95771	0.0	0.80	0		
	15 - 44	46	1	4	0.1	0.0	0.0	0.0	1.00029	0.0	0.80	0		
	45 - 64	33	36	3	0.1	0.1	0.0	0.1	1.01073	0.1	0.80	0		
	65+	135	16	137	0.4	0.0	0.4	0.3	1.22440	0.3	0.80	0		
	Sub Total	**214**	**53**	**144**	**0.6**	**0.1**	**0.4**	**0.3**		**0.4**		**1**		
	Rehabilitation													
	0-14	0	0	0	0.0	0.0	0.0	-	0.95771	0.0	0.80	0		
	15 - 44	0	0	0	0.0	0.0	0.0	-	1.00029	0.0	0.80	0		
	45 - 64	0	0	0	0.0	0.0	0.0	-	1.01073	0.0	0.80	0		
	65+	0	0	0	0.0	0.0	0.0	-	1.22440	0.0	0.80	0		
	Sub Total	**0**	**0**	**0**	**0.0**	**0.0**	**0.0**	**-**		**0.0**		**0**		
	Pediatric													
	0-19	222	160	105	0.6	0.4	0.3	0.4	0.96487	0.4	0.80	0		
	20+	0	0	0	0.0	0.0	0.0	-	1.05121	0.0	0.80	0		
	Sub Total	**222**	**160**	**105**	**0.6**	**0.4**	**0.3**	**0.4**		**0.4**		**0**		
Total		**19,118**	**17,773**	**16,513**	**52**	**49**	**45**	**47.6**		**53.8**		**69**	**130**	**-61**

APPENDIX H. SOCIOECONOMIC STATUS, ACCESS AND UNMET NEED INDICES

Scores in red are higher than the state overall

Town of Residence	County	2009 Uconn Five[1]	Socio-economic Status Index[2]	Health Outcomes Index[3]	Unmet Need Composite Index[4]	Hospital Community Health Need Assessment (CHNA) [5]	In a Hospital Primary Service Area (PSA)[6]	Yellow= Covered by CHNA but not PSA Blue = Hospital PSA Green = Not in CHNA/PSA
Connecticut	**CT**		**10.0**	**5.0**	**15.0**			**Legend**
Andover	Tolland	S	4.5	2.7	7.3	16	No	yellow
Ansonia	New Haven	UC	**12.0**	**6.1**	**18.2**	10		blue
Ashford	Windham	R	7.1	3.0	10.1	2,6,16,19	No	yellow
Avon	Hartford	W	5.9	2.9	8.8			blue
Barkhamsted	Litchfield	R	4.0	3.0	7.0	4	No	yellow
Beacon Falls	New Haven	S	6.2	4.1	10.3	1,10	No	yellow
Berlin	Hartford	UP	7.2	3.2	10.4	17		blue
Bethany	New Haven	W	5.3	2.6	7.9	1,20	No	yellow
Bethel	Fairfield	UP	6.7	3.3	10.0	5		blue
Bethlehem	Litchfield	R	6.3	5.0	11.3	1,4	No	yellow
Bloomfield	Hartford	UP	**11.5**	**7.2**	**18.7**			blue
Bolton	Tolland	S	6.4	2.7	9.1	16	No	yellow
Bozrah	New London	R	6.1	3.4	9.5	2	No	yellow
Branford	New Haven	UP	8.6	4.0	12.6	20		blue
Bridgeport	Fairfield	UC	**20.3**	**5.8**	**26.1**	7,21		blue
Bridgewater	Litchfield	R	6.9	2.6	9.6	4,5	No	yellow
Bristol	Hartford	UP	9.0	**5.8**	14.9	3		blue
Brookfield	Fairfield	W	5.1	2.7	7.8	5		blue
Brooklyn	Windham	R	8.3	3.4	11.8	2,6		blue
Burlington	Hartford	W	4.5	2.2	6.8	3	No	yellow
Canaan	Litchfield	R	8.7	3.0	11.7	4	No	yellow
Canterbury	Windham	R	7.6	3.2	10.8	2,6		blue
Canton	Hartford	S	5.0	2.7	7.8			blue
Chaplin	Windham	R	6.9	3.5	10.3	2,6	No	yellow
Cheshire	New Haven	W	6.2	3.2	9.3	1		blue
Chester	Middlesex	R	7.0	4.2	11.2	1,13		blue
Clinton	Middlesex	UP	7.3	3.2	10.6	13		blue
Colchester	New London	S	5.3	3.2	8.5	2		blue
Colebrook	Litchfield	R	6.1	2.7	8.8	4	No	yellow
Columbia	Tolland	R	5.5	3.1	8.6	16		blue
Cornwall	Litchfield	R	6.7	2.3	9.0	4	No	yellow
Coventry	Tolland	R	5.1	2.8	7.8	16		blue
Cromwell	Middlesex	UP	6.5	3.8	10.4	13		blue

			Scores in red are higher than the state overall					
Town of Residence	County	2009 Uconn Five[1]	Socio-economic Status Index[2]	Health Outcomes Index[3]	Unmet Need Composite Index[4]	Hospital Community Health Need Assessment (CHNA) [5]	In a Hospital Primary Service Area (PSA)[6]	Yellow= Covered by CHNA but not PSA Blue = Hospital PSA Green = Not in CHNA/PSA
Connecticut	**CT**		**10.0**	**5.0**	**15.0**			**Legend**
Danbury	Fairfield	UP	**14.4**	4.2	**18.6**	5		blue
Darien	Fairfield	W	4.3	2.3	6.6	8,9,18	No	yellow
Deep River	Middlesex	R	8.9	3.1	12.0	13	No	yellow
Derby	New Haven	UC	**12.1**	4.6	**16.7**	10		blue
Durham	Middlesex	W	4.7	2.5	7.2	13		blue
East Granby	Hartford	S	6.0	2.5	8.4		No	green
East Haddam	Middlesex	R	5.3	2.7	8.0	2,13		blue
East Hampton	Middlesex	S	5.2	3.3	8.5	13		blue
East Hartford	Hartford	UC	**14.9**	**6.6**	**21.5**	16		blue
East Haven	New Haven	UP	9.3	**5.1**	14.4	20		blue
East Lyme	New London	S	7.1	**5.4**	12.5	2,12		blue
East Windsor	Hartford	R	7.3	3.7	11.1	16		blue
Eastford	Windham	R	5.6	2.6	8.2	2,6	No	yellow
Easton	Fairfield	W	4.9	2.0	6.9	7,21	No	yellow
Ellington	Tolland	S	5.0	2.6	7.6	16,19		blue
Enfield	Hartford	UP	8.1	4.0	12.1	19		blue
Essex	Middlesex	S	5.9	3.7	9.6	13		blue
Fairfield	Fairfield	W	5.9	3.3	9.2	7,21		blue
Farmington	Hartford	S	6.1	3.6	9.6			blue
Franklin	New London	R	5.6	3.2	8.8	2,6	No	yellow
Glastonbury	Hartford	W	6.1	3.0	9.1	16		blue
Goshen	Litchfield	R	6.1	3.0	9.1	4	No	yellow
Granby	Hartford	S	4.7	2.6	7.3		No	green
Greenwich	Fairfield	W	7.7	3.2	10.9	9,18		blue
Griswold	New London	R	7.2	3.8	11.0	2		blue
Groton	New London	UP	9.0	4.5	13.5	2,12		blue
Guilford	New Haven	S	5.7	2.9	8.6	20		blue
Haddam	Middlesex	S	4.6	2.7	7.3	13		blue
Hamden	New Haven	UP	8.7	4.9	13.6	20		blue
Hampton	Windham	R	6.4	3.1	9.5	2,6	No	yellow
Hartford	Hartford	UC	**24.5**	**7.2**	**31.7**	11		blue
Hartland	Hartford	R	5.8	2.4	8.2		No	green
Harwinton	Litchfield	S	6.5	3.1	9.6	4	No	yellow
Hebron	Tolland	S	4.5	2.5	7.0	16	No	yellow
Kent	Litchfield	R	7.2	3.9	11.2	4		blue
Killingly	Windham	R	8.5	**5.5**	14.0	2,6		blue

