ATTACHMENT - REQUIRED STATE AGENCY FINDINGS

FINDINGS
C = Conforming
CA = Conditional
NC = Nonconforming
NA = Not Applicable

DECISION DATE: September 27, 2013
FINDINGS DATE: September 27, 2013
PROJECT ANALYST: Celia C. Inman
TEAM LEADER: Lisa Pittman

PROJECT I.D. NUMBER: O-10142-13 / New Hanover Regional Medical Center / Develop a satellite emergency department and relocate Porter's Neck Imaging, which includes a CT scanner / New Hanover County
FID #130270

REVIEW CRITERIA FOR NEW INSTITUTIONAL HEALTH SERVICES

G.S. 131E-183(a) The Department shall review all applications utilizing the criteria outlined in this subsection and shall determine that an application is either consistent with or not in conflict with these criteria before a certificate of need for the proposed project shall be issued.

(1) The proposed project shall be consistent with applicable policies and need determinations in the State Medical Facilities Plan, the need determination of which constitutes a determinative limitation on the provision of any health service, health service facility, health service facility beds, dialysis stations, operating rooms, or home health offices that may be approved.

CA

New Hanover Regional Medical Center (NHRMC) proposes to develop a satellite emergency department in northeast New Hanover County. The proposed facility will be an expansion of NHRMC's existing emergency department, will operate as a department of NHRMC and will be referred to as NHRMC FED. As part of this project, NHRMC will relocate Porter's Neck Imaging (PNI), an outpatient imaging department of NHRMC, which includes a CT scanner, to the proposed NHRMC FED. The applicant does not propose to develop beds, add new services or acquire equipment for which there is a need determination in the 2013 State Medical Facilities Plan (SMFP). The proposed project has a projected capital cost of more than $15 million, therefore, Policy GEN-4: Energy Efficiency and Sustainability for Health Service Facilities, on page 43 of the 2013 SMFP, is applicable to the review of this proposal. Policy GEN-4 states:

"Any person proposing a capital expenditure greater than $2 million to develop, replace, renovate or add to a health service facility pursuant to G.S. 131E-178 shall

include in its certificate of need application a written statement describing the project's plan to assure improved energy efficiency and water conservation.

In approving a certificate of need proposing an expenditure greater than $5 million to develop, replace, renovate or add to a health service facility pursuant to G.S. 131E-178, the Certificate of Need Section shall impose a condition requiring the applicant to develop and implement an Energy Efficiency and Sustainability Plan for the project that conforms to or exceeds energy efficiency and water conservation standards incorporated in the latest editions of the North Carolina State Building Codes. The plan must be consistent with the applicant's representation in the written statement as described in paragraph one of Policy GEN-4.

Any person awarded a certificate of need for a project or an exemption from review pursuant to G.S. 131E-184 are required to submit a plan of energy efficiency and water conservation that conforms to the rules, codes and standards implemented by the Construction Section of the Division of Health Service Regulation. The plan must be consistent with the applicant's representation in the written statement as described in paragraph one of Policy GEN-4. The plan shall not adversely affect patient or resident health, safety or infection control."

In Section III.2, page 37, the applicant addresses Policy GEN-4 and NHRMC FED's plan for energy efficiency and water conservation. The applicant states it will achieve energy efficiency by:

"Water Conservation

- *Water reduction will be achieved by utilizing 1.6 gallons per flush water closets, pint flush urinals and metering faucets in the public restrooms.*
- *The NHRMC FED will incorporate minimum of 13 EER* [sic] air conditioners and 96% efficient condensing gas water heaters.

Energy Efficiency

- *The NHRMC FED will meet the new energy code and utilize* [sic] *air side economizers will be used in areas not affected by pressure changes, IT rooms will be cooled with 14 SEER split system air conditioners, interior lighting will utilize energy efficient T-8 lamps, and many spaces will be provided with occupancy sensors. Motors used in plumbing, HVAC and electrical will be energy efficient models.*
- *The exterior wall assembly incorporates high R-value continuous insulation and an integral air barrier. These systems reduce energy costs by eliminating thermal breaks and reducing air infiltration through the wall assembly.*
- *The NHRMC FED is oriented on the site to minimize exterior wall and window exposure on the east and west sides of the building because heat gain is most difficult to control on these sides. This facility is elongated along the north and*

south sides to maximize exposure to natural daylight. Exposure to southern sun is less intense and easier to control.

- *The NHRMC FED will utilize a light colored, highly reflected roof membrane to reflect sunlight and minimize heat gain through the roof assembly."*

Exhibit 11 contains a copy of the "New Hanover Regional Medical Center Free Standing ED Pre-Design MEP Narrative" which outlines expectations for the project's mechanical, electrical and plumbing systems.

The applicant adequately demonstrates the proposal includes a plan to assure improved energy efficiency and water conservation. Therefore, the application is consistent with Policy GEN-4 and conforming to this criterion, subject to Condition 3 in Criterion (4).

(2) Repealed effective July 1, 1987.

(3) The applicant shall identify the population to be served by the proposed project, and shall demonstrate the need that this population has for the services proposed, and the extent to which all residents of the area, and, in particular, low income persons, racial and ethnic minorities, women, handicapped persons, the elderly, and other underserved groups are likely to have access to the services proposed.

C

NHRMC proposes to develop a satellite emergency department at 9110 Market Street, at the intersection of Market Street and Scott Hill Loop Road, adjacent to the Atlantic SurgiCenter. NHRMC FED will be an expansion of NHRMC's existing emergency department and operate as an outpatient department of NHRMC. The proposed 29,900-square foot facility will operate 24/7, be licensed under NHRMC, and services will be billed under NHRMC's provider number.

NHRMC FED services will include:

- Emergency Services
  - 1 triage room
  - 10 treatment spaces to include:
    - 9 treatment rooms
    - 1 trauma room
- Imaging Services
  - 1 CT scanner
  - 1 fixed general radiography unit
  - 1 mobile general radiography unit
  - 1 mammography unit
  - 1 bone density unit
  - 1 ultrasound unit
  - Picture Archiving and Communications System (PACS)
  - Mobile technology pad to accommodate future mobile diagnostic equipment
- Lab Services - onsite

  - Clinical laboratory with phlebotomy
  - 24/7 major chemistry and blood bank
- Pharmacy Services
  - Pharmaceuticals needed during treatment
  - Prescriptions for discharged patients
- Material Management Services
  - Received from NHRMC on an as needed basis
  - Delivered directly from the vendor to NHRMC FED
- Support Services
  - NHRMC FED on-site services
    - Guest services
    - Finance/registration
    - Administration
  - NHRMC support services
    - Bio Medical
    - Facility services
    - Housekeeping
    - Risk management
    - Supply
    - Food and nutrition services
    - Case management

In Section II.1, page 16, the applicant states:

> *"NHRMC has included over $3 million per year in the pro forma financial statements under the line items "Overhead" to account for miscellaneous non-revenue and ancillary support."*

Exhibit 6 contains a letter from NHRMC President and CEO, documenting that ancillary and support services for NHRMC FED will be provided through NHRMC.

In Section V.7, page 70, the applicant states that relocating the existing PNI outpatient imaging services 2.1 miles north to the proposed satellite ED will continue to provide imaging services to current patients, as well as, provide the necessary 24/7 ED imaging services to NHRMC FED patients. The applicant further states that relocating the imaging services will take advantage of economies of scale and staff cross-coverage opportunities, thereby minimizing the operating expenses associated with the two services.

Population to be Served

In Section III.4, page 42, the applicant provides the patient origin for NHRMC's emergency services and Porter's Neck Imaging during FY2012, as shown in the following tables:

NHRMC Emergency Department
County of Patient Origin, FY2012

County	Percentage
New Hanover	62.6%
Brunswick	11.9%
Other County/State	9.7%
Pender	9.1%
Columbus	3.0%
Onslow	2.1%
Duplin	1.1%
Bladen	0.5%
Total	100.00%

Totals may not foot due to rounding.

Porter's Neck Imaging
County of Patient Origin, FY2012

County	Percentage
New Hanover	42.4%
Pender	34.3%
Onslow	14.7%
Duplin	0.8%
Other	7.8%
Total	100.00%

Totals may not foot due to rounding.

As shown in the tables above, NHRMC's Emergency Department and Porter's Neck Imaging have patient origins that differ from each other. NHRMC includes the NHRMC main campus and Cape Fear Hospital (CFH). 62.6% of NHRMC's Emergency Department patients are residents of New Hanover County, 11.9% are residents of Brunswick County, and 9.1% are residents of Pender County. Only 42.4% of PNI's patients originate from New Hanover County with 34.3% coming from Pender County. This is a significant difference in patient origins, considering the two services are located within 12 miles of each other. However, those 12 miles take 21 minutes to drive in average beach traffic. It can take considerably longer. Also PNI is located a short distance from the New Hanover/Pender County border.

In Section III.5(c), page 45, the applicant provides the projected patient origin for the first two years of the proposed project, as illustrated in the following table:

NHRMC NHRMC FED
ED, Imaging, Lab, and Pharmacy
County of Patient Origin

County	PY 1 FY2016	PY 2 FY2017
Pender	51.2%	51.6%
New Hanover	36.6%	36.0%
Onslow	11.1%	11.3%
Duplin	1.2%	1.1%
Total	100.0%	100.0%

Totals may not foot due to rounding.

NHRMC NHRMC FED
Outpatient Radiology
County of Patient Origin

County	PY 1 FY2016	PY 2 FY2017
Pender	42.4%	42.4%
New Hanover	34.3%	34.3%
Onslow	14.7%	14.7%
Duplin	0.8%	0.8%
Other	7.8%	7.8%
Total	100.0%	100.0%

Totals may not foot due to rounding.

In Section III.5(a), page 43, the applicant states,

> *"NHRMC includes four (4) counties in its service areas for the NHRMC FED; these counties include Pender, New Hanover, Onslow, and Duplin counties. Patients residing in these four counties represent 100.0 percent of projected NHRMC FED patients."*

In Section III.6, page 46, the applicant states:

> *"This project is based on NHRMC's Emergency Department growth and the need to improve emergency services available in New Hanover County, specifically in northeast New Hanover County.*
>
> …
>
> *It is NHRMC's desire to decrease the number of Emergency Department visits originating from the proposed service area that travel to NHRMC for emergency services. With the development of the Emergency Department in northern New Hanover County and the associated ancillary and support services, NHRMC believes that residents to the north of New Hanover County will not bypass a fully-staffed and operational Emergency Department to travel to the NHRMC Emergency Department."*

The applicant adequately identified the population to be served.

