

# HARTFORD HOSPITAL

80 SEYMOUR STREET  
P.O. BOX 5037  
HARTFORD, CT 06102-5037  
860/545-5000

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CONNECTICUT OFFICE OF  
HEALTH CARE ACCESS

November 9, 2010

Norma Gyle  
Deputy Commissioner, Department of Public Health  
Office of Health Care Access  
410 Capitol Avenue  
Hartford, CT 06106

RE: Certificate of Need – Change of Ownership – Constitution Eye Surgery Center, LLC

Dear Deputy Commissioner Gyle:

Enclosed please find, for your review and consideration, an original and four copies of a Certificate of Need Application jointly submitted by Hartford Hospital and Constitution Eye Surgery Center, LLC (CESC) for change of ownership of the ambulatory eye surgery center located at 505 Willard Avenue, Newington, Connecticut 06111. The parties to this application have worked carefully to submit a complete and accurate document in accordance with the recently revised Certificate of Need process. The CESC fiscal year follows the calendar year, and therefore, it is our hope that a decision can be rendered before the end of 2010. This would allow us to align accounting periods, as it would mark the end of CESC's fiscal year and the hospital's first quarter. We will commit all of our resources toward working closely with and being responsive to your office's inquiries toward a favorable and expeditious review.

Please feel free to contact me directly at 860 545-1532 if you or your staff has any questions. Thank you in advance for your consideration of this request.

Sincerely,

Karen T. Goyette  
Vice President, Strategic Planning and Business Development

Encl.

THE FACE OF THIS DOCUMENT HAS A COLORED BACKGROUND ON WHITE PAPER

*Five hundred and 00/100 Dollars*

Pay to the order of

TREASURER STATE OF CONNECTICUT  
 OFFICE OF HEALTHCARE ACCESS  
 410 CAPITAL AVE #MS13HCA  
 PO BOX 340308  
 HARTFORD, CT 06134-0308

Date

10/15/2010

Payment Amount

\*\*\*\*\*\$500.00

VOID AFTER 90 DAYS



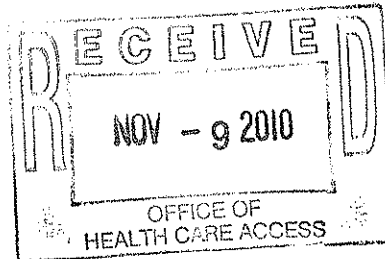
THE BACK OF THIS DOCUMENT CONTAINS LAID LINES AND AN ARTIFICIAL WATERMARK. HOLD AT AN ANGLE TO VIEW.

⑈427616⑈ ⑆011900571⑆ 00014 60536⑈

TREASURER STATE OF CONNECTICUT OFFICE OF HEALTHCARE ACCESS 410 CAPITAL AVE #MS13HCA PO BOX 340308 HARTFORD, CT 06134-0308	Entity	Vendor ID / Location	Check Number
	PNK	08112 008	427616

HARTFORD HOSPITAL

Invoice Number	Invoice Date	Gross Amount	Discount Amount	Withholding Amount	Net Amount
CERTOFNEED ADMINISTRATION- JOANNE JUR	10/15/2010	500.00			500.00



TOTALS

\$500.00

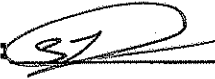
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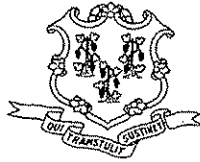
\$500.00

## Change of Ownership or Control Application Checklist

- Attached is the CON application filing fee in the form of a certified, cashier or business check made out to the "Treasurer State of Connecticut" in the amount of \$500.

OHCA Verified by:  Date: 11/9/10  
~~11/15/10~~

- Attached is evidence demonstrating that proper public notice has been published in a suitable newspaper that relates to the location of the proposal.
- Attached is a completed affidavit, signed and notarized by the appropriate individuals.
- Submitted is a scanned copy of each submission in its entirety, including all attachments on CD, preferably in Adobe (.pdf) format.
- Submitted is an electronic copy of the documents on CD in MS Word format with financial attachments and other data as appropriate in MS Excel format.
- Attached are completed Financial Attachments I and II. (NOTE: Only Attachment I required and included for this application.)
- Submitted CON application materials, including cover letter and all attachments, have been paginated in their entirety.
- Submission includes one (1) original and four (4) hard copies with each set placed in 3-ring binders.



## State of Connecticut Office of Health Care Access Certificate of Need Application

**Instructions:** Please complete all sections of the Certificate of Need (“CON”) application. If any section or question is not relevant to your project, a response of “Not Applicable” may be deemed an acceptable answer. If there is more than one applicant, identify the name and all contact information for each applicant. OHCA will assign a Docket Number to the CON application once the application is received by OHCA.

<b>Docket Number:</b>	TBD	
<b>Applicant:</b>	Hartford Hospital	Constitution Eye Surgery Center, LLC
<b>Contact Person:</b>	Karen Goyette	Dwayne Kertanis
<b>Contact Person’s Title:</b>	Vice President, Planning & Business Development	Administrator, SVP Operations
<b>Contact Person’s Address:</b>	80 Seymour Street PO Box 5037 Hartford, Connecticut 06102-2127	505 Willard Avenue Newington, Connecticut 06111
<b>Contact Person’s Phone Number:</b>	860 545-1532	860 667-1815
<b>Contact Person’s Fax Number:</b>	860 545-2127	860 666-1738
<b>Contact Person’s Email Address:</b>	<a href="mailto:kgoyette@harthosp.org">kgoyette@harthosp.org</a>	<a href="mailto:dwaynekertanis@cscus.net">dwaynekertanis@cscus.net</a>
<b>Project Town:</b>	Newington, Connecticut	
<b>Project Name:</b>	Change of Ownership – Constitution Eye Surgery Center, LLC	
<b>Statute Reference:</b>	Section 19a-638, C.G.S.	
<b>Estimated Total Capital Expenditure:</b>	\$27,500,000	

## 1. Project Description and Need: Change of Ownership or Control

### a. Please provide a narrative detailing the proposal.

**RESPONSE:** This proposal is for purchase of the assets of Constitution Eye Surgery Center, LLC ("CESC"), an ambulatory surgery center (the "Center") located at 505 Willard Avenue, Newington, Connecticut, by Hartford Hospital (the "Hospital"). The CESC has been in existence for approximately twelve (12) years. CESC was established pursuant to CON determinations and approvals.

The current owner of the Center, CESC, is comprised of thirty eye surgeons, all of whom perform surgeries and related procedures at the Center. CESC occupies a facility of approximately 14,000 square feet, including four operating rooms. The Center operates four days per week, Monday through Thursday, performing approximately 8,000 surgical and 3,000 non-surgical ophthalmic procedures annually. The Center operates at 70% of capacity during its scheduled hours. The Center employs approximately 40 full and part-time non-physician employees, all of whom will be offered employment with the Hospital as part of this proposal. The Center is presently accredited by the Accreditation Association of Ambulatory Health Care (AAAHC). It is anticipated that the proposed acquisition will further serve to maintain and strengthen the quality of the services performed through compliance with Joint Commission standards, introduction of the Hospital's established policies and procedures, and investment in physical plant, equipment and technology.

Through this proposal, the Center would be owned by Hartford Hospital and operated as a provider-based department of the Hospital. The Hospital intends to engage the physicians of CESC in a medical oversight agreement to provide clinical oversight and ensure the highest level of quality as to surgical services at the Center. As a department of the Hospital, the Hospital's policies and procedures will apply to the Center, including quality and patient satisfaction measures, clinical protocols and operational guidelines. It is anticipated that efficiencies and economies of scale will be realized via the Hospital's existing operations, including, but not limited to finance and accounting, materials management, purchasing, information systems, human resources, employee benefits, etc.

Pending approval of this proposal, it is the intention of the parties to finalize this transaction in December, 2010.

- b. Explain how each Applicant determined need for the proposal and discuss the benefits of this proposal for each Applicant (discuss each Applicant separately in separate paragraphs).

**RESPONSE:**

**CESC** – The physician/owners of CESC desire to collaborate with the Hospital in the provision of care at the Center. CESC recognizes the Hospital's expertise in the provision of high quality health care, its access to capital and technology, and its application of rigorous standards to ensure quality care consistent with CESC's own practices. In addition, CESC acknowledges that the cost of providing services will increase in the near future associated with advances in technology, implementation of an electronic medical record, and maintenance/upgrades to the physical plant. Hospital ownership will not only make available the capital necessary to implement these enhancements to the Center, but will also provide access to the Hospital's extensive infrastructure of clinical and administrative resources, group purchasing agreements and established vendor relationships.

**Hartford Hospital** – Acquisition of the Center by the Hospital is consistent with the Hospital's mission and essential to maintaining seamless coordination of care for patients. It is also consistent with the Hospital's strategic goals, to provide high quality and accessible services to the communities it serves. There is obviously a need and demand for these services and thus, the Hospital views them as necessary and valuable. The Hospital currently performs approximately 600 ambulatory eye surgeries each year at its main campus. These represent cases not appropriate for an ambulatory surgery center due to medical co-morbidity or other clinical risk factors. Therefore, these ambulatory surgery services are within the scope of and complement the services already provided by the Hospital. The patients treated at the Center are residents of the Hospital's primary and secondary service areas.

The need for the ambulatory eye surgery is well documented in the literature and reflected in the Center's volumes. The number of surgical procedures performed at the Center has seen a 4% increase between 2007 (8,531) and 2009 (8,868). Approximately 70% of all procedures performed at the Center involve cataract or psydophakia/aphakia, again, consistent with national statistics. Based upon a 2004 study (Arch Ophthalmol, 2004;122:487-494) it was estimated that cataract effected over 20 million Americans age 40 and older in 2000. This represented one out of every six individuals in this age range or a prevalence of 17%. Due to the aging of the population, the number of Americans age 40 and older who have cataract is anticipated to increase by 50% to 30 million by 2020. By age 80, more than half of all Americans have cataract. Likewise, over 6 million Americans in this age group had pseydophakia/aphakia in 2000 and this figure is expected to increase to 9.5 million by 2020. Based upon prevalence and 2004 census projections, it was estimated that there are 304,151 cases of cataract of persons

age 40 and older in Connecticut (Vision Problems in the U.S., 2008, 2002 Prevent Blindness in America, Section 4).

The Center has a broad geographic draw, with the top 8 towns of patient origin representing only 51% of the total patient base (in descending order: Hartford – 10.65%; West Hartford – 9.24%; New Britain – 9.03%; Newington – 5.33%; Wethersfield – 5.17%; East Hartford – 4.50%; Middletown – 4.30%; and, Berlin – 3.01%). Population projections for these towns alone predict a total of 197,000 residents age 40 or older by the year 2020. Applying the 17% prevalence rate, it is estimated that there will be nearly 33,000 individuals with cataract from this geographic area, a 4% increase over the 2010 estimate based upon the University of Connecticut's, Connecticut State Data Center projections.

Ambulatory eye surgery is performed by the acute care hospitals in the region: The Hospital of Central Connecticut; Hartford Hospital; St. Francis Hospital and Medical Center; UCONN Medical Center; and, Manchester Memorial Hospital. Unlike these facilities, however, the Center is designed specifically to handle eye surgery cases, and, therefore, its focus is on delivering the service more safely and efficiently. The Center is by far the largest provider of ophthalmic surgical services in the region. It also has an exemplary quality record. This application will allow the Center to combine resources with the Hospital to promote the Center's mission to operate as a regional center of ophthalmic surgical excellence.

There is only one other non-hospital ambulatory eye surgery center in the region. This is the Eye Surgery Center, located at 4 Northwestern Drive, Bloomfield. The two facilities are approximately 10 miles apart. The Bloomfield facility is significantly smaller, at only 1,500 square feet and used by only 3 surgeons. The Center has an established track record and based upon its utilization history it has attracted patients and physicians alike as a convenient and efficient location for outpatient ophthalmology surgical service.

Based upon the projected need resulting from the high prevalence rate and the aging population, the absence of non-hospital facilities in region, the broad geographic draw of the Center, and the capacity for surgeons to use the Center, the volume of cases performed at the Center will not decrease, but can be expected to increase over the next 10 years.

Documents referenced in this response can be found in Attachment A.

- c. **Provide a history and timeline of the proposal (e.g., When did discussions begin between the Applicants? What have the Applicants accomplished so far?).**

**RESPONSE:** The parties began exploratory discussions in late 2009 as to potentials for collaborations or an acquisition by the Hospital. In-depth reviews were conducted by the Hospital regarding need, the operations of the Center and

the impact the purchase would have on the Hospital. Members of the clinical staff of the Hospital as well as an independent consultant engaged by the Hospital conducted site reviews to evaluate quality, staff competence, physical plant and compliance with Joint Commission accreditation standards.

A Letter of Intent was signed in September, 2010. Further standard corporate due diligence is presently underway in anticipation of a December closing, subject to OHCA approval.

- d. List any changes to the clinical services offered by the Applicants that result from this proposal, and provide an explanation.**

**RESPONSE:** The Applicants do not anticipate any changes to the clinical services provided at the Center.

- e. Describe the existing population served by the facility changing ownership or control, and how the proposal will impact these populations. Include demographic information as appropriate.**

**RESPONSE:** The patients currently served by the Center are from a broad geographic region as shown in Attachment B. As noted above, only 50% of the patient volume is from the 8 towns of Hartford, West Hartford, New Britain, Newington, Wethersfield, East Hartford, Middletown and Berlin. This is not expected to change.

The average age of the patients receiving treatment at the Center is 62. More than 70% of the cases treated at the Center involve cataract and the average age correlates with the incidence of this disease among the elderly. As a result, the payor mix is heavily weighted toward Medicare, at 62%, followed by Commercial Insurance at 33%. The Center presently accepts all patients, regardless of ability to pay. This will not change under the Hospital's ownership. Only 4% of the current patient population is on Medicaid, primarily a result of the predominance of elderly (Medicare) patients. (See response to Question 4.a. below).

- f. Describe the transition plan and how the Applicants will ensure continuity of services. Provide a copy of a transition plan, if available.**

**RESPONSE:** As noted above, the Hospital will enter into an agreement with CESC through which CESC will provide medical oversight to assure quality and safety. Since the Center will be a department of the Hospital, the Hospital's policies, procedures and, where applicable, quality monitors will be implemented. Continuity of quality services will be further ensured due to the fact that Constitution Surgery Centers, LLC ("CSC"), the current manager of the Center, will continue to provide management services to the Center as a department of the Hospital, subject to oversight by the Hospital and consistent with Hospital policies.



All staff will be oriented to the Hospital's policies and procedures. The Hospital does not believe there will be any disruption in services, however, a transition plan will be developed should this proposal be approved.

It is assumed that all existing staff of the Center will be retained and become employees of the Hospital.

- g. For each Applicant (and any new entities to be created as a result of the proposal), provide the following prior to and after this proposal:**

- i. Legal chart of corporate or entity structure including all affiliates.**

**RESPONSE:** The Center will be a provider-based department of the Hospital. Therefore, the Hospital's corporate structure will not change as a result of this acquisition. See Attachment C.

- ii. List of owners and the % ownership and shares of each.**

**RESPONSE:** The Hospital's ownership will not change as a result of this proposal, however, the Hospital will become the sole owner of the Center. The CESC ownership will cease. See Attachment D for CESC's ownership of the Center prior to the change of ownership.

- h. Provide copies of all signed written agreements or memorandum of understanding, including all exhibits/attachments, between the Applicants related to the proposal. Note: If a final version is not available, provide a draft with an estimated date by which the final agreement will be available.**

**RESPONSE:** Please see Attachment E for copy of signed Letter of Intent between the two parties.

## **2. Quality Measures**

- a. Submit a list of all key professional, administrative, clinical, and direct service personnel related to the proposal. Attach a copy of their Curriculum Vitae.**

**RESPONSE:** A listing of key professional, administrative and clinical staff along with CVs can be found in Attachment F.

- b. Explain how the proposal contributes to the quality of health care delivery in the region.**

**RESPONSE:** Based upon the historical outcomes of the Center and the Hospital's assessment of its current operation, the quality of the services provided

by the Center is extremely high, as evidenced by its continuous accreditation status by the AAAHC. The medical oversight agreement between the Hospital and CESC as described above will insure consistent clinical oversight and quality control. The clinical and administrative resources, quality improvement expertise and oversight resulting from the Hospital's ownership will enhance the value of the services provided, technology, policies and procedures.

### 3. Organizational and Financial Information

#### a. Identify the Applicant's ownership type(s) (e.g. Corporation, PC, LLC, etc.).

**RESPONSE:** Hartford Hospital is a nonstock, tax-exempt Connecticut corporation and a licensed general hospital. Constitution Eye Surgery Center LLC is a Connecticut limited liability company.

#### b. Does the Applicant have non-profit status?

**RESPONSE:**

Hartford Hospital -  Yes (Provide documentation) See Attachment G  No  
CESC -  Yes (Provide documentation)  No

#### c. Provide a copy of the State of Connecticut, Department of Public Health license(s) currently held by the Applicant and indicate any additional licensure categories being sought in relation to the proposal.

**RESPONSE:** Licenses for both Applicants can be found in Attachment H. No additional licenses will be required.

#### d. Financial Statements

##### i. If the Applicant is a Connecticut hospital: Pursuant to Section 19a-644, C.G.S., each hospital licensed by the Department of Public Health is required to file with OHCA copies of the hospital's audited financial statements. If the hospital has filed its most recently completed fiscal year audited financial statements, the hospital may reference that filing for this proposal.

**RESPONSE:** Hartford Hospital has on file with the Office of Health Care Access, as part of its annual submission, a copy of its most recent audited financial statement.

##### ii. If the Applicant is not a Connecticut hospital (other health care facilities): Audited financial statements for the most recently completed fiscal year. If audited financial statements do not exist, in lieu of audited financial statements, provide other financial documentation (e.g. unaudited

balance sheet, statement of operations, tax return, or other set of books.)

**RESPONSE:** Please see Attachment I for CESC financial statements.

e. Submit a final version of all capital expenditures/costs as follows:

**Table 2: Proposed Capital Expenditures/Costs**

Medical Equipment Purchase	\$
Imaging Equipment Purchase	
Non-Medical Equipment Purchase	
Land/Building Purchase *	
Construction/Renovation **	
Other Non-Construction (Specify)	\$ 27,500,000
<b>Total Capital Expenditure (TCE)</b>	<b>\$ 27,500,000</b>
Medical Equipment Lease (Fair Market Value) ***	\$
Imaging Equipment Lease (Fair Market Value) ***	
Non-Medical Equipment Lease (Fair Market Value) ***	
Fair Market Value of Space ***	
<b>Total Capital Cost (TCC)</b>	<b>\$</b>
<b>Total Project Cost (TCE + TCC)</b>	<b>\$ 27,500,000</b>
Capitalized Financing Costs (Informational Purpose Only)	
<b>Total Capital Expenditure with Cap. Fin. Costs</b>	<b>\$ 27,500,000</b>

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

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

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

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

**RESPONSE:** The Hospital is working with Bank of America, its primary lending institution, to increase its line of credit and to use those funds to acquire the Center on an interim basis. The eventual financing will occur within the next twelve months as part of a capital restructuring.

g. Demonstrate how this proposal will affect the financial strength of the state's health care system.

**RESPONSE:** This proposal will improve the financial strength of the state's health care system. It will insure a lower cost, high quality alternative to inpatient

eye surgery for the residents of the region. It will also have a positive impact upon the financial performance of the Hospital.

**4. Patient Population Mix: Current and Projected**

- a. Provide the current and projected patient population mix (based on the number of patients, not based on revenue) with the CON proposal for the proposed program.

**Table 3: Patient Population Mix – Hartford Hospital**

	Current ** FY 2010	Year 1 FY 2011	Year 2 FY 2012	Year 3 FY 2013
Medicare*	16%	61%	61%	61%
Medicaid*	26%	4%	4%	4%
CHAMPUS & TriCare				
<b>Total Government</b>	<b>42%</b>	<b>65%</b>	<b>65%</b>	<b>65%</b>
Commercial Insurers*	58%	35%	35%	35%
Uninsured				
Workers Compensation				
<b>Total Non-Government</b>	<b>58%</b>	<b>35%</b>	<b>35%</b>	<b>35%</b>
<b>Total Payer Mix</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

**Table 3: Patient Population Mix - CESC**

	Current** FY 2010	Year 1 FY 2011	Year 2 FY 2012	Year 3 FY 2013
Medicare*	62%			
Medicaid*	4%			
CHAMPUS & TriCare				
<b>Total Government</b>	<b>66%</b>			
Commercial Insurers*	33%			
Uninsured	1%			
Workers Compensation				
<b>Total Non-Government</b>	<b>34%</b>			
<b>Total Payer Mix</b>	<b>100%</b>			

\* Includes managed care activity.

\*\* New programs may leave the "current" column blank.

\*\*\* Fill in years. Ensure the period covered by this table corresponds to the period covered in the projections provided.

- b. Provide the basis for/assumptions used to project the patient population mix.

**RESPONSE:** Both of these projections are based on the actual experience of the applicants. Hartford Hospital's 2010 mix is based on the first 6 months of FY 2010. Subsequent years are based on a blend of the Hospital and the Center.

- f. Explain any projected incremental losses from operations contained in the financial projections that result from the implementation and operation of the CON proposal.

**RESPONSE:** No losses are projected as a result of this proposal.

- g. Describe how this proposal is cost effective.

**RESPONSE:** This proposal is cost effect in two areas: disposition of gains/losses and access to a lower cost treatment option.

- The Center is expected to generate a surplus over incremental expenses as shown in response to question 5.a. above. CESC is a for-profit, limited liability corporation and as such has distributed profits to its members/investors. As a not-for-profit entity, the Hospital will invest these gains back into the Center and into other essential healthcare services that are not financially self-sustaining.
- This proposal serves to sustain access to a cost-effective option for many patients requiring eye surgery. As noted previously, efficiencies in the cost of equipment will be realized under Hospital ownership as a result of group purchasing agreements, as well as the Hospital's relationships with healthcare supply vendors and the volume discounts it enjoys. These savings will be most apparent in the purchase of capital equipment. Therefore, the impact on financial statements would be in depreciation rather than operating expense.

## Index of Attachments

Attachment A	Reference Articles
Attachment B	Patient Town of Origin
Attachment C	Organizational Charts
Attachment D	CESC Ownership
Attachment E	Letter of Intent Between Applicants
Attachment F	Listing of Key Personnel and CVs
Attachment G	Validation of Hospital Non-Profit Status
Attachment H	Licenses
Attachment I	CESC Financial Statements
Attachment J	Financial Attachments and Supporting Documentation
Attachment K	Breakeven Analysis
Attachment L	Proof of Public Notice
Attachment M	Completed, Signed and Notarized Affidavits

ATTACHMENT A

# Prevalence of Cataract and Pseudophakia/Aphakia Among Adults in the United States

The Eye Diseases Prevalence Research Group\*

**Objectives:** To determine the prevalence of cataract and pseudophakia/aphakia in the United States and to project the expected change in these prevalence figures by 2020.

**Methods:** Summary prevalence estimates of cataract and of pseudophakia/aphakia were prepared separately for black, white, and Hispanic persons (for whom only cataract surgery data were available) in 5-year age intervals starting at 40 years for women and men. The estimates were based on a standardized definition of various types of cataract: *cortical*, greater than 25% of the lens involved; *posterior subcapsular*, present according to the grading system used in each study; and *nuclear*, greater than or equal to the penultimate grade in the system used. Data were collected from major population-based studies in the United States, and, where appropriate, Australia, Barbados, and Western Europe. The age-, gender-, and race/ethnicity-specific rates were applied to 2000 US

Census data, and projected population figures for 2020, to obtain overall estimates.

**Results:** An estimated 20.5 million (17.2%) Americans older than 40 years have cataract in either eye, and 6.1 million (5.1%) have pseudophakia/aphakia. Women have a significantly (odds ratio = 1.37; 95% confidence interval, 1.26-1.50) higher age-adjusted prevalence of cataract than men in the United States. The total number of persons who have cataract is estimated to rise to 30.1 million by 2020; and for those who are expected to have pseudophakia/aphakia, to 9.5 million.

**Conclusion:** The number of Americans affected by cataract and undergoing cataract surgery will dramatically increase over the next 20 years as the US population ages.

*Arch Ophthalmol.* 2004;122:487-494

**C**ATARACT IS THE LEADING cause of blindness in the world today.<sup>1</sup> It is also the leading cause of vision loss in the United States,<sup>2</sup> responsible for some 60% of all Medicare costs related to vision.<sup>3</sup> The effect of age-related cataract can be expected to grow as the US population continues to age. Despite this, few, if any, precise estimates have been made of the prevalence of cataract in the United States on a national basis.

Measuring cataract prevalence for a truly representative national sample would likely be very costly and difficult. However, many scientifically designed, population-based studies have recently provided age-specific estimates of cataract prevalence among population groups relevant to the United States. The current article has attempted to standardize definitions and reporting format between studies to allow the pooling of prevalence figures for cataract and prior cataract surgery. Age-, race/ethnicity-, and gender-specific prevalence rates derived in this fashion have been applied to US Census data from

2000,<sup>4</sup> to estimate the prevalence of lens opacity and pseudophakia/aphakia in the US population as a whole. Estimates for 2020, based on US Census projections of the population,<sup>4</sup> are also presented. These figures represent the first estimates of cataract prevalence in the United States to consider the large number of population-based surveys of eye disease carried out over the last decade or more.

## METHODS

### GENERAL METHODS AND INCLUSION OF STUDIES

In an initiative sponsored jointly by Prevent Blindness America, Schaumburg, Ill, and the National Eye Institute, Bethesda, Md, a meeting of principal investigators of large studies of eye disease among populations of white, black, and Hispanic persons was convened in Fort Lauderdale, Fla, in May 2001. It was determined by consensus that the morbidity associated with age-related cataract in the United States was best measured by 4 prevalence figures: cataract, prior cataract surgery (eg, pseudophakia/aphakia), and blindness, and low vi-

\*The members of the Writing Group for the Eye Diseases Prevalence Research Group, who had complete access to the raw data needed for this report and who bear authorship responsibility for this report, and their affiliations are listed at the end of this article. The Writing Group for this article has no relevant financial interest in this article. A complete list of the members of the Eye Diseases Prevalence Research Group appears on page 494.



ract Grading System<sup>12</sup> and in LOCS II<sup>13</sup> and grade  $\geq 4$  in the Wisconsin Cataract Grading System<sup>14</sup>).

Estimates for prevalence of cataract and pseudophakia/aphakia among black persons in the current article were based on studies conducted in Salisbury, Md,<sup>9</sup> and Barbados, West Indies.<sup>8</sup> The Salisbury Eye Evaluation (SEE) Project only examined subjects 65 years and older. Because of the differences between the Barbados and Salisbury studies in the cutoff used to define cataract, it was impossible to pool the prevalence estimates from these studies. Age- and gender-specific prevalence data from the SEE Project were used to estimate prevalence for black persons 65 years and older. To estimate age- and gender-specific prevalence for individuals aged 40 through 64 years, we applied gender-specific "correction factors" to the Barbados Eye Study 5-year prevalence rates in this age range. The correction factors were derived by dividing the reported prevalence for Barbados Eye Study subjects aged 65 years and older for each gender- and age-specific stratum by the comparable figure for the SEE Project. These fractions for all age-strata were averaged separately for the 2 genders. The correction factors (0.32 for males and 0.42 for females) were then applied to the Barbados Eye Study data for each age interval in the range 40 through 64 years to produce age- and gender-specific prevalence estimates of cataract and pseudophakia/aphakia among black persons in this age range. In essence, this method imputes rates for the SEE Project in the younger-aged groups by adjusting the Barbados Eye Study rates based on the differences between the 2 studies found in the older-aged groups.

To derive age- and gender-specific estimates of the prevalence of cataract among Hispanics and other races/ethnicities (East Asian, Native American, and others), a nonweighted average of the values for white and black persons in each age and gender cell was used. Such values are not useful for estimating the prevalence of cataract in these groups but were judged to be the best available approximation for use in generating overall US population estimates by age and gender. Unpublished data for the prevalence of pseudophakia/aphakia were available for Hispanic persons (S. West, PhD, communication via e-mail, December 1, 2002) and were used in our estimates for this outcome. Age- and gender-specific prevalence of pseudophakia/aphakia among other races/ethnicities was estimated using a nonweighted average of the values for white, black, and Hispanic persons in each age- and gender-specific stratum.

#### AGE-SPECIFIC PREVALENCE ESTIMATES

The age-specific prevalence estimates for cataract and pseudophakia/aphakia for white persons were derived in 2 steps. First, pooled prevalence proportions were estimated for each gender- and age-specific stratum using minimum variance linear estimation. Stratum-specific proportions from each study were transformed using a logarithm odds transformation. Proportion variances were estimated based on the binomial distribution. The Cochran test for homogeneity was used to evaluate the between-study variation for the pooled proportions. Second, logistic regression models were fit to the pooled prevalence proportions using the midpoint of each age interval as the independent variable. Models were fit separately for males and females. For black persons, logistic regression models were fit to the age- and gender-specific estimates derived from the SEE Project and the Barbados Eye Study as described in the "Standardization Among Studies" subsection.