Scores in red are higher than the state overall

Town of Residence	County	2009 Uconn Five[1]	Socio-economic Status Index[2]	Health Outcomes Index[3]	Unmet Need Composite Index[4]	Hospital Community Health Need Assessment (CHNA) [5]	In a Hospital Primary Service Area (PSA)[6]	Yellow= Covered by CHNA but not PSA Blue = Hospital PSA Green = Not in CHNA/PSA
Connecticut	**CT**		**10.0**	**5.0**	**15.0**			**Legend**
Killingworth	Middlesex	S	5.3	2.8	8.1	13	No	yellow
Lebanon	New London	R	6.6	3.0	9.6	2,6		blue
Ledyard	New London	R	6.2	3.4	9.6	2,12		blue
Lisbon	New London	R	6.5	3.6	10.0	2		blue
Litchfield	Litchfield	S	6.3	3.9	10.2	4		blue
Lyme	New London	R	6.7	2.6	9.3	2,12		blue
Madison	New Haven	W	5.2	3.0	8.1	20		blue
Manchester	Hartford	UP	9.0	4.8	13.8	16		blue
Mansfield	Tolland	R	8.1	2.0	10.1	16		blue
Marlborough	Hartford	S	4.8	2.9	7.7		No	green
Meriden	New Haven	UC	**12.5**	**5.8**	**18.3**	14		blue
Middlebury	New Haven	W	7.1	**5.3**	12.4	1	No	yellow
Middlefield	Middlesex	S	4.4	3.0	7.4	13	No	yellow
Middletown	Middlesex	UP	8.9	4.1	13.1	13		blue
Milford	New Haven	UP	6.9	4.9	11.7	15,20		blue
Monroe	Fairfield	S	5.3	2.1	7.4	7,21		blue
Montville	New London	R	9.3	4.0	13.3	2,12		blue
Morris	Litchfield	R	6.1	3.7	9.8	4	No	yellow
Naugatuck	New Haven	UP	9.3	**7.7**	**16.9**	1		blue
New Britain	Hartford	UC	**17.1**	**6.7**	**23.8**	17		blue
New Canaan	Fairfield	W	5.1	2.2	7.3	8,9,18,19		blue
New Fairfield	Fairfield	S	5.7	2.7	8.4	5	No	yellow
New Hartford	Litchfield	R	5.5	2.3	7.8	4	No	yellow
New Haven	New Haven	UC	**18.8**	**7.0**	**25.7**	20		blue
New London	New London	UC	**16.3**	**5.4**	**21.7**	2,12		blue
New Milford	Litchfield	S	6.5	4.2	10.8	4,5		blue
Newington	Hartford	UP	7.9	**6.5**	14.4	17		blue
Newtown	Fairfield	W	5.4	2.5	8.0	5		blue
Norfolk	Litchfield	R	8.1	2.7	10.8	4	No	yellow
North Branford	New Haven	S	5.8	3.7	9.5	20		blue
North Canaan	Litchfield	R	**10.1**	4.2	14.3	4		blue
North Haven	New Haven	UP	7.7	3.8	11.5	20		blue
North Stonington	New London	R	5.7	2.3	8.0	2,12	No	yellow
Norwalk	Fairfield	UP	**11.2**	4.6	**15.8**	8,18		blue
Norwich	New London	UC	**13.5**	**6.7**	**20.2**	2		blue
Old Lyme	New London	S	5.1	3.4	8.5	2,12		blue

Scores in red are higher than the state overall

Town of Residence	County	2009 Uconn Five[1]	Socio-economic Status Index[2]	Health Outcomes Index[3]	Unmet Need Composite Index[4]	Hospital Community Health Need Assessment (CHNA) [5]	In a Hospital Primary Service Area (PSA)[6]	Yellow= Covered by CHNA but not PSA Blue = Hospital PSA Green = Not in CHNA/PSA
Connecticut	**CT**		**10.0**	**5.0**	**15.0**			**Legend**
Old Saybrook	Middlesex	S	7.3	4.5	11.8	13		blue
Orange	New Haven	S	6.9	3.6	10.5	20		blue
Oxford	New Haven	S	6.0	2.9	8.8	1,10		blue
Plainfield	Windham	R	7.9	3.6	11.5	2,6		blue
Plainville	Hartford	UP	7.7	**5.3**	13.0	3,17		blue
Plymouth	Litchfield	R	6.6	4.5	11.1	1,3,4		blue
Pomfret	Windham	R	6.8	2.2	9.0	2,6	No	yellow
Portland	Middlesex	S	6.0	3.8	9.9	13		blue
Preston	New London	R	9.6	4.1	13.7	2		blue
Prospect	New Haven	S	6.2	4.6	10.8	1	No	yellow
Putnam	Windham	R	**11.3**	4.1	**15.4**	2,6		blue
Redding	Fairfield	W	5.9	2.9	8.8	5	No	yellow
Ridgefield	Fairfield	W	4.9	2.4	7.4	5		blue
Rocky Hill	Hartford	UP	7.6	4.1	11.7			blue
Roxbury	Litchfield	R	5.5	3.0	8.5	4	No	yellow
Salem	New London	S	4.9	2.5	7.3	2	No	yellow
Salisbury	Litchfield	R	8.0	3.5	11.5	4		blue
Scotland	Windham	R	5.3	2.6	8.0	2,6	No	yellow
Seymour	New Haven	UP	7.9	3.9	11.8	10		blue
Sharon	Litchfield	R	6.7	4.3	11.0	4		blue
Shelton	Fairfield	UP	7.1	3.4	10.5	10		blue
Sherman	Fairfield	W	5.2	2.4	7.6	5		blue
Simsbury	Hartford	W	4.6	2.4	7.1			blue
Somers	Tolland	S	6.3	2.5	8.8	16,19		blue
South Windsor	Hartford	S	6.7	**6.0**	12.7	16		blue
Southbury	New Haven	S	8.3	4.8	13.1	1		blue
Southington	Hartford	UP	6.7	3.4	10.2	3,17		blue
Sprague	New London	R	6.8	4.4	11.2	2		blue
Stafford	Tolland	R	6.5	**8.2**	14.6	16,19		blue
Stamford	Fairfield	UC	**15.2**	4.2	**19.5**	8,9,18		blue
Sterling	Windham	R	9.0	2.3	11.3	2,6	No	yellow
Stonington	New London	R	6.6	2.9	9.4	2,12	No	yellow
Stratford	Fairfield	UP	9.7	4.5	14.2	7,21		blue
Suffield	Hartford	S	5.8	2.7	8.5	19		blue
Thomaston	Litchfield	UP	6.7	**5.8**	12.5	1,4	No	yellow
Thompson	Windham	R	7.4	2.6	10.0	2,6		blue

			Scores in red are higher than the state overall					
Town of Residence	County	2009 Uconn Five[1]	Socio-economic Status Index[2]	Health Outcomes Index[3]	Unmet Need Composite Index[4]	Hospital Community Health Need Assessment (CHNA) [5]	In a Hospital Primary Service Area (PSA)[6]	Yellow= Covered by CHNA but not PSA Blue = Hospital PSA Green = Not in CHNA/PSA
Connecticut	**CT**		**10.0**	**5.0**	**15.0**			**Legend**
Tolland	Tolland	S	4.7	2.7	7.4	16,19		blue
Torrington	Litchfield	UP	**10.2**	**5.5**	**15.8**	4		blue
Trumbull	Fairfield	UP	6.4	2.9	9.4	7, 21		blue
Union	Tolland	R	5.7	**7.9**	13.6	16,19		blue
Vernon	Tolland	UP	8.0	**5.8**	13.8	16		blue
Voluntown	New London	R	6.5	3.5	9.9	2	No	yellow
Wallingford	New Haven	UP	7.6	3.8	11.4	14		blue
Warren	Litchfield	R	6.4	2.1	8.5	4	No	yellow
Washington	Litchfield	R	7.6	2.9	10.5	4		blue
Waterbury	New Haven	UC	**15.2**	**8.8**	**24.0**	1		blue
Waterford	New London	R	7.2	4.6	11.9	2,12		blue
Watertown	Litchfield	UP	6.4	**6.5**	12.9	1,4		blue
West Hartford	Hartford	UP	8.1	4.0	12.1			blue
West Haven	New Haven	UC	**12.2**	**6.0**	**18.2**	20		blue
Westbrook	Middlesex	R	8.3	3.7	12.0	13		blue
Weston	Fairfield	W	4.1	1.7	5.8	8,18	No	yellow
Westport	Fairfield	W	5.6	2.2	7.8	8,18		blue
Wethersfield	Hartford	UP	8.7	3.9	12.6			blue
Willington	Tolland	R	6.6	2.5	9.1	16,19	No	yellow
Wilton	Fairfield	W	4.8	2.6	7.3	8,18,19		blue
Winchester	Litchfield	R	8.2	4.5	12.7	4		blue
Windham	Windham	UP	**16.7**	**5.1**	**21.9**	2,6		blue
Windsor Locks	Hartford	UP	8.0	**5.1**	13.1			blue
Windsor	Hartford	UP	8.4	3.3	11.7			blue
Wolcott	New Haven	UP	6.3	4.5	10.8	1		blue
Woodbridge	New Haven	W	6.4	3.9	10.3	20		blue
Woodbury	Litchfield	S	5.9	5.0	10.9	1,4	No	yellow
Woodstock	Windham	R	5.8	2.4	8.2	2,6	No	yellow

[1] University of Connecticut State Data Center. The Changing Demographics of Connecticut – 1990 – 2000. Part 2: The Five Connecticuts. Occasional Paper Number: OP 2004-01, May 2004. Accessed on the web at http://ctsdc.uconn.edu//Reports/CtSDC_CT_Part02_OP2004-01.pdf.
Where: R = Rural, S= Suburban, UC=Urban core, UP = Urban periphery and W= Wealthy

[2] Based on data from U.S. Census Bureau American Community Survey 5-year estimates (2008-2012), tables S1701, S1501, S2301, S0802, DP02, S2701, S0101 and B03002.