Demonstration of Need

Regarding the need for the proposed project, in Section III.1(a), page 26, the applicant states:

> *"The proposed project includes the establishment of a freestanding emergency department in northeast New Hanover County that will offer general radiography, CT scans, ultrasound, mammography, laboratory and pharmacy services, and 10-treatment rooms. The project is in response to the utilization of NHRMC Emergency Department and addresses the growing health care needs of the population in the service area, along with local and national trends in the use of emergency services."*

The applicant states that the NHRMC Emergency Department (including NHRMC and CFH) is operating at over 139.8% of the recommended emergency department capacity [(120,765 visits / (48 rooms x 1,800 visits)) X 100 = 139.8%]. The applicant further states that its utilization continues to increase with no utilization plateau in sight. The applicant states that developing the satellite emergency department, NHRMC FED, will increase access to emergency services in New Hanover County and increase emergency department capacity at NHRMC by offering another option for emergency services outside of central Wilmington, which NHRMC hopes will decrease some of the operational stress and inefficiency associated with operating at such a high utilization.

On page 26, the applicant states:

> *"Over the past seven years, NHRMC has actively pursued non-construction based alternatives to improve patient throughput and decrease volumes at the NHRMC Emergency Department. The following alternatives have been implemented:*
>
> - *The Emergency Department (both at NHRMC and at Cape Fear Hospital) has engaged Lean process improvement strategies to positively affect patient throughput and efficiencies. Several projects have targeted reduction in wait times, improved resource management and communication with inpatient areas, all in an effort to expand capacity to meet growing volumes. This has allowed NHRMC to successfully treat over 120,000 patients in only 48 treatment rooms.*
> - *The Emergency Department has partnered with EMS to direct the intake of patients during times of day that a high frequency of arrivals impacts patient flow. This allows for the re-directing of clinically appropriate patients to the Cape Fear Emergency Department and has resulted in the creation of capacity at the 17th* [sic] *Emergency Department when system resources are overwhelmed.*
> - *Collaborations with NHRMC Urgent Care have been established to identify ways to direct less acute patients to these centers. This has resulted in non-*

urgent patients seeking quicker care in alternative locations, which increases available capacity for more urgent and emergent patients.

- *And, finally, processes are in place to work with community partners and Case Management to reduce the number of unnecessary emergency department visits by frequent consumers. This has resulted in patients who frequent the Emergency Department to receive care by primary care physicians, which is more effective and economical."*

In evaluating the need and projecting future volumes for emergency services, in Section III.1(b), pages 27-35, the applicant states NHRMC reviewed the following factors:

- New Hanover County Population Growth Trends
- 4-County Service Area Population Growth Trends
- 4-County Service Area NHRMC Market Share Growth
- ED Utilization

Each factor is summarized below.

1. New Hanover County Population Growth Trends

On page 27, the applicant states,

"From 2000 to 2010, the population of New Hanover County grew by 23.3 percent. Based on projections, New Hanover County's population is projected to grow by an additional 18.8 percent from 2010 to 2018. In particular:

- *The 18-44 population grew by 12.3 percent from 2000 to 2010, representing 39.0 percent of New Hanover County's population. The NC State Office of Budget and Management projects that the 18-44 population will increase by 20.3 percent from 2010 to 2018, to become 39.5 percent of New Hanover County's total population.*

- *The elderly population (65+ years old) grew by 40.6 percent from 2000 to 2010, to represent 14.7 percent of New Hanover County's total population. The NC State Office of Budget and Management projects that the elderly population will be the fastest growing population, increasing by 37.5 percent from 2010 to 2018."*

New Hanover County Population Growth

	2000	2010	2018(Projected)	2000-2010	2010-2018
				Percent Growth	Percent Growth
<18 Population	33,594	39,212	43,406	16.7%	10.7%
18-44 Population	68,104	76,484	91,989	12.3%	20.3%
45-64 Population	38,062	51,496	57,756	35.3%	12.2%
65+ Population	20,567	28,910	39,741	40.6%	37.5%
Total Population	**160,327**	**196,102**	**232,892**	**22.3%**	**18.8%**
Percent <18	21.0%	20.0%	18.6%		
Percent 18-44	42.5%	39.0%	39.5%		
Percent 45-64	23.7%	26.3%	24.8%		
Percent 65+	12.8%	14.7%	17.1%		

*Source: NC State Office of Budget and Management, April 2013 estimates.

Note: the applicant states in the verbiage above that the New Hanover population grew by 23.2% between 2000 and 2010; however, the table provided by the applicant on page 27 and above indicates the population grew by 22.3%. It appears the applicant transposed the two and three. The calculation at 22.3% is correct.

2. 4-county Service Area Population Growth Trends

On page 28, the applicant states that from 2000 to 2010 the population of the 4-county service area, which includes Pender, New Hanover, Onslow, and Duplin counties, grew 21.4%, as illustrated in the following table:

4-County Service Area Population Growth

	2000	2010	2018(Projected)	2000-2010	2010-2018
				Percent Growth	Percent Growth
<18 Population	95,271	115,312	135,967	21.0%	17.9%
18-44 Population	182,186	202,064	227,018	10.9%	12.3%
45-64 Population	81,208	110,498	125,922	36.1%	14.0%
65+ Population	42,162	58,673	81,429	39.2%	38.8%
Total Population	**400,827**	**486,547**	**570,336**	**21.4%**	**17.2%**
Percent <18	23.8%	23.7%	23.8%		
Percent 18-44	45.5%	41.5%	39.8%		
Percent 45-64	20.3%	22.7%	22.1%		
Percent 65+	10.5%	12.1%	14.3%		

On page 28, the applicant states,

> *"The 4-county service area population is expected to increase by 17.2 percent over the eight year period represented in the previous table, from 486,547 in 2010 to 570,336 in 2018. 75.0 percent of NHRMC Emergency Department patients originate from this 4-county service area in 2012."*

3. 4-County Service Area NHRMC Market Share Growth

On page 29, the applicant states that the following table reflects NHRMC's FY2012 market share of the 7-county service area's emergency visits, based on the most current data available from Truven Health Analytics.

NHRMC Emergency Department
County of Patient Origin, FY2012

County	Total ED Visits	NHRMC ED Visits	Percent Market Share
Bladen	19,667	552	2.8%
Brunswick	58,101	14,314	24.6%
Columbus	32,312	3,671	11.4%
Duplin	25,178	1,375	5.5%
New Hanover	78,537	75,641	96.3%
Onslow	63,694	2,526	4.0%
Pender	22,744	11,017	48.4%
Total	**300,233**	**109,096**	**36.3%**

As the table above illustrates, the NHRMC (NHRMC main campus and CFH) Emergency Department's total market share of its 7-county service area is 36.3%. The following table illustrates NHRMC Emergency Department's total market share of the proposed NHRMC FED 4-county service area.

NHRMC Emergency Department
County of Patient Origin, FY2012

County	Total ED Visits	NHRMC ED Visits	Percent Market Share
Duplin	25,178	1,375	5.5%
New Hanover	78,537	75,641	96.3%
Onslow	63,694	2,526	4.0%
Pender	22,744	11,017	48.4%
Total	**190,153**	**90,559**	**47.6%**

The applicant states, "…the market share of the NHRMC FED's proposed 4-county service area is 47.6 percent, and NHRMC's market share of New Hanover County is 96.3 percent."

The applicant provides population, demographic resources, and maps in Exhibit 9.

4. ED Utilization

On page 30, the applicant states,

> *"NHRMC Emergency Department services have grown from over 100,000 visits in 2006 to over 120,000 visits in 2012. To respond to continuing increases in demand for the hospital's services, NHRMC must continue to expand, renovate, and*

modernize its facility. In developing future projections for the proposed project, several factors indicate continued volume increases.

The population in New Hanover County and the 4-county service area is projected by the Office of State Budget Management and Nielsen Claritas, respectively, to increase over the 8-year period from 2010 to 2018.

- *Key age groups are projected by the North Carolina Office of State Budget and Management to increase over the 8-year period from 2010 to 2018.*
- *The NHRMC Emergency Department has experienced consistent patient visits.*
- *North Carolina and the United States continue to experience increasing Emergency Department utilization."*

The following table shows NHRMC Emergency Department's historical ED utilization as shown on page 30 of the application.

NHRMC Emergency Department
Historical ED Visits

	2010	2011	2012
NHRMC ED Visits	116,233	118,720	120,765
Treatment Rooms	48	48	48
Visits per Treatment Room	2,422	2,473	2,516

Projected Utilization

Emergency Visits

In Section IV.1, page 49, the applicant provides the historical and projected utilization of the NHRMC Emergency Department through Project Year 3 (2018), as shown in the table below:

2010-2018 Actual and Projected NHRMC Emergency Department

	Actual			Projected					
	2010	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
NHRMC ED Visits	**116,233**	**118,720**	**120,765**	**123,450**	**126,215**	**129,061**	**121,276**	**124,200**	**127,206**
Treatment Rooms	48	48	48	48	48	48	48	48	48
Visits per Treatment Room	2,422	2,473	2,516	2,572	2,629	2,689	2,527	2,588	2,650
NHRMC FED ED Visits							**13,523**	**14,015**	**14,528**
Treatment Rooms							10	10	10
Visits per Treatment Room							1,352	1,401	1,453
Total ED Visits	**116,233**	**118,720**	**120,765**	**123,450**	**126,215**	**129,061**	**134,799**	**138,214**	**141,735**
Treatment Rooms	48	48	48	48	48	48	58	58	58
Visits per Treatment Room	2,422	2,473	2,516	2,572	2,629	2,689	2,324	2,383	2,444

As the above table demonstrates, with 48 treatment rooms and 120,765 visits in 2012 (2,516 per treatment room), the applicant already exceeds the American College of Emergency Physicians' (ACEP) guidelines on Emergency Department capacity.[1] With the addition of 10 new treatment rooms at the proposed NHRMC FED, NHRMC proposes a total of 58 treatment rooms (48 in Wilmington at NHRMC and CFH, and 10 in northeast New Hanover County at NHRMC FED).

