

Office of Health Care Access Certificate of Need Application

Agreed Settlement

Applicant: Yale-New Haven Hospital

Docket Number: 04-30410-CON

Project Title: Cancer Center and North Pavilion Project

Statutory Reference: Sections 19a-638 and 19a-639 of the Connecticut General Statutes

Filing Date: May 6, 2005

Hearing Dates: June 13, 2005, and June 29, 2005

Presiding Officer: Commissioner Cristine A. Vogel

Decision Date: September 7, 2005

Default Date: Not Applicable

Staff Assigned: Laurie K. Greci, Sharon Malinowski

Project Description: Yale-New Haven Hospital, Inc. (“Hospital”) proposes to construct the North Pavilion and establish the Yale-New Haven Cancer Center at a capital expenditure of \$369,810,000, which does not include capitalized financing costs.

Nature of Proceedings: On May 6, 2005, the Office of Health Care Access (“OHCA”) received a Certificate of Need (“CON”) application from Yale-New Haven Hospital for its proposal to construct the North Pavilion and establish the Yale-New Haven Cancer Center at a capital expenditure of \$369,810,000, which does not include capitalized financing costs.

The Hospital is a health care facility or institution as defined by Section 19a-630 of the Connecticut General Statutes (“C.G.S.”).

On December 14, 2004, a notice to the public regarding OHCA’s receipt of the Hospital’s Letter of Intent to file its CON application was published in the *New Haven Register* pursuant to Section 19a-638, C.G.S. OHCA received several letters from officials from the State of Connecticut and officials from the City of New Haven, and one from the Connecticut Center for a New Economy requesting that a hearing be held on the Hospital’s proposal.

Pursuant to Section 19a-639, C.G.S., OHCA shall hold a public hearing whenever a health institution or facility proposes a capital expenditure or total capital cost that exceeds twenty million dollars. On May 16, 2005, a notice to the public concerning the public hearing was published in the *New Haven Register*. On May 30, 2005, a revised notice was published in the *New Haven Register* to change the date, time and place of the public hearing. On June 19, 2005, a notice to the public concerning the technical portion of the public hearing was published in the *New Haven Register*. The Applicant was notified of the dates, times, and places of the public hearing.

Commissioner Cristine A. Vogel served as Presiding Officer for this case. The public hearing was conducted as a contested case in accordance with the provisions of the Uniform Administrative Procedure Act (Chapter 54 of the Connecticut General Statutes) and Sections 19a-638 and 19a-639, C.G.S.

The Hospital Debt Justice Project petitioned for party status, or in the alternative, intervenor status. The Hospital Debt Justice Project was granted Informal Participant status by the Presiding Officer.

The Presiding Officer heard testimony from the Applicant’s witnesses, legislators, local officials, and the general public, including the informal participant, and in rendering this decision, considered the entire record of the proceeding. OHCA’s authority to review and approve, modify or deny the CON application is established by Sections 19a-638 and 19a-639, C.G.S. The provisions of this section as well as the principles and guidelines set forth in Section 19a-637, C.G.S., were fully considered by OHCA in its review.

Findings of Fact

Clear Public Need

Impact of the Proposal on the Applicant’s Current Utilization Statistics

The Hospital’s Proposal

1. Yale-New Haven Hospital, Inc. (“Hospital”) is an acute care general hospital located at 20 York Street in New Haven, Connecticut. The Hospital’s total licensed bed capacity of 944 beds includes 852 licensed beds and 92 licensed bassinets. (*March 24, 2005, Initial CON Submission, page 61*)

2. The Hospital is affiliated with the Yale Cancer Center (“YCC”), a National Cancer Institute-designated Comprehensive Cancer Center (“NCI-CCC”) and the only one located in Connecticut. The Yale University School of Medicine (“YSM”) holds the NCI-CCC designation. Many of the Yale Cancer Center’s clinical research and patient care activities take place at the Hospital. The Hospital contracts with YSM to provide medical leadership for clinical cancer services in the Hospital. *(April 22, 2005, CON Completeness Response, pages 3 and 5)*

3. The Hospital is the only provider in Connecticut that offers the following services:
 - Allogeneic bone marrow transplant;
 - Extracorporeal photopheresis treatment for cutaneous T-cell lymphoma;
 - Total body electron beam treatment for cutaneous T-cell lymphoma; and
 - Liver transplantation for hepatocellular carcinoma.*(April 22, 2005, CON Completeness Response, page 3)*

4. The Hospital’s primary and secondary service areas include 92 Connecticut towns. The following towns are in its primary service area:

Ansonia	Derby	Madison	Orange
Bethany	East Haven	Meriden	Oxford
Branford	Essex	Milford	Seymour
Cheshire	Guilford	New Haven	Wallingford
Clinton	Hamden	North Branford	Westbrook
Deep River	Killingworth	North Haven	West Haven
		Old Saybrook	Woodbridge

(February 3, 2004, Letter of Intent, page 3)

5. The Hospital’s primary and secondary service area population in the year 2000 is given by age group in the following table:

Table 1: Service Area Population by Age Group

Service Area	Total Population	Ages 0-44	Ages 45-64	Ages 65 and over
Primary	678,448	424,990	156,016	97,442
Secondary	1,566,419	992,753	363,103	210,563
Total	2,244,867	1,417,743	519,119	308,005

(United States Census Bureau, Census 2000 Profile of Connecticut Towns)

6. In Fiscal Year (“FY”) 2004, the Hospital had 570,000 outpatient visits to its medical center, of which 120,000 were oncology-related visits for ambulatory diagnostic and treatment services. *(March 24, 2005, Initial CON Submission, page 10)*

7. The Hospital proposes to establish a state-of-the-art, 510,000 square foot, 14-story patient-care building on its existing campus on the corner of Park Avenue and South Frontage Road in New Haven. The new building may also be referred to as the North Pavilion. *(March 24, 2005, Initial CON Submission, pages 11 and 1847)*

8. Under OHCA Docket 04-30244-CON, the Hospital was authorized to demolish the Grace building and other structures on its Hospital campus in New Haven, Connecticut, relocate certain departments, major utility services, and a data center, create additional surface parking areas, and plan and design the proposed North Pavilion. *(July 9, 2004, Final Decision, Docket 04-30244-CON, page 14)*
9. Medical care is rendered in three major patient care pavilions: the East Pavilion built in 1953, the South Pavilion built in 1982, and the West Pavilion, or Children's Hospital, built in 1993. *(March 24, 2005, Initial CON Submission, page 22)*
10. The Hospital's proposal also includes the following:
 - The creation of a Cancer Center within the new building;
 - The addition of 22 licensed beds for a licensed total of 966, including 92 bassinets, in FY 2009;
 - The addition of four (4) endoscopy rooms, one (1) bronchoscopy room, one (1) fixed fluoroscopy unit and one (1) fixed C-arm unit;
 - The addition of eight (8) operating rooms, four (4) shelled operating rooms, and a PACU (Post Anesthesia Care Unit);
 - The addition of one (1) multi-slice CT (Computerized Tomography) scanner, one (1) 3 .0 Tesla MRI (Magnetic Resonance Imaging) scanner, one (1) 1.5 Tesla breast MRI scanner, one (1) PET/CT (Positron Emission Tomography/Computerized Tomography) scanner, and one (1) Radiographic Fluoroscopy unit;
 - One (1) additional replacement Linear Accelerator; and one (1) replacement CT simulator.*(March 24, 2005, Initial CON Submission, pages , 28, and 98)*
11. The new Cancer Center to be located in the North Pavilion will include the following:
 - A new 28-bed inpatient Surgical Oncology Unit;
 - A new 28-bed inpatient unit and new and expanded infusion unit for the Women's Oncology Health Unit;
 - Two (2) new 28-bed inpatient units and new and expanded infusion suite for the Medical Oncology Unit;
 - A new Radiation Therapy Unit,
 - A new and expanded apheresis suite;
 - A new and expanded pediatric suite; and
 - A new Breast Center.*(March 24, 2005, Initial CON Submission, page 11)*
12. The North Pavilion will contain large patient care rooms, exam rooms and infusion bays, a meditation room, a healing garden, a family resource center, a boutique and patient amenities that will complement the latest treatment modalities and new technologies. *(March 24, 2005, Initial CON Submission, pages 11, 22 and 1847)*
13. Each of the new inpatient units will have all private rooms, adequate family space, and appropriate patient amenities. *(June 22, 2005, Prefiled Testimony of Norman Roth, page 31)*

14. Two levels of the North Pavilion will have shelled space. Each floor will be comparable in size to the other four inpatient floors with capacity for 28 beds per unit and will be fully constructed to meet future volume increases. *(March 24, 2005, Initial CON Submission, page 15)*
15. The Hospital stated that the shelled space will help meet future needs by allowing for:
 - Expansion of high-growth inpatient services, such as medicine and surgery; or
 - Expansion of Intensive Care Units; or
 - Expansion of space-constrained services, such as women's and pediatric services; or
 - Relocation of beds out of the East Pavilion into more modern facilities; or
 - Relocation or consolidation of fast-growing outpatient services.*(April 22, 2005, Completeness Response, pages 14 and 15)*
16. The Hospital stated that three major factors led to the need for the proposal:
 - The growing demand for inpatient and outpatient capacity for all services;
 - The need to consolidate, enhance, and appropriately size inpatient and outpatient oncology services to meet current and projected demand; and
 - The need to upgrade or replace certain facilities on the Hospital's campus in order to support patient care needs.*(March 24, 2005, Initial CON Submission, page 11)*