[3] Based on data from Department of Public Health Population Estimates, Vital Records, Mortality and Birth Tables, Office of Health Care Access Acute Care Hospital Inpatient Discharge Database and Connecticut Hospital Association's ChimeData.

[4] Sum of Socioeconomic Status and Health Outcomes Indices.

[5] Connecticut general and children's hospitals' Community Health Needs Assessments and Strategic Implementation Plans from 2008-2014.

[6] Primary service area (PSA) means the area composed of the lowest number of contiguous zip codes, listed by town, from which a hospital draws at least seventy-five percent of its inpatient discharges.

APPENDIX I. ACUTE CARE HOSPITAL'S FINANCIAL PERFORMANCE

Connecticut Acute Care Hospitals' Profitability Three Year Average Comparative Analysis, FY2011 - FY2013

County	Hospital Name	Operating Margin				Non-Operating Margin				Total Margin				Total # of 3 year Avg. Ratios Above Statewide Avg. (Green)	Total # of 3 year Avg. Ratios Below Statewide Avg. (Red)	Group Category[2] # of Green vs. # of Red
		FY 2011	FY 2012	FY 2013	3 year avg.[1]	FY 2011	FY 2012	FY 2013	3 year avg.[1]	FY 2011	FY 2012	FY 2013	3 year avg.[1]			
Fairfield	BRIDGEPORT	8.16%	7.45%	7.29%	7.63%	-0.01%	0.49%	0.89%	0.46%	8.15%	7.95%	8.18%	8.09%	2	1	A
	DANBURY	3.12%	5.13%	5.42%	4.56%	1.45%	4.26%	1.94%	2.55%	4.56%	9.39%	7.36%	7.11%	3	0	A
	GREENWICH	3.09%	3.63%	6.42%	4.38%	-1.16%	1.23%	1.82%	0.63%	1.93%	4.86%	8.24%	5.01%	1	2	C
	NORWALK	6.75%	5.52%	3.32%	5.20%	-0.18%	2.03%	2.72%	1.52%	6.57%	7.55%	6.05%	6.72%	2	1	A
	SAINT VINCENT'S	3.64%	13.87%	6.74%	8.08%	1.77%	5.04%	5.28%	4.03%	5.41%	18.91%	12.02%	12.11%	3	0	A
	STAMFORD	7.33%	9.08%	6.46%	7.62%	0.04%	-1.95%	0.22%	-0.56%	7.37%	7.13%	6.68%	7.06%	2	1	A
Hartford	BRISTOL	0.11%	0.77%	1.02%	0.63%	1.52%	0.92%	0.64%	1.03%	1.63%	1.68%	1.66%	1.66%	0	3	C
	CT CHILDREN'S	2.62%	-0.25%	-3.91%	-0.51%	4.29%	7.24%	4.03%	5.19%	6.92%	6.99%	0.12%	4.67%	1	2	C
	HARTFORD	2.12%	4.63%	-0.44%	2.10%	-0.15%	3.41%	2.67%	1.97%	1.96%	8.03%	2.22%	4.07%	1	2	C
	HOSPITAL OF CENTRAL CT	6.12%	4.64%	3.37%	4.71%	0.01%	2.38%	2.89%	1.76%	6.13%	7.02%	6.26%	6.47%	3	0	A
	JOHN DEMPSEY	-5.80%	-2.82%	-1.26%	-3.29%	6.71%	2.82%	4.89%	4.81%	0.91%	0.00%	3.63%	1.51%	1	2	C
	MANCHESTER	3.58%	5.48%	0.67%	3.24%	-0.20%	-0.45%	-0.78%	-0.48%	3.38%	5.03%	-0.11%	2.77%	0	3	C
	SAINT FRANCIS	-0.50%	1.27%	0.60%	0.46%	-2.01%	-1.60%	3.53%	-0.03%	-2.52%	-0.34%	4.13%	0.43%	0	3	C
Litchfield	HUNGERFORD	0.56%	0.13%	0.02%	0.24%	1.73%	1.81%	2.09%	1.87%	2.28%	1.94%	2.11%	2.11%	1	2	C
	NEW MILFORD	-0.10%	-7.85%	-2.94%	-3.63%	0.00%	0.03%	0.00%	0.01%	-0.10%	-7.83%	-2.94%	-3.62%	0	3	C
	SHARON	5.24%	5.94%	8.81%	6.66%	0.00%	0.00%	0.00%	0.00%	5.24%	5.94%	8.81%	6.66%	2	1	A
Middlesex	MIDDLESEX	4.90%	6.92%	4.66%	5.49%	1.25%	1.07%	1.93%	1.42%	6.15%	8.00%	6.59%	6.91%	2	1	A
New Haven	GRIFFIN	1.47%	-1.84%	1.63%	0.42%	-1.62%	-1.24%	1.66%	-0.40%	-0.14%	-3.08%	3.28%	0.02%	0	3	C
	MIDSTATE	3.62%	10.06%	7.07%	6.92%	0.22%	0.49%	1.83%	0.85%	3.83%	10.56%	8.90%	7.76%	2	1	A
	MILFORD[3]	-6.33%	-4.19%	-12.30%	-7.61%	-0.42%	2.19%	-0.16%	0.54%	-6.74%	-2.01%	-12.46%	-7.07%	0	3	C
	SAINT MARY'S	3.26%	5.41%	4.78%	4.48%	-0.54%	1.03%	2.89%	1.13%	2.72%	6.44%	7.67%	5.61%	2	1	A
	SAINT RAPHAEL[4]	0.63%	0.37%	n/a	0.50%	0.01%	4.53%	n/a	2.27%	0.65%	4.90%	n/a	2.77%	1	2	C
	WATERBURY	-0.65%	4.02%	1.63%	1.67%	0.06%	0.84%	0.99%	0.63%	-0.59%	4.85%	2.62%	2.29%	0	3	C
	YALE-NEW HAVEN	3.52%	5.97%	4.34%	4.61%	0.95%	1.35%	3.06%	1.78%	4.47%	7.32%	7.40%	6.40%	3	0	A
New London	BACKUS	9.01%	8.75%	8.85%	8.87%	0.06%	4.22%	3.59%	2.63%	9.07%	12.98%	12.45%	11.50%	3	0	A
	L + M	6.65%	6.20%	3.07%	5.31%	1.22%	1.33%	1.88%	1.48%	7.87%	7.53%	4.95%	6.78%	2	1	A
Tolland	JOHNSON	-2.37%	-0.58%	-5.32%	-2.76%	1.97%	0.65%	0.38%	1.00%	-0.41%	0.08%	-4.94%	-1.76%	0	3	C
	ROCKVILLE	0.24%	0.91%	4.47%	1.87%	-1.27%	-0.24%	-0.89%	-0.80%	-1.03%	0.67%	3.58%	1.07%	0	3	C
Windham	DAY KIMBALL	1.75%	3.91%	0.41%	2.02%	1.19%	0.40%	0.39%	0.66%	2.95%	4.31%	0.80%	2.68%	0	3	C
	WINDHAM	-4.22%	-0.55%	-10.44%	-5.07%	-0.36%	-0.19%	1.86%	0.44%	-4.59%	-0.75%	-8.58%	-4.64%	0	3	C
STATEWIDE AVERAGE		3.11%	4.81%	3.15%	3.69%	0.52%	1.82%	2.49%	1.61%	3.63%	6.63%	5.64%	5.30%			

Source: CT DPH Office of Health Care Access Financial Stability Report

[1] Average in this case is the arithmetic mean.
[2] If the total number of average ratios highlighted in green was higher than the total number of ratios in red, the Hospital was grouped under "A"; if they were equal, the Hospital was grouped under "B"; and if the number of average ratios in green were less than the total number in red, the Hospital was grouped under "C".
[3] Milford Hospital ratios for this table were based on audited financial data. Milford Hospital did not have audited financial statements at the time the Office of Health Care Access Financial Stability Report was published.
[4] The former Hospital of Saint Raphael is presented in this table for historical information only. FY 2013 data was not available for this Hospital since its assets were acquired by Yale-New Haven Hospital on September 12, 2012. Therefore, the average ratio for this Hospital listed under the "3 year avg." column is based on two not three years data.