#### ESTIMATES OF PREVALENCE IN THE US POPULATION

The number of cases of cataract and of pseudophakia/aphakia in the United States in each race/ethnicity, gender, and age cat-

**Table 2. Prevalence of Cataract by Age, Gender, and Race/Ethnicity\***

Gender/Age, y	Prevalence per 100 Individuals (95% CI)	
	White Persons	Black Persons
<b>Females</b>		
40-49	1.9 (1.2-2.8)	2.2 (1.4-3.5)
50-54	5.0 (4.0-6.2)	7.3 (5.7-9.3)
55-59	9.4 (7.7-11.5)	12.8 (10.2-16.0)
60-64	16.9 (14.1-20.0)	20.1 (16.4-24.2)
65-69	27.7 (24.1-31.6)	28.5 (24.3-33.1)
70-74	41.0 (36.9-45.1)	37.4 (32.6-42.5)
75-79	54.7 (50.2-59.1)	46.1 (40.1-52.2)
$\geq 80$	76.6 (71.2-81.2)	60.9 (51.0-69.9)
<b>Males</b>		
40-49	2.8 (2.1-3.7)	1.7 (1.1-2.5)
50-54	4.9 (4.2-5.7)	4.5 (3.6-5.6)
55-59	8.2 (7.0-9.5)	7.6 (6.2-9.3)
60-64	13.8 (12.1-15.7)	11.9 (9.9-14.2)
65-69	22.4 (20.1-24.8)	17.5 (15.0-20.3)
70-74	33.9 (31.2-36.8)	24.1 (21.0-27.5)
75-79	47.2 (43.9-50.4)	31.3 (27.1-36.0)
$\geq 80$	71.3 (67.0-75.2)	46.2 (37.9-54.6)

Abbreviation: CI, confidence interval.

\*Significant lens opacity was defined as the presence of 1 or more of the following in either eye: posterior subcapsular cataract of 1.0 mm or more, cortical cataract occupying 25% or more of the lens visible through a dilated pupil, or nuclear cataract greater than or equal to the penultimate grade in the system used (ie, grade  $\geq 3$  in the Wilmer Cataract Grading System<sup>12</sup> and in the Lens Opacities Classification System II<sup>13</sup> and grade  $\geq 4$  in the Wisconsin Cataract Grading System<sup>14</sup>).

egory was estimated by applying the modeled prevalence rate for each year of age to the 2000 US Census population and summing over the age range for each 5-year age category. Projected estimates were derived applying the modeled rates for 2000 to the US Census middle-series projections for 2020. Constant age- and gender-specific rates were assumed over this period for both cataract and cataract surgery. Stratum-specific US prevalence rates were computed by dividing the total number of estimated cases for each stratum by the stratum-specific US population.

#### STATISTICAL TESTS

The overall fit for each logistic regression model was evaluated using the F test for analysis of variance and the  $r^2$  measure for proportion of explained variation. Age and race/ethnicity effects were tested using the model Wald  $\chi^2$  test statistics. Odds ratios (ORs) for race/ethnicity were derived from logistic regression coefficients for the appropriate racial comparisons. Tests for gender differences were based on the observed age-, race/ethnicity-, and gender-specific rates from each study. Separate Mantel-Haenszel  $\chi^2$  tests were done by race/ethnicity controlling for both age and study effects.

### RESULTS

The pooled age-specific prevalence figures for cataract increased with age for both black and white persons ( $P < .001$  for both,  $\chi^2$  test) (Table 2). Women had a higher prevalence of cataract among both blacks (OR = 1.75; 95% confidence interval [CI], 1.18-2.56) and whites (OR = 1.35; 95% CI, 1.23-1.49). The age-adjusted prevalence of cataract did not differ between blacks and whites for women

**Table 1. Studies Included in Estimates of Prevalence for Cataract and Pseudophakia/Aphakia**

Variable	Barbados	BDES	BMES	Proyecto VER	RS	SEE Project	Melbourne VIP
Years study conducted	1988-1992	1988-1990	1992-1994	1999-2000	1990-1993	1993-1995	1991-1998
No. of participants*							
At risk for pseudophakia/aphakia	4314	4874	3632	4715	6723	2505	4685
At risk for cataract	4197	4624	3447	†	†	2100	4610
Cataract grading system used	LOCS II	Wisconsin	Wisconsin	†	†	Wilmer	Wilmer
Age group, y							
40-49	29.1	16.9	NA	33.5	NA	NA	26.6
50-54	12.0	13.6	12.7	16.4	NA	NA	14.4
55-59	12.5	13.0	14.7	12.4	17.2	NA	13.8
60-64	11.9	13.9	17.6	10.8	20.6	NA	13.4
65-69	11.3	14.1	18.5	9.7	19.0	31.0	11.6
70-74	10.9	12.0	14.8	8.2	16.5	33.2	9.6
75-79	7.4	9.2	11.6	5.1	12.7	22.0	5.7
≥80	4.9	7.2	10.0	4.1	14.0	13.8	5.0
Gender							
Female	57.4	56.3	56.7	61.1	59.5	57.7	53.3
Male	42.6	43.7	43.3	38.9	40.5	42.3	46.7
Race/ethnicity							
Black	100.0	NA	NA	NA	NA	26.3	NA
Hispanic	NA	NA	NA	100.0	NA	NA	NA
White	NA	100.0	100.0	NA	100	73.7	100
Crude prevalence							
Any cataract‡	40.9	22.5	22.7	†	†	36.4	23.3
Cortical cataract	17.7	4.5	6.4	†	†	6.6	11.4
Nuclear cataract	5.8	17.2	18.8	†	†	27.6	11.6
Posterior subcapsular cataract	3.4	4.9	6.3	†	†	4.7	4.1
Pseudophakia/aphakia	2.9	5.6	6.2	8.3	5.7	18.6	3.7

Abbreviations: Barbados, Barbados Eye Study, Barbados, West Indies; BDES, Beaver Dam Eye Study, Beaver Dam, Wis; BMES, Blue Mountains Eye Study, Sydney, New South Wales, Australia; LOCS, Lens Opacities Classification System; Melbourne VIP, Vision Impairment Project, Melbourne, Victoria, Australia; NA, not applicable; Proyecto VER, Vision Evaluation Research, Nogales and Tucson, Ariz; RS, Rotterdam Study, Rotterdam, the Netherlands; SEE Project, Salisbury Eye Evaluation, Salisbury, Md.

\*Note that the number of participants reported for each study in this table reflects the total contributing data to our estimates in the current article and not necessarily the total number of participants in the original study. Also the number of persons at risk for the cataract subtypes is different from those at risk for cataract surgery in that the latter number includes those with bilateral pseudophakia/aphakia and those unable to undergo cataract grading for various reasons. This larger denominator is used for age, gender, and race/ethnicity distributions shown elsewhere in this table, while only persons at risk for cataract are used to calculate prevalence of the cataract types. Data are given as percentages unless otherwise indicated.

†These studies provided only information on pseudophakia/aphakia and not on cataract prevalence.

‡Any cataract is defined as the presence of 1 or more of the following in either eye: posterior subcapsular cataract defined by the grading system in each study, cortical cataract occupying 25% or more of the lens visible through a dilated pupil, or nuclear cataract greater than or equal to the penultimate grade in the system used (ie, grade ≥3 in the Wilmer Cataract Grading System<sup>12</sup> and in the LOCS II<sup>13</sup> and grade ≥4 in the Wisconsin Cataract Grading System<sup>14</sup>). For the Barbados Eye Study only, any cataract is based on the LOCS II grades or greater than or equal to that for all 3 subtypes.

sion associated with cataract. The current article presents the estimated prevalence of cataract and of pseudophakia/aphakia in the US population 40 years and older in 2000, and the projected prevalence in 2020. Estimates of the prevalence of cataract-associated low vision and blindness in the United States are reported in a companion article in this issue.<sup>3</sup>

An attempt was made to include all scientifically valid, population-based studies of cataract relating to white, black, or Hispanic persons published in English after 1990 (Table 1).<sup>6-10</sup> Few, if any, population-based studies published before this date measured lens opacity according to predetermined photographic standards. Many earlier studies also defined cataract with reference to the visual acuity of the subject, which is difficult to interpret because of the inability to adjust for competing causes of vision loss. The cutoff date was further chosen to minimize potential inaccuracies due to changing rates of cataract extraction and other cohort effects. While studies from Europe and Australia were included in estimates for white persons, potentially relevant studies from Africa<sup>11</sup> were excluded from estimates for black persons owing to concerns over the potential effect of rates of cataract surgery significantly different from the United States.

#### STANDARDIZATION AMONG STUDIES

Investigators from studies listed in Table 1 provided data tables listing the number of persons having cataract and pseudophakia/aphakia in either eye by 5-year age interval, gender, and (where relevant) race/ethnicity. The number of persons at risk in each stratum was also provided. Cataract was defined as the presence of 1 or more of the following in either eye:

- Posterior subcapsular (PSC) cataract is present according to the grading system used. (The Wilmer Cataract Grading System<sup>12</sup> requires the presence of any PSC opacity to define PSC; the Lens Opacities Classification System [LOCS II]<sup>13</sup> defines PSC as present if the posterior lesion occupies >3% of the visible area of the lens, ie, a LOCS II PSC grade ≥2; and in the Wisconsin Cataract Grading System,<sup>14</sup> a PSC is present if the posterior lesion occupies ≥5% of any grid or approximately 0.625% the visible lens.)
- Cortical cataract occupying 25% or more of the lens visible through a dilated pupil.
- Nuclear cataract greater than or equal to the penultimate grade in the system used (ie, grade ≥3 in the Wilmer Cata-

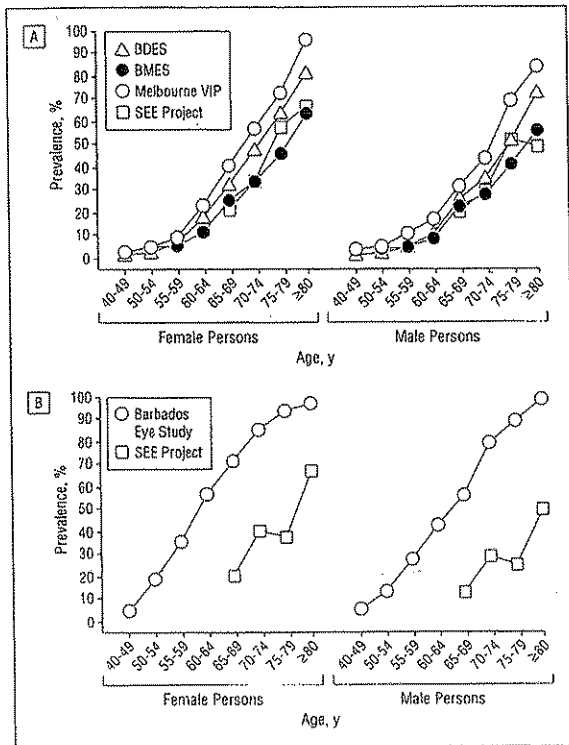


Figure 1. A, Prevalence of cataract by age among white persons in 4 population-based studies. B, Prevalence of cataract by age among black persons in 2 population-based studies. BDES indicates Beaver Dam Eye Study, Beaver Dam, Wis; BMES, Blue Mountains Eye Study, Sydney, New South Wales, Australia; Melbourne VIP, Melbourne Visual Impairment Project, Melbourne, Victoria, Australia; SEE Project, Salisbury Eye Evaluation Project, Salisbury, Md. The Barbados Eye Study was conducted in Barbados, West Indies.

America. The ongoing Los Angeles Latino Eye Study (LALES)<sup>22</sup> will provide an opportunity to further study rates of cataract extraction among Hispanic Americans. If, in fact, Hispanic persons undergo cataract extraction at a significantly higher rate than other racial groups, this will be of increasing importance owing to the rapid growth of this segment of the US population.

Application of this study's findings cannot be made without a clear awareness of its weaknesses. As mentioned earlier, our estimates for cataract prevalence in the United States rely in part on data from Western Europe, Australia, and Barbados, areas that may differ from the United States in cataract surgical rates and many other cultural factors likely to influence the prevalence of lens opacity. For some groups, such as Hispanics and blacks, our prevalence estimates rely on the results of a single study, and are, thus, likely to be affected by local variations in surgical practices and by dietary, sun exposure, tobacco smoking, and genetic profiles that are highly specific to the population reported. There are many important groups that are unlikely to be represented by any of the study populations cited by us, including the urban poor and those living in the rural southeastern part of the United States.

Our projections of the prevalence of cataract and pseudophakia/aphakia in 2020 are based on assumptions of constant incidence. Such assumptions may not be accurate, particularly for future rates of cataract surgery, which are

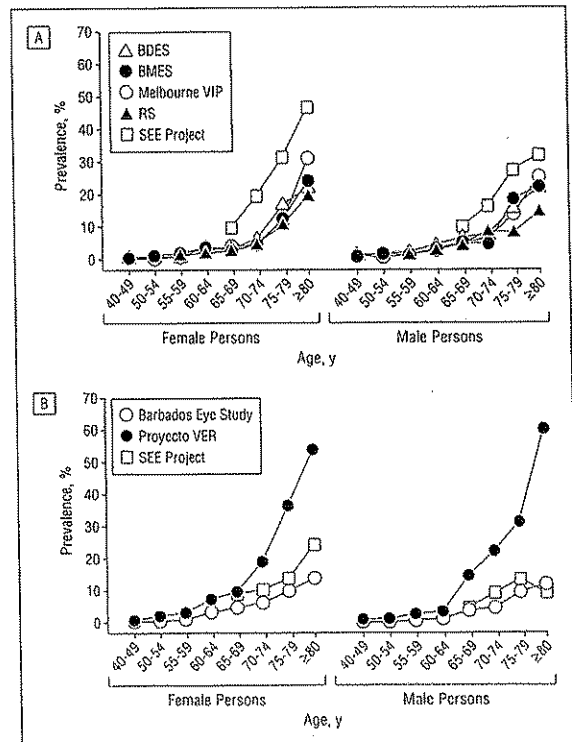


Figure 2. A, Prevalence of pseudophakia and aphakia by age among white persons in 5 population-based studies. BDES indicates Beaver Dam Eye Study, Beaver Dam, Wis; BMES, Blue Mountains Eye Study, Sydney, New South Wales, Australia; Melbourne VIP, Melbourne Visual Impairment Project, Melbourne, Victoria, Australia; RS, Rotterdam Study, Rotterdam, the Netherlands; and SEE Project, Salisbury Eye Evaluation Project, Salisbury, Md. B, Prevalence of pseudophakia and aphakia by age among Hispanic (Projecto VER [Vision Evaluation Research], Nogales and Tucson, Ariz) and black persons (Salisbury Eye Evaluation Project and the Barbados Eye Study, Barbados, West Indies) in 3 population-based studies.

known to fluctuate with levels of reimbursement<sup>23</sup> among other factors. Finally, as discussed in detail earlier, the accuracy of our estimates of cataract prevalence must be limited to some extent by the necessity of combining results using different grading systems.

Nevertheless, these estimates are the first to combine the results of several population-based studies of cataract prevalence with newly completed 2000 US Census data and population projections. As such, they are likely to provide the most complete information available on the most important cause of visual disability in our country. Our projections of a greatly increased cataract burden and need for surgical services, despite their limitations, almost certainly reflect the realistic scope of this problem in a rapidly aging population. Without strategies to prevent or delay the onset of lens opacity, the health care system will be challenged with an unprecedented demand for cataract care.

In addition to underscoring the need for further research into cataract prevention strategies, this study also highlights the complete lack of data on the prevalence of eye disease among important population groups such as Asian Americans. There is also a clear need, if cataract prevalence data are to be of practical use to health policy planners at a national or international level, to de-

## Members of the Eye Diseases Prevalence Research Group

The members of the Eye Diseases Prevalence Research group are as follows: *Baltimore Eye Survey, Baltimore, Md:* James M. Tielsch; Alfred Sommer; Joanne Katz; Harry A. Quigley. *Barbados Eye Studies, Barbados, West Indies:* M. Cristina Leske; Suh-Yuh Wu; Barbara Nemesure; Anselm Hennis; Leslie Hyman; Andrew Schachat. *Beaver Dam Eye Study, Beaver Dam, Wis:* Barbara E. K. Klein; Ronald Klein; Kristine E. Lee; Scot E. Moss; Sandra C. Tomany. *Blue Mountains Eye Study, Sydney, New South Wales, Australia:* Paul Mitchell; Jie Jin Wang; Elena Rochtchina; Wayne Smith; Robert G. Cumming; Karin Attebo; Jai Panchapakesan; Suriya Foran. *Melbourne Visual Impairment Project, Melbourne, Victoria, Australia:* Hugh R. Taylor; Cathy McCarty; Bickol Mukesh; LeAnn M. Weih; Patricia M. Livingston; Mylan Van Newkirk; Cara L. Fu; Peter Dimitrov; Matthew Wensor; Yury Stanislavsky. *Proyecto VER (Vision Evaluation Research), Nogales and Tucson, Ariz:* Sheila West; Jorge Rodriguez (deceased); Aimee Broman; Beatriz Muñoz; Robert Snyder. *Rotterdam Study, Rotterdam, the Netherlands:* Paulus T. V. M. de Jong; Johannes R. Vingerling; Roger C. W. Wolfs; Caroline C. W. Klaver; Albert Hofman; Redmer van Leeuwen; M. Kamran Ikram; Simone de Voogd. *Salisbury Eye Evaluation Project, Salisbury, Md:* Sheila West; Gary Rubin; Karen Bandeen Roche; Beatriz Muñoz; Kathy Turano; Oliver Schein; Donald Duncan; Susan Bressler.

### Resource Centers

Coordinating Center: David S. Friedman; Nathan G. Congdon; John H. Kempen; Benita J. O'Colmain.  
National Eye Institute, Bethesda, Md: Frederick L. Ferris III.

velop methods of comparing existing cataract grading systems or to agree on a single system for universal use.<sup>24</sup>

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The Writing Group members for the Eye Diseases Prevalence Research Group who had complete access to the raw data needed for this report and who bear authorship responsibility for this report are Nathan Congdon, MD, MPH (chairperson); Johannes R. Vingerling, MD, PhD; Barbara E. K. Klein, MD, MPH; Sheila West, PhD; David S. Friedman, MD, MPH; John Kempen MD, PhD; Benita O'Colmain, MPH; Suh-Yuh Wu, MA; Hugh R. Taylor, MD; and Jie Jin Wang, Mmed, MAppStat, PhD.

From the Dana Center for Preventive Ophthalmology, Wilmer Eye Institute, The Johns Hopkins University (Drs Congdon, West, Friedman, and Kempen); Department of Ophthalmology, Erasmus Medical Center, Rotterdam, the Netherlands (Dr Vingerling); Department of Ophthalmology, University of Wisconsin, Madison (Dr Klein); Macro International, Inc, Calverton, Md (Ms O'Colmain); Department of Preventive Medicine, School of Medicine, Stony Brook State University of New York at Stony Brook (Ms Wu); Centre for Eye Research Australia, University of Melbourne, East Melbourne, Victoria, Australia (Dr Taylor); Department of Ophthalmology, University of Sydney, Centre for Vision Research, Westmead, New South Wales, Australia (Dr Wang); Department of Epidemiology and Biostatistics, School of Public Health and Health Services, George Washington University Medical Center, Washington, DC (Ms O'Colmain).

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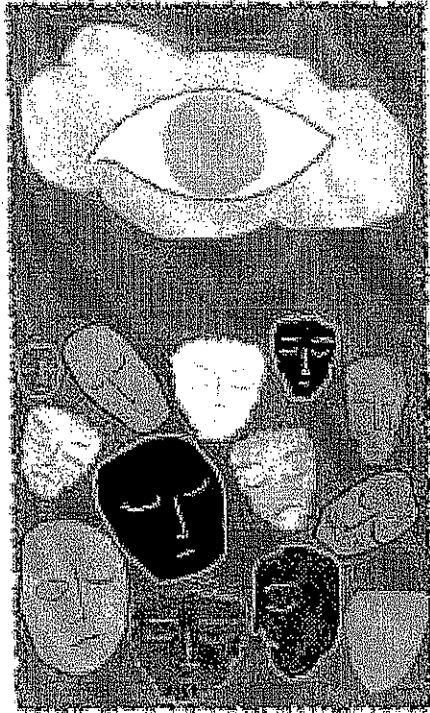
Corresponding author: Nathan Congdon, MD, MPH, Wilmer Eye Institute, Wilmer 120, 600 N Wolfe St, Baltimore, MD 21287 (e-mail: ncongdon@jhmi.edu).

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# Vision Problems in the U.S.

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## Cataract

Cataract is a clouding of the eye's naturally clear lens. Most cataracts appear with advancing age. The exact cause of cataract is unclear, but it may be the result of a lifetime of exposure to ultraviolet radiation contained in sunlight, or may be related to other lifestyle factors such as cigarette smoking, diet and alcohol consumption.

Cataract can also occur at any age as a result of other causes such as eye injury, exposure to toxic substances or radiation, or as a result of other diseases such as diabetes.

Congenital cataracts may even be present at birth due to genetic defects or developmental problems. Cataracts in infants may also result from exposure to diseases such as rubella during pregnancy.

According to the World Health Organization, cataract is the leading cause of blindness in the world. In the United States, cataract is sometimes considered a conquered disease because treatment is widely available that can eliminate vision loss due to the disease. However, cataract still accounts for a significant amount of vision impairment in the U.S., particularly in older people who may have difficulty accessing appropriate eye care due to cost, availability or other barriers.

Treatment of cataract involves removal of the clouded natural lens. The lens is usually replaced with an artificial intraocular lens (IOL) implant. Cataract removal is now one of the most commonly performed surgical procedures with more than a million such surgeries performed each year.

Surgery is not truly a cure for cataract, however, and its success in controlling vision loss comes with a price. It is estimated that the direct annual medical costs for outpatient, inpatient and prescription drug services related to the treatment of cataract total \$6.8 billion.

Ongoing research into the normal healthy functioning of the eye's lens may help us better understand the causes of cataract and how they might be prevented. Even partial achievement of this goal might save hundreds of millions of dollars in the annual costs of treating cataract.

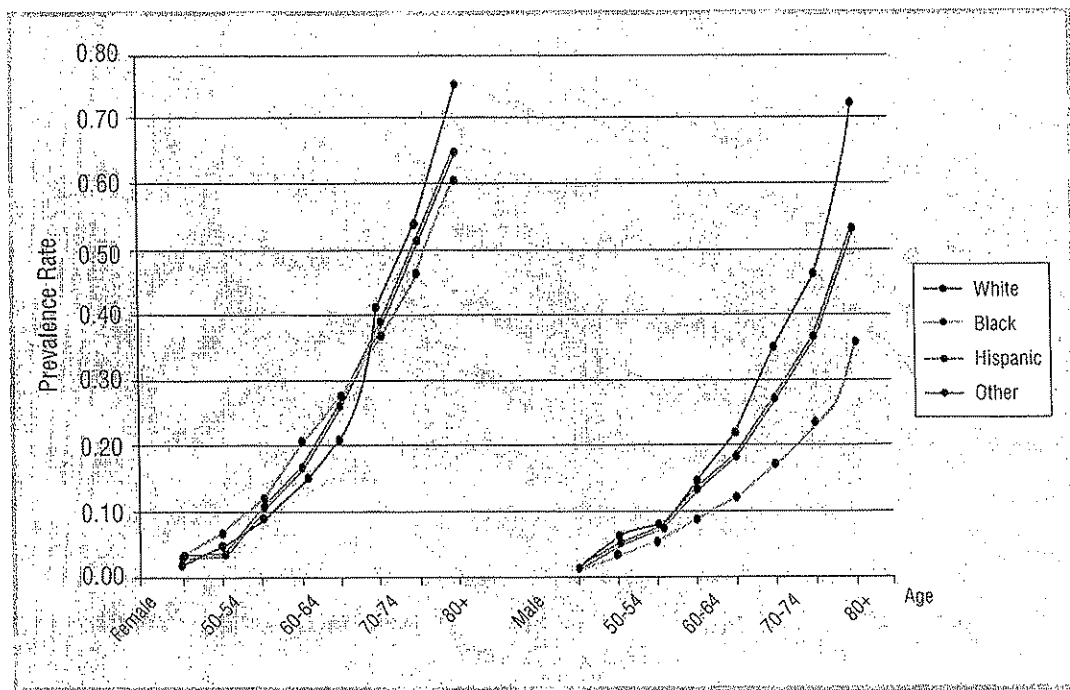
Because of the variety of opacifications possible, cases of cataract can be defined by a number of classification schemes. The cases included in the

prevalence statistics below include cortical cataract affecting 25% or more of the lens, posterior sub-capsular cataract 1mm or larger, and nuclear cataract greater than or equal to the next-to-the-highest grade in the grading system used (generally NII or NIII in the LOCS II grading system).

Cataract affects over 22 million Americans age 40 and older (see table on pages 24 and 25), or about one in every six people in this age range. By age 80, more than half of all Americans have cataract.

Cataract is slightly more common in women than in men (see chart below). It also affects Whites somewhat more frequently than other races, particularly with increasing age.

**Estimated Specific Prevalence Rates for Cataract**





## Estimated Number of Cases of Cataract in the U.S. Population Age 40 and Older by State, Race and Sex

State	Total	Female	Male	White	Black	Hispanic	
<b>Total U.S.</b>	22,325,926	13,699,339	8,626,587	18,570,408	1,717,309	1,292,613	7
Alabama	355,415	223,012	132,403	288,569	61,796	2,443	
Alaska	29,476	16,225	13,251	22,823	629	575	
Arizona	432,921	255,619	177,302	369,026	7,121	41,895	
Arkansas	227,089	139,834	87,255	202,444	20,557	2,210	
California	2,361,455	1,433,287	928,168	1,616,678	113,509	360,624	2
Colorado	287,678	171,115	116,563	249,318	6,858	25,323	
Connecticut	304,151	189,004	115,147	274,923	14,825	10,208	
Delaware	66,182	40,368	25,814	56,677	7,490	995	
District of Columbia	38,536	25,678	12,857	12,202	24,051	1,465	
Florida	1,701,548	1,024,589	676,959	1,389,852	109,924	182,089	
Georgia	526,081	328,518	197,563	406,598	101,408	9,400	
Hawaii	101,131	62,426	38,706	27,783	640	2,571	
Idaho	99,393	58,047	41,346	95,490	154	2,289	
Illinois	942,405	587,506	354,899	783,984	93,145	41,341	
Indiana	480,044	296,478	183,566	445,336	25,286	6,138	
Iowa	270,038	165,705	104,332	264,197	2,288	2,022	
Kansas	221,576	134,942	86,634	206,646	6,938	5,010	
Kentucky	319,339	196,262	123,076	301,008	14,837	1,753	
Louisiana	319,320	200,397	118,923	240,511	69,172	5,834	
Maine	119,018	71,713	47,305	117,715	253	382	
Maryland	399,315	248,517	150,799	302,886	75,100	7,995	
Massachusetts	542,352	337,194	205,158	503,051	16,088	11,988	
Michigan	781,698	480,261	301,437	691,057	70,682	9,825	
Minnesota	392,007	236,304	155,703	377,988	4,646	2,986	
Mississippi	208,550	132,107	76,443	156,887	48,765	1,493	
Missouri	470,051	289,152	180,898	430,135	31,489	3,931	
Montana	78,906	46,195	32,712	75,863	110	641	
Nebraska	144,457	87,925	56,532	138,083	2,769	2,275	
Nevada	156,188	89,363	66,825	127,908	7,445	11,864	
New Hampshire	101,420	60,339	41,081	99,595	338	635	
New Jersey	702,942	438,929	264,012	573,311	58,497	45,198	
New Mexico	137,271	82,196	55,076	87,925	1,725	39,683	
New York	1,534,750	964,751	570,000	1,191,491	158,008	122,458	
North Carolina	624,510	390,072	234,438	515,526	92,332	7,036	
North Dakota	58,147	35,272	22,875	56,821	55	204	
Ohio	945,043	585,844	359,199	859,177	70,669	7,459	
Oklahoma	279,621	169,960	109,661	246,980	11,672	4,469	
Oregon	290,512	173,287	117,225	274,398	2,464	5,830	
Pennsylvania	1,176,500	734,496	442,004	1,082,486	69,615	12,845	
Rhode Island	96,735	60,551	36,184	90,767	2,050	2,681	
South Carolina	313,574	196,158	117,416	245,858	62,613	2,635	
South Dakota	67,672	40,813	26,859	65,218	118	342	
Tennessee	449,681	278,439	171,242	398,899	44,394	3,270	
Texas	1,354,576	823,527	531,049	966,484	107,883	249,226	
Utah	128,576	75,035	53,541	120,127	498	4,932	
Vermont	52,086	30,964	21,122	51,379	116	282	
Virginia	527,702	324,546	203,156	429,402	74,130	9,185	
Washington	451,135	268,260	182,875	409,338	7,525	9,867	
West Virginia	168,516	102,477	66,039	163,233	3,799	713	
Wisconsin	450,030	273,301	176,729	429,864	10,677	4,838	
Wyoming	38,608	22,381	16,226	36,699	155	1,208	

Female	White Male	Black Female	Black Male	Hisp. Female	Hisp. Male	Other Female	Other Male	State
58,602	7,311,806	1,194,031	523,278	788,369	504,245	458,337	287,258	<b>Total U.S.</b>
76,356	112,213	43,658	18,138	1,402	1,041	1,595	1,012	Alabama
12,165	10,658	385	244	324	252	3,351	2,098	Alaska
16,650	152,376	4,585	2,536	25,027	16,868	9,357	5,522	Arizona
23,037	79,407	14,444	6,113	1,208	1,002	1,145	733	Arkansas
69,322	647,356	76,813	36,696	219,693	140,932	167,459	103,184	California
47,802	101,516	4,431	2,427	15,002	10,322	3,880	2,299	Colorado
69,862	105,061	10,371	4,454	6,310	3,898	2,461	1,734	Connecticut
34,054	22,622	5,135	2,355	571	424	608	413	Delaware
7,055	5,146	17,146	6,906	946	519	532	286	District of Columbia
23,240	566,611	75,014	34,910	114,300	67,789	12,034	7,649	Florida
46,892	159,706	71,357	30,051	5,158	4,242	5,111	3,564	Georgia
15,617	12,165	347	294	1,562	1,008	44,899	25,239	Hawaii
55,829	39,661	85	70	1,235	1,054	898	561	Idaho
34,151	299,833	65,120	28,025	23,698	17,643	14,537	9,397	Illinois
73,676	171,660	17,384	7,902	3,432	2,706	1,986	1,298	Indiana
32,145	102,052	1,496	792	1,141	881	924	607	Iowa
25,583	81,063	4,683	2,255	2,878	2,132	1,799	1,184	Kansas
33,949	117,059	10,269	4,568	982	771	1,062	678	Kentucky
46,380	94,131	48,086	21,087	3,708	2,125	2,223	1,580	Louisiana
70,916	46,798	146	107	234	148	417	252	Maine
33,487	119,400	52,059	23,041	4,998	2,997	7,973	5,361	Maryland
12,044	191,007	11,077	5,011	7,427	4,560	6,646	4,579	Massachusetts
19,869	271,188	48,701	21,981	5,653	4,171	6,038	4,096	Michigan
27,821	150,167	2,973	1,673	1,643	1,343	3,867	2,520	Minnesota
36,338	60,550	34,040	14,725	864	629	865	540	Mississippi
51,996	168,139	22,090	9,400	2,314	1,617	2,753	1,743	Missouri
44,314	31,549	65	46	387	254	1,429	863	Montana
33,987	54,096	1,864	904	1,238	1,037	835	495	Nebraska
72,111	55,797	4,779	2,666	6,830	5,034	5,643	3,328	Nevada
59,244	40,351	201	136	387	249	506	345	New Hampshire
54,549	218,761	40,940	17,557	28,000	17,198	15,440	10,495	New Jersey
51,995	35,930	1,090	636	24,088	15,594	5,023	2,916	New Mexico
34,747	456,744	113,328	44,680	79,353	43,105	37,323	25,471	New York
15,177	200,349	65,188	27,144	3,761	3,325	5,946	3,620	North Carolina
34,445	22,377	28	27	120	83	679	388	North Dakota
27,838	331,339	48,919	21,750	4,394	3,065	4,692	3,045	Ohio
49,185	97,795	7,940	3,733	2,488	1,981	10,348	6,151	Oklahoma
33,638	110,759	1,584	880	3,255	2,575	4,810	3,011	Oregon
70,759	411,726	49,229	20,386	7,636	5,209	6,871	4,683	Pennsylvania
56,768	33,999	1,360	690	1,690	991	732	504	Rhode Island
49,162	96,696	43,965	18,848	1,482	1,153	1,549	919	South Carolina
39,284	25,934	62	56	200	142	1,268	727	South Dakota
43,426	155,272	31,182	13,213	1,831	1,439	2,000	1,318	Tennessee
79,255	387,229	74,198	33,685	151,607	97,619	18,467	12,516	Texas
70,065	50,063	284	213	2,865	2,067	1,821	1,197	Utah
30,552	20,828	64	52	170	112	178	130	Vermont
58,657	170,745	51,121	23,009	5,563	3,625	9,205	5,778	Virginia
42,645	166,693	4,665	2,860	5,487	4,380	15,462	8,943	Washington
98,918	64,315	2,674	1,125	427	286	458	314	West Virginia
30,400	169,464	7,314	3,363	2,701	2,137	2,886	1,765	Wisconsin
21,243	15,449	94	61	697	511	347	206	Wyoming

# Methods and Sources

In 2001, a consensus meeting was convened by the National Eye Institute at which many of the world's leading ophthalmic epidemiologists created standard case definitions for the eye conditions included in this report. Data was obtained from a review of the major epidemiological studies with the cooperation of their authors (see Table of Sources below).