Bed Capacity

17. Over the past ten years, the Hospital has experienced a 23% cumulative growth in its patient discharges. Patient discharges increased from 38,202 cases in FY (Fiscal Year) 1995 to 46,949 cases in FY 2005. *(March 24, 2005, Initial CON Submission, page 12)*
18. The Hospital expects its inpatient case volume and patient days to grow 12.1% through 2011, an average of approximately 2% a year. The average length of stay is anticipated to remain at 5.3 days. The medical and surgical cases are expected to have the largest growth, with increases of 17.3% and 15.5%, respectively. *(March 24, 2005, Initial CON Submission, page 14)*
19. The major causes for the Hospital's increased demand in cancer services include:
 - The increasing and aging of the population;
 - Increasing utilization of services as a result of improved survival and fewer side effects from treatment;
 - Increasing utilization of services resulting from better and earlier detection of cancer;
 - Increasing utilization of new technologies that are expanding the treatment options for patients; and
 - Physician recruitment resulting in increasing numbers of expanded and enhanced clinical programs, expanding clinical research, and new treatment modalities.*(March 24, 2005, Initial CON Submission, page 17)*

20. The Hospital stated that:
- By 2009 the projected service area population will increase by 6.6%;
 - Persons age 65 and older will account for 20% of the population within 25 years;
 - Six out of ten new cancers are diagnosed in persons 65 years of age and older.
- (March 24, 2005, Initial CON Submission, page 12, 13, and 30)*
21. The American Cancer Society Facts and Figures reports that there will be 16,920 new cancer cases in Connecticut in 2005, compared to the 15,510 cases projected for 2004. *(March 24, 2005, Initial CON Submission, page 17)*
22. Existing cancer diagnostic and treatment facilities are geographically dispersed in six locations throughout the Hospital's medical campus. The Hospital asserts that the scattered locations make it difficult and inconvenient for patients, especially those who are extremely ill or frail, to navigate the system. Patients often visit more than one location in a single visit to the Hospital. *(March 24, Initial CON Submission, page 20)*
23. The Hospital stated that many of the patient care areas and clinical services areas of the Hospital are operating at, or close to, capacity. These areas include endoscopy, interventional radiology, breast services, gynecologic oncology infusion, inpatient medical oncology and infusion, pediatric oncology infusion, apheresis, and bone marrow transplant. The inadequate support space compromises patient privacy and confidentiality. *(March 24, Initial CON Submission, page 22)*
24. The AIA¹ 2001 Guidelines establishes, among other things, the number of air changes required in spaces, requirements for negative and positive pressure rooms, requirements for electrical power and emergency electrical power capabilities. The Hospital stated that its existing buildings are difficult to refit to meet the environmental requirements. *(March 24, Initial CON Submission, page 22)*
25. The Hospital is licensed for 944² beds, but due to physical constraints, the Hospital stated that it is only able to operate and staff 854 beds. *(March 24, 2005, Initial CON Submission, page 12)*
26. The Hospital stated that some of its double rooms were converted to single rooms to accommodate:
- Infection control/isolation requirements;
 - New equipment technologies that require more space; and
 - Patient requests for private rooms and family-center care standards.
- (March 24, 2005, Initial CON Submission, page 35)*

¹ American Institute of Architects

² For the remainder of the document, the 92 bassinets are included whenever reference is made to the number of beds.

27. The following table summarizes the Hospital's actual inpatient case volume from FY 2000 through FY 2004:

Table 2: Actual Inpatient Volume from FY 2000 through FY 2004

	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004
Total Bed Days	215,811	238,852	237,957*	239,941	246,221
Average Length of Stay	5.3	5.7	5.4	5.3	5.2
Average Daily Census	591	654	652	657	675
Total Patient Discharges	40,697	42,066	43,516	45,376	46,949
Annual Growth in Patient Dischargers	-	3.4%	3.5%	4.3%	3.5%
Cumulative Growth in Patient Discharges	-	3.4%	6.9%	11.5%	15.4%

* The total number of patient discharges in FY 2002 increased; the shorter average length of stay resulted in an overall decrease in the total number of patient bed days.

(March 24, 2005, Initial CON Submission, page 35)

28. The following table summarizes the Hospital's projected inpatient case volume from FY 2005 through FY 2011:

Table 3: Projected Inpatient Volume from FY 2005 through FY 2011

	Fiscal Year						
	2005	2006	2007	2008	2009	2010	2011
Total Bed Days	254,399	260,818	265,772	296,230	275,651	281,075	285,138
Average Length of Stay	5.3	5.3	5.3	5.3	5.3	5.3	5.3
Average Daily Census	697	715	728	738	755	770	781
Total Patient Discharges	48,000	49,211	50,146	50,798	52,010	53,033	53,800
Total Staffed Beds	854	862	866	893	966*	966	966
Occupancy**	81.6%	82.9%	84.1%	82.6%	78.2%	79.7%	81%

* The first year that the total number of staffed beds required to accommodate projected inpatient case volume exceeds the Hospital's licensed capacity of 944.

** Percent of staffed beds that are occupied.

(March 24, 2005, Initial CON Submission, page 40)

29. The Hospital's actual average daily census for the first five months of FY 2005 was 712 patients. The Hospital has a budgeted census of 690 patients. The occupancy target represents a bed count of 683, calculated as 80% of 854 staffed beds. *(March 24, 2005, Initial CON Submission, page 35)*

30. The Hospital reported that the optimal level for efficient operation of inpatient services is 80%. Urgent admissions, a surge of patient transfers from other institutions and the admission of patient from the Emergency Department are readily handled when the bed occupancy is targeted at 80%. It is the rate that allows for patient flow minimizing undesirable situations, such as turning patients away or delaying admission of patients. The American Hospital Association’s Health Care Advisory Board reported that given the “uncertain nature of patient demand and the resulting unevenness in patient admissions, a hospital running at average occupancy rate of just 80 percent throughout the year will find itself, on numerous days, overwhelmed by patient volume.” *(March 24, 2005, Initial CON Submission, page 35 and April 22, 2005, CON Completeness Response, page 7)*
31. The Hospital applied two multi-step methodologies to determine its future bed capacity needs:
- The Yale-New Haven Hospital Financial Feasibility Model; and
 - A population-based methodology with the application of use rates and market share.
- (March 24, 2005, Initial CON Submission, page 36 and 42)*
32. The Yale-New Haven Hospital Financial Feasibility Model was a multi-step process used to determine the Hospital’s bed need. The methodology included the following factors:
- Historical, current and FY 2005 budgeted volumes;
 - Average length of stay;
 - Physician recruitment plans, program development, and new competition;
 - Disease incidence and prevalence; and
 - Aging of the population.
- (March 24, 2005, Initial CON Submission, page 36)*
33. The following table summarizes the actual and projected bed demand using a targeted occupancy of 80% and the Financial Feasibility Model:

**Table 4: Actual and Projected Bed Demand
 Financial Feasibility Model**

Fiscal Year	Staffed Beds*	Total Bed Days	Maximum Bed Days (Staffed beds X 365)	% Occupancy Level (Total Bed Days/Maximum Bed Days)	Bed Demand (Targeted Occupancy of 80%)
2001	814	238,852	297,110	80.4	818
2002	808	237,957	294,920	80.7	815
2003	815	239,941	297,475	80.7	822
2004	836	246,221	305,140	80.7	843
2005**	854	254,399	311,710	81.6	871
2006	862	260,818	314,630	82.9	898
2007	866	265,772	316,090	84.1	910

Continued on next page

**Table 4: Actual and Projected Bed Demand
 Financial Feasibility Model (continued)**

Fiscal Year	Staffed Beds*	Total Bed Days	Maximum Bed Days (Staffed beds X 365)	% Occupancy Level (Total Bed Days/Maximum Bed Days)	Bed Demand (Targeted Occupancy of 80%)
2008	893	269,260	325,945	82.6	922
2009	966	275,651	352,590	78.2	944
2010	966	281,075	352,590	79.7	963
2011	966	285,138	352,590	81.0	977

* Beds available for patient care, including temporary beds and 92 bassinets.

** Based on actual data from the first four months of FY 2005.

(June 22, 2005, CON Completeness Response, page 9)

34. The population-based methodology involved a multi-step process that considered the following factors:

- A 7% increase in the population of the Hospital's service areas;
- Growth in patient discharges from 1995 to 2005 was 23%;
- A 15% increase by FY 2009 of two age groups with the Hospital's service area, Ages 45 to 64 and Ages 65 and older, segments of the population with high utilization of health care services;
- Oncology use rate increase of 3% per year;
- Medicine use rate of 4%;
- Orthopedic use rate 7.5%;
- Transplant use rate increase of 5% per year;
- Decrease in cardiac program market share of 0.5% per year; and
- Increase in oncology market share by 0.5% per year.

