**Comments in Opposition from Cape Fear Valley Health System, Inc.
Regarding FirstHealth of the Carolinas, Inc.
Certificate of Need Application (Project I.D. # N- 8497-10)
Submitted April 15, 2010 for May 1, 2010 Review Cycle**

I. Introduction

In accordance with N.C.G.S. Section 131E-185(a1)(1), Cape Fear Valley Health System, Inc., submits the following comments regarding the April 15, 2010 Certificate of Need Application Project I.D. # N-8497-10 submitted for the May 1, 2010 review cycle by FirstHealth of the Carolinas, Inc.

The following three CON Applications were submitted under Certificate of Need Review Category J for "any new institutional health service, as defined in N.C.G.S. 131E-176(16), that is proposed to be developed or offered in Hoke County, with the exception of proposal in Category D or I":

- N-8494-10: Surgery Center of Hoke, LLC and FirstHealth of the Carolinas, Inc. to develop an ambulatory surgery center with two ambulatory surgery operating rooms relocated from the Surgery Center of Pinehurst in Moore County; total project cost is $4,879,695 (2010 Surgery Center of Hoke Application)
- N-8497-10: FirstHealth of the Carolinas, Inc. (FirstHealth) to develop an acute care hospital, FirstHealth Community Hospital (FirstHealth-Hoke), with 8 licensed acute care beds and one operating room relocated from FirstHealth Moore Regional Hospital (FirstHealth-Moore), 4 observation beds, 8 emergency treatment rooms; total project cost is $34,838,503 (2010 FirstHealth Application)[1]
- N-8499-10: Hoke Healthcare, LLC to develop Hoke Community Medical Center consisting of 41 licensed acute care beds, 7 medical surgical observation beds, 2 obstetrical observation beds, an emergency department, 2 shared surgical operating rooms, all necessary inpatient and outpatient ancillary programs, and customary support services; total project cost is $92,269,192 (Hoke Community Medical Center Application)

Please note that FirstHealth states in the Executive Summary for the project "[i]f the Agency approves FirstHealth's 2010 CON application for a Hoke County hospital, FirstHealth will relinquish the approved 2009 CON, Project ID # N-8354-09."[2]

Please also note that the 2010 FirstHealth Application projects an operation date of October 2012 (FY 2013), which is one year later than the 2009 FirstHealth Application.

Separate comments were submitted for N-8494-10: Surgery Center of Hoke, LLC and FirstHealth of the Carolinas, Inc.

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[1] The proposed FirstHealth-Hoke also includes a new CT scanner, new x-ray equipment, and other ancillary inpatient and outpatient services required in a community hospital.
[2] CON Application, N-8497-10 at Executive Summary

II. Chronology of Important Events

The following is a summary of important events that occurred before, during, and after the submission of the two CON Applications under Certificate of Need Review Category J for "any new institutional health service, as defined in N.C.G.S. 131E-176(16), that is proposed to be developed or offered in Hoke County, with the exception of proposal in Category D or I":

June 15, 2009

The following two CON Applications were submitted to the CON Section:

- M-8353-09: Cape Fear Valley West, a satellite hospital in Cumberland County at a site on the Cumberland-Hoke border, with 41 acute care beds relocated from Cape Fear Valley Medical Center, two operating rooms, one relocated from CFVMC and the other from Highsmith-Rainey Hospital, and 9 observation beds (Cape Fear Valley West Application)
- N-8354-09: FirstHealth Hoke County Hospital, an acute care hospital with 8 acute care beds, one operating room, and one MRI scanner, all relocated from FirstHealth Moore Regional Hospital (2009 FirstHealth Application)

The CON Section deemed to be competitive the Cape Fear Valley West Application and the 2009 FirstHealth Application.

July 6, 2009

Cape Fear Valley Health System (CFVHS) submitted a Petition to the Medical Facilities Planning Section requesting the following specific adjustments be made to the *Proposed 2010 SMFP*:

- Designating Hoke and Cumberland Counties as one multi-county service area for acute care beds, operating rooms, and MRI, as a result of updated data used to define service areas in accordance with Step 1 of the Acute Care Bed and operating Room Need Methodologies
- Designating Moore County as a single county service area for acute care beds, operating rooms, and MRI, as a result of updated data.

August 17, 2009

CON Application N-8393-09, Surgery Center of Hoke, LLC, an ambulatory surgery center with two ambulatory surgery operating rooms relocated from Surgery Center of Pinehurst in Moore County (2009 Surgery Center of Hoke Application) was submitted to the CON Section for review.

October 9, 2009

The State Health Coordinating Council (SHCC) denied CFVHS's Petition, and instead adopted the following for inclusion in the *2010 SMFP*:

- Hoke County was assigned to Moore and Cumberland Counties, respectively. This change results in eight two-county service areas:
  - Cumberland-Hoke Multi-county Acute Care Bed Service Area
  - Cumberland-Hoke Multi-county Operating Room Service Area
  - Moore-Hoke Multi-county Acute Care Bed Service Area
  - Moore-Hoke Multi-county Operating Room Service Area
  - Cumberland-Hoke Multi-county Cardiac Catheterization Service Area
  - Cumberland-Hoke Multi-county MRI Service Area
  - Moore-Hoke Multi-county Cardiac Catheterization Service Area
  - Moore-Hoke Multi-county MRI Service Area

- When determining need for operating rooms, Hoke County's population growth was assigned as follows[3]:
  - Cumberland County was assigned the proportion of Hoke County's population growth equal to the proportion of Hoke County residents receiving surgical services in Cumberland County in 2008. In 2008, of all Hoke County residents receiving surgical services, 45.72 percent received surgical services in Cumberland County.
  - Moore County was assigned the proportion of Hoke County's population growth equal to the proportion of Hoke County residents receiving surgical services in Moore County in 2008. In 2008, of all Hoke County residents receiving surgical services, 40.48 percent received surgical services in Moore County.

The SHCC also established a "35% decision rule" under which patient origin, at or above a threshold of 35% will determine composition of a Multi-county Service Area containing Hoke County.

November 25, 2009

The CON Section conditionally approved Project I.D. #M-8353-09 Cape Fear Valley West and Project I.D. #N-8354-09 FirstHealth Hoke County Hospital. The CON Section's decisions on the two Applications were appealed.

January 28, 2010

The CON Section denied Project I.D. # N-8393-09 Surgery Center of Hoke. The CON Section's decision on the Application was appealed by FirstHealth. CFVHS and Surgical Care Affiliates also have intervened in the case.

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[3] Surgical patient origin data for 2008 from the 2009 License Renewal Applications was used to determine the proportion of Hoke County residents receiving services in Cumberland and Moore Counties.

April 14, 2010

The Acute Care Services Committee approved a Recommendation for an amendment to Policy GEN-2 to define that the point at which a county in a Multi-county Service Area becomes Single County Acute Care Service Area or a Single County Operating Room Service Area is licensure of a facility (acute care hospital or ambulatory surgery center) in that county.

April 15, 2010

The following three Applications were submitted to CON:

- N-8494-10: Surgery Center of Hoke, LLC and FirstHealth of the Carolinas, Inc. to develop an ambulatory surgery center with two ambulatory surgery operating rooms relocated from the Surgery Center of Pinehurst in Moore County.
- N-8497-10: FirstHealth of the Carolinas, Inc. (FirstHealth) to develop an acute care hospital, FirstHealth Community Hospital (FirstHealth-Hoke), with 8 licensed acute care beds and one operating room relocated from FirstHealth Moore Regional Hospital (FirstHealth-Moore), 4 observation beds, 8 emergency treatment rooms.
- N-8499-10: Hoke Healthcare, LLC to develop Hoke Community Medical Center consisting of 41 licensed acute care beds, 7 medical surgical observation beds, 2 obstetrical observation beds, an emergency department, 2 shared surgical operating rooms, all necessary inpatient and outpatient ancillary programs, and customary support services.

III. General Comments

Project I.D. # N- 8497-10 (FirstHealth Application) submitted for the May 1, 2010 review cycle by FirstHealth of the Carolinas, Inc. (FirstHealth) proposes to develop an acute care hospital, FirstHealth Community Hospital (FirstHealth-Hoke), with eight acute care beds and one operating room, all relocated from FirstHealth Moore Regional Hospital (FirstHealth-Moore), for a total project cost of $34,138,515. The proposed FirstHealth-Hoke also includes a new CT scanner, new x-ray equipment, and other ancillary inpatient and outpatient services required in a community hospital.

FirstHealth Hoke Community Hospital (FirstHealth-Hoke) is not a financially feasible project. According to Proforma B on page 324 of the FirstHealth Application, the proposed hospital will experience negative net income in the first three years of operation as shown in the following table.

FirstHealth Hoke Community Hospital – Net Income

	Project Year 1 FY 2012	Project Year 2 FY 2013	Project Year 3 FY 2014
Net Patient Revenue	$ 13,876,316	$ 15,354,348	$ 16,924,645
Expenses Including Depreciation	$ 13,315,521	$ 14,452,929	$ 15,257,962
Net Income	$ (641,831)	$ (988,664)	$ (223,402)

Source: ProForma B, page 324 of FirstHealth Application

FirstHealth does not discuss the impact of the negative net income on FirstHealth's overall financial health. In fact, FirstHealth fails to include a ProForma Balance sheet for FirstHealth of the Carolinas, Inc., and it's the legal applicant for the proposed project. Therefore, the project cannot be found financially feasible.

The proposed FirstHealth-Hoke does not meet the needs of the community. As a result of the Federal Base Realignment and Closure Plan developed in 2005 (BRAC), Hoke County has been the fastest growing county in central North Carolina. The population growth in Hoke County has been in the eastern area of the County adjacent to Cumberland County. As a result, in FY 2008 and in FY 2009 Cumberland County hospitals provided more inpatient days of care to Hoke County residents than Moore County providers as reflected in the Hoke Community Medical Center CON Application and the following table.

Hoke County Market Share Acute Care Inpatient Days

	CFVHS		FirstHealth		All Others		
Fiscal Year	Days	%	Days	%	Days	%	Total
2005	4,892	37.66%	6,111	47.04%	1,988	15.30%	12,991
2006	5,643	39.91%	6,304	44.58%	2,194	15.52%	14,141
2007	5,451	39.31%	5,992	43.22%	2,422	17.47%	13,865
2008	6,438	44.85%	5,578	38.86%	2,339	16.29%	14,355
2009	6,274	42.60%	5,984	40.63%	2,471	16.78%	14,729

Source: Thomson; Excludes LTACHs, Rehab, Psych and Normal Newborns

The military population at Fort Bragg has increased dramatically and, as a result, the civilian population has grown. The population growth in Hoke County is a result of the growth associated with Fort Bragg; young military families in their first homes and other families choosing to live in Hoke County.

Hoke County residents need a full service community hospital which will deliver babies, make possible numerous inpatient admissions, have multiple surgical operating rooms that allow for scheduled inpatient surgeries, in addition to providing emergency services and outpatient care.

The proposed FirstHealth-Hoke is in reality an expensive emergency room with outpatient diagnostic imaging services and only one operating room.

The relocation of 8 acute care beds from FirstHealth-Moore to FirstHealth-Hoke is based upon the FirstHealth calculated surplus of beds at FirstHealth-Moore, not the need for acute care services for residents of Hoke County. The needs of Hoke County residents will not be met by the proposed FirstHealth-Hoke. It is clear that FirstHealth-Hoke has simply tried to justify a case for using what FirstHealth-Moore has determined to be leftover acute care beds and one operating room, not at all based upon what is needed in Hoke County.

As specified in the FirstHealth Application on page 199, "***Direct inpatient admissions are not projected in the CON application and are not planned*** until the hospital is established and the Medical Staff increases in number ***[Emphasis added]***." The projections, however, reflect 8 beds

as needed for emergency patients. Therefore, there will be no capacity for present or future direct inpatient admissions.

The only medical staff included for the proposed FirstHealth-Hoke are hospitalists, emergency room physicians, surgeons, and ancillary medical providers such as radiologists, pathologists, and anesthesiologists. Local surgeons and physicians will not be allowed to admit patients to FirstHealth-Hoke. If their patients are admitted through the ED, "FirstHealth proposes to strengthen the patient/physician relationship by ***allowing*** the local primary care physician to participate in the patients care through having access to patient diagnostic tests and input in treatment and discharge planning ***[emphasis added]***."

The population of Hoke County needs a much larger hospital with more than eight acute care beds and more than one operating room. The following table reflects total acute care bed need for residents of Hoke County based upon population projections from the North Carolina Office of State Demographics, a three year average acute hospital admission rate for residents of Hoke County, and a three year average length of stay for residents of Hoke County.

HCMC reviewed historical acute care utilization for residents of Hoke County using the North Carolina Inpatient Database complied annually by Thomson Reuters. Based upon historical utilization from 2007 through 2009 HCMC calculated a three year inpatient admission use rate for Hoke County residents. Using the three year average use rate total Hoke County admissions were calculated as reflected in the following table. Patient days were calculated based upon the three year average length of stay for Hoke County residents. Total projected acute care bed need for the residents of Hoke County exceeds 70 acute care beds as reflected in the following table.

However, all inpatients are not clinically appropriate for care in a community hospital setting. For example, HCMC will not provide cardiac surgery or other tertiary level services currently provided at CFVMC. Therefore, HCMC adjusted the total bed need assuming 65% of all cases were clinically appropriate cases[4] for a community hospital setting.

[4] The 65% assumption is consistent with the Agency analysis completed in the FMC-Clemmons Community Hospital decision, Project I.D. G-#8165-08.

Hoke County Bed Need Analysis

Hoke County	2009	2010	2011	2012	2013	2014	2015	2016
Population	45,591	46,751	47,912	49,071	50,232	51,391	52,551	53,712
Use Rate - Hoke County Three Yr Average	69.91	69.91	69.91	69.91	69.91	69.91	69.91	69.91
Projected Cases	3,187	3,268	3,350	3,431	3,512	3,593	3,674	3,755
ALOS	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.63
Total Projected Days	14,760	15,135	15,511	15,887	16,262	16,638	17,013	17,389
ADC	40	41	42	44	45	46	47	48
Occupancy Rate	66.7%	66.7%	66.7%	66.7%	66.7%	66.7%	66.7%	66.7%
Beds Needed	61	62	64	65	67	68	70	71
Acuity Adjusted	65%	65%	65%	65%	65%	65%	65%	65%
Projected Days	9,594	9,838	10,082	10,326	10,571	10,814	11,059	11,303
ADC	26.3	27.0	27.6	28.3	29.0	29.6	30.3	31.0
Occupancy Rate	66.7%	66.7%	66.7%	66.7%	66.7%	66.7%	66.7%	66.7%
Beds Needed Hoke County Population	**39**	**40**	**41**	**42**	**43**	**44**	**45**	**46**

Source: HCMC CON Application Exhibit 30, Table 18

As shown in the previous table, the population of Hoke County is projected to increase to nearly 54,000 by 2016. It should be noted that the population data utilized in this analysis is from the NC Office of State Budget and Management and does not include any adjustment in the projections for the impact of BRAC. Based upon historical utilization statistics the Hoke County population will be sufficient to support 46 acute care inpatient beds in a community hospital setting in 2016.

The above table reflects 100% of projected inpatient days and acute care beds needed to serve residents of Hoke County through 2014 assuming no community hospital is built. The projected population of Hoke County in 2014, the third year of operation of the proposed FirstHealth-Hoke, will be sufficient to support 71 acute care beds when planned at target occupancy of 66.7%.

The needs of Hoke County residents will not be met by FirstHealth. It is clear that FirstHealth-Hoke is based upon FirstHealth-Moore's leftovers and not at all based upon what is needed in Hoke County.

In stark contrast, the proposed Hoke Community Medical Center, Project I.D.# N-8499-10 will provide residents of Hoke County with a full service hospital with 41 acute care beds, two ORs, and 9 observation rooms.

FirstHealth Moore Regional Hospital is listed as the applicant not FirstHealth Hoke Community Hospital. In response to Section I. Question 1. FirstHealth of the Carolinas, Inc. d/b/a FirstHealth Moore Regional Hospital is listed as the applicant. FirstHealth-Hoke should be the applicant, not FirstHealth-Moore.

IV. CON Review Criteria

The following comments are submitted based upon the CON Review Criteria found at G.S.131E-183. While some issues impact multiple Criteria, they are discussed under the most relevant review Criteria and referenced in others to which they apply.

G.S. 131E-183 (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.

As discussed below in detail, the proposed project is non-conforming to Policy Gen-3: Basic Principles, Policy AC-5 – Replacement of Acute Care Bed Capacity, and basic assumptions included in the Acute Care Bed Need Methodology and the Operating Room Need Methodology.

A. Policy Gen-3 – Basic Principles

FirstHealth failed to adequately demonstrate the need for the project, and therefore failed to document how its projected volumes incorporate the Basic Principles in the *2010 SMFP*. FirstHealth also is selectively choosing patients with a preferential payor mix and as a result, fails to provide access to underserved populations. Consequently, the 2010 FirstHealth Application is not conforming to Policy Gen-3 and does not conform to Criterion (1). Please see also a discussion in the context of Criterion (3).

B. Policy AC-5 – Replacement of Acute Care Bed Capacity

Projected utilization in the 2010 FirstHealth Application for FirstHealth-Moore is significantly overstated. As a result, the proposal does not project future utilization of total acute care beds at FirstHealth-Moore at 75.2% utilization. The combined utilization of acute care beds at FirstHealth-Hoke and FirstHealth-Moore does not exceed 75.2% as required by Policy AC-5. Consequently, the 2010 FirstHealth Application is not conforming to Policy AC-5, and does not conform to Criterion (1). Please see also a discussion in the context of Criterion (3).

C. Acute Care Need Bed Need Methodology – Data and Projected Need – Results in Surplus Acute Care Beds

The projections included in the 2010 FirstHealth Application for FirstHealth-Moore are significantly overstated. Baseline data utilized in the projections is inconsistent with data included in the *2010 SMFP* and the *Proposed 2011 SMFP*. As a result, the proposed project does not project future utilization of total acute care beds at FirstHealth-Moore at 75.2% utilization as required in the Acute Care Bed Need Methodology. The combined utilization of acute care beds at FirstHealth-Hoke and FirstHealth-Moore reflects a surplus of acute care beds.

Therefore, the 2010 FirstHealth Application is non-conforming to Criterion (1). Please see also a discussion in the context of Criterion (3).

D. Operating Room Need Methodology – Results in Surplus of Operating Rooms

Surgical volume is overstated in the 2010 FirstHealth Application. As a result, projected utilization fails to justify FirstHealth's total operating rooms in Moore and Hoke Counties. There is a surplus of operating rooms based upon the Operating Room Need Methodology in the *2010 SMFP*, and the methodology utilized by FirstHealth to project volume at FirstHealth-Moore and FirstHealth-Hoke. Therefore, the 2010 FirstHealth Application is non-conforming to Criterion (1). Please see also a discussion in the context of Criterion (3).

G.S. 131E-183 (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.

The proposed project is non-conforming to Criterion (3) because it understates the need that residents of Hoke County have for acute care services, overstates the need for emergency services, and overstates the need for acute care services at FirstHealth-Moore. Furthermore, FirstHealth has chosen patients with a preferential payor mix by choosing not to provide obstetrical services.

A. FirstHealth Fails to Meet the Needs of the Underserved

FirstHealth-Hoke made no changes to the proposed project from the CON Application submitted in 2009. A copy of the Comments in Opposition submitted relative to this issue in the 2009 Application are included in Attachment 1. Comments made are still relevant to this Application.

Most babies delivered to Hoke County mothers are Medicaid patients and self-pay. The majority of patients admitted with medical problems have Medicare and Medicaid. Reimbursement from Medicare and Medicaid is significantly lower for medical patients than surgical patients. Therefore, by deciding not to provide inpatient medical admissions and deliver babies at FirstHealth-Hoke, FirstHealth will not provide needed services to underserved populations in Hoke County. As a consequence, the 2010 FirstHealth Application fails to meet the needs of the underserved populations in Hoke County, particularly pregnant women.

Please see additional discussion regarding the proposed payor mix and the impact on the underserved in the context of Criterion (13) and in Attachment 1.

B. FirstHealth Overstated Acute Care Patient Days at FirstHealth-Hoke

1. FirstHealth uses unreasonable increases in the Emergency Visit Use Rate for Hoke County residents

FirstHealth projects inpatient days based upon emergency visits for FirstHealth-Hoke. Emergency volume for FirstHealth-Hoke is projected using a use rate methodology. FirstHealth increased the Hoke County emergency room use rate by 14.5% from FY 2008 to FY 2015 as reflected on page 202. Hoke County population during that timeframe is projected to increase 26.7% (including BRAC Impact), as shown on pages 203 and 204. As a result, total projected emergency visits for Hoke County residents on pages 203 and 204 reflects the compounded growth of the combined population and the emergency room use rate, resulting in a 41.2 % increase in emergency room utilization through FY 2015.

FirstHealth utilized Thomson Reuters 2008 and 2009 emergency visit utilization rate data to inflate future emergency visit use rates. Changes in North Carolina use rates can be skewed by urban emergency room utilization as reflected in the following two tables. Throughout the 2010 FirstHealth Application, FirstHealth compared health service utilization by Hoke County residents to seven counties with comparable total population. A comparative review of emergency visit growth in the seven counties identified by FirstHealth with comparable populations reflects a much more conservative growth in emergency room utilization as reflected in the following table.

Emergency Room Utilization – County with Comparable Population

County	Hospital	FY 2003	FY 2009	CAGR
Beaufort	Beaufort County	20,793	23,006	1.7%
Beaufort	Pungo	5,396	6,006	1.8%
Davie	Davie	11,573	10,210	-2.1%
McDowell	The McDowell	15,898	20,771	4.6%
Pasquotank	Albemarle	28,831	33,368	2.5%
Richmond	FH Richmond	17,226	27,387	1.1%
Vance	Maria Parham	31,157	33,207	-0.8%
Watauga	Blowing Rock	1,545	1,475	4.6%
Watauga	Watauga	15,964	20,907	0.5%
Total Emergency Visits		148,383	176,337	2.9%

Source: FirstHealth Application, page 145; Annual LRAs

As shown in the above table, emergency visits increased only 2.9% annually from FY 2003 through FY 2009 in counties identified by FirstHealth for comparative purposes with similar population bases.

The following table reflects the growth in emergency room utilization in hospitals located in large urban markets during the same timeframe.

Urban County Emergency Visit Growth

County	FY 2003	FY 2009	CAGR
Cumberland	89,016	118,290	4.9%
Durham	107,526	127,535	2.9%
Forsyth	138,245	199,086	6.3%
Guilford	182,363	194,478	1.1%
Mecklenburg	332,430	444,967	5.0%
Orange	42,243	65,954	7.7%
Pitt	63,384	96,890	7.3%
Wake	179,301	306,712	9.4%
Total Emergency Visits	1,134,508	1,553,912	5.4%

Source: Annual LRAs

As shown in the previous table, emergency utilization increased 5.4% annually from FY 2003 through FY 2009 in counties with large population bases. Therefore, it is unreasonable to use an annual inflation rate for Hoke County emergency room use, which is based upon the increase in the statewide emergency room use rate, which is skewed by higher growth in urban emergency room utilization from FY 2003 to FY 2009.