The number of individuals with each disease and the total number at risk were provided in five-year age increments by race and sex for the adult population from each of the studies. These age, race and sex-specific prevalence rates were then combined using a meta-analysis technique for reducing the overall variance of the pooled rate. Appropriate logistic regression models were fit to the age, race and sex-specific pooled prevalence rates. These models were applied to the state level U.S. Census 2000 populations for each year of age to arrive at the number of individuals with disease by race and sex for each state. The state-level prevalence rates were then derived by dividing the number of individuals with disease in each state by the total population in each state. To estimate the prevalence of disease in the "other" race category, the age and sex-specific rates for Whites, Blacks and Hispanics were averaged, then logistic regression models were developed based on these averages.

While the methods used in this report are similar to those used in previous editions of *Vision Problems in the U.S.*, there are minor differences. Changes in statistical techniques and significantly broader source data have resulted in the most accurate estimates Prevent Blindness America has ever produced. For these reasons, however, direct comparisons between current and previous estimates are inappropriate.

Obtaining an actual count of the number of eye disease cases in America would be virtually impossible. While these estimates do not represent exact measurements, they provide the best available information on the scope of the most serious threats to good vision for American adults in the 21st century.

**Table of Sources**

Study	Location	Eye Condition					
		B/W	R/E	AMD	Cataract	D/R	Glaucoma
Baltimore Eye Survey	Baltimore, MD	B W	B W	B W			B W
Barbados Eye Study	Barbados, West Indies			B	B	B	
Beaver Dam Eye Study	Beaver Dam, WI	W	W	W	W	W	W
Blue Mountains Eye Study	Blue Mountains, Australia	W		W	W	W	W
Kongwa Eye Survey	Kongwa, Tanzania						B
Proyecto Ver	Tucson, AZ	H	H			H	H
Rotterdam Study	Rotterdam, Netherlands	W	W	W			W
Salisbury Eye Evaluation Project	Salisbury, MD	B W		B W	B W		
San Antonio Heart Study	San Antonio, TX					H W	
San Luis Valley Diabetes Study	San Luis Valley, CO					H W	
Visual Impairment Project	Melbourne, Australia	W		W	W	W	W
Wisconsin Epidemiologic Study of Diabetic Retinopathy	Madison, WI					W	

Primary prevalence rate source for: B = Blacks, W = Whites, H = Hispanics  
 B/W = blindness and vision impairment, R/E = refractive errors, AMD = age-related macular degeneration,  
 D/R = diabetic retinopathy

The Tables in this 2008 Update to the Fourth Edition of *Vision Problems in the U.S.* were updated using revised prevalence numbers from a meta-analysis of multiple smaller studies of blindness and vision impairment published in a special issue on blindness in the *Archives of Ophthalmology* in 2004. The population numbers were also updated using the 2004 census estimates of the U.S. population.

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**Principal Investigator**     **David S. Friedman, MD, MPH**  
Assistant Professor of Ophthalmology  
Wilmer Eye Institute  
Johns Hopkins University

**Co-investigators**            **Nathan Congdon, MD, MPH**  
Assistant Professor of Ophthalmology  
Wilmer Eye Institute  
Johns Hopkins University

**John Kempen, MD, PhD**  
Assistant Professor of Ophthalmology  
Wilmer Eye Institute  
Johns Hopkins University

**James M. Tielsch, PhD**  
Professor  
Bloomberg School of Public Health  
Johns Hopkins University

Dr. Tielsch also serves on the board of directors of Prevent Blindness America and was project leader for this publication.

The investigators were assisted by staff at ORC Macro International, including:

**Benita J. O'Colmain, MPH, PhD**  
**Wanda Parham, MPA**  
**Arlen Rosenthal, MA**  
**Adrienne Y. Semidey, MA**  
**Sandra Townsend**  
**Ceres Wright, BS**

Text written by                 **John A. Shoemaker**

2008 Updates to the Fourth Edition provided by:

<b>Kevin D. Frick, PhD</b> Associate Professor Bloomberg School of Public Health Johns Hopkins University	<b>Christine S. Spencer, ScD</b> Associate Professor School of Public Affairs University of Baltimore
--	--

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**Eye Health Statistics at a Glance**  
**Compiled by American Academy of Ophthalmology**  
Updated May 2009

**EYE DISEASES**

**Q: How many people in the U.S. have cataracts?**

A: Cataracts affect nearly 22 million Americans age 40 and older. By age 80, more than half of all Americans have cataracts. Direct medical costs for cataract treatment are estimated at \$6.8 billion annually. *[Source: Vision Problems in the U.S., by the National Eye Institute and Prevent Blindness America, 2008]*

**Q: How many people in the U.S. have glaucoma?**

A: Glaucoma affects more than 2.3 million Americans age 40 and older. Another 2 million do not know they have the disease. *[Source: Vision Problems in the U.S., by the National Eye Institute and Prevent Blindness America, 2008]*

*Additional statistics for glaucoma:*

- Glaucoma Research Foundation, [www.glaucoma.org](http://www.glaucoma.org).

**Q: How many people in the U.S. have age-related macular degeneration (AMD)?**

A: More than 2 million Americans age 50 and older have advanced AMD, the stage that can lead to severe vision impairment. *[Source: Vision Problems in the U.S., by the National Eye Institute and Prevent Blindness America, 2008]*

A: About 10 million have early, intermediate or advanced AMD. *[Source: American Academy of Ophthalmology Preferred Practice Pattern 2008, Retina/Vitreous.]*

**Q: How many people in the U.S. have diabetic retinopathy?**

A: Diabetic retinopathy affects more than 4.4 million Americans age 40 and older. *[Source: Vision Problems in the U.S., by the National Eye Institute and Prevent Blindness America, 2008]*  
The number of people, especially young people, with diabetes is increasing: 19 million Americans age 20 and older have diagnosed or undiagnosed diabetes; about one-third are unaware they have the disease. *[Source: American Academy of Ophthalmology Preferred Practice Pattern 2008, Retina/Vitreous.]* Generally, the longer a person has diabetes the more likely they are to develop retinopathy.

**Q: How many people in the U.S. have dry eye?**

A: About 4.3 million people, with prevalence highest in those older than age 65. [Source: American Academy of Ophthalmology Preferred Practice Pattern 2008, Cornea/External Disease.]

**Q: How many corneal transplants are performed in the U.S. annually for Fuchs' dystrophy, corneal edema, keratoconus and other disorders?**

A: A total of 41,652 corneal transplants were performed in the U.S. in 2008. [Source: Eye Bank Association of America 2008 Statistical Report [http://www.restoresight.org/pdfs/2008pressrelease\\_statreport.pdf](http://www.restoresight.org/pdfs/2008pressrelease_statreport.pdf)]

#### VISUAL IMPAIRMENT AND BLINDNESS

**Q: How many people in the U.S. are visually impaired?**

A: Among people age 40 and older, more than 3.6 million are visually impaired, defined as 20/40 or worse in the best-seeing eye even when vision is corrected by eyeglasses or contact lenses. [Source: Vision Problems in the U.S. report, by the National Eye Institute and Prevent Blindness America, 2008]

**Q: How many people in the U.S. are legally blind?**

A: More than one million people, age 40 and older are legally blind, defined as 20/200 best corrected vision. [Source: Vision Problems in the U.S., by the National Eye Institute and Prevent Blindness America, 2008]

**Q: How many people in the U.S. are color blind?**

A: About 8 percent of men and 0.5 percent of women are color blind. [Source: National Center for Health Statistics (NCHS), [http://www.cdc.gov/pcd/issues/2008/Jul/pdf/07\\_0077.pdf](http://www.cdc.gov/pcd/issues/2008/Jul/pdf/07_0077.pdf)]

#### EYE INJURY STATISTICS

**Q: How many people in the U.S. suffer eye injuries each year?**

A: Each year more than 2.5 million eye injuries occur and 50,000 people permanently lose part or all of their vision. Ninety percent (90%) of all eye injuries can be prevented by using protective eyewear. [Source: United States Eye Injury Registry summary report, 1998-2002]

**Q: Who is most likely to be injured?**

A: Nearly half (47.6 percent) of all eye injuries occur in people 18 to 45 years of age.

A: Males are at greater risk in all age groups: 73 percent of eye injuries occur in males. [Source: United States Eye Injury Registry summary report, 1998-2002]

**Q: Where do most injuries occur?**

A: Nearly half (44.1 percent) happen in the home.

A: 14.7 percent of eye injuries occur during sports; among children age 5 to 14, this is the most common form of eye injury. Most could be prevented through use of appropriate protective eyewear. [Source: United States Eye Injury Registry summary report, 1998-2002]

#### PREVALENCE OF REFRACTIVE ERROR IN THE U.S.

**Q: How many people in the U.S. have myopia (nearsightedness) ( $\geq 1.0$  diopters)?**

A: More than 32 million Americans age 40 and older are myopic.

**Q: How many people in the U.S. have hyperopia (farsightedness) ( $\geq 3.0$  diopters)?**

A: More than 12 million Americans age 40 and older are hyperopic.

**Q: What about astigmatism?**

A: This common refractive error occurs in about one in three people and may occur in combination with near or farsightedness. It causes blurry vision and is due to the cornea being less than perfectly rounded.

**Q: How many people in the U.S. have presbyopia?**

A: Everyone develops presbyopia between ages 45-50, when the eye's lens becomes less flexible.

[Source for Refractive Error section: *Vision Problems in the U.S.*, by the National Eye Institute and Prevent Blindness America, 2008]

#### VISION CORRECTION STATISTICS

**Q: How many Americans need some type of corrective eyewear?**

A: More than 150 million Americans use corrective eyewear to compensate for their refractive error. Americans spend more than \$15 billion each year on eyewear. [Source: *Vision Problems in the U.S.*, by the National Eye Institute and Prevent Blindness America, 2008]

**Q: How many people wear contact lenses in the U.S.?**

A: More than 38 million Americans wear contact lenses. [Source: Spectrum Consulting, 2004]

**Q: How many refractive/LASIK surgeries are performed annually in the U.S.?**

A: Approximately 700,000 LASIK procedures are performed annually. [Source: Eye Surgery Education Council, established by the American Society for Cataract and Refractive Surgery. Lasik. <http://www.eyesurgeryeducation.com/Lasik.html> ]

#### **STATISTICS ON OPHTHALMOLOGISTS**

**Q: How many ophthalmologists are there in the U.S.?**

A: According to the AMA Physician Masterfile (updated July 7, 2008), there are 23,861 ophthalmologists in the U.S. That number includes both active and inactive (retired, etc.) ophthalmologists.

**Q: How many ophthalmologists are there worldwide (including the U.S.)?**

A: There are approximately 150,000 ophthalmologists worldwide, according to the Academy's International Division (2009.)

**Q: Where can I get more career information on ophthalmology?**

A: Envision Ophthalmology [ <http://www.aao.org/aao/careers/envision/index.cfm> ]



**ATTACHMENT B**

**CESC - Percentage of Total Referrals By City/Town**

City, state	%
HARTFORD, CT	10.65%
WEST HARTFORD, CT	9.24%
NEW BRITAIN, CT	9.03%
NEWINGTON, CT	5.33%
WETHERSFIELD, CT	5.17%
EAST HARTFORD, CT	4.50%
MIDDLETOWN, CT	4.30%
BERLIN, CT	3.01%
BLOOMFIELD, CT	2.90%
ROCKY HILL, CT	2.83%
MERIDEN, CT	2.77%
GLASTONBURY, CT	2.71%
FARMINGTON, CT	2.04%
PLAINVILLE, CT	1.92%
WALLINGFORD, CT	1.85%
AVON, CT	1.72%
CROMWELL, CT	1.71%
WINDSOR, CT	1.65%
SOUTHINGTON, CT	1.60%
BRISTOL, CT	1.53%
SIMSBURY, CT	1.45%
MANCHESTER, CT	1.17%
TORRINGTON, CT	1.11%
ENFIELD, CT	0.96%
PORTLAND, CT	0.95%
EAST HAMPTON, CT	0.85%
S WINDSOR, CT	0.85%
OLD SAYBROOK, CT	0.79%
WINDSOR LOCKS, CT	0.78%
SUFFIELD, CT	0.71%
GRANBY, CT	0.62%
VERNON, CT	0.60%
WINSTED, CT	0.60%
CHESHIRE, CT	0.59%
UNIONVILLE, CT	0.54%
DURHAM, CT	0.53%
COLCHESTER, CT	0.51%
CANTON, CT	0.49%
SOUTH GLASTONBURY, CT	0.46%
WESTBROOK, CT	0.45%
HIGGINUM, CT	0.40%
DEEP RIVER, CT	0.39%
CLINTON, CT	0.39%
MARLBOROUGH, CT	0.38%
BURLINGTON, CT	0.35%
EAST GRANBY, CT	0.34%
CHESTER, CT	0.33%
ESSEX, CT	0.32%
EAST HADDAM, CT	0.30%
PLANTSVILLE, CT	0.29%
KILLINGWORTH, CT	0.29%

City, state	%
W. SIMSBURY, CT	0.28%
MIDDLEFIELD, CT	0.25%
OLD LYME, CT	0.24%
HADDAM, CT	0.21%
NEW HARTFORD, CT	0.21%
ELLINGTON, CT	0.21%
TOLLAND, CT	0.20%
WEST SUFFIELD, CT	0.20%
EAST WINDSOR, CT	0.19%
EAST BERLIN, CT	0.19%
MOODUS, CT	0.19%
COVENTRY, CT	0.16%
WEATOGUE, CT	0.16%
LITCHFIELD, CT	0.14%
ROCKFALL, CT	0.14%
IVORYTON, CT	0.14%
AMSTON, CT	0.13%
BARKHAMSTED, CT	0.12%
NORTH GRANBY, CT	0.12%
SOMERS, CT	0.12%
COLUMBIA, CT	0.11%
TERRYVILLE, CT	0.11%
GUILFORD, CT	0.10%
TARIFFVILLE, CT	0.10%
EAST HARTLAND, CT	0.10%
NORTH HAVEN, CT	0.09%
WILLINGTON, CT	0.08%
WOLCOTT, CT	0.06%
ASHFORD, CT	0.05%
SOUTHWICK, MA	0.05%
BRANFORD, CT	0.04%
HADLYME, CT	0.03%
WEST SPRINGFIELD, MA	0.03%
GROTON, CT	0.02%
SALEM, CT	0.02%
BROOKLYN, CT	0.02%
PROSPECT, CT	0.02%
JEWITT CITY, CT	0.01%
HAMPTON, CT	0.01%
LAKEVILLE, CT	0.01%
PINEMEADOW, CT	0.01%
FRANKLIN, CT	0.01%
HAMPDEN, MA	0.01%
SHARON, CT	0.01%
SPRINGFIELD, MA	0.01%
Danbury, CT	0.01%
LONGMEADOW, MA	0.01%
BREWSTER, MA	0.01%
OXFORD, CT	0.01%

## CESC Patient Volume by Zip Code of Origin

Zip code	City, state	%
01002	AMHERST, MA	0.00
06231	AMSTON, CT	0.13
06278	ASHFORD, CT	0.04
01501	AUBURN, MA	0.00
06001	AVON, CT	1.64
06063	BARKHAMSTED, CT	0.12
06002	BLOOMFIELD, CT	2.77
06405	BRANFORD, CT	0.04
02631	BREWSTER, MA	0.01
06010	BRISTOL, CT	1.46
06234	BROOKLYN, CT	0.02
06013	BURLINGTON, CT	0.33
06020	CANTON, CT	0.02
06019	CANTON, CT	0.44
06410	CHESHIRE, CT	0.56
06412	CHESTER, CT	0.31
06413	CLINTON, CT	0.37
06415	COLCHESTER, CT	0.49
06237	COLUMBIA, CT	0.10
06238	COVENTRY, CT	0.15
06416	CROMWELL, CT	1.63
06811	Danbury, CT	0.01
06417	DEEP RIVER, CT	0.38
06422	DURHAM, CT	0.50
06023	EAST BERLIN, CT	0.18
06026	EAST GRANBY, CT	0.32
06423	EAST HADDAM, CT	0.29
06424	EAST HAMPTON, CT	0.81
06118	EAST HARTFORD, CT	2.50
06108	EAST HARTFORD, CT	1.80
06027	EAST HARTLAND, CT	0.09
06088	EAST WINDSOR, CT	0.18
06029	ELLINGTON, CT	0.20
06082	ENFIELD, CT	0.92
06426	ESSEX, CT	0.30
06032	FARMINGTON, CT	1.95
06254	FRANKLIN, CT	0.01
06033	GLASTONBURY, CT	2.59
06035	GRANBY, CT	0.59
06349	GROTON, CT	0.02
06437	GUILFORD, CT	0.10
06438	HADDAM, CT	0.20
06439	HADLYME, CT	0.03
01036	HAMPDEN, MA	0.01
06247	HAMPTON, CT	0.01
06106	HARTFORD, CT	3.61
06114	HARTFORD, CT	1.98
06105	HARTFORD, CT	1.88
06112	HARTFORD, CT	1.77
06120	HARTFORD, CT	0.86
06102	HARTFORD, CT	0.07

## CESC Patient Volume by Zip Code of Origin

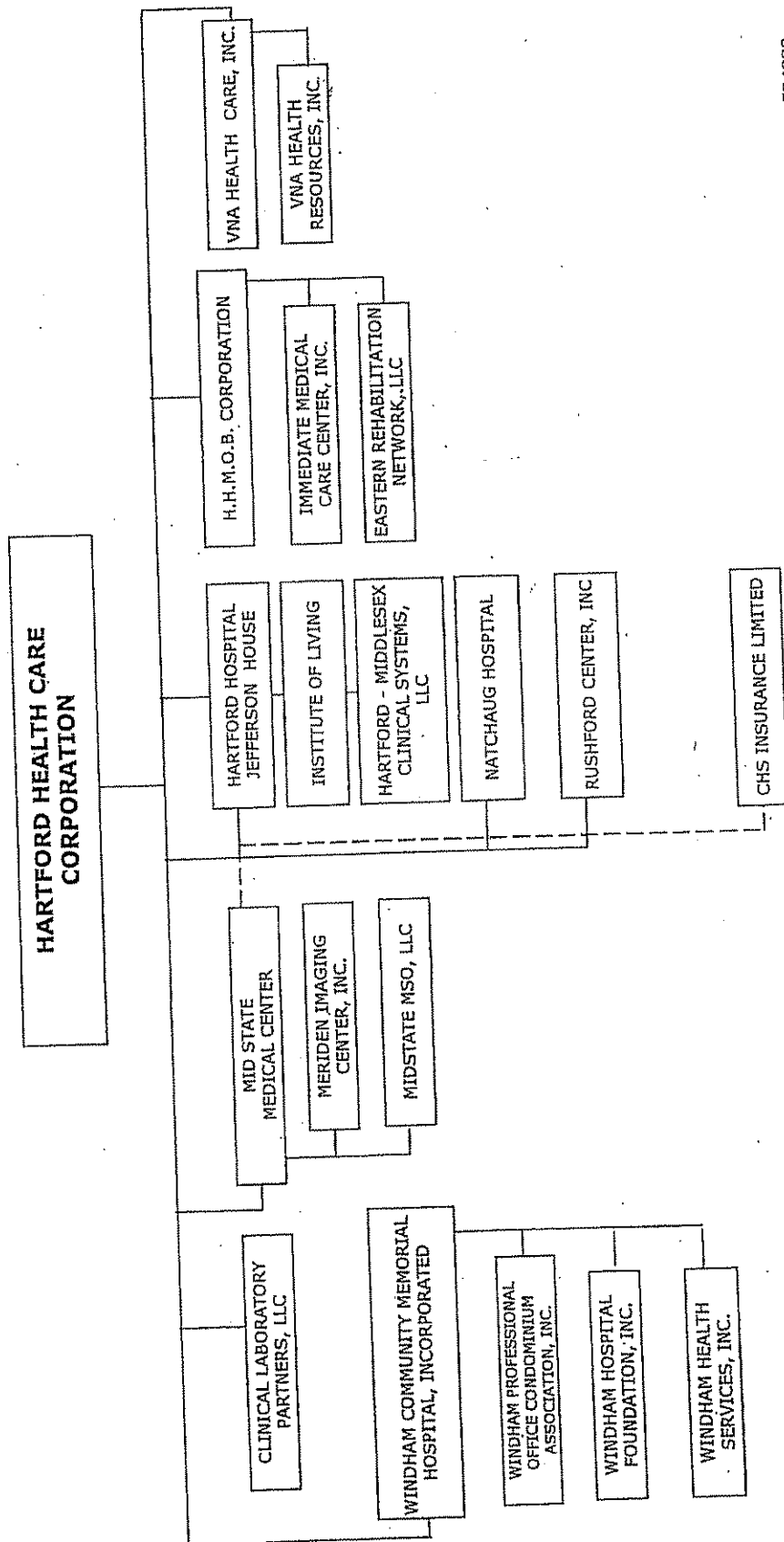
Zip code	City, state	%
06441	HIGGINUM, CT	0.38
06442	IVORYTON, CT	0.13
06351	JEWITT CITY, CT	0.01
06037	KENSINGTON, CT	2.87
06419	KILLINGWORTH, CT	0.28
06039	LAKEVILLE, CT	0.01
06759	LITCHFIELD, CT	0.13
01106	LONGMEADOW, MA	0.01
06040	MANCHESTER, CT	1.12
06447	MARLBOROUGH, CT	0.36
06450	MERIDEN, CT	1.95
06451	MERIDEN, CT	0.69
06455	MIDDLEFIELD, CT	0.23
06457	MIDDLETOWN, CT	4.10
06469	MOODUS, CT	0.18
06053	NEW BRITAIN, CT	4.20
06051	NEW BRITAIN, CT	3.11
06052	NEW BRITAIN, CT	1.18
06050	NEW BRITAIN, CT	0.13
06057	NEW HARTFORD, CT	0.20
04955	NEW SHARON, ME	0.00
10022	NEW YORK, NY	0.00
06111	NEWINGTON, CT	5.09
06060	NORTH GRANBY, CT	0.12
06473	NORTH HAVEN, CT	0.08
06371	OLD LYME, CT	0.23
06475	OLD SAYBROOK, CT	0.75
06478	OXFORD, CT	0.01
06061	PINEMEADOW, CT	0.01
06062	PLAINVILLE, CT	1.83
06479	PLANTSVILLE, CT	0.28
06480	PORTLAND, CT	0.91
06712	PROSPECT, CT	0.02
06481	ROCKFALL, CT	0.13
06067	ROCKY HILL, CT	2.71
06074	S WINDSOR, CT	0.81
06420	SALEM, CT	0.02
06069	SHARON, CT	0.01
06070	SIMSBURY, CT	1.38
06071	SOMERS, CT	0.12
06073	SOUTH GLASTONBURY, CT	0.44
06489	SOUTHINGTON, CT	1.53
01077	SOUTHWICK, MA	0.04
01108	SPRINGFIELD, MA	0.01
06078	SUFFIELD, CT	0.67
06081	TARIFFVILLE, CT	0.10
06786	TERRYVILLE, CT	0.10
06084	TOLLAND, CT	0.20
06790	TORRINGTON, CT	1.06
06085	UNIONVILLE, CT	0.52
06066	VERNON, CT	0.57

### CESC Patient Volume by Zip Code of Origin

Zip code	City, state	%
06092	W. SIMSBURY, CT	0.27
06492	WALLINGFORD, CT	1.76
06089	WEATOGUE, CT	0.15
05872	WEST CHARLESTON, VT	0.00
06110	WEST HARTFORD, CT	1.68
06107	WEST HARTFORD, CT	2.82
06117	WEST HARTFORD, CT	2.46
06119	WEST HARTFORD, CT	1.86
01089	WEST SPRINGFIELD, MA	0.02
06093	WEST SUFFIELD, CT	0.19
06498	WESTBROOK, CT	0.43
06109	WETHERSFIELD, CT	4.93
06279	WILLINGTON, CT	0.07
06096	WINDSOR LOCKS, CT	0.74
06095	WINDSOR, CT	1.57
06098	WINSTED, CT	0.57
06716	WOLCOTT, CT	0.05

ATTACHMENT C

**CORPORATE ORGANIZATION CHART  
HARTFORD HEALTH CARE CORPORATION  
As of August 1, 2009**

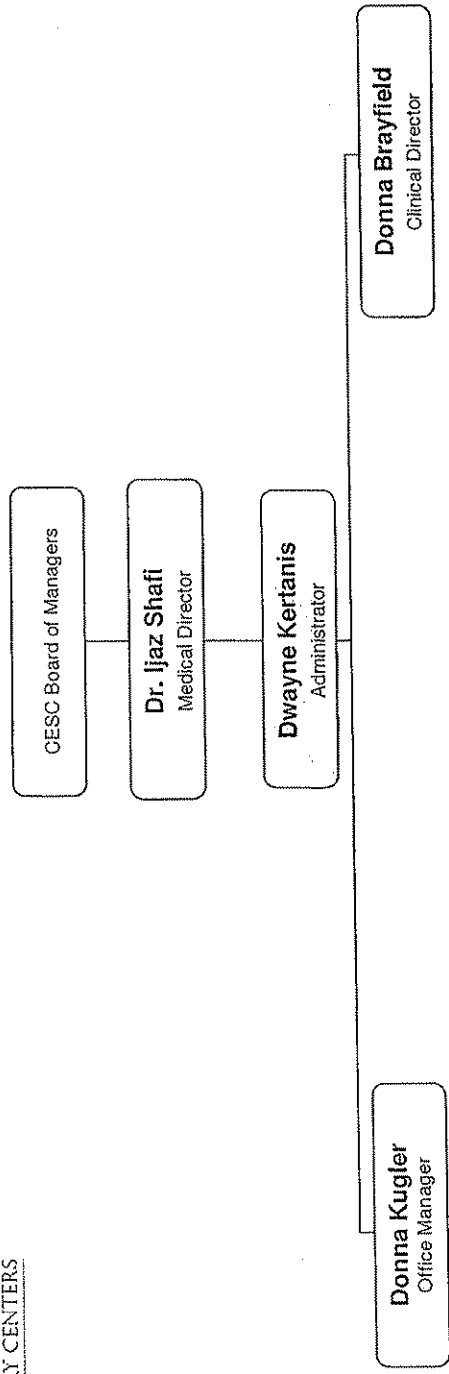


524890

November 18, 2009

00282

# Constitution Eye Surgery Center, LLC



CSC Employee





# Constitution Eye Surgery Center, LLC

## CEC Board of Managers

Alexander Fortier, M.D.  
William Maron, M.D.  
Alan Stern, M.D.