(March 24, 2005, Initial CON Submission, page 42)

35. The following table summarizes the Hospital's total projected discharges using the population-based bed need methodology. Market discharges were projected by service line and determined for the Hospital's primary and secondary service areas and out-of-service-area Connecticut patients.

Table 5: Population-based Projected Patient Discharges for FYs 2005 to 2011

	Fiscal Year						
	2005	2006	2007	2008	2009	2010	2011
Market Discharges	427,695	438,140	449,196	460,910	473,329	486,511	500,518
Hospital Discharges	48,677	50,032	51,493	53,070	54,776	56,623	58,628
Hospital's Market Share, based on discharges	11.38%	11.42%	11.45%	11.51%	11.57%	11.64%	11.71%

(March 24, 2005, Initial CON Submission, page 42 and Appendix V)

36. The Hospital stated that its overall projections were conservatively estimated to increase 2% per year. The Hospital's projections using the population-based methodology yielded a higher, but similar, inpatient volume growth to the Financial Feasibility Model. *(March 24, 2005, Initial CON Submission, page 42)*
37. To accommodate the expected volume growth in FYs 2006, 2007, and 2008, the Hospital proposes to staff 39 temporary additional beds by means of renovations and relocating the functions that occupy potential bed space. Once the beds are available in the North Pavilion, the temporary bed space will be returned to the prior function *(March 24, 2005, Initial CON Submission, page 14)*
38. The migration of oncology services to the new building in FY 2009 will result in a total of 92 newly available beds in the East and West Pavilions. These beds will be utilized by medicine, surgery, and obstetrics patients. The reallocation of beds will result in West Pavilion 9 becoming a medicine unit and East Pavilion 6 will accommodate surgery patients. Women's and or children's services may expand into West Pavilion 8. *(March 24, 2005, Initial CON Submission, page 41)*
39. To accommodate the expected future inpatient volume growth the Hospital will open the four 28-bed units in the North Pavilion. The Hospital is requesting to be licensed for an additional 22 beds for a total of 966 beds. *(March 24, 2005, Initial CON Submission, page 28)*

Operating Rooms

40. There are 105 active medical staff that perform surgeries at the Hospital; forty-six of those physicians are also YSM physicians. Through 2008 the Hospital is planning on recruiting three cardiothoracic surgeons, two oncological surgeons, one urological surgeon and one otolaryngological surgeon. *(April 22, 2005, CON Completeness Response, page 11)*
41. Physicians with admitting privileges at the Hospital are either Yale University faculty or practice in the community, many with clinical faculty appointment at the Yale School of Medicine. *(March 24, 2005, Initial CON Submission, page 11)*
42. The Hospital stated that the University's clinical translational research is driven primarily by the University's physicians and influences the referral volume from inside and outside the Hospital's primary service area. *(March 24, 2005, Initial CON Submission, page 11)*
43. The following departments have identified the number of staff that performs surgeries at the Hospital: gynecology (15); neurosurgery (14); orthopedics (46); and ophthalmology (26). *(April 22, 2005, CON Completeness Response, page 11)*
44. The Hospital projects increased volume growth in the surgical and special procedure practice based on its renewed commitment to surgical practices. Two new transplant

surgeons and a transplant anesthesiologist were recruited by YSM in 2004. The Hospital anticipates significant growth in its transplant program as well as in neurosurgery. *(March 24, 2005, Initial CON Submission, page 33)*

45. The Hospital currently has operating rooms (“OR”) located in three areas: the South Pavilion, the Children’s Hospital or West Pavilion, and the East Pavilion. These ORs are all located on the third level. In FY 2005 the Hospital has 37 ORs, including one special procedure room and two cystoscopy rooms. *(March 24, 2005, Initial CON Submission, page 88)*
46. As a Level 1 trauma center³, the Hospital reserves one OR at all times for trauma cases and one OR for cardiac emergencies, thereby reducing the number of ORs available at any given time to no more than 35. *(June 22, 2005, Response to Interrogatories, page 20)*
47. Over the past five years, the Hospital has experienced 7.7% cumulative growth in OR cases. The Hospital stated that the addition of 12 ORs on the third level of the North Pavilion will provide perioperative services support for oncology services, accommodate overall operating room capacity, and provide physical capacity to fulfill modern OR needs and permit flexibility to renovate existing ORs that are more than 20 years old and operating at full capacity. *(March 24, 2005, Initial CON Submission, pages 87 and 88)*
48. Six of the proposed new ORs will be entirely new and contain new equipment. Two of the ORs will be outfitted but equipped with existing equipment currently located in the South Pavilion ORs. The two ORs in the South Pavilion will be closed for later renovation. The Hospital stated that four ORs will be shelled and outfitted in the future when more capacity is needed. The Hospital also proposes to construct an endoscopy/bronchoscopy suite consisting of four endoscopy rooms and one bronchoscopy room. *(March 24, 2005, Initial CON Submission, page 87)*
49. The Hospital stated that the majority of the ORs in the North Pavilion will be utilized for inpatient cancer cases. The proposed eight new ORs will consolidate the oncology procedures into a common space and maintain operational efficiency by being on the same level as the Hospital’s existing ORs. *(March 24, 2005, Initial CON Submission, page 88)*

³ A tertiary care facility that is able to provide 24 hour coverage by general and specialty surgeons.

50. The following table shows the Hospital's actual volume for FYs 2002, 2003, and 2004. FY 2005 volume was based on the first four months of the year. Utilization is calculated by dividing the total case hours by the yearly hours the ORs were available.

Table 6: Actual Operating Room Procedure Volume

Item	2002	2003	2004	2005
Actual Growth Rate	1.4%	3.6%	2.3%	3.6%
Total No. Cases (Procedures)	22,785	23,616	24,165	25,039
No. of ORs	35	37	37	37
Total Case Hours	59,204	61,070	62,324	64,418
Cases during OR Hours#	19,934	20,772	21,344	22,213
Yearly Hours Available#	69,720	73,704	73,704	73,704
Average Hours/ Case (day)#	2.97	2.94	2.92	2.90
Utilization, %	85%	83%	85%	87%

(March 24, 2005, Initial CON Submission, page 89)

51. The following table shows the projected OR procedure volume based on an analysis of the historical volume, demographic trends and technological and medical advances. One additional room will be utilized in the West Pavilion in 2006 for pediatric surgeries that increases the number of available ORs from 37 to 38. The Hospital anticipates major growth in endocrinology, nephrology and dermatology, which are projected to increase by more than 40% over the next 10 years. In addition, the Hospital anticipates growth in the following service lines: orthopedics; general surgery; and gynecology.

Table 7: Projected Operating Room Procedure Volume

Item	2006	2007	2008	2009*	2010	2011
Projected Growth Rate	2.3%	2.5%	2.2%	2.4%	2.3%	2.4%
Total No. Cases (Procedures)	25,612	26,247	26,836	27,475	28,102	28,768
No. of ORs	38	38	38	44	44	44
Total Case Hours	65,162	66,033	66,731	67,519	68,471	69,236
Cases during OR Hours	22,784	23,416	24,004	24,642	25,266	25,931
Yearly Hours Available	75,696	75,696	75,696	87,648	87,648	87,648
Average Hours/ Case (day)	2.86	2.82	2.78	2.74	2.71	2.67
Utilization, %	86%	87%	88%	77%	78%	79%

(March 24, 2005, Initial CON Submission, pages 90 and 91)

52. The Hospital has identified an optimum OR utilization rate of 79%, a level that allows a hospital to maximize the use of its operating rooms without overwhelming the medical staff and the facility. *(March 24, 2005, Initial CON Submission, pages 89 and 922)*

Diagnostic Imaging

53. Diagnostic imaging modalities provided at the Hospital include general X-ray, ultrasound, Magnetic Resonance Imaging (“MRI”), Computed Tomography (“CT”), and Position Emission Tomography/Computer Tomography (“PET/CT”) and ultrasound. The following table summarizes the imaging equipment that the Hospital is currently operating and indicates the number of scanners being requested as part of the proposal:

Table 8: Summary of Hospital’s Imaging Equipment

Modality	Number of Locations	Current Number	Additional Number Proposed
X-ray	9	23	4
CT	3	4	1
MRI	3	4	2
Ultrasound	4	20	0 (4 will be relocated)
PET-CT	1	1	1

(March 24, 2005, Initial CON Submission, pages 93 and 98)

54. Imaging volumes for most modalities have experienced double-digit growth over the last five years. The Hospital reported the following actual and projected procedure volumes for the indicated imaging scanners:

Table 9: Imaging Historical and Projected Procedures, by Fiscal Year

Year	X-rays	CT	Ultrasound	MRI	PET-CT [♦]
2002	115,365	48,544	51,034	13,844	-
2003	117,740	51,816	52,625	13,828	-
2004	121,955	59,037	56,288	15,342	-
2005	123,175	61,873	58,992	17,185	1,350
2006	124,406	64,846	61,827	18,123	1,600
2007	125,650	67,961	64,797	18,123	1,840
2008	126,907	71,227	67,910	18,123	1,840
2009*	128,176	74,649	71,173	19,398*	2,433**
2010	129,458	78,265	74,592	20,300	2,798
2011	130,752	81,994	78,176	21,307	3,218

♦ The PET-CT scanner was installed in September 2004.