DEFINITIONS:

- Operating Margin: the ratio related to profitability indicating the percentage of income or loss from operations to total revenue. A higher positive ratio indicates more favorable operating results. (Gain/(Loss) from Operations ÷ (Revenue from Operations + Non-Operating Revenue))

- Non-Operating Margin: the ratio related to profitability indicating the percentage of non-operating revenue to total revenue. A higher positive ratio indicates more favorable results. (Non-Operating Revenue ÷ (Revenue from Operations + Non-Operating Revenue))

- Total Margin: the ratio related to profitability indicating the percentage of income or loss from operations and non-operating revenue to total revenue. A higher positive ratio indicates more favorable results. (Revenue Over/Under Expenses ÷ (Revenue from Operations + Non-Operating Revenue))

Connecticut Acute Care Hospitals' Liquidity Three Year Average Comparative Analysis, FY2011 - FY2013

County	Hospital Name	Current Ratio				Days Cash on Hand				Days Revenue in Patient Accounts Receivable				Average Payment Period				Total # of 3 year Avg. Ratios Above Statewide Avg. (Green)	Total # of 3 year Avg. Ratios Below Statewide Avg. (Red)	Group Category[2] # of Green vs. # of Red
		FY 2011	FY 2012	FY 2013	3 year avg.[1]	FY 2011	FY 2012	FY 2013	3 year avg.[1]	FY 2011	FY 2012	FY 2013	3 year avg.[1]	FY 2011	FY 2012	FY 2013	3 year avg.[1]			
Fairfield	BRIDGEPORT	1.79	1.60	1.26	1.55	56	54	60	57	36	37	45	39	62	77	107	82	1	3	C
	DANBURY	1.96	2.35	1.92	2.08	29	41	48	39	31	35	35	34	46	48	63	52	3	1	A
	GREENWICH	2.40	2.10	2.70	2.40	68	56	77	67	40	43	39	41	55	65	63	61	3	1	A
	NORWALK	2.13	2.21	1.88	2.07	80	95	94	90	34	28	24	29	62	63	71	65	4	0	A
	SAINT VINCENT'S	1.34	1.28	1.63	1.42	7	20	4	10	33	34	41	36	57	69	55	60	2	2	B
	STAMFORD	1.91	1.80	1.78	1.83	68	79	90	79	44	43	51	46	69	82	94	82	1	3	C
Hartford	BRISTOL	1.19	1.46	1.45	1.36	13	27	38	26	66	52	57	58	80	76	80	79	0	4	C
	CT CHILDREN'S	0.96	1.33	0.94	1.07	6	1	3	3	39	49	27	39	68	70	89	75	1	3	C
	HARTFORD	2.01	1.78	1.07	1.62	24	32	5	20	50	58	55	54	47	61	79	63	1	3	C
	HOSPITAL OF CENTRAL CT	1.00	1.19	1.39	1.19	18	27	24	23	24	27	33	28	81	76	67	75	1	3	C
	JOHN DEMPSEY[3]	1.59	1.22	1.39	1.40	2	0	0	1	29	32	44	35	47	49	48	48	2	2	B
	MANCHESTER	1.01	1.31	1.19	1.17	24	13	25	21	52	60	59	57	89	73	84	82	0	4	C
	SAINT FRANCIS	2.19	2.24	2.04	2.15	61	61	64	62	33	33	28	31	51	47	53	50	3	1	A
Litchfield	HUNGERFORD	1.33	1.39	1.32	1.35	29	31	27	29	37	39	37	38	65	63	65	64	2	2	B
	NEW MILFORD	1.42	1.01	0.83	1.08	44	16	12	24	25	28	28	27	73	65	75	71	1	3	C
	SHARON[3]	1.37	1.78	2.07	1.74	0	0	0	0	42	46	46	45	51	39	42	44	1	3	C
Middlesex	MIDDLESEX	1.97	1.85	2.06	1.96	80	76	69	75	46	44	49	47	73	77	66	72	2	2	B
New Haven	GRIFFIN	1.09	0.91	1.06	1.02	40	40	43	41	51	38	42	44	103	106	98	102	0	4	C
	MIDSTATE	1.93	3.08	2.41	2.47	37	81	50	56	41	36	49	42	49	52	56	52	2	2	B
	MILFORD[4]	1.03	1.00	0.91	0.98	5	3	9	5	48	49	41	46	72	67	80	73	0	4	C
	SAINT MARY'S	1.54	1.58	1.36	1.49	44	38	48	43	28	40	36	35	72	67	78	72	1	3	C
	SAINT RAPHAEL[5]	0.68	2.79	n/a	1.73	21	75	n/a	48	34	21	n/a	27	98	39	n/a	69	1	3	C
	WATERBURY	1.38	1.49	1.78	1.55	16	37	42	32	42	42	39	41	58	62	56	59	1	3	C
	YALE-NEW HAVEN	3.05	2.27	2.94	2.75	125	147	122	131	42	43	37	41	63	97	63	75	2	2	B
New London	BACKUS	4.14	4.99	6.07	5.07	145	159	206	170	37	40	40	39	51	46	45	48	4	0	A
	L + M	3.88	4.06	3.93	3.96	180	185	164	177	25	26	37	29	60	62	62	61	4	0	A
Tolland	JOHNSON	0.95	0.95	0.43	0.78	6	5	1	4	37	38	29	34	77	67	158	101	1	3	C
	ROCKVILLE	1.45	1.20	1.31	1.32	27	8	6	13	55	57	51	54	76	71	57	68	0	4	C
Windham	DAY KIMBALL	1.85	1.97	1.36	1.73	38	28	28	31	40	50	41	43	55	56	81	64	1	3	C
	WINDHAM	1.31	1.00	0.90	1.07	10	16	32	19	63	78	50	64	69	123	125	106	0	4	C
STATEWIDE AVERAGE		1.92	1.98	1.93	1.94	58	69	66	64	39	40	40	40	63	69	70	67			

Source: CT DPH Office of Health Care Access Financial Stability Report

[1] Average in this case is the arithmetic mean.

[2] If the total number of average ratios highlighted in green was higher than the total number of ratios in red, the Hospital was grouped under "A"; if they were equal, the Hospital was grouped under "B"; and if the number of average ratios in green were less than the total number in red, the Hospital was grouped under "C".

[3] Dempsey and Sharon reported no cash on hand because the amount of outstanding checks exceeds the hospitals' cash balance. According to the notes to Dempsey's audited financial statements, in accordance with State Statute, it can borrow from the State up to 90% of its net patient receivables, contract and other receivables to fund operations. According to the notes to the audited financial statements for Sharon Hospital Holding Company, Inc. (hospital parent), it participates in its overall parent corporation's cash management system, which provides cash to the hospital parent as outstanding checks clear the bank.
[4] Milford Hospital ratios for this table were based on audited financial data. Milford Hospital did not have audited financial statements at the time the Office of Health Care Access Financial Stability Report was published.
[5] The former Hospital of Saint Raphael is presented in this table for historical information only. FY 2013 data was not available for this Hospital since its assets were acquired by Yale-New Haven Hospital on September 12, 2012. Therefore, the average ratio for this Hospital listed under the "3 year avg." column is based on two not three years data.

DEFINITIONS:

- Current Ratio: the measure of the number of dollars held in current assets per dollar of current liabilities. High values imply a good ability to pay short term obligations and low values imply a lesser ability. Current Assets ÷ Current Liabilities

- Days Cash on Hand: the average number of days of cash available to pay for expenses that is maintained in cash accounts. A higher number is favorable, since it indicates a greater ability to meet outstanding obligations. (Cash + Short-Term Investments) ÷ ({Total Expenses - Depreciation} ÷ 365 days)

- Days in Patients Accounts Receivable: the average number of days in collection that patient accounts receivables remain outstanding. A lower number is favorable, since it indicates good collection practices that result in sufficient cash flow and infrequent short-term financing. (Net Patient Accounts Receivable & Third Party Payer Activity ÷ (Net Patient Revenue ÷ 365 days)

- Average Payment Period: the average number of days that are required to meet current liabilities. A lower number of days is favorable, since it indicates a more favorable liquidity position. Current Liabilities ÷ (Total Expenses - Depreciation) ÷ 365 days

Connecticut Acute Care Hospitals' Solvency Three Year Average Comparative Analysis, FY2011 - FY2013