**ATTACHMENT D**

Constitution Eye Surgery Center, LLC

Membership Percentages

IJAZ SHAFI	3.8927%
EDMUND SUSKI	3.8927%
DAVID EMMEL	3.8927%
WILLIAM MARON	3.8927%
DONALD SALZBERG	3.8927%
ALEXANDER FORTIER	3.8927%
PATRICK ALBERGO	3.8927%
DUANE AUSTIN	3.8927%
ALAN SOLINSKY	3.8927%
GERARD NOLAN	3.8927%
PETER KRENICKY	1.9464%
WILLIAM HALL	2.2244%
JAY HELLREICH	2.2244%
THOMAS BEGGINS	2.7805%
RAJI MULUKUTLA	2.7805%
ELWIN SCHWARTZ	2.7805%
Mary Gina Ratchford	3.8927%
RICHARD MOLK	2.7805%
MARTIN WAND	1.8770%
DAVID HILL	3.7540%
MARTIN EDWARDS	2.8155%
MITCHELL GILBERT	3.7540%
CSC	8.4151%
MARTIN SEREMET	3.2209%
ALAN STERN	3.2209%
PATRICIA MCDONALD	3.2209%
KEVIN MCMAHON	1.8770%
JOSEPH BENTIVEGNA	1.8770%
SCOTT DOLIN	1.8770%
ROGER LUSKIND	1.8770%
GEOFFREY EMERICK	1.8770%
	100.00020%

Hartford Hospital  
80 Seymour Street  
Hartford, Connecticut 06102

September 3, 2010

PERSONAL AND CONFIDENTIAL

Constitution Eye Surgery Center, LLC  
505 Willard Ave.  
Newington, Connecticut 06111  
Attention: Kris Mineau, Constitution Surgery Centers, LLC

Re: Letter of Intent

Ladies and Gentlemen:

This letter of intent sets forth the terms and conditions upon which Hartford Hospital (the "Hospital") proposes to acquire the outpatient ambulatory eye surgery facility operated by Constitution Eye Surgery Center, LLC ("CESC") located at 505 Willard Avenue, Newington, Connecticut (the "Surgery Center"). The Hospital would operate the Surgery Center as a department of the Hospital for which provider-based status will be sought, and would engage (a) CESC to provide professional medical services to the Surgery Center, and (b) Constitution Surgery Centers, LLC ("CSC") to provide certain management services to the Surgery Center. The acquisition of the Surgery Center and the engagement of CESC and CSC are collectively referred to as the "Transaction."

1. Objectives of the Parties. The objective of the parties is to provide a state-of-the-art ambulatory surgery center that specializes in eye surgery procedures and that achieves outcomes that meet or exceed national standards and outstanding patient satisfaction results.

2. The Purchase.

(a) Purchase. The Hospital would acquire all or substantially all of the assets of CESC, including, without limitation, all leasehold improvements, furniture, fixtures and medical equipment, supplies, intangibles, telephone numbers, clinical protocols, manuals, guidelines, policies and procedures, and books and records related to the operation of the Surgery Center including patient lists and information and medical and financial records, but excluding cash and cash equivalents, accounts receivable, the right to bill for services provided prior to the closing of the Transaction (the "Closing"), and the name "Constitution." The Hospital would also enter into a new lease for the real property and improvements in which the Surgery Center operates at 505 Willard Ave, Newington, Connecticut, at fair market rental rates and on other terms and conditions mutually agreeable to the parties (the "Lease"). The Hospital would not assume any of CESC's provider numbers or any of its liabilities, including, but not limited to, any governmental program liability or any third party claims related to the Surgery Center or the omissions of any persons employed, contracted or in any way affiliated with CESC or CSC.

(b) Consideration. The consideration for the purchased assets would be \$27,500,000 (the "Purchase Price"), and would be payable at Closing, subject to the escrow of a portion of the Purchase Price, as described below.

(c) Escrow. In order to support CESC's obligations to indemnify the Hospital for breaches of CESC's indemnities, covenants, representations and warranties, a mutually agreeable portion of the Purchase Price will be placed in escrow for a mutually agreeable period following the Closing.

4. Restrictive Covenants. As a condition to the purchase and sale of CESC's assets, CESC and each of its physician owners would agree that for a period of five (5) years after the Closing, neither CESC nor any physician owner would own, invest in, etc. any other outpatient surgical center that performs procedures identified by the same procedure codes as those performed at the Surgery Center (as defined below) at that time within the Service Area. . For purposes of this letter, "Service Area" would be defined as specified towns surrounding the Surgery Center and the Hospital. CESC and its physicians would also agree to a staff non-solicitation for the same term.

5. Management Services Agreement. At the Closing, CSC and the Hospital will enter into a management services agreement (the "Management Agreement") pursuant to which CSC would, in assistance to, and in coordination with and subject to the direction of, the Hospital, provide for certain management services related to the operations at the Surgery Center for a period of five (5) years, with a three (3) year renewal term, subject to the satisfaction of certain parameters to be specified in the Management Agreement. The Management Agreement would be subject to customary termination rights for breach, bankruptcy, etc. The Hospital would maintain significant control over the operations, consistent with the Surgery Center being a hospital provider-based center under applicable federal laws and regulations, including, without limitation, the following arrangements: (i) the Surgery Center would be under the direct supervision of the Hospital; and (ii) the Surgery Center would be operated under the same monitoring and oversight by the Hospital as any other department of the Hospital with regard to supervision and accountability (i.e. the Surgery Center would maintain a reporting relationship with a Hospital manager that has the same frequency, intensity, and level of accountability that exists in the relationship between the Hospital and its other departments; and the person with day to day responsibility for operations would be accountable to the governing body of the Hospital in the same manner as any other department head of the Hospital). The Management Agreement would be in a form and contain such terms as may be mutually agreed upon by the parties, including, without limitation, the following:

- CSC would be compensated for its services under the Management Agreement in accordance with the terms of Annex A hereto.
- All services would be provided by CSC at its expense.
- CSC would agree to a non-compete during the term of the Management Agreement and for a two year term after its termination or expiration, by which CSC and its affiliates would be prevented from managing, owning, investing in,

consulting or advising with, etc. any other outpatient surgical center that performs procedures identified by the same procedure codes as those performed at the Surgery Center at that time within the Service Area, other than such a center operated by the Hospital. CSC would also agree to a staff non-solicitation for the same term.

- The terms of the Management Agreement, including, without limitation, the proposed fees, would need to be set in advance, be entered into at arms-length, be at fair market value, and be consistent with applicable Stark and anti-kickback rules. The same would be subject to written confirmation prior to Closing by an independent financial advisor selected by the Hospital.

In addition, the existing billing, collection and other back office services agreement currently in effect with respect to the Surgery Center, with an affiliate of CSC (the "Back Office Services Agreement") will continue in effect for one (1) year, unless extended thereafter by the Hospital in its discretion.

6. Professional Services Agreement. The Hospital seeks to enhance the quality, efficiency and effectiveness of the Surgery Center, and has determined that the opportunities for improvement in the overall quality, scope, efficiency and effectiveness of outpatient surgical service at the Surgery Center will require medical direction and oversight. The Hospital also recognizes that CESC is familiar with the operation of the Surgery Center and has determined that the Hospital's ability to provide services to patients in a manner commensurate with the quality expectations of third party payers will be materially enhanced by the dedicated commitment and cooperation of surgeons who operate in the Surgery Center to pursue and maintain specific improvements in the performance of the Hospital's outpatient surgical services. Therefore, the Hospital would contract with CESC to provide efficient and quality-enhanced clinical co-management and operation of the Surgery Center after Closing (the "Medical Oversight Services"), and at the Closing, CESC and the Hospital would enter into a separate professional services agreement (the "Professional Services Agreement") pursuant to which CESC would furnish such Medical Oversight Services to the Surgery Center for a term of five (5) years, subject to customary termination rights for breach, bankruptcy, etc. Any renewal term for the Professional Services Agreement and the scope of the services and resulting compensation payable for any renewal term would be subject to negotiation at that time. The Professional Services Agreement would be in a form and contain such terms as may be mutually agreed upon by the parties, including, without limitation, the following:

- The compensation payable to CESC under the Professional Services Agreement would be as set forth in Annex B hereto.
- CESC and its physician owners would agree to a non-compete during the term of the Professional Services Agreement and for a two year term after its termination or expiration, by which CESC and its physician owners would be prevented from owning or providing services similar to the Medical Oversight Services to any other outpatient surgical center that performs procedures identified by the same procedure codes as those performed at the Surgery Center at that time within the

Service Area. CESC and its physician owners would also agree to a staff non-solicitation for the same term.

- The Medical Oversight Services to be provided would include, for example, (1) assisting the Hospital in the management of the Surgery Center in such a way as to realize certain operational efficiencies, (2) enhancing the quality of, and satisfaction of patients with respect to, medical services, consistent with quality metrics and target levels for measuring quality improvement and patient satisfaction to be specified in the Professional Services Agreement, (3) establishing clinical protocols, pathways and/or benchmarks, (4) providing medical directors, (5) staffing and running various committees, including for example medical advisory, quality assurance and operations committees, (6) obtaining and maintaining joint commission accreditation status and other applicable accrediting body status, and (7) maintaining compliance with all state and federal conditions of participation and regulations.
- The terms of the Professional Services Agreement, including, without limitation, the compensation to be paid to CESC and its physicians, would need to be set in advance at fair market value, and the same would be subject to written confirmation prior to Closing by an independent financial advisor selected by the Hospital.

7. Conditions to Closing. The Closing of the Transaction would be subject to the fulfillment of the following conditions precedent:

(a) Due Diligence. The Hospital and its attorneys, accountants and other representatives and agents shall have completed their due diligence investigation of CESC, the Surgery Center and CSC; and the results of such due diligence investigation shall be satisfactory to the Hospital in its sole discretion. Between the date of this letter and the Closing, these representatives shall be given full access to the accounting books and other business and financial records, reports and documents of CESC and the Surgery Center. Such due diligence investigation will also include the inspection of the Surgery Center and all facilities and equipment located at the Surgery Center. CESC agrees to cooperate with the Hospital's representatives and agents to the extent necessary to complete the due diligence process and the Closing.

(b) Definitive Agreements. A definitive Asset Purchase Agreement, Lease, Management Agreement, Professional Services Agreement and other related documents (the "Definitive Agreements"), each containing customary representations, warranties, covenants, indemnification, and other provisions, shall have been executed and delivered by the parties at the Closing.

(c) Conduct of the Surgery Center Prior to the Closing. From the date of this letter until the Closing, CESC and CSC shall continue to operate the Surgery Center as it has been operated in the past and shall not engage in any transactions outside of the ordinary course of business.

(d) Absence of Adverse Change. There shall have been no material adverse change in the business, properties, operations, condition (financial or otherwise), prospects, assets or liabilities of CESC or the Surgery Center since the date of this letter of intent.

(e) Government and Third Party Approvals. The Transaction shall have been approved by all government agencies and third parties from whom such approval is required and compliance with all applicable regulatory and accreditation requirements, including, without limitation, any certificate of need, Medicare certification and licensing requirements.

(f) Certification as a Hospital-Based Center. The Closing shall be subject to approval of the Surgery Center as a hospital-based center for Medicare purposes.

(g) Corporate Approvals. The Transaction shall be subject to the approval of the Board of Directors of the Hospital and the approval of Hartford Health Care Corporation (the Hospital's parent organization).

(h) Financing. The Hospital shall have obtained financing to fund payment of the Purchase Price.

(i) Closing Date. The parties anticipate that the definitive Asset Purchase Agreement will be entered into (with forms of the other Definitive Agreements attached as Exhibits) by November 15, 2010, and that Closing would take place as soon as a certificate of need is obtained.

8. Exclusivity. This letter constitutes the agreement of CESC and its manager and members to work exclusively and in good faith with the Hospital and its representatives and agents towards the closing of the Transaction. From the date of this letter until the earlier of (a) November 30, 2010, or (b) the termination by the Hospital of negotiations for the Transaction, CESC and its manager and members shall not (i) directly or indirectly through any other party engage in any negotiations with or provide any information to any other person, firm or corporation with respect to an acquisition, joint venture of similar transaction involving the Surgery Center, (ii) directly or indirectly through any other party solicit any proposal relating to the acquisition of, joint venture of similar transaction involving, the Surgery Center and will notify the Hospital promptly of the receipt of any unsolicited offer therefor, and (iii) distribute or dispose of any assets that would constitute a part of the Surgery Center other than in the ordinary course of business.

9. Confidentiality. The parties are entering into a confidentiality agreement in connection with this letter, which agreement shall apply to information exchanged by the parties.

10. Disclosure. The Hospital and CESC and its members agree that no disclosure of the Transaction or the existence or terms of this letter shall be made to any third party without the consent of the other party, except that either party may make such disclosures as are required by applicable law (in which event the non-disclosing party shall be given a reasonable opportunity to review in advance the proposed disclosure).



11. Expenses. Each party will be responsible for its own costs and expenses, including counsel fees, incurred in connection with the Transaction.

12. Applicable Law. This letter shall be governed by, and construed in accordance with, the laws of the State of Connecticut applicable to contracts to be performed in such state.

13. Letter of Intent. It is not the intention of the parties that this letter, or any actions of the parties with respect hereto, be a legally binding obligation, except that Section 7(a), Section 7(c), Sections 8, 9, 10, 11, 12 and this Section 13 shall be binding and enforceable obligations of CESC, its members and/or the Hospital, as applicable. Any other legally binding obligation with respect to the Transaction shall exist only upon the execution and delivery of the Definitive Agreements and all rights and obligations of the parties shall be governed by such agreements. CESC represents and warrants that its execution, delivery and performance of this letter has been authorized by its board of managers.

\* \* \* \* \*

Constitution Eye Surgery Center, LLC  
September 3, 2010  
Page 7

CONFIDENTIAL

Please acknowledge your agreement to enter into the Transaction on the terms outlined in this letter and your agreement to the provisions described in Section 13 as binding and enforceable obligations by signing where indicated below and returning one signed original to me. The proposal set forth in this letter will terminate at 5 p.m. ET, on September 13, 2010 unless countersigned and returned by such time and date

Very truly yours,

HARTFORD HOSPITAL

By: Thomas Marchetti  
Name: Thomas Marchetti  
Title: Executive Vice President and  
Chief Financial Officer

ACCEPTED AND AGREED:

Dated: September \_\_, 2010

CONSTITUTION EYE SURGERY CENTER, LLC  
By: Constitution Surgery Centers, LLC, its Manager

By: Alexander Fontana  
Name: Alexander Fontana  
Title: Manager

CONSTITUTION SURGERY CENTERS, LLC

By: Kristen M. Misera  
Name: Kristen M. Misera  
Title: President

ANNEX A

Management Services Compensation

The following compensation arrangement would apply to the services provided by CSC under the Management Agreement, subject to written confirmation prior to Closing by an independent financial advisor selected by the Hospital that such compensation is fair market value, and consistent with applicable Stark and anti-kickback rules:

CSC would be paid 3.5% of net revenues (i.e. net of contractual allowances) before expenses. If the Back Office Services Agreement is terminated and not replaced, CSC's compensation would increase to 4% of net revenues.

**ATTACHMENT F**

**Key Administrative and Clinical Staff**

Elliot Joseph – President & CEO, Hartford Hospital

Jeffrey Flaks – Executive Vice President & Chief Operating Officer, Hartford Hospital

Thomas Marchozzi – Executive Vice President & Chief Financial Officer, Hartford Hospital

Rocco Orlando, III, MD – Senior Vice President & Chief Medical Officer, Hartford Hospital

Ijaz Shafi, MD – Medical Director, Connecticut Eye Surgery Center

Cheryl Ficara – Director of Perioperative Services, Hartford Hospital

Dwayne Kertanis – Administrator, Connecticut Eye Surgery Center

Donna Brayfield – Clinical Director, Connecticut Eye Surgery Center

Donna Kugler – Office Manager, Connecticut Eye Surgery Center

**ELLIOT JOSEPH**  
3 Sunningdale  
Farmington, CT 06032

**CAREER SUMMARY**

Fifteen years of health care CEO experience, with special emphasis on large integrated delivery systems. Proven track record in visionary strategic leadership, organizational culture building, and operating performance improvement.

**PROFESSIONAL EXPERIENCE**

April 2008 – Present  
President and CEO  
Hartford Hospital and Hartford Health Care

June 1998 – March 2008  
**Ascension Health**  
Ascension Health, the largest not-for-profit health system in America, is a Catholic sponsored, mission focused organization with over \$11 billion in net revenue, 78 hospitals, and over 100,000 associates.

February 2001 – March 2008  
President & CEO  
St. John Health (Ascension Health)  
Warren, Michigan

St. John Health, the largest local health ministry within Ascension Health, operates seven hospitals with approximately \$2 billion in annual net revenue, 18,000 associates, 3,200 physicians and 470 residents and fellows in 61 training programs. St. John Health is the largest provider of hospital services in Southeast Michigan, serving the entire five county area.

**Significant accomplishments:**

- Improved annual operating margin from 0.9% (FY 01) to 2.5% (FY 07), while increasing "care of the poor" from \$95 million (FY 01) to \$155 million (FY 07).
- Increased days cash on hand from \$137 million (FY 01) to \$171 million (FY 07) while investing over \$500 million in major capital projects.
- Decreased mortality rates from 12% (FY 02) favorability over Michigan norms to 23% favorability (FY 07).
- Outperformed market with inpatient growth of +1.1% over past two years against average market growth of -0.5%.
- Decreased RN turnover by 26% between FY 06 and FY 07.
- Increased employee "top box" satisfaction from 25.2% (FY 03) to

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42.2% (FY 07).

June, 1998 – January, 2001

**President & CEO**

**Genesys Health System (Ascension Health)**

**Grand Blanc, Michigan**

With annual net revenue of \$330 million, Genesys is a regionally integrated health care system resulting from the merger and consolidation of four hospitals into one new 379-bed tertiary medical center campus.

**Significant accomplishments:**

- Improved operational margin from loss of 0.9% in FY 98 to +1.2% in FY 01 while addressing post-merger dysfunction.
- Results achieved:

	<u>FY 98</u>	<u>FY 01</u>
Operating revenue (million)	\$295,972	\$330,611
Inpatient discharges	24,142	24,897
Surgical cases	19,707	21,798
FTE's per AOB	6.16	5.44

- Turned around cardiac surgery program with resulting volume increase from 459 (FY 98) to 615 (FY 01).
- Developed and implemented a successful cultural "turn around" plan addressing both internal and external (community) elements. Achieved dramatic improvements in community awareness and perception.
- Integrated medical staffs and medical education functions of four hospitals, including osteopathic and allopathic teaching facilities.

June, 1993 – May, 1998

**The Detroit Medical Center (DMC)**

**Detroit, Michigan**

The Detroit Medical Center is an eight hospital, \$1.6 billion, integrated academic health system with over 2,500 physicians and 100 ambulatory sites. This system is affiliated with Wayne State University School of Medicine.

November, 1995 - May, 1998

**Senior Vice President/Oakland Region**

June, 1993 - November, 1995

**President**

**Huron Valley Hospital**

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**Jeffrey A. Flaks**

77 Wildwood Drive  
Avon, CT 06001

(H) 860-673-2590 (W) 860-545-2349 (E) [jflaks@harthosp.org](mailto:jflaks@harthosp.org)

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**Professional Experience**

**Hartford Healthcare Corporation -  
Hartford Hospital**

2007 to present

Hartford Hospital, founded in 1854, is one of the largest teaching hospitals and tertiary care centers in New England. It has been training physicians for nearly 130 years, primarily in collaboration with the University of Connecticut School of Medicine. The hospital is an 867-bed regional referral center that provides high-quality care in all clinical disciplines, enhanced by robust research endeavors. Among its divisions is The Institute of Living, a 114-bed mental health facility and the Jefferson House, a 104-bed long-term care facility. The hospital's active medical staff includes over 1000 physicians and dentists.

***Executive Vice President & Chief Operating Officer***

Reporting to the President/CEO, responsible for the overall operations of the hospital.

**Hartford Healthcare Corporation -  
MidState Medical Center**

2004 to 2007

MidState Medical Center is a 144 bed acute care hospital located in Central Connecticut with \$165 million in net operating revenue. The hospital was recognized in 2005 as one of the top 50 small and medium size companies to work for in America.

***Executive Vice President & Chief Operating Officer***

Responsible for the overall operations of the hospital. Direct oversight of all clinical and non-clinical departments, managed care contracting, strategic planning, business development, physician relations, community outreach, as well as the MidState Medical Group, MidState VNA & Hospice and Meriden Imaging Partners.

- Created and developed new clinical programs including the Heart Center, Sleep Center, Wound Care Center, Thoracic and Vascular Surgery Program, Orthopedic Spine & Pain Institute and the Stroke Center.
- Led the development and implementation of a master facility planning process, resulting in the expansion of the main hospital campus and medical office building, the development of two off-site outpatient and imaging centers, the sale of the MidState Medical Center East Campus and a decrease in facility operating costs of ten percent.
- Restructured the MidState Medical Center pension plan and negotiated acceptance with Connecticut Healthcare Associates, AFSCME that resulted in an 18% annual reduction in pension expense.
- Developed the hospital ambulatory and physician development strategy through the establishment of two subsidiary for-profit corporations, including the MidState Medical Group, MidState MSO, MidState Physician Walk-In Center and the community based MidState Medical and Diagnostic Centers network resulting in 50,000 annual patient visits.
- Increased hospital operating margin by 2 percent, while achieving Press Ganey patient satisfaction ranking within the top five percent in the nation and Press Ganey Physician Satisfaction in the 98 percentile.



## **Saint Vincent Catholic Medical Centers of New York**

2000 to 2004

Saint Vincent Catholic Medical Centers of New York is one of the New York metropolitan area's most comprehensive health care systems, serving 600,000 people annually and is the academic medical center of New York Medical College in New York City.

### ***Vice President for Support Services & Strategic Initiatives***

Reporting to the System CEO, responsible for executive leadership of corporate support services and system-wide strategic initiatives. Direct oversight for corporate functions, including supply chain, real estate and construction, master facility planning, pharmacy, dietary and performance management. Serving as the first full time employee of newly merged health system, responsible for the overall planning, direction and implementation of strategic initiatives across the organization, including integration and business development.

- Developed and led a twenty four month system-wide turn around management process that resulted in an annualized \$65M improvement from a broad range of revenue and cost containment activities that covered all aspects of the System's operations.
- Developed the Master Facility Plan resulting in the termination of 30 leases, sale of 6 properties and centralization of 565 staff members to a single location, achieving a recurring savings of \$3.2M and one time cash benefit of \$25M.
- Led comprehensive system-wide supply chain reorganization, resulting in a decrease in total spending from \$240M to \$226M, through contract/product standardization and price leveling initiatives.
- Led the recruitment of a ten person orthopedic group practice, producing 700 inpatient procedures, 1,700 ambulatory cases and the appointment of a new chair in the academic department.

## **Continuum Health Partners, Inc., New York, NY**

1999 to 2000

A health care system in New York City, Continuum Health Partners is a partnership of four prestigious academic medical centers. The health system is comprised of 3,400 licensed beds, 5,200 physicians, and operating revenue of \$1.8 billion.

### ***System Director for Physician Enterprise Development***

Responsible for clinical program development and expansion and integration of the physician network across the health system. Reporting to the Senior Vice President for Network Development, accountable for all strategic planning and operational aspects of a 110 musculoskeletal physician network.

- Identified, recruited and operationalized prominent clinical faculty and private physician practices to support health system program development in primary and specialty care.
- Developed a 110 member musculoskeletal physician network with geographic coverage spanning the five boroughs of New York City, Long Island and Westchester County, resulting in over 2,000 new surgical cases for the health system.
- Performed operational assessments of key physician practices resulting in the re-engineering of the practice infrastructure model, including management, billing and information systems.

**The Detroit Medical Center (DMC), Detroit MI**

1995 to 1999

An integrated delivery system in Southeastern Michigan, The Detroit Medical Center operates eight hospitals, two nursing centers and 130 outpatient facilities. The system has 3,000 affiliated physicians, 2,000 licensed beds and serves as the teaching and clinical research site for Wayne State University, the nation's fourth largest medical school.

***Director for Health Care Initiatives and Network Services, DMC Corporate***

1998 to 1999

Responsible for planning, organizing and implementing ambulatory facilities and practice management services for faculty, employed and private physicians. Operational management for a network of three multi-specialty ambulatory centers consisting of 30 physicians and net revenues of \$17 million.

- Planned and operationalized a 30,000 square foot regional ambulatory specialty center with a \$45 million capital budget; including business planning, facility design/construction, staff recruitment/training, go-live planning /implementation, and technology identification/implementation, resulting in 55,000 annual visits.
- Recruited and structured a 20 member "virtual group practice", integrated through information systems and management services, resulting in common operations and operating systems amongst physician participants.
- Selected, led purchase negotiation and managed implementation process for system-wide physician practice management information system, including electronic medical record functionality.
- Developed affiliation and managed relationship with community based 100 member multi-specialty IPA.

***Administrator, Professional & Support Services, DMC/Hutzel Hospital***

1996 to 1997

Line management responsibility for the division of Professional & Support Services, representing an operating budget of \$15 million with 300 employees. Directed daily operations for the community health center, ambulatory surgery center, employed orthopedic group practice, real estate, facility planning, marketing and planning, public affairs, nutrition and food services, pharmacy, infection control and accreditation/regulatory compliance.

- Senior administrator responsible for hospital wide JCAHO survey resulting in successful accreditation.
- Led hospital-wide initiative for the redesign and implementation of the patient focused care model.
- Achieved \$800,000 annual cost reduction through staff restructuring and the elimination of outside contracting costs.
- Re-engineered the Hutzel Community Health Center through the recruitment, negotiation and implementation of ophthalmology, urology, and orthopedic physician practices, increasing visits by 30,000 annually.
- Led an \$8 million facility renovation, encompassing hospital and ambulatory services, successfully maintaining budget, client satisfaction and time objectives.

***Administrative Resident, DMC/Hutzel Hospital***

1995

**Governance Appointments**

- Director, The Urban League of Greater Hartford (2008 to present)
- Director, The Children's Museum (2008 to present)
- Director, Eastern Rehabilitation Network (2007 to present)
- Director, Connecticut Hospital Association, Diversified Network Services, Inc. (2006 to present)
- Director, Clinical Laboratory Partners, Inc. (2005 to present)
- Director, The George Washington University Alumni Association (2004 to present)

***Jeffrey A. Flaks***

***Page 4 of 5***

The American College of Healthcare Executives, CHA Annual Meeting, Wallingford, CT, 6/02  
- Saint Vincent Catholic Medical Centers Response to the World Trade Center

The Healthcare Public Relations & Marketing Society, New York NY, 2/02  
- Strategies for Building Physician Referrals

The 12<sup>th</sup> Annual National Managed Health Care Congress, Atlanta GA, 4/00  
- An Entrepreneurial Approach: How to Develop New Payment Systems for Physicians

IBC Group, Effective Tools to Redesign the MSO Infrastructure, Lake Buena Vista FL, 12/98  
- Strategies to Utilize the MSO as a Physician Integration Tool

American Academy of Medical Administrators, 41<sup>st</sup> Annual Conference and Convocation, Dallas TX, 11/98  
- Integration "Tools of the Trade" – Emerging Innovations for Physician Enterprises

The Outpatient Care Institute, Integrated Network Development Conference, Washington DC, 9/98  
- Development of the Ambulatory Care Center of the "Present" – A Case Study

### **Awards/Honors**

- 2008 *Hartford Business Journal* "Up and Coming Executives"
- 2006 Alumni Service Award from the George Washington University (highest alumni recognition bestowed by the University, presented by the President)
- 2003 Manhattan Regent's Award from the American College of Healthcare Executives
- Appointed as the Recent Trustee and Member of the Board of Trustees of The George Washington University (2001-2004)
- 2001 *Modern Healthcare* "Up & Comer"
- 2001 *Crain's New York Business* "New York's Rising Stars: 40 Under 40"

### **Education**

Master of Health Services Administration, The George Washington University, Washington, DC, 1996

- Volunteer Internship, The White House, Washington, DC, 1994

Bachelor of Science, Health Services Administration, Ithaca College, Ithaca, NY, 1993

- Administrative Internship, Hospital of St. Raphael, New Haven, CT, 1992
- Administrative Internship, Yale New Haven Hospital, New Haven, CT, 1991

THOMAS J. MARCHOZZI, CPA  
26 Bittersweet Lane, S. Glastonbury, CT 06073  
Home: (860) 430-1114 Work: (860) 545-2746

## SUMMARY

*A highly skilled finance executive with over twenty-four years concentrated experience in the area of business analysis, planning, budgeting, forecasting and information systems. An executive who applies logic and innovation to further the growth and development of an organization.*

## JOB HISTORY

Hartford Health Care Corporation, Hartford, Connecticut August 2008 - Present  
A Connecticut integrated healthcare delivery system operating three acute care hospitals, two psychiatric hospitals and multiple ambulatory sites.