In Section III.4, page 31, the applicant provides the historical growth in Emergency Department visits at NHRMC since 2006, as well as the projected growth in Emergency Department visits at NHRMC and at the proposed NHRMC FED. The applicant states,

> *"Since 2006, Emergency Department visits at NHRMC have increased by 16.4 percent. Considering the aging and growth of the population, the consequences of the Patient Protection and Affordable Care Act, the addition of Medical Staff physicians to continue to meet healthcare access needs over the next five years, and the continued increase in Emergency Department utilization, the projected growth rate is reasonable and conservative as shown in the following table."*

NHRMC Emergency Department Visits – Historical Growth (2006 to 2012)

	2006	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**
NHRMC ED Visits	103,768	110,501	112,853	117,289	116,233	118,720	120,765
Percent Increase		6.49%	2.13%	3.93%	-0.90%	2.14%	1.72%
Percent Growth Since 2006							16.4%
CAGR							2.6%

As illustrated in the table above, from 2006 to 2012, Emergency Department visits at NHRMC grew at an average annual rate of 2.7% [(120,765 – 103,768) / 103,768 = 16.4%; 16.4% / 6 = 2.7%]. The CAGR from 2006 to 2012 was 2.6%. The applicant projects that total emergency department visits will increase annually by 2.2% through 2015, 4.5% in 2016 (upon project completion) and 2.5% in 2017 and 2018, as shown in the following table.

Projected NHRMC Emergency Department Visits

	2013	**2014**	**2015**	**2016**	**2017**	**2018**
NHRMC ED Visits	123,450	126,215	129,061	121,276	124,200	127,206
NHRMC FED Visits				13,523	14,015	14,528
Total ED Visits	123,450	126,215	129,061	134,799	138,214	141,735
Percent Growth Since 2006	**2.22%**	**2.24%**	**2.26%**	**4.45%**	**2.53%**	**2.55%**

[1] Note: The ACEP guidelines are guidelines. There are no capacity definitions or performance standards for emergency services in the Certificate of Need Law or Rules. Indeed, unlike beds, dialysis stations, home health agencies, or certain equipment, the Certificate of Need law does not regulate the number of Emergency Departments or treatment rooms. Thus, applications may be found conforming even if projected volumes do not reach or exceed the recommendations of the ACEP. The guidelines address annual capacity not surge capacity (i.e., the need for enough capacity to deal with an influx of a lot of patients at once.)

NHRMC FED Ancillary Services

As part of the proposed project, the applicant plans to relocate its outpatient imaging department (PNI) and related imaging equipment, including the CT scanner, to the proposed NHRMC FED. In Section IV, page 50, the applicant provides the projected utilization for the ancillary services proposed for NHRMC FED, as follows:

Table IV. Diagnostic Imaging

	PY1 2016	**PY2 2017**	**PY3 2018**
CT Scanner			
# of Units	1	1	1
# of ED Scans	2,411	2,499	2,590
# of OP Scans	1,585	1,714	1,854
Xray			
# of Units	2	2	2
# of ED Scans	6,238	6,465	6,702
# of OP Scans	2,803	2,690	2,585
Mammography			
# of Units	1	1	1
# of OP Films	7,876	8,603	9,397
Ultrasound			
# of Units	1	1	1
# of ED Scans	653	677	702
# of OP Scans	2,214	2,547	2,929
Bone Density			
# of Units	1	1	1
# of OP Scans	168	176	184

Table IV. Other Services

	2016	**2017**	**2018**
Pharmacy			
# of Rooms	1	1	1
# of Units	25,017	25,928	26,878
Laboratory			
# of Rooms	1	1	1
# of Tests	43,308	44,885	46,529

In Section III.7, page 47, the applicant states,

"…NHRMC proposes to relocate an existing imaging service to the NHRMC FED. As a result, the outpatient imaging services will shift from Porter's Neck Imaging 2.1 miles north to the NHRMC FED.

…

The relocated imaging modalities will be fully utilized by NHRMC FED patients, as well as outpatients."

In Section V.7, page 70, the applicant states that relocating the existing PNI outpatient imaging services to the satellite ED will continue to provide access to the same outpatient imaging patients, as well as provide 24/7 imaging coverage at the satellite ED. CT imaging capabilities are generally accepted as a necessary component of emergency department services. The applicant further states that relocating the imaging services will take advantage of economies of scale and staff cross-coverage opportunities.

Assumptions and Methodology

In Section IV, page 51, the applicant states, "*NHRMC used the following need methodology to project NHRMC FED Emergency Department visits, CT scans, general radiography, mammography, ultrasound, laboratory, and pharmacy volumes."*

Step 1. Historical ED Visits

On page 51, the applicant utilizes Truven Health Analytics FY2010-FY2012 4th Quarter ED datasets to determine the annual number of ED visits by county in NHRMC's 7-county service area market. The following table shows the historical number of visits in each county of NHRMC's ED service area and the counties' compound annual growth rates (CAGR) 2010-2012.

County	FY2010	FY2011	FY2012	CAGR
Bladen	19,099	19,539	19,667	1.48%
Brunswick	45,682	56,240	58,101	3.31%*
Columbus	31,095	29,211	32,312	1.94%
Duplin	26,950	28,379	25,178	-3.34%
New Hanover	75,495	76,582	78,537	1.99%
Onslow	57,094	61,379	63,694	5.62%
Pender	20,808	21,293	22,744	4.55%
Total	**276,223**	**292,623**	**300,233**	

Source: Applicant: Truven Health Analytics
*3.31% represents the one-year growth rate between FY2011-2012, which does not include the exceptional growth rate experienced from FY2010-2011 of 27.2% that NHRMC does not expect to continue forward.

Step 2. Service Area ED Visits

On page 52, the applicant projects the service area ED visits by multiplying each county's previous year ED visits (starting with FY2012) by the historical ED visit CAGR calculated in Step 1.

Projected Service Area ED Visits

County	FY2012	FY2013	FY2014	FY2015	PYI FY2016	PY2 FY2017	PY3 FY2018
Bladen	19,667	19,957	20,252	20,551	20,854	21,162	21,474
Brunswick	58,101	60,024	62,010	64,062	66,182	68,371	70,634
Columbus	32,312	32,938	33,577	34,227	34,891	35,567	36,256
Duplin	25,178	24,336	23,523	22,736	21,976	21,241	20,531
New Hanover	78,537	80,104	81,702	83,331	84,994	86,689	88,418
Onslow	63,694	67,275	71,057	75,052	79,271	83,728	88,435
Pender	22,744	23,779	24,860	25,991	27,173	28,409	29,701
Total	**300,233**	**308,412**	**316,979**	**325,950**	**335,340**	**345,167**	**355,450**

Source: Previous Year's Visits X calculated CAGR

Step 3. Historical and Effective ED Visit Rate per 1,000 Population

On page 53, the applicant provides the NCOSBM population projections for the service area counties as shown below.

NCOSBM Historical and Projected Population

County	FY2010	FY2011	FY2012	FY2013	FY2014	FY2015	PYI FY2016	PY2 FY2017	PY3 FY2018
Bladen	35,171	35,184	35,200	35,226	35,251	35,279	35,306	35,331	35,358
Brunswick	108,064	110,312	112,597	114,882	117,168	119,451	121,737	124,022	126,307
Columbus	57,919	58,007	57,862	57,846	57,785	57,747	57,696	57,654	57,604
Duplin	58,664	59,478	60,059	60,760	61,396	62,068	62,723	63,385	64,043
New Hanover	203,299	206,286	209,964	213,785	217,606	221,429	225,248	229,069	232,892
Onslow	186,869	186,402	191,030	194,201	198,554	202,027	206,226	209,779	213,931
Pender	52,384	53,466	54,390	55,313	56,196	57,054	57,885	58,690	59,470

Source: Applicant: NCOSBM

The following table shows the effective ED visit rate per 1,000 population, calculated by dividing the actual ED visits (identified in Step 1) and the projected ED visits (calculated in Step 2) by the projected population from the table above.

Effective ED Visit Rate By County

County	FY2010	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
Bladen	543.0	555.3	558.7	566.6	574.5	582.5	590.7	599.0	607.3
Brunswick	422.7	509.8	516.0	522.5	529.2	536.3	543.6	551.3	559.2
Columbus	536.9	503.6	558.4	569.4	581.1	592.7	604.7	616.9	629.4
Duplin	459.4	477.1	419.2	400.5	383.1	366.3	350.4	335.1	320.6
New Hanover	371.3	371.2	374.0	374.7	375.5	376.3	377.3	378.4	379.7
Onslow	305.5	329.3	333.4	346.4	357.9	371.5	384.4	399.1	413.4
Pender	397.2	398.3	418.2	429.9	442.4	455.5	469.4	484.1	499.4

Source: Applicant: Service area ED Visits/ (County Population / 1,000)

Step 4. NHRMC Visits Based on 2012 Market Share

On page 54, the applicant states, *"Using Truven Health Analytics FY12 4th Quarter ED dataset, NHRMC calculated its market share within the 7-county service area. NHRMC calculated the market share at both the county level and zip code level."* The following percentages represent NHRMC's 2012 market share of ED visits from each of the 7 counties in its service area.