*Additional 3 units become operational.

** Additional scanner becomes operational.

(March 24, 2005, Initial CON Submission, pages 93 and 101)

55. One out of every five CT procedures is oncology-related. The current CT inpatient to outpatient mix is 36% to 64%. The Hospital projects that its CT volume will grow at a

conservative annual rate of 4.8% at the Hospital. *(March 24, 2005, Initial CON Submission, pages 92 and 97)*

56. The Hospital's large lymphoma program has a significant number of patients requiring PET-CT scanning. The Hospital stated that additional oncology patient volume along with the addition of cardiac patients will exceed the Hospital's existing scanner's capacity by FY 2007. *(July 12, 2005, Late File Submission, page 4)*
57. With its greater accuracy and shorter procedure time, PET-CT will become the standard of care for tumor staging. The Hospital stated that the increasing dependence on PET and CT for cancer diagnosis, treatment planning and evaluation will support the doubling of PET volumes and a 50% increase in CT volumes over the next five years. *(March 24, 2005, Initial CON Submission, pages 95 and 100)*
58. The Hospital currently operates four 1.5 Tesla closed magnet MRI scanners. A fifth scanner (3.0 Tesla, closed magnet) was put in operation in May 2005. One new 3.0 Tesla MRI scanner will be located on the second floor of the North Pavilion and one new 1.5 Tesla scanner will be located in the Women's Center on the first floor. *(March 24, 2005, Initial CON Submission, pages 95 and 98)*
59. New applications and magnet designs are expected to drive growth for MRI procedures at a 15-18% average annual growth rates through 2010. The Hospital expects that its annual volume growth will grow at a lower rate of 4.8%. The Hospital's MRI volumes performed in the North Pavilion will consist of breast MRI and all other cancer-related imaging. *(March 24, 2005, Initial CON Submission, page 99)*
60. The Yale-New Haven Breast Center ("YNHBC") currently located in the Yale Physicians Building provides a wide scope of breast health services. The YNHBC will be relocated to the first floor of the North Pavilion to increase the availability of breast imaging and the number of exam rooms. In FY 2008, the Hospital anticipates a 5% growth rate per year for all breast imaging services and a 25% per year growth for breast MRI procedures. *(March 24, 2005, Initial CON Submission, pages 103 and 110)*

Radiation Therapy

61. Radiation therapy services represent a significant component to overall oncology care. Higher cancer screening rates result in more patients receiving radiation therapy since cancer in its early stage is more responsive to radiation. Continued technology improvements and the rapidly growing number of minimally invasive procedures will also extend radiation therapy services to patients that were not previously candidates for radiation therapy. *(March 24, 2005, Initial CON Submission, pages 113 and 118)*
62. The current location of the radiation therapy treatment service, the Hunter annex basement of the Hospital, cannot be further expanded to accommodate growth. All radiation therapy services will be relocated to the basement of the new building. *(March 24, 2005, Initial CON Submission, page 114)*

63. The Hospital proposes to offer its patients the new techniques of radiation therapy, Intensity Modulated Radiation Therapy (IMRT), Image-Guided Radiation Therapy (IGRT), and stereotactic radiosurgery. These techniques allow for the delivery of high, yet controlled doses of radiation to the patient. In order to perform IMRT or IGRT, the Hospital stated that it will need to acquire a linear accelerator equipped with a multileaf collimator, a CT simulator that can combine soft tissue detail and tumor delineation, and a treatment planning system. *(March 24, 2005, Initial CON Submission, pages 113 and 115)*
64. The linear accelerator to be replaced was acquired in 1990 and has limited functional abilities; it cannot be upgraded; and it does not include a multileaf collimator required for IMRT and IGRT. *(March 24, 2005, Initial CON Submission, page 114)*
65. The CT simulator to be replaced was acquired in 1990. It was replaced with an identical unit in December 2001⁴ as a result of the flood that occurred in the department. The Hospital states the unit is not able to support IMRT or IGRT. *(March 24, 2005, Initial CON Submission, page 115)*
66. The following table summarizes the Hospital's historical and projected volumes for radiation therapy treatment. Volumes were affected by flooding in the department in 2002 and the departure of two key physicians in 2004. The Hospital projects that four linear accelerators will have the capacity to handle the volume projected through FY 2011, with the replacement of one obsolete machine.

Table 10: Historical and Projected Radiation Therapy Treatment Volumes

Year	Total Treatments	% Change
2002	18,089 ⁵	-
2003	23,427	29.5%
2004	20,882	-10.9%
2005	22,139	2.6%
2006	23,246	5.0%
2007	23,943	3.0%
2008	24,901	4.0%
2009	26,146	5.0%
2010	26,669	2.0%
2011	27,202	2.0%

(July 12, 2005, Late File Submission, page 1)

⁴ The first quarter of the Hospital's FY 2002.

⁵ Volume reduction reflects the reduction of operating days due to flood in the department during FY 2002.

67. Growth projections for radiation therapy treatments were based on:
- Historical growth that averaged 8%, excluding FY 2002;
 - Future growth projections of 3.42% annually;
 - Rapid growth at the Shoreline Medical Center in Guilford due to improved patient access and reaching capacity by 2007;
 - Growth in New Haven in FYs 2006 and 2007 due to physician recruitment;
 - Growth in New Haven in FYs 2008 and 2009 due to anticipation of the opening of the new cancer center and recognition of nationally recognized oncologists; and
 - Growth in New Haven in FYs 2010 and 2011 stabilizing after the opening of the new Cancer Center.

(March 24, 2005, Initial CON Submission, pages 116 and 117)

68. Starting in FY 2005, the Hospital began providing radiation therapy treatment at the Shoreline Medical Center. It is projected that the Shoreline volume will be 6,350, 7,620 and 10,160 in FYs 2005, 2006, and 2007, respectively. The volume in FY 2007 is also the projected maximum capacity for the location and will not increase during FY 2008 through FY 2011. *(July 12, 2005, Late File Submission, page 2)*

Proposal's Contribution to the Quality of Health Care Delivery in the Region

Proposal's Contribution to the Accessibility of Health Care Delivery in the Region

69. One goal of the Hospital's long-term master facility plan is to phase out the use of the obsolete buildings as acute care settings and move intensive clinical services into more modern facilities. A significant portion of the Hospital's adult medical and surgical beds are located in the East Pavilion, a building that is more than 50 years old. The East Pavilion is inadequate to meet contemporary clinical care and technological needs. *(March 24, 2005, Initial CON Submission, page 124)*
70. The construction of a new patient care building will provide for three new patient care units that provide negative pressure capability in every room, adequate support spaces, and adequate supply and storage areas. *(March 24, 2005, Initial CON Submission, page 124)*
71. The Hospital stated that the anatomic complexity of organs and organ systems involved in head and neck and related cancers requires highly specialized care on a dedicated unit. The new surgical oncology unit will allow for highly expert nursing care. *(March 24, 2005, Initial CON Submission, page 44)*
72. Seven percent of the reportable cancers of Connecticut patients were treated in hospitals that are out-of-state in calendar year 2002. Approximately 1,400 to 1,600 discharges per year occur in neighboring states for Connecticut residents seeking cancer care. *(June 22, 2005, Response to Interrogatories, pages 8 and 9)*

73. There is a growing number of clinical trials where the Hospital and the Yale Cancer Center are the only participating institutions in Connecticut. *(April 22, 2005, CON Completeness Response, page 2)*
74. Dr. Richard Edelson, Director of the YCC, stated that the YCC and the Hospital will be working with other hospitals in Connecticut to establish a statewide clinical trials network to provide opportunities for patients to enter the trials and remain in their community. The Hospital has begun the process with Hartford Hospital and John Dempsey Hospital. *(June 29, 2005, Hearing Testimony of Richard Edelson)*

**Impact of the Proposal on the Interests of Consumers of Health Care Services and the Payers for Such Services
 Financial Feasibility and Cost Effectiveness of the Proposal and its Impact on the Applicant's Rates and Financial Condition
 Consideration of Other Section 19a-637, C.G.S. Principles and Guidelines**

75. The Hospital's proposed total capital expenditure of \$369,810,000 for the proposal includes the following components:

Table 11: Proposed Total Capital Expenditure for the Proposal

Description	Total
Medical Equipment (Purchase)	\$17,784,000
Imaging Equipment (Purchase)	16,527,000
Non-Medical Equipment (Purchase)*	23,194,000
Land/Building (Purchase)	0
Construction/Renovation	300,164,000
Equipment Contingency @ 10%	5,750,000
Equipment Installation	2,566,000
Equipment Inflation Estimates	3,825,000
Total Capital Expenditure	\$369,810,000
Capitalized Financing Costs (informational purposes only)	40,500,000

(March 24, 2005, Initial CON Submission, page 131)

76. The proposed construction and renovation costs of \$300,164,000 consists of the following components:

Table 12: Construction and Renovation Costs

Item Designations	New Construction	Renovation	Total Cost
Total Building Work Cost	\$205,560,000	\$11,901,000	\$217,461,000
Total Site Cost	4,447,000	0	4,447,000
Total Site Work Cost	6,859,000	0	6,859,000
Total Arch. & Eng. Cost	19,810,000	1,190,000	21,000,000
Total Contingency Cost	38,666,000	1,785,000	40,451,000
Inflation Adjustment	0	0	0
Other (Related Construction Cost)	9,946,000	0	9,946,000
Total Construction/Renovation	\$285,288,000	\$14,876,000	\$300,164,000

(March 24, 2005, Initial CON Submission, page 132)

77. The total capital expenditure will be financed as follows:

- \$260,000,000 in proposed debt financing from Connecticut Health and Educational Facilities Authority (“CHEFA”) bonds;
- \$59,110,000 of the Applicant’s operating funds/cash on hand; and
- \$42,500,000 in fundraising.