*Executive Vice President and CFO – Hartford Hospital and Health Care Corporation* August 2008 - Present

MedStar Health, Columbia, Maryland July 2002 – August 2008  
A \$3.0B Maryland and Washington D.C. integrated healthcare delivery system operating six acute care hospitals, 2,650 licensed beds, a national rehabilitation hospital, three skilled nursing facilities, and multiple ambulatory sites.

*Senior Vice President and CFO – Washington Hospital Center* September 2006 – August 2008  
The Washington Hospital Center (WHC) located in the heart of Washington D.C. is a \$1.0B tertiary care hospital and the flagship hospital in the MedStar Health System. WHC underwent a significant design process to expand the campus including new patient towers, emergency department, outpatient facilities and physician joint ventures.

### *Responsibilities:*

- Include business development, patient financial services, central scheduling, financial clearance, physician billing, medical records, management engineering, budgeting, and financial reporting.

### *Vice President – Finance*

July 2002 – September 2006

Recruited for an executive position by a large multi-state premier health system which includes the Washington Hospital Center, Georgetown University Hospital, the National Rehabilitation Hospital, and four Maryland Community Hospitals.

### *Responsibilities:*

- Responsible for financial accounting, reporting, forecasting, analysis, and policy implementation including the MedStar Central Business Office operations and Capital resource management.
- Accountable for planning, budgeting, decision support, benchmarking, grants and audit coordination.
- Chief Financial Officer for Helix Family Choice, a managed care insurance product owned by MedStar.
- Financial representative to system-wide initiatives for insurance, executive compensation, pension redesign, supply chain program, operational improvement initiatives, rates and reimbursement, and insurance company contract negotiations.
- Member of the executive leadership team which includes hospital presidents, chief financial officer, chief operating officer, and chief executive officer.
- Staff to Finance Committee of the Board of Directors.

### *Jefferson Health System (JHS), Radnor, Pennsylvania*

1996 - 2002

A \$2.5B Pennsylvania integrated healthcare delivery system operating nine acute care hospitals, 2,398 staffed beds, three physical rehabilitation hospitals, three skilled nursing facilities, one psychiatric hospital, and multiple ambulatory sites.

### *Acting Chief Financial Officer and Treasurer*

January 2002 - July 2002

Promoted to Acting Chief Financial Officer and Treasurer after the departure of the CFO. Offered, and declined, the permanent CFO position in July 2002.

November 18, 2009

00301

6/9/2010 Page 92

Resume of THOMAS J. MARCHOZZI (page 2)

*Vice President – Finance*

March 2001 - January 2002

Promoted to a higher senior level position in the organization, which involved more interaction with senior level executives and Board members.

*Responsibilities:* (Additional duties added to the AVP position):

- Accountable, with the Member and System CFO's, for the development and monitoring of system-wide financial disciplines that provide financial targets, performance, and financial integrity assurances.
- Responsible for managing the annual JHS operating budget process and developing appropriate support detail.
- Facilitate the system Standardization Group that produces recommendations for the standardization of various financial issues and standards for the Chief Financial Officer group.
- Financial representative to system-wide initiatives for Alliance activities, executive compensation, and benefits consulting group.

*Associate Vice President – Finance*

1999 - 2001

*Management responsibilities:*

- Oversees the timely and accurate preparation of financial statements and highlighting performance using variance analysis and follow-up with member CFOs.
- System office direct expense and operating budgets, including reporting and analysis.
- Review of monthly financial reports and system office financials with member Chief Financial Officers and system office Department Heads.
- Responsible for the review, analysis, and validation of material (> \$500,000) capital requests and subsequent presentation to the JHS Finance Committee.
- System capital budget process that includes review and analysis of capital requests.
- Presentation of system capital budget and year-end operating statistics to Board Finance Committee.
- Work with JHS CFO in the management of the JHS business planning process.
- External audit and tax reporting.
- Year-end System Certified Financial Statement Audit.

*Director of Finance*

1996 - 1999

Responsibilities included budgeting, planning, cost containment, cost analysis, revenue enhancement, acquisitions, and system-wide initiatives in re-engineering, cost reduction, system installations, cash management, reporting and policy standards.

*Thomas Jefferson University, Philadelphia, Pennsylvania*

1984 - 1996

An academic healthcare center located in Center City Philadelphia involved in healthcare delivery, education, and research with approximately \$600M in revenues.

*Assistant Controller*

1994 - 1996

Management of ongoing financial accounting services group personnel. In charge of joint information systems and operational implementation teams installing new client server technology for payroll, human resources, benefits, and general ledger software applications. Established new financial accounting reporting standards. Administered the financial re-engineering of the Controller's Office. Development of various ad hoc reports and sensitivity analyses as required by a rapidly changing environment. Phased out the accounting operations of an unprofitable remote campus hospital. Assisted in the development of financial reporting mechanisms and policies for the JHS which includes several major hospitals.

*Manager, Information Systems*

1990-1994

Provided application and system support on behalf of an academic healthcare university. Applications include general ledger, university and hospital cash, fixed assets, accounts payable, purchase order, and university and hospital inventory control. Implemented change to the Boston Safe Company for tracking endowments. Evaluation committee member for university-wide cost saving employee suggestion program. Manager of the disaster recovery planning team for financial systems.

November 18, 2009

00302

Resume of THOMAS J. MARCHOZZI (page 3)

*Director, Physical Resources* 1985 - 1990  
Operational responsibility for a \$30 million operating budget and a \$25 million capital budget. Automated Maintenance, Construction, Facilities Design, and Space Planning Departments. Developed service level improvements. Established a routine and preventative maintenance work order system. Directed the first photo identification badge project for the university. Developed procedures and reporting for the university capital budget.

*Auditor, Internal Audit* 1984 - 1985  
Departmental, vendor, and governmental compliance audits. University liaison with outside auditors during annual audit process.

EDUCATION

Doctoral Program, Higher Education Administration  
UNIVERSITY OF PENNSYLVANIA, Philadelphia, Pennsylvania  
(Completed half of the program prior to formation of JHS)

Masters of Business Administration, December, 1992  
Concentration: Finance  
VILLANOVA UNIVERSITY, Villanova, Pennsylvania

Bachelor of Business Administration, June, 1984  
Majors: Accounting and Finance  
DREXEL UNIVERSITY, Philadelphia, Pennsylvania

PROFESSIONAL ACCOMPLISHMENTS

Certified Healthcare Financial Professional - December, 1999  
Certified Public Accountant - Pennsylvania, 1986  
Member of the American Institute of Certified Public Accountants  
Western Association of College and  
University Business Officers (WACUBO)  
Business Management Institute - Santa Barbara, CA - Four Year Program 1993, 1991, 1990, 1989  
Finance Committee Member - American Association of Medical Colleges

PERSONAL

**Martial Status:** Married with two children, boys ages 22 and 26.  
**Hobbies:** Support of Youth Sporting Activities  
**Community Activities:** Former Board Member - Colonial School District

# Rocco Orlando, III, M.D., F.A.C.S.

## CURRICULUM VITAE

### PERSONAL DATA:

Date of Birth: January 7, 1953  
Spouse: The Rev. Joanne Papanek Orlando  
Home Address: 25 Drumlin Road, So. Glastonbury, CT 06073  
Office Address: 80 Seymour Street, Hartford, CT 06102

Licensure: Connecticut, July, 1980  
Board Certification: General Surgery, 1984, Recertification, 1993, 2003  
Added Qualification in Surgical Critical Care, 1987  
Recertification 1997, 2006

### PROFESSIONAL:

April 1, 2010-present Senior Vice President and Chief Medical Officer  
Hartford Hospital and Hartford Healthcare  
Hartford, Connecticut

January 1998 – Feb. 2010 Vice-President, Connecticut Surgical Group  
Hartford, Connecticut

November 2007-2009 President, Medical Staff, Hartford Hospital,  
November 1999 - Nov. 2001 Hartford, Connecticut

November 2005- Nov. 2007 Vice President, Medical Staff, Hartford Hospital  
November 1997-Nov. 1999 Hartford, Connecticut

July 1984 - Present Senior Attending Staff, Hartford Hospital,  
Hartford, Connecticut

July 1984 - Present Attending Staff, John Dempsey Hospital,  
University of Connecticut Health Center,  
Farmington, Connecticut

October 1987 - Present Associate Director, Surgical Intensive  
Care Unit, Hartford Hospital  
Hartford, Connecticut

September 2003 - Present Professor of Clinical Surgery  
University of Connecticut School of Medicine

July 1984 - June 1985 Associate Director, Surgical Intensive  
Care Unit, Hartford Hospital,  
Hartford, Connecticut

**PROFESSIONAL:** (continued)

July 1985 - Sept 1987	Co-Director, Surgical Intensive Care Unit, Hartford Hospital, Hartford, Connecticut
July 1996-present	Courtesy Medical Staff CT Children's Medical Center
September 1991-2003	Associate Professor of Clinical Surgery University of Connecticut School of Medicine
July 1984 - 1991	Assistant Professor of Surgery, University of Connecticut School of Medicine,

**PROFESSIONAL SOCIETIES:**

- Fellow, American College of Surgeons
  - Board Member Connecticut Chapter ACS 1991-1998
- Fellow, American Association for the Surgery of Trauma
- New England Surgical Society
  - Executive Committee, 2009-present
  - Program Committee, 2003-2008, Chair 2007
- Society of Critical Care Medicine
  - Education Committee 1996 - 2001
- Connecticut Society of American Board Surgeons
  - Secretary Treasurer, 1991-1993
  - President, 1994-1995
- Hartford County Medical Association
- Connecticut State Medical Society
- American Medical Association
- Society of American Gastrointestinal and Endoscopic Surgeons
  - Legislative Committee, 2003-present, Co-Chair, 2005-07
  - Technology Committee 1998-2003
  - Ergonomics Task Force 1998-2003
  - Outcomes Committee 2003-present
  - SAGES representative Am. Coll. Surgeons Surgical Quality Alliance 2006-present
- Hartford Medical Society,
- State Committee on Trauma, American College of Surgeons
  - Social and Political Affairs Subcommittee,
- Connecticut Critical Care Society, Director 1986-87
- Eastern Association for the Surgery of Trauma
  - Program Committee, 1989-1990
- Connecticut Thoracic Society
- New England Chapter, Society of Critical Care Medicine



**HOSPITAL COMMITTEES:**

- Hartford Hospital Board of Directors: 1997-2001, 2005-2009
- Chair, Perioperative Services Committee: 1996-2010
- Executive Committee, Dept. of Surgery: 1994-2007
- Medical Capital Equipment Steering Group 2001-2009
- Clinical Information Steering Committee 2001-2006
- Trauma Committee: 1984-2010
- Executive Committee Medical Staff Council: 1993-2008
- Oversight Board, Institute for Outcomes Research
- Co-Chairman, Risk Management Committee: 1999-2001, 2007-08
- Re-Engineering Steering Committee: 1999-2000
- SICU Collaborative Practice Committee
- Joint Conference Committee: 1993-2002, 2005-08
- Research Committee: 1991-1999
- Medical Capital Equipment Committee: 1993-1999
- Utilization Review Committee: 1985-1997
- ICU Coordinating Committee: 1989-1996
- Medical Staff Council: 1991-1999
- Kiwanis Pediatric Trauma Center Committee: 1984-1996
- Medical Records Committee: 1989-1993
- Supply Standards Committee: 1984-1999
- Scientific Review Committee: 1984-1992
- Helicopter Review Committee: 1984-1990
- Transfusion Medicine Committee: 1984-1989

**CSG COMMITTEES:**

- Board of Directors 1995-2010
- Risk Management Committee 2005-2010(chair)
- Clinical Practice Committee 2001-present (chair 2001-2007)

**OTHER COMMITTEES:**

- Oversight Committee, Connecticut Children's Medical Center 2004-05
- Ambulatory Experience Committee (MAX) Univ. of Conn. School of Medicine: 1994-1995
- Surgical Advisory Board, ConnectiCare: 1990-1993
- Payment of New Technologies Committee, ConnectiCare: 1991-1993
- Quality Assurance Committee, Kaiser Permanente Northeast Region: 1993-1996
- Program Committee, New England Critical Care Society: 1993

**POST GRADUATE TRAINING:**

July 1983 - June 1984

Fellow in Critical Care Medicine, University of  
Miami-Jackson Memorial Medical Center, Miami, FL.

July 1982 - June 1983 Chief Resident in General Surgery, Hartford Hospital-University of Connecticut, Hartford, CT.

July 1979 - June 1982 Resident, General Surgery, Hartford Hospital-University of Connecticut, Hartford, CT.

July 1978 - June 1979 Intern, General Surgery, Hartford Hospital-University of Connecticut, Hartford, CT.

Jan 1978 - June 1978 Intern, Internal Medicine, Hartford Hospital, Hartford, CT.

**EDUCATIONAL RECORD:**

Sept 1974 - May 1978 University of Connecticut School of Medicine. M.D.

Research: Ultrastructural Changes in the Mouse Liver After Transplacental Exposure to the Carcinogen

Awards: Gabriel Ingenito Scholarship  
Faculty Award for Outstanding Research

Sept 1970 - May 1974 Hamilton College: A.B. with Honors

Major areas of study:  
Biology: Senior thesis on Ultrastructural Changes in the Stimulated Mouse Adrenal.  
History: Senior thesis on 18th Century Urban Development in Great Britain.

Awards: Departmental Honors in Biology  
Departmental Honors in History  
Hadley S. Depuy Service Award  
George Watson's College Fellowship  
Charles Dana Scholarship

Extracurricular: Hamilton College Student Senate  
Chapel Board  
President's Advisory Committee  
Emerson Literary Society  
Hamilton College Chess Champion  
1966 - 1970 Amity High School, Woodbridge, CT.

**AWARDS:**

Resident Teaching Award, Univ. of Conn., Integrated Surgical Residency, 1996  
Distinguished Alumnus Award, Amity High School, 1986  
Ludwig J. Pyrtek Award, 1983  
Howard Levine Science Award; Third Prize, 1982

Resident's Trauma Competition, American College of Surgeons, Connecticut  
Chapter, Third Prize, 1981.  
Upjohn Intern of the Year, 1979.

**PUBLICATIONS:**

1. Orlando, III, R., and Welch, John P. Welch. "Carcinoma of the Stomach After Gastric Operation." *Am. J. Surg.* 141:487-92, 1981.
2. Orlando, III, R., and A. David Drezner. "Intra-aortic Balloon Counter-pulsation in Blunt Cardiac Injury." *J. Trauma.* 23:424-27, 1983.
3. Orlando, III, R., Pastuszak, W., Preissler, P., and John P. Welch. "Gastric Lymphoma: a Clinico-pathologic Reappraisal." *Am. J. Surg.* 143:450-455, 1982.
4. Rosenberg, J., Orlando, III, R., Ludwig, M., and Ludwig J. Pyrtek. "Parathyroid Cysts." *Am. J. Surg.* 143:473-80, 1982.
5. Orlando, III, R., Gleason, E., and A. David Drezner. "Acute Acalculous Cholecystitis in the Critically Ill Patient." *Am. J. Surg.* 145:472-476, 1983.
6. Orlando, III, Rocco. "Smoke Inhalation Injury." *Emerg. Care Quart.* 1:22-30; 1985.
7. Orlando, III, R., Chinniah, N., Riegle, C., and Barbara Morris. "High Frequency Jet Ventilation: Case Studies." *Curr Rev Resp Ther*, 1986.
8. Orlando, III, Rocco. "Mixed Venous Oximetry in Critically Ill Surgical Patients: "High Tech" Cost Effectiveness." *Arch Surg.* 121:470-471, 1986.
9. Sardella, W. V., Ciccarelli, O., Rosenberg, J., Drezner, A. D., and Rocco Orlando, III. "A Rational Approach to Tracheostomy in the Surgical Intensive Care Unit." *Proceeding of New England Surgical Society*, 1985.
10. D'Angio, R., and Rocco Orlando, III. "Fluid Resuscitation: Colloid Versus Crystalloid." *Conn Med.* 50:689-691, 1986.
11. Crepps, T., Welch, J. P., and Rocco Orlando, III. "Management and Outcome of Retroperitoneal Abscesses." *Ann Surg.* 205:276-281, 1987.

12. Orlando, III, R., Gluck, E. H., Cohen, M., and C. G. Mesologites. "Ultra-High Frequency Jet Ventilation in a Bronchopleural Fistula Model." *Arch Surg.* May, 1988.
13. Vignati, P. V., Orlando, III, R., and Kenneth A. Kern. "Guidelines for Administration of Total Parenteral Nutrition Measured versus Predicted Energy Needs." *Current Surgery.* April, 1988.
14. Yuk, J., Nightingale, C. H., Yeston, N.S., Quintilliani, R., Orlando, III, R., Sweeney, K. R., Dobkin, E. D., Kambe, J.C., and Elizabeth Buonpane. "The Absorption of Ciproflaxin in Normal and Critically Ill Individuals Receiving Nasogastric or Nasoduodenal Enteral Nutrition." *J. Diag Microbiol Infect Dis.* 13:1990.
15. Dobkin, E. D., Valcour, A., Roher McCloskey, C., Allen, L., Kambe, J. C., Gleason, E., Orlando, III, R., Berger, R., and Neil S. Yeston. "Does pH Paper Accurately Reflect Gastric Ph." *Crit. Care Med.* Accepted for publication. 18(9):985-988, 1990.
16. Korst, R., Orlando, III, R., Yeston, N., Molin, M., DeGraff, A., and E. Gluck. "Validation of Respiratory Mechanics Software Microprocessor Controlled Ventilators." *Crit. Care Med* 90:271, 1992.
17. Bartlett R., Quintilliani, R., Nightingale, C., Platt, D., Crowe, H., Grotz, R., Orlando, III, R., Strycharz, C., Tetreault, J., and Lerer, T. "Effect of Providing Recommendation for Antimicrobial Therapy in Bacteriology Laboratory Reports." *J. Diag Microbiol Infect Dis.* 14:157-166, 1991.
18. Grotz, R., MacDermid, R., Orlando, III, R., and Ludwig Pyrttek. "Choledochal Cyst Diagnosed in Pregnancy." *Connecticut Medicine.* 55:262-266, 1991.
19. Orlando, III, R., Russell, J., Lynch, J., and Mattie, A. "Laparoscopic Cholecystectomy a Statewide Experience." *Arch Surgery.* 128:494-9, 1993.
20. Fritts, L., and Rocco Orlando, III. "Laparoscopic Appendectomy." *Arch Surgery.* 128-521-5, 1993.
21. Safran, D., Sgambatti, S., and Rocco Orlando, III. "Laparoscopic Surgery in High Risk Cardiac Patients." *Surg, Gynecol Obstet.* 177: 1993.
22. Orlando, III, R., Welch, J. P., Akbari, C., Bloom, G. P., and William P. Macaulay. "Techniques and Complications of Open Packing in Infected Pancreatic Necrosis." *Surg, Gynecol Obstet.* 179:65-71, 1993.
23. Safran, D., and Rocco Orlando, III. "Physiologic Effects Pneumoperitoneum." *Am. J. Surg.* 167:281-287, 1994.
24. Robbins, J. M., Keating, K., Orlando, III, R., Corvo, P., Schenarts, P., and Neil S. Yeston. "Effects of Blood Transfusion on Oxygen Delivery and Oxygen Consumption

- in Critically Ill Surgical Patients." *Contemporary Surgery*. 43(5):272-326, November 1993.
25. Simchuk, E.J., Welch, J.P., and Orlando. R. "Ante Partum Diagnosis of Pancreatic Carcinoma: A Case Report." *Conn. Med.* 59:259-62, 1995.
  26. Orlando, R., and J.C. Russell. "Cost-effective Approach to Laparoscopic Cholecystectomy." *Surg Clin North Amer.* 76:117-128, 1996.
  27. Orlando, R., Arillaga, A., Charash, W.E., and F.A. Luchette. "Hemostasis in Trauma Surgery." *Contemporary Surgery*. 51:49-64, 1997.
  28. Orlando, R., and Crowell, K. "Laparoscopy in the Critically Ill." *Surg. Endosc.* 11:1072-4, 1997.
  29. Orlando, R, Ahmad A, Bloom, GP, Welch JP. "Laparoscopic repair of paraesophageal hernia". *Proceedings of the 6th World Congress of Laparoscopic Surgery*. pp 249-252, 1998.
  30. Orlando R, "Enteral Nutrition: Should we feed the stomach?" (editorial) *Crit Care Med.* 27: 334-335, 1999.
  31. Antonetti, MC, Killelea B, Orlando R. "Hand-Assisted Laparoscopic Liver Surgery". *Arch Surg.* 137:407-412, 2002.
  32. Orlando R, "Ventilators: How clever, how complex?" (editorial). *Crit Care Med.* 31:2704-5, 2003.
  33. Orlando R, Eddy VA, Jacobs LM Jr, Stadelmann WK, "The abdominal compartment syndrome." *Arch Surg.* 139:415-22, 2004.
  34. Marshall W, Orlando R, "B-Natriuretic peptide as a marker of heart failure: not so specific after all." *Crit Care Med* 30:2249, 2006
  35. Velanovich V, Morton JM, McDonald M, Orlando R, Maupin G, Traverso W, "Analysis of the SAGES outcomes initiative cholecystectomy study." *Surg Endosc.* 20:43-50, 2006.
  36. Poultides G, Bloom GP, Orlando R. "Laparoscopic resection of gastroduodenal tumors". *Surg Endosc.* 21:1275-9, 2007.
  37. Poultides G, Brown M, Orlando, R. "Hand Assisted laproscopic management of liver tumors". *Surg Endosc.* 2007.
  38. Poultides G, Orlando R, Hallisey M, Vignati P. "Arteriographic embolization for upper gastrointestinal bleeding." *Arch Surg* 143:457-461 2007.

**ABSTRACTS:**

1. Orlando, III, R., and A. David Drezner, "Intra-aortic Balloon Counter-pulsation in Cardiac Contusion." *Crit. Care Med.* 9:254, 1981.
2. Dake, A., Gleason, E., Orlando, R., and Neil S. Yeston. "Transcutaneous Monitoring in Critically Ill Surgical Patients." *Chest.* October, 1989.
3. Rocco Orlando, III. "Clinical Utility of Simultaneous Arterial and Venous Oximetry." *Crit. Care Med.* 14:340, 1986.
4. Orlando, III, R., Conte, C. C., and Lenworth M. Jacobs. "MUGA Scans in the Diagnosis of Cardiac Contusion." *J. Trauma.* 24:652, 1984.
5. Orlando, III, R., Nelson, L. D., and Joseph M. Civetta. "Invasive Pre-operative Evaluation of High Risk Patients." *Crit. Care Med* 13:263, 1985.
6. Koenig, W., Adams, K., Platt, D., Drezner, A. D., and Rocco Orlando, III. "Fungal Infections in the SICU." *Crit. Care Med.* 14:330, 1986.
7. Orlando, III, R., Drezner, A. D., Riley, B., Lawrence, D., and Quinn, A. "High Tech Beds: Clinical Effects and Cost Effective Allocation." *Crit. Care Med* 15:350, 1987.
8. Orlando, III, R., Schwartz, R., Lee, M., and Lenworth Jacobs. "The Role of the Flight Physician in Helicopter Critical Care Transport." *Crit. Care Med.* 15:367, 1987.
9. D'Angio, R., Quercia, R., Orlando, III, R., Nightingale, C., A. David Drezner. "The Effect of Heparin on the Clearance of Intravenous Lipid Emulsion in Critically Ill Surgical Patients." *JPEN.* 11:19S, 1987.
10. Bartlett, R. C., Quintilliani, R., Nightingale, C. H., Platt, D., and Rocco Orlando, III. "Effect of Providing Recommendations for Antimicrobial Therapy in Bacteriology Lab Reports." ICAC Conference, October, 1987.
11. Yuk, J., Nightingale, C. H., Yeston, N. S., Quintilliani, R., Orlando, III, R., Sweeney, K. R., Dobkin, E. D., Kambe, J. C., and Elizabeth Buonpane. "The Absorption of Ciproflaxin in Normal and Critically Ill Individuals Receiving Nasogastric or Nasoduodenal Enteral Nutrition." International Ciproflaxin Symposium, Naples, Florida, April 28-30, 1989.
12. Dobkin, E., Valcour, A., Roher, C., Allen, L., Kambe, J., Gleason, E., Orlando, III, R., and Neil S. Yeston. "Does pH Paper Accurately Reflect Gastric pH." Chest. October, 1989.

13. Korst, R., Orlando, III, R., Yeston, N., Molin, M., DeGraff, A., and E. Gluck. "Validation of Respiratory Mechanics Software Microprocessor Controlled Ventilators." *Chest*. October, 1989.
14. Orlando, III, R., Eckert, R., Gleason, E., and Neil S. Yeston. "CO<sub>2</sub> Monitoring: Transcutaneous Versus Capnography." *Crit. Care Med.* 19:S61, 1991.
15. Frigon, L., Orlando, III, R., L Allen. "Nurses' Attitudes to Visiting in Adult Intensive Care Units." *Crit. Care Med.* 19:S81, 1991.
16. Dobkin, E., Valcour, A., McCloskey, C., Allen, Kambe, J., Gleason, E., Orlando, III, R., Berger, R., Neil S. Yeston. "Does pH Paper Accurately Reflect Gastric pH?" *Critical Care Medicine.* 18:985-988, 1990.
17. Robbins, J., Keating, K., and Rocco Orlando, III, et. al. "Effects of Blood Transfusion on Oxygen Consumption and Delivery in Critically Ill Surgical Patients." *Crit. Care Med.* 20:1139, 1992.
18. Safran, D., Sgambatti, S., and Rocco Orlando, III. "Laparoscopic Surgery in High Risk Cardiac Patients." *Crit. Care Med.* 21:S254, 1993.
19. Orlando, III, R., Kantor, W., Donahue, S., Barkley, K., Molin, M., and Neil S. Yeston. "Effect of Aerosolized Bronchodilators in Mechanically Ventilated." *Crit. Care Med.* 21:S211, 1993.
20. Yeston, N. S., Keating, K., and Rocco Orlando, III, et. al. "Quality Assessment and Improvement in the Adult ICU." *Clin Intensive Care.* 1993.
21. Bove, P., Sobowale, O., Orlando, III, R., Brady, E., Gleason, E., and N. Yeston. "Cardiac Tamponade After Cardiac Surgery: Early Detection With Right Heart Ejection Fraction Catheters." *Crit. Care Med.* 12: A81, 1995.
22. Mazo, J., Vignati, P., Orlando, III, O., Cohen, J., and W. Sardella. "Laparoscopic Hartmann Closure: Avoiding the Pitfalls." *Surg. Endosc.* 11:182, 1997.
23. Adam, J., Beatrice, F., Rosow, E., and R. Orlando, III. "A Virtual Instrumentation System for Fiberoptic Endoscopes." *Surg. Endosc.* 11:172, 1997.
24. Orlando, III, R., and K. Crowell. "Laparoscopy in the Critically Ill." *Surg. Endosc.* 11:210, 1997.
25. Orlando, III, R., Ahmad, A., Bloom, G.P. and J.P. Welch. "Laparoscopic Repair of Paraesophageal Hernia." 6<sup>th</sup> World Congress of Endoscopic Surgery Proceeding, 1998.
26. Orlando, III, R. "Hand Assisted Laparoscopy for Liver Tumors." *Surg. Endosc.* 14:5209, 2000.

27. Orlando, III, R, Fitzgerald J. "Hand-assisted Laparoscopic Debridement of Infected Pancreatic Necrosis." Surg Endosc. 15: 2003.
28. Velanich V, MacDonald MM, Orlando R, Traverso W. "Analysis of the SAGES Outcomes Initiative Cholecystectomy Registry". Surg Endosc. 19, 2005



**BOOK CHAPTERS:**

Rocco Orlando, III. "Intussusception" Book Chapter in Intestinal Obstruction, J.P. Welch ed. W. B. Saunders, 1989.

Rocco Orlando, III "Communicating with Patients about Medical Error" in Ethical Issues in Surgery, E. Frezza MD, ed. Cinemed, 2008.

**PRESENTATIONS:**

"Carcinoma of the Stomach After Gastric Operation", New England Surgical Society, Portsmouth N.H., September, 1980.

"Abdominal and Pelvic Trauma", Symposium on Serious Trauma, Connecticut Hospital Association, Wallingford, Connecticut, March, 1981.

"Intra-aortic Balloon Counterpulsation in Cardiac Contusion", World Congress on Critical Care Medicine, Washington, D.C., May, 1981.

"Gastric Lymphoma: A Clinico-Pathologic Reappraisal", New England Surgical Society, Dixville Notch, N.H., September, 1981.

"Hemodynamic Monitoring", First Inter-City Critical Care Conference, University of Connecticut School of Medicine, Farmington, CT., January, 1982.

"Thoracoscopy", Third World Congress on Bronchology, American College of Chest Physicians, San Diego, California, March, 1982.

"Acute Acalculous Cholecystitis in the Critically Ill Patient", New England Surgical Society, Bretton Woods, N.H., October, 1982.

"Anesthetic Considerations in Blunt Chest Trauma", Grand Rounds, Department of Anesthesia, University of Miami School of Medicine, Miami, Florida, March, 1984.

"New Developments in Oxygen Transport Studies", Grand Rounds, Department of Surgery, University of Connecticut School of Medicine, Farmington, CT, August, 1984.

"Invasive Pre-operative Evaluation of High Risk Patients", Society of Critical Care Medicine, Chicago, Illinois, May, 1985.