FirstHealth utilized county level comparative analysis throughout the Application, except in determining an appropriate emergency visit growth rate. Had FirstHealth used a 2.9% CAGR in emergency room visits in the seven counties with comparable populations, to project emergency visits for Hoke County residents, significantly lower projected emergency visits for Hoke County result, as shown in the following table.

Hoke County Population – Adjusted Total Emergency Visits Based Upon the Growth Emergency Utilization in Seven Comparable Counties

	2008	2009	2010	2011	2012	2013	2014	2015
Adjusted Hoke County ED Visits	10,148	11,341	11,672	12,013	12,363	12,724	13,095	13,478
Growth Rate	2.9%	2.9%	2.9%	2.9%	2.9%	2.9%	2.9%	2.9%
Hoke ED Visits – FirstHealth Application						13,893	14,307	14,726
Difference						1,169	1,212	1,249
Percent Difference						9.2%	9.3%	9.3%

Source: 2010 FirstHealth Application, page 204; LRA data in previous table for growth rate

Adjusted 2015 emergency room visits in the previous table are 9.3% greater in Project Year 3 when the comparable counties ED growth rate is used to project future utilization. The 2.9% growth rate reflects the increase in emergency utilization in a county and in population growth rate. The population growth for the seven counties should be subtracted in order to determine the actual increase in emergency utilization.

Population Growth Rate
2003 – 2009

County	FY 2003	FY 2009	CAGR
Beaufort	45,331	46,653	0.5%
Davie	37,061	41,668	2.0%
McDowell	42,964	45,134	0.8%
Pasquotank	36,353	41,649	2.3%
Richmond	46,171	46,901	0.3%
Vance	43,561	43,538	0.0%
Watauga	43,080	45,888	1.1%
Total	294,521	311,431	0.9%

Source: NCOSBM

As shown in the previous table, the overall annual population growth for the seven comparative counties was 0.9%. Subtracting the 0.9% overall annual population growth from the annual increase in emergency visits results in a 2% annual increase in emergency room utilization.

Hoke County's population growth rate, including BRAC impact, in the 2010 FirstHealth Application was 3.6%, as reflected in the following table.

Hoke County Projected Population – Including BRAC Projected Growth

	2008	2013	2014	2015	CAGR
Hoke County Population	44,538	53,974	55,133	56,293	3.6%

Source: 2010 FirstHealth Application, pages 203-204

The following table shows projected total Hoke County emergency visits in Project Year 3 using the Hoke County population growth of 3.6%.

Hoke County Population – Adjusted Total Emergency Visits

	2008	2009	2010	2011	2012	2013	2014	2015
Adjusted Hoke ED Visits	10,148	11,341	11,747	12,167	12,602	13,053	13,520	14,003
Growth Rate	3.6%	3.6%	3.6%	3.6%	3.6%	3.6%	3.6%	3.6%
Hoke ED Visits – FirstHealth Application						13,893	14,307	14,726
Difference						838	785	722
Percent Difference						6.4%	5.8%	5.2%

Source: 2010 FirstHealth Application, page 204; LRA data in previous table for growth rate

As shown in the above table, projected emergency visits for FirstHealth-Hoke at 14,726 were overstated by 5.2% in the third year of operation. Projected emergency visit volume, based upon reasonable assumptions, should have been 14,003. The projected utilization for FirstHealth-

Hoke was based upon ratios applied to emergency room utilization, inpatient days, inpatient surgery, inpatient and outpatient radiology, mobile MRI, CT, and all other volumes based upon emergency room utilization are overstated by 5.2%.

2. *FirstHealth overstates average length of stay for ED inpatient admissions*

FirstHealth utilizes a 3.1 average length of stay for emergency room patients in need of admission to the eight bed inpatient unit. This ALOS is based upon a sample of Hoke County residents utilizing the FirstHealth-Moore emergency service over the last three years (FY 2007-FY 2009). That sample represents Levels I through V emergency room visits to FirstHealth-Moore. Level VI, the most serious patients treated at FirstHealth-Moore were not included There is no discussion, however, about the appropriateness of Levels 1 through V for FirstHealth-Hoke.

FirstHealth then assumes on page 215 that 50% of all emergency patients in need of inpatient admission will be admitted to the 8-bed inpatient unit at FirstHealth-Hoke, and the remaining 50% will be held in the four observation beds, located on the inpatient unit, until they can be transferred to either FirstHealth-Moore or CFVMC. While no discussion or documentation is provided for this assumption, FirstHealth does state on page 215, this is "to accommodate the projected ED Inpatients specifically those patients who may have higher acuities." That is an explicit acknowledgement that Levels 1 through V patients are not all appropriate for FirstHealth-Hoke.

Further, FirstHealth does not adjust the ALOS for those more complex patients with longer LOS who are transferred from FirstHealth-Hoke, and utilizes the 3.1 average length of stay those less acute patients at the low end of the continuum with lower than average LOS for patients remaining at FirstHealth-Hoke. As a result, the patient days are overstated.

Nowhere better illustrated is FirstHealth's desire to have it both ways than in its planned transfer from FirstHealth-Hoke of 50% of emergency patients needing admission. FirstHealth proposes an 8-bed emergency care hospital utilizing beds relocated from FirstHealth-Moore. In so doing, it establishes the first hospital in Hoke County, while ensuring not to siphon off too much Hoke County volume from the "mother-ship." It knows full well, however, that an 8-bed emergency care hospital does not adequately meet the needs of Hoke County patients. Hoke County patients need an appropriately-sized community hospital such as the proposed Hoke Community Medical Center, which is capable of accommodating all but those patients in need of tertiary care.

C. FirstHealth Understated Acute Care Bed Need at FirstHealth-Hoke

As previously discussed, the proposed FirstHealth-Hoke does not meet the needs of the residents of Hoke County. Every analysis of acute care bed need done for Hoke County, except FirstHealth-Hoke's analysis, establishes that the residents need more than the proposed eight acute care beds and one operating room. The following table reflects a summary of the total acute care bed need for the residents of Hoke County based upon population projections, a three

year average acute hospital admission rate for residents of Hoke County, and a three year average length of stay for residents of Hoke County.

Hoke County Bed Need Analysis

Hoke County	2009	2010	2011	2012	2013	2014	2015	2016
Population	45,591	46,751	47,912	49,071	50,232	51,391	52,551	53,712
Use Rate - Hoke County Three Yr Average	69.91	69.91	69.91	69.91	69.91	69.91	69.91	69.91
Projected Cases	3,187	3,268	3,350	3,431	3,512	3,593	3,674	3,755
ALOS	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.63
Total Projected Days	14,760	15,135	15,511	15,887	16,262	16,638	17,013	17,389
ADC	40	41	42	44	45	46	47	48
Occupancy Rate	66.7%	66.7%	66.7%	66.7%	66.7%	66.7%	66.7%	66.7%
Beds Needed	61	62	64	65	67	68	70	71
Acuity Adjusted	65%	65%	65%	65%	65%	65%	65%	65%
Projected Days	9,594	9,838	10,082	10,326	10,571	10,814	11,059	11,303
ADC	26.3	27.0	27.6	28.3	29.0	29.6	30.3	31.0
Occupancy Rate	66.7%	66.7%	66.7%	66.7%	66.7%	66.7%	66.7%	66.7%
Beds Needed Hoke County Population	**39**	**40**	**41**	**42**	**43**	**44**	**45**	**46**

Source: HCMC CON Application Exhibit 30, Table 18

As shown in the above table, projected acute care bed need in Hoke County exceeds 50 acute care beds. This analysis is consistent with the Assessment and Recommendations made in the Comprehensive Regional Growth Plan for the Fort Bragg Region for Hoke County. A need for a 50 bed community hospital in Hoke County is reflected on pages 38 and 39 of the Hoke County BRAC Report included in Exhibit 32 of the HCMC CON Application.

It is revealing that FirstHealth continually uses the BRAC population growth figures to justify the proposed project, except the number of acute care beds needed. FirstHealth tries to make the case that in this single area of analysis, the BRAC study is incorrect. Based on FirstHealth's analysis, the BRAC study should have found an acute care bed need of 8 beds for Hoke County. That number surprisingly coincides with FirstHealth-Moore's acute care bed surplus.

Clearly, the relocation of only eight acute care beds from FirstHealth-Moore to FirstHealth-Hoke is based upon the surplus of beds at FirstHealth-Moore, not the need for acute care services for residents of Hoke County. The needs of Hoke County residents are an afterthought, leftovers, based upon what is ***not needed*** at FirstHealth-Moore.

D. FirstHealth-Moore Acute Care Days for Most Current Twelve Months includes Observation "Days"

FirstHealth-Moore reports 77,548 acute care patient days for the time period March 2009 through February 2010 on page 165 of the FirstHealth Application. **FirstHealth then adds 7,724 observation days to acute care patient days, for a total of 84,822 days.** FirstHealth does so on the basis that "[...] even though these patients are not admitted they do occupy an acute care bed, use staff resources and supplies and are billed on an outpatient basis."

That, of course, is not the actual purpose for FirstHealth's desire to combine days of care in licensed acute care beds with observation days in unlicensed beds. It is a desperate attempt by FirstHealth to boost its lackluster acute care volume to a level that exceeds its FY 2009 acute care days reported in its Annual Hospital License Renewal Application (LRA). On page 3 of its 2010 LRA, FirstHealth reports 2,142 patients in observation status and not admitted as inpatients, excluding Emergency Department patients in FY 2009. It is reasonable to question whether FirstHealth added the 2,142 observation patients to acute care days reported on page 4 of the 2010 LRA (and in other annual LRAs).

The following table shows historical acute care bed utilization at FirstHealth-Moore during the last six fiscal years, and self-reported data for March 2009 – February 2010.

FirstHealth-Moore
Acute Care Bed Days
October 2003 – February 2010

	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009*	Mar 09 – Feb 2010**
SMFP/ LRA Acute Care Days	80,761	75,770	74,037	78,816	73,264	78,996	77,548
% Change		-6.2%	-2.3%	6.5%	-7.0%	7.8%	-1.8%
Licensed Beds	297	297	297	297	297	297	297
ADC	221	207	202	215	200	223	212
Occupancy Rate	73.6%	69.5%	71.1%	74.6%	70.2%	75.1%	71.5%

Source: Annual SMFPs, 2010 LRA
**Thomson acute care days reported by the 2010 the Health Planning Section/The Sheps Center. Data still has to be evaluated by the State and will then be included in the Proposed 2011 SMFP. Actual Thomson days reported are over 3% greater than self reported days in the FH Moore Regional 2010 LRA.*
***Self-reported utilization data on page 165 of the FirstHealth Application*

FirstHealth is using its licensed acute care beds for observation, as other hospitals without unlicensed observation beds do. Observation services are billed as outpatient services. Days in acute care beds are billed as inpatient services. It is invalid for FirstHealth to add observation "days" to acute care days, and to use that as the basis for projecting acute care volume at FirstHealth-Moore and FirstHealth-Hoke.

The previous table shows that acute days of care in March 2009 – February 2010 are nearly 2% lower than they were in FY 2009. It also shows that FirstHealth-Moore has not achieved a 75.2% target occupancy rate in any of the last six fiscal years, and in March 2009 – February 2010. In addition, FirstHealth-Moore has 23 additional beds under development for a total of 320 acute care beds.

There is no acknowledgement by FirstHealth of its declining acute care days. There also is no plan disclosed to grow acute care days in licensed acute care beds in the near-term and over the next five fiscal years. To demonstrate magnitude, FirstHealth-Moore needs to increase by over 10,000 acute care days in licensed acute care beds to achieve a target occupancy rate of 75.2% for its 320 licensed acute care beds.

Then, without any hesitation, on page 165, FirstHealth projects a 0.5% annual increase in acute care days at FirstHealth-Moore from FY 2010 to FY 2015. There is no explanation offered to justify a projected 0.5% annual increase, the basis for that assumption, and a showing that such assumption is reasonable.

FirstHealth assumes that "36.4% of the projected days of care (acute **and observation**) [...] will be [at FirstHealth-Hoke], rather than at [FirstHealth-Moore [...]." [**Emphasis added.**] It is impermissible for FirstHealth to combine acute care days and observation days. Only the former can be used to justify acute care bed need. FirstHealth has not provided the percentage of projected acute care days; however, it is certain that percentage is lower than 36.4%.

As will be discussed in detail below, FirstHealth fails to provide reasonable assumptions to project bed need for FirstHealth-Moore. It is, therefore, impossible to project future utilization of FirstHealth-Moore, and to justify the need for 320 beds at FirstHealth-Moore and FirstHealth-Hoke. As a result, the acute care projections are not reasonable and result in overstated patient days at FirstHealth-Moore and FirstHealth-Hoke.

E. FirstHealth Overstated Projected Acute Care Bed Need for FirstHealth-Moore

1. Projected Surplus of Beds at FirstHealth-Moore

A surplus of 53 acute care beds is projected for FirstHealth-Moore in FY 2014 in the *2010 SMFP*. That surplus is shown in the following table, which is extracted from Table 5A of the *2010 SMFP*.

Licensed Acute Care Beds	Adjustments for CON/Previous Need	Thomson 2008 Acute Care Days	6 Years Growth Using .02% Growth Rate	2014 Projected Average Daily Census	2014 Beds Adjusted for Target Occupancy	Projected 2014 Deficit or Surplus ("-")	2014 Need Determination
297	23	73,264	73,352	201	267	-53	0

Source: Table 5A of the 2010 SMFP

Using FirstHealth's logic, a projected 53-bed surplus in 2014 becomes a surplus of 30 beds when the 23 CON-approved beds for FirstHealth-Moore's Heart Hospital (Project ID # H-7121-04) become operational in 2011. The 30-bed surplus is further reduced by 8 beds when FirstHealth-Hoke become operational in October 2012, leaving a surplus of 22 beds. FirstHealth has not acknowledged or addressed a 22-bed surplus.

In addition, FirstHealth-Moore shows a surplus of 18 acute care beds in 2013 based upon the revised Acute Care Bed Need Methodology which will be included in the *Proposed 2011 SMFP*.

2. FirstHealth Excess Acute Care Bed Capacity System Wide

In addition to the surplus of acute care beds at FirstHealth-Moore, a surplus of 47 acute care beds is projected for FirstHealth Richmond in FY 2014 and a surplus of 29 acute care beds is projected for FirstHealth Montgomery in FY 2014 in the *2010 SMFP*. The following table illustrates the increasing excess of acute care beds associated with FirstHealth hospitals from the *2009 SMFP* to the *2010 SMFP*.

FirstHealth Excess Acute Care Bed Capacity

Hospital	*2009 SMFP*	*2010 SMFP*	Increase in Excess Bed Capacity
FirstHealth-Moore	-33	-53	-20
FirstHealth-Richmond	-41	-47	-6
FirstHealth-Montgomery	-31	-29	2
Total	-105	-129	-24

Source: SMFPs

As shown in the previous table, excess acute care bed capacity within the FirstHealth system is projected to be over 125 excess acute care beds in 2014 as reflected in the *2010 SMFP*. This reflects 20 more excess acute care beds than in the previous year's *2009 SMFP*.

3. Acute care bed projections for FirstHealth-Moore are significantly overstated - Do not reach required target occupancy of 75.2%

Acute care patient days at FirstHealth-Moore, which days are reported in the annual *SMFPs* have fluctuated considerably from year to year since October 2004, as reflected in the following table.

FirstHealth-Moore
Acute Care Bed Utilization
October 2004 – September 2010

	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	CAGR FY 2005 – FY 2010
SMFP Acute Care Days	75,770	74,037	78,816	73,264	78,996	
% Change		-2.3%	6.5%	-7.0%	7.8%	1.24%
LRAs Acute Care Days	75,327	77,037	80,897	76,079	81,454	
Variance (+) reflects Self Reported LRA greater than *SMFP*	-0.6%	4.1%	2.6%	3.8%	3.1%	

Source: Annual SMFPs; Annual LRAs

As shown in the previous table, patient days decreased 7.0% from FY 2007 to FY 2008 based on the most current available *SMFP* data. However, utilization rebounded in FY 2009. Overall compound annual growth at FirstHealth-Moore during the last five years was 1.24%.

The previous table also shows that annual self-reported data included in the LRAs has varied significantly from Thomson data included in the annual *SMFP*. In the last three years, FirstHealth-Moore's self-reported LRA acute care patient days exceeded Thomson reported acute care patient day data by as much as 4.1% in 2006; 2009 data reflected a 3.1% variance. It is reasonable to assume that the self-reported patient day utilization (March 2009 – February 2010) on page 165 of the FirstHealth Application is overstated by as much as 3.0%, the three year average overstated percent from 2006 – 2009.[5]

Applying the four year CAGR calculated above to the most current twelve months of inpatient days of care at FirstHealth-Moore reported on page 165 of the Application show that projected utilization for FirstHealth-Moore falls well below 75.2% even without shifting any volume to FirstHealth-Hoke as shown in the following table.

FirstHealth-Moore Regional Projected Patient Days

	Mar 09 – Feb 2010	Mar 10 – Feb 2011	Mar 11 – Feb 2012	Mar 12 – Feb 2013	Mar 13 – Feb 2014	Mar 14 – Feb 2015	Mar 15 – Feb 2016
Acute Care Days	77,548	78,507	79,478	80,461	81,456	82,464	83,484
% Change	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%
Convert to FYs					**PY 1 FY2012**	**PY 1 FY2012**	**PY 1 FY2012**
Acute Care Days					80,959	81,960	82,974
Licensed Beds					312	312	312
ADC					221.8	224.5	227.3
Occupancy Rate					71.1%	72.0%	72.9%

[5] Calculation = (2.6% + 3.8% + 3.1%) / 3 = 3.2%

As shown in the previous table, utilization of the acute care beds remaining at FirstHealth-Moore fail to reach the defined target utilization of 75.2% as required by SMFP Policy AC-5 even before shifting volume to FirstHealth-Hoke.

4. Acute care bed projections in the 2009 FirstHealth Application (Project ID #N-8354-09) were significantly overstated.

A comparison of patient day projections in the (June) 2009 FirstHealth Application (Project ID #N-8354-09) and the (April) 2010 FirstHealth Application is instructive.

The following table compares projected acute care bed utilization in the (June) 2009 FirstHealth Application and the April) 2010 FirstHealth Application when all 320 acute care beds are licensed and operational at FirstHealth-Moore (312 acute care beds) and FirstHealth-Hoke (8 acute care beds).

Comparison of Projected Acute Days of Care
FY 2012 - FY 2015

Total: FirstHealth-Moore & FirstHealth-Hoke – 320 beds	**FY 2012**	**FY 2013**	**FY 2014**	**FY 2015**
2010 FirstHealth Application: Projected Days of Care	85,672	86,101	86,531	86,964
Total: FirstHealth-Moore & FirstHealth-Hoke – 320 beds	**FY 2012**	**FY 2013**	**FY 2014**	
2009 FirstHealth Application: Projected Days of Care	88,608	89,099	89,585	
Difference	2,936	2,998	3,054	
% Difference	**3.3%**	**3.3%**	**3.5%**	
2010 FirstHealth Application: Projected Days of Care FirstHealth-Hoke		2,211	2,277	2,344

Source: 2010 FirstHealth Application at page 118

As shown in the previous table, FirstHealth moderated its projected days of care in the span of less than one year. FirstHealth does not disclose that there is any difference in projected days. CFVHS provided detailed data and revised projections showing that FirstHealth failed to reach the defined target utilization of 75.2% as required by SMFP Policy AC-5. Previous Comments in Opposition, submitted in 2009 are included in Attachment 1.

5. Acute care bed projections in FirstHealth-Moore's Heart Hospital CON (Project ID # H-7121-04) were significantly overstated.

A comparison with patient day projections in the FirstHealth Heart Hospital (Project ID # H-7121-04) shows that projections associated with the FirstHealth-Moore Heart Hospital also were

overstated in 2004. In that Heart Hospital Application, FirstHealth-Moore assumed that "based on population growth, physician recruitment, and disease prevalence in its service area ... that achieving a 2008 Acute Inpatient Days of Care of 85,283 patient days is reasonable." Projections found on page 104 of the Heart Hospital Application are set forth in the following table.

FirstHealth-Moore
Acute Care Bed Projections
FY 2008 – FY 2010

Bed Category	FY 2008	FY 2009	FY 2010	Annual % Change
ICU	15,108	15,561	16,028	3.000%
General	72,755	73,482	74,217	1.000%
Total	**87,863**	**89,043**	**90,245**	**1.3%**

Source: Project ID #H-7121-04 at page 104

It is noteworthy that in the FirstHealth Application, FirstHealth projects only "a 0.5 percent annual increase in inpatient days of care at FirstHealth-Moore from FY 2009 through FY 2015."[6] That annual growth rate is less than half of the growth rate FirstHealth projected in the Heart Hospital Application.

The following table compares actual and projected FY 2008 and projected acute care bed utilization in the FirstHealth Application when all 320 acute care beds are licensed and operational at FirstHealth-Moore (312 acute care beds) and FirstHealth-Hoke (8 acute care beds) to the projections in Project ID #H-7121-04 for all 320 acute care beds at FirstHealth-Moore.

Comparison of FY 2008 Actual and Projected and Projected Days of Care: FY 2012 - FY 2015

Total: FirstHealth-Moore & FirstHealth-Hoke – 320 beds	Actual FY 2008	FY 2012	FY 2013	FY 2014	FY 2015
FirstHealth Application N-8497-10: Projected Days of Care	73,264	85,672	86,101	86,531	86,964
FirstHealth-Moore – 320 beds	**Projected FY 2008**	**FY 2012**	**FY 2013**	**FY 2014**	**FY 2015**
Project ID #H-7121-04: Projected Days of Care	87,863	92,713	93,980	95,270	
Difference	14,599	7,041	7,879	8,739	
% Difference	**19.9%**	**8.2%**	**9.2%**	**10.1%**	

Source: Previous tables

As shown in the above table, actual FY 2008 acute care patient days were 19.9% lower than acute care patient days projected in the FirstHealth-Moore Heart Hospital CON Application in 2004. FirstHealth's use of a much more conservative growth rate, which results in 10.1% fewer acute care patient days in FY 2014, reflects FirstHealth's own acknowledgement that projected

[6] FirstHealth Application N-8497-10 at page 165

patient days were overstated in 2004. No explanation is provided in the FirstHealth Application for the difference in projections, as shown in the previous table.