County	Market Share Percentage
Bladen	2.8%
Brunswick	24.6%
Columbus	11.4%
Duplin	5.5%
New Hanover	96.3%
Onslow	4.0%
Pender	48.4%

NHRMC then multiplied the service area ED visits projected in Step 2 by the NHRMC market share above to project the number of ED visits at NHRMC from FY2013 through FY2018, as shown in the following table:

NHRMC Total Market Share of the 7-county Service Area ED Visits

County	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
Bladen	552	560	568	577	585	594	603
Brunswick	14,314	14,788	15,277	15,783	16,305	16,844	17,402
Columbus	3,671	3,742	3,815	3,889	3,964	4,041	4,119
Duplin	1,375	1,329	1,285	1,242	1,200	1,160	1,121
New Hanover	75,641	77,150	78,689	80,259	81,860	83,493	85,158
Onslow	2,526	2,668	2,818	2,977	3,144	3,321	3,507
Pender	11,017	11,518	12,042	12,590	13,163	13,761	14,387
Total	**109,096**	**111,755**	**114,494**	**117,314**	**120,220**	**123,213**	**126,297**

Step 5. NHRMC FED Visits

On page 55, the applicant discusses how it determined the number of ED visits to shift from NHRMC to NHRMC FED, using the Truven Health Analytics FY2012 4th Quarter ED dataset by zip code. The applicant states, *"This calculation estimated the number of ED visits originating from each zip code. NHRMC then multiplied the ED visits by zip code by the NHRMC market share by zip code and then multiplied by the ED visit shift percentage; these factors are identified in the Shift Analysis Sheet."* Exhibit 12 contains the Shift Analysis Sheet. The applicant further states:

> *"ED visit shift percentages were calculated for Low, Medium, and High shifts per zip code based on NHRMC's experience in serving these zip codes and their proximity and access to the NHRMC FED. Zip codes within a 5-10 mile radius of the NHRMC FED were more highly projected to shift from NHRMC to NHRMC FED, due to proximity to more immediate care. Zip codes greater than 10 mile radius of the NHRMC FED were less likely projected to shift to the NHRMC FED. Please note that the ED visit "shifts" are based on visit projections that were previously being treated at NHRMC with the exception of those visits expressly identified as visit shifts from either Pender Memorial Hospital or Onslow Memorial Hospital.*
>
> - *Duplin County (Wallace, Cypress Creek) shift projection range from 10% to 20%. NHRMC also estimated a small amount of volume shift from Pender Memorial Hospital ranging from 0% to 10%.*
> - *New Hanover County (Ogden, Castle Hayne, Figure 8) shift projection range from 35% to 45% for Ogden and Castle Hayne zip codes and 60% to 90% for Figure 8 zip code.*
> - *Onslow County (Holly Ridge, Sneads Ferry, and West Jacksonville) shift estimates range from 40% to 60%. NHRMC also projected a small amount of volume shift from Onslow Memorial Hospital from both Holly Ridge and Sneads Ferry zip codes. These shift projections range from 5% to 15% for Holly Ridge and from 0% to 10% for Sneads Ferry.*
> - *Pender County (all zip codes) shift projections range from 5% to 15% for areas such as Atkinson, Currie, and Watha and from 20% to 50% for all remaining zip*

codes. NHRCM also projected visit shifts from Pender Memorial Hospital from areas such as Atkinson, Currie, Maple Hill, and Watha (5% to 15%), from Burgaw (10% to 25%), and from Rocky Point and Hampstead (25% to 45%). NHRMC also projected a small shift from Onslow Memorial Hospital from Maple Hill (5% to 15%) and Hampstead (35% to 65%).

The following tables summarize the ED visit shifts from NHRMC and Non-NHRMC ED visits that were calculated on the Shift analysis Sheets. Please refer to Exhibit 12 for the Shift Analysis Sheets."

NHRMC FED Visits from NHRMC Visits

County	***FY2016***	***FY2017***	***FY2018***
Duplin	*101*	*98*	*95*
New Hanover	*4,946*	*5,045*	*5,146*
Onslow	*1,265*	*1,336*	*1,411*
Pender	*4,404*	*4,605*	*4,814*
Total	***10,717***	***11,084***	***11,466***

Source: Shift Analysis Sheets

NHRMC FED Visits from Non-NHRMC Visits (Shift Analysis Sheet)

County	***FY2016***	***FY2017***	***FY2018***
Duplin	*58*	*56*	*54*
New Hanover			
Onslow	*234*	*247*	*261*
Pender	*2,514*	*2,628*	*2,748*
Total	***2,806***	***2,931***	***3,063***

Source: Shift Analysis Sheets

Step 6. NHRMC FED Effective Shift Percentage

On page 57, NHRMC calculates the effective shift percentage for each county for both NHRMC visits and Non-NHRMC visits. The following table shows the NHRMC effective shift percentage and is calculated by dividing the "NHRMC FED visits from NHRMC" projected in Step 5 by the NHRMC ED visits projected in Step 4.

NHRMC Effective Shift Percentage

County	FY2016	FY2017	FY2018
Duplin	8.4%	8.4%	8.5%
New Hanover	6.0%	6.0%	6.0%
Onslow	40.2%	40.2%	40.2%
Pender	33.5%	33.5%	33.5%

Source: Applicant: NHRMC FED Visits from NHRMC / NHRMC ED Visits

The following table shows the Non-NHRMC effective shift percentage and is calculated by dividing the NHRMC FED visits from Non-NHRMC visits projected in Step 5 by the service area ED visits projected in Step 1 minus the NHRMC ED visits projected in Step 4.

Non-NHRMC Effective Shift Percentage

County	FY2016	FY2017	FY2018
Duplin	0.3%	0.3%	0.3%
New Hanover	0.0%	0.0%	0.0%
Onslow	0.3%	0.3%	0.3%
Pender	17.9%	17.9%	17.9%

Source: Applicant: NHRMC FED Visits from NHRMC / NHRMC ED Visits

Step 7. Total NHRMC FED Visits

On page 58, NHRMC calculates the total NHRMC FED visits by adding the NHRMC ED visit shifts projected in Step 5 to the Non-NHRMC ED visit shifts also projected in Step 5.

Total NHRMC FED Visits

County	FY2016	FY2017	FY2018
Duplin	159	154	149
New Hanover	4,946	5,045	5,146
Onslow	1,499	1,583	1,672
Pender	6,918	7,233	7,562
Total	**13,523**	**14,015**	**14,528**

Source: Applicant: NHRMC ED Visit Shift + Non-NHRMC Visit Shift

Step 8. NHRMC ED Visits

On page 59, NHRMC calculates the NHRMC ED visits by subtracting the "NHRMC FED visits from NHRMC" projected in Step 5 from the NHRMC ED visits projected in Step 4. Other represents ED visits originating from outside of the 7-county service area and is projected to decrease from 9.7% in FY2012 to 8.7% in FY2016 and then remain constant through FY2018.

NHRMC Total Market Share of the 7-county Service Area ED Visits

County	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
Bladen	552	560	568	577	585	594	603
Brunswick	14,314	14,788	15,277	15,783	16,305	16,844	17,402
Columbus	3,671	3,742	3,815	3,889	3,964	4,041	4,119
Duplin	1,375	1,329	1,285	1,242	1,099	1,062	1,027
New Hanover	75,641	77,150	78,689	80,259	76,913	78,447	80,012
Onslow	2,526	2,668	2,818	2,976	1,879	1,984	2,096
Pender	11,017	11,518	12,042	12,590	8,758	9,157	9,573
Other	11,669	11,695	11,721	11,747	11,773	12,070	12,375
Total	**120,765**	**123,450**	**126,215**	**129,061**	**121,276**	**124,200**	**127,206**

Source: NHRMC ED visits – NHRMC FED visits from NHRMC

Step 9. NHRMC Total ED Visits

On page 60, the applicant states that total NHRMC ED visits for its three ED sites (NHRMC main campus, CFH and NHRMC FED) is calculated by adding the total NHRMC FED visits (visits from "NHRMC visits" and from "non-NHRMC visits" in Step 5) in Step 7 to the NHRMC ED visits calculated in Step 8, as shown below.

NHRMC Total ED Visits

County	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
Bladen	552	560	568	577	585	594	603
Brunswick	14,314	14,788	15,277	15,783	16,305	16,844	17,402
Columbus	3,671	3,742	3,815	3,889	3,964	4,041	4,119
Duplin	1,375	1,329	1,285	1,242	1,258	1,216	1,175
New Hanover	75,641	77,150	78,689	80,259	81,860	83,493	85,158
Onslow	2,526	2,668	2,818	2,976	3,378	3,568	3,768
Pender	11,017	11,518	12,042	12,590	15,676	16,389	17,135
Other	11,669	11,695	11,721	11,747	11,773	12,070	12,375
Total	**120,765**	**123,450**	**126,215**	**129,061**	**134,799**	**138,214**	**141,735**

Source: Total NHRMC FED visits + total NHRMC (NHRMC and CFH) ED visits

Step 10. NHRMC FED Ancillary Services

On page 61, the applicant states that NHRMC projects the number of ancillary services that will be generated by the NHRMC FED emergency visits by multiplying the projected NHRMC FED visits by an identified "ancillary service factor". This factor is based on NHRMC emergency services experience.

Step 11. Outpatient Imaging

On page 62, the applicant projects the number of outpatient imaging procedures by increasing or decreasing the 2012 PNI volumes by an identified 2-year growth rate change factor. Outpatient imaging includes mammography services, while the ED-based ancillary services do not.

As the final step in calculating the projected number of imaging services for NHRMC FED's first three operating years, the applicant adds the NHRMC FED imaging procedures in Step 10 to the outpatient imaging procedures calculated in Step 11.

On page 62, the applicant states, *"Please refer to Exhibit 12 for need methodology sources and worksheet."*

The applicant's projected ED visits and utilization of ancillary services at NHRMC FED, including CT, radiography, ultrasound, and mammography, as well as laboratory and pharmacy services is based on reasonable and supported assumptions. The freestanding ED will operate 24 hours per day / 7 days per week and provide emergency services. The proposed imaging, laboratory, and pharmacy services are necessary to support the emergency services to be provided. The applicant does not consider mammography services as emergent and offers those services 5 days per week for 8 hours per day. The applicant is relocating Porter's Neck Imaging and its imaging equipment (approximately 2 miles) to the proposed satellite ED. The applicant states that relocating the existing PNI imaging services is the most cost effective way to provide the necessary ED imaging services at NHRMC FED.

The applicant adequately demonstrates the need the population to be served at the satellite Emergency Department has for the proposed emergency services and ancillary services. The applicant also adequately demonstrates that the projected utilization for the proposed ED services is based on reasonable and supported assumptions. Therefore, the applicant adequately demonstrates the need to develop a satellite Emergency Department in New Hanover County. Furthermore, the applicant also adequately demonstrates the need to relocate its outpatient imaging services from PNI to the proposed satellite ED.

In summary, the applicant adequately identifies the population to be served and adequately demonstrates the need the population to be served has for the proposed satellite emergency department, including all necessary ancillary and support services. Therefore, the application is conforming to this criterion.

(3a) In the case of a reduction or elimination of a service, including the relocation of a facility or a service, the applicant shall demonstrate that the needs of the population presently served will be met adequately by the proposed relocation or by alternative arrangements, and the effect of the reduction, elimination or relocation of the service on the ability of low income persons, racial and ethnic minorities, women, handicapped persons, and other underserved groups and the elderly to obtain needed health care.