"Assessment of Oxygen Transport in the Critically Ill", Grand Rounds, Day-Kimball Hospital, Putnam, Connecticut, June, 1985.

"Invasive Pre-operative Evaluation of High Risk Patients", Combined Anesthesia-Surgery Grand Rounds, University of Connecticut School of Medicine, October, 1985.

"A Rational Approach to Tracheostomy in the Surgical Intensive Care Unit", New England Surgical Society, Dixville Notch, N.H., October, 1985.

"Mixed Venous Oximetry in Critically Ill Surgical Patients", New England Surgical Society, Dixville Notch, N.H., October, 1985.

Scientific Exhibit, Surgical Section of Society of Critical Care Medicine, Clinical Congress, American College of Surgeons, Chicago, November, 1985.

"The Role of the PASG in Multiple Trauma", Trauma Symposium, Hartford Hospital, November, 1985.

"Polyglycolic Acid Mesh Closure of Contaminated Abdominal Wounds", Connecticut Society of American Board Surgeons, Cromwell, CT, December, 1985.

"Fungal Infections in the Surgical Intensive Care Unit", Connecticut Society of American Board Surgeons, Cromwell, CT, December, 1985.

Clinical Investigator, Novamatrix Corporation, 1986.

"Principles of Oxygen Transport and Hemodynamic Support in Critically Ill Surgical Patients", New England Surgical Society, Bermuda, March, 1986.

"New Approaches to Nutritional Support in the SICU", New England Surgical Society, Bermuda, March, 1986.

"Fungal Infections in the SICU", Society of Critical Care Medicine, Washington, D.C., May, 1986.

"Clinical Utility of Simultaneous Arterial and Venous Oximetry", Society of Critical Care Medicine, Washington, D.C., May, 1986.

"Pulmonary and Cardiac Contusion", First Annual Board Review Course in Critical Care Medicine, Society of Critical Care Medicine, Washington, D.C., May, 1986.

"The Role of the Flight Physician in Helicopter Emergency Medical Services", Connecticut Society of American Board Surgeons, Cromwell, CT, December, 1986.

"Synthetic Colloid Use in Critically Ill Surgical Patients", American Critical Care, 1986-87, \$65,000.

"Ultra-High Frequency Jet Ventilation in a Penetrating Lung Trauma Model", U.S. Army Research Grant, 1986-87.

"Pre-operative Evaluation of High Risk Patients", Surgical Grand Rounds, Waterbury Hospital, Waterbury CT, January, 1987.

"The Effect of Heparin on the Clearance of Intravenous Lipid Emulsion in Critically Ill Surgical Patients", American Society for Parental and Enteral Nutrition. New Orleans, Louisiana, February, 1987.

"Illness Severity Scoring Systems", Connecticut Critical Care Society, Hartford, Connecticut, April, 1987.

"ARDS in the Emergency Department", New England Regional Emergency Nurses Association Symposium. May, 1987, Mystic, Connecticut.

"High Tech Beds: Clinical Efficacy and Cost Effective Allocation", Annual Meeting, Society of Critical Care Medicine, Anaheim, California, May, 1987.

"The Role of the Flight Physician in Helicopter Emergency Medical Systems", Annual Meeting, Society of Critical Care Medicine, Anaheim, California, May 1987.

Moderator, Surgery Papers Session, Annual Meeting, Society of Critical Care Meeting, Anaheim, California, May, 1987.

"Continuous Arteriovenous Hemofiltration", Current Topics in Critical Care (Nursing Symposium), June, 1987.

"Ultra-High Frequency Jet Ventilation in a Bronchopleural Fistula Model", PEEP Society, Anaheim, California, May, 1987.

"Ultra-High Frequency Jet Ventilation in a Bronchopleural Fistula Model", New England Surgical Society Annual Meeting, Bretton Woods, New Hampshire, September, 1987.

Effect of providing recommendations for antimicrobial therapy in bacteriology lab reports. (Abstract) RC Bartlett, R Quintilliani, CH Nightingale, D Platt and R Orlando, III: ICAC Conference, October, 1987.

"Ultra-High Frequency Jet Ventilation in the Physiologic Assessment of Pigs with Bronchopleural Fistulas. Annual Scientific Assembly, American College of Chest Physicians, Atlanta, GA, October, 1987.

Instructor, Advanced Cardiac Life Support Program, American Heart Association.

Instructor, Advanced Trauma Life Support Program, Committee on Trauma, American College of Surgeons.

"Preoperative Evaluation of High Risk Surgical Patients" Grand Rounds, Sharon Hospital, Sharon, CT, February, 1989.

"Hemodynamic Monitoring", Grand Rounds, Meriden-Wallingford Hospital, Meriden, CT, May, 1988.

"Hemodynamics and ICU Monitoring", Grand Rounds, Bradley Memorial Hospital, Southington, CT, May 1989.

"Monitoring Oxygen Transport", Grand Rounds, Stamford Hospital, Stamford, CT, May, 1989.

"Transcutaneous Monitoring in Critically Ill Surgical Patients". XVI World Congress on Disease of the Chest, 55th Annual Scientific Assembly, Boston, MA, November, 1989.

"Validation of Respiratory Mechanics Software Microprocessor Controlled Ventilators". XVI World Congress on Disease of the Chest, 55th Annual Scientific Assembly, Boston, MA, November, 1989.

"Does pH Paper Accurately Reflect Gastric pH". XVI World Congress on Disease of the Chest, 55th Annual Scientific Assembly, Boston, MA, November, 1989.

"New Developments in Critical Care Monitoring" Surgical Grand Rounds, New York, Medical College, Valhalla, NY, December, 1989.

"Open Packing of Infected Pancreatic Necrosis", CSABS, Cromwell, CT, December 1989.

"New Developments in Pulmonary Support", Surgical Grand Rounds, Bridgeport Hospital, Bridgeport, CT, March 1990.

"Monitoring Oxygen Transport", Connecticut Respiratory Care Society, Farmington, CT, April 1990.

Flight Nurse Instructional Course Lectures, "ARDS", "Smoke Inhalation Injury", Hartford Hospital, Hartford, CT, April 1990.

Invited discussant, Eastern Association for the Surgery of Trauma, January, 1991, Sarasota, Florida.

"Open Packing of Infected Pancreatic Necrosis", presented at Clinical Congress, American College of Surgeons, San Francisco, CA, October, 1990.

Controversies in Surgery - "Surgery in the High Risk and Elderly Patient". University of Connecticut Health Center, Farmington, CT.

"Nurses' Attitudes to Visiting in the Intensive Care Units", Society of Critical Care Medicine, Washington, D.C., May, 1991.

"CO<sub>2</sub> Monitoring: Transcutaneous versus Capnography", Society of Critical Care Medicine, Washington, D.C., May, 1991.

"Laparoscopic Surgery", Surgical Grand Rounds, Hartford Hospital, Hartford, CT, August, 1991.

"Laparoscopic Surgery", Medical Grand Rounds, Hartford Hospital, Hartford, CT, September, 1991.

"Laparoscopic General Surgery", Surgical Applications of the KTP Laser, Hartford, CT, November, 1991.

"Laparoscopic Appendectomy", Connecticut Society of American Board Surgeons, Cromwell, CT, December, 1991.

"ARDS: Pathophysiology and Treatment", Grand Rounds, Rockville Hospital, February, 1991.

"Laparoscopic Appendectomy", Advanced Laparoscopic Surgery Workshop, University of Connecticut School of Medicine, Farmington, CT, April, 1992.

"Blunt Chest Trauma", Annual Meeting, Maine State Committee on Trauma, American College of Surgeons. Lewiston, ME, April, 1992.

"New Developments in ICU Monitoring", Surgical Grand Rounds, Maine Medical Center, Portland, ME, April, 1992.

"Blunt Chest Trauma", Trauma Grand Rounds, Yale University School of Medicine, May, 1992.

"Effects of Blood Transfusion on Oxygen Consumption and Oxygen Delivery in Critically Ill Surgical Patients", Society of Critical Care Medicine, San Antonio, TX, May 1992.

"Laparoscopic Appendectomy", New England Surgical Society, Dixville Notch, NH, September, 1992.

"Laparoscopic Cholecystectomy: A Statewide Experience", New England Surgical Society, Dixville Notch, NH, September, 1992.

"Oxygen Transport Monitoring", Conn. Academy of Physician Assistants, Meriden, CT November, 1992.

"Laparoscopic Cholecystectomy in High Risk Cardiac Patients", Connecticut Society of American Board Surgery, Cromwell, CT, December, 1992.

"Laparoscopic Cholecystectomy - Connecticut", Connecticut Hospital Association, Wallingford, CT, January, 1993.

"New Developments in Mechanical Ventilation", New England Surgical Society, Bermuda, March, 1993.

"Laparoscopic Surgery at Hartford Hospital", Surgeons Travel Club, Hartford, CT, May, 1993.

"Effected Aerolized Bronchodilators in Mechanically Ventilated Surgical Patients", Society of Critical Care Medicine, New York, NY, June 1993.

"Laparoscopic Surgery in High Risk Cardiac Patients", Society of Critical Care Medicine, New York, NY, June, 1993.

"Venous Oximetry in Trauma Patients", Trauma Course, American College of Surgeons Critical Congress, San Francisco, CA, October, 1993.

"Physiology, Laparoscopy and Critical Care", Surgical Grand Rounds, Baystate Medical Center, Springfield, MA, November, 1993.

"Laparoscopy in the Critically Ill", Connecticut Society of American Board Surgeons, Cromwell, CT, December, 1993.

"Physiology, Laparoscopy and Critical Care", Surgical Grand Rounds, Winthrop University Hospital, Mineola, LI, NY, December, 1993.

"Does Laparoscopy Change the Indication for Surgery?", Massachusetts Chapter American College of Surgeons Annual Meeting, December, 1993.

"Laparoscopic Antireflux Surgery", Medical Grand Rounds, Hartford Hospital, Hartford, CT, January, 1994.

"Critical Care for the Practicing Surgeon", Controversies in Surgery, University of Connecticut School of Medicine, March, 1994.

"Cardiac Tamponade after Cardiac Surgery: Early Detection with Right Heart Ejection Fraction Catheters", CSABS, December 1994.

"Routine vs. Selective Cholangiography? Controversies in Surgery, Albert Einstein College of Medicine, New York, NY, December 1994.

"Cardiac Tamponade after Cardiac Surgery: Early Detection with Right Heart Ejection Fraction Catheters", Society of Critical Care Medicine, San Francisco, CA, February 1995.

"Managed Care and the Surgeon", Grand Rounds, Department of Surgery, Hartford Hospital, Hartford, CT, April 1995.

"Advances in Laparoscopic Surgery", Grand Rounds, Rockville General Hospital, Rockville, CT, June 1995.

Presidential Address, Connecticut Society of American Board Surgeons, December 1995.

Moderator, "Laparoscopy Herniography", Rocky Hill, CT, November 15, 1996.

"A Virtual Instrumentation System for Fiberoptic Endoscopes", SAGES, March 1997.

"Laparoscopy in the Critically Ill", SAGES, March 1997.

"Laparoscopic Hartmann Closure: Avoiding the Pitfalls", SAGES, March 1997.

"Laparoscopic Anti-reflux Surgery", Association of Surgical Technologists, October 25, 1997.

"Laparoscopic Repair of Paraesophageal Hernia", 6<sup>th</sup> World Congress of Endoscopic Surgery, Rome, Italy, June 1998.

"The Endotester as a Tool in Assessing Endoscopic Image Quality", Ergonomics Station, SAGES, April 1999.

"Sources of Problems with Endoscopic Visualization", SAGES, April 1999.

"Laparoscopy for Trauma", Westchester Surgical Society, Hartford, CT, May 10, 1999.

Course Director, Westchester Surgical Society Annual Meeting, Hartford, CT, May 10, 1999.

"Laparoscopy for Trauma", Trauma Point and Counterpoint, Atlantic City, NJ, May 25, 1999.

"What's New in Mechanical Ventilation," Trauma Point and Counterpoint, Atlantic City, NJ, May 25, 1999.

"Technical Aspects of Liver Resection," UConn Surgical Residency Program, October 1, 1999.

"Hand-Assisted Laparoscopic Liver Surgery" New England Surgical Society, Providence RI, September, 2001.

"Laparoscopy in the Management of Upper GI Tumors" Surgical Grand Rounds, Waterbury Hospital, October 2001

"Laparoscopic Liver Surgery" Surgical Grand Rounds, Winthrop University Hospital-Stony Brook School of Medicine, Mineola, NY, November 2002.

"Laparoscopic Debridement of Infected Pancreatic Necrosis" SAGES, Los Angeles, CA, April 2002.

"The Open Abdomen" Moderator, Symposium, New England Surgical Society, Newport, RI, September 2003.

"Computers in Medicine" Hartford Hospital Honorary Medical Staff Annual Meeting, October 2003.

"Medical Technology: What's Coming and How to Pay for It" Hamilton Workshop, Hartford Hospital, October, 2003.

"Incorporating technology into your Practice". Moderator, New England Surgical Society, Montreal, Que, Canada. October 2, 2004.

"The Abdominal Compartment Syndrome" Moderator, Panel, New England Surgical Society, Newport, RI, September, 2003.

"Laparoscopic Resection of Gastroduodenal Tumors", SAGES, Dallas, TX, April, 2006.

"Hand-assisted Laparoscopic Management of liver tumors", SAGES, Dallas, TX, April, 2006.

"Arteriographic Embolization for Upper Gastrointestinal Bleeding", New England Surgical Society, Burlington, VT, September, 2007.

"Laparoscopic Surgery for Liver Tumors", invited lecture, New England Surgical Society, Boston, MA, September, 2008.

"Pay for Call?", New England Surgical Society, Boston, MA, September 2008.

#### **RESEARCH GRANTS:**

"Synthetic Colloid Use in Critically Ill Surgical Patients", American Critical Care, 1986-87, \$65,000.

Clinical Investigator, Novamatrix Corporation, 1986.

"Ultra-High Frequency Jet Ventilation in a Penetrating Lung Trauma Model", U.S. Army Research Grant, 1986-87.

"Dermabond/Vicryl Plus Wound Closure Study", Ethicon, 2003, \$28,000.

"A prospective Randomized controlled, multicenter study comparing infection rates in a surgical incision closed with DermabondHVD". Ethicon, 2005, \$20,000



CURRICULUM VITAE

IJAZ SHAFI, M. D.

Date and Place of Birth: October 13, 1938; Pakistan  
Medical Education: King Edward Medical College,  
Lahore, Pakistan  
Year of Graduation: 1961

Post Graduate Qualifications:

1. D. O. (Diploma in Ophthalmology) from Royal College of Physicians and Surgeons, London, England; 1966.
2. Diplomate, American Board of Ophthalmology; 1975.

Training and Experience:

1. Assistant Clinical Professor, Ophthalmology, University of Connecticut School of Medicine, Farmington, Connecticut, USA. January, 1977 to Present.
2. Assistant Professor, Ophthalmology, University of Connecticut, School of Medicine, Farmington, Connecticut, USA. March, 1972 -December, 1976.
3. Fellowship in Ophthalmology at the University of Connecticut Health Center, Farmington, Connecticut, USA. July, 1971 - March, 1972.
4. Resident in Internal Medicine and Fellow, Connecticut Eye Bank, New Britain General Hospital, New Britain, Connecticut, USA. April, 1970 - June, 1971.
5. Senior House Officer in Ophthalmology, Joyce Green Hospital, Dartford, Kent, England. June, 1966 -March, 1970.
6. Senior House Officer in Ophthalmology, Eye Hospital, Nottingham, England. December, 1964 -September, 1965.
7. Senior House Officer in Internal Medicine, Law Hospital, Carlisle, Lanarkshire, Scotland, United Kingdom. August, 1964 - December, 1964.

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8. Rotating Internship, South Baltimore General Hospital, Baltimore, Maryland, USA. August, 1963 - June, 1964.
9. Medical Officer, Mangla Dam Contractor, Mangla, Pakistan. 1962 - 1963.
10. Medical Officer, Eye Outpatient Department, Mayo Hospital, Lahore, Pakistan. September, 1961 -September, 1962

Present Appointments:

1. Assistant Clinical Professor, Ophthalmology, University of Connecticut, School of Medicine, Farmington, Connecticut, USA.
2. Director, Fluorescein Angiography and Laser Clinic, University of Connecticut, School of Medicine, Farmington, Connecticut, USA.
3. Senior Attending Ophthalmologist and Consultant in Ophthalmology, New Britain General Hospital, New Britain, Connecticut, USA.
4. Consultant in Ophthalmology, Veterans Administration Hospital, Newington, Connecticut, USA.
5. Consultant in Ophthalmology, New Britain General Hospital, New Britain, Connecticut, USA.

Committees and Associations:

1. Member, Library Committee, New Britain General Hospital, New Britain, Connecticut, USA. 1985 -Present
2. Member, Pharmacology Subject Committee, University of Connecticut, School of Medicine, Farmington, Connecticut, USA. 1975 - 1981
3. Member, Infection Control Committee, University of Connecticut, Farmington, Connecticut, USA. 1975 -1976.
4. Member, Hartford County Medical Association, Hartford, Connecticut, USA.
5. Fellow, American Academy of Ophthalmology.
6. Member, Connecticut Society of Eye Physicians.

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7. Member, Connecticut State Medical Society.
8. Member, Royal Society of Medicine, London, England. 1990.
9. Fellow American College of Surgeons, October, 1990.

Publications and Presentations:

1. O'Rourke, J., Shafi, I. and Benson, C. Cannula and procedure for Controlled Microinfusion or Aspiration of the Anterior Chamber. Arch. Ophthalmology, Vol. 90., August, 1971.
2. O'Rourke, J., Durrani, J., Shafi, I. and Benson, C. Uveoretinal Concentration of Zinc. Read at the Annual Meeting of ARVO, May, 1973, Sarasota, Florida.
3. O'Rourke, J. and Shafi, I. Measurement of Capillary Blood Flow in the Eye Based on Direct Microinjection of 133 Xenon. (Abstract). J. Nuc. Med., June, 1972.
4. O'Rourke, J., Shafi, I. and Durrani, J. Capillary Deficit in Clinical Diabetes Mellitus and Uveitis as Measured by 133 Xenon Clearance from the Anterior Chamber of the Eye. Presented at the ARVO Annual Meeting, April, 1974, Sarasota, Florida.
5. Shafi, I., O'Rourke, J. and D'Amato, D. Limitations and Improvements in 32p Uptake Test. Presented at Symposium on Nuclear Ophthalmology, Philadelphia, Pennsylvania, March, 1975. (John Wiley and Sons, New York, New York, Publishers).
6. Bronzino, J., Miller, C., O'Rourke, J. and Shafi, I. Dynamic Measurement of Clearance of Radioisotopes From the Eye. Bal Harbor, Florida, October, 1972. Proc. 25th Annual Conference of Engineers in Medicine and Biology, 14:284, 1972.
7. Diabetic Retinopathy and Its Management. Medical Practitioner's Meeting, Lahore, Pakistan, December, 1986.
8. Management of Medical Retinal Problems, Lahore, Pakistan, December, 1985.
9. Fluorescein Angiographic Finding in Non-diabetic Retinal Disorders. Institute of Ophthalmology. Lahore, Pakistan, December, 1986.

Shafi, Ijaz M. D.  
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10. Fluorescein Angiographic Interpretation and Laser Photocoagulation in Non-diabetic Retinal Disease. Connecticut State Ophthalmological Society. 1977.
11. Fluorescein Angiography and Laser Photocoagulation in Retinal Disease. Connecticut State Ophthalmological Society. 1976.
12. Computerized Tonography. Connecticut State Ophthlmo-logical Society. 1974.
13. Central Serous Retinopathy, Diagnosis and Management. Connecticut State Ophthalmological Society. 1972.

Shafi, Ijaz M. D.  
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MEETINGS, LECTURES, CLASSES AND COURSES ATTENDED

1996

January	Connecticut Medical Insurance Company Risk Management Self-Study Program, The Physician-Patient Relationship Part IX <u>Credits: 5 hours.</u>
January 28	Connecticut Eyecare, Inc., General Membership Meeting, Hartford Marriott, Rocky Hill, Ct.
March 9	New England Eye Care, UCONN Health Center PKR Course.
April 18	Hartford County Medical Association Annual Meeting, Radisson Hotel, Cromwell, Ct.
October 27- 31	American Academy of Ophthalmology, Chicago, Illinois, Annual Meeting. <u>Credits: 42 hours.</u>
November 15	Yale University School of Medicine, Continuing Medical Education, Yale Visiting Lecture Series in Clinical Ophthalmology. <u>Credits: 5.5 hours.</u>
December 6	Connecticut Society of Eye Physicians Semi- Annual Meeting. New Developments in Cataract Surgery, Glaucoma Treatment and Managed Care. <u>Credits: 5 hours.</u>
December 25- 26 December 31	University of Illinois at Chicago. American Contributions to Health and Welfare in Pakistan. Karachi & Islamabad, Pakistan. <u>Credits: 8 hours.</u>

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MEETINGS, LECTURES, CLASSES AND COURSES ATTENDED

1997

- January 31 Yale University School of Medicine Continuing Medical Education, Visiting Lecture Series in Clinical Ophthalmology, Anterior Segment Surgery. Credits: 6 hours.
- May 9 Connecticut Society of Eye Physicians Annual Meeting, Cromwell, Ct. Credits: 5.5 hours.
- September 27-28 Ocular Surgery News Symposium, New York, New York. Cataract, Refractive and Oculoplasty Surgery. Credits: 11.5 hours.
- October 27-31 American Academy of Ophthalmology, Annual Meeting, San Francisco, Ca. Credits: 34 hours.
- December 15-21 Association of Pakistani Physicians of North America, Lahore, Pakistan. Credits: 20 hours.

## Cheryl Ficara, RN, MS, CNAA, BC

30 Farm Lea Drive  
Somers, CT

Home: (860) 749-4846  
Work: (860) 545-1660

### Summary of Qualifications

**25 years of progressive and increasingly responsible positions in Nursing Leadership, with strong record of research based innovative practice; growth and development of clinical and managerial leadership talent; and meeting and surpassing goals in challenging and rapidly changing health care environments.**

### PROFESSIONAL EXPERIENCE

Hartford Hospital  
Hartford, Connecticut

1990 - Present

#### **Director of Perioperative Services**

2006 - Present

*Provide leadership in collaboration physician partners for the delivery of high quality surgical care across the Perioperative continuum. Areas of oversight include Central Sterile, Preadmission Testing Center, Interventional Short Stay Unit, and 41 Operating Rooms Suites, with 9 being outpatient focused. Inpatient and Outpatient Post Anesthesia Care Units, Tissue Bank, GI Endoscopy Unit, and Vascular laboratory.*

*Accountable for an operational budget of \$250 million in revenue, \$207 million in expenses, 415.63FTE's and 499 staff members.*

Major Accomplishments include:

- Leading facilities planning and development team in building new Operating rooms, with focus on endovascular hybrid, orthopedic and robotic specialties.
- Participated and provided leadership in the National VHA initiative, Transformation of the Operating Room. Resulted in improved On Time Starts from 20% to 65% in 6 months, decrease in OR/PACU holds by 95.4% in 3 months. Implementing Executive culture of safety rounds, in 3 months implemented Executive rounds.
- Member of the steering group responsible for opening on additional HH ambulatory surgical center in outlying community.
- Pioneer in Shared Governance, designed and implemented, whole systems interdisciplinary model. Mentor of the team.
- Provided leadership and oversight to the reimplementation of the Surgical Information System in Perioperative Services.
- Eliminated 13 RN FTE's of Agency personnel through the application of retention strategies and the implementation of the Perioperative Nursing Core Curriculum Program.
- Consistently on budget or below while achieving excellence in outcomes
- Development of GI and Perioperative Services Quality dashboards including volume statistics, room utilization, turnover time, on time starts, STAT list outcomes and SCIP measures.

**Hartford Hospital**  
Hartford, Connecticut

1990-2006

**Nursing Director General Surgery Administration**

- Total of 197.89 FTE's an expanded realm of clinical /fiscal leadership to include inpatient/outpatient surgery
- General Surgery Clinical Administration
- Vascular Laboratory
- 42 General Surgery Unit
- 12 bed Surgical Trauma Intensive Care Unit
- 6 bed Surgical Step-down
- 24 bed Vascular Thoracic Unit
- C8/C11 Interventional Short Stay Unit
- Responsible for aligning the Nursing Shared Governance structure with the Hospitals Administrative structure
- Member of Magnet Accreditation Steering Group receiving Magnet designation in January 2004
- Led the roll out of the National Transformation of the ICU initiative (IHI/VHA) in all Hartford Hospital critical care units
- Implementation of Hospital wide Bed Management system
- Lead Hospital wide implementation of a centralized telemetry center increasing Patient safety while decreasing dollars spent
- Responsible of strategic expansion plan and implementation of critical care beds at Hartford Hospital including on 8 bed Respiratory unit, and 12 additional Med/Surgical step-down beds.
- Instrumental Role in Hartford Hospitals receiving the VHA Presidents Awards of Excellence in 2005.

**Hartford Hospital**  
Hartford, Connecticut

April 1996-October 1999

**Nursing Unit Director, Surgery**

- CO-lead an institutional wide-re-engineering project for the purpose of redesigning the Patient Care Delivery System to assure quality and cost effective outcomes
- Responsible for the clinical and fiscal leadership of a 12 bed surgical trauma intensive care unit, 24 bed vascular thoracic unit, 4 bed step-down unit, and over 82.5 FTE's and an operating budget of 4.5 million



- “Model Continuum” for first Patient Governance Redesign Initiative
- Transitioned unit operations to Shared Governance Structure and philosophy
- Developed staff mentoring program
- Assisted in the creation and implementation of patient pathways for multiple DRG’s
- Co-lead Hartford Hospital focus group work regarding patient/family satisfaction outcomes

**Hartford Hospital**  
Hartford, Connecticut

**December 1990-April 1996**

**Nurse Manager, Surgical/Trauma Intensive Care Unit**

- Responsible for the clinical and fiscal leadership of a 12 bed surgical intensive care unit with 42 FTE’s and an operations budget of 2.5 million
- Facilitated the transition from closed to “open” flexible visitation in all five adult critical care units
- Assisted in the development of the Hartford Hospital In-patient Satisfaction Survey
- Developed with Value Enhancement Team the Family Satisfaction Survey post card for all adult critical care units
- CO-developed the “Families in Crisis” competency, incorporated into core curriculum training for all new critical care nurses.
- Facilitated the utilization of nursing research into day-to-day clinical practice at the bedside.

**Hartford Hospital**  
Hartford, Connecticut

**June 1990-December 1990**

**Staff Nurse, Cardiothoracic Intensive Care Unit**

**Mount Sinai Hospital**  
Hartford, Connecticut

**May 1987-May 1990**

**Nurse Manager, Coronary Care Unit**

- Responsible for the clinical and fiscal management of a 6-bed coronary care unit.
- Responsibilities also included the overall staffing for the critical care division of Nursing
- Facilitated a “shared governance” model for unit operations, which enable RNs to assume greater responsibility and authority for their practice

**Mount Sinai Hospital**  
Hartford, Connecticut

**November 1986-May 1989**

**Assistant Nurse Manager, Medical Unit**

- Coordinated activities and daily operations of a 44 bed medical /oncology unit
- Twenty-four hour accountability for coordination of patient care, divisional staffing, organized scheduling, assisted in performance appraisals, and staff hiring, training, and development

**Mount Sinai Hospital**  
Hartford, Connecticut

**September 1984-November 1986**

**Staff Nurse, Medical/Surgical Intensive Care Unit**

**Mount Sinai Hospital**  
Hartford, Connecticut

**August 1983-September 1984**

**Staff Nurse, Surgical Unit**

**EDUCATION**

**1991 University of Connecticut**  
Master of Science

**1983 University of Connecticut**  
Baccalaureate of Science Degree in Nursing  
Magna Cum laude Graduate

**CERTIFICATION**

- Board Certified in Nursing Administration
- October 2004, The Wharton School and the Leonard Davis Institute of Health Economics of the University of Pennsylvania certification completion of the Wharton Nursing Leaders Program

## PRESENTATIONS

- “Shared Governance,” Bridgeport Hospital, Bridgeport, CT, May 1, 2007
- Implementing New Ways of working; Strategies to Encourage the Interdisciplinary Team” National VHAS presentation, San Diego, CA, April 11-13 2005
- Hosted presentation The University of CT Masters in Nursing Administration Students on “Shared Governance,” September 28,2005
- “End of Life Decision Making in Intensive Care Units.” Panelist discussion sponsored by University of Connecticut, September 23, 2005
- Lawrence and Memorial Hallmark Hospital, VHA member, presentation on “TICU project success in SICU”, 2004
- Mt. Sinai Hospital, Boston Mass, through VHA, presentation on “Patient and Family Domain”, 2004
- “Shared Governance Hartford Hospital Journey”, Saint Vincent Medical center, Bridgeport CT, November 22, 2004
- Evaluation of the re-design Nurse Manager Role, poster Presentation (2002) AONE.
- Behavioral Pain Scale Poster Presentation, 2002
- “Building a team for psychosocial Care” to the American Association of Spinal Cord Injury Psychologists and Social Workers September 2001

## PUBLICATIONS

- Lada-Morse, B. B., Ficara, C., (2005). One Hospitals Strategic Initiative to Eliminate Agency staffing. *Nurse Leader*, 3 (2), 49-51.
- W. Elberth, C. Ficara, C (2001) Reengineering Patient Care: A multidisciplinary approach – An Interview. *Seminars for Nurse Managers*, 9 (2), 1-5
- Caramanica, L, Ficara, C, Moynihan, P (1995). Making a transition from quality assurance to quality improvement. *Seminar for Nurse Managers*, 3(3), 119-125

## PROFESSIONAL ORGANIZATIONS

- Society of Critical Care Medicine
- American Organization of Nurse Executives
- Member of American Association of Critical Care Nurses
- Associate Faculty Member in the Division of Nursing at Saint Joseph College, January 1991 –present
- Sigma Theta Tau, Mu Chapter
- American Nurse Association
- Connecticut Nurses Association

505 Willard Ave.  
Building 3  
Newington, CT 06111

Phone 860-667-1815 opt 2  
Fax 860-666-1738  
E-mail  
dwaynekertanis@constitutioneye.  
com

# Dwayne Kertanis

---

## Education

1981-1982 Naval School of Health Sciences, Portsmouth, VA.