F. FirstHealth Overstated Inpatient Surgical Procedures at FirstHealth-Hoke Based on Unreasonable Increases in Emergency Utilization for Hoke County Residents

FirstHealth projects inpatient surgical volume based upon emergency visits for FirstHealth-Hoke at 69 procedures in Project Year 3.[7] Emergency volumes were overstated by 5.2% in Project Year 3. As a result, inpatient surgical volume was overstated by 5.2%.

Furthermore, FirstHealth-Hoke does not propose to admit patients for elective procedures. As such, projected inpatient surgical volume is based solely upon emergency room visits.

G. FirstHealth Understated Surgical Operating Rooms Needed for FirstHealth-Hoke

The population of Hoke County needs more than one operating room. HCMC reviewed historical surgical services utilization for residents of Hoke County using the Annual Hospital Licensure Renewal Applications. Based upon historical inpatient and outpatient surgical utilization for 2007 through 2009 HCMC calculated inpatient and outpatient surgical use rates for Hoke County residents[8]. Using the three year average inpatient and outpatient for surgical use rates Hoke County inpatient and outpatient surgical volumes were projected as reflected in the following table.

However, all inpatient and outpatient surgeries are not clinically appropriate for care in a community hospital setting. For example, HCMC will not provide cardiac surgery or other tertiary level services currently provided at CFVMC. Therefore, HCMC adjusted the total inpatient and outpatient surgical volume to reflect only clinically appropriate cases for a community hospital setting. In addition, c-section volume was subtracted from the total inpatient surgical volume based upon historical Hoke County surgical utilization. Total projected shared operating room need for the residents of Hoke County, adjusted for clinical appropriateness in a community hospital, is 2.5 shared operating rooms in 2016 as reflected in the following table.

[7] FirstHealth Application N-8497-10 at page 220

[8] A comparison of inpatient and outpatient surgical use rates calculated using the LRA data and using the Thomson inpatient and outpatient databases shows that the rates calculated using the LRA data results in more conservative surgical use rates.

Hoke County Operating Room Need Analysis

Hoke County	2009	2010	2011	2012	2013	2014	2015	2016
Inpatient - Excluding C-Section								
Population	45,591	46,751	47,912	49,071	50,232	51,391	52,551	53,712
Inpatient Use Rate - Hoke County Three Yr Average	19.32	19.32	19.32	19.32	19.32	19.32	19.32	19.32
Projected Inpatient Cases	881	903	926	948	970	993	1,015	1,038
Percent C-Section	30%	30%	30%	30%	30%	30%	30%	30%
Total Projected Inpatient Surgery (Less C-Section)	614	630	645	661	677	692	708	723
Acuity Adjusted (Appropriate for Community Hospital)	65%	65%	65%	65%	65%	65%	65%	65%
Projected Inpt Surgery	399	409	419	430	440	450	460	470
Outpatient								
Population	45,591	46,751	47,912	49,071	50,232	51,391	52,551	53,712
Outpatient Use Rate - Hoke County Three Yr Average	45.96	45.96	45.96	45.96	45.96	45.96	45.96	45.96
Projected Outpatient Cases	2,095	2,149	2,202	2,255	2,309	2,362	2,415	2,469
Acuity Adjusted (Appropriate for Community Hospital)	90%	90%	90%	90%	90%	90%	90%	90%
Projected Outpt Surgery	1,886	1,934	1,982	2,030	2,078	2,126	2,174	2,222
Total Weighted Surgical Hours	4,026	4,129	4,231	4,333	4,436	4,538	4,641	4,743
OR Need at 1,872 Hours per Room	**2.2**	**2.2**	**2.3**	**2.3**	**2.4**	**2.4**	**2.5**	**2.5**

Source: HCMC CON Application Exhibit 30, Table 80

As shown in the previous table, the population of Hoke County is projected to increase to nearly 54,000 by 2016. It should be noted that the population data utilized in this analysis is from the NC Office of State Budget and Management and does not include any adjustment in the projections for the impact of BRAC. Based upon historical utilization statistics the Hoke County population will be sufficient to support 2.5 shared operating rooms in a community hospital setting in 2016. FirstHealth fails to acknowledge that in addition to the one operating room approved for FirstHealth-Hoke in the 2009 CON Application, and the two operating rooms approved for CFV West, Project I.D.# M-8353-09 to serve the residents of Hoke and southwest Cumberland Counties.

As reflected on page 209 of the FirstHealth Application, the relocation of only one operating room from FirstHealth-Moore to FirstHealth-Hoke is clearly based upon the FirstHealth calculated surplus of operating rooms at FirstHealth-Moore and not the need for surgical services for residents of Hoke County.

H. FirstHealth Overstates Surgical Operating Rooms Needed for FirstHealth-Moore Hospital

1. FirstHealth-Moore has experienced a significant decline in surgical utilization.

FirstHealth failed to self-report its most current twelve months utilization of FirstHealth-Moore's 16 existing surgical operating rooms. The following table shows FirstHealth-Moore's historical surgical utilization.

FirstHealth-Moore Surgical Utilization
October 2003 – February 2010

FirstHealth-Moore	*2006 SMFP (10/03-9/06)*	*2007 SMFP (10/04-9/05)*	*2008 SMFP (10/05-9/06)*	*2009 SMFP (10/06-9/07)*	*2010 SMFP (10/07-9/08)*	2010 LRA (10/08-9/09)	April 2008 – March 2009
Inpatient Cases*	6,069	6,076	6,659	5,815	5,616	6,057	5,495
% Change		0.1%	9.6%	-12.7%	-3.4%		
Ambulatory Cases	7,719	7,869	5,377	4,805	4,453	4,270	4,318
% Change		1.9%	-31.7%	-10.6%	-7.3%		
Total	13,788	13,945	12,036	10,620	10,069	10,327	9,813
% Change		1.1%	-13.7%	-11.8%	-5.2%		

** Inpatient Cases include open heart surgeries performed in the two dedicated open heart operating rooms.*
Source: SMFPs and 2010 LRA

FirstHealth not only did not acknowledge that FirstHealth-Moore continues a four-year trend of significant declines in ambulatory surgical volume, as shown in the previous table. Inpatient surgical cases rebounded in the last fiscal year, which resulted in a positive one-year growth rate for total surgical volume. Without the last twelve months of data, there is no means to determine whether the last fiscal year is a one-time increase or otherwise.

2. Existing underutilized surgical operating room inventory at FirstHealth-Moore.

The following table shows a sustained, multiple year operating room surplus at FirstHealth-Moore, which result from declining surgical volume.

Please note that on page 69 of the 2010 FirstHealth Application, FirstHealth includes all 16 surgical operating rooms and all inpatient cases for FY 2009. As such, the following table includes all operating rooms and all inpatient cases for FY 2004 – FY 2009

FirstHealth-Moore Surgical Utilization
October 2003 – February 2010

	2006 SMFP (10/03-9/04)	*2007 SMFP (10/04-9/05)*	*2008 SMFP (10/05-9/06)*	*2009 SMFP (10/06-9/07)*	*2010 SMFP (10/07-9/08)*	April 2008 – March 2009	2010 LRA (10/08-9/09)	March 2009 - Feb 2010**
Inpatient Cases*	6,069	6,076	6,659	5,815	5,616	5,495	6,057	Not provided
Ambulatory Cases	7,719	7,869	5,377	4,805	4,453	4,318	4,270	Not provided
Total	13,788	13,945	12,036	10,620	10,069	9,813	10,327	Not provided
Total Weighted Surgical Hours	29,786	30,032	28,043	24,563	23,528	22,962	24,576	Not able to determine
Licensed and Approved Operating Rooms	18	18	18	18	18	18	18	18
Operating Rooms Needed at 1,872 Hrs/Year	15.9	16	15	13.1	12.6	12.3	13.1	Not able to determine
Surplus	**2**	**2**	**3**	**4.9**	**5.4**	**5.7**	**4.9**	Not able to determine

** Inpatient Cases include open heart surgeries performed in the two dedicated open heart operating rooms.*
Source: SMFPs, Project I.D. # N-8354-09, and 2010 LRA

FirstHealth however, did not discuss its declining utilization or provide any assumptions regarding a change in the current trend resulting in the 0.5% annual growth rate used in the projected volume.

FirstHealth also did not disclose that Surgery Center of Pinehurst is a related entity of FirstHealth in Moore County. Details of that relationship are provided in the context of a discussion of FirstHealth's non-compliance with the Criteria and Standards for Surgical Services and Operating Rooms (10A NCAC 14A .2100) below. The following table shows historical utilization of the 14 shared surgical operating rooms at FirstHealth-Moore and the six ambulatory surgical operating rooms at Surgery Center of Pinehurst.

Please note that on page 69 of the 2010 FirstHealth Application, FirstHealth states that FirstHealth-Moore "provided 10,327 surgical cases in 16 operating rooms." FirstHealth includes all surgical operating rooms and open heart surgeries performed in its two dedicated open heart operating rooms. Had all 16 operating rooms and all surgeries been included in the following table, the operating room surplus would have been higher.

FirstHealth-Moore & Surgery Center of Pinehurst
Operating Room Need: October 2003 – September 2008

	2006 SMFP (10/03-9/04)	*2007 SMFP (10/04-9/05)*	*2008 SMFP (10/05-9/06)*	*2009 SMFP (10/06-9/07)*	*2010 SMFP (10/07-9/08)*	2010 LRA (10/08 - 9/09)
Inpatient Cases (No Dedicated OH Rooms)*	6,069	6,076	6,659	5,815	5,616	5,634
Hours at 3 Hours/ Case	18,207	18,228	19,977	17,445	16,848	16,902
Ambulatory Cases	7,719	7,869	7,703	9,230	9,210	9,073
Hours at 1.5 Hours/ Case	11,579	11,804	11,555	13,845	13,815	13,610
Total Cases	13,788	13,945	14,362	15,045	14,826	14,707
Total Estimated Hours	29,786	30,032	31,532	31,290	30,663	30,512
Total ORs Needed at 1,872 Hours/Year	15.9	16.0	16.8	16.7	16.4	16.3
OR Inventory - Licensed and CON Approved	20	22	22	22	22	22
Surplus	**4.1**	**6.0**	**5.2**	**5.3**	**5.6**	**5.7**

** Inpatient Cases include open heart surgeries performed in the two dedicated open heart operating rooms.*
Source: SMFPs and 2010 LRA

The proposed relocation of one shared surgical operating room to FirstHealth-Hoke does nothing more than shift the underutilized operating room inventory at FirstHealth Moore-Hoke service area surgical facilities among the existing hospital, the existing freestanding surgery center, and the proposed FirstHealth-Hoke. FirstHealth did not attempt to decrease the surplus by relocating more operating rooms to FirstHealth Hoke to meet the needs of the residents of Hoke County and as a result, leaves Hoke residents needing more while Moore County has a surplus of operating rooms.

3. FirstHealth-Moore projects underutilized surgical operating room inventory at FirstHealth-Moore and FirstHealth-Hoke.

The following table summarizes the surgical operating room projections on pages 69 and 70 of the 2010 FirstHealth Application. Please note that on pages 69 and 70, FirstHealth includes all 16 surgical operating rooms and all inpatient cases.

Projected Surgical Operating Room Need
FY 2013 – FY 2015

FirstHealth-Moore & FirstHealth-Hoke	FY 2013	FY 2014	FY 2015
Inpatient Cases	6,114	6,143	6,172
Hours at 3 Hours/ Case	18,342	18,429	18,516
Ambulatory Cases	4,288	4,297	4,306
Hours at 1.5 Hours/ Case	6,432	6,446	6,459
Total Cases	10,402	10,440	10,478
Total Estimated Hours	24,774	24,875	24,975
Total ORs Needed at 1,872 Hours/Year	13.2	13.3	13.3
OR Inventory - Licensed and CON Approved	18	18	18
Surplus	**4.4**	**4.3**	**4.3**

Source: 2010 FirstHealth Application pages 69- 70

The above table combines projected surgical volume for FirstHealth-Hoke and FirstHealth Moore to show that FirstHealth's proposed relocation of one shared surgical operating room to FirstHealth-Hoke results in projected underutilized operating room inventory. As shown in the above table, projected future operating room utilization results in **4.3** excess operation rooms at FirstHealth-Moore and FirstHealth-Hoke. Furthermore, FirstHealth does not discuss the underutilized operating rooms at related entity Surgery Center of Pinehurst, nor does it propose to de-license any surplus operating rooms. Therefore the proposed project represents a duplication of services as FirstHealth has proposed an excess of operating rooms in Hoke and Moore Counties.

I. FirstHealth Overstated Inpatient and Outpatient Imaging Volumes at FirstHealth-Hoke

FirstHealth projects inpatient imaging volume based upon emergency visits for FirstHealth-Hoke. Emergency volumes were overstated by 5.2% in Project Year 3. As a result inpatient imaging volume was overstated by 5.2%.

Outpatient imaging volumes are projected on page 227 of the FirstHealth Application. As stated on page 227 FirstHealth assumed a 20% market share of outpatient imaging volume in Project Year 3. Projections included in the 2009 FirstHealth Application utilize a 15% market share in Project Year 3. No explanation is provided for an increase in market share. Outpatient imaging volumes are overstated.

J. "Need Based on Community Perception" is Based Views of Only 0.6% of Hoke County Residents

FirstHealth engaged the services of InTandem to conduct a phone survey of Hoke County residents over a two-week period in April 2009. Survey results were used to develop market share assumptions for the proposed project. However, the survey should be given no credence

because it is not a valid statistical survey; and its questions were asked without giving important factual information particularly regarding the size of the hospital and the services provided.

Excerpts from the phone survey are provided on page 142. The results of the InTandem survey are set forth in Exhibit 47.

On page 142, FirstHealth states that

> [a]s a result of the Hoke County community survey, FirstHealth concludes that a majority of Hoke County residents (93%) would use a hospital with a full time emergency room (81%) that is developed by FirstHealth (71%).

That conclusion is spurious and unreasonable for the following reasons.

The Community Survey is biased based upon assumption that FirstHealth was providing a full service local community hospital, which as previously discussed, it is not.

FirstHealth does not disclose the preliminary information provided by InTandem to Hoke County residents who were called, in particular:

- Were survey participants compensated for taking the survey?
- Were survey participants aware that FirstHealth was doing the survey?
- Were residents told the hospital would not take inpatient admissions or deliver babies? Were they told it was only an 8 bed hospital?
- How was the participants chosen? Were efforts made to assure equal representation from all townships, especially those growing most rapidly on the eastern side of Hoke County?
- Were participants recruited to take the survey on the FirstHealth website?
- How were Spanish speaking calls handled?
- What time of day were residents called?
- How was Hoke County defined, by zip code or county lines?

The survey was also inherently biased in several ways regarding the underserved. First, the method in which the survey was given must be considered. A telephone survey, by nature, requires that the participant have a telephone, limiting the participation of the 14.5% (6,471) of Hoke County residents living below the poverty line. The language barrier is also an issue deserving of consideration. In the 2010 FirstHealth Application, FirstHealth identifies 10.8% of the Hoke County population as non-English speaking. This means that there are 4,132 people who were potentially excluded from the survey if InTandem failed to accommodate non-English speakers.

Equally important, FirstHealth does not disclose the total number of Hoke County residents called during the two-week survey period. It also does not disclose how many of the Hoke County residents called during that period declined to respond to the survey instrument.

In Question 12 of the survey instrument, it is revealed that **there were 273 interviews**. According to the North Carolina Office of State Budget and Management, Hoke County has a 2009 projected population of 45,602. Assuming that a total of 273 interviews were conducted,

FirstHealth relies on the opinions of 0.6% (273/45,602) **of the Hoke County population** to establish "need based on community perception."

It is readily apparent that the "need based on community perception" survey and the conclusions drawn by FirstHealth suffer from a hasty generalization, sometimes referred to as the "law of small numbers." "What this means is that we will often see things happen with small numbers that are not normative, that is, often small numbers do not well represent the behavior of large numbers."[9]

The utilization rates and market share assumptions utilized in FirstHealth's methodology, which are based upon the survey, are spurious and undocumented.

G.S. 131E-183 (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.

As discussed in detail in the context of Criterion (5), FirstHealth-Hoke is not a financially feasible project.

FirstHealth reviewed several alternatives to the proposed project in the 2010 FirstHealth Application, and chose to develop an 8-acute care bed hospital despite the fact that FirstHealth-Hoke will have a negative net income for the first three years of operation. As such, FirstHealth does not demonstrate that it proposed the least costly or most effective alternative.

The 2010 FirstHealth Application is non-conforming to Criterion (4).

G.S. 131E-183 (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.

A. FirstHealth Hoke Community Hospital (FirstHealth-Hoke) is not a financially feasible project.

FirstHealth Hoke Community Hospital (FirstHealth-Hoke) is not a financially feasible project. FirstHealth Hoke did not complete Proforma B in accordance with the CON Application form, adjusting depreciations such that it is not shown as an expense item. It is clear from the Proforma B form included in the CON Application Form provided by the CON Section that depreciation is considered and expense which is included in determining the financial feasibility of a project. Attachment 2 of these comments reflects the income and expenses associated with

[9] http://primes.utm.edu/glossary/page.php?sort=LawOfSmall

FirstHealth Hoke in the CON Proforma B format, which clearly shows that the proposed project is not financially feasible as shown in the following table.

FirstHealth Hoke Community Hospital – Net Income

	Project Year 1 FY 2012	Project Year 2 FY 2013	Project Year 3 FY 2014
Net Patient Revenue	$ 13,876,316	$ 15,354,348	$ 16,924,645
Expenses Including Depreciation	$ 13,315,521	$ 14,452,929	$ 15,257,962
Net Income	$ (641,831)	$ (988,664)	$ (223,402)

Source: ProForma B, page 324 of FirstHealth Application

In addition a comparative analysis of Proformas from the 2009 FirstHealth Application and the 2010 FirstHealth Application included in Attachment 3 shows that even though FirstHealth projected decreased expenses in FY13 by $1,000,000 from the CON Application filed in June 2009, the Application still looses nearly a quarter million dollars in Project Year 3.

B. Proforma Form A. Balance Sheet for the Applicant, FirstHealth of the Carolinas, Inc., is Not Included in the Application

FirstHealth failed to comply with the instructions in Section X by not providing a balance sheet, Form A, for FirstHealth of the Carolinas, Inc., the legal applicant and the parent company of the proposed FirstHealth-Hoke. By failing to do so, the CON Section will be unable to determine the impact of the proposed FirstHealth-Hoke on the balance sheet of FirstHealth of the Carolinas, Inc., specifically, the change in available funds on FirstHealth's asset accounts cannot be determined.

FirstHealth does not discuss the impact of the negative net income on FirstHealth's overall financial health and provides no documentation from the FirstHealth Board that FirstHealth is willing to support the proposed negative balance incurred at FirstHealth Hoke indefinitely. Again, because FirstHealth fails to include a ProForma Balance sheet for FirstHealth of the Carolinas, Inc., and it's the legal applicant for the proposed project, the project cannot be found financially feasible.

FirstHealth Hoke will be a separately licensed facility and a separate LLC, which based upon the accounting methodology utilized by FirstHealth will be reported in a consolidated balance sheet, consistent with the current methodology used for FirstHealth Montgomery and FirstHealth Richmond. Therefore, FirstHealth is required to provide a consolidated ProForma Balance Sheet which was not provided. Therefore, the project cannot be found financially feasible.

C. Adjusted Patient Days

FirstHealth incorrectly calculated adjusted patient days and, as a result, incorrectly calculated operating cost per adjusted patient days and net revenue per patient days. In the table on page 309 of the FirstHealth application, FirstHealth utilized total inpatient revenue only to calculate

adjusted patient days and allocated the $16,872,831 inpatient revenue between inpatient and outpatient revenue instead of using the values included in the ProFormas B and Proforma C for Inpatient Services. Inpatient revenue in line two of the table plus outpatient revenue in line four of the table on page 309 should have totaled $48,692,857 which is total revenue reflected in Proforma B for FirstHealth Hoke.

Furthermore, to use the values in this table comparatively to the Hoke Healthcare proposed Hoke Community Medical Center, depreciation must be included. The following table shows the corrected information.

Page 309 - Corrected w. depreciation	PY1	PY2	PY3
	10/01/2012-	10/01/2013-	10/01/2014-
	9/30/2013	9/30/2014	9/30/2015
Total Inpatient Days	2,011	2,077	2,344
Total Inpatient Revenue	$15,146,352	$16,004,037	$16,872,831
Inpt Rev per Pt Day	$7,532	$7,705	$7,198
Total Outpt Rev	$23,556,331	$27,518,903	$31,820,026
Outpt days	3,128	3,571	4,420
Adj Pt Days	5,139	5,648	6,764
Total Operating costs w. depreciation	$14,518,147	$16,343,013	$17,148,046
Operating cost per adj PD	$2,825	$2,893	$2,535
Total Net Ptient Revenue	($641,831)	($988,684)	($223,402)
Net Pt Rev per adj PD	($125)	($175)	($33)

As shown in the previous table, the project proposed by FirstHealth is not financially feasible. The incorrect table is included in Attachment 5 with the above table to allow side by side comparison. The above table further reflects that the proposed project is not financially feasible and as a result is not conforming to Criterion 5.

D. Overhead Allotment

Overhead allotments included in the ProForma Income and Expense Statement is projected to be 6.5% of net revenue or $1.1 million in Project Year 3. FirstHealth provides no documentation to show that this amount is sufficient to cover all expenses listed on page 52 of the Application. FirstHealth does not provide any documentation or a draft Service Agreement to show how this expenditure was determined. Therefore, the Agency does not have sufficient information to determine the reasonableness of the financial projections.

E. FirstHealth CON Application Cost Overruns

FirstHealth proposes to construct an eight bed hospital for $34138,515 on page 299 of the CON Application. However on page 303, it should be noted that FirstHealth has experienced cost overruns on three of the last four projects submitted for CON review which involved construction of new facilities. The 2004 Heart Hospital project required a cost overrun application for an additional 23.1% of the original projected capital expenditure, or $15.5 million

dollars on a $66 million dollar project. The 2005 GI Endoscopy room conversion, required an additional 75.1% of the original projected capital expenditure, or $1.5 million dollars on a $2 million dollar project. The 2006 Hospice bed project required a cost overrun application for an additional 35.5%, or $1.5 million dollars on a $4.3 million dollar project. FirstHealth has a tract record of incorrectly projecting true project costs associated with its previous construction projects and has a current history of significant cost overruns. This record is of significant importance in this review since the proposed project looses nearly a quarter million dollars in year three. If the total project cost is understated, then the losses incurred are also understated. Since FirstHealth has failed to provide any documentation to show that the Board of FirstHealth is willing to continue funding losses for the proposed project, the project should be denied as it is non-conforming to this Criteria.

F. Financial Comparison to Small Hospitals in Other States Not Applicable

FirstHealth proposes to construct an 8-bed acute care hospital to serve Hoke County residents. Much is made by FirstHealth about financial viability of its proposed 8-bed hospital.