(March 24, 2005, Initial CON Submission, page 134)

78. In a letter dated March 10, 2005, CHEFA provided an opinion that the market would accept a bond issue in excess of \$275 million, based on the financial data provided by the Hospital. *(March 24, 2005, Initial CON Submission, page 1863)*

79. As of January 31, 2005, the Hospital’s total of cash, cash equivalents and short term investments was \$140,650,000. The cash equivalent balance for the Hospital on March 23, 2005, the date of the initial CON submission, was \$313,500,000, representing 159 days of cash on hand. *(March 24, 2005, Initial CON Submission, pages 130 and 1837)*

80. On November 19, 2004, a Memorandum of Understanding was executed for the joint fundraising collaboration between Yale-New Haven Hospital and Yale University. The Hospital’s share of the joint fundraising agreement is \$50 million of which \$42.5 million is estimated to be received prior to the opening of the Cancer Center/North Pavilion. *(June 29, 2005, Testimony of Stephen Allegretto)*

81. The Hospital is proposing the following capitalized expenditures, including the capitalized interest:

Table 13: Proposed Capital Expenditures by Fiscal Year

Fiscal Year	Amount
2005	\$ 5,000,000
2006	158,889,000
2007	155,587,000
2008	90,834,000
Total	\$410,310,000

(April 22, 2005, CON Completeness Response, page 12)

82. The proposed total square footage of the North Pavilion is 510,100 square feet. The table below summarizes the locations of the proposed services and the associated square feet involved.

Table 14: Summary of Proposed Constructions

Level(s)	Proposed Services	Square Footage
16/17	Mechanical House	17,100
14/15	Shelled Space	57,200
12	Surgical Oncology – Inpatient Unit	28,600
11	Women’s Oncology Health Unit – Inpatient Unit	29,600
10	Medical Oncology – Inpatient Unit	29,600
9	BMT and Hematology – Inpatient Unit	29,600
8	Infusion and Apheresis -Medical Oncology Infusion -Apheresis	31,100
7	Medical Oncology Clinic (YSM MD Practice) Pediatric Oncology Clinic (YSM MD Practice) Pediatric Oncology Infusion Healing Garden	31,100
5/6	Mechanical	37,300
4	Endoscopy-Bronchoscopy Suite - Surgical Specialties /Medical/Surgical Clinic (YSM MD Practice)	38,400
3	Operating Rooms	48,400
2	Diagnostic Imaging	39,700
1	Women’s Cancer Center -Breast Center, -Gynecological Oncology Infusions -Gynecological Oncology Clinic (YSM MD Practice)	41,700

Continued on next page

**Table 14: Summary of Proposed Constructions
 (continued)**

Level(s)	Proposed Services	Square Footage
B	Radiation Therapy	48,400
-	Other (connections to Air Rights Garage)	2,300
	Total	510,100

(March 24, 2005, Initial CON Submission, page 27)

83. The project schedule for the Applicant's proposal is presented in the following table:

Table 15: Project Schedule

Project Step	Projected Date
Construction Commencement Date	September 5, 2005
Construction Completion Date	September 10, 2008
State of CT, Department of Public Health Licensure Date	November 10-14, 2008
Commencement of Operations	November 17, 2008

(March 24, 2005, Initial CON Submission, pages 132 and 133)

84. The Hospital's projects incremental revenue from operations, total operating expenses and gain from operations associated with the CON proposal as follows:

Table 16: Incremental Financial Projections (in thousands)

Description	FY 2006	FY 2007	FY 2008
Revenue from Operations	\$19,056	\$34,014	\$46,273
Expenses:			
Salaries and Fringe Benefits	10,537	13,332	16,691
Professional/Contracted Services	3,658	6,528	8,706
Supplies and Drugs	2,839	7,816	10,774
Bad Debts	152	269	357
Other Operating Expenses	1,355	2,730	3,591
Total Operating Expenses	<u>\$18,541</u>	<u>\$30,676</u>	<u>\$40,122</u>
Gain from Operations	\$ 515	\$ 3,328	\$ 6,151
Non-Operating Revenue	\$0	\$0	\$0
Revenue over Expenses	<u>\$515</u>	<u>\$3,328</u>	<u>\$6,151</u>

(April 22, 2005, CON Completeness Response, page 144)

85. The following revenues and expenses are projected for the first four years of the project:

Table 17: Projected Revenue and Expenses (in thousands)

Description	FY 2005	FY 2006	FY 2007	FY 2008
Revenue from Operations	\$788,609	\$833,778	\$881,367	\$933,392
Expenses:				
Salaries and Fringe Benefits	387,690	424,452	448,206	471,667
Professional/Contracted	137,521	146,712	152,501	158,066
Supplies and Drugs	162,121	172,100	182,592	195,578
Bad Debts	8,230	8,477	8,731	8,993
Other Operating Expenses	22,900	22,190	26,387	28,888
Depreciation /Amortization	37,727	37,164	39,495	47,905
Interest Expense	6,294	6,176	6,113	4,804
Rent Expense	3,919	4,037	4,158	3,527
Total Operating Expenses	<u>\$766,402</u>	<u>\$821,307</u>	<u>\$868,183</u>	<u>\$919,428</u>
Gain from Operations	\$ 22,207	\$ 12,471	\$ 13,184	\$ 13,963
Non-Operating Revenue	\$2,784	\$5,752	\$5,924	\$6,102
Revenue over Expenses	<u>\$ 24,991</u>	<u>\$ 18,223</u>	<u>\$ 19,108</u>	<u>\$ 20,065</u>

(April 22, 2005, CON Completeness Response, page 144)

86. The Hospital's current and projected payer mix during the first three years of implementation and operation of the CON proposal is as follows:

Table 18: Hospital's Three-Year Projected Payer Mix

Total Facility Description	Percentage of Payers (%)			
	FY 2004 Actual	FY 2009 Projected	FY 2010 Projected	FY 2011 Projected
Medicare*	34.8	32.6	32.3	32
Medicaid (including other Medical Assistance)	11.9	10.0	9.8	9.4
CHAMPUS or TriCare	.4	.4	.4	.4
Total Government Payers	47.1	43.0	42.5	41.8
Commercial Insurers*	48.8	52.9	53.5	54.1
Uninsured	2.2	2.3	2.3	2.3
Worker's Compensation	1.9	1.8	1.8	1.8
Total Non-Government Payers	52.9	57.0	57.6	58.2
Total Payer Mix	100.0	100.0	100.0	100.0

* Includes managed care activity.

(March 24, 2005, Initial CON Submission, page 136)

87. Stephen Allegretto, Vice President of Financial Planning for the Yale-New Haven Health System, stated that the Hospital and YCC have the same managed care contracts and billing is done under a single provider number. *(June 29, 2005, Hearing Testimony of Steven Allegretto)*
88. All Connecticut residents will have access to the proposed services and physicians regardless of their ability to pay for the services. *(June 22, 2005, Response to Interrogatories, page 3)*
89. The Hospital is reimbursed directly by the study's primary investigator for services rendered to patients exclusively related to a clinical trial. The Hospital bills for services rendered as "routine care", the usual costs of medical care, such as doctor visits and hospital stays. In Connecticut private insurers must provide coverage for the routine patient care costs associated with cancer clinical trials. *(June 22, 2005, Response to Interrogatories, page 18)*
90. There is no State Health Plan in existence at this time. *(March 24, 2005, Initial CON Submission, page 9)*
91. The Hospital has improved productivity and contained costs by undertaking energy conservation, reengineering, application of new technology, and group purchasing activities. *(March 24, 2005, Initial CON Submission, page 129)*
92. The Hospital's rates are sufficient to cover its capital and operating costs. *(April 22, 2005, CON Completeness Response, page 144)*
93. The Hospital is the primary teaching hospital for the Yale School of Medicine and is a major community hospital for residents of the greater New Haven area, as well as the State of Connecticut. Many of the Hospital's quaternary services have been designated as regional or national referral services. The Hospital's patient-physician mix is representative of its full array of services. *(March 24, 2005, Initial CON Submission, page 129)*
94. The Hospital has sufficient technical, financial, and managerial competence and expertise to provide efficient and adequate service to the public. *(March 24, 2005, Initial CON Submission, Appendix VII)*

Rationale

The Office of Health Care Access (“OHCA”) approaches community and regional need for the proposed service on case by case basis. Certificate of Need (“CON”) applications do not lend themselves to general applicability due to a variety of complexity of factors, which may affect any given proposal; e.g. the characteristics of the population to be served, the nature of the existing services, the specific types of services proposed to be offered, the current utilization of services and the financial feasibility of the proposed services.