C

The applicant proposes to relocate existing outpatient imaging services, including CT, currently provided at Porter's Neck Imaging 2.1 miles north to the proposed satellite ED. In Section II.1(a), page 18, the applicant discusses the relocation of the CT, stating:

> *"Nationally, nearly one-third of all emergency department patients undergo a CT procedure and at NHRMC the most recent data shows that approximately 17.8 percent of Emergency Department patients discharged home receives a CT scan.*
>
> *CT can help diagnose head and spine injuries, lung and liver disease, cancer, tumors, blood clots, internal bleeding and a host of other diseases and injuries. The test is often used when fast diagnosis is critical. It can be lifesaving for auto accident victims and other emergency department patients."*

PNI outpatient imaging services will still be available 12 hours (8 hours for mammography) per day for scheduled outpatient services, while also being available to NHRMC FED patients 24/7.

NHRMC proposes no change in the patient origin for the outpatient imaging services and no change in the level of services that PNI currently provides to medically underserved populations. Projections use current charges, inflated forward, to project future patient charges.

The applicant adequately demonstrates that the needs of the population presently served will adequately be met following the relocation of outpatient imaging services from PNI to NHRMC FED. Therefore, the application is conforming to this criterion.

(4) Where alternative methods of meeting the needs for the proposed project exist, the applicant shall demonstrate that the least costly or most effective alternative has been proposed.

CA

In Section III.3, pages 38-40, the applicant discusses the alternatives considered prior to the submission of this application, which include:

1) Maintain the Status Quo – the applicant states that over the past 7 years, NHRMC has pursued non-construction alternatives to improve patient throughput and decrease volumes at the NHRMC emergency department, implementing the following techniques:

   - Engaging in "Lean" process improvement strategies to positively affect patient throughput and efficiencies. Projects have targeted reduction in wait times, improved resource management and communication with inpatient areas, all in an effort to expand capacity to meet growing volumes.

- Partnering with EMS to direct the intake of patients during times of day that a high frequency of arrivals impacts patient flow.
- Collaborating with NHRMC Urgent Care to identify ways to direct less acute patients to urgent care centers.
- Working with community partners and case management to reduce the number of unnecessary emergency department visits by frequent consumers.

The applicant states that these techniques have resulted in NHRMC being able to successfully treat over 120,000 patients in only 48 treatment rooms. The redirection of patients to CFH, urgent care centers and primary care physicians has increased capacity at NHRMC for more urgent and emergent patients. The applicant further states:

> *"NHRMC has determined that executing process initiatives solely without physically increasing the capacity of the NHRMC is not the best alternative to meeting future needs."*

2) Renovate and Expand the Existing NHRMC Emergency Department – the applicant states that this may be a *"very likely option in the future"* because the ED has not been renovated in over a decade and has seen visits grow by 82.8% from 66,056 in 2003 to 120,765 in 2012. The applicant states:

> *"Currently, this alternative is not effective, as it will be delayed by its analysis and the renovations/expansion, without additional Emergency Department capacity elsewhere in the county, will affect NHRMC existing capacity and thus its ability to serve Emergency Department patients."*

3) Construct NHRMC FED – the applicant states that the construction of the NHRMC FED will achieve an additional access point to emergency services in New Hanover County and decrease the impact of increased emergency service utilization at NHRMC and CFH.

In Section III.1(c), pages 31-35, the applicant discusses alternative locations and describes why the chosen location was determined to be the best location for the proposed facility. NHRMC and CFH (located 5 miles east of NHRMC) are located in central Wilmington. See map on page 32. The applicant considered locations in Wilmington and southern New Hanover County, northern New Hanover County and the proposed location in northeast New Hanover County. On page 33, the applicant states:

> *"Locating the NHRMC FED in Wilmington or in southern New Hanover County would continue to require patients to travel into the city. Additionally, New Hanover County is "shaped like a pie slice" and the southern portion of New Hanover County is located primarily by the beaches and contains fewer residents.*

Although NHRMC has a 24.6 percent market share of Emergency Department patients from Brunswick County, locating the NHRMC FED in southern New Hanover County would not make emergency services more available to Brunswick County residents as the only bridges over the Cape Fear River between Brunswick County and New Hanover County direct traffic either into downtown Wilmington, which is just north of NHRMC, or even farther north on Martin Luther King Highway. There is no direct access from Brunswick County into southern New Hanover County."

With respect to northern New Hanover, the applicant states:

"Although northern New Hanover County is a good alternative location for the NHRMC FED because of its proximity to Interstate 40, which would give easier access to some residents in New Hanover County and to a much larger area of Pender County, it is not NHRMC's intent to dramatically decrease the number of patients seeking care at Pender Memorial Hospital. Therefore, this location was felt to be subordinate to the proposed location."

With respect to northeast New Hanover County, on page 33, the applicant states,

"Locating the NHRMC FED in northeast New Hanover County allows for residents along the US Route 17 Corridor, as well as residents from northern New Hanover County because of their access to US Route 17, US Route 117 and Interstate 40 to have access to emergency services without having to travel into Wilmington traffic or wait for services at the highly utilized NHRMC main or Cape Fear Hospital campus.

This location will also have minimal impact on Pender Memorial Hospital and Onslow Memorial Hospital [sic]

Finally, this location allows NHRMC to consolidate its outpatient imaging services at Porter's Neck Imaging with the NHRMC FED, which will be 2 miles to the north of Porter's Neck Imaging. If NHRMC decided on another location, the relocation of Porter's Neck Imaging equipment may not have been feasible given its established location. As a result the NHRMC FED would need to acquire new imaging equipment which would add additional capital costs to the project."

Thus, after considering multiple locations in Wilmington, southern New Hanover and northern New Hanover, the applicant determined the northeast New Hanover County location was the best location for the NHRMC FED because:

- NHRMC and CFH are located in central Wilmington and locating additional emergency services there or in southern New Hanover County would not make emergency services more available to Brunswick County residents or southern New Hanover residents because of highway access.

- Locating the facility in northern New Hanover County is a good alternative because of its proximity to Interstate 40, which would give easier access to some residents in New Hanover County and to a much larger area of Pender County. However, the applicant states, *"… it is not NHRMC's intent to dramatically decrease the number of patients seeking care at Pender Memorial Hospital. Therefore, this location was felt to be subordinate to the proposed location."*
- The northeast New Hanover location allows residents along the US Route 17 Corridor and residents with access to US Route 17, 117, and Interstate 40 to have access to emergency services without having to travel into Wilmington traffic or wait for services at the highly utilized NHRMC main or CFH campuses. The applicant states, *"This location will also have minimal impact on Pender Memorial Hospital and Onslow Memorial Hospital."*

The applicant adequately demonstrates that the proposed alternative is the most effective or least costly alternative for the following reasons:

- NHRMC FED increases the number of and geographic location of access points to emergency services in New Hanover County by providing a readily accessible location,
- NHRMC FED helps to decompress the existing trauma center sites and meet the community's demand for emergency services closer to where they live,
- The expected regional growth and planned expansion of Camp Lejeune and the additional families can be accommodated,
- The expected retirement center growth of more frail and aged residents in the proposed area can be accommodated,
- Existing imaging equipment necessary for the provision of effective emergency services can easily be relocated for efficient use of available equipment, and
- NHRMC FED will provide emergency care to patients more efficiently and effectively, as demonstrated by faster door to physician times, decreased left-without-being-seen patients, and higher patient satisfaction scores, based on the success of other freestanding EDs elsewhere in North Carolina and nationally.

Furthermore, the application is conforming to all other statutory and regulatory review criteria, and thus, is approvable. A project that cannot be approved cannot be an effective alternative.

In summary, the applicant adequately demonstrates that its proposal is the least costly or most effective alternative to meet the need. Therefore, the application is conforming to this criterion and approved subject to the following conditions.

1. **New Hanover Regional Medical Center shall materially comply with all representations made in the certificate of need application.**

2. **New Hanover Regional Medical Center shall not acquire, as part of this project, any equipment that is not included in the project's proposed capital**

expenditure in Section VIII of the application or that would otherwise require a certificate of need.

3. **New Hanover Regional Medical Center shall develop and implement an Energy Efficiency and Sustainability Plan for the project that conforms to or exceeds energy efficiency and water conservation standards incorporated in the latest editions of the North Carolina State Building codes. The plan must be consistent with the applicant's representations in the written statement as described in paragraph one of Policy GEN-4.**

4. **New Hanover Regional Medical Center shall acknowledge acceptance of and agree to comply with all conditions stated herein to the Certificate of Need Section in writing prior to issuance of the certificate of need.**

(5) Financial and operational projections for the project shall demonstrate the availability of funds for capital and operating needs as well as the immediate and long-term financial feasibility of the proposal, based upon reasonable projections of the costs of and charges for providing health services by the person proposing the service.

C

In Section VIII.1, page 93, the applicant projects that the total capital cost of the project will be $15,142,616 as shown in the table below.

Project Capital Costs

Site Costs	$ 2,383,129
Construction Contract	$ 10,123,842
Equipment/Furniture	$ 1,020,645
Architect & Engineering Fees	$ 1,100,000
Other	$ 515,000
Total Capital Cost	**$ 15,142,616**

Exhibit 25 contains a letter from the architect which states that total estimated construction costs are $12,506,971 and soft costs are $2,635,645, which is consistent with the information in Section VIII.

In Section IX.1-3, page 97, the applicant states start-up and initial operating expenses required for the project will total $312,647 and that the source of the working capital will be $312,647 from NHRMC accumulated reserves.

Exhibit 22 contains a letter from the Executive Vice President/CFO of New Hanover Regional Medical Center which states NHRMC will obligate and commit $15.2 million for developing the satellite ED, and $500,000 for funding start-up and initial operating expenses for the project. The letter confirms NHRMC's intent to fund the project through accumulated reserves.

Exhibit 23 contains the financial statements for NHRMC for the years ending September 30, 2012 and 2011. As of September 30, 2012, NHRMC had over $15 million in cash and cash equivalents, total current assets of over $176 million and $285 million in noncurrent cash and investments designated for capital improvements.

The applicant provided pro forma financial statements for the first three years of the project. In Form C, page 0113, the applicant projects revenues will exceed operating expenses in each of the first three operating years of the project, as illustrated in the table below.