FirstHealth provides a list of hospitals in other states; only two have 8 beds. Both 8-bed hospitals are located in Texas. FirstHealth does not, however, provide any financial information on any of the listed hospitals from which one could reasonable assess the financial viability of a listed hospital. It is noteworthy that of the five states with listed hospitals, only Louisiana is a certificate of need state. The other four states (Texas, Indiana, Utah, and New Mexico) do not have certificate of need law in effect.[10]

In North Carolina, the Office of Research, Demonstrations and Rural Health Development has supported small rural hospital for many years and has focused on the development of critical access hospitals throughout North Carolina to improve health services in rural communities and to enhance the financial situation of rural hospitals. There are over 20 critical access hospitals in North Carolina and usually are located in communities with limited populations and geographic access to health care services is limited and travel to larger communities difficult. The eight bed hospital proposed here does not meet these standards. It is not reasonable health planning and it has not been the policy or practice in North Carolina to approve an 8-bed acute care hospital. This is even more obvious when, as here, it cannot qualify as a critical access hospital.

G.S. 131E-183 (6)

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

FirstHealth-Hoke did not adequately demonstrate the need to develop a hospital with 8 acute care beds and one operating room. Please see discussion included in the context of Criterion (3). Therefore, FirstHealth did not adequately demonstrate that the proposed hospital would not

[10] http://www.ncsl.org/IssuesResearch/Health/CONCertificateofNeedStateLaws/tabid/14373/Default.aspx

result in an unnecessary duplication of the existing or approved health services. Consequently, the 2010 FirstHealth Application is nonconforming to Criterion (6).

A. Duplication of Acute Care Beds in Hoke/Moore Acute Care Service Area

Please see discussion included in the context of Criterion (3), which reflects an excess of acute care beds at FirstHealth-Moore, and results in a duplication of acute care services between the proposed and existing FirstHealth facilities.

B. Duplication of Operating Rooms in Hoke/Moore Acute Care Service Area

Please see discussion included in the context of Criterion (3), which reflects an excess of operating rooms at FirstHealth-Moore, and results in a duplication of surgical services between the proposed and existing FirstHealth facilities.

C. Impact on Cape Fear Valley Medical Center

On page 190, the 2010 FirstHealth Application states:

> [a]s a result of the Hoke County community survey, FirstHealth concluded that a majority of Hoke County residents (93%) would use a hospital with a full time emergency room (8.1%) that is developed by FirstHealth (71%).
>
> Based on the InTandem survey, FirstHealth has validated the assumption that most residents will not travel to a further hospital for emergency care.

Cape Fear Valley Medical Center is 15 miles from the proposed location of FirstHealth-Hoke; FirstHealth-Moore is 29 miles.[11]

On page 190, FirstHealth "projects that approximately 3,338 emergency patients [...] annually will stay in Hoke County rather than be treated at CFVMC." Then, FirstHealth states that the proposed hospital will have the following impact on Cape Fear Valley Medical Center:

- Approximately 9.2 emergency department patients per day [3,338/365 = 9.2 patients]
- Less than 1.2 patients per day per 10 emergency treatment rooms [(9.2 patients/76 rooms) x (10 rooms) = 1.2 patients]
- Less than 3 percent of total FY 2009 reported emergency cases will be effect[ed] [3,338/118,290 = 2.8%]

FirstHealth deliberately underplays the impact of the proposed FirstHealth-Hoke on Cape Fear Valley Medical Center.

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[11] Microsoft MapPoint

G.S. 131E-183 (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.

FirstHealth proposes an emergency hospital with eight inpatient beds, instead of meeting the identified needs of the residents of Hoke County for a full service community hospital. As previously discussed, there is a need for a larger community hospital to serve the residents of Hoke County.

On page 193, FirstHealth states that:

> [f]urthermore, the BRAC Regional Task Force recommends the development of a facility plan to determine the feasibility of establishing an acute-care hospital in Hoke County. **It was determined that Hoke County's projected population could support eighty to ninety acute-care beds and with the development of fifty-bed hospitals in North Carolina, Hoke County may be the next best location for a new hospital. [Emphasis added.]**

FirstHealth discounts the BRAC study, but uses the population growth in all projections. In addition, FirstHealth acknowledges this in a back handed way on page 180 where FirstHealth implies that as a result of Hoke County becoming its own Acute Care Service Area for planning purposes in the annual *SMFP*, additional acute care and operating room capacity will be available for expansion in the future as inpatient volume increases.

The cost of building piece by piece will result in significantly greater expense as construction costs increase annually. In addition, a letter from GMK Architects included in Attachment 4, compares the reasonableness of the proposed FirstHealth project with the CFVHA project.

When a justified need exists the cost of delaying construction multiplies annually. Therefore, the concept of expanding an eight bed hospital as necessary results in additional expense and does not represent the most reasonable alternative for the residents of Hoke County.

As a result, the proposed project in not conforming to Criterion 12. FirstHealth has not demonstrated that the cost, design, and means of construction represent the most reasonable alternative.

G.S. 131E-183 (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;*

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. *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*

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.*

The proposed FirstHealth-Hoke is not conforming to Criterion 13.a.b. and c. As previously discussed FirstHealth-Hoke made no changes to the proposed project from the CON Application submitted in 2009. A copy of the Comments in Opposition submitted relative to this issue in the 2009 Application are included in Attachment 1. Comments made regarding the previous application are still relevant to this Application, in particular, comments made about payor mix and Medicaid.

Most babies delivered to Hoke County mothers are Medicaid patients and self-pay. The majority of patients admitted with medical problems have Medicare and Medicaid. Reimbursement from Medicare and Medicaid is significantly lower for medical patients than surgical patients. Therefore, by deciding not to provide inpatient medical admissions and deliver babies at FirstHealth-Hoke, FirstHealth will not provide needed services to underserved populations in Hoke County. As a consequence, the 2010 FirstHealth Application fails to meet the needs of the underserved populations in Hoke County, particularly pregnant women.

Please see additional discussion regarding the proposed payor mix and the impact on the underserved in Attachment 1.

In addition, the proposed FirstHealth-Hoke is not conforming to Criterion 13.d. because the only means by which a patient will have access to its inpatient services is through the emergency room. As previously discussed, inpatient utilization of the proposed FirstHealth-Hoke is wholly based upon emergency room utilization.

G.S. 131E-183 (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.

FirstHealth-Hoke is not designed to be a competitive inpatient hospital. Rather, it is designed as a way station for emergency patients half of whom will be transferred to FirstHealth-Moore. As a result, it is designed to increase market share for FirstHealth-Moore, and will negatively impact patients and their families requiring them to travel further for care than they currently travel to Cape Fear Valley Health System. Hoke Community Medical Center is a better alternative which will truly enhance access to all inpatient and outpatient services, not just emergency care.

V. CON Criteria and Standards

A. Criteria and Standards for Operating Rooms – 10 NCAC 14C .2100

The proposed project includes the development of a **new separately licensed acute care hospital** which currently does not exist and has no operating rooms. The proposed project will result in a new licensed facility with one operating room which did not previously exist.

The proposed project is non-conforming to the Criteria and Standards for Operating Rooms as follows.

10 NCAC 14C .2102 Information Required of Applicant

On page 12 of the 2010 FirstHealth Application, FirstHealth notes that "FirstHealth Hoke Community Hospital will be separately incorporated into the FirstHealth Health System and organized in the FirstHealth Health System in the same way that FirstHealth Moore Regional Hospitals, FirstHealth Montgomery Memorial and FirstHealth Richmond Memorial hospitals are organized. The FirstHealth of the Carolina Bylaws and Articles covers the **separately state-licensed hospitals**." **[Emphasis added.]**

In fact, the proposed project includes the development of FirstHealth-Hoke, a **new separately licensed acute care hospital**, which currently does not exist and has no operating rooms. The proposed project will result in a new licensed facility with one operating room which did not previously exist.

FirstHealth did respond to 10 NCAC 14C .2102(c)(1)-(9) indicating that the proposal was a relocation but these Criteria are not applicable because the operating rooms were not being relocated from one "existing" licensed facility to another "existing" licensed facility.

- **10 NCAC 14C .2102(c)(1) and (2)**

FirstHealth is required to identify operating room inventory for each licensed facility in which it or a **related entity** owns a controlling interest, and is located in the service area after completion of the proposed project.

FirstHealth should have acknowledged ownership in the Surgery Center of Pinehurst. There are six existing ambulatory surgery operating rooms at the Surgery Center of Pinehurst.

According to Project ID #N-8494-10,[12] which proposes the Surgery Center of Hoke, an ambulatory surgery center with two ambulatory surgery operating rooms relocated from Surgery Center of Pinehurst in Moore County. The Surgery Center of Hoke will be located on the campus of FirstHealth-Hoke. FirstHealth is one of four co-applicants. FirstHealth owns 100% of one co-applicant, and 40% of a second co-applicant. Project ID #N-8494-10 reveals the following.

- FirstHealth of the Carolinas, Inc.
  - Sole member company of Surgery Center of Pinehurst Properties, LLC (100.0%)
  - Member company of the Surgery Center of Pinehurst, LLC (40.0%)
  - Proposed Surgery Center of Hoke facility/land owner and developer
  - Sole party obligated for the funding of the ambulatory surgery center's construction
  - As the developer of the ambulatory surgery center, FirstHealth of the Carolinas will fund construction through accumulated reserves

- Surgery Center of Pinehurst, LLC
  - Co-holder of a Certificate of Need for six operating rooms
  - Member companies are FirstHealth of the Carolinas, Inc. (40.0%), Surgical Associates, LLC (26%), Pinehurst Surgical Clinic ASC Group, LLC (26.0%), and Nueterra Holdings (8.0%)
  - Surgery Center of Pinehurst's operator

- Surgery Center of Pinehurst Properties, LLC
  - Co-holder of Certificate of Need for six operating rooms
  - Member company is FirstHealth of the Carolinas, Inc. (100.0%)
  - Surgery Center of Pinehurst facility/land owner

FirstHealth failed to acknowledge ownership in the Surgery Center of Pinehurst. Therefore, the project is not conforming to these Criteria.

[12] Section I of Project I.D. #N-8494-10

- **10 NCAC 14C .2102(c)(3) and (4)**

FirstHealth is required to provide past and future utilization information for each licensed facility in which it or a related entity owns a controlling interest, and is located in the service area after completion of the proposed project. FirstHealth should have provided the past and future utilization of the Surgery Center of Pinehurst.

Surgery Center of Pinehurst was opened in FY 2007. Its surgical volume reflects a shift of outpatient surgical procedures from FirstHealth-Moore to the freestanding outpatient center. Surgery Center of Pinehurst's historical utilization is shown in the following table.

Surgery Center of Pinehurst
Historical Utilization

Surgery Center of Pinehurst	*2009 SMFP* (10/06-9/07)	*2010 SMFP* (10/07-9/08)	2010 LRA (10/08-9/09)
Ambulatory Cases	2,326	4,757	4,803
% Change		104.5%	0.96%
Ambulatory ORs Needed at 1,872 Hrs/Year	1.8	3.8	3.8
Licensed Ambulatory ORs	6	6	6
Surplus (+)/Deficit (-)	4.2	2.2	2.2

Source: SMFPs; 2010 LRA

The previous table shows a large increase in volume between the first and second operating years of the Surgery Center of Pinehurst. Growth has slowed significantly between the second and third operating years, down to 1%. In none of its three operating years has the Surgery Center of Pinehurst been able to overcome a surplus in operating rooms.

FirstHealth failed to provide historical data or projected utilization for the Surgery Center of Pinehurst. Therefore, the project is not conforming to these Criteria.

- **10 NCAC 14C .2102(c)(5)**

As discussed in detail in the context of Criterion (3), FirstHealth randomly selected to increase its inpatient and outpatient surgical volume by 0.5% through FY 2015. FirstHealth failed to document assumptions associated with the 0.5% growth rate utilized for FirstHealth-Moore inpatient and outpatient surgical projections.

Inpatient surgical projections are included on page 70 of the 2010 FirstHealth Application. FirstHealth does not document FirstHealth-Moore's percent market share of Hoke County's inpatient surgery. FirstHealth assumes that 1% of inpatient surgical cases will shift from FirstHealth-Moore to FirstHealth-Hoke, and subtracted 1% of cases from FirstHealth-Moore's FY 2013 – FY 2015 projected inpatient cases.

Outpatient surgical projections also are included on page 70. FirstHealth assumes that FirstHealth-Moore has a 17.4% market share of Hoke County's outpatient surgery. FirstHealth assumes that 1% outpatient surgical cases will shift from FirstHealth-Moore to FirstHealth-Hoke, and subtracted 1% of cases from FirstHealth-Moore's FY 2013 – FY 2015 projected outpatient cases.

In addition, the one operating room will be the only operating room available for emergencies, resulting in bumping of scheduled outpatient cases. On page 76 of the 2010 FirstHealth Application, FirstHealth-Hoke projects 1,032 total surgical hours which represents over 50% of the 1,872 operating room hours available in the one operating room for emergency patients in need of surgery. Even if 50% of emergency surgical procedures are performed after scheduled hours or on weekends, over 5% of available operating room capacity is subject to unscheduled surgical procedures. That will result in scheduled outpatient surgical procedures being bumped or delayed on any given day. Few surgeons would continue practicing at FirstHealth-Hoke after being bumped and told to wait an hour to three or more hours to perform elective surgery. Included in Attachment 4 is a letter from GSK which discusses the restrictions of having only one operating room.

- **10 NCAC 14C .2102(c)(7) and (8)**

It is not clear if current and projected surgical rates included in the 2010 FirstHealth Application on pages 71 and 72 is the reported average reimbursement for inpatient or outpatient procedures. Therefore, they cannot be compared to Hoke Community Medical Center's projected average reimbursement.

Also not comparable are the top 20 surgery procedures at FirstHealth-Moore and the projected top 20 surgery procedures at FirstHealth-Hoke because the former is a 297-bed acute care hospital, and the latter is a proposed 8-bed emergency care hospital with one operating room.

For the few surgical procedures that are in common, FirstHealth's current and projected average reimbursement show a substantial decrease in reimbursement from March 2009 – February 2010 to FY 2015, as reflected in the following table.

Comparison Top 20 Current and Projected

Procedure	March 2009 – February 2010	FY 2015	Difference	Percent Change
Excision Intervert Disc	$7,602	$3,801	$3,801	100%
Other Skin & Subq I & D	$7,610	$541	$7,069	1307%
Lap Appendectomy	$6,735	$3,367	$3,368	100%

Source: 2010 FirstHealth Application, pages 71, 72

As shown in the previous table, reimbursement is projected to decrease between 100% and 1307% for the three surgical procedures consistent between FirstHealth-Moore and FirstHealth-Hoke. This is an unreasonable assumption and FirstHealth did not provide any rationale for such a substantial decrease over a four year timeframe.

- **10 NCAC 14C .2102(c)(9)**

FirstHealth fails to discuss expenses for anesthesiology, radiology, and pathology associated with inpatient and outpatient surgical services to be provided at FirstHealth-Hoke. Furthermore, FirstHealth fails to provide documentation from physicians agreeing to serve as medical director for anesthesiology and pathology services for the proposed FirstHealth-Hoke.

10 NCAC 14C .2103 Performance Standards

- **10 NCAC 14C .2103(b)(1)**

Inpatient and outpatient surgical projections for FirstHealth-Hoke and FirstHealth-Moore are overstated as discussed previously in detail in the context of Criterion (3) and 10 NCAC 14C .2102(b)(5).

- **10 NCAC 14C .2103(g)**

FirstHealth referenced Section IV. regarding the assumptions utilized to project surgical volume for FirstHealth-Hoke. As previously discussed, the assumptions associated with surgical growth at both FirstHealth-Hoke and FirstHealth-Moore are unsubstantiated.

10 NCAC 14C .2104 Support Services

- **10 NCAC 14C .2104(b)(1)**

FirstHealth proposes to transfer 50% of all emergency patients in need of inpatient care by ambulance to FirstHealth-Moore (or CFVMC). FirstHealth-Moore is located approximately 29 miles from the proposed FirstHealth-Hoke location included in the 2010 FirstHealth Application. In addition, the road system to FirstHealth-Hoke from the proposed location is a two lane winding road. The ambulance ride is estimated to take over 40 minutes[13].

Cape Fear Valley Medical Center is located less than 15 miles from the proposed FirstHealth-Hoke location included in the 2010 FirstHealth Application. The road system to CFVMC from the proposed location is a four lane straight road. An ambulance ride to CFVMC is estimated to take 20 minutes.

Throughout the FirstHealth Application, FirstHealth discusses the importance of getting patients to emergency care as a reason for the proposed hospital. FirstHealth does not, however, appear concerned about an additional transfer of 20 to 40 minutes for critical emergency patients in need of specialty services that will not be offered at the proposed FirstHealth-Hoke.

[13] Time and travel distance based upon proposed location using Microsoft MapPoint.

B. Criteria and Standards for CT Scanners – 10 NCAC 14C .2300

FirstHealth does not justify the need for the proposed CT at FirstHealth-Hoke. The proposed project is non-conforming to the Criteria and Standards for CT Scanners as follows.

10 NCAC 14C .2303 Performance Standards

- **10 NCAC 14C .2303(1)**

Projected CT scans are based upon the projected emergency department volume plus outpatient CT utilization. As discussed in the context of Criterion (3), emergency department assumptions are overstated resulting in overstating emergency visits by at least 5.2%. That would result in decreasing emergency rooms CT volumes by 5.2%.

Other CT outpatient volumes are projected on page 227 of the 2010 FirstHealth Application. As stated on page 227, FirstHealth assumed a "conservative" 20% market share of outpatient CT volume in Project Year 3 (FY 2015). On page 239 of the 2009 FirstHealth Application, however, FirstHealth assumed a "conservative" 15% market share of outpatient imaging volume. FirstHealth does not provide any documentation or detail regarding its change in market share assumption. FirstHealth also did not provide any documentation or data regarding the volume of outpatient CT currently performed at FirstHealth-Moore for Hoke County residents. Further, there is no documentation or detail regarding where the outpatient CT volume will originate.

The following reflects CT procedures projected in the 2010 FirstHealth Application and adjusted CT volume which reflects the impact of assuming the "conservative" 15% market share referenced in the text of the 2009 FirstHealth Application for Project Year 3 for outpatient CT volume, adjusting emergency CT volume to reflect the 5.2% decrease in emergency visits previously discussed in the context of Criterion (3).

Projected CT Volume in 2010 FirstHealth Application and Adjusted CT Volumes to Reflect the Impact of Overstated Market Share and Overstated ED Visits

	2010 FirstHealth Application	Adjusted per Discussion
Hoke County Total CT Volume Based upon CT Use Rate on page 227 of 2010 FirstHealth Application	4,343	4,343
FirstHealth-Hoke Market Share in table on page 227 of 2010 FirstHealth Application; FirstHealth-Hoke Market Share in text on page 239 of the 2009 FirstHealth Application	20.0%	15.0%
FirstHealth-Hoke Outpatient CT Scans	869	651
FirstHealth-Hoke CT Scans Based upon Emergency Department Volume on page 230	2,708	2,708
CT Volume decrease resulting from 5.2% overstated ED visits (2,708 x 5.2%)		140
FirstHealth-Hoke ED CT Volume	2,756	2,568
FirstHealth-Hoke Total CT Volume page 231 of 2010 FirstHealth Application (ED CT volume + Outpatient CT volume)	3,576	3,220
Avg HECTs per CT scan (Projected HECTS / CT Volume)	1.58	1.58
Projected HECTS page 231 of 2010 FirstHealth Application	5,641	5,079

As shown in the previous table, the proposed CT scanner does not achieve 5,100 HECTS in Project Year 3.

10 NCAC 14C .2304 Support Services

- **10 NCAC 14C .2304(a)**

FirstHealth did not provide any documentation regarding the availability of the required services at FirstHealth-Hoke, which will be a separately licensed hospital.

VI. Comparative Analysis

The Hoke Community Medical Center Application is comparatively superior to the 2010 FirstHealth Application, as shown in the following four tables.

Metric	Hoke Community Medical Center	FirstHealth-Hoke
Services Provided	Emergency Room – 16 ED Bays	Emergency Room – 8 ED Bays
	Inpatient Admissions – 25 General Acute Care Beds	Emergency Inpatient Services – 8 Acute Care Beds
	Inpatient and Outpatient Surgery – 2 ORs	Emergency Inpatient and Outpatient Surgery – 1 OR
	Obstetrical Services – 16 Bed Obstetrics Unit	
	Intensive Care Unit – 4 ICU Beds	
	Dedicated C-Section Room - 1	
	Observation Beds - 9	Observation Beds – 4
	Outpatient Diagnostic Imaging	Outpatient Diagnostic Imaging
	CT	CT
	Mobile MRI	Mobile MRI
	X-Ray	X-Ray
	Ultrasound	Ultrasound
		Mammography
		Nuclear Medicine
	Laboratory	Laboratory
	Pharmacy	Pharmacy
	Physical Therapy	
	Respiratory Therapy	
	Speech Therapy	

Source: Section I of 2010 FirstHealth Application and Hoke Community Medical Center Application

Metric	Hoke Community Medical Center	FirstHealth-Hoke
Capital Cost Per Bed	$2.25 million	$4.27 million
Construction Cost Per Bed	$1.265 million	$2.37 million
Patient Access	41 Acute Care Beds	8 Acute Care beds
Capital Cost per Sq Ft	$632.71	$683.47
Construction Cost per Sq Ft	$355.62	$379.19
Square feet for services	145,832	49,949

Source: Section XI of 2010 FirstHealth Application and Hoke Community Medical Center Application

Metric - PY 3	Hoke Community Medical Center	FirstHealth-Hoke - Correct Page 309 without Depreciation
Inpatient Revenue per Patient Day	$7,017	$7,198
Total Operating Cost Per Adjusted Patient Day	$1,953	$2,256
Total Net Revenue per Adjusted Patient Day	$1,888	$2,502
Metric - PY 3	**Hoke Community Medical Center**	**FirstHealth-Hoke - Corrected Page 309 to include Depreciation**
Inpatient Revenue per Patient Day	$7,017	$7,198
Total Operating Cost Per Adjusted Patient Day	$1,953	$2,535
Total Net Revenue per Adjusted Patient Day	$1,888	($33)

Source: Section X of 2010 FirstHealth Application and Hoke Community Medical Center Application

Metric	Parent Company of Hoke Community Medical Center: Cumberland County Hospital System, Inc.	Parent Company of FirstHealth-Hoke: FirstHealth of the Carolinas, Inc.
Medicaid Percent Patient Days FY2009	28.1%	8.4%

Source: Section VI of 2010 FirstHealth Application and Hoke Community Medical Center Application

Metric	Parent Company of Hoke Community Medical Center: Cumberland County Hospital System, Inc.	Parent Company of FirstHealth-Hoke: FirstHealth of the Carolinas, Inc.
Charity Care/Indigent/Self Pay Percent Patient Days FY2009	12.6%	7.8%

Source: Section VI of 2010 FirstHealth Application and Hoke Community Medical Center Application

The 2010 FirstHealth Application is deficient in the following respects:

- FirstHealth does not provide the best alternative for improved access for Hoke County residents. Cape Fear Valley Health System proposes to maximize resources in providing the largest access by relocating 41 acute care beds from Cape Fear Valley Health System to Hoke Community Medical Center while FirstHealth proposes to transfer 8 surplus acute care beds from FirstHealth-Moore.