County	Hospital Name	Equity Ratio				Cash Flow to Total Debt Ratio				Long-Term Debt to Capitalization Ratio				Debt Service Coverage Ratio				Total # of 3 year Avg. Ratios Above Statewide Avg. (Green)	Total # of 3 year Avg. Ratios Below Statewide Avg. (Red)	Group Category[2] # of Green vs. # of Red
		FY 2011	FY 2012	FY 2013	3 year avg.[1]	FY 2011	FY 2012	FY 2013	3 year avg.[1]	FY 2011	FY 2012	FY 2013	3 year avg.[1]	FY 2011	FY 2012	FY 2013	3 year avg.[1]			
Fairfield	BRIDGEPORT	36.2	31.6	39.9	35.9	46.3	42.9	36.4	41.9	29.5	27.8	21.9	26.4	9.1	6.5	11.1	8.9	3	1	A
	DANBURY	54.3	54.4	55.5	54.7	16.4	27.2	21.1	21.6	39.4	36.0	33.6	36.3	1.4	1.9	13.1	5.5	4	0	A
	GREENWICH	65.8	63.5	71.4	66.9	29.1	37.0	56.2	40.8	12.0	11.2	9.1	10.8	9.4	12.8	17.1	13.1	4	0	A
	NORWALK	38.8	38.0	45.7	40.8	38.3	44.7	21.9	35.0	29.9	24.0	33.1	29.0	14.3	7.6	2.8	8.2	4	0	A
	SAINT VINCENT'S	76.4	77.6	80.6	78.2	39.2	88.9	69.5	65.9	11.4	10.4	9.6	10.5	15.1	43.0	33.4	30.5	4	0	A
	STAMFORD	28.3	20.2	26.1	24.9	30.1	13.1	11.8	18.4	49.0	70.2	64.2	61.1	6.9	6.5	5.6	6.3	1	3	C
Hartford	BRISTOL	7.8	9.4	23.2	13.5	14.6	16.3	16.1	15.7	76.8	71.0	49.8	65.9	3.7	4.2	4.5	4.1	1	3	C
	CT CHILDREN'S	61.7	58.1	58.2	59.3	32.8	28.8	9.7	23.7	18.5	21.1	22.4	20.6	0.6	5.6	2.3	2.8	2	2	B
	HARTFORD	37.9	36.6	41.7	38.8	20.2	38.6	16.8	25.2	32.2	30.0	29.9	30.7	0.6	18.0	6.7	8.4	3	1	A
	HOSPITAL OF CENTRAL CT	44.3	33.8	56.1	44.7	52.5	61.9	67.4	60.6	2.2	1.0	0.3	1.1	9.2	10.8	12.4	10.8	4	0	A
	JOHN DEMPSEY	60.6	58.8	62.4	60.6	33.3	22.7	53.8	36.6	0.6	0.0	0.0	0.2	5.5	6.0	23.8	11.7	4	0	A
	MANCHESTER	8.2	8.8	21.7	12.9	14.6	19.1	7.4	13.7	80.4	77.5	57.4	71.7	2.2	1.5	0.7	1.5	0	4	C
	SAINT FRANCIS	16.5	14.1	27.8	19.5	3.7	9.6	18.1	10.5	68.9	71.5	55.3	65.2	1.1	2.4	3.5	2.3	0	4	C
Litchfield	HUNGERFORD	55.5	48.8	63.8	56.1	37.2	36.3	41.2	38.2	6.5	5.0	0.0	3.8	5.3	5.4	5.4	5.4	4	0	A
	NEW MILFORD	42.8	31.0	51.8	41.8	23.2	-4.8	20.7	13.0	17.9	19.0	7.2	14.7	0.8	-0.7	2.0	0.7	2	2	B
	SHARON	33.6	52.9	65.2	50.6	15.0	31.4	54.7	33.7	60.6	37.5	22.7	40.3	3.8	0.2	0.0	1.3	2	2	B
Middlesex	MIDDLESEX	34.3	36.3	57.4	42.7	33.9	39.1	39.3	37.4	32.5	28.2	18.5	26.4	7.0	7.0	6.5	6.8	4	0	A
New Haven	GRIFFIN	-26.3	-23.1	-11.4	-20.3	6.7	2.5	13.6	7.6	298.3	277.5	145.4	240.4	1.9	1.0	2.9	1.9	0	4	C
	MIDSTATE	27.9	30.9	41.6	33.4	18.4	33.0	28.5	26.6	56.9	49.7	43.6	50.1	0.3	10.7	8.9	6.6	2	2	B
	MILFORD[3]	24.0	12.5	17.8	18.1	-12.9	6.2	-28.3	-11.6	5.7	0.0	0.0	1.9	-1.9	1.1	-4.8	-1.9	1	3	C
	SAINT MARY'S	8.4	10.5	26.5	15.1	21.3	39.7	42.3	34.5	62.9	54.4	28.6	48.6	3.3	6.4	9.2	6.3	2	2	B
	SAINT RAPHAEL[4]	-19.7	7.1	n/a	-6.3	12.7	76.9	n/a	44.8	-1.4	0.0	n/a	-0.7	2.5	0.5	n/a	1.5	2	2	B
	WATERBURY	43.8	45.5	48.9	46.0	10.7	31.2	23.5	21.8	29.0	26.7	25.1	26.9	4.6	11.7	7.1	7.8	3	1	A
	YALE-NEW HAVEN	33.7	30.2	38.9	34.3	15.8	17.7	26.2	19.9	47.8	49.3	41.7	46.2	5.0	7.9	9.0	7.3	1	3	C
New London	BACKUS	45.3	50.4	68.3	54.6	44.1	59.8	53.0	52.3	27.8	24.7	17.1	23.2	8.7	11.5	9.9	10.0	4	0	A
	L + M	46.8	46.0	50.4	47.7	33.5	34.3	27.2	31.7	33.2	31.9	30.3	31.8	9.2	9.0	6.9	8.4	4	0	A
Tolland	JOHNSON	20.1	22.5	16.4	19.7	12.3	13.8	0.3	8.8	58.3	55.0	0.0	37.8	2.4	2.4	0.9	1.9	0	4	C
	ROCKVILLE	35.2	26.7	40.6	34.2	7.6	11.4	18.3	12.4	47.1	53.4	43.1	47.9	0.2	1.7	3.5	1.8	0	4	C
Windham	DAY KIMBALL	28.4	28.1	16.6	24.4	24.1	29.9	10.5	21.5	41.1	37.6	64.9	47.9	6.0	6.8	4.2	5.7	1	3	C
	WINDHAM	-46.8	-53.1	-9.3	-36.4	1.3	6.8	-6.2	0.6	-166.3	-84.2	162.6	-29.3	0.1	0.7	-1.2	-0.1	1	3	C
STATEWIDE AVERAGE		37.2	35.9	45.4	39.5	21.2	27.0	24.7	24.3	37.3	38.1	32.6	36.0	2.0	4.0	7.2	4.4			

Source: CT DPH Office of Health Care Access Financial Stability Report

[1] Average in this case is the arithmetic mean.

[2] If the total number of average ratios highlighted in green was higher than the total number of ratios in red, the Hospital was grouped under "A"; if they were equal, the Hospital was grouped under "B"; and if the number of average ratios in green were less than the total number in red, the Hospital was grouped under "C".

[3] Milford Hospital ratios for this table were based on audited financial data. Milford Hospital did not have audited financial statements at the time the Office of Health Care Access Financial Stability Report was published.

[4] The former Hospital of Saint Raphael is presented in this table for historical information only. FY 2013 data was not available for this Hospital since its assets were acquired by Yale-New Haven Hospital on September 12, 2012. Therefore, the average ratio for this Hospital listed under the "3 year avg." column is based on two not three years data.

DEFINITIONS:

- Equity Financing Ratio: the ratio related to capital structure that indicates the percentage of net assets to total assets. A higher ratio is more favorable, since it indicates utilization of a higher level of equity and a lower level of debt financing in acquiring plant and equipment assets. (Net Assets ÷ Total Assets)

- Cash Flow to Total Debt Ratio: an indicator of potential future debt repayment difficulty or insolvency. It is calculated by dividing excess of revenues over expenses plus depreciation by current liabilities plus long term debt. A decrease in the value of the ratio may indicate a future debt repayment problem (Excess Revenue Over Expense + Depreciation) ÷ (Current Liability + Long Term Debt)

- Long-Term Debt to Capitalization Ratio: the measure of the proportion of Long-Term Debt in a capital structure. A lower proportion or percentage is desirable because it allows for obtaining of more favorable terms. (i.e., lower interest rates) when borrowing. (Long Term Debt ÷ (Long Term Debt + Net Assets)

- Debt Service Coverage Ratio: this ratio measures the hospital's capacity to take on more debt. A higher ratio is more favorable because it improves a hospital's chances of meeting its current bond covenants and obligations and also improves its chances to be issued additional debt for future capital improvements (Excess Revenues over Expenses + Interest +Depreciation and Amortization /Debt Principal Payments + Interest Expense)

REFERENCES

[1] Starting October 1, 2013, DPH began mandatory online license applications and renewals for physicians, dentists and nurses through the State Electronic Licensing System (e-licensing). The DPH Primary Care Office (PCO) included survey questions that assess the providers' specialty, practice location(s), age, hours providing direct patient care, populations served, etc. Beginning in Fall 2014, the PCO will collect and report real-time health workforce data and will support the analyses necessary to interpret this data to estimate both current and future health workforce needs. The information that is obtained through the State e-licensing will enable PCO staff to potentially identify additional primary medical care, mental/behavioral health and dental care geographic locations that would qualify as a HPSA.

[2] Kindig D. and Stoddart G. What is Population Health? *American Journal of Public Health* 2003; 93(3): 380-383 and Kindig DA. Understanding Population Health Terminology. *The Milbank Quarterly* 2007; 85(1): 139-161.

[3] Kindig D. and Stoddart G. What is Population Health? *American Journal of Public Health* 2003; 93(3): 380-383.

[4] Kindig D. and Stoddart G. What is Population Health? *American Journal of Public Health* 2003; 93(3): 380-383 and Kindig DA. Understanding Population Health Terminology. *The Milbank Quarterly* 2007; 85(1): 139-161.

[5] Centers for Disease Control and Prevention. CDC Health Disparities and Inequalities Report: United States, 2013. *Morbidity and Mortality Weekly Report* 2013; 62(3).