### **Surgical Technician Diploma**

1985-1990 University of Connecticut, Storrs, CT.

Major : Economics and Finance

### **Bachelors of Arts**

## Professional experience

1980-1984 United States Navy

### **Corpsman**

1985-1992 Mount Sinai Hospital, Hartford, CT.

### **Surgical Technician**

1992-2002 Primary Eye Care Center / Eye Surgery Center, Bloomfield,  
CT.

### **Certified Ophthalmic Assistant / Certified Surgical Technician**

2002-20010 Constitution Surgery Centers, Newington, CT.

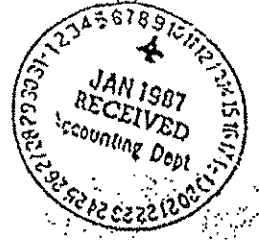
### **Vice President of Operations**

**ATTACHMENT G**

Internal Revenue Service

Department of the Treasury

Washington, DC 20224



Hartford Hospital  
80 Seymour Street  
Hartford, CT 06115

Person to Contact: Mr. Chasin  
(202) 586-3969

Telephone Number:

Refer Reply to: CP: E: EO: R: 4

Date: 11 DEC 1986

EIN: 06-0646668  
Key District: Brooklyn

Legend:

- J = Hartford Hospital
- K = Hartford Health Care Corporation
- L = Jefferson Street Medical Building, Inc.
- M = H.K.M.O.B. Corporation
- N = Hartford Hospital Real Estate Corporation
- P = Hartford Hospital Medical Laboratory, Inc.
- Q = H. H. Management Services, Inc.

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AVAILABLE  
COPY

Dear Sir or Madam:

This is in response to your letter dated December 27, 1985, wherein, you requested certain rulings regarding the federal income tax consequences of the transactions and reorganization described below.

The information available indicates that J is a nonstock corporation that is recognized as exempt under section 501(c)(3) of the Internal Revenue Code and is classified as an organization described in sections 509(a)(1) and 170(b)(1)(A)(iii). The principal purpose of J is to provide medical or hospital care.

K is a nonstock membership corporation that has applied for exemption under section 501(c)(3) of the Code and classification as a supporting organization described in section 509(a)(3). The principal purpose of K is to benefit, perform the functions of, and carry out the purposes of J.

L is a stock corporation that is recognized as exempt under section 501(c)(2) of the Code. J is the sole shareholder of L. The exclusive purpose of L is to hold title to property on behalf of J, and turning over the net income from such property to J.

M is a for-profit, stock corporation with J as its sole shareholder. The primary purpose of M is to act as the corporate general partner in a limited partnership which will construct, operate, and lease a medical office building in the vicinity of J's facility to physicians of J.

F.A.A.

Hartford Hospital

N is a for-profit, nonstock corporation with J as its sole member. The primary purpose of N is to own and operate certain parking garages in the vicinity of J's facility.

P is a for-profit, nonstock corporation with J as its sole member. The primary purpose of P is to provide clinical laboratory services to J and to the public.

Q is a for-profit, stock corporation with J as its sole shareholder. The primary purpose of Q is to provide pharmacy services to the public and other related health care services.

Due to the complexities of operating an acute care hospital along with the numerous associated activities, you propose to reorganize your present corporate group structure. Under the reorganization plan J would become a subsidiary of K. The present members of J would become instead members of K, which, in turn, would become the sole member of J. The present directors of J would continue in that capacity and, at least initially, would also serve as directors of the new parent. Furthermore, J's present subsidiaries would become subsidiaries of K. Appropriate amendments will be made to the organizational documents of the involved organizations to adjust memberships, and J will transfer the shares of stock it owns in L, M, and Q to K to accomplish the restructuring. J has amended its organizational document to require that at least a majority of its directors shall also be on the board of K, and such individuals shall constitute at least a majority of J's board. You have represented that K will not be controlled directly or indirectly by one or more disqualified persons other than foundation managers and other than one or more publicly supported organizations. Sufficient cash to provide working capital may be transferred to K from J at the consummation of the reorganization, and additional transfers of cash or assets among the exempt organizations are anticipated to further the goals of efficient management. Upon completion of the reorganization, K will function as the parent and will provide overall direction and control to the other corporate entities in the structure that will result from the reorganization.

The overall objective of the proposed reorganization is to enable J to better achieve its exempt purposes. The specific reasons include: (1) to facilitate compliance with governmental reporting requirements, (2) to segregate hospital assets from non-hospital assets so as to limit third party liability, (3) to separate regulated and non-regulated activities, (4) to remove the management of non-hospital activities and assets from hospital management, (5) to increase flexibility in undertaking capital expenditure projects, and (6) to facilitate long range planning.

Hartford Hospital

After the reorganization, J, K, and L will share certain assets, personnel, and services in an effort to reduce, through economies of scale, the overall cost of providing health care services. You have represented that any transactions between the exempt organizations and the nonexempt organizations within the structure will be conducted on an arm's length basis, and charges for goods or services provided in connection with such transactions would be at fair market value.

Section 501(c)(3) of the Code provides for the exemption from federal income tax of organizations organized and operated exclusively for charitable purposes, no part of the net earnings of which inures to the benefit of any shareholder or individual.

Rev. Rul. 78-41, 1978-1 C.B. 148, describes a trust, the sole purpose of which was to accumulate and hold funds for use in satisfying malpractice claims against a hospital. The trust was determined to be an integral part of the hospital because it was controlled by the hospital and because it was performing a function that the hospital could do directly. The ruling concluded that the trust was entitled to exemption under section 501(c)(3) of the Code.

Section 170 of the Code provides for the deductibility of "charitable contributions," which generally includes any gift to or for the use of an organization described in section 501(c)(3).

Section 509(a)(1) of the Code provides, in part, that an organization is not a private foundation if it is described in section 170(b)(1)(A)(iii).

Section 509(a)(3) of the Code provides that an organization is not a private foundation if it is --

- (A) organized and operated exclusively for the benefit of an organization described in section 509(a)(1) or 509(a)(2);
- (B) operated, supervised, or controlled by or in connection with one or more organizations described in 509(a)(1) or 509(a)(2); and
- (C) not controlled directly or indirectly by one or more disqualified persons other than foundation managers and other than one or more organizations described in 509(a)(1) or 509(a)(2).

Section 1.509(a)-4(c)(1) of the Income Tax Regulations sets forth, generally, the organizational test for supporting organizations, and provides that the organization's governing instrument must satisfy the following requirements:

- (i) limit the purposes of the organization to purposes set forth in section 509(a)(3)(A) of the Code;



Hartford Hospital

- (ii) not expressly empower the organization to engage in activities which are not in furtherance of such purposes;
- (iii) state the specified publicly supported organizations on whose behalf the organization is to be operated; and
- (iv) not expressly empower the organization to support or benefit any organization other than the specified publicly supported organizations.

Section 1.509(a)-4(e) sets forth the operational test for supporting organizations, and provides that the organization must engage solely in activities which support or benefit the specified publicly supported organizations. A supporting organization is not required to pay over its income to the publicly supported organizations in order to meet the operational test, and may satisfy the test by using its income to carry on an independent activity or program which supports or benefits the specified publicly supported organizations.

Section 1.509(a)-4(h)(1) of the regulations provides that in order for a supporting organization to be "supervised or controlled in connection with" one or more publicly supported organizations, there must be common supervision or control by the persons supervising or controlling both the supporting organization and the publicly supported organizations to insure that the supporting organization will be responsive to the needs and requirements of the publicly supported organizations. Therefore, the control or management of the supporting organization must be vested in the same persons that control or manage the publicly supported organizations.

Section 511 of the Code imposes a tax on the unrelated business taxable income of organizations described in section 501(c).

Section 512(a)(1) of the Code defines the term "unrelated business taxable income" as the gross income, less allowable deductions, derived by any organization from any unrelated trade or business regularly carried on by it.

Section 512(b)(1) of the Code excludes dividends in computing unrelated business taxable income.

Section 512(b)(4) of the Code provides that notwithstanding 512(b)(1), in the case of debt-financed property there shall be included, as an item of gross income derived from an unrelated trade or business, the amount ascertained under section 514(a).

Section 513(a) of the Code provides that the term "unrelated trade or business" means any trade or business the conduct of which is not substantially related (aside from the need of an organization for income

Hartford Hospital

or funds or the use it makes of the profits derived) to the exercise or performance by an organization of its charitable, educational, or other exempt purposes.

The information submitted indicates that the proposed corporate restructuring is intended to enable J to better achieve its charitable purpose under section 501(c)(3) of the Code. The reorganization is expected to promote more efficient health care delivery by reason of enhanced risk management and a more flexible and specialized governance structure. J will continue to provide acute care and related medical services to the public after the reorganization. Accordingly, J will continue to qualify for exemption under section 501(c)(3) and will be described in sections 509(a)(1) and 170(b)(1)(A)(iii).

After the proposed reorganization, K will perform services in support of J which J could perform for itself consistent with its exempt functions. Therefore, by reason of the close and continuous relationship after the reorganization, K could be considered an integral part of J and would qualify for exemption under section 501(c)(3) of the Code. See Rev. Rul. 78-41, 1978-1 C.B. 148. In addition, K will be a supporting organization described in section 509(a)(3). K will satisfy the organizational test of section 1.509(a)-4(c)(1) and the operational test of section 1.509(a)-4(e). K will be "supervised or controlled in connection with" J pursuant to section 1.509(a)-4(h)(1) because of the commonality of control between J and K, and you have represented that K will not be controlled directly or indirectly by one or more disqualified persons other than foundation managers and other than one or more publicly supported organizations. The foregoing conclusions are not affected by K's ownership of all the stock of M and Q, or its status as sole member of N and P, because K's ownership or status as sole member of those organizations will assure that after-tax profits which are available for distribution will be applied to the exempt purposes of J or otherwise returned to K in the form of dividends.

The transfers of assets necessary to consummate the proposed reorganization will be isolated transfers and will not possess the characteristics of a trade or business, because they will not be regularly carried on within the contemplation of section 512(a)(1) of the Code. After the reorganization, the sharing of services and facilities and the transfer of cash and assets among the exempt organizations will be substantially related to the performance of exempt purposes and will not constitute unrelated trade or business activities within the meaning of section 513(a). Also, any dividends paid by M, N, P, or Q to K after the reorganization will be excluded in computing the unrelated business taxable income of K pursuant to section 512(b)(1), but subject to the limitation set forth in section 512(b)(4).

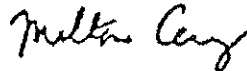
Hartford Hospital

Therefore, assuming that the proposed reorganization is carried out as described in your ruling request, we rule that:

1. After the proposed reorganization, J will continue to qualify for exemption under section 501(c)(3) of the Code and will be described in sections 509(a)(1) and 170(b)(1)(A)(iii).
2. After the proposed reorganization, K will be described in sections 501(c)(3) and 509(a)(3).
3. K's ownership of, or status as sole member of, H, M, P, and Q, including the receipt of dividends from these taxable organizations, will have no adverse effect on K's status under sections 501(c)(3) and 509(a)(3).
4. Dividends received by K from H, M, P, or Q will not be unrelated business taxable income and, therefore, will not give rise to the imposition of tax under section 511. (However, this ruling is limited to situations where section 512(b)(4) is not applicable.)
5. The contemplated transfers of cash and other assets and sharing of personnel, services, facilities, and expenses by J, K, and L will not: (a) jeopardize the tax-exempt status of J or K under section 501(c)(3); (b) adversely affect the status of J or K as public charities under sections 509(a)(1) and 509(a)(3), respectively; nor (c) give rise to tax under section 511 to any of the involved exempt organizations.
6. After the proposed reorganization, contributions to J and K will be deductible by the donors as provided in section 170.

This ruling is directed only to the organizations that requested it. Section 6110(j)(3) of the Code provides that it may not be used or cited as precedent.

Sincerely yours,



Milton Cerny  
 Chief, Exempt Organizations  
 Rulings Branch

**ATTACHMENT H**



STATE OF CONNECTICUT

DEPARTMENT OF PUBLIC HEALTH

Division of Health Systems Regulation

TO: Administrator
Hartford Hospital
80 Seymour Street and 200 Retreat Avenue
Hartford, CT 06106

FROM: Colleen Judge
Processing Technician

DATE: March 1, 2010

We are enclosing a corrected license showing a change for your facility:

- ( ) Change of Administrator
( ) Change of Medical Director
( ) Change of Director of Nurses
( ) Increase of bed capacity from ... to ... Eff: ...
( ) Decrease of bed capacity from ... to ... Eff: ...
(X) Other change, describe below:
Added (1) Satellite - Duncaster Primary Care Satellite, 40 Loeffler Road, Bloomfield effective 1/26/10.

Please note that this license is in effect only for the operation of the facility as it is now organized. This division should be notified immediately if you:

- 1. Change your Administrator
2. Change your Director of Nurses
3. Change your Medical Director
4. Plan to relocate
5. Plan to sell your facility
6. Plan to discontinue operation.

Any of these changes or proposed changes also require written notification to this division.

If we can be of any assistance, please do not hesitate to call the licensure office.

Enclosure



Phone: (860) 509-7444
Telephone Device for the Deaf (860) 509-7191
410 Capitol Avenue - MS # 12HFL
P.O. Box 340308 Hartford, CT 06134
An Equal Opportunity Employer

**STATE OF CONNECTICUT**

**Department of Public Health**

**LICENSE**

**License No. 0046**

**General Hospital**

In accordance with the provisions of the General Statutes of Connecticut Section 19a-493:

Hartford Hospital of Hartford, CT, d/b/a Hartford Hospital is hereby licensed to maintain and operate a General Hospital.

**Hartford Hospital** is located at 80 Seymour Street and 200 Retreat Avenue, Hartford, CT 06106

The maximum number of beds shall not exceed at any time:

819 General Hospital beds

48 Bassinets

This license expires **December 31, 2011** and may be revoked for cause at any time.

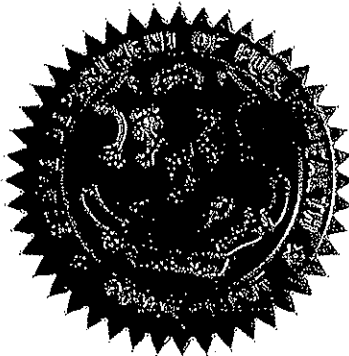
Dated at Hartford, Connecticut, January 1, 2010.

License revised to reflect:

\* Added (1) Satellite effective 1/26/10

**Satellites**

The 101 Day Program At Bloomfield, 2 Northwestern Drive, Bloomfield, CT  
West Hartford Surgery Center, 65 Memorial Road, Suite 500, West Hartford, CT  
\*Duncaster Primary Care Satellite, 40 Loeffler Road, Bloomfield, CT



*J. Robert Galvin MD, MPH, MBA*

J. Robert Galvin, MD, MPH, MBA,  
Commissioner

**STATE OF CONNECTICUT**  
**Department of Public Health**  
**LICENSE**

**License No. 0164**

**Outpatient Surgical Facility**

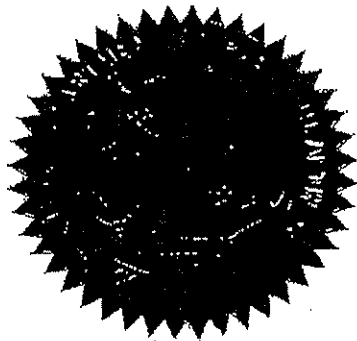
In accordance with the provisions of the General Statutes of Connecticut Section 19a-493:

Constitution Eye Surgery Center, LLC of Newington, CT, d/b/a Constitution Eye Surgery Center, LLC is hereby licensed to maintain and operate an Outpatient Surgical Facility.

Constitution Eye Surgery Center, LLC is located at 505 Willard Avenue, Newington, CT 06111.

This license expires **September 30, 2011** and may be revoked for cause at any time.

Dated at Hartford, Connecticut, October 1, 2009. RENEWAL.



*J. Robert Galvin MD, MPH, MBA*

J. Robert Galvin, MD, MPH, MBA, Commissioner

**Constitution Eye Surgery Center, LLC**  
**Balance Sheet**  
**December 31, 2009**

	12/31/09	12/31/08
<b>ASSETS</b>		
<b>Current Assets</b>		
<b>Cash:</b>		
Checking - Wachovia Bank	\$90,141.78	(\$17,670.30)
Checking - Bank of America	19,958.12	18,155.04
Petty Cash	97.72	97.72
Petty Cash: Cash Draw	100.00	100.00
<b>Total Cash</b>	<b>110,297.62</b>	<b>682.46</b>
<b>Short Term Investments:</b>		
Money Market Sweep Account	652,991.05	536,587.81
Money Market Account	77,407.29	77,203.13
<b>Total Short Term Investments</b>	<b>730,398.34</b>	<b>613,790.94</b>
<b>Due from Affiliates:</b>		
Due from Newington Realty	6,564.58	
<b>Total Due from Affiliates</b>	<b>6,564.58</b>	
 <b>Total Current Assets</b>	 <b>847,260.54</b>	 <b>614,473.40</b>
<b>Fixed Assets:</b>		
Land		32,467.00
Leasehold Improvements	1,896,663.00	13,018.00
Equipment - Computers	37,759.00	(10,123.40)
Equipment - Medical	1,444,533.75	1,004,790.31
Equipment - Other	17,301.00	15,575.95
Furniture & Fixtures	160,395.00	111,216.60
Software	4,450.08	4,450.08
Construction in Progress		741,632.51
Facility Build-Out - Billing (FF&E)		15,844.53
Facility Build-Out - Billing (L/H Improvements)		5,409.81
Facility Build-Out-2004		(350,000.00)
Facility Build-Outs - Computer/Software		1,628.32
Facility Build-Outs - Furniture & Fixtures		82,254.57
Facility Build-Outs - Leasehold Improvements		1,652,116.59
Facility Build-Outs - Medical Equipment		269,192.94
754 Step Up 5 Yr Assets	68,040.00	65,178.00
754 Step Up 7 Yr Assets	72,599.00	41,579.00
754 Step Up 10 Yr Assets	10,836.00	4,712.00
Less Accumulated Depreciation	(2,690,936.92)	(2,727,409.00)
<b>Fixed Assets-Net</b>	<b>1,021,639.91</b>	<b>973,533.81</b>
<b>Intangible Assets:</b>		
Goodwill		713,556.00
754 Step-Up Goodwill	1,917,159.00	
Start-Up Costs	50,608.94	50,608.94
Organization Costs	16,581.22	16,581.22
754 Step Up A/R	186,921.00	186,921.00
Less Accumulated Amortization	(533,464.00)	(299,821.16)
<b>Intangible Assets-Net</b>	<b>1,637,806.16</b>	<b>667,846.00</b>
<b>Other Assets:</b>		
Member balance on Termination	188,480.00	188,480.00

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Constitution Eye Surgery Center,LLC  
Balance Sheet  
December 31, 2009

	<u>12/31/09</u>	<u>12/31/08</u>
Total Other Assets	<u>\$188,480.00</u>	<u>\$188,480.00</u>
<b>Total Assets</b>	<b><u>3,695,186.61</u></b>	<b><u>2,444,333.21</u></b>

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**Constitution Eye Surgery Center, LLC**  
**Balance Sheet**  
**December 31, 2009**

	12/31/09	12/31/08
<b>Liabilities &amp; Owners' Equity</b>		
<b>Current Liabilities</b>		
<b>Accounts Payable:</b>		
Accounts Payable	\$12,163.18	\$104,515.56
Contra (A/P)	(12,163.18)	(104,515.56)
American Express	152,109.75	121,382.65
US Bank Visa	26,123.05	13,569.40
Wachovia Visa (5955)	14,961.83	17,958.87
<b>Total Accounts Payable</b>	<b>193,194.63</b>	<b>152,910.92</b>
<b>Accrued Payroll &amp; Related:</b>		
Other Employee Insurance	2,653.79	4,346.85
<b>Total Accrued Payroll &amp; Related</b>	<b>2,653.79</b>	<b>4,346.85</b>
<b>Total Current Liabilities</b>	<b>195,848.42</b>	<b>157,257.77</b>
<b>Physician/Member Loans:</b>		
Physician Loans - Build-Out	800,512.56	844,367.66
Physician Loans - Other	352,651.92	371,002.09
<b>Total Physician Loans</b>	<b>1,153,164.48</b>	<b>1,215,369.75</b>
<b>Notes Payable:</b>		
Note Payable	23,248.49	30,417.24
Vendor Loan - Popular Leasing	6,834.45	28,188.42
Vendor Loan - Infiniti	9,946.52	71,571.41
Vendor Loan - Popular Lease DSAEK	17,723.55	25,059.08
Vendor Loan - Popular Lease Video System	18,682.31	26,154.01
<b>Total Notes Payable</b>	<b>76,435.32</b>	<b>181,390.16</b>
<b>Total Liabilities</b>	<b>1,425,448.22</b>	<b>1,554,017.68</b>
<b>Equity:</b>		
Constitution Surgery Centers, LLC	(63,834.00)	(60,941.86)
Roger Luskind, M.D.	239,531.00	100,000.00
Alan Stern, M.D.	175,762.00	74,517.00
Patrick Albergo, M.D.	(28,544.00)	(27,199.00)
David Hill, M.D.	148,449.00	94,933.00
Duane Austin, M.D.	(28,546.00)	(27,199.00)
Elwin Schwartz, M.D.	102,526.00	104,729.00
David Emmell, M.D.	(28,552.00)	(27,204.00)
Jay Hellreich, M.D.	70,827.00	72,475.00
Alexander Fortier, M.D.	(28,543.00)	(27,198.00)
Joseph Bentivegna, M.D.	122,238.00	50,486.00
Peter Krenicky M.D.	(13,497.00)	(12,816.00)
Kevin McMahon, M.D.	150,855.00	39,579.00
William Maron, M.D.	(28,552.00)	(27,205.00)
Martin Edwards, M.D.	172,568.00	71,199.00
Gerard Nolan, M.D.	(28,545.00)	(27,200.00)
Martin Seremet, M.D.	192,601.00	92,014.00
Donald Salzberg M.D.	(28,549.00)	(27,202.00)
Martin Wand, M.D.	38,790.00	47,468.00
Ijaz Shafi, M.D.	(28,551.00)	(27,203.00)
Mitchell Gilbert, M.D.	148,442.00	94,929.00
Geoffrey Emerick, M.D.	487,228.00	
Patricia McDonald, M.D.	175,764.00	74,518.00

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**Constitution Eye Surgery Center, LLC**  
**Balance Sheet**  
**December 31, 2009**

	<u>12/31/09</u>	<u>12/31/08</u>
Alan Solinsky, M.D.	(\$28,546.28)	(\$27,199.00)
Paul Singer, M.D.		83,063.00
Edmund Suski, M.D.	(28,551.00)	(27,205.00)
Raji Mulukutla, M.D.	102,528.00	104,731.00
Richard, Molk M.D.	102,528.00	104,730.00
Scott L. Dolin, M.D.	162,712.77	24,272.00
Thomas Beggins, M.D.	102,531.00	104,734.00
William Hall, M.D.	64,059.00	65,640.00
Mary Gina Ratchford, M.D.	17,308.00	43,904.00
<b>Total Partner Capital</b>	<u><b>2,414,435.49</b></u>	<u><b>1,102,149.14</b></u>
Constitution Surgery Centers, LLC	(321,364.00)	(346,354.60)
Alan Solinsky, M.D.-Draw	(148,727.00)	(160,228.92)
Alan Stern, M.D.-Draw	(108,062.00)	(83,865.83)
Alexander Fortier, M.D.-Draw	(148,727.00)	(160,228.93)
David Emmet, M.D.-Draw	(148,727.00)	(160,228.87)
David Hill, M.D.-Draw	(221,597.00)	(155,729.03)
Donald Saizberg, M.D.-Draw	(148,727.00)	(160,228.89)
Duane Austin, M.D.-Draw	(148,727.00)	(160,228.92)
Edmund Suski, M.D.-Draw	(148,727.00)	(160,228.86)
Elwin Schwartz, M.D.-Draw	(114,772.00)	(115,690.64)
Gerard Nolan, M.D.-Draw	(148,727.00)	(160,228.91)
Ijaz Shafi, M.D.-Draw	(148,727.00)	(160,228.88)
Jay Hellreich, M.D.-Draw	(91,039.00)	(92,439.38)
Joseph Bentivegna, M.D.-Draw	(65,543.00)	(55,532.59)
Kevin McMahon, M.D.-Draw	(62,675.00)	(46,253.30)
Martin Edwards, M.D.-Draw	(178,606.00)	(116,796.77)
Martin Seremet, M.D.-Draw	(149,981.00)	(155,680.80)
Martin Wand, M.D.-Draw	(62,616.00)	(77,864.53)
Mitchell Gilbert, M.D.-Draw	(221,593.00)	(155,728.99)
Patricia McDonald, M.D.-Draw	(108,062.00)	(83,865.84)
Patrick Albergo, M.D.-Draw	(148,727.00)	(160,228.92)
Paul Singer, M.D.-Draw		(101,904.00)
Peter Krenicky, M.D.-Draw	(74,417.00)	(80,122.30)
Raji Mulukutla, M.D.-Draw	(114,772.00)	(115,690.66)
Richard Molk, M.D.-Draw	(114,771.00)	(115,690.63)
Scott L. Dolin, M.D.-Draw	(60,435.00)	(38,937.66)
Thomas Beggins, M.D.-Draw	(114,772.00)	(115,690.69)
William Hall, M.D.-Draw	(90,569.00)	(92,371.03)
William Maron, M.D.-Draw	(148,727.00)	(160,228.86)
Mary Gina Ratchford, M.D.-Draw	(151,912.00)	(160,939.95)
Roger Luskind, M.D.-Draw	(60,332.00)	(17,500.00)
Geoffrey Emerick, M.D.-Draw	(80,358.00)	
<b>Total Partner Draw</b>	<u><b>(4,055,518.00)</b></u>	<u><b>(3,926,938.18)</b></u>
Equity Before Current Year Earnings	<u>(1,641,082.51)</u>	<u>(2,824,789.04)</u>
Current Year Earnings	<u>3,910,820.90</u>	<u>3,715,104.57</u>
Total Retained Earnings	<u>3,910,820.90</u>	<u>3,715,104.57</u>
Total Owners' Equity	<u>2,269,738.39</u>	<u>890,315.53</u>
<b>Total Liabilities and Owner's Equity</b>	<u><b>3,695,186.61</b></u>	<u><b>2,444,333.21</b></u>

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**Constitution Eye Surgery Center, LLC**  
**Income Statement**  
**December 31, 2009**

	12/31/09 Month	YTD
<b>INCOME</b>		
<b>Patient Income</b>		
Patient Fees	\$974,314.80	\$9,942,794.40
Patient Refunds	(7,187.31)	(46,116.43)
Credit Card Fees	(408.40)	(5,381.79)
Collection Agency Fees	(51.80)	(3,519.25)
<b>Net Patient Income</b>	<b>966,667.29</b>	<b>9,887,776.93</b>
Interest Income	(3.43)	
<b>TOTAL INCOME</b>	<b>966,663.86</b>	<b>9,887,776.93</b>
<b>EXPENSES</b>		
<b>Salaries &amp; Wages</b>		
Salaries	169,529.74	1,648,566.49
Shared Payroll -Clinical	2,831.95	23,316.04
<b>Total Salaries &amp; Wages</b>	<b>172,361.69</b>	<b>1,671,882.53</b>
<b>Fringe Benefits</b>		
Health Insurance	13,784.88	164,566.84
Health Insurance-Employee Contribution	(1,911.30)	(24,846.90)
401k - Employer Contribution		72,308.33
<b>Fringe Benefits - non Taxes</b>	<b>11,873.58</b>	<b>212,028.27</b>
F.I.C.A.	12,886.39	124,144.46
F.U.T.A.	22.11	1,955.65
S.U.T.A.	254.04	15,644.24
<b>Fringe Benefits - Payroll Taxes</b>	<b>13,162.54</b>	<b>141,744.35</b>
<b>Total Fringe Benefits</b>	<b>25,036.12</b>	<b>353,772.62</b>
<b>Occupancy Expense</b>		
Rent	17,701.67	210,117.70
CAM		14,642.35
Electricity	5,633.97	71,880.27
Gas	408.97	6,959.43
Generator Fuel		504.67
Building Repairs	1,346.85	12,138.74
Landscaping		667.76
Fire Service		1,318.11
Cleaning	445.20	2,226.00
Janitorial	4,028.00	26,335.34
Pest Control		159.00
<b>Total Occupancy Expense</b>	<b>29,564.66</b>	<b>346,949.37</b>
<b>Commercial Insurance</b>		
Liability Insurance		4,962.83
Malpractice Insurance	4,774.22	50,101.34

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**Constitution Eye Surgery Center, LLC**  
**Income Statement**  
**December 31, 2009**