Yale-New Haven Hospital (“Hospital”) proposes to construct a new state-of-the art, 14-story patient building, the North Pavilion, on its campus in New Haven. The Hospital stated that three major factors led to the need for the proposal: the growing demand for inpatient and outpatient capacity for all services; the need to consolidate, enhance, and appropriately size inpatient and outpatient oncology services to meet current and projected demand; and the need to upgrade or replace certain facilities on the Hospital’s campus in order to support patient care needs. The age of the Hospital’s patient-care pavilions ranges from 12 years old to over 50 years old. The Hospital’s current pavilions, especially the East Pavilion, would be difficult to retrofit for the technological needs of modern health care and even more difficult to find space to provide for patient privacy and confidentiality.

The North Pavilion will include four inpatient care units, a comprehensive women’s cancer center, ambulatory specialty chemotherapy and apheresis centers, radiation therapy services, new operating rooms, an endoscopy/bronchoscopy suite, and state-of-the-art diagnostic imaging modalities. The building has been designed to have the space to meet the modern requirements, such as negative and positive pressure rooms and electrical power to support medical equipment. Shelled space will provide for future expansion and ease the need for patient space during renovations or upgrades to other areas in the Hospital.

Once completed, the Hospital will relocate its cancer-related services to the North Pavilion. Currently, the Hospital’s cancer-related services are located in six separate buildings across the campus. Cancer patients travel among the buildings to receive chemotherapy and radiation therapy treatments and to visit physicians and support services. With the relocation of all cancer services, cancer patients will no longer travel from one building to receive their treatments and other services. A patient will be able to enter the building,

receive chemotherapy and radiation, visit with a physician, and have diagnostic testing in single visit. The North Pavilion has been designed to appropriately accommodate the latest treatment modalities and technologies. Its design has incorporated large patient care rooms, many exam rooms and infusion bays and patient amenities, such as a healing garden, meditation room, and boutique. Patients will receive their care in comfortable and private surroundings. It is important to acknowledge that non-cancer patients will also benefit from the Hospital's proposal by having access to the proposed diagnostic imaging services, the operating rooms, and the private inpatient rooms.

In 2000, the population of the Hospital's service area was 2,244,867. By FY 2009, the population is expected to increase by 6.6% and grow to 2,408,108. With the increase in population comes the increase in the size of the 65 and over age group, the age group that primarily makes up six out of ten new cancer patients. The population growth had resulted in the increased demand for the Hospital's inpatient and outpatient services. In Fiscal Year ("FY") 2004, the Hospital had nearly 47,000 hospitalizations and 570,000 outpatient visits to its medical center, of which 120,000 were oncology-related. By FY 2009, the year the North Pavilion is expected to be in operation, the projected number of hospital inpatient cases is 54,776. Along with the increase and aging of the population, the major reasons for the Hospital's projections include the increasing utilization of services due to improved cancer survival rates, better and earlier detection of cancer, the availability of advanced and highly specialized treatments at the Yale Cancer Center ("YCC"), and physician recruitment that increases the numbers the clinical programs that can be offered at the Hospital.

Bed Demand

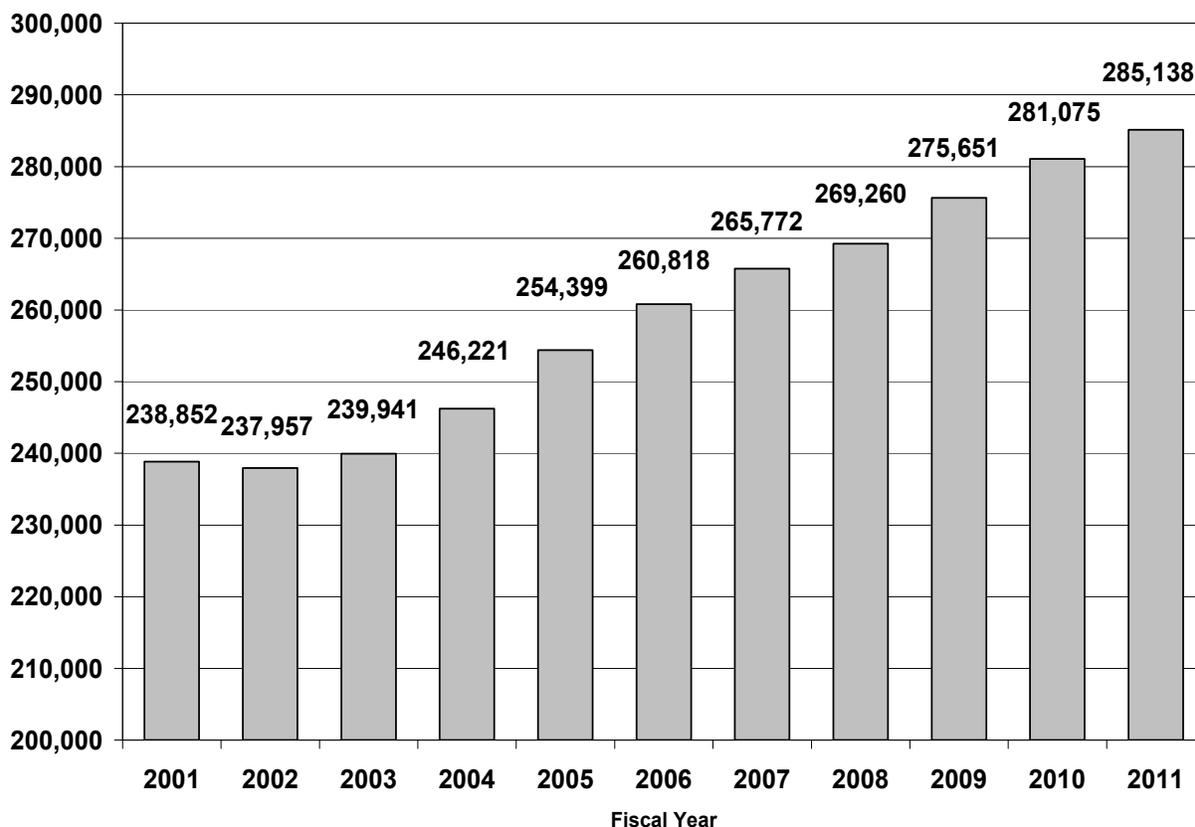
Although licensed for 944 beds and bassinets, the Hospital has only been able to operate and staff 854 beds.⁶ The number of physical beds in the Hospital was reduced due to the growing need for more single-patient rooms. As part of the proposal, the Hospital is requesting an increase of 22 licensed beds for a total of 966 beds. With the increase in demand and the building of the North Pavilion, and applying an optimal occupancy rate of 80%, the Hospital has projected that by FY 2011 it will require 966 beds to meet the needs of its patients. The Hospital used an 80% occupancy rate as the American Hospital Association's Health Care Advisory Board considers it the optimal rate for efficient patient flow minimizing patient flow minimizing undesirable situations, such as turning patients away or delaying admission of patients.

The Hospital utilized two separate methodologies to determine the number of additional licensed beds required. The first methodology, the Financial Feasibility Model considered historical, current and FY 2005 budgeted volumes, service levels, disease incidence and the aging of the population. The second methodology determined the Hospital's market

⁶ Whenever referencing the number of licensed or staffed beds, the 92 bassinets are included.

share of inpatient discharges based on population and use rates. The projected number of cases per year was higher with the second methodology than the first. To be more conservative, the bed need analysis was based on the first methodology.

Using the Financial Feasibility Model, holding the average length of stay at a constant 5.3 days per discharge, and using the 80% occupancy rate, the Hospital determined the total number of admissions to expect in FYs 2005 through 2011. The following chart provides the actual bed demand for FYs 2001 to 2004 and the projected bed demand at an 80%