- The 2010 FirstHealth Application is not the least costly or most effective alternative as shown above with the highest charges per patient day, highest adjusted operating cost per patient day and highest adjusted net revenue per patient day.

- FirstHealth cannot be approved because projected inpatient and outpatient utilization is based upon erroneous assumptions resulting in overstated projections as a result the facility will incur greater losses with the 8-bed facility.

For all of the above reasons, the 2010 FirstHealth Application is non-conforming to the Review Criteria for a New Institutional Health Service, and the 2010 FirstHealth Application must be denied.

VII. Conclusion

The majority of Hoke County residents live and are expected to live in the eastern side of the County, which is closer to Cape Fear Valley Medical Center and the proposed Cape Fear Valley West.

The FirstHealth Application confirms that:

- McLauchlin and Raeford Townships are the most populated townships in Hoke County.
- McLauchlin Township is projected to have a greater school age population growth due to the impact of BRAC.
- Combined, McLauchlin and Raeford Townships represent 68.9 percent of Hoke County's 2009 population and 70.3 percent of the County's 2014 population.

An analysis of census tract population for Hoke County also illustrates that the population growth is projected to continue in the eastern part of the county as shown in the following table.

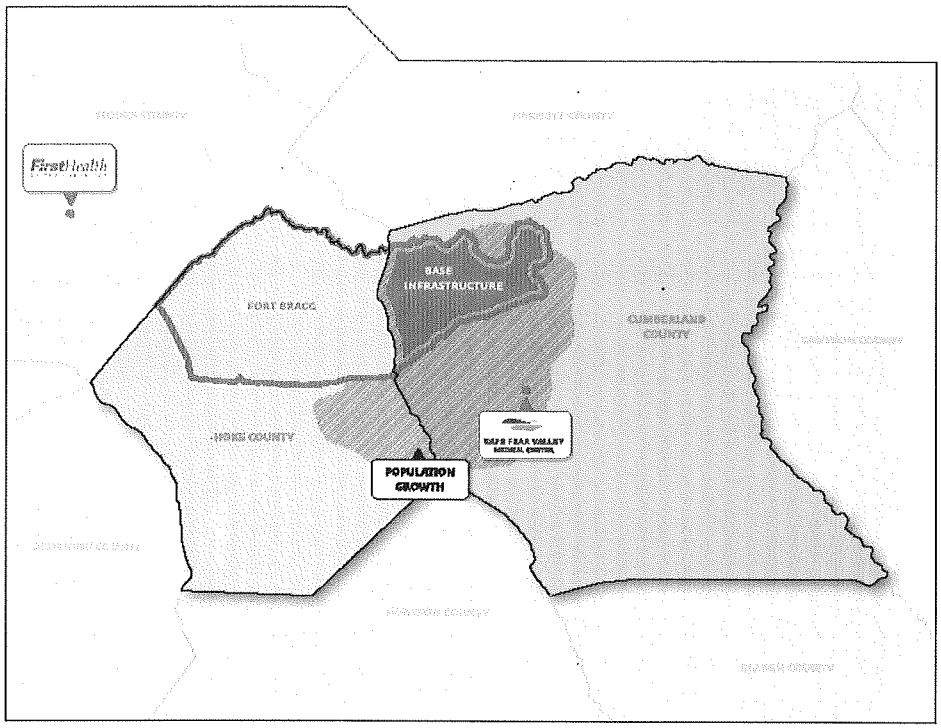
Hoke County Census Tract Population Data

	Total		Women 15-44		65+		Under 18	
Census Tract	2009	2014	2009	2014	2009	2014	2009	2014
9701	23,531	28,266	5,945	6,647	1,022	1,648	7,959	9,298
9702	9,292	10,243	1,800	1,929	728	1,103	2,468	2,668
9703	4,988	5,133	950	949	854	960	1,175	1,200
9704	6,814	7,351	1,498	1,620	490	799	2,108	2,238
Total	44,625	50,993	10,193	11,145	3,094	4,510	13,710	15,404
				Percent of Total				
9701	52.7%	55.4%	25.3%	23.5%	4.3%	5.8%	33.8%	32.9%
9702	20.8%	20.1%	19.4%	18.8%	7.8%	10.8%	26.6%	26.0%
9703	11.2%	10.1%	19.0%	18.5%	17.1%	18.7%	23.6%	23.4%
9704	15.3%	14.4%	22.0%	22.0%	7.2%	10.9%	30.9%	30.4%

Source: Claritas

As shown in the above table, the largest and fastest growing population base in Hoke County is census tract 9701. That census tract includes the population in eastern Hoke County and in the north, the training grounds for Fort Bragg Military Reservation which does not include any civilian population. The following map shows the location of the proposed population growth and the locations of the existing FirstHealth-Moore and Cape Fear Valley Health System.

Hoke County Population Growth



As illustrated in the above map, the northern section of Hoke County is the location of the Fort Bragg Military Reservation which does not include any civilian population. The map also illustrates that the projected population growth in Hoke County will be in the southeastern portion of the County adjacent to Cumberland County and closer to Cape Fear Valley West.

Hoke Community Medical Center proposes to maximize existing resources by relocating 41 acute care beds from Cape Fear Valley Health System to Hoke Community Medical Center. The proposed Hoke Community Medical Center is the best alternative to meet the needs of Hoke County residents and will result significant expansion in access to health care services.

**Comments in Opposition from Cape Fear Valley Health System, Inc.
Regarding FirstHealth of the Carolinas, Inc.
Certificate of Need Application (Project I.D. # N- 8354-09)
Submitted June 15, 2009 for July 1, 2009 Review Cycle**

I. Introduction

In accordance with N.C.G.S. Section 131E-185(a1)(1), Cape Fear Valley Health System, Inc., submits the following comments regarding the June 15, 2009 Certificate of Need Application Project I.D. # N- 8354-09(FirstHealth Application) submitted for the July 1, 2009 review cycle by FirstHealth of the Carolinas, Inc. (FirstHealth).

This project proposes to develop an acute care hospital, FirstHealth Community Hospital (FirstHealth-Hoke), with eight acute care beds, one operating room, and one MRI scanner, all relocated from FirstHealth Moore Regional Hospital (FirstHealth-Moore), for a total project cost of $34,838,503. The proposed FirstHealth-Hoke also includes a new CT scanner, new x-ray equipment, and other ancillary inpatient and outpatient services required in a community hospital.

FirstHealth Hoke Community Hospital (FirstHealth-Hoke) is not a financially feasible project. According to Proforma B on page 342 of the FirstHealth Application, the proposed hospital will experience negative net income in the first three years of operation as shown in the following table.

FirstHealth Hoke Community Hospital – Net Income

	Project Year 1 FY 2012	Project Year 2 FY 2013	Project Year 3 FY 2014
Net Patient Revenue	$ 13,199,129	$ 14,855,406	$ 16,553,295
Expenses Including Depreciation	$ 14,715,721	$ 16,681,577	$ 17,667,424
Net Income	$ (1,516,592)	$ (1,826,171)	$ (1,114,129)

Source: ProForma B, page 342 of FirstHealth Application

FirstHealth does not discuss the impact of the negative net income on FirstHealth's overall financial health. In fact, FirstHealth fails to include a ProForma Balance sheet for FirstHealth of the Carolinas, Inc., and it's the legal applicant for the proposed project. Therefore, the project cannot be found financially feasible.

The proposed FirstHealth-Hoke does not meet the needs of the community. FirstHealth begins its analysis with an erroneous assumption. On page 48 of the Application FirstHealth states, "Currently, a majority of Hoke County residents travels to Moore County for healthcare services, followed by Cumberland County." This is incorrect. As a result of the Federal Base Realignment and Closure Plan developed in 2005 (BRAC), Hoke County has been the fastest growing county in central North Carolina. The population growth in Hoke County has been in the eastern area of the County adjacent to Cumberland County. As a result, in FY 2008 Cumberland County providers served more Hoke County residents than Moore County providers

as documented in the Petition submitted by Cape Fear Valley Health System for changes in the *Proposed 2010 SMFP* [1].

As discussed on pages 128-132 of Cape Fear Valley West CON Application (Project ID # M-8353-09), the military population at Fort Bragg has increased dramatically and, as a result, the civilian population has grown. The population growth in Hoke County is a result of the growth associated with Fort Bragg; young military families in their first homes and other families choosing to live in Hoke County.

Hoke County residents need a full service community hospital which will deliver babies, make possible numerous inpatient admissions, have multiple surgical operating rooms that allow for scheduled inpatient surgeries, in addition to providing emergency services and outpatient care.

The proposed FirstHealth-Hoke is in reality an expensive emergency room with outpatient diagnostic imaging services and only one operating room.

The relocation of 8 acute care beds from FirstHealth-Moore to FirstHealth-Hoke is based upon the FirstHealth calculated surplus of beds at FirstHealth-Moore, not the need for acute care services for residents of Hoke County as stated on page 209 of the FirstHealth Application. The needs of Hoke County residents will not be met by the proposed FirstHealth-Hoke. It is clear that FirstHealth-Hoke has simply tried to justify a case for using what FirstHealth-Moore has determined to be leftover acute care beds, operating room, and MRI not at all based upon what is needed in Hoke County.

As specified in the FirstHealth Application on page 211, "***Direct inpatient admissions are not projected in the CON application and are not planned*** until the hospital is established and the Medical Staff increases in number ***[Emphasis added]***." The projections, however, reflect 8 beds as needed for emergency patients. Therefore, there will be no capacity for present or future direct inpatient admissions.

The only medical staff included for the proposed FirstHealth-Hoke are hospitalists, emergency room physicians, surgeons, and ancillary medical providers such as radiologists, pathologists, and anesthesiologists. Local surgeons and physicians will not be allowed to admit patients to FirstHealth-Hoke. If their patients are admitted through the ED, "FirstHealth proposes to strengthen the patient/physician relationship by ***allowing*** the local primary care physician to participate in the patients care through having access to patient diagnostic tests and input in treatment and discharge planning ***[emphasis added]***."

The population of Hoke County needs a much larger hospital with more than eight acute care beds and more than one operating room. The following table reflects total acute care bed need for residents of Hoke County based upon population projections from the North Carolina Office of State Demographics, a three year average acute hospital admission rate for residents of Hoke County, and a three year average length of stay for residents of Hoke County.

[1] Included in Attachment 8

Total Hoke County Acute Care Bed Need

	2009	2010	2011	2012	2013	2014
Population	45,602	46,762	47,922	49,082	50,243	51,402
Use Rate	69.27	69.27	69.27	69.27	69.27	69.27
Projected Cases	3,159	3,239	3,319	3,400	3,480	3,560
ALOS	4.87	4.87	4.87	4.87	4.87	4.87
Total Projected Days	15,398	15,790	16,182	16,573	16,965	17,357
ADC	42	43	44	45	46	48
Occupancy Rate	66.7%	66.7%	66.7%	66.7%	66.7%	66.7%
Beds Needed	63	65	66	68	70	71

Source: NCOSBM; State Office of Demographics; Attachment 1

The above table reflects 100% of projected inpatient days and acute care beds needed to serve residents of Hoke County through 2014 assuming no community hospital is built. The projected population of Hoke County in 2014, the third year of operation of the proposed FirstHealth-Hoke, will be sufficient to support **71** acute care beds when planned at target occupancy of 66.7%.

The following table assumes that a hospital is built in Hoke County and that out-migration is limited to patients in need of services not provided at the community hospital. The 70% market share assumption is consistent with a market share analysis included in the FirstHealth Application.

Hoke County Acute Care Bed Need
Adjusted for Out-Migration of Tertiary Care

	2009	2010	2011	2012	2013	2014
Population	45,602	46,762	47,922	49,082	50,243	51,402
Use Rate	69.27	69.27	69.27	69.27	69.27	69.27
Projected Cases	3,159	3,239	3,319	3,400	3,480	3,560
ALOS	4.87	4.87	4.87	4.87	4.87	4.87
Total Projected Days	15,398	15,790	16,182	16,573	16,965	17,357
Mkt Share	70%	70%	70%	70%	70%	70%
Projected Days	10,779	11,053	11,327	11,601	11,876	12,150
ADC	29.5	30.3	31.0	31.8	32.5	33.3
Occupancy Rate	66.7%	66.7%	66.7%	66.7%	66.7%	66.7%
Beds Needed	44	45	47	48	49	50

Source: NCOSBM; State Office of Demographics; Attachment 1
Market share consistent with FirstHealth-Hoke market share analysis in FirstHealth Application at page 151

As shown in the above table, the projected population of Hoke County in 2014, the third year of operation of the proposed FirstHealth-Hoke, will be sufficient to support **50** acute care beds when planned at a target occupancy of 66.7%.

FirstHealth states on page 159, that the impact of BRAC on the Hoke County population will be greater than projected by the NCOSBM. The following table projects the acute care bed need for residents of Hoke County taking into consideration the increased population impact of BRAC.

Hoke County Acute Care Bed Need – Plus BRAC Population Impact With and Without Out-Migration of Tertiary Care

	2009	2010	2011	2012	2013	2014
Population	48,066	46,762	47,922	49,082	50,243	55,144
Total Acute Care Beds Needed	67	65	66	68	70	76
Adjusted for Out-Migration – Acute Care Beds Needed	47	45	47	48	49	54

Source: NCOSBM; State Office of Demographics; Attachment 1
Market share consistent with FirstHealth-Hoke market share analysis in FirstHealth Application at page 151

The above table shows that when BRAC population is included, there is a need for 76 total acute care beds, and 54 acute care beds at a community hospital in Hoke County. The proposed FirstHealth-Hoke fails to meet the need of the residents of Hoke County.

The needs of Hoke County residents will not be met by FirstHealth. It is clear that FirstHealth-Hoke is based upon FirstHealth-Moore's leftovers and not at all based upon what is needed in Hoke County.

In stark contrast, the proposed Cape Fear Valley West Hospital (Project ID # M-8353-09) will provide residents of Hoke County with a full service hospital with 41 acute care beds, two ORs, and 9 observation rooms.

FirstHealth Moore Regional Hospital is listed as the applicant not FirstHealth Hoke Community Hospital. In response to Section I. Question 1. FirstHealth of the Carolinas, Inc. d/b/a FirstHealth Moore Regional Hospital is listed as the applicant. FirstHealth-Hoke should be the applicant, not FirstHealth-Moore.

II. CON Review Criteria

The following comments are submitted based upon the CON Review Criteria found at G.S.131E-183. While some issues impact multiple Criteria, they are discussed under the most relevant review Criteria and referenced in others to which they apply.

G.S. 131E-183 (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.

As discussed below in detail, the proposed project is non-conforming to Policy Gen-3: Basic Principles, Policy AC-5 – Replacement of Acute Care Bed Capacity, the need determination in the *2009 SMFP* for one fixed MRI scanner in Hoke County, and basic assumptions included in the acute care bed need methodology and the operating room need methodology.

A. Policy Gen-3 – Basic Principles

FirstHealth failed to adequately demonstrate the need for the project, and therefore failed to document how its projected volumes incorporate the Basic Principles in meeting the need identified in the *2009 SMFP*. FirstHealth also is selectively choosing patients with a preferential payor mix and as a result, fails to provide access to underserved populations. Consequently, the FirstHealth Application is not conforming to Policy Gen-3 and does not conform to Criterion 1. (See also discussion of Criterion 3 on p. 8 -13)

B. Policy AC-5 – Replacement of Acute Care Bed Capacity

Projected utilization in the FirstHealth Application for FirstHealth-Moore Regional Hospital (FirstHealth-Moore) is significantly overstated. As a result, the proposal does not project future utilization of total acute care beds at FirstHealth-Moore at 75.2% utilization. In addition, the combined utilization of acute care beds at FirstHealth-Hoke and FirstHealth-Moore does not exceed 75.2% as required by Policy AC-5. Consequently, the FirstHealth Application is not conforming to Policy AC-5, and does not conform to Criterion 1. (See also discussion of Criterion 3 on p. 17)

C. Acute Care Need Bed Need Methodology – Data and Projected Need – Results in Surplus Acute Care Beds

The projections included in the FirstHealth Application for FirstHealth-Moore are significantly overstated. Baseline data utilized in the projections is inconsistent with data included in the *Proposed 2010 SMFP*. As a result, the proposed project does not project future utilization of total acute care beds at FirstHealth-Moore at 75.2% utilization as required in the Acute Care Bed Need Methodology. In addition, the combined utilization of acute care beds at FirstHealth-Hoke and FirstHealth-Moore reflects a surplus of acute care beds. Therefore, FirstHealth is non-conforming to Criterion 1. (See also discussion of Criterion 3 beginning on p. 9)

D. OR Service Area Definitions

Hoke County is incorrectly included with Moore County and designated as a multi-county service area in the *2009 SMFP*. Step 1 of Operating Room Need Methodology is used to determine a Multi-County Operating Room Service Area (Page 56 of the *2009 SMFP)*:

> *Each county is a separate Operating Room Service Area except where there is no licensed facility with an operating room located within the county, in which case the county or counties without a licensed facility providing operating rooms are*

combined in a multi-county grouping with a county that has at least one licensed facility with an operating room. Multi-county groupings were determined based on surgical patient origin data from the Hospital and the Ambulatory Surgical Facility License Renewal Applications, supplemented by surgical patient origin data from Blue Cross and Blue Shield. ***Counties without a facility providing operating rooms were grouped with the contiguous county, whenever possible, which served the largest reported number of surgical patients. [Emphasis added.]***

In conversations on May 21, 2009 and July 1, 2009, the State Medical Facilities Planning Section acknowledged that it did not use the most current data available to determine service areas in the *2009 SMFP*. As such, the *2009 SMFP* groups Moore and Hoke Counties as a Multi-County Operating Room Service Area for purposes of determining operating room need.

Data reported on the Annual Hospital and the Ambulatory Surgical Facility License Renewal Applications (LRAs) is submitted to the State by each provider on December 1 of the preceding year. Patient origin data for FY 2007, reported in the 2008 Hospital and Ambulatory Surgical Facility LRAs, should have been used to determine Multi-County Operating Room Service Areas for the *2009 SMFP*. That data is the most current patient origin data reported by hospitals and ambulatory surgery centers.

A review of the applicable data for the *2009 SMFP* shows that in FY 2007, Hoke County residents utilized Cumberland County operating room services more than providers in any other county. As a result the Multi-County Operating Room Service Areas definition in the 2009 Plan should have been changed such that Hoke was consolidated with Cumberland County. The following table reflects total surgical utilization by residents of Hoke County in FY 2007.

Hoke County Surgical Cases – FY 2007

Surgical Providers	Outpatient	Inpatient	Combined Inpt/Outpt
Cumberland County Surgical Providers			
Fayetteville AmSurg Center	517		
Cape Fear Valley Medical Center	332	350	
Highsmith-Rainey Memorial Hospital	97	2	
Total Surgical Cases Cumberland County	946	352	**1,298**
Moore County Surgical Providers			
The Eye Surgery Center of the Carolinas	149		
FirstHealth-Moore	262	315	
Surgery Center of Pinehurst	550		
Total Surgical Cases Moore County	961	315	1,276
All Other Location Surgical Providers			
All Other Surgical Providers	270	160	430
Total Surgery – Hoke County Residents	2,177	827	3,004

Source: 2008 LRAs Attachment 2

As shown in the table, total surgical volumes reported in the for FY 2007 in the 2008 Hospital and Ambulatory Surgical LRAs, for Hoke County residents, Cumberland County surgical

providers' percentage of surgical market share was 43.2%. Moore County surgical providers' percentage of surgical market share was 42.5%. Cape Fear Valley Health System and Cumberland County providers served a greater percentage of Hoke County residents. FY 2008 data set forth in Attachment 2 reflects continuation of that trend.

Hoke County should have been combined with Cumberland County, and the two counties defined as a multi-county Operating Room Service Area in the *2009 SMFP*.

Consequently, the proposed relocation of an operating room from FirstHealth-Moore in Moore County to FirstHealth-Hoke in Hoke County should be denied as a result of the error in the *2009 SMFP*. Therefore, FirstHealth is non-conforming to Criterion 1.

E. Operating Room Need Methodology – Results in Surplus of Operating Rooms

Surgical volume is significantly overstated in the FirstHealth Application. As a result, projected utilization fails to justify FirstHealth's total operating rooms in Moore and Hoke Counties. There is a surplus of operating rooms based upon the Operating Room Need Methodology in the *2009 SMFP* and the methodology utilized by FirstHealth to project volume at FirstHealth-Moore and FirstHealth-Hoke. Therefore, FirstHealth is non-conforming to Criterion 1. (See also discussion of Criterion 3 beginning on p. 19)

F. MRI Determinative Need

The projections included in this Application and in FirstHealth-Moore's MRI CON Application (Project ID # H-8355-09) are overstated, and do not support the need for three MRI scanners at FirstHealth-Moore and one MRI scanner at FirstHealth-Hoke. Furthermore, projected MRI utilization does not support the relocation of one scanner to FirstHealth-Hoke if the addition of a fourth MRI scanner at FirstHealth-Moore is not approved as discussed in the context of Criterion 3(a). Therefore, FirstHealth is non-conforming to Criterion 1. (See also discussion of Criterion 3 beginning on p. 26)

Furthermore, the FirstHealth-Hoke Application should have been deemed to be competitive with the FirstHealth-Moore CON Application for an additional fixed MRI and the Triad Imaging CON Application for a fixed MRI. If the Triad Imaging Application is approved the relocation of the MRI from FirstHealth-Moore to FirstHealth-Hoke would result in inadequately meeting the needs of the population currently served by the MRI to be relocated and a determination of non-conformity to G.S. 131E-183 (3a).

G.S. 131E-183 (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.

The proposed project is non-conforming to Criterion 3 because it understates the need that residents of Hoke County have for acute care services, overstates the need for emergency services, and overstates the need for acute care services at FirstHealth-Moore. Furthermore, FirstHealth has chosen patients with a preferential payor mix by choosing not to provide obstetrical services.

A. FirstHealth Fails to Meet the Needs of the Underserved

The following table reflects total payor mix for residents of Hoke County for FY 2008.