	<u>12/31/09</u>	<u>YTD</u>
	Month	
Umbrella Insurance	\$36.26	\$414.94
Workers' Comp Insurance		18,885.22
<b>Total Commercial Insurance</b>	<b><u>4,810.48</u></b>	<b><u>74,364.33</u></b>
<b>Office Expense</b>		
Office Supplies	1,182.24	18,753.25
Office Equipment-Non Capital	(525.76)	166.37
Office Equipment Repair	289.70	2,795.61
Computer Maintenance & Support	2,741.51	19,437.94
Equipment Rental/CIT Lease	33.92	407.04
Equipment Rental/Lease-Postage Meter		325.70
Equipment Rental/Lease-Water Cooler	24.00	283.26
Postage & Delivery Charges	58.34	698.43
Printing & Reproduction	1,457.50	1,457.50
Bank Service Charges	298.56	3,579.29
Dues & Subscriptions		1,175.45
Credit Card Fee	10.00	223.00
Filing Fee		20.00
Employee Morale Expense	1,440.11	29,778.12
<b>Total Office Expense</b>	<b><u>7,010.12</u></b>	<b><u>79,100.96</u></b>
<b>Medical Supplies</b>		
Drugs	7,854.46	103,337.16
Implants	146,933.04	1,251,282.53
Medical Equipment - Non Capital	35,664.54	35,939.54
Instrumentation	2,244.50	14,575.47
Medical Equipment Rental	218.43	930.04
Other Medical Supplies	85,415.54	868,073.58
Patient Refreshments	728.92	7,364.79
Freight	776.64	13,795.70
<b>Total Medical Supplies</b>	<b><u>279,836.07</u></b>	<b><u>2,295,298.81</u></b>
<b>Services - Professional</b>		
Management Fee (CSC)	12,720.00	120,025.00
Billing & Financial Services	27,617.52	294,631.44
Legal	238.00	41,672.78
Accounting	600.00	10,560.00
Consulting		318.00
Pharmacist		2,390.00
Payroll Services	563.63	5,115.41
Section 125 Admin. Fee	72.15	1,568.25
Medical Advisory Committee	26,700.00	26,700.00
Other Professional Services	240.00	5,974.00
<b>Total Services - Professional</b>	<b><u>68,751.30</u></b>	<b><u>508,954.88</u></b>
<b>Other Outside Services</b>		
Laundry	3,728.07	31,521.09
Medical Waste	1,282.57	7,292.70
Patient Transportation	5,395.69	101,006.35
Transcription Services		2,459.74
Instrument/Medical Equipment Repair	3,457.51	64,037.03
Repairs & Maintenance-Other		1,088.24
<b>Total Other Outside Services</b>	<b><u>13,863.84</u></b>	<b><u>207,405.15</u></b>
<b>Training &amp; Education</b>		
Seminars & Workshops	2,545.00	2,984.00

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**Constitution Eye Surgery Center, LLC  
Income Statement  
December 31, 2009**

	<u>12/31/09</u> Month	<u>YTD</u>
Books & Educational Supplies	(\$2,480.05)	\$474.99
<b>Total Training &amp; Education</b>	<b>64.95</b>	<b>3,458.99</b>
<b>Professional Fees</b>		
Professional Dues & Subscriptions		4,780.93
Credentialing		324.75
Licenses & Permits		2,240.00
<b>Total Professional Fees</b>		<b>7,345.68</b>
<b>Travel &amp; Entertainment</b>		
Mileage Reimbursement		290.00
Air Fare		998.64
Meals		36.50
Gifts	389.80	4,761.95
<b>Total Travel &amp; Entertainment</b>	<b>389.80</b>	<b>6,087.09</b>
<b>Communication Expense</b>		
Telephone	976.18	8,310.83
Cable TV	141.21	1,662.16
Internet		2,213.10
Advertising	68.00	1,957.19
Meeting Expense		75.29
<b>Total Communication</b>	<b>1,185.39</b>	<b>14,218.57</b>
<b>Depreciation</b>		
Depreciation	27,158.76	122,158.76
Amortization	65,723.00	110,723.00
<b>Total Depreciation &amp; Amortization</b>	<b>92,881.76</b>	<b>232,881.76</b>
<b>Interest Expense</b>		
Loan Interest	11,771.78	133,259.40
Finance Charge		13.00
Interest Expense-Other	529.77	10,130.16
<b>Total Interest Expense</b>	<b>12,301.55</b>	<b>143,402.56</b>
<b>Taxes</b>		
Property Tax	1.47	24,729.81
Sales Tax	163.68	8,464.75
State Taxes		250.00
<b>Total Taxes</b>	<b>165.15</b>	<b>33,444.56</b>
<b>Other Expense (Income)</b>		
Interest Income	(148.33)	(1,611.83)
<b>Total Other Income/Expense</b>	<b>(148.33)</b>	<b>(1,611.83)</b>
<b>Total Expenses</b>	<b>708,074.55</b>	<b>5,976,956.03</b>
<b>Net Income</b>	<b>\$258,589.31</b>	<b>\$3,910,820.90</b>

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**ATTACHMENT J**

Hartford Hospital

11. C (i). Please provide one year of actual results and three years of projections of Total Facility revenue, expense and volume statistics without, incremental to and with the CON proposal in the following reporting format:

Total Facility: Description	FY 2009 Actual Results	FY 2011		FY 2011		FY 2012		FY 2012		FY 2013		FY 2013		FY 2014		FY 2014	
		Projected Without CON	Projected With CON	Projected Incremental	Projected With CON	Projected Without CON	Projected Incremental	Projected With CON	Projected Without CON	Projected Incremental	Projected With CON	Projected Without CON	Projected Incremental	Projected With CON	Projected Without CON	Projected Incremental	Projected With CON
NET PATIENT REVENUE																	
Non-Government	\$336,656,312	\$419,886,052	\$423,395,302	\$3,509,250	\$423,395,302	\$454,662,748	\$4,918,000	\$459,600,748	\$502,281,812	\$5,170,000	\$907,451,812	\$540,042,964	\$5,237,210	\$545,280,174	\$587,092,000	\$2,734,800	\$589,826,800
Medicare	\$283,035,628	\$318,029,147	\$328,669,397	\$10,640,250	\$328,669,397	\$322,149,862	\$14,187,000	\$336,336,862	\$330,266,229	\$14,187,000	\$344,453,229	\$368,231,358	\$14,371,431	\$372,602,789	\$43,198,480	\$1,324,484	\$44,522,964
Medicaid and Other Medical Assistance	\$85,048,920	\$96,295,801	\$96,370,801	\$75,000	\$96,370,801	\$97,669,990	\$100,000	\$97,769,990	\$100,154,959	\$100,000	\$100,254,959	\$102,260,058	\$100,000	\$102,360,058	\$35,704,000	\$394,333	\$36,098,333
Other Government	\$2,439,473	\$2,500,000	\$2,505,000	\$6,000	\$2,505,000	\$2,600,000	\$8,000	\$2,608,000	\$2,709,000	\$8,000	\$2,708,000	\$2,735,080	\$8,000	\$2,743,080	\$170,994,720	\$1,581,308	\$172,576,028
Total Net Patient Revenue	\$707,180,333	\$836,711,000	\$850,941,500	\$14,230,550	\$850,941,500	\$877,102,000	\$19,213,000	\$896,315,000	\$935,403,000	\$19,465,000	\$954,868,000	\$1,003,269,460	\$19,716,641	\$1,022,986,101	\$976,100,760	\$8,865,209	\$984,965,969
Other Operating Revenue	\$122,717,827	\$119,787,000	\$119,788,500	\$1,500	\$119,788,500	\$123,679,000	\$2,000	\$123,681,000	\$127,476,000	\$2,000	\$127,478,000	\$132,735,000	\$2,000	\$132,737,000	\$65,975,000	\$276,880	\$66,211,880
Revenue from Operations	\$829,898,160	\$956,498,000	\$970,730,000	\$14,232,000	\$970,730,000	\$1,000,781,000	\$19,215,000	\$1,019,996,000	\$1,062,879,000	\$19,467,000	\$1,082,346,000	\$1,136,004,460	\$19,718,641	\$1,155,723,101	\$587,092,000	\$2,734,800	\$589,826,800
OPERATING EXPENSES																	
Salaries and Fringe Benefits	\$442,544,426	\$514,917,000	\$516,727,500	\$1,810,500	\$516,727,500	\$538,630,000	\$2,522,000	\$541,152,000	\$563,736,000	\$2,633,000	\$566,389,000	\$587,092,000	\$2,734,800	\$589,826,800	\$43,198,480	\$1,324,484	\$44,522,964
Professional / Contracted Services	\$32,848,360	\$37,445,000	\$38,318,000	\$873,000	\$38,318,000	\$38,831,000	\$1,215,000	\$39,046,000	\$39,046,000	\$1,269,000	\$40,315,000	\$40,315,000	\$1,269,000	\$41,584,000	\$2,830,284	\$2,830,284	\$2,830,284
Supplies and Drugs	\$114,234,925	\$125,423,000	\$127,283,000	\$1,860,000	\$127,283,000	\$125,147,000	\$2,591,000	\$127,738,000	\$132,047,000	\$2,711,000	\$134,758,000	\$139,111,580	\$2,830,284	\$141,941,864	\$35,704,000	\$394,333	\$36,098,333
Bad Debts	\$23,850,530	\$33,527,000	\$33,811,610	\$284,610	\$33,811,610	\$35,185,000	\$384,260	\$35,569,260	\$35,628,000	\$389,300	\$36,017,300	\$36,704,000	\$389,300	\$37,096,300	\$170,994,720	\$1,581,308	\$172,576,028
Other Operating Expense	\$155,545,698	\$155,519,000	\$156,638,750	\$1,119,750	\$156,638,750	\$156,734,000	\$1,523,000	\$158,257,000	\$162,866,000	\$1,552,000	\$164,418,000	\$170,994,720	\$1,581,308	\$172,576,028	\$976,100,760	\$8,865,209	\$984,965,969
Subtotal	\$769,023,829	\$868,831,000	\$872,778,860	\$5,547,860	\$872,778,860	\$894,527,000	\$8,235,260	\$902,762,260	\$934,545,000	\$8,554,300	\$943,099,300	\$976,100,760	\$8,865,209	\$984,965,969	\$65,975,000	\$276,880	\$66,211,880
Depreciation/Amortization	\$40,686,788	\$46,858,000	\$47,040,250	\$182,250	\$47,040,250	\$49,153,000	\$2,654,000	\$51,807,000	\$52,464,000	\$2,654,000	\$55,118,000	\$55,975,000	\$276,880	\$56,251,880	\$6,755,000	\$170,172	\$57,001,852
Interest Expense	\$607,197	\$3,974,000	\$4,086,500	\$1,112,500	\$4,086,500	\$6,488,000	\$1,566,000	\$8,054,000	\$6,673,000	\$1,633,000	\$8,306,000	\$8,755,000	\$170,172	\$8,925,172	\$22,754,160	\$990,904	\$23,345,064
Lease Expense	\$14,520,485	\$19,705,000	\$20,094,250	\$389,250	\$20,094,250	\$20,493,000	\$342,000	\$21,035,000	\$21,313,000	\$366,000	\$21,679,000	\$22,754,160	\$990,904	\$23,345,064	\$1,061,564,920	\$9,902,945	\$1,071,467,865
Total Operating Expense	\$824,838,259	\$937,368,000	\$943,999,860	\$6,631,860	\$943,999,860	\$970,661,000	\$9,187,260	\$979,848,260	\$1,014,995,000	\$9,548,300	\$1,024,543,300	\$1,061,564,920	\$9,902,945	\$1,071,467,865	\$74,439,540	\$9,815,696	\$84,255,236
Gain/(Loss) from Operations	\$5,059,861	\$19,130,000	\$26,730,140	\$7,600,140	\$26,730,140	\$30,020,000	\$10,027,740	\$40,047,740	\$47,884,000	\$9,918,700	\$57,802,700	\$74,439,540	\$9,815,696	\$84,255,236	\$10,504,000	\$10,504,000	\$10,504,000
Plus: Non-Operating Revenue	\$4,240,807	\$10,504,000	\$10,504,000	\$10,504,000	\$10,504,000	\$10,504,000	\$10,027,740	\$20,531,740	\$10,504,000	\$9,918,700	\$20,422,700	\$10,504,000	\$9,918,700	\$20,422,700	\$84,943,540	\$9,815,696	\$84,943,540
Revenue Over/(Under) Expense	\$819,054	\$29,634,000	\$37,234,140	\$7,600,140	\$37,234,140	\$40,524,000	\$10,027,740	\$60,569,480	\$58,388,000	\$9,918,700	\$68,225,400	\$84,943,540	\$9,815,696	\$84,943,540	\$5,539,87	\$5,539,87	\$5,539,87
FTEs	5,386.30	5,576.50	5,599.40	22.90	5,599.40	5,476.50	30.52	5,507.02	5,539.87	30.52	5,570.39	5,539.87	30.52	5,570.39	694	10,871	11,565

\*Statistics: Ambulatory Ophthalmology Case 694 8,153 8,847 11,565 11,565 694 10,871 10,871 11,565 694 10,871 11,565 694 10,871 11,565  
Provide projected inpatient and/or outpatient statistics for any new services and provide actual and projected inpatient and/or outpatient statistics for any existing services which will change due to the proposal.



Constitution Eye Surgery Center  
 11. C (i). Please provide one year of actual results and three years of projections of Total Facility revenue, expense and volume statistics without, incremental to and with the CON proposal in the following reporting format:

Description	FY 2009 Actual Results		FY 2011 Projected		FY 2012 Projected		FY 2013 Projected		FY 2014 Projected	
	Without CON	With CON	Without CON	With CON	Without CON	With CON	Without CON	With CON	Without CON	With CON
<b>NET PATIENT REVENUE</b>										
Non-Government	\$2,434,709	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Medicare	\$7,352,114	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Medicaid and Other Medical Assistance	\$93,743	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other Government	\$7,211	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total Net Patient Revenue</b>	<b>\$9,887,777</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
Other Operating Revenue	\$1,612	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Revenue from Operations	\$9,889,389	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>OPERATING EXPENSES</b>										
Salaries and Fringe Benefits	\$2,025,656	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Professional / Contracted Services	\$396,276	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Supplies and Drugs	\$2,374,400	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Bad Debts	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other Operating Expense	\$459,003	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal	\$5,255,335	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Depreciation/Amortization	\$232,882	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Interest Expense	\$143,403	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Lease Expense	\$346,949	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total Operating Expense</b>	<b>\$5,978,569</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
Gain/(Loss) from Operations	\$3,910,820	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Plus: Non-Operating Revenue	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Revenue Over/(Under) Expense	\$3,910,820	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
FTEs	30.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

\*Statistics/Ambulatory Ophthalmology Case 10,871  
 Provide projected inpatient and/or outpatient statistics for any new services and provide actual and projected inpatient and/or outpatient statistics for any existing services which will change due to the proposal.

Hartford Hospital  
 Detail to Attachment I  
 Operational Date - January 1, 2011

	FY 2011 Partial Year	FY 2012	FY 2013	FY 2014
<b>NET PATIENT REVENUE</b>				
Non-Government	\$3,509,250	\$4,918,000	\$5,170,000	\$5,237,210
Medicare	\$10,640,250	\$14,187,000	\$14,187,000	\$14,371,431
Medicaid and Other Medical Assistance	\$75,000	\$100,000	\$100,000	\$100,000
Other Government	\$6,000	\$8,000	\$8,000	\$8,000
<b>Total Net Patient Patient Revenue</b>	<b>\$14,230,500</b>	<b>\$19,213,000</b>	<b>\$19,465,000</b>	<b>\$19,716,641</b>
Other Operating Revenue	\$1,500	\$2,000	\$2,000	\$2,000
Revenue from Operations	\$14,232,000	\$19,215,000	\$19,467,000	\$19,718,641
<b>OPERATING EXPENSES</b>				
Salaries and Fringe Benefits	\$1,429,500	\$1,991,000	\$2,079,000	\$2,170,476
Salaries	\$381,000	\$531,000	\$554,000	\$564,324
Fringe Benefits	\$1,810,500	\$2,522,000	\$2,633,000	\$2,734,800
Professional / Contracted Services	\$304,500	\$424,000	\$443,000	\$462,492
Services - Professional	\$6,000	\$8,000	\$8,000	\$8,000
Professional Fees	\$562,500	\$783,000	\$818,000	\$853,992
Medical Directorship	\$873,000	\$1,215,000	\$1,269,000	\$1,324,484
Supplies and Drugs	\$62,250	\$87,000	\$95,000	\$99,180
Office Expense	\$1,797,750	\$2,504,000	\$2,616,000	\$2,731,104
Medical Supplies	\$1,860,000	\$2,591,000	\$2,711,000	\$2,830,284
Bad Debts	\$284,610	\$384,260	\$389,300	\$394,333
Other Operating Expense	\$58,500	\$81,000	\$85,000	\$88,740
Commercial Insurance	\$853,500	\$1,153,000	\$1,168,000	\$1,183,184
Management Fee	\$162,750	\$226,000	\$236,000	\$246,384
Other Outside Services	\$3,000	\$4,000	\$4,000	\$4,000
Training and Education	\$4,500	\$7,000	\$7,000	\$7,000
Travel and Entertainment	\$11,250	\$16,000	\$16,000	\$16,000
Communication	\$0	\$0	\$0	\$0
Taxes	\$26,250	\$36,000	\$36,000	\$36,000
Other	\$1,119,750	\$1,523,000	\$1,552,000	\$1,581,308

Hartford Hospital  
 Detail to Attachment I  
 Operational Date - January 1, 2011

	<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>
	<b>Partial Year</b>			
Subtotal	\$5,947,860	\$8,235,260	\$8,554,300	\$8,865,209
Depreciation/Amortization	\$182,250	\$254,000	\$265,000	\$276,660
Interest Expense	\$112,500	\$156,000	\$163,000	\$170,172
Lease Expense	\$389,250	\$542,000	\$566,000	\$590,904
Total Operating Expense	\$6,631,860	\$9,187,260	\$9,548,300	\$9,902,945
Gain/(Loss) from Operations	\$7,600,140	\$10,027,740	\$9,918,700	\$9,815,696
Volume	8,153	10,871	10,871	10,871
FTE	30.52	30.52	30.52	30.52

Hartford Hospital  
 Eye Center Staffing  
 First Year Staffing  
 Operational Date - January 1, 2011

	<u>Full Year FTE's</u>	<u>2011 FTE's</u>	<u>Average Hourly Rate</u>	<u>Salary</u>
<b>O/R Nurses</b>	<b>7.57</b>	<b>5.68</b>	<b>\$36.00</b>	<b>\$425,131</b>
<b>Pre-Op / Post Op / PACU</b>				
<b>RN</b>	<b>5.88</b>	<b>4.41</b>	<b>\$36.00</b>	<b>\$330,221</b>
<b>Medical Assistant</b>	<b>1.00</b>	<b>0.75</b>	<b>\$18.00</b>	<b>\$28,080</b>
<b>LPN</b>	<b>1.00</b>	<b>0.75</b>	<b>\$26.00</b>	<b>\$40,560</b>
<b>CST Techs</b>	<b>3.50</b>	<b>2.63</b>	<b>\$17.00</b>	<b>\$92,820</b>
<b>Instruments</b>	<b>2.00</b>	<b>1.50</b>	<b>\$17.00</b>	<b>\$53,040</b>
<b>Per Diem</b>				
<b>Surgical Tech</b>	<b>1.00</b>	<b>0.75</b>	<b>\$22.00</b>	<b>\$34,320</b>
<b>RN</b>	<b>0.35</b>	<b>0.26</b>	<b>\$36.00</b>	<b>\$19,656</b>
<b>Administration</b>				
<b>Manager</b>	<b>1.00</b>	<b>0.75</b>	<b>\$40.00</b>	<b>\$62,400</b>
<b>Assistant Manager</b>	<b>1.00</b>	<b>0.75</b>	<b>\$35.00</b>	<b>\$54,600</b>
<b>Clerical-Other</b>	<b>4.22</b>	<b>3.17</b>	<b>\$22.00</b>	<b>\$144,830</b>
<b>Management</b>	<b>2.00</b>	<b>1.50</b>	<b>\$46.00</b>	<b>\$143,842</b>
	<u><b>30.52</b></u>	<u><b>22.90</b></u>		<u><b>\$1,429,500</b></u>

CESC  
 Detail to Attachment I  
 Operational Date - January 1, 2011

	<u>FY 2009</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>
<b>NET PATIENT REVENUE</b>				
Non-Government	\$2,434,709	\$0	\$0	\$0
Medicare	\$7,352,114	\$0	\$0	\$0
Medicaid and Other Medical Assistance	\$93,743	\$0	\$0	\$0
Other Government	\$7,211	\$0	\$0	\$0
<b>Total Net Patient Revenue</b>	<b>\$9,887,777</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
Other Operating Revenue	\$1,612	\$0	\$0	\$0
Revenue from Operations	\$9,889,389	\$0	\$0	\$0
<b>OPERATING EXPENSES</b>				
Salaries and Fringe Benefits				
Salaries	\$1,671,883	\$0	\$0	\$0
Fringe Benefits	\$353,773	\$0	\$0	\$0
	\$2,025,656	\$0	\$0	\$0
Professional / Contracted Services				
Services - Professional	\$388,930	\$0	\$0	\$0
Professional Fees	\$7,346	\$0	\$0	\$0
	\$396,276	\$0	\$0	\$0
Supplies and Drugs				
Office Expense	\$79,101	\$0	\$0	\$0
Medical Supplies	\$2,295,299	\$0	\$0	\$0
	\$2,374,400	\$0	\$0	\$0
Bad Debts	\$0	\$0	\$0	\$0
Other Operating Expense				
Commercial Insurance	\$74,364	\$0	\$0	\$0
Management Fee	\$120,025	\$0	\$0	\$0
Other Outside Services	\$207,405	\$0	\$0	\$0
Training and Education	\$3,459	\$0	\$0	\$0
Travel and Entertainment	\$6,087	\$0	\$0	\$0
Communication	\$14,219	\$0	\$0	\$0
Taxes	\$33,444	\$0	\$0	\$0
Other	\$0	\$0	\$0	\$0
	\$459,003	\$0	\$0	\$0
Subtotal	\$5,255,335	\$0	\$0	\$0

CESC  
 Detail to Attachment I  
 Operational Date - January 1, 2011

	<u>FY 2009</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>
Depreciation/Amortization	\$232,882	\$0	\$0	\$0
Interest Expense	\$143,403	\$0	\$0	\$0
Lease Expense	\$346,949	\$0	\$0	\$0
Total Operating Expense	\$5,978,569	\$0	\$0	\$0
Gain/(Loss) from Operations	<u>\$3,910,820</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
Volume	10,871	0	0	0
FTE	30.52	-	-	-

**ATTACHMENT K**

Hartford Hospital  
 Break Even Analysis  
 Operational Date - January 1, 2011

	<u>FY 2011</u> Partial Year	<u>FY 2012</u> \$19,215,000	<u>FY 2013</u> \$19,467,000	<u>FY 2014</u> \$19,718,641
Revenue from Operations				
Cases	8,153	10,871	10,871	10,871
Average revenue per case	\$1,746	\$1,768	\$1,791	\$1,814
Total Operating Expense	\$6,631,860	\$9,187,260	\$9,548,300	\$9,902,945
Cases necessary to breakeven	3,798	5,196	5,331	5,459



ATTACHMENT L

(1) NEWSPAPER

# The Hartford Courant

## ADVERTISING INVOICE MEMO INVOICE

(2) BILLED ACCOUNT

MARCIA OLSON  
HARTFORD HOSPITAL  
P O BOX 5037  
HARTFORD CT 06102-5037

(3) DOCUMENT	(4) BILL DATE	PAGE
0	10/31/10	1
(5) BILLING PERIOD		SALES
10/01/10		26
(6) TERMS OF PAYMENT		
NET 20 DAYS.		
(7) BILLED ACCT NO.	(8) ADVERTISER	
166716		
(9) ADVERTISER / CLIENT NAME		

\*\*\* ENVELOPES MUST HAVE A RETURN ADDRESS. THANK YOU. \*\*\*

(10) DATE	(11) REFERENCE NUMBER	(12) C.O.D.	(13) DESCRIPTION	(14) PROD CODE	(15) SAU/DIMENSIONS	(16) EQUIV INCH	(17) BILLED UNITS	(18) RATE	(19) GROSS AMOUNT	(20) NET AMOUNT
10/22/10	E2408657		1 PUBLIC NOTICEHARTFOR 1x1.25 ORDERED BY: MARCIA OLSON		3x10/21,22,23 Pg:	1.25	8		234.57	234.57

FOR BILLING INFORMATION PLEASE SEE BELOW  
OR WRITE THE HARTFORD COURANT, CUSTOMER SERVICE  
DEPT. 622 , 285 BROAD ST., HARTFORD, CT 06115-2510.  
PLEASE SEE REVERSE SIDE FOR COMPLETE TERMS &  
CONDITIONS, AND REQUIREMENTS FOR BILLING INQUIRIES.

CODES		RATE UNITS		(23) CURRENT NET AMOUNT
1-CHARGES	3-ADJUST	A-AD	H-INCH	234.57
2-PAYMENTS	4-FIN CHG	T-THOUSAND	L-LINE	(24) TOTAL NET AMOUNT DUE
(24) AGING				234.57
30 DAYS	60 DAYS	90 DAYS		

TO ENSURE PROPER CREDIT, PLEASE DETACH AND RETURN THIS PORTION OF THE INVOICE WITH REMITTANCE  
PLEASE NOTIFY US OF ANY CHARGES NOT PAID IN FULL

REMITTANCE  
ADVICE

(28) REMIT TO

THE HARTFORD COURANT  
P.O. BOX 40000 DEPT 215  
HARTFORD, CT 06151  
26/10

(4) BILLING DATE

(26) BILLED ACCT NO  
166716

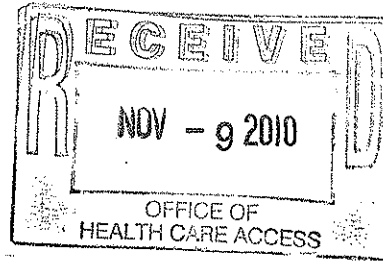
(9) ADVERTISER / CLIENT NAME

(27) BILLED ACCOUNT NAME  
HARTFORD HOSPITAL

(25) AMOUNT DUE  
234.57

AMOUNT ENCLOSED

# HARTFORD COURANT PROOF



Customer: HARTFORD HOSPITAL  
Contact: MARCIA OLSON Phone: 8605455000

Ad Number: **2408657**  
Insert Dates: 10/21/2010 10/22/2010 10/23/2010

Price: 234.57  
Section: CL Class: 2063; HARTFORD Size: 1 x 1.25  
Printed By: FN\_SHL Date: 11/03/2010

Signature of Approval: \_\_\_\_\_ Date: \_\_\_\_\_

#### PUBLIC NOTICE

Hartford Hospital and Connecticut Eye Surgery Center, LLC are jointly applying to the State of Connecticut, Department of Public Health - Office of Health Care Access for a Certificate of Need pursuant section 19a-638 of the general statutes. The application seeks approval for the transfer of ownership of the ambulatory eye surgery center located at 505 Willard Avenue, Newington, Connecticut 06111 from the Connecticut Eye Surgery Center, LLC to Hartford Hospital.

**ATTACHMENT M**

**AFFIDAVIT**

Applicant: Hartford Hospital

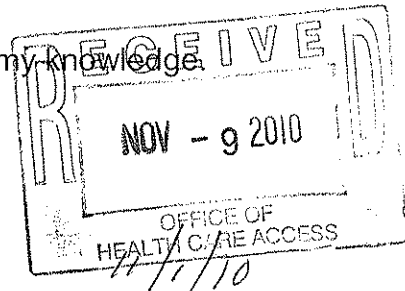
Project Title: Change of Ownership – Constitution Eye Surgery Center, LLC

I, Thomas J. Marchozzi, Executive Vice President and CFO  
(Individual's Name) (Position Title – CEO or CFO)

of Hartford Hospital being duly sworn, depose and state that  
(Hospital or Facility Name)

Hartford Hospital's information submitted in this Certificate of  
(Hospital or Facility Name)

Need Application is accurate and correct to the best of my knowledge.



Thomas Marchozzi  
Signature

11/11/10  
Date

Subscribed and sworn to before me on 11/1/2010

Diana Niro

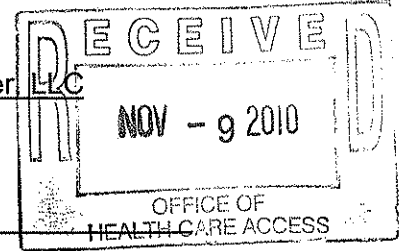
Notary Public/Commissioner of Superior Court

My commission expires: 11/30/2012

**AFFIDAVIT**

Applicant: Constitution Eye Surgery Center, LLC

Project Title: Change of Ownership – Constitution Eye Surgery Center LLC



I, Alexander J. Fortier, M.D., Manager  
(Individual's Name) (Position Title)

of Constitution Eye Surgery Center, LLC being duly sworn, depose and state that  
(Hospital or Facility Name)

Constitution Eye Surgery Center, LLC's information submitted in this Certificate of  
(Hospital or Facility Name)

Need Application is accurate and correct to the best of my knowledge.

[Handwritten Signature]  
Signature

October 27, 2010  
Date

Subscribed and sworn to before me on October 27, 2010

[Handwritten Signature]

Notary Public/Commissioner of Superior Court

My commission expires: February 28, 2013