NHRMC FED	Project Year 1	Project Year 2	Project Year 3
Projected # of :			
IP ED Visits	920	953	988
OP ED Visits	12,603	13,062	13,540
Total ED Visits	13,523	14,015	14,528
Outpatient Imaging Procedures	14,646	15,730	16,946
Total NHRMC FED Service Units	28,169	29,745	31,474
Projected Average Charge / ED IP	$ 3,231	$ 3,361	$ 3,495
Projected Average Charge / ED IP with DRG Hospital Billing (30.6% of set charge)	$ 988	$ 1,028	$ 1,069
Projected Average Charge / ED OP	$ 2,036	$ 2,117	$ 2,202
Projected Average Charge / OP Imaging	$ 568	$ 596	$ 625
Projected Average Charge / FED Service Unit	$ 1,239	$ 1,278	$ 1,317
Gross Patient Revenue ED IP (DRG billing)	$ 909,268	$ 980,044	$ 1,056,554
Gross Patient Revenue ED OP	$25,657,942	$ 27,655,099	$29,814,071
Gross Patient Revenue OP Imaging	$ 8,321,485	$ 9,376,481	$10,588,792
Total Gross Patient Revenue	$34,888,695	$ 38,011,623	$41,459,416
Deductions from Gross Patient Revenue	$26,476,293	$ 28,808,106	$31,376,642
Net Patient Revenue	$ 8,412,402	$ 9,203,517	$10,082,774
Total Expenses	$ 8,288,814	$ 8,520,302	$ 8,759,790
Net Income	$ 123,588	$ 683,215	$ 1,322,985

The applicant also projects a positive net income for the entire facility in each of the first three operating years of the project. The assumptions used by the applicant in preparation of the pro forma financial statements are reasonable, including projected utilization, costs and charges. See Tab 13 for the assumptions regarding costs and charges. A detailed analysis of the pro forma financial statements revealed that the figure representing totals on the Gross Revenue column of the Form D – Gross Revenue Work Sheet for NHRMC FED Emergency Services – IP (page 0114) were not the sums of the column. The sum of the payor revenue listed, which is 30.6% of the total for each of the three years, represents the charge allowed at the satellite ED when the patient is transferred and admitted as a hospital inpatient and the DRG billing takes precedence.

The applicant assumes overhead expense will be 90% of total direct expenses, 41% of total expenses and $113 to $120 per square foot in years 1 through 3, respectively, at the proposed freestanding ED in each of the project years. In Section II.1(a), page 16, the applicant states,

"NHRMC has included over $3.0 million per year in the pro forma financial statements under the line items "Overhead" to account for miscellaneous non-revenue and ancillary support."

Furthermore, the NHRMC FED pro forma financial statements do not include Lab and Pharmacy services revenue provided at the proposed emergency department. Thus, salaries for pharmacy and laboratory technicians which are included in the salary expense line in the pro forma financial statements are not offset by any revenue. See Criterion (3) for discussion regarding projected utilization which is incorporated hereby as if fully set forth herein.

In summary, the applicant adequately demonstrates that the financial feasibility of the proposal is based upon reasonable projections of costs and revenues. Consequently, the application is conforming to this criterion.

(6) The applicant shall demonstrate that the proposed project will not result in unnecessary duplication of existing or approved health service capabilities or facilities.

C

The applicant adequately demonstrates that the proposal will not result in the unnecessary duplication of existing or approved health service capabilities for the following reasons.

First, the only existing or approved emergency departments located in New Hanover are the NHRMC main campus ED and CFH ED, both in downtown Wilmington in central New Hanover County.

Second, the applicant states that NHRMC Emergency Department (including NHRMC and Cape Fear Hospital (CFH) volumes) is operating at over 139.8 % of the recommended emergency department capacity [(120,765 visits / (48 rooms x 1,800 visits)) X 100 = 139.8%]. The applicant proposes to physically expand the existing NHRMC Emergency Department by developing a satellite location in northeast New Hanover County to accommodate a portion of the current and projected demand for emergency services in New Hanover County. From 2003 to 2012, emergency department visits at New Hanover grew from 60,000 to 120,000, an average annual rate of 8%. The NHRMC Emergency Department, including CFH, currently has 48 treatment rooms. With the addition of 10 new treatment rooms at the proposed NHRMC FED, NHRMC proposes a total of 58 treatment rooms to address the projected demand for emergency services. See Criterion (3) for discussion of historical and projected utilization.

Third, most of the patients NHRMC FED proposes to serve are not currently served by other providers. Rather, the population proposed to be served at NHRMC FED is primarily the same population that is currently utilizing the NHRMC Emergency Department and Porter's Neck Imaging. It is reasonable to expect that patients who live in the areas who already travel to the emergency department at NHRMC will choose to seek care at NHRMC FED because it will be closer to where they live.

Fourth, the applicant adequately demonstrates the need to provide ancillary and support services on site by relocating Porter's Neck Imaging and its CT, ultrasound, and radiography services. The applicant adequately demonstrates that the proposed project will not unnecessarily duplicate the existing services in the area. See Criterion (3) for additional discussion on the relocation of PNI, which is incorporated hereby as if set forth fully herein.

Therefore, the application is conforming to this criterion.

(7) The applicant shall show evidence of the availability of resources, including health manpower and management personnel, for the provision of the services proposed to be provided.

C

In Section VII.1, pages 82-84, the applicant provides the current and projected staffing for NHRMC in total, including the NHRMC main campus, CFH and NHRMC FED, as shown in the table below:

NHRMC Emergency Department
Full-Time Equivalent (FTE) Positions

Position	Current – FY2013	Projected – 2016
	NHRMC Emergency Department FTEs (NHRMC and CFH)	NHRMC Emergency Department FTEs (NHRMC, CFH, and NHRMC FED)
Nurse Managers	15.19	16.19
RNS	89.80	102.80
Technicians	39.90	46.35
Clerical	14.20	18.40
Support	17.28	19.28
Total	**176.37**	**203.02**

On page 83, the applicant provides projected staffing for NHRMC FED only, as shown in the table below:

NHRMC FED
# of FTEs

Position	Projected FY2016-FY2018
Nursing	
Managers	1.00
RNS	13.00
Technicians	6.45
Clerical	4.20
Admin Assistant	1.00
Pharmacy	
Pharmacist	2.10
Pharmacy Technician	1.40
Laboratory	
Technicians	5.50
Radiology	
CT/X-ray Technician	5.70
Mammographer	1.00
Ultrasound Technician	1.00
Patient Access Technician	3.00
Site Coordinator	1.00
Support	
Environmental Technician	2.00
Total	**48.35**

As shown in the table above, NHRMC FED projects to employ a total of 48.35 FTE positions at the proposed ED satellite in each of its first three years of operation. In Section VII.3(a), the applicant states that all FTE positions, identified in the table above, are new positions resulting from the proposed project. In Section VII.3(b), page 86, the applicant states that NHRMC does not anticipate any problems recruiting staff for the proposed project. In Section VII.7(a), page 88, the applicant states, *"Twenty-eight (28) fulltime Emergency Medicine, fellowship-trained, physicians will staff the NHRMC FED."*

Exhibit 15 contains a letter from the Chairman of NHRMC's Department of Emergency Medicine supporting the proposed project and expressing willingness to continue as the Chairman of the Department at NHRMC. NHRMC's Provider Manpower Development Plan, October 1, 2012 to September 30, 2015, documenting NHRMC's commitment to maintaining adequate physician manpower is in Exhibit 19. Exhibit 20 contains a policy on physician privileges and a letter from the Chairman of NHRMC's Department of Emergency Medicine, documenting that physicians granted privileges to practice in the NHRMC FED will be active members in good standing at NHRMC.

The applicant demonstrates the availability of adequate health manpower and management personnel for the provision of the proposed services. Therefore, the application is conforming to this criterion.

(8) The applicant shall demonstrate that the provider of the proposed services will make available, or otherwise make arrangements for, the provision of the necessary ancillary and support services. The applicant shall also demonstrate that the proposed service will be coordinated with the existing health care system.

C

The satellite emergency department will be an expansion of NHRMC's existing emergency department, operate as an outpatient department of NHRMC and be referred to as NHRMC FED.

NHRMC FED services will include:

- Emergency Services
  - 1 triage room
  - 10 treatment spaces to include:
    - 9 treatment rooms
    - 1 trauma room

- Imaging Services
  - 1 CT scanner
  - 1 fixed general radiography unity
  - 1 mobile general radiography unit
  - 1 mammography unit
  - 1 bone density unit
  - 1 ultrasound unit
  - Picture Archiving and Communications System (PACS)
  - Mobile technology pad to accommodate mobile diagnostic equipment

- Lab Services - onsite
  - Clinical laboratory with phlebotomy
  - 24/7 major chemistry and blood bank

- Pharmacy Services
  - Pharmaceuticals needed during treatment
  - Prescriptions for discharged patients

- Material Management Services
  - Received from NHRMC on an as needed basis
  - Delivered directly from the vendor to NHRMC FED

- Support Services
  - NHRMC FED on-site services
    - Guest services
    - Finance/registration

- Administration

- NHRMC support services
  - Bio Medical
  - Facility services
  - Housekeeping
  - Risk management
  - Supply
  - Food and nutrition services
  - Case management

In Section II.1, page 16, the applicant states:

> *"NHRMC has included over $3 million per year in the pro forma financial statements under the line items "Overhead" to account for miscellaneous non-revenue and ancillary support."*

Exhibit 6 contains a letter from NHRMC President and CEO, documenting that ancillary and support services for NHRMC FED will be provided through NHRMC.

In Section V.2(a), page 65, the applicant states that NHRMC has long standing transfer agreements currently in place with many health care providers in North and South Carolina. The applicant further states that NHRMC expects these arrangements to continue into the foreseeable future. In Section VI.9, page 76, the applicant states:

> *"NHRMC, as a member of the Coastal Carolinas Health Alliance, receives patient referrals from member hospitals for advanced medical therapies. NHRMC is also a referral center for patients initially treated at Grand Strand Medical Center in Myrtle Beach, SC.*
>
> *Hospitals*
> - *Cape Fear Hospital*
> - *Vidant Duplin Hospital*
> - *Onslow Memorial Hospital*
> - *Sampson Regional Medical Center*
> - *Pender Memorial Hospital*
> - *Dosher Memorial Hospital*
> - *Brunswick Community Hospital*
> - *Columbus Rregional Healthcare System*
> - *Bladen County Hospital*
>
> …
>
> *NHRMC has long established working arrangements with the hospitals previously identified. These arrangements whether written or verbal were key in the development of Coastal Carolinas Health Alliance."*

Exhibit 14 contains an example of a transfer agreement. Exhibit 15 contains a letter of support for the proposed project from NHRMC's Chairman of the Department of Emergency Medicine. Other physician support letters are included in Exhibit 26.