Hoke County Payor Mix

Medicare and Medicare HMO	Medicaid	Tricare	Other Government	BC	HMO/PPO	Indemnity	Self Pay	Other	Total
Total Hoke County Discharges by Payor									
1,321	1,078	282	93	432	171	119	275	22	3,793
34.8%	28.4%	7.4%	2.5%	11.4%	4.5%	3.1%	7.3%	0.6%	100.0%
Hoke County OB DRGs									
4	335	63	0	75	42	15	18	0	552
0.7%	60.7%	11.4%	0.0%	13.6%	7.6%	2.7%	3.3%	0.0%	100.0%
Hoke County w/o. OB DRGs									
1,317	743	219	93	357	129	104	257	22	3,241
40.6%	22.9%	6.8%	2.9%	11.0%	4.0%	3.2%	7.9%	0.7%	100.0%

Source: Thomson Reuters NC Hospital Database; Attachment 3

As shown in the above table, over 60% of babies delivered to Hoke County mothers are Medicaid patients and 3.3% self-pay. The majority of patients admitted with medical problems have Medicare and Medicaid. Reimbursement from Medicare and Medicaid is significantly lower for medical patients than surgical patients. Therefore, by deciding not to provide inpatient medical admissions and deliver babies at FirstHealth-Hoke, FirstHealth will not provide needed services to underserved populations in Hoke County. As a consequence, FirstHealth does not conform to Criterion 3 because it fails to meet the needs of the underserved populations in Hoke County, particularly pregnant women.

Please see additional discussion regarding the proposed payor mix and the impact on the underserved in the context of Criterion 13.

B. FirstHealth Overstated Acute Care Patient Days at FirstHealth-Hoke

1. FirstHealth uses unreasonable increases in the Emergency Visit Use Rate for Hoke County residents

FirstHealth projects inpatient days based upon emergency visits for FirstHealth-Hoke. Emergency volumes were overstated by 3.5% in Project Year 3. As a result, inpatient days were overstated by 3.5%. All projections based upon emergency room visits are overstated. Therefore, the proposed project is non-conforming with Criterion 3.

Emergency volume for FirstHealth-Hoke is projected using a use rate methodology. FirstHealth increased the Hoke County emergency room use rate by 12.5% from FY 2008 to FY 2014 as reflected on page 214 of the FirstHealth Application. Population during this timeframe increases 23.8% as shown on pages 214 and 215 of the Application. As a result, total projected emergency visits for Hoke County residents on pages 214 and 215 reflects the compounded growth of the combined population and the emergency room use rate, resulting in a 39.4 % increase in emergency room utilization over the next six years, or 6.6% growth annually.

FirstHealth utilized historical North Carolina statewide emergency visit use rate data to inflate future emergency visit use rates. However, changes in North Carolina use rates can be skewed by urban emergency room utilization as reflected in the following two tables. Throughout the FirstHealth Application, FirstHealth compared health service utilization by Hoke County residents to seven counties with comparable total population. A comparative review of emergency visit growth in the seven counties identified by FirstHealth with comparable populations reflects a much more conservative growth in emergency room utilization as reflected in the following table.

Emergency Room Utilization – County with Comparable Population

County	Hospital	FY 2003	FY 2008	CAGR
Beaufort	Beaufort County Hospital	20,793	21,067	0.3%
Beaufort	Pungo District	5,396	5,328	-0.3%
Pasquotank	Albemarle Hosp	28,831	34,774	3.8%
Davie	Davie Cty Hosp	11,573	12,312	1.2%
Yadkin	Hoots Memorial	6,958	8,492	4.1%
Vance	Maria Parham	31,157	32,579	0.9%
McDowell	McDowell Hosp	15,898	20,142	4.8%
Watauga	Blowing Rock	1,545	1,411	-1.8%
Watauga	Watauga Medical Ctr	15,964	20,208	4.8%
Total Emergency Visits		138,115	156,313	2.51%

Source: Page 166 FirstHealth Application; Annual LRAs; Attachment 4

As shown in the above table, emergency visits increased only 2.5% annually from FY 2003 through FY 2008 in these counties identified by FirstHealth for comparative purposes with similar population bases.

The following table reflects the growth in emergency room utilization in hospitals located in large urban markets during the same timeframe.

Urban County Emergency Visit Growth

County	FY 2003	FY 2008	CAGR
Cumberland	89,016	116,433	5.5%
Durham	107,526	118,671	2.0%
Forsyth	138,245	191,409	6.7%
Guilford	182,363	181,325	-0.1%
Mecklenburg	332,430	437,482	5.6%
Orange	42,243	62,524	8.2%
Pitt	63,384	87,907	6.8%
Wake	179,301	292,233	10.3%
Total Emergency Visits	1,134,508	1,487,984	5.6%

Source: Annual LRAs; Attachment 4

As shown in the above table, emergency utilization increased 5.6% annually from FY 2003 through FY 2008 in counties with large population bases. Therefore, it is unreasonable to use an annual inflation rate for Hoke County emergency room use based upon the increase in the NC state emergency room use rate since the increase in the NC statewide emergency room use rate was skewed by higher growth in urban emergency room utilization from 2003 to 2008.

FirstHealth utilized county level comparative analysis throughout the Application, except in determining an appropriate emergency visit growth rate. Using the 2.5% CAGR in emergency room visits in the seven counties identified by FirstHealth with comparable populations to project emergency visits for Hoke County residents results in significantly lower projected emergency visits for Hoke County as shown in the following table.

Hoke County Population – Adjusted Total Emergency Visits Based Upon the Growth Emergency Utilization in Seven Comparable Counties

	2008	2009	2010	2011	2012	2013	2014
Adjusted Hoke ED Visits	10,148	10,402	10,663	10,930	11,204	11,485	11,773
Growth Rate	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%
Hoke ED Visits – FirstHealth Application	10,148				12,960	13,591	14,147
Overstated					15.7%	18.3%	20.2%

Source: Page 214 of FirstHealth Application; LRA data in previous table for growth rate; Attachment 4

Adjusted 2014 emergency room visits in the above table are 20.2% greater in Project Year 3 when the comparable counties ED growth rate is used to project future utilization. However, the 2.5% increase reflects both the increase in emergency utilization in a county and the increase in population growth rate. To determine the actual increase in emergency utilization, the population growth for the seven counties should be subtracted.

Population Growth Rate – 2003 – 2008

County	FY 2003	FY 2008	CAGR
Beaufort	45,331	46,600	
Davie	37,061	40,980	
McDowell	42,964	44,570	
Pasquotank	36,353	41,178	
Vance	43,561	43,497	
Watauga	43,080	45,325	
Yadkin	36,715	38,172	
Total	285,065	300,322	1.0%

Source: NCOSBM; Attachment 4

As shown in the above table, the overall annual population growth for the seven comparative counties was 1.0%. Subtracting the 1.0% overall annual population growth from the annual increase in emergency visits results in a 1.5% annual increase in emergency room utilization. Hoke County's population growth, as utilized in the FirstHealth Application, was 3.6% as reflected in the following table.

Hoke County Projected Population – Including BRAC Projected Growth

	2008	2012	2013	2014	CAGR
Hoke County Population	44,538	52,475	53,985	55,144	3.6%

Source: FirstHealth Application pages 214 and 215; Attachment 4

Combining the Hoke County population growth of 3.6% with the emergency room utilization growth of 1.5% experienced in the seven counties used by FirstHealth for comparative analysis, results in an emergency visit growth rate of 5.1%. The following table shows projected total Hoke County emergency visits in Project Year 3 using these assumptions.

Hoke County Population – Adjusted Total Emergency Visits

	2008	2009	2010	2011	2012	2013	2014
Adjusted Hoke ED Visits	10,148	10,664	11,206	11,775	12,374	13,003	13,663
Growth Rate	5.1%	5.1%	5.1%	5.1%	5.1%	5.1%	5.1%
Hoke ED Visits – FirstHealth Application	10,148				12,960	13,591	14,147
Overstated					**-4.7%**	**-4.5%**	**-3.5%**

Source: Page 214 of FirstHealth Application; LRA data in previous table for growth rate; Attachment 4

As shown in the above table, projected emergency visits for FirstHealth-Hoke at 14,147 were overstated by 3.5% in the third year of operation. Projected emergency visit volume, based upon reasonable assumptions, should have been 13,663. Since projected utilization for FirstHealth-Hoke was based upon ratios applied to emergency room utilization, inpatient days, inpatient surgery, inpatient and outpatient radiology, MRI, CT, and all other volumes based upon emergency room utilization are overstated by 3.5%.

2. *FirstHealth overstates average length of stay for ED inpatient admissions*

FirstHealth utilizes a 3.1 average length of stay for emergency room patients in need of admission to the eight bed inpatient unit. This ALOS is based upon a sample of Hoke County residents utilizing the FirstHealth-Moore emergency service over the last three years. However, the sample was not acuity adjusted.

FirstHealth-Hoke states on page 227 that 50% of all emergency patients in need of inpatient admission will be shifted to FirstHealth-Moore. While no discussion or documentation is provided for this assumption, FirstHealth does state on page 227 this is "to accommodate the projected ED inpatients specifically those who may have higher acuities." However, FirstHealth does not adjust the ALOS for those more complex patients with longer LOS who are transferred to FirstHealth-Moore and utilizes the 3.1 average length of stay those less acute patients at the low end of the continuum with lower than average LOS for patients remaining at FirstHealth-Hoke. As a result, the patient days are overstated.

Therefore, the proposed project is not conforming to Criterion 3 as FirstHealth failed to demonstrate the need that this population has for the services proposed.

C. FirstHealth Understated Acute Care Bed Need for FirstHealth Hoke Community Hospital

As discussed in the Introduction, the proposed FirstHealth-Hoke does not meet the needs of the residents of Hoke County. Every analysis of acute care bed need done for Hoke County, except FirstHealth-Hoke's analysis, establishes that the residents need more than the proposed eight acute care beds and one operating room. The following table reflects a summary of the total acute care bed need for the residents of Hoke County based upon population projections, a three year average acute hospital admission rate for residents of Hoke County, and a three year average length of stay for residents of Hoke County.

Total Hoke County Acute Care Bed Need

	2009	2010	2011	2012	2013	2014
Hoke County - NC Population Statistics						
Acute Care Beds Needed	56	58	59	60	62	63
Acute Care Beds Needed Adjusted for Out-Migration (30%)	44	45	47	48	49	50
Adjusted Hoke County Population Statistics (BRAC Population)						
Acute Care Beds Needed	59	58	59	60	62	68
Acute Care Beds Needed Adjusted for Out-Migration (30%)	47	45	47	48	49	54

Source: Attachment 1

As shown in the above table, projected acute care bed need in Hoke County exceeds 50 acute care beds. This analysis is consistent with the Assessment and Recommendations made in the Comprehensive Regional Growth Plan for the Fort Bragg Region for Hoke County. A need for a

50 bed community hospital in Hoke County is reflected on pages 38 and 39 of Attachment 5 (Hoke County BRAC Report).

It is revealing that FirstHealth continually uses the BRAC population growth figures to justify the proposed project, except the number of acute care beds needed. FirstHealth tries to make the case that in this single area of analysis, the BRAC study is incorrect (See page 185 of the FirstHealth-Hoke application). Based on FirstHealth's analysis the BRAC study should have found an acute care bed need of 8 beds for Hoke County. This number surprisingly coincides with FirstHealth-Moore's acute care bed surplus.

Clearly, the relocation of only eight acute care beds from FirstHealth-Moore to FirstHealth-Hoke is based upon the surplus of beds at FirstHealth-Moore, not the need for acute care services for residents of Hoke County. The needs of Hoke County residents are an afterthought, leftovers, based upon what is ***not needed*** at FirstHealth-Moore. Therefore, FirstHealth is non-conforming to Criterion 3.

D. FirstHealth-Moore Overstated Acute Care Days for Most Current Twelve Months

FirstHealth-Moore reported 86,237 acute care patient days for the time period May 2008 through April 2009 on page 173 of the FirstHealth Application. It is unclear what data source is being used by FirstHealth as no underlying information is provided in the Application. However, the data reported is inconsistent with data reported by FirstHealth in the Thomson Reuters NC Hospital Database used for state planning purposes.

The self reported data on page 173 shows the highest patient day utilization in years when compared to acute care days reported in Table 5A of the *Proposed 2010 SMFP* which is used for planning purposes by the State. The following table shows utilization of FirstHealth-Moore's 297 licensed acute care beds at 73,264 acute care patient days in FY 2008. The May 08-Apr 09 reported 86,237 acute care patients days included on page 173, reflects a 17.7% growth in a **six month timeframe** as reflected in the following table. This growth follows a 7.0% decrease in utilization in 2008.

FirstHealth-Moore Acute Care Bed Utilization: October 2003 – April 2009

	FY 2004	***FY 2005***	***FY 2006***	***FY 2007***	***FY 2008***	***May 2008 – April 2009****
SMFP Acute Care Days	80,761	75,770	74,037	78,816	73,264	86,237
% Change		-6.2%	-2.3%	6.5%	-7.0%	17.7%

Source: Annual SMFPs; Attachment 4
**Self-reported utilization data on page 173 of the FirstHealth Application*

Further analysis of the acute care patient day 17.7% growth at FirstHealth-Moore from FY 2008 to the most current twelve months (May 2008 – April 2009) reported by FirstHealth-Moore is reflected in the following table. **This analysis shows that the reported FirstHealth-Moore acute care patient day volume could not be achieved without an average daily census**

(ADC) at FirstHealth-Moore exceeding licensed bed capacity every day from January 2009 through May 2009. The following table reflects monthly acute care inpatient utilization as reported by FirstHealth-Moore to the Thomson Reuters NC Hospital Database for the time period FY 2007 through the first quarter of FY 2009.

FirstHealth Moore Regional Monthly Inpatient Day Utilization Through December 2008

Patient Days	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
FY 2007	6,927	6,617	6,884	7,444	6,640	7,147	6,625	6,833	5,825	5,882	6,458	5,833	79,115
FY 2008	6,429	6,076	6,226	6,323	6,821	6,507	6,200	6,025	5,475	6,006	5,912	5,763	73,763
FY 2009	6,669	6,272	6,710										19,651
Actual Patient Days **May 08-Dec 09**													48,832
Patient Days Reported in The FirstHealth Application - page 173 **May 08-April 09**													86,237
Difference Equals Remaining Patient Days for **Jan 09-Apr 09**													37,405
ADC Jan-Apr 09													312
Licensed Acute Care Bed Capacity													297
Patient Per Day Over Licensed Bed Capacity													15

Source: Thomson Reuters NC Hospital Database, Data through Q1 2009; Attachment 4

As shown in the above table, to achieve the 86,237 patient days at FirstHealth-Moore in May 2008 to April 2009, average daily census at FirstHealth-Moore would have had to been 312 patients per day, every day for the timeframe January 2009 through May 2009. **This increase in ADC reflects an occupancy level of 105.1% seven days a week for the four month timeframe.** Therefore, it would be impossible for FirstHealth to achieve this level of patient day utilization. Furthermore, FirstHealth did not provide any explanation of this significant increase in patient days.

As a result, FirstHealth fails to provide reasonable assumptions to project bed need for FirstHealth-Moore, therefore, it is impossible to project future utilization of FirstHealth-Moore or to justify the need for 320 beds at FirstHealth-Moore and FirstHealth-Hoke. As a result, the acute care projections are not reasonable and result in overstated patient days at FirstHealth-Moore and FirstHealth-Hoke.

E. FirstHealth Overstated Projected Acute Care Bed Need for FirstHealth-Moore

1. Projected Surplus of Beds at FirstHealth-Moore

A surplus of 53 acute care beds is projected for FirstHealth-Moore in FY 2014 in the *Proposed 2010 SMFP*. On page 209 of the FirstHealth Application, FirstHealth correctly points out that a surplus of 33 acute care beds was projected for FirstHealth-Moore in the *2009 SMFP*.

FirstHealth, however, does not disclose that its surplus is projected to grow from 33 to 53 beds in the *Proposed 2010 SMFP*. That surplus is shown in the following table, which is extracted from Table 5A of the *Proposed 2010 SMFP*.

Licensed Acute Care Beds	Adjustments for CON/Previous Need	Thomson 2008 Acute Care Days	6 Years Growth Using .02% Growth Rate	2014 Projected Average Daily Census	2014 Beds Adjusted for Target Occupancy	Projected 2014 Deficit or Surplus ("-")	2014 Need Determination
297	33	73,264	73,352	201	267	**-53**	0

Source: Table 5A of the Proposed 2010 SMFP.

Using FirstHealth's logic on page 209, the projected 2014 53-bed surplus becomes a surplus of 30 beds when the 23 CON-approved beds for FirstHealth-Moore's Heart Hospital (Project ID # H-7121-04) become operational in 2011. The 30-bed surplus is further reduced by 8-beds when the 8 beds at FirstHealth-Hoke become operational in 2012, leaving a surplus of 22 beds. FirstHealth has not acknowledged or addressed a 22-bed surplus.

2. FirstHealth Excess Acute Care Bed Capacity System Wide

In addition to the surplus of acute care beds at FirstHealth-Moore, a surplus of 47 acute care beds is projected for FirstHealth Richmond in FY 2014 and a surplus of 29 acute care beds is projected for FirstHealth Montgomery in FY 2014 in the *Proposed 2010 SMFP*. The following table illustrates the increasing excess of acute care beds associated with FirstHealth hospitals from the *2009 SMFP* to the *Proposed 2010 SMFP*.

FirstHealth Excess Acute Care Bed Capacity

Hospital	2009 SMFP	Proposed 2010 SMFP	Increase in Excess Bed Capacity
FH Moore Regional	-33	-53	-20
FH Richmond	-41	-47	-6
FH Montgomery	-31	-29	2
Total	-105	-129	-24

Source: SMFPs

As shown in the previous table, excess acute care bed capacity within the FirstHealth system is projected to be over 125 excess acute care beds in 2014 as reflected in the *Proposed 2010 SMFP*. This reflects 20 more excess acute care beds than in the previous year's *2009 SMFP*.

3. *Acute care bed projections for FirstHealth-Moore are significantly overstated*

Since 2004, acute care patient days at FirstHealth-Moore have decreased 9.3%, a CAGR of -2.3% as reflected in the following table.

FirstHealth-Moore Acute Care Bed Utilization: October 2003 – September 2008

	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	CAGR
SMFP Acute Care Days	80,761	75,770	74,037	78,816	73,264	
% Change		-6.2%	-2.3%	6.5%	-7.0%	-2.3%
LRAs Acute Care Days	79,839	75,327	77,037	80,897	76,079	
% Change		-5.7%	2.3%	5.0%	-6.0%	-1.1%
Variance (+) reflects Self Reported LRA greater than *SMFP*	**-1.1%**	**-0.6%**	**4.1%**	**2.6%**	**3.8%**	

Source: Annual SMFPs; Annual LRAs; Attachment 4

In addition, patient days decreased 7.0% from FY 2007 to FY 2008 based on the most current available *SMFP* data. However, FirstHealth used a 0.5% annual growth rate to project future volume for FirstHealth-Moore. FirstHealth did not provide any explanation regarding the reasonableness of this assumption. Based upon historical utilization, a 0.5% annual growth rate is not a reasonable assumption.

The above table also shows that annual self-reported data included in the LRAs has varied significantly from Thomson data included in the annual *SMFP*. In the last three years, FirstHealth-Moore's self-reported LRA acute care patient days have exceeded Thomson reported acute care patient day data by as much as 4.1% in 2006; 2008 data reflected a 3.8% variance. Therefore, it is reasonable to assume that the self-reported patient day utilization from April 2008 to March 2009 is overstated by as much as 3.5%, the three year average overstated percent from 2006 – 2008.[2]

The following table reflects projected bed need for FirstHealth-Moore based historical 2008 Thomson patient day volume reflected in the *Proposed 2010 SMFP* and county specific population growth rates for the counties of the FirstHealth-Moore service area, defined using the patient origin for inpatient services included in the 2009 LRA. It should be noted, however, that using population growth to project future bed days for FirstHealth-Moore results in overstated utilization based upon the historical patient day CAGR of -2.3% previously discussed.

[2] Calculation = (4.1% + 2.6% + 3.8%) / 3 = 3.5%

FirstHealth-Moore Projected Bed Need

	Historical Patient Days FY 2008	Population CAGR 2008-2014	Projected					
			2009	2010	2011	2012	2013	2014
Chatham	1,052	2.4%	1,079	1,107	1,134	1,161	1,188	1,216
Cumberland	1,736	0.9%	1,752	1,771	1,789	1,805	1,820	1,833
Harnett	2,586	2.8%	2,665	2,744	2,823	2,901	2,980	3,059
Hoke	5,142	2.5%	5,276	5,410	5,544	4,607	3,592	2,505
Lee	4,838	2.0%	4,938	5,039	5,140	5,241	5,341	5,442
Montgomery	5,596	0.4%	5,620	5,645	5,669	5,694	5,718	5,743
Moore	33,754	1.8%	34,392	35,024	35,652	36,276	36,896	37,510
Richmond	7,649	0.2%	7,659	7,684	7,702	7,715	7,725	7,732
Robeson	4,024	1.0%	4,064	4,103	4,142	4,181	4,220	4,260
Scotland	3,123	0.9%	3,150	3,181	3,212	3,242	3,273	3,304
All other (5.1%)	3,765		3,824	3,884	3,944	3,945	3,941	3,933
Total Pt Days	73,264		74,419	75,592	76,752	76,769	76,695	76,536
ADC	201		204	207	210	210	210	210
Occupancy	62.7%		63.7%	64.7%	65.7%	65.7%	65.7%	65.5%
Bed Need at 75.2%	267		271	275	280	280	279	279
Proposed Licensed and Approved Inventory	320		320	320	320	312	312	312
Surplus Beds (-)	-53		-49	-45	-40	-32	-33	-33

Source: County 2008 patient days = 2008 patient days from Table 5A of Proposed 2010 SMFP x patient origin from page 19 2009 LRA; Population growth from NC Office of State Demographics; Attachment 4

The above table also reflects adjustments to Hoke County patient days to reflect patient days shifted to the proposed FirstHealth-Hoke. As shown in the table, FirstHealth-Moore currently has 53 excess acute care beds. The surplus in acute care beds continues through 2014 with 33 surplus beds reflected in the previous table. Furthermore, as previously discussed, using population growth to project future bed days for FirstHealth-Moore results in overstated utilization based upon the historical patient day CAGR of -2.3% previously discussed.

FirstHealth fails to achieve the 75.2% utilization as required by Policy AC-5 of the *2009 SMFP*. As a result, the proposed project results excess acute care beds in the combined Moore-Hoke acute care service area, and FirstHealth fails to justify the need for the 320 acute care beds proposed for FirstHealth-Moore and FirstHealth-Hoke.