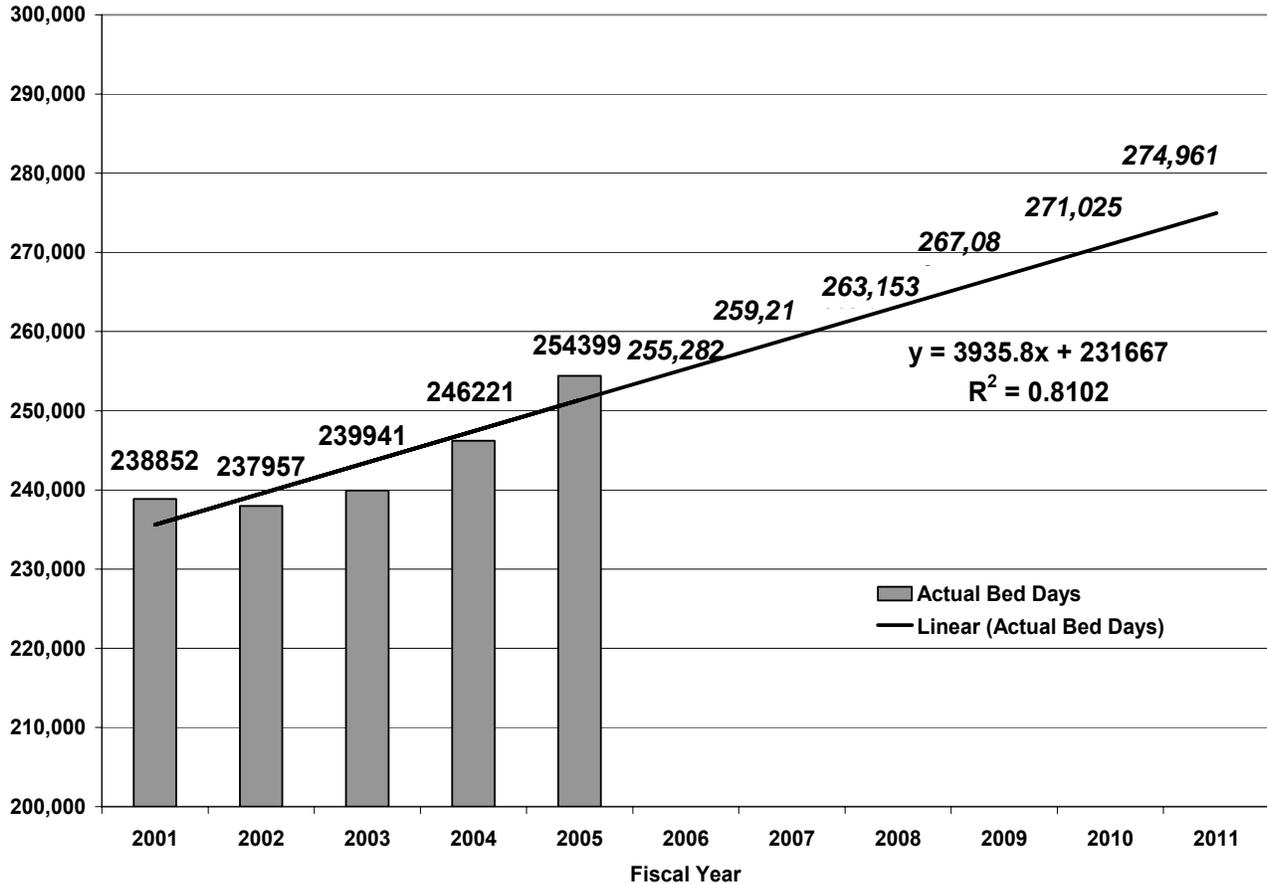
occupancy rate for FYs 2005 to 2011.

Chart 1: Actual and Projected Bed Days – Financial Feasibility Model

Chart 2 shows a linear regression analysis using only the total patient days reported by the Hospital for FY 2001 through FY 2005. The analysis of the data provided shows that the coefficient of determination (R^2) for the line of best fit has an acceptable correlation. Using the formula for the line of best fit, OHCA quantified the projected number of patients days for FYs 2005 and FYs 2011. The number of patient days projected by FY 2011 was quantified at 274,961, which is 96% of the Hospital's projected patient days of 285,138 by the Financial Feasibility Model. Therefore, without consideration of any

additional factors, i.e., increasing and aging population, the projected numbers reported by the Hospital appear reasonable and are relevant to the determination of bed capacity.

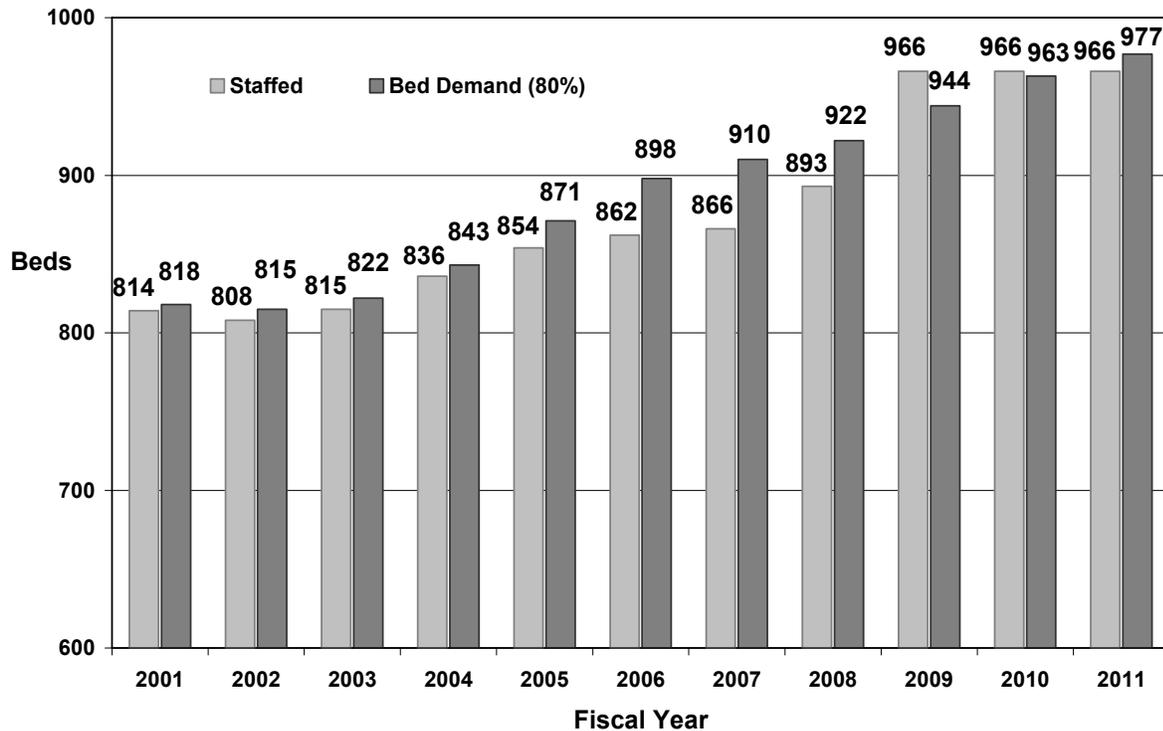
Chart 2: Linear Regression Analysis of Reported Bed Days for FYs 2001 to 2005



The actual and projected number of staffed beds, including the temporary beds, and the bed demand based on the 80% occupancy rate for FYs 2001 to 2011 is presented in Chart 3. Chart 3 shows that until the North Pavilion opens in FY 2009 the Hospital's bed demand is greater than the Hospital's available number of staffed beds. With the Hospital's estimates of future patient volume and the desire to operate at an efficient occupancy rate, the Hospital will require additional beds to meet demand. The North Pavilion proposal includes the creation of four new 28-bed patient care units. The currently available 854 staffed beds plus the 112 new beds puts the total number of beds available at the Hospital in FY 2009 at 966 beds, exceeding the Hospital's current license by 22 beds. The chart also shows that if the Hospital's projections hold true, FY 2009 and FY 2010 are the only years during which the Hospital's number of staffed beds will exceed the expected

demand. It appears that the Hospital's projections are reasonable and the Hospital will require additional licensed beds.

Chart 3: Actual and Projected Licensed Beds, Staffed Beds, and Bed Demand



While constructing the North Pavilion, the Hospital proposes to provide temporary beds through the renovation of existing space and the relocation of functions. Thirty-nine additional beds will be added by 2008 to reach a bed total of 893. Once the North Pavilion has been put into operation, the four new inpatient units will add a total of 112 beds; the temporary beds will be removed from service.

Research and Teaching

Many of the Yale Cancer Center's ("YCC") clinical research and patient care activities take place at the Hospital, an affiliate of the YCC. The Hospital has been offering, and will be continue to offer, services to patients that are not available anywhere else in the State of Connecticut. For example, the Hospital is the only provider in Connecticut that offers allogeneic bone marrow and liver transplant programs. The attraction of new oncology physicians to a state-of-the-art facility will further draw patients to the Hospital. The Hospital stated that the impact on other providers of cancer care would be minimal.

Through the growing number of clinical trials the YCC and the Hospital provide the unique treatments to patients who would otherwise have to look outside of the State for

their care. The Hospital stated that there is a growing number of clinical trials where the Hospital and the Yale Cancer Center are the only participating institutions in Connecticut. The YCC and the Hospital will be working with other hospitals in Connecticut to establish a statewide clinical trials network. With the network, patients will be able to enter into a clinical trial but remain in their own community to receive treatment. OHCA recognizes the importance of clinical trials in the fight against cancer and recognizes that the Hospital's new Cancer Center will enhance the overall ability of Connecticut's residents to access quality care and to benefit from the newly developed treatment modalities.

Operating Rooms

Physicians with admitting privileges at the Hospital are either Yale University faculty or practice in the community, many with clinical faculty appointment at the Yale School of Medicine ("YSM"). Clinical translational research is driven primarily by the University physicians and influences the referral volume from inside and outside the Hospital's service area. Inpatient and outpatient surgical volume is directly related to the number of physicians practicing at the Hospital. With the additional physicians being recruited and the patient volume projected by the Hospital, it appears reasonable that additional inpatient services will need to be supported with additional operating rooms.