The applicant adequately demonstrates that the necessary ancillary and support services will be available and that the proposed project will be coordinated with the existing health care system. Therefore, the application is conforming to this criterion.

(9) An applicant proposing to provide a substantial portion of the project's services to individuals not residing in the health service area in which the project is located, or in adjacent health service areas, shall document the special needs and circumstances that warrant service to these individuals.

NA

(10) When applicable, the applicant shall show that the special needs of health maintenance organizations will be fulfilled by the project. Specifically, the applicant shall show that the project accommodates: (a) The needs of enrolled members and reasonably anticipated new members of the HMO for the health service to be provided by the organization; and (b) The availability of new health services from non-HMO providers or other HMOs in a reasonable and cost-effective manner which is consistent with the basic method of operation of the HMO. In assessing the availability of these health services from these providers, the applicant shall consider only whether the services from these providers: (i) would be available under a contract of at least 5 years duration; (ii) would be available and conveniently accessible through physicians and other health professionals associated with the HMO; (iii) would cost no more than if the services were provided by the HMO; and (iv)would be available in a manner which is administratively feasible to the HMO.

NA

(11) Repealed effective July 1, 1987.

(12) Applications involving construction shall demonstrate that the cost, design, and means of construction proposed represent the most reasonable alternative, and that the construction project will not unduly increase the costs of providing health services by the person proposing the construction project or the costs and charges to the public of providing health services by other persons, and that applicable energy saving features have been incorporated into the construction plans.

C

The applicant proposes to expand the NHRMC Emergency Department by constructing a 29,900 square foot satellite emergency department in northeast New Hanover County to improve access to ED services in New Hanover County and to decrease stress on the Wilmington campuses of NHRMC and CFH. NHRMC is operating over its physical capacity and cannot be cost-effectively and expediently expanded at this time. See Sections III.1, pages 26 and 35, and III.3, pages 38-40. See also Criterion (3) for additional discussion on need which is hereby incorporated as if set forth fully herein. In Section XI.4, page 105, the applicant provides a breakdown of the square footage, as shown in the following table:

Department/Section	Square Feet
Emergency	7,773
Imaging	3,646
Laboratory	892
Pharmacy	621
Administrative	5,074
Mechanical	1,362
Support	2,088
Gross Factor SF	8,444
Total	**29,900**

The proposed facility includes:

- 1 Triage room
- 10 treatment rooms (9 general purpose treatment rooms and 1 trauma room)
- 1 CT scanner
- 1 fixed general radiography unit
- 1 mobile general radiography unit
- 1 mammography unit
- 1 bone density unit
- 1 ultrasound unit

Radiologists will interpret from NHRMC using PACS connectivity. A mobile pad to accommodate future mobile diagnostic equipment will also be constructed. Additionally, NHRMC Emergency Medical Services may operate out of the proposed facility. The proposed facility includes the radiology suite, 2 observation rooms, a consult room, 3 offices, a pharmacy work area, laboratory and an EMS lounge. The proposed square footage appears reasonable for the scope of the proposed project. Furthermore, there are no standards in the Certificate of Need Law or Rules regarding the minimum or maximum square footage of a satellite Emergency Department. See Exhibit 5 for design schematics of the proposed facility.

In Section XI.7, page 108, the applicant describes the methods that will be used to maintain efficient energy operations and contain utility costs. The applicant states,

> *"NHRMC has designed the proposed project to be in compliance with all applicable federal, state, and local requirements for energy efficiency and consumption. The NHRMC FED facility will be operated by computerized energy and building management systems designed for the most effective and efficient operations.*
>
> *Water Conservation*
>
> - *Water reduction will be achieved by utilizing 1.6 gallons per flush water closets, pint flush urinals and metering faucets in the public restrooms.*
> - *The NHRMC FED will incorporate minimum of 13 EER* [sic] air conditioners and 96% efficient condensing gas water heaters.
>
> *Energy Efficiency*
>
> - *The MHRMC FED will meet the new energy code and utilize* [sic] *air side economizers will be used in areas not affected by pressure changes, IT rooms will be cooled with 14 SEER split system air conditioners, interior lighting will utilize energy efficient T-8 lamps, and many spaces will be provided with occupancy sensors. Motors used in plumbing, HVAC and electrical will be energy efficient models.*
> - *The exterior wall assembly incorporates high R-value continuous insulation and an integral air barrier. These systems reduce energy costs by eliminating thermal breaks and reducing air infiltration through the wall assembly.*
> - *The NHRMC FED is oriented on the site to minimize exterior wall and window exposure on the east and west sides of the building because heat gain is most difficult to control on these sides. Exposure to southern sun is less intense and easier to control.*
> - *The NHRMC FED will utilize a light colored, highly reflected roof membrane to reflect sunlight and minimize heat gain through the roof assembly."*

Exhibit 11 contains a copy of the "New Hanover Regional Medical Center Free Standing ED Pre-Design MEP Narrative" which outlines expectations for the project's mechanical, electrical and plumbing systems.

The applicant adequately demonstrates that the cost, design, and means of construction represent the most reasonable alternative for the project as proposed and that the construction project will not unduly increase the costs and charges of providing health services. See Criterion (5) for discussion of costs and charges, which is incorporated hereby as if set forth fully herein. Therefore, the application is conforming to this criterion.

(13) The applicant shall demonstrate the contribution of the proposed service in meeting the health-related needs of the elderly and of members of medically underserved groups, such as medically indigent or low income persons, Medicaid and Medicare recipients, racial and

ethnic minorities, women, and handicapped persons, which have traditionally experienced difficulties in obtaining equal access to the proposed services, particularly those needs identified in the State Health Plan as deserving of priority. For the purpose of determining the extent to which the proposed service will be accessible, the applicant shall show:

(a) The extent to which medically underserved populations currently use the applicant's existing services in comparison to the percentage of the population in the applicant's service area which is medically underserved;

C

In Sections VI.12 and 13, pages 77-78, the applicant provides NHRMC's payor mix for the entire facility, the ED (IP and OP) and outpatient imaging services, as shown in the following tables.

NHRMC Faciltiy Payor Mix Current Patient Days / Procedures as Percent of Total Utilization FY2012	
Self Pay/Indigent/Charity	4.8%
Medicare/Medicare Managed Care	51.9%
Medicaid	18.3%
Commercial Insurance	17.4%
Managed Care	1.2%
Other	6.4%
TOTAL	100.0%

NHRMC ED (IP) Payor Mix Current Patient Days / Procedures as Percent of Total Utilization FY2012	
Self Pay/Indigent/Charity	10.5%
Medicare/Medicare Managed Care	58.3%
Medicaid	11.1%
Commercial Insurance	15.8%
Managed Care	1.1%
Other	3.2%
TOTAL	100.0%

NHRMC ED (OP) Payor Mix Current Patient Days / Procedures as Percent of Total Utilization FY2012	
Self Pay/Indigent/Charity	29.2%
Medicare/Medicare Managed Care	18.1%
Medicaid	23.5%
Commercial Insurance	24.2%
Managed Care	2.3%
Other	2.7%
TOTAL	100.0%

NHRMC Imaging (OP) Payor Mix Current Patient Days / Procedures as Percent of Total Utilization FY2012	
Self Pay/Indigent/Charity	2.6%
Medicare/Medicare Managed Care	34.4%
Medicaid	3.8%
Commercial Insurance	53.0%
Managed Care	5.0%
Other	1.2%
TOTAL	100.0%

In Section VI.16, page 81, the applicant provides NHRMC's FY2012 Unreimbursed Medicaid costs and unreimbursed charity care costs as $32,686,332 or 5.56% of total costs and $14,090,488 or 2.39%, respectively.

The Division of Medical Assistance (DMA) maintains a website which offers information regarding the number of persons eligible for Medicaid assistance and estimates of the percentage of uninsured for each county in North Carolina. The following table illustrates those percentages for NHRMC's service area and statewide.

	2010 Total # of Medicaid Eligibles as % of Total Population *	**2010 Total # of Medicaid Eligibles Age 21 and older as % of Total Population ***	**2008-09 % Uninsured (Estimate by Cecil G. Sheps Center) ***
Duplin County	20%	7.6%	24.6%
New Hanover County	13%	5.7%	20.4%
Onslow County	11%	4.2%	23.4%
Pender County	17%	7.4%	21.0%
Statewide	17%	6.7%	19.7%

* More current data, particularly with regard to the estimated uninsured percentages, was not available.

The majority of Medicaid eligibles are children under the age of 21. Moreover, the number of persons eligible for Medicaid assistance may be greater than the number of Medicaid eligibles who actually utilize health services. The DMA website includes information regarding dental services which illustrates this point. For dental services only, DMA provides a comparison of the number of persons eligible for dental services with the number actually receiving services. The statewide percentage of persons eligible to receive dental services who actually received dental services was 48.6% for those age 20 and younger and 31.6% for those age 21 and older. Similar information is not provided on the website for other types of services covered by Medicaid. However, it is reasonable to assume that the percentage of those actually receiving other types of health services covered by Medicaid is less than the percentage that is eligible for those services.

The Office of State Budget & Management (OSBM) maintains a website which provides historical and projected population data for each county in North Carolina. In addition, data is available by age, race or gender. However, a direct comparison to the applicant's current payor mix would be of little value. The population data by age, race or gender does not include information on the number of elderly, minorities or women utilizing health services. Furthermore, OSBM's website does not include information on the number of handicapped persons.

The applicant demonstrates that medically underserved populations have adequate access to existing services; therefore, the application is conforming to this criterion.

(b) Its past performance in meeting its obligation, if any, under any applicable regulations requiring provision of uncompensated care, community service, or access by minorities and handicapped persons to programs receiving federal assistance, including the existence of any civil rights access complaints against the applicant;

C

Recipients of Hill-Burton funds were required to provide uncompensated care, community service and access by minorities and handicapped persons. In Section VI.11, page 77, the applicant states:

> *"NHRMC fulfilled its Hill-Burton obligation and does not have any related obligation under any applicable federal regulations to provide uncompensated care, community service, or access by minorities and the handicapped. As a 501(c)(3) tax-exempt entity, NHRMC is a charity organization that promotes the health of the community. Accordingly, charity care is provided. However, there are no federal regulations per se applicable that requires the provision of uncompensated care. Nevertheless, NHRMC-affiliated entities strive to provide services to all persons in need of health care services, regardless of their ability to pay. Please refer to Exhibit 17 for a copy of NHRMC community health initiatives."*

In Section VI.10, page 77, the applicant states that it is not aware of any documented civil rights equal access complaints or violations filed against NHRMC in the last five years. The application is conforming to this criterion.