4. *Acute care bed projections in FirstHealth-Moore's Heart Hospital CON (Project ID # H-7121-04) were significantly overstated.*

As previously discussed, the proposed 320 acute care beds at FirstHealth-Moore will be underutilized. In addition, a comparison with patient day projections in the FirstHealth Heart Hospital (Project ID no. H-7121-04) shows that projections associated with the FirstHealth-Moore Heart Hospital also were overstated in 2004. In that Heart Hospital Application, FirstHealth-Moore assumed that "based on population growth, physician recruitment, and disease prevalence in its service area … that achieving a 2008 Acute Inpatient Days of Care of

87,723 patient days is reasonable." Projections found on page 104 of the Heart Hospital Application are set forth in the following table.

FirstHealth-Moore Acute Care Bed Projections: FY 2008 – FY 2010

Bed Category	FY 2008	FY 2009	FY 2010	Annual % Change
ICU	15,108	15,561	16,028	3.000%
General	72,755	73,482	74,217	1.000%
Total	**87,863**	**89,043**	**90,245**	**1.3%**

Source: Project ID #H-7121-04 at page 104; Attachment 4

It is noteworthy that in the FirstHealth Application for Hoke County, FirstHealth projects only "a 0.5 percent annual increase in inpatient days of care at FirstHealth-Moore from FY 2009 through FY 2014."[3] That annual growth rate is less than half of the growth rate FirstHealth projected in the Heart Hospital Application.

The following table compares actual and projected FY 2008 and projected acute care bed utilization in the current Application when all 320 acute care beds are licensed and operational at FirstHealth-Moore (312 acute care beds) and FirstHealth-Hoke (8 acute care beds) to the projections in Project ID #H-7121-04 for all 320 acute care beds at FirstHealth-Moore.

Comparison of FY 2008 Actual and Projected and Projected Days of Care: FY 2012 - FY 2014

Total: FirstHealth-Moore & FirstHealth-Hoke – 320 beds	Actual FY 2008	FY 2012	FY 2013	FY 2014
FirstHealth Application N-8354-09: Projected Days of Care	73,264	88,608	89,099	89,585
FirstHealth-Moore – 320 beds	**FY 2008**	**FY 2012**	**FY 2013**	**FY 2014**
Project ID #H-7121-04: Projected Days of Care	87,863	92,713	93,980	95,270
Difference	14,599	4,105	4,881	5,685
% Difference	**16.6%**	**4.4%**	**5.2%**	**6.0%**

Source: Attachment 4

As shown in the above table, actual FY 2008 patient days were 16.6% less than patient days projected in the FirstHealth-Moore Heart Hospital CON Application in 2004. FirstHealth's use of a much more conservative growth rate, which results in 6.0% less patient days in FY 2014, reflects FirstHealth's own acknowledgement that projected patient days were overstated in 2004. No explanation is provided in the FirstHealth Application for the difference in projections, as shown in the previous table.

The FirstHealth Application is non-conforming to Criterion 3 because projections for FirstHealth-Moore are overstated and are based upon unreasonable assumptions.

[3] FirstHealth Application N-8354-09 at page 174.

F. FirstHealth Overstated Inpatient Surgical Procedures at FirstHealth-Hoke Based on Unreasonable Increases in Emergency Utilization for Hoke County Residents

FirstHealth projects inpatient surgical volume based upon emergency visits for FirstHealth-Hoke at 69 procedures. Emergency volumes were overstated by 3.5% in Project Year 3. As a result inpatient surgical volume was overstated by 3.5%. Therefore, the proposed project in non-conforming to Criterion 3.

Furthermore, because FirstHealth-Hoke does not propose to admit patients for elective procedures as referenced on page 211 of the FirstHealth Applications, the projected inpatient surgical volume is based solely upon emergency room visits.

G. FirstHealth Understated Surgical Operating Rooms Needed for FirstHealth-Hoke

The population of Hoke County needs more than one operating room. The following table reflects total operating rooms needed for residents of Hoke County based upon population projections from the North Carolina Office of State Demographics and current inpatient and outpatient surgical use rates.

Total Hoke County Operating Room Need

Hoke County	2009	2010	2011	2012	2013	2014
Population	45,602	46,762	47,922	49,082	50,243	51,402
Inpt Surgical Use Rate	19.22	19.22	19.22	19.22	19.22	19.22
Projected Inpt Cases	876	899	921	943	965	988
Outpatient Surgical Use Rate	48.15	48.15	48.15	48.15	48.15	48.15
Projected Outpt Cases	2,196	2,252	2,308	2,363	2,419	2,475
Weighted OR Hours	5,923	6,073	6,224	6,375	6,525	6,676
Total OR Need	**3.2**	**3.2**	**3.3**	**3.4**	**3.5**	**3.6**

Source: NCOSBM; State Office of Demographics; Attachment 4

As shown in the above table, the projected population of Hoke County in 2014, the third year of operation of the proposed FirstHealth-Hoke, will support 3.5 operating rooms assuming 1,872 available surgical hours per room.

The following table assumes that if a hospital is built in Hoke County, that out-migration will be limited to patients in need of services not provided at that hospital, and that 50% of all inpatient surgery and 70% of all outpatient surgery will be provided at the hospital in Hoke County.

Hoke County Operating Room Need
Adjusted for Out-Migration of Tertiary Care

Hoke County	2009	2010	2011	2012	2013	2014
Population	45,602	46,762	47,922	49,082	50,243	51,402
Inpt Surgical Use Rate	19.22	19.22	19.22	19.22	19.22	19.22
Projected Inpt Cases	876	899	921	943	965	988
Inpt Mkt Share	50%	50%	50%	50%	50%	50%
Adjusted Inpt Cases	438	449	460	472	483	494
Outpatient Surgical Use Rate	48.15	48.15	48.15	48.15	48.15	48.15
Projected Outpt Cases	2,196	2252	2,308	2,363	2,419	2,475
Outpt Mkt Share	70.0%	70%	70%	70%	70%	70%
Adjusted Outpt Cases	1,537	1,576	1,615	1,654	1,694	1,733
Weighted OR Hours	3,620	3,712	3,804	3,896	3,989	4,081
Total OR Need	**1.9**	**2.0**	**2.0**	**2.1**	**2.1**	**2.2**

Source: NCOSBM; State Office of Demographics; Attachment 4
Market share is more conservative than FirstHealth-Hoke market share analysis on page 15 of FirstHealth Application

As shown in the above table, the projected population of Hoke County in 2014, the third year of operation of the proposed FirstHealth-Hoke, will be sufficient to support two operating rooms assuming 1,872 available surgical hours per room.

FirstHealth states on page 159 that the impact of BRAC on the Hoke County population will be greater than projected by the NCOSBM. The following table projects the operating room need for residents of Hoke County taking into consideration the increased population impact of BRAC.

Hoke County Operating Room Need – Plus BRAC Population Impact
With and Without Out-Migration of Tertiary Care

	2009	2010	2011	2012	2013	2014
Population	48,066	46,762	47,922	49,082	50,243	55,144
Total Operating Rooms Needed	**3.3**	**3.2**	**3.3**	**3.4**	**3.5**	**3.8**
Adjusted for Out-Migration – Operating Rooms Needed	**2.0**	**2.0**	**2.0**	**2.1**	**2.1**	**2.3**

Source: NCOSBM; State Office of Demographics; Attachment 4
Market share is more conservative than FirstHealth-Hoke market share analysis on FirstHealth Application page 151

Using the same methodology utilized in the above operating room need table, including the BRAC projections, results in a need for four total operating rooms for the residents of Hoke County and two operating rooms for a community hospital in Hoke County. The proposed FirstHealth-Hoke fails to meet the needs of the residents of Hoke County.

As reflected on page 209 of the FirstHealth Application, the relocation of only one operating room from FirstHealth-Moore to FirstHealth-Hoke is clearly based upon the FirstHealth calculated surplus of operating rooms at FirstHealth-Moore and not the need for surgical services for residents of Hoke County. Therefore, FirstHealth is non-conforming to Criterion 3.

H. FirstHealth Overstates Surgical Operating Rooms Needed for FirstHealth-Moore Hospital

1. *FirstHealth-Moore has experienced a significant decline in surgical utilization.*

Self-reported data on page 65 of the FirstHealth Application shows utilization of FirstHealth-Moore's surgical operating rooms at the lowest volume in years, as shown in the following table.

FirstHealth-Moore Surgical Utilization: October 2003 – March 2009

FirstHealth-Moore	*2006 SMFP (10/03-9/06)*	*2007 SMFP (10/04-9/05)*	*2008 SMFP (10/05-9/06)*	*2009 SMFP (10/06-9/07)*	*Proposed 2010 SMFP (10/07-9/08)*	April 2008 – March 2009**
Inpatient Cases (Dedicated C-Section OR Cases Excluded)*	6,069	6,076	6,659	5,815	5,616	**5,495**
% Change		0.1%	9.6%	-12.7%	-3.4%	
Ambulatory Cases	7,719	7,869	5,377	4,805	4,453	**4,318**
% Change		1.9%	-31.7%	-10.6%	-7.3%	
Total	13,788	13,945	12,036	10,620	10,069	**9,813**
% Change		1.1%	-13.7%	-11.8%	-5.2%	

** Inpatient Cases include open heart surgeries performed in the two dedicated open heart operating rooms.*
***Self-reported utilization data on page 65 of The FirstHealth Application*
Source: SMFPs and Hospital License Renewal Application

FirstHealth not only did not acknowledge that it was experiencing significant declines in surgical volume, it also projected that its total surgical volume will increase by 0.5% per year through FY 2014.[4]

2. *FirstHealth-Moore does not acknowledge ownership of Surgery Center of Pinehurst*

In addition to the underutilized operating rooms at FirstHealth-Moore, FirstHealth also has significant ownership of the Surgery Center of Pinehurst which has six operating rooms.

According to Project ID #H-7096-04,[5] which was for expansion of Surgery Center of Pinehurst to 6 operating rooms, FirstHealth owns 100% of one of the two co-applicants and 40% of the second co-applicant. Project ID #H-7096-04 reveals the following.

[4] FirstHealth Application N- 8354-09 at page 67.
[5] Section I (bates stamped pages 000006 – 000012) and Exhibit 1 of Project I.D. #H-7096-04

- Surgery Center of Pinehurst Properties, LLC
  - Owned 100% by FirstHealth; FirstHealth will make available up to 49% ownership of LLC to Community Physicians after licensure and certification of facility
  - Co-holder of CON for 4 ORs
  - CON co-applicant for two additional ORs
  - Sole party obligated for the funding of the ambulatory surgery center's expansion
  - Under terms of a Ground Lease with FirstHealth, Surgery Center of Pinehurst Properties, LLC will lease land for the ambulatory surgery center's construction and in turn will sublease the land to Surgery Center of Pinehurst, LLC

- Surgery Center of Pinehurst, LLC – "operator of the ASC"
  - Owned 40% by FirstHealth, 26% by Surgical Associates, LLC, 26% by Pinehurst Surgical Clinic ASC Group, LLC, and 8% by ASC Group
  - Co-holder of CON for 4 ORs
  - CON co-applicant for two additional ORs
  - Ambulatory surgery center operator
  - Sole party responsible for funding of the ASC's fixed and mobile equipment
  - Sole party responsible for funding of the ASC's start up and initial operating expenses

- Surgical Associates, LLC is 12 medical practices with 26 physicians
- Pinehurst Surgical Clinic owned by 23 physicians
- ASC Group, LLC is national ambulatory surgery development company, management company for Surgery Center of Pinehurst, ASC, and sole owner of ASC's clinical, administrative, and support staff provider (AmStaff, LLC).

According to Project ID #H-6881-03,[6] which was for development of Surgery Center of Pinehurst with four operating rooms, FirstHealth owns 100% of one of the two co-applicants and 40% of the second co-applicant. Project ID #H-6881-03 reveals the following.

- Surgery Center of Pinehurst Properties, LLC
  - CON co-applicant
  - Sole party obligated for the funding of the ambulatory surgery center's construction and development
- Surgery Center of Pinehurst, LLC – "facility operator"
  - Owned 40% by FirstHealth, 52% by Surgical Associates, LLC, and 8% of ASC Group
  - CON co-applicant for construction and development of 4 OR ASC
  - Leases the completed surgery center from Surgery Center of Pinehurst Properties, LLC
  - Sole party responsible for funding of the ASC's fixed and mobile equipment

[6] Section I (bates stamped pages 000005 – 000011) and Exhibit 1 of Project I.D. #H-6881-03

10A N.C.A.C. 14C .2102 requires the applicant to provide past and future utilization information for each licensed facility, which the applicant or a related entity owns a controlling interest in and is located in the service area after completion of the proposed project. Therefore, FirstHealth should have discussed the interest in Surgery Center of Pinehurst and the impact on Surgery Center of Pinehurst. Surgery Center of Pinehurst was opened in FY 2007 and the surgical volume reflects a shift of outpatient surgical procedures from FirstHealth-Moore to the freestanding outpatient center. Surgery Center of Pinehurst's most recent utilization is shown in the chart below.

Surgery Center of Pinehurst – Historical Utilization

Surgery Center of Pinehurst	*2006 SMFP (10/03-9/06)*	*2007 SMFP (10/04-9/05)*	*2008 SMFP (10/05-9/06)*	*2009 SMFP (10/06-9/07)*	***Proposed** 2010 SMFP (10/07-9/08)*	**April 2008 – March 2009****
		(10/03-9/04)	**(10/04-9/05)**	**(10/05-9/06)**	**(10/06-9/07)**	**(10/07-9/08)**
Ambulatory Cases	6	0	0	2,326	4,425	4,757
% Change					90.2%	7.5%

Source: SMFPs; LRAs

Even with the positive growth experienced at Surgery Center of Pinehurst, total FirstHealth surgical utilization is decreasing as discussed in the following section.

3. *Existing and projected underutilized shared surgical operating room inventory at FirstHealth-Moore.*

The following table relies on the representation of FirstHealth that there are indeed 16[7] shared surgical operating rooms at FirstHealth-Moore.

[7] FirstHealth Application N-8354-09 at 67: "The recent 12 month period from May 2008 through April 2009, FRMH provided 9,813 surgical cases in 16 operating rooms."

FirstHealth-Moore Shared Surgical Operating Room Need: October 2003 – March 2009

FirstHealth-Moore	*2006 SMFP (10/03-9/04)*	*2007 SMFP (10/04-9/05)*	*2008 SMFP (10/05-9/06)*	*2009 SMFP (10/06-9/07)*	*Proposed 2010 SMFP (10/07-9/08)*	April 2008 – March 2009
Inpatient Cases (No Dedicated C-Section or OH Rooms)*	6,069	6,076	6,659	5,815	5,616	5,495
Hours at 3 Hours/ Case	18,207	18,228	19,977	17,445	16,848	16,485
Ambulatory Cases	7,719	7,869	5,377	4,805	4,453	4,318
Hours at 1.5 Hours/ Case	11,579	11,804	8,066	7,208	6,680	6,477
Total Cases	13,788	13,945	12,036	10,620	10,069	9,813
Total Estimated Hours	29,786	30,032	28,043	24,653	23,528	22,962
Total ORs Needed at 1,872 Hours/Year	15.9	16.0	15.0	13.2	12.6	12.3
OR Inventory	16	16	16	16	16	16
Surplus (-)/Deficit	-0.1	-0.0	-1.0	-2.8	-3.4	-3.7

** Inpatient Cases include C-Section and open heart surgeries performed in the two previously dedicated open heart operating rooms.*
Source: SMFPs; LRAs; Attachment 4

The above table shows an increase in surplus shared surgical operating rooms, which are a result of significant declines in total surgical volume. FirstHealth however, did not discuss this decrease or provide any assumptions regarding a change in the current trend resulting in the 0.5% annual growth rate used in the FirstHealth-Moore OR projected volumes.

FirstHealth-Moore Plus Surgery Center of Pinehurst
Operating Room Need: October 2003 – September 2008

	2006 SMFP (10/03-9/04)	*2007 SMFP (10/04-9/05)*	*2008 SMFP (10/05-9/06)*	*2009 SMFP (10/06-9/07)*	*Proposed 2010 SMFP (10/07-9/08)*
Inpatient Cases (No Dedicated C-Section or OH Rooms)*	6,069	6,076	6,659	5,815	5,616
Hours at 3 Hours/ Case	18,207	18,228	19,977	17,445	16,848
Ambulatory Cases	7,719	7,869	7,703	9,230	9,210
Hours at 1.5 Hours/ Case	11,579	11,804	11,555	13,845	13,815
Total Cases	13,788	13,945	14,362	15,045	14,826
Total Estimated Hours	29,786	30,032	31,532	31,290	30,663
Total ORs Needed at 1,872 Hours/Year	15.9	16.0	16.8	16.7	16.4
OR Inventory	22	22	22	22	22
Surplus/Deficit	-6.1	-6.0	-5.2	-5.3	**-5.6**

** Inpatient Cases include C-Section and open heart surgeries performed in the two previously dedicated open heart operating rooms.*
Source: SMFPs; LRAs; Attachment 4

The proposed relocation of one shared surgical operating room to FirstHealth-Hoke does nothing more than shift the underutilized operating room inventory at FirstHealth-Moore between the existing hospital, the freestanding surgery center and the proposed FirstHealth-Hoke. FirstHealth did not attempt to decrease the surplus by relocating more operating rooms to FirstHealth Hoke to meet the needs of the residents of Hoke County and as a result, leaves Hoke residents needing more while Moore County has a surplus of operating rooms.

4. *FirstHealth-Moore projects underutilized shared surgical operating room inventory at FirstHealth-Moore and FirstHealth-Hoke.*

The following table summarizes the shared surgical operating room projections on pages 66 and 67 of the FirstHealth Application. The following table relies on the representation of FirstHealth that there are and will continue to be a total of 16[8] shared surgical operating rooms at FirstHealth-Moore and FirstHealth-Hoke.

Projected Shared Surgical Operating Room Need: FY 2012 – FY 2014

FirstHealth-Moore & FirstHealth-Hoke	FY 2012	FY 2013	FY 2014
Inpatient Cases	5,607	5,635	5,666
Hours at 3 Hours/ Case	16,821	16,905	16,998
Ambulatory Cases	4,562	4,610	4,658
Hours at 1.5 Hours/ Case	6,843	6,915	6,987
Total Cases	10,169	10,245	10,324
Total Estimated Hours	23,664	23,820	23,985
Total ORs Needed at 1,872 Hours/Year	12.6	12.7	12.8
OR Inventory	16	16	16
Surplus (-) /Deficit	**-3.4**	**-3.3**	**-3.2**

Source: FirstHealth Application pages 66, 67

The above table combines projected surgical volume for FirstHealth-Hoke and FirstHealth Moore to show that FirstHealth's proposed relocation of one shared surgical operating room to FirstHealth-Hoke results in projected underutilized operating room inventory. As shown in the above table, projected future operating room utilization results in 3.2 excess operation rooms at FirstHealth-Moore and FirstHealth-Hoke. Furthermore, FirstHealth does not discuss the underutilized operating rooms nor do they proposed to de-license the surplus operating rooms. Therefore the proposed project represents a duplication of services as FirstHealth has proposed an excess of operating rooms in Hoke and Moore Counties and FirstHealth is non-conforming to Criterion 3.

[8] FirstHealth Application N-8354-09 at page 67: "FRMH will operate 15 operating rooms due to the relocation of 1 operating room to FirstHealth-Hoke."

I. FirstHealth Overstated Inpatient and Outpatient Imaging Volumes at FirstHealth-Hoke

1. *FirstHealth-Hoke overstated inpatient imaging volume.*

FirstHealth projects inpatient imaging volume based upon emergency visits for FirstHealth-Hoke. Emergency volumes were overstated by 3.5% in Project Year 3. As a result inpatient imaging volume was overstated by 3.5%. Therefore, the proposed project in non-conforming to Criterion 3.

2. *FirstHealth-Hoke overstated outpatient imaging volume.*

Outpatient imaging volumes are projected on page 239 of the FirstHealth Application. As stated on page 239 FirstHealth assumed a "conservative" 15% market share of outpatient imaging volume. However, projections included in the table on page 239 utilize 20% market share. Therefore, outpatient imaging volumes also are overstated. Furthermore, FirstHealth does not provide any documentation, or detail regarding where the outpatient imaging volume will originate. FirstHealth also did not provide any documentation or data regarding the volume of outpatient imaging currently performed at FirstHealth-Moore for Hoke County residents. Therefore, the proposed project in non-conforming to Criterion 3.

3. *Mammography and ultrasound available only three hours per day.*

FirstHealth proposes operational hours for mammography and ultrasound in a hospital setting for only three hours per day. Ultrasound is a major tool used in emergency services. It is unreasonable to have ultrasound staffed only three hours per day.

Mammography is nearly 100% an outpatient service. FirstHealth does not provide any discussion regarding the limited hours of operation for this important outpatient service.

The proposed Hoke Imaging project will provide both mammography and ultrasound eight hours per day and provides a better alternative for these services on an outpatient basis.

J. MRI Utilization of FirstHealth-Moore

FirstHealth has failed to demonstrate the level of needed MRI utilization for the proposed transfer of its LX Horizon Echo Speed, 1.5T MRI scanner to Hoke County.

1. MRI letters do not support the proposed MRI utilization level

MRI physician referral letters included in Exhibit 30 reveal the following:

- 26 letters are included in the Exhibit.
- Only 12 letters indicated 449 MRI referrals which are listed in the following profile:

Profile of MRI Physician Referrals

Classification	MRI Referrals
14 letters	0
PA-C	300
MD	5
MD	2
MD	6
Chiropractor	50
MD	50
FNP	20
MD	2
MD	5
MD	2
MD	4
MD	3
Total	**449**

- The 449 indicated referrals do not cover the ED and outpatient imaging projections of 828 scans by FirstHealth.

- One physician assistant has projected 67% of the referrals, while 14 other physicians did not commit any referrals at all, and some doctors projected only very small annual MRI referrals;

2. Scotland and Robeson County Impact Overstated

Without additional volume from Scotland and Robeson Counties, FirstHealth-Hoke could not sustain the proposed relocated MRI. FirstHealth provides no evidence or documentation that patients currently traveling to FirstHealth-Moore from Scotland or Robeson Counties would be willing to seek care in Hoke County, nor that the volume shifted to FirstHealth-Hoke would be appropriate for the MRI services offered at FirstHealth-Hoke. It is unlikely that patients who choose referral to FirstHealth-Moore, and physicians with existing referral patterns to FirstHealth-Hoke, will change existing patterns. These patients have already chosen to leave both Robeson and Scotland Counties where MRI scanners are available for diagnostic MRI scans in Moore County.

3. Historical MRI utilization at FirstHealth-Moore

Unlike surgical and acute care days at FirstHealth-Moore, FirstHealth does not provide most current 12 month MRI volume of FirstHealth-Moore's three fixed MRI scanners. Instead in a bullet point at the bottom of page 102, FirstHealth discloses "[y]ear-to-date MRI scans are annualized to total 12,216 MRI scans." FirstHealth does not, however, disclose how many months of actual self-reported data it is annualizing.