[6] Phelan JC, Link BG, Tehranifar P. Social Conditions as Fundamental Causes of Health Inequalities: Theory, Evidence, and Policy Implications. *Journal of Health and Social Behavior* 2010; 51(S): S28-S40.

[7] Krieger N. Proximal, Distal, and the Politics of Causation: What's Level Got to Do with It? *American Journal of Public Health* 2008; 98: 221-230.

[8] Connecticut Department of Public Health, Office of Health Care Access. *Statewide Health Care Facilities and Services Plan*. October, 2012. Connecticut Department of Public Health.

[9] Connecticut Department of Public Health, Office of Health Care Access. *Statewide Health Care Facilities and Services Plan*. October, 2012. Connecticut Department of Public Health.

[10] Becker AL. As Competitors Join Big Chains, Independent Hospitals Join Forces. The CT Mirror. September 23, 2014. http://ctmirror.org/as-competitors-join-big-chains-independent-hospitals-join-forces/. Accessed December 5, 2014.

[11] http://www.healthinsurance.org/connecticut-medicaid/

[12] State of Connecticut. *Connecticut Health Care Innovation Plan*. http://www.healthreform.ct.gov/ohri/lib/ohri/sim/plan_documents/ct_ship_2013_12262013_v82.pdf. Accessed July 19, 2014.

[13] http://www.healthreform.ct.gov/

[14] PA 14-168. An Act Concerning Notice of Acquisitions, Joint Ventures, Affiliations of Group Medical Practices and Hospital Admissions, Medical Foundations, and Certificates of Need. Signed June 3, 2014. http://www.cga.ct.gov/asp/cgabillstatus/cgabillstatus.asp?selBillType=Public+Act&bill_num=168&which_year=2014&SUBMIT1.x=31&SUBMIT1.y=22. Accessed August 30, 2014.

[15] PA 13-234. An Act Implementing the Governor's Budget Recommendations for Housing, Human Services and Public Health. Signed June 19, 2013. Accessed August 30, 2014. http://www.cga.ct.gov/asp/cgabillstatus/cgabillstatus.asp?selBillType=Public+Act&bill_num=234&which_year=2013

[16] PA 14-168. An Act Concerning Notice of Acquisitions, Joint Ventures, Affiliations of Group Medical Practices and Hospital Admissions, Medical Foundations, and Certificates of Need. Signed June 3, 2014. http://www.cga.ct.gov/asp/cgabillstatus/cgabillstatus.asp?selBillType=Public+Act&bill_num=168&which_year=2014&SUBMIT1.x=31&SUBMIT1.y=22. Accessed August 30, 2014.

[17] Based on filings made to OHCA from August 2009 to August 2014 pursuant to Section 33-182bb, C.G.S.

[18] PA 14-160. An Act Concerning Medicaid Reimbursement for Emergency Department Physicians. Signed June 11, 2014. Accessed August 30, 2014. http://www.cga.ct.gov/asp/cgabillstatus/cgabillstatus.asp?selBillType=Public+Act&bill_num=160&which_year=2014&SUBMIT1.x=14&SUBMIT1.y=14

[19] PA 14-62. An Act Implementing the Recommendations of the Legislative Program Review and Investigations Committee Concerning Medicaid-Funded Emergency Department Visits. Signed May 28, 2014. http://www.cga.ct.gov/asp/cgabillstatus/cgabillstatus.asp?selBillType=Public+Act&bill_num=62&which_year=2014&SUBMIT1.x=18&SUBMIT1.y=16. Accessed August 30, 2014.
[20] An Act Implementing Provisions of the State Budget for the Fiscal Year Ending June 30, 2015. Signed June 13, 2014. http://www.cga.ct.gov/asp/cgabillstatus/cgabillstatus.asp?selBillType=Public+Act&bill_num=217&which_year=2014. Accessed August 30, 2014.
[21] PA 14-217. An Act Implementing Provisions of the State Budget for the Fiscal Year Ending June 30, 2015. Signed June 13, 2014. http://www.cga.ct.gov/asp/cgabillstatus/cgabillstatus.asp?selBillType=Public+Act&bill_num=217&which_year=2014. Accessed August 30, 2014.
[22] Connecticut Health Foundation. Policy Brief: Advancing Health Equity Through Medical Homes. http://www.cthealth.org/wp-content/uploads/2011/04/7-26-12-Advancing-Health-Equity-through-Medical-Homes.pdf . Accessed October 30, 2014.
[23] Connecticut Health Foundation. Policy Brief: Advancing Health Equity Through Medical Homes. http://www.cthealth.org/wp-content/uploads/2011/04/7-26-12-Advancing-Health-Equity-through-Medical-Homes.pdf. Accessed October 30, 2014.
[24] Connecticut Health Foundation. Policy Brief: Advancing Health Equity Through Medical Homes. http://www.cthealth.org/wp-content/uploads/2011/04/7-26-12-Advancing-Health-Equity-through-Medical-Homes.pdf. Accessed October 30, 2014.
[25] National Academy for State Health Policy. Connecticut. http://www.nashp.org/med-home-states/connecticut . Accessed October 30, 2014.
[26] National Academy for State Health Policy. Connecticut. http://www.nashp.org/med-home-states/connecticut. Accessed October 30, 2014.
[27] PA 13-3. An Act Concerning Gun Violence Prevention and Children's Safety. Signed April 4, 2013. http://www.cga.ct.gov/asp/cgabillstatus/cgabillstatus.asp?selBillType=Public+Act&bill_num=3&which_year=2013&SUBMIT1.x=15&SUBMIT1.y=16 . Accessed August 30, 2014.
[28] PA 13-178. An Act Concerning the Mental, Emotional, and Behavioral Health of Youths. Signed June 24, 2013. http://www.cga.ct.gov/asp/cgabillstatus/cgabillstatus.asp?selBillType=Public+Act&bill_num=178&which_year=2013. Accessed August 30, 2014.
[29] PA 14-138. An Act Concerning Various Revisions to the Department of Mental Health and Addition Services' Statutes. Signed June 6, 2014. http://www.cga.ct.gov/asp/cgabillstatus/cgabillstatus.asp?selBillType=Bill&bill_num=5145&which_year=2014. Accessed August 30, 2014.
[30] PA 14-115. An Act Connecting the Public to Behavioral Health Care Services. Signed June 6, 2014. http://www.cga.ct.gov/asp/cgabillstatus/cgabillstatus.asp?selBillType=Public+Act&bill_num=115&which_year=2014&SUBMIT1.x=21&SUBMIT1.y=21
[31] PA 14-148. An Act Concerning Care Coordination for Chronic Disease. Signed June 6, 2014. http://www.cga.ct.gov/asp/cgabillstatus/cgabillstatus.asp?selBillType=Bill&bill_num=5386&which_year=2014. Accessed December 5, 2014.
[32] Connecticut Health Insurance Exchange. Draft Policies and Procedures: All-Payer Claims Database. 2012. Connecticut Health Insurance Exchange. http://www.ct.gov/hix/cwp/view.asp?a=4299&q=523252. Accessed June 20, 2014.
[33] PA 13-247. An Act Implementing Provisions of the State Budget for the Biennium Ending June 30, 2015 Concerning General government. Signed June 19, 2013. http://www.cga.ct.gov/asp/cgabillstatus/cgabillstatus.asp?selBillType=Public+Act&bill_num=247&which_year=2013. Accessed August 30, 2014.