(c) That the elderly and the medically underserved groups identified in this subdivision will be served by the applicant's proposed services and the extent to which each of these groups is expected to utilize the proposed services; and

C

In Section VI.15, pages 80-81, the applicant provides the projected payor mix for NHRMC FED during FY2016, the first full fiscal year of operation, as shown in the following tables:

NHRMC FED (ED-IP) Payor Mix Current Patient Days / Procedures as Percent of Total Utilization FY2016	
Self Pay/Indigent/Charity	10.5%
Medicare/Medicare Managed Care	58.3%
Medicaid	11.1%
Commercial Insurance	15.8%
Managed Care	1.1%
Other	3.2%
TOTAL	100.0%

NHRMC FED (ED-OP) Payor Mix Current Patient Days / Procedures as Percent of Total Utilization FY2016	
Self Pay/Indigent/Charity	29.2%
Medicare/Medicare Managed Care	18.1%
Medicaid	23.5%
Commercial Insurance	24.2%
Managed Care	2.3%
Other	2.7%
TOTAL	100.0%

NHRMC FED Imaging (OP) Payor Mix Current Patient Days / Procedures as Percent of Total Utilization FY2016	
Self Pay/Indigent/Charity	2.6%
Medicare/Medicare Managed Care	34.4%
Medicaid	3.8%
Commercial Insurance	53.0%
Managed Care	5.0%
Other	1.2%
TOTAL	100.0%

On page 81, the applicant states, *"NHRMC assumes no change in payer mix."* The tables provided by the applicant in Section VI and above are dated for the first full year of operation after project completion; but, based on applicant statements and on the pro forma worksheets, the projected payor mix remains the same for the first three years of operation and the tables could have been labeled FY2017, the second full fiscal year of operation, as requested in the rule. The pro forma worksheets present a differing projected payor mix for NHRMC FED Emergency Services–IP on page 0114 than that presented in Section VI.15, page 80 for NHRMC FED (IP), as compared below.

Emergency Services-IP NHRMC FED (ED-IP)	Pro Forma Page 0114	Section VI.15 Page 80
Self Pay/Indigent/Charity	10.5%	10.5%
Medicare/Medicare Managed Care	0.0%	58.3%
Medicaid	0.0%	11.1%
Commercial Insurance	15.8%	15.8%
Managed Care	1.1%	1.1%
Other	3.2%	3.2%
TOTAL	30.6%	100.0%

As clarified by the applicant, the pro forma payor percentages as shown above and on page 0114 of the exhibits reflect the DRG billing process for patients who present at the ED but are transferred to the hospital and become hospital inpatients. The Medicare and Medicaid payor mix for the ED patient who becomes a hospital inpatient (ED-IP) is identified as 0.0% in the pro forma because no Medicare/Medicaid gross revenue and reimbursement related to emergency services is proposed. The gross revenue and reimbursement for Medicare/Medicaid ED patients who become inpatients is through the inpatient admission DRG code and is not included in the gross revenue or net revenue of the satellite emergency department.

In Section VI.2, pages 72-73, the applicant states,

"Services at the NHRMC FED will be available to all persons without regard to income, race, age, color, creed, religion, national origin, disability or level of care required.

…

As part of its charitable mission, NHRMC and its entities are committed to providing medically necessary healthcare services to the community for low income persons, both uninsured and under-insured who meet specific criteria.

…

NHRMC currently participates in the Medicare program and provides care to the elderly.

…

NHRMC is accessible to the underserved and medically indigent persons.

…

NHRMC will continue to make its facility available to all in need of medical care, without discrimination."

The applicant demonstrates that medically underserved populations will have adequate access to NHRMC FED. Therefore, the application is conforming to this criterion.

(d) That the applicant offers a range of means by which a person will have access to its services. Examples of a range of means are outpatient services, admission by house staff, and admission by personal physicians.

C

In Section VI.9(a), page 76, the applicant describes the range of means by which a person will have access to the proposed services, stating,

"Access to emergency services is primarily by self-referral and any patient who presents themselves at the Emergency Department will be triaged, given a medical screening examination, and stabilized or transferred as needed. Access to the radiography equipment located in the NHRMC FED is by physician's order."

The information provided in the application is reasonable and credible and supports a finding of conformity with this criterion.

(14) The applicant shall demonstrate that the proposed health services accommodate the clinical needs of health professional training programs in the area, as applicable.

C

In Section V.1(a), page 64, the applicant states, "*NHRMC is committed to collaborative relationships with local and regional health professional training programs. NHRMC currently has agreements with over 110 health professional training programs."* A list of the professional training programs is included in Exhibit 13. Exhibit 13 also contains an example of NHRMC's training agreements. The information provided in the application is reasonable and credible and supports a finding of conformity with this criterion.

(15) Repealed effective July 1, 1987.
(16) Repealed effective July 1, 1987.
(17) Repealed effective July 1, 1987.
(18) Repealed effective July 1, 1987.

(18a) The applicant shall demonstrate the expected effects of the proposed services on competition in the proposed service area, including how any enhanced competition will have a positive impact upon the cost effectiveness, quality, and access to the services proposed; and in the case of applications for services where competition between providers will not have a favorable impact on cost-effectiveness, quality, and access to the services proposed, the applicant shall demonstrate that its application is for a service on which competition will not have a favorable impact.

C

NHRMC proposes to develop a satellite emergency department in northeast New Hanover County. The proposed facility will be an expansion of NHRMC's existing emergency department, and will operate as a department of NHRMC. As part of this project, NHRMC will relocate Porter's Neck Imaging, a NHRMC outpatient department with a CT scanner, to the satellite ED location.

The following table describes the existing approved ED services in the proposed service area.

Facility	County	ED Treatment Rooms	FY2012 Volume
Pender Memorial Hospital	Pender	9	15,270
NHRMC (includes CFH)	New Hanover	48	120,765
Onslow Memorial Hospital	Onslow	43	63,772
Duplin Memorial Hospital	Duplin	9	19,549

Source: Applicant: 2013 Hospital License Renewal Applications

In Section III.6, page 46, the applicant states,

"This proposed project is not associated with an inadequacy or inability of an existing provider to provide Emergency Services. This project is based on NHRMC's Emergency Department growth and the need to improve emergency services available in New Hanover County, specifically in northeast New Hanover.

…

It is NHRMC's desire to decrease the number of Emergency Department visits originating from the proposed service area that travel to NHRMC for emergency services."

In Section V.7, page 70, the applicant discusses the impact of the proposed project on competition in the service area as it relates to promoting cost-effectiveness, quality and access. The applicant states:

"The proposed project will result in emergency services located much closer and more convenient to area residents in northeast New Hanover County, as well as southern Pender County. Existing outpatient imaging services can be accessed just 2.1 miles north of their previous location. In addition, the imaging services will provide coverage to the NHRMC FED patients. Thus, the location saves time for the patients and their families who do not have to travel into Wilmington for emergency services.

…

The proposed alternative minimizes capital expenditures as compared to other proposed freestanding emergency departments in North Carolina. Because the NHRMC FED will be located next to outpatient imaging, the proposal takes advantages of economies of scale and possible staff cross-coverage opportunities, thereby minimizing the operating expenses associated with the facility."

The applicant states that several features in the proposal will improve the quality of emergency services for area residents, including locating the resuscitation room close to the reception area where walk-in patients present rather than by the ambulance entry. The applicant further states,

"The rationale is that EMS destination protocols will direct them to transport more critical patients directly to hospitals that provide full service and should not require expeditious rooming. The more acute patients presenting to freestanding Emergency Departments are those who enter the system by their own choice, and therefore, will come to the receptions area. The resuscitation room should be in close proximity to this intake area. This feature is critical to the patient's experience of satisfaction and quality of care."

See also Sections II, III, V, VI and VII where the applicant discusses the impact of the project on cost-effectiveness, quality and access.

The information provided by the applicant in those sections is reasonable and credible and adequately demonstrates that the expected effects of the proposal on competition in the service area include a positive impact on cost-effectiveness, quality and access to the proposed services. This determination is based on the information in the application and the following analysis:

- The applicant adequately demonstrates the need to establish additional emergency services capacity in New Hanover County and that creating a satellite ED is a cost-effective alternative;
- The applicant adequately demonstrates the need to relocate existing imaging equipment to NHRMC FED and that the relocation of existing imaging equipment necessary for the provision of emergency services is a cost-effective alternative;
- the applicant adequately demonstrates that it will continue to provide quality services; and
- the applicant demonstrates that it will continue to provide adequate access to medically underserved populations.

Therefore, the application is conforming to this criterion.

(19) Repealed effective July 1, 1987.

(20) An applicant already involved in the provision of health services shall provide evidence that quality care has been provided in the past.

C

NHRMC is accredited by the Joint Commission and certified for Medicare and Medicaid participation. According to the files in the Acute and Home Care Licensure and Certification Section, DHSR, no incidents occurred at NHRMC, within the eighteen months immediately preceding the date of this decision, for which any sanctions or penalties related to quality of care were imposed by the State. Therefore, the application is conforming to this criterion.

(21) Repealed effective July 1, 1987.

(b) The Department is authorized to adopt rules for the review of particular types of applications that will be used in addition to those criteria outlined in subsection (a) of this section and may vary according to the purpose for which a particular review is being conducted or the type of health service reviewed. No such rule adopted by the Department shall require an academic medical center teaching hospital, as defined by the State Medical Facilities Plan, to demonstrate that any facility or service at another hospital is being appropriately utilized in order for that academic medical center teaching hospital to be approved for the issuance of a certificate of need to develop any similar facility or service.

NA

NHRMC proposes to establish a freestanding satellite Emergency Department in northeast New Hanover County, to be operated as a NHRMC hospital department. As part of the project, the applicant will relocate an existing outpatient imaging department, PNI, and its imaging equipment, including a CT scanner. This proposal will not result in the offering of new services or an increase in the number of CT scanners in the proposed service area. Therefore, there are no Criteria and Standards applicable to this review.