In a note on page 100 FirstHealth states that "[...] in 2008, FirstHealth experienced a similar decrease in MRI scans for seven months in 2008 due to the lack of neurosurgery coverage at FRMH." The scope of the decline is not disclosed. In a bullet at the bottom of page 102,

FirstHealth states that "FirstHealth-Moore market share in 2009 has changed due to the presence of 4 neurosurgeons on the FirstHealth-Moore medical staff."

FirstHealth did not provide historical MRI utilization at FirstHealth-Moore. However, the following table shows the historical MRI volume at FirstHealth-Moore.

FirstHealth-Moore Fixed MRI Utilization: October 2003 – September 2008

FirstHealth-Moore	*2006 SMFP (10/03-9/04)*	*2007 SMFP (10/04-9/05)*	*2008 SMFP (10/05-9/06)*	*2009 SMFP (10/06-9/07)*	*Proposed 2010 SMFP (10/07-9/08)**	CAGR 10/03-9/06	CAGR 10/03-9/07	CAGR 10/03-9/08	YTD Annualized**
Unweighted scans	13,095	11,147	12,154	12,802	11,470				12,216
		-14.9%	9.0%	5.3%	-10.4%	0.9754	0.9944	0.9738	
Weighted scans	16,076	13,959	16,080	15,950	13,993				No data
		-13.2%	15.2%	-0.8%	-12.3%	1.0001	0.9980	0.9726	
Unweighted scans: Weighted scans	81.5%	79.9%	75.6%	80.3%	82.0%				Cannot be determined
MRI scanners Needed at 4,805 weighted scans/year	3.3	2.9	3.3	3.3	2.9				Cannot be determined

**Proposed 2010 SMFP, Table 9K*
*** Number of months of actual self-reported data annualized is not disclosed.*
Source: SMFPs; LRAs; Attachment 4

The above table shows that FirstHealth-Moore's three existing fixed MRI scanners suffered a double-digit loss in the most recent year of publicly-reported data (October 2007-September 2008), and the change in weighted scans was negative during three of the last four years. MRI volume has not yet fully recovered to the volume reported two years ago in FirstHealth-Moore's 2008 Hospital License Renewal Application, which covers the period October 2006-September 2007. Weighted volume at FirstHealth-Moore justifies a need for the three existing fixed MRI scanners in 2008.

4. Projected MRI utilization is overstated.

FirstHealth projects an average compound growth of 6.4% for MRI scan utilization for its existing and proposed MRI scanners in Moore and Hoke Counties while experiencing historical declines as shown above. Using the three-year average growth of 4.4% (page 100 of the FirstHealth Application) across the state to justify its forecasts ignores the declines experienced in MRI utilization in its service areas including Richmond County. In addition, FirstHealth surrendered a Certificate of Need in 2007 that was received under the *2005 SMFP* to replace its mobile unit with fixed apparatus in Richmond County.

Furthermore, the growth in MRI utilization is declining, not remaining constant. As reflected in the attached national survey of MRI utilization, excerpts included in Attachment 6, MRI growth show that MRI growth has decreased to 3.0% annually, therefore, continuing to grow MRI volume at 4.4% results in overstating MRI need.

Given the historical performance of FirstHealth-Moore's three fixed MRIs, and national utilization data, use of a continued statewide 4.4% annual growth rate is unreasonable.

The following table shows MRI volume through the third project year of FirstHealth-Hoke (FY 2014) using an annual growth rate of 3.0%.

Projected Fixed MRI Utilization: October 2007 – September 2014

FirstHealth-Moore	*Proposed 2010 SMFP (10/07-9/08)**	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014
Unweighted scans	11,470	11,814	12,169	12,534	12,910	13,297	13,696
Weighted scans	13,993	14,413	14,845	15,291	15,749	16,222	16,708
MRI scanners needed at 4,805 weighted scans/year	2.912	3.000	3.090	3.182	3.278	3.376	3.477

**Proposed 2010 SMFP, Table 9K*
Source: Attachment 4

The above table shows that a 3.0% annual growth justifies only the three existing scanners at FirstHealth-Moore. It does not provide sufficient volume to justify the proposed 4th fixed MRI scanner for which FirstHealth-Moore applied concurrently with the FirstHealth Application.[9] Therefore, FirstHealth is non-conforming to Criterion 3.

K. FirstHealth-Hoke Proposed MRI Utilization Is Overstated

On page 63 of the FirstHealth-Moore MRI CON Application (Project I.D. #H-8355-09), submitted concurrently with the FirstHealth Application, FirstHealth admits that

> [i]n FY 2008, the residents of Hoke County generated 1,931 MRI scans in total. Assuming an average MRI weight of 1.23; the 1,931 MRI scans would equal 2,375 weighted MRI scans. **If FirstHealth were to assume an unreasonable market share of 100.0 percent of Hoke County MRI scans then the MRI scanner would still generate less than half of the required weighted MRI scans to meet performance standards. [Emphasis added.]**

[9] CON Application H-8355-09 (FirstHealth of the Carolinas, Inc. d/b/a FirstHealth Moore Hospital Acquire a new short-bore 1.5 Tesla fixed MRI scanner).

That admission reveals the core issue – there is no need for the proposed relocated GE 1.5T Lx Horizon EchoSpeed at the proposed 8-acute bed FirstHealth-Hoke.

FirstHealth projects that the GE 1.5T Lx Horizon EchoSpeed MRI scanner will perform about 75% fewer scans at the proposed FirstHealth-Hoke than it did when it was operational at FirstHealth-Moore, as shown in the following table.

GE 1.5T Lx Horizon EchoSpeed Volume: October 2006 through September 2014

	10/06-9/07	10/07 – 9/08	10/08-9/09	10/09 – 9/10	10/10-9/11	10/11-9/12	10/12-9/13	10/13-9/14
Unweighted Scans	3,881	3,458	3,699	3,861	4,032	918	1,085	1,259
% Change		-10.9%	7.0%	4.4%	4.4%	-77.2%	18.2%	16.0%
Weighted Scans	5,040	4,405	4,742	4,950	5,168	**1,075**	**1,270**	**1,472**
% Change		-12.6%	7.7%	4.4%	4.4%	-79.2%	18.1%	15.9%
% of 4,805 weighted scans per year	104.9%	91.7%	98.7%	103.0%	107.6%	**22.4%**	**26.4%**	**30.6%**

Source: Pages 39, 79, 85, and 88 of CON Application H-8355-09

The above table shows that the GE 1.5T Lx Horizon EchoSpeed MRI scanner will perform less than one-third of the required 4,805 weighted MRI scans in the third project year (FY 2014).

Without additional volume from Scotland and Robeson Counties, FirstHealth-Hoke could not sustain the proposed relocated MRI. FirstHealth provides no evidence or documentation that patients currently traveling to FirstHealth-Moore from Scotland or Robeson Counties would be willing to seek care in Hoke County, nor that the volume shifted to FirstHealth-Hoke would be appropriate for the MRI services offered at FirstHealth-Hoke.

Therefore, FirstHealth is non-conforming to Criterion 3.

L. Discrepancies Regarding Services to Be Provided at FirstHealth-Hoke and Necessary CT Equipment

On page 129 – 131 FirstHealth projects utilization by major diagnostic category (MDC) for the proposed FirstHealth-Hoke. Projected utilization is required by inpatient days and the volume included in the table does not reflect the projected patient days included in Section III. for FirstHealth-Hoke. It appears to be projected by admissions by MDC. Therefore, it is not clear how may patient days are applicable to each MDC.

The table also raises a number of other discrepancies in the FirstHealth Application. First, cardiology represents over 25% of projected admissions, however, two letters from cardiologists are included in Exhibit 41, one agreeing to help recruit a new provider and one stating they might practice at the proposed FirstHealth-Hoke. In addition, it is not clear if the proposed CT scanner at FirstHealth-Hoke will be a 16-slice or a 64-slice as discussed on page 44 of these comments. State of the art CT equipment for cardiology studies is a 64-slice CT.

The MDC table also does not reference any projected admissions for MDC 21, Injuries, Poison and Toxic Effects of Drugs. Since the only admissions at the proposed FirstHealth-Hoke will be through the emergency room, it is unusual that no patients are projected in MDC 21.

Finally, on pages 131 and 132, FirstHealth includes a list of physicians who have expressed a willingness to refer patients or admit patients to FirstHealth-Hoke. A review of the list shows that seven OB/GYN physicians have expressed a willingness to refer patients or admit patients; however, FirstHealth-Hoke will not provide obstetrical services or any inpatient services related to the female reproductive system. Therefore, it is not clear how these physicians will admit patients. The same is true for a variety of other physicians and surgeons included on the list on pages 131 and 132.

Therefore, FirstHealth has not documented the assumptions utilized to project inpatient volumes for FirstHealth-Hoke and as a result did not demonstrate the need that the residents of Hoke County has for the services proposed and is not conforming to Criterion 3.

M. "Need Based on Community Perception" is Based Views of Only 0.6% of Hoke County Residents

FirstHealth engaged the services of InTandem to conduct a phone survey of Hoke County residents over a two-week period in April 2009. Survey results were used to develop market share assumptions for the proposed project. However, the survey should be given no credence—because it is not a valid statistical survey; and its questions were asked without giving important factual information particularly regarding the size of the hospital and the services provided.

Excerpts from the phone survey are provided on page 148. The results of the InTandem survey are set forth in Exhibit 47.

On page 148, FirstHealth states that

> [a]s a result of the Hoke County community survey, FirstHealth concludes that a majority of Hoke County residents (93%) would use a hospital with a full time emergency room (81%) that is developed by FirstHealth (71%).

That conclusion is spurious and unreasonable for the following reasons:

The Community Survey is biased based upon assumption that FirstHealth was providing a full service local community hospital, which as previously discussed, it is not.

FirstHealth does not disclose the preliminary information provided by InTandem to Hoke County residents who were called. In particular:

- Were survey participants compensated for taking the survey?
- Were survey participants aware that FirstHealth was doing the survey?
- Were residents told the hospital would not take inpatient admissions or deliver babies? Were they told it was only an 8 bed hospital?

- How was the participants chosen? Were efforts made to assure equal representation from all townships, especially those growing most rapidly on the eastern side of Hoke County?
- Were participants recruited to take the survey on the FirstHealth website?
- How were Spanish speaking calls handled?
- What time of day were residents called?
- How was Hoke County defined, by zip code or county lines?

The survey was also inherently biased in several ways regarding the underserved. First, the method in which the survey was given must be considered. A telephone survey, by nature, requires that the participant have a telephone, limiting the participation of the 14.5% (6,471) of Hoke County residents living below the poverty line. The language barrier is also an issue deserving of consideration. In the FirstHealth-Hoke application, FirstHealth identifies 10.8% of the Hoke County population as non-English speaking. This means that there are 4,132 people who were potentially excluded from the survey if InTandem failed to accommodate non-English speakers.

Equally important, FirstHealth does not disclose the total number of Hoke County residents called during the two-week survey period. It also does not disclose how many of the Hoke County residents called during that period declined to respond to the survey instrument.

In Question 12 of the survey instrument, it is revealed that **there were 273 interviews**. According to the North Carolina Office of State Budget and Management, Hoke County has a 2009 projected population of 45,602. Assuming that a total of 273 interviews were conducted, **FirstHealth relies on the opinions of 0.6%** (273/45,602) **of the Hoke County population** to establish "need based on community perception."

It is readily apparent that the "need based on community perception" survey and the conclusions drawn by FirstHealth suffer from a hasty generalization, sometimes referred to as the "law of small numbers." "What this means is that we will often see things happen with small numbers that are not normative, that is, often small numbers do not well represent the behavior of large numbers."[10]

Therefore the market share assumptions utilized based upon the survey are spurious and undocumented. Therefore, FirstHealth failed to document the need for the proposed project and the application is non-conforming to Criterion 3.

G.S. 131E-183 (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.

[10] http://primes.utm.edu/glossary/page.php?sort=LawOfSmall

The proposed project includes the relocation of an existing fixed MRI scanner from FirstHealth Moore to FirstHealth-Hoke. In a separate, concurrently filed CON Application (Project I.D. #H-8355-09), FirstHealth seeks to acquire a fourth fixed MRI scanner to be operational at FirstHealth Moore.

As previously discussed in the context of Criterion 3, FirstHealth's MRI projections are not based upon reasonable assumptions, and the actual projected need for MRI scanners for FirstHealth in Moore-Hoke MRI Service Area is a total of three MRI scanners. Therefore, the proposed addition of a fourth MRI scanner at FirstHealth Moore (Project I.D. #H-8355-09) should be denied.

FirstHealth assumed that its two concurrently filed CON Applications will be approved. The only contingency plan stated in either of those two CON Applications if Project I.D. #H-8355-09 is denied, and the proposed relocation of the 3rd MRI scanner from FirstHealth Moore to FirstHealth-Hoke is approved is to expand operational hours at FirstHealth-Moore. In that event, there will be two remaining MRI scanners at FirstHealth Moore. Those two remaining MRI scanner are not sufficient to adequately meet the needs of the population presently served at FirstHealth Moore.

Relocation of the 3rd MRI scanner from FirstHealth Moore to FirstHealth-Hoke will have a significant impact on MRI services provided to patients at FirstHealth Moore. The following tables show that hours of operation at FirstHealth Moore will have to increase to 12 to 15 hours per day, seven days a week to meet the demand for scans on the two remaining MRI scanners.

Projected FirstHealth-Moore MRI Utilization Without Proposed Fourth MRI Scanner

		2007	2008	2009	2010	2011	2012	2013	2014
FirstHealth-Hoke - 1.5T LX	Inpt	993	791	923	963	1,006	31	32	33
	Outpt	2,888	2,667	2,776	2,898	3,026	887	1,053	1,227
FirstHealth-Moore - 1.5T Avanto and 0.7T Openspeed	Inpt	1,780	1,418	1,655	1,728	1,804	3,029	3,163	3,301
	Outpt	7,141	6,594	6,863	7,164	7,480	10,555	10,890	11,244
Total FirstHealth-Hoke and FirstHealth-Moore	Inpt	2,773	2,209	2,578	2,691	2,810	3,060	3,195	3,334
	Outpt	10,029	9,261	9,639	10,062	10,506	11,442	11,943	12,471

Source: Page 105 of the FirstHealth Application; *Attachment 4*

Additional MRI Operational Hours Needed at FirstHealth-Moore to Provide Projected MRI Volume Without Proposed Fourth MRI Scanner

		2007	2008	2009	2010	2011	2012	2013	2014
FirstHealth-Moore - 1.5T Avanto and 0.7T Openspeed	Inpt	1,780	1,418	1,655	1,728	1,804	3,029	3,163	3,301
	Outpt	7,141	6,594	6,863	7,164	7,480	10,555	10,890	11,244
Total MRI Procedures		8,921	8,012	8,518	8,892	9,284	13,584	14,053	14,545
Weighted MRI Procedures*	1.24						16,844	17,426	18,036
Avg Procedures Per MRI	2						8,422	8,713	9,018
Capacity of MRI scanner at 66 hours per week									6,864
Utilization of remaining two MRIs at FirstHealth-Moore									131.4%
Weekly operating hours required to provide 9,018 procedures per machine***									87
Avg hours per day seven days per Week @ 100% Utilization****									**12**
Avg Hours per Day Seven Days per Week @ 80% Utilization*****									**15**

*Avg Weight for MRI Procedures at FirstHealth-Moore = Weighted FirstHealth-Moore Procedures / Total FirstHealth-Moore Procedures, Total FirstHealth-Moore Procedures = Reported total MRI procedures on page 155 - FirstHealth-Hoke Total on page 116 = 1.24 weighting per MRI
** 66 x 2 x 52 = 6,864 procedures
*** 9,018 procedures / 2 procedures per hour / 52 weeks per year = 86.7 hours per week
****86.7 / 7 = 12.4 hours per day
***** 12.4 / 80% = 15.5 hours per day
Source: Page 105 of the FirstHealth Application; *Attachment 4*

The above tables show that hours of operation at FirstHealth-Moore will have to increase to 12 to 15 hours per day, seven days a week to meet the demand for scans on the two remaining MRI scanners.

Moore County is a nationally recognized retirement location. As shown in the following table, 20.2% of the Moore County population in 2009 is over age 65, compared to the statewide over 65 population of 12.5%

Moore County 65+ Population

2009	65+	Total	Percent
Moore	17,513	86,905	20.2%
North Carolina	1,172,543	9,398,080	12.5%

Source: NC Office State Demographics

In order to meet the demand for MRI services with two remaining fixed MRI scanners, it will be necessary to perform scans at night and on weekends, which will negatively affect the ability of patients 65 and older to obtain needed and timely MRI services at FirstHealth-Moore.

FirstHealth did not demonstrate that the needs of the population presently served will be met adequately if one of the three existing MRI scanners at FirstHealth-Moore is relocated to FirstHealth-Hoke and the proposed fourth MRI scanner is denied. Therefore, the FirstHealth Application is non-conforming with Criterion 3a.

G.S. 131E-183 (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.

As discussed in detail in the context of Criterion 5, FirstHealth-Hoke is not a financially feasible project.

FirstHealth reviewed several alternatives to the proposed project in the FirstHealth Application, and chose to develop an 8-acute care bed hospital despite the fact that FirstHealth-Hoke will have a negative net income for the first three years of operation. As such, FirstHealth does not demonstrate that it proposed the least costly or most effective alternative. The FirstHealth Application is non-conforming to Criterion 4.

G.S. 131E-183 (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.

A. FirstHealth Hoke Community Hospital Is Not a Financially Feasible Project

According to Proforma B on page 342 of the FirstHealth Application, the proposed hospital experiences negative net income in the first three years of operation as shown in the following table.

FirstHealth Hoke Community Hospital – Net Income

	Project Year 1 FY 2012	Project Year 2 FY 2013	Project Year 3 FY 2014
Net Patient Revenue	$ 13,199,129	$ 14,855,406	$ 16,553,295
Expenses Including Depreciation	$ 14,715,721	$ 16,681,577	$ 17,667,424
Net Income	$ (1,516,592)	$ (1,826,171)	$ (1,114,129)

Source: ProForma B, page 342 of FirstHealth Application

The project is forecasted to experience losses each project year as shown in the above table. The balance sheet for FirstHealth-Hoke indicates that Total Assets along with Total Liabilities and

Fund Balances are declining each project year, indicating that the project is not feasible. FirstHealth-Hoke does not cover depreciation, thus causing the balance sheet to deteriorate. FirstHealth-Hoke fails a major tenet of Review Criteria in that the proposed eight-bed hospital is not financially feasible in the immediate operating years.

FirstHealth does not discuss the impact of the FirstHealth-Hoke negative net income on FirstHealth's overall financial health. In fact, FirstHealth fails to include a ProForma Balance sheet for FirstHealth of the Carolinas, Inc., the legal applicant. Therefore, the project cannot be found financially feasible.

Furthermore, as discussed in the context of Criterion 3, FirstHealth's projections of the number of inpatient days and outpatient services to be provided in each of the first three operating years are unsupported and unreliable. Projections are not based upon reasonable assumptions and are significantly overstated. As a result, patient days, emergency visits, surgical cases, radiology visits, and all ancillary projections are overstated. Reasonably projected volumes are lower than those included in the Application. Those lower volumes further negatively impact the financial feasibility of the project.

The FirstHealth Application is non-conforming with Criterion 5.

B. FirstHealth Does Not Control Property at Any of the Three Proposed Locations

FirstHealth provided three possible locations for the proposed eight bed emergency room. However, FirstHealth does not have an option to purchase any of the locations and the FirstHealth Board has approved only $3.3 million to purchase property for the proposed project. The $3.3 million maximum was incorporated into the financials associated with the project. However, the proposed project has conflicting site costs as reflected in the following table.

Proposed FirstHealth-Hoke Property Cost

Land	Project Cost[11]	Site Information	Differential Cost
30 acres	$3,300,000	$2,550,000	- $750,000
~36 acres		$3,420,000	+ $120,000
~28 acres		$2,800,000	- $500,000

Source: FirstHealth Application pages 321, 326 & 330

As shown in the above table, one of the proposed sites is well over the maximum of $3.3 million. Neither FirstHealth's capital cost estimate in Section VIII nor its funding commitment letter in Exhibit S to the application demonstrates a sufficient commitment of funds for this expense. Furthermore, while identifying proposed sites is acceptable in CON Review, because FirstHealth does not have a legal option to purchase on any of these properties, the cost could be potentially higher and negatively impact the already negative net income for the first three years of the

[11] These costs were used in FirstHealth's Pro formas.

project. In any event, a proper analysis of the financials for the project should utilize the highest cost provided and there are not adequate funds for that site in the application.

C. Proforma Form A. Balance Sheet for the Applicant, FirstHealth of the Carolinas, Inc., is Not Included in the Application

FirstHealth failed to comply with the instructions in Section X by not providing a balance sheet, Form A, for FirstHealth of the Carolinas, Inc., the legal applicant and the parent company of the proposed FirstHealth-Hoke. By failing to do so, the CON Section will be unable to determine the impact of the proposed FirstHealth-Hoke on the balance sheet of FirstHealth of the Carolinas, Inc., specifically, the change in available funds on FirstHealth's asset accounts cannot be determined.

D. Start-up Expenses are Understated

On page 316, FirstHealth states that it will take 12 months before revenues cover expenses. That is not a realistic assumption because reimbursements normally take 45 –90 days, particularly with a start-up entity. Had FirstHealth used a realistic three-month period, the working capital requirements are significantly understated by direct expenses as shown below:

Form B - Statement of Revenue and Expense

Direct expenses first year	$11,994,624
Monthly average cost/12	$ 999,552
3 months expenses before revenues meet expenses	$ 2,998,656
Less estimate provided on page 342, Section IX	$ (317,161)
Working capital needs understated first year	**$ 2,681,495**

The CFO letter in Exhibit S did not state the amount of funds committed to working capital. This understatement is equivalent to 7.7% of project costs and calls into question the credibility of the financial projections for the proposed hospital.

E. Inpatient Revenue Per Patient Day Incorrectly Calculated

FirstHealth erroneously calculated responses to Question 3 in Section X of the FirstHealth Application. FirstHealth used ***Net Revenues in the table*** versus gross charges to do the calculations (the applicant has used ***Net Revenues with Gross Costs)***. The table below shows the first year of calculations from page 301 of the FirstHealth Application and an adjoining column using the appropriate numbers.

FirstHealth Application - Question 3, Section X, Costs and Revenues

Adjusted Patient Days	First Full Fiscal year	Inclusion of Proper Data
Total Patient Days	2,143	2,143
Total Inpatient Revenue	$5,748,745 – net IP R	$14,208,043 IP Routine $1,020,485 IP Surgery $15,228,938 Total
Inpatient Revenue Per Pt Day