[34] Connecticut All-Payer Claims Database. Data Submission Guide. 2013. Connecticut All Payer Claims Database. Access Health CT. http://www.ct.gov/hix/lib/hix/Data_Submission_Guide_-_All-Payer_Claims_Database_20131205.pdf. Accessed August 29, 2014.
[35] Green L, Lischko A, Bernstein T. Realizing the Potential of All-Payer Claims Databases: Creating the Reporting Plan. 2014. Robert Wood Johnson Foundation. http://www.rwjf.org/content/dam/farm/reports/issue_briefs/2014/rwjf409989. Accessed July 24, 2014.
[36] Green L, Lischko A, Bernstein T. Realizing the Potential of All-Payer Claims Databases: Creating the Reporting Plan. 2014. Robert Wood Johnson Foundation. http://www.rwjf.org/content/dam/farm/reports/issue_briefs/2014/rwjf409989. Accessed July 24, 2014.
[37] Green L, Lischko A, Bernstein T. Realizing the Potential of All-Payer Claims Databases: Creating the Reporting Plan. 2014. Robert Wood Johnson Foundation. http://www.rwjf.org/content/dam/farm/reports/issue_briefs/2014/rwjf409989. Accessed July 24, 2014.
[38] Feng Z, Wright B, Mor V. Sharp Rise in Medicare Enrollees Being Held in Hospitals for Observation Raises Concerns about Causes and Consequences. *Health Affairs* 2012; 31(6): 1251-1259.
[39] Gerhardt G, Yemane A, Apostle K, Oelschlaeger A, Rollins E, Brennan N. Evaluating Whether Changes in Utilization of Hospital Outpatient Services Contributed to Lower Medicare Readmission Rate. *Medicare & Medicaid Research Review* 2014; 4(1). Center for Medicare & Medicaid Services, Office of Information Products & Data Analytics.
[40] Association of American Medical Colleges. Medicare Outpatient Observation Stays. Association of American Medical Colleges, Washington, DC. https://www.aamc.org/advocacy/medicare/153880/medicare_outpatient_observation_stays.html. Accessed September 17, 2014.
[41] Department of Public Health, Office of Health Care Access. Statewide Health Care Facilities and Services Plan, October 2012: 124. http://www.ct.gov/dph/lib/dph/ohca/hc_facilities_advisory_body/ohcastatewide_facilities_and_services_table_of_contents_and_executive_summary.pdf. Accessed December 5, 2014.
[42] Mehrotra A. The Convenience Revolution for Treatment of Low-Acuity Conditions. *Journal of the American Medical Association* 2013; 310(1): 35-36.
[43] Mehrotra A. The Convenience Revolution for Treatment of Low-Acuity Conditions. *Journal of the American Medical Association* 2013; 310(1): 35-36.
[44] Weinick RM, Burns RM, Mehrotra A. Many Emergency Department Visits Could be Managed at Urgent Care Centers and Retail Clinics. *Health Affairs* 2010; 29(9): 1630-1636.
[45] Yee T, Lechner AE, Boukus ER, The Surge in Urgent Care Centers: Emergency Department Alternative or Costly Convenience? HSC Research Brief No. 26 (1). July 2013. Available at, http://www.hschange.com/CONTENT/1366/1366.pdf
[46] Mehrotra A. The Convenience Revolution for Treatment of Low-Acuity Conditions. *Journal of the American Medical Association* 2013; 310(1): 35-36.
[47] Urgent Care Association of America, The Case for Urgent Care. September 1, 2011; 2. Available at, http://c.ymcdn.com/sites/www.ucaoa.org/resource/resmgr/Files/WhitePaperTheCaseforUrgentCa.pdf?hhSearchTerms=%22case+and+urgent+and+care%22.
[48] Mehrotra A. The Convenience Revolution for Treatment of Low-Acuity Conditions. *Journal of the American Medical Association* 2013; 310(1): 35-36.
[49].Emergency Medical Treatment And Labor Act, 42 U.S.C. § 1395dd (1986)
[50] Mehrotra A. The Convenience Revolution for Treatment of Low-Acuity Conditions. *Journal of the American Medical Association* 2013; 310(1): 35-36.
[51] Office of Legislative Research, Urgent Care Centers, 2013-R-0263. June 21, 2013. Available at, http://www.cga.ct.gov/olr/searchdocs.asp .

[52] Williams CAN, Khanfar NM, Harrington C. Marketing Retail Health Clinics: Challenges and Controversies Arising from a Health Care Innovation. *Health Marketing Quarterly* 2011; 28: 270-285.
[53] Williams CAN, Khanfar NM, Harrington C. Marketing Retail Health Clinics: Challenges and Controversies Arising from a Health Care Innovation. *Health Marketing Quarterly* 2011; 28: 270-285.
[54] Williams CAN, Khanfar NM, Harrington C. Marketing Retail Health Clinics: Challenges and Controversies Arising from a Health Care Innovation. *Health Marketing Quarterly* 2011; 28: 270-285.
[55] Deloitte Center for Health Solutions. Retail Clinics: Update and Implications. http://www.deloitte.com/us/retailclinics#. Accessed September 9, 2014.
[56] Ashwood JS, Reid RO, Setodji CM, Weber E, Gaynor M, Mehrotra A. Trends in Retail Clinic Use among the Commercially Insured. *American Journal of Managed Care* 2011; 17(11): e443-e448.
[57] Mehrotra A and Lave JR. Visits to Retail Clinics Grew Fourfold from 2007 to 2009, Although Their Share of Overall Outpatient Visits Remains Low. *Health Affairs* 2012; 31(9): 2123-2129.
[58] Mehrotra A. The Convenience Revolution for Treatment of Low-Acuity Conditions*. Journal of the American Medical Association* 2013; 310(1): 35-36.
[59] Williams CAN, Khanfar NM, Harrington C. Marketing Retail Health Clinics: Challenges and Controversies Arising from a Health Care Innovation. *Health Marketing Quarterly* 2011; 28: 270-285.
[60] Williams CAN, Khanfar NM, Harrington C. Marketing Retail Health Clinics: Challenges and Controversies Arising from a Health Care Innovation. *Health Marketing Quarterly* 2011; 28: 270-285.
[61] Mehrotra A and Lave JR. Visits to Retail Clinics Grew Fourfold from 2007 to 2009, Although Their Share of Overall Outpatient Visits Remains Low. *Health Affairs* 2012; 31(9): 2123-2129.
[62] Mehrotra A and Lave JR. Visits to Retail Clinics Grew Fourfold from 2007 to 2009, Although Their Share of Overall Outpatient Visits Remains Low. *Health Affairs* 2012; 31(9): 2123-2129.
[63] Leiker M. Coming to a Location Near You? Retail Clinics are Springing Up Across Wisconsin. *The Journal of Pharmacy Society of Wisconsin* 2007: 10-11. In Williams CAN, Khanfar NM, Harrington C. Marketing Retail Health Clinics: Challenges and Controversies Arising from a Health Care Innovation. *Health Marketing Quarterly* 2011; 28: 270-285.
[64] Consumer Reports on Health. How Good is 'Quick Care'? *Consumer Reports* 2014; 26(8).
[65] Reid RO, Ashwood JS, Friedberg MW, Weber ES, Setodji CM, Mehrotra A. Retail Clinic Visits and Receipt of Primary Care. *Journal of General Internal Medicine* 28(4) 504-512.
[66] Mehrotra A, Wang MC, Lave JR, Adams JL, McGlynn EA. Retail Clinics, Primary Care Physicians, and Emergency Departments: A Comparison of Patients' Visits. *Health Affairs* 2008; 27(5): 1272-1282.
[67] Weinick RM, Burns RM, Mehrotra A. Many Emergency Department Visits Could be Managed at Urgent Care Centers and Retail Clinics. *Health Affairs* 2010; 29(9): 1630-1636.
[68] Weinick RM, Burns RM, Mehrotra A. Many Emergency Department Visits Could be Managed at Urgent Care Centers and Retail Clinics. *Health Affairs* 2010; 29(9): 1630-1636.
[69] Connecticut Department of Public Health (2014). Healthy Connecticut 2020: State Health Assessment. http://www.ct.gov/dph/lib/dph/state_health_planning/sha-ship/hct2020/hct2020_state_hlth_assmt_032514.pdf. Accessed December 5, 2014.
[70] Connecticut Department of Public Health (2014). Healthy Connecticut 2020: State Health Improvement Plan. http://www.ct.gov/dph/lib/dph/state_health_planning/sha-ship/hct2020/hct2020_state_hlth_impv_032514.pdf. . Accessed December 5, 2014.
[71] Stratton, A., Hynes, M., Nepaul, A. (2007). Defining Health Disparities. The Connecticut Health Disparities Project. Connecticut Department of Public Health.
[72] DeCesaro, A., Hemmetter, J. (2009, February). Unmet Health Care Needs and Medical Out-of-Pocket Expenses for SSI Children. Journal of Vocational Rehabilitation 30 (2009) 177-199. 120
[73] Marshall, E.G., Wong, S. T., Haggerty, J.L., & Levesque, J. (2010, February). Perceptions of unmet healthcare needs: what do Punjabi and Chinese-speaking immigrants think? A qualitative study. BioMed Central BMC Health Services Research 2010, Vol 10:46. Retrieved from http://www.biomedcentral.com/1472-6963/10/46 121