The Hospital currently has 37 operating rooms and will have 38 available in FY 2006. One operating room is reserved at all time for trauma cases and one is reserved at all times for cardiac emergencies. The Hospital proposes constructing twelve new operating rooms in the North Pavilion. The majority of these operating rooms will be used to accommodate oncological surgical cases. This will allow the consolidation of oncology procedures into a common space. To maintain efficiency within the entire operating room environment, the operating rooms will be placed on the same level as the existing operating rooms. Six of the new rooms will be entirely new and contain new equipment; two of the rooms will be equipped with existing equipment; and four operating rooms will be shelled for future use. Along with the new operating rooms, the Hospital will construct an endoscopy/bronchoscopy suite consisting of four endoscopy rooms and one bronchoscopy room.

Over the past five years, the Hospital has experienced an increase of approximately 8% in its operating room caseload. The Hospital has used a modest growth rate of 2% per year to project the number of operating rooms it will need to utilize the operating rooms at a rate of 79%. The use of a 79% utilization rate seems reasonable in that many surgeries may be complicated and lengthy. Scheduled surgeries would be performed in an open operating room rather than be delayed while waiting for the scheduled room to become available. With the development of new treatment and therapies and the attraction to the Hospital by patients that need the expertise of a comprehensive cancer center, the maintenance of a flexible operating room schedule will add additional quality of care to a critical service.

Radiation Therapy

Radiation therapy services represent a significant component to overall oncology care. Higher cancer screening rates results in more patients receiving radiation therapy since cancer in its early stage is more responsive to radiation. The continued improvements to the technology, along with the growing number of minimally invasive procedures, will make many more cancer patients responsive to radiation therapy. As the current location of the radiation therapy treatment service at the Hospital has no room to grow the relocation of the radiation therapy equipment to the new building is in the best interest of the patients. The Hospital's proposal to replace one linear accelerator and one CT simulator with updated equipment able to perform the new modalities and as radiation therapy will be an integral part of the cancer center.

Diagnostic Imaging

In support of the surgical, chemotherapy, and radiation therapy treatments for cancer and non-cancer patients, the Hospital will perform concomitant diagnostic imaging scans. The Hospital has a large lymphoma program that makes extensive use of its current positron emission tomography/computed tomography ("PET-CT") scanner. By 2009 and the opening of the North Pavilion, the number of PET-CT scans performed for the diagnosis and monitoring of cancer patient treatment will exceed the capacity of the existing scanner. Similar increases in volume for magnetic resonance imaging scanners and multi-slice CT scanners support the Hospital's proposed purchase of these diagnostic imaging scanners.

Financial Feasibility

The Hospital's proposal is financially feasible. The Cancer Center and North Pavilion Project has a proposed total capital expenditure of \$369,810,000. The Hospital proposes to finance the project through an equity contribution of \$59,110,000, a fundraising contribution of \$42,500,000 and tax-exempt bond financing through the Connecticut Health and Educational Facilities Authority ("CHEFA") of \$260,000,000. The Hospital possesses the necessary funds to cover its stated contribution toward project funding. A Memorandum of Understanding, with respect to the fundraising activities between the Hospital and Yale University has been reached. CHEFA has provided an opinion that the market would accept a bond issue in excess of \$275 million based on the financial data provided to it by the Hospital. The Hospital projects incremental revenue in excess of expenses for the CON proposal for FYs 2006, 2007, and 2008 of \$515,000, \$3,328,000 and \$6,151,000, respectively. The Hospital's volume and financial projections upon which they are based appear to be reasonable and achievable. Therefore, the CON proposal will not adversely impact the interests of consumers and payers of such services.

In summary, the Hospital's proposal to build the North Pavilion, consolidate its oncological services and provide state-of-the-art services for cancer patients will allow for enhanced quality of care to all patients and a multi-disciplinary approach to care for cancer patients. Patients will have access to the most up-to-date treatment modalities and diagnostic and treatment equipment. Care will be provided in comfortable surroundings

with adequate patient privacy. The proposal will bring appropriate access to high quality cancer and related services for residents of its service, residents of Connecticut and residents of surrounding states. The benefit to patients will be higher survival rates, lower mortality and morbidity, fewer complications and readmissions after discharge, decrease in infections, improved functional outcomes and higher patient satisfaction. A statewide network of hospitals and community physicians will provide all residents opportunities for patients to enter clinical trials yet remain in their community for treatment. With the new cancer center, the Hospital will be able to provide care to the patients who would have sought care outside of Connecticut.

Order

NOW, THEREFORE, the Office of Health Care Access (“OHCA”) and Yale-New Haven Hospital (“Hospital”) hereby stipulate and agree to the terms of settlement with respect to the Applicant’s request for a Certificate of Need (“CON”) to construct the North Pavilion and establish the Yale-New Haven Cancer Center at a capital expenditure of \$369,810,000, which does not include the capitalized financing costs, subject to the following conditions:

1. The Hospital’s request to construct the North Pavilion and create a Cancer Center within the North Pavilion is hereby approved. The North Pavilion, a 14-story patient-care building, will be constructed on the Hospital’s existing campus on the corner of Park Avenue and South Frontage Road in New Haven. The North Pavilion will include:
 - A new 28-bed inpatient Surgical Oncology Unit;
 - A new 28-bed inpatient unit and infusion unit for the Women’s Oncology Health Unit;
 - Two (2) new 28-bed inpatient units and infusion suite for the Medical Oncology Unit;
 - A new Radiation Therapy Unit,
 - An apheresis suite;
 - A pediatric suite;
 - A new Breast Center; and
 - A Post Anesthesia Care Unit.
2. The Hospital is authorized to include in the North Pavilion:
 - Six newly equipped operating rooms;
 - Two new operating rooms outfitted with equipment relocated from existing operating rooms;
 - Four new operating rooms, shelled; and
 - Four new (4) endoscopy rooms; and
 - One new (1) bronchoscopy room.
3. The Hospital shall establish its new Cancer Center by permanently relocating its cancer services from locations on campus to the North Pavilion.
4. Upon completion of the North Pavilion the Hospital is authorized to increase its bed capacity by 22 licensed beds. Prior to such increase the Hospital shall file with OHCA an updated bed need methodology to demonstrate that an increase of 22 licensed beds is appropriate and accurate based on bed utilization information available to date.
5. The Hospital is authorized to immediately provide 39 staffed temporary beds to accommodate demand until the North Pavilion units become operational. Once the

beds are available in the North Pavilion, the temporary bed space shall be returned to the prior function.

6. The Hospital is authorized to purchase, or lease, the following:
 - One multi-slice Computerized Tomography scanner;
 - One 3.0 Tesla Magnetic Resonance Imaging scanner;
 - One 1.5 Tesla breast Magnetic Resonance Imaging scanner;
 - One Positron Emission Tomography/Computerized Tomography scanner;
 - One Radiographic Fluoroscopy unit;
 - One fixed fluoroscopy unit;
 - One fixed C-arm unit;
 - One linear accelerator to replace an existing machine; and
 - One Computerized Tomography simulator to replace an existing simulator.
7. The Hospital shall not exceed the authorized capital expenditure of \$369,810,000. In the event that the Hospital learns of potential additional costs, the Hospital shall file with OHCA a request for approval of the revised budget using the Certificate of Need modification process.
8. The Hospital shall request to meet with OHCA representatives to discuss the project's progress, starting in January 2006 and then every six months until one year after completion of the project.
9. The Hospital shall provide to OHCA semi-annual written progress reports that shall include, but not be limited to, a summary of expenditures, temporary bed status, physician recruitment, imaging equipment procurement, status and copies of licenses and permits, and a report on the progress of the proposal. Such progress reports shall commence in January 2007 and be filed semi-annually thereafter until project completion.
10. The Hospital shall request approval from OHCA through the Certificate of Need process for any further development of the shelled space included in the North Pavilion.
11. The Hospital shall file with OHCA utilization statistics for each PET/CT scanner located on its campus in New Haven on a quarterly basis for two full years of operation. Each quarterly filing shall be submitted to OHCA by no later than one month following the end of each reporting period (e.g., January, April, July and October). The initial report shall list the date on which the fixed PET/CT scanner commenced operation. The quarterly reports shall include the following information:
 - Total number of scans scheduled for the fixed PET/CT scanner;
 - Total number of scans performed by the fixed PET/CT scanner;
 - Average patient waiting time from the scheduling of the scan to the performance of the scan;
 - Number of scans by patient zip code;
 - Hours and days of operation for each week and in total; and

- Number of scans by Medicare diagnostic code.
12. The Hospital shall provide to OHCA annual reports on December 31 on an on-going basis of the process made in establishing the statewide clinical trials network. Such reports shall be filed until one year after completion of the project.
 13. This Agreed Settlement is an order of the Office of Health Care Access with all the rights and obligations attendant thereto, and the Office of Health Care Access may enforce this Agreed Settlement pursuant to the provisions of Sections 19a-642 and 19a-653 of the Connecticut General Statutes at the Applicants' expense, if the Applicant fails to comply with its terms.

September 7, 2005

Norman Roth
Duly Authorized Agent for
Yale-New Haven Hospital

September 7, 2005

Joseph A. Zaccagnino
Duly Authorized Agent for
Yale-New Haven Hospital

The above Agreed Settlement is hereby accepted and so ordered by the Office of Health Care Access on September 7, 2005.

September 7, 2005

Commissioner
Cristine A. Vogel

CAV:lkg;sm