[74] Institute of Medicine. (2002). Unequal Treatment Confronting Racial and Ethnic Disparities in Health Care. Edited by B. D. Smedley, A. Y. Stith, and A. Nelson. Board on Health Sciences Policy. Washington, DC: The National Academies Press.
[75] Oregon Office of Rural Health, *2014 Areas of Unmet Health Care Need in Rural Oregon Report,* 2014. http://www.ohsu.edu/xd/outreach/oregon-rural-health/data/upload/2014-Unmet-Need-Report.pdf. Accessed December 5, 2014.
[76] Queralt M, Witte A, Estimating the Unmet Need for Services: A Middling Approach. *Social Service Review*, December 1999, 522-559.
[77] Braveman PA, Cubbin C, Egerter S, Chideya S, Marchi KS, Metzler M, Posner S. Socioeconomic Status in Health Research: One Size Does Not Fit All. *JAMA* 2005; 294: 2879-2888.
[78] Braveman PA, Cubbin C, Egerter S, Chideya S, Marchi KS, Metzler M, Posner S. Socioeconomic Status in Health Research: One Size Does Not Fit All. *JAMA* 2005; 294: 2879-2888.
[79] Braveman PA, Cubbin C, Egerter S, Chideya S, Marchi KS, Metzler M, Posner S. Socioeconomic Status in Health Research: One Size Does Not Fit All. *JAMA* 2005; 294: 2879-2888.
[80] Robert Wood Johnson Foundation. How Does Employment, or Unemployment, Affect Health? Robert Wood Johnson Foundation. [Online] [Cited November 5, 2014] http://www.rwjf.org/en/research-publications/find-rwjf-research/2012/12/how-does-employment--or-unemployment--affect-health-.html
[81] Connecticut Department of Public Health (2014). Healthy Connecticut 2020: State Health Assessment. http://www.ct.gov/dph/lib/dph/state_health_planning/sha-ship/hct2020/hct2020_state_hlth_assmt_032514.pdf. Accessed December 5, 2014.
[82] Braveman PA, Cubbin C, Egerter S, Chideya S, Marchi KS, Metzler M, Posner S. Socioeconomic Status in Health Research: One Size Does Not Fit All. *JAMA* 2005; 294: 2879-2888.
[83] U.S. Department of Health and Human Services. Access to Health Services. Healthy People 2020. [Online] [Cited November 5, 2014]. http://www.healthypeople.gov/2020/topics-objectives/topic/Access-to-Health-Services?topicid=1
[84] Medicaid.gov Medicaid and CHIP Eligibility. [Online] [November 5, 2014] http://www.medicaid.gov/medicaid-chip-program-information/program-information/medicaid-and-chip-eligibility-levels/medicaid-chip-eligibility-levels.html
[85] Paradise, Julia, Garfield, Rachel. *What is Medicaid's Impact on Access to Care, Health Outcomes, and Quality of Care? Setting the Record Straight on the Evidence.* The Henry J. Kaiser Family Foundation.[Online] [Cited November 14, 2014]. http://kff.org/report-section/what-is-medicaids-impact-on-access-to-care-health-outcomes-and-quality-of-care-setting-the-record-straight-on-the-evidence-issue-brief/
[86] U.S. Department of Health and Human Services. Older Adults. Healthy People 2020. [Online] [Cited November 5, 2014]. http://www.healthypeople.gov/2020/topics-objectives/topic/older-adults
[87] CT Commission on Aging. Aging Issues Fact Sheet. May 2011.[Online][Cited November 13, 2014].
[88] U.S. Department of Health and Human Services. Limited English Proficiency (LEP). [Online] [Cited November 5, 2014]. http://www.hhs.gov/ocr/civilrights/resources/specialtopics/lep/
[89] Association of Asian Pacific Community Health Organizations. *Health Centers: Improving Health Care Access for Limited English Proficient Patients*. March 2004. [Online][Cited November 13, 2014].
[90] U.S. Department of Health and Human Services. Disability and Health. Healthy People 2020. [Online] [Cited November 5, 2014]. http://www.healthypeople.gov/2020/topics-objectives/topic/disability-and-health?topicid=9
[91] Connecticut Rural Health Report. [Online] [Cited November 5, 2014] http://www.ruralhealthct.org/report.htm#1
[92] Robert Wood Johnson Foundation. The Revolving Door: A Report on U.S. Hospital Readmissions. February 2013. Robert Wood Johnson Foundation. [Online] [Cited June 30, 2014] http://www.rwjf.org/content/dam/farm/reports/reports/2013/rwjf404178
[93] Robert Wood Johnson Foundation. *A New Way to Talk About the Social Determinants of Health.* Robert Wood Johnson Foundation. [Online] [Cited October 11, 2013] http://www.rwjf.org/content/dam/farm/reports/reports/2010/rwjf63023
[94] U.S. Department of Health and Human Services. Older Adults. Healthy People 2020. [Online] [Cited November 5, 2014]. http://www.healthypeople.gov/2020/topics-objectives/topic/older-adults

[95] Adler NE and Rehkopf DH. U.S. Disparities in Health: Descriptions, Causes, and Mechanisms. *Annual Review of Public Health*. 2008; 29: 235-252.
[96] Braveman PA, Cubbin C, Egerter S, Chideya S, Marchi KS, Metzler M, Posner S. Socioeconomic Status in Health Research: One Size Does Not Fit All. *JAMA* 2005; 294: 2879-2888.
[97] University of Massachusetts Medical School. Connecticut Health Care Survey: Executive Summary. 2014. Office of Survey Research, Center for Health Policy and Research, University of Massachusetts Medical School.
[98] University of Massachusetts Medical School. Connecticut Health Care Survey: Executive Summary. 2014. Office of Survey Research, Center for Health Policy and Research, University of Massachusetts Medical School.
[99] Vidya Sudhakar-Krishnan, Rudolf, Mary CJ. How important is continuity of care? May 2007. Archives of Disease in Childhood. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2083711/. Accessed December 5, 2014.
[100] Castillo EM, Brennan JJ, Killeen JP. Chan TC. Identifying Frequent Users of Emergency Department Resources. *The Journal of Emergency Medicine*. 2014 pp1-5.
[101] Castillo EM, Brennan JJ, Killeen JP. Chan TC. Identifying Frequent Users of Emergency Department Resources. *The Journal of Emergency Medicine*. 2014 pp1-5.
[102] Green SR, Singh V, O'Byrne W. Hope for New Jersey's City Hospitals: The Camden Initiative. 2009. New Jersey Department of Banking and Insurance Office for Electronic Health Information Technology. http://www.state.nj.us/dobi/division_insurance/hint/camdenwhitepaper.pdf. Accessed December 5, 2014.
[103] Liu SW, Nagurney JT, Chang Y, Parry BA, Smulowitz P, Atlas SJ. Frequent ED Users: Are Most Visits for Mental Health, Alcohol, and Drug-Related Complaints? *American Journal of Emergency Medicine* 2013; 31: 1512-1515.
[104] Hines AL, Barrett ML, Jiang HJ, Steiner CA. Conditions with the Largest Number of Adult Hospital Readmissions by Payer, 2011. Health Care Cost and Utilization Project Statistical Brief #172. April 2014. Agency for Healthcare Research and Quality, Rockville, MD. http://www.hcup-us.ahrq.gov/reports/statbriefs/sb172-Conditions-Readmissions-Payer.pdf. Accessed December 5, 2014.
[105] Martin JA, Hamilton BE, Ventura SJ, Osterman MJK, Wilson EC, Matthews TJ. Births: Final Data for 2010. *National Vital Statistics Report*. 2012; 61(1).
[106] Connecticut Department of Public Health (2014). Healthy Connecticut 2020: State Health Assessment. http://www.ct.gov/dph/lib/dph/state_health_planning/sha-ship/hct2020/hct2020_state_hlth_assmt_032514.pdf. Accessed December 5, 2014.
[107] Connecticut Department of Public Health (2014). Healthy Connecticut 2020: State Health Assessment. http://www.ct.gov/dph/lib/dph/state_health_planning/sha-ship/hct2020/hct2020_state_hlth_assmt_032514.pdf. Accessed December 5, 2014.
[108] Frieden, Thomas R. A Framework for Public Health Action: The Health Impact Pyramid. *American Journal of Public Health*. April 2010, 100(4), 590-595.
[109] Frieden, Thomas R. A Framework for Public Health Action: The Health Impact Pyramid. *American Journal of Public Health*. April 2010, 100(4), 590-595.
[110] Federal grants overview. Access Health CT Web site. http://www.ct.gov/hix/cwp/view.asp?a=4299&Q=506492. Accessed July 28, 2014.
[111] Kaiser Family Foundation, 2013. State Marketplace Profiles: Connecticut.
[112] U.S. Department of Health and Human Services, ASPE Issue Brief. Health Insurance Marketplace: Summary Enrollment Report for the Initial Annual Open Enrollment Period October 1, 2013 – March 31, 2014. http://aspe.hhs.gov/health/reports/2014/MarketPlaceEnrollment/Apr2014/ib_2014apr_enrollment.pdf. Accessed December 5, 2014.
[113] Starting October 1, 2013, DPH began mandatory online license applications and renewals for physicians, dentists and nurses through the State Electronic Licensing System (e-licensing). The DPH Primary Care Office (PCO) included survey questions that assess the providers' specialty, practice location(s), age, hours providing direct patient care, populations served, etc. Beginning in Fall 2014, the PCO will collect and report real-time health workforce data and will support the analyses necessary to interpret this data to estimate both current and future health workforce needs. The information

that is obtained through the State e-licensing will enable PCO staff to potentially identify additional primary medical care, mental/behavioral health and dental care geographic locations that would qualify as a HPSA.

[114] Uniform Billing (UB)-04 Data Specifications Manual. 2013.

[115] Oregon Office of Rural Health, *2014 Areas of Unmet Health Care Need in Rural Oregon Report,* 2014. http://www.ohsu.edu/xd/outreach/oregon-rural-health/data/upload/2014-Unmet-Need-Report.pdf. Accessed December 5, 2014.

[116] Queralt M, Witte A, Estimating the Unmet Need for Services: A Middling Approach. *Social Service Review*, December 1999, 522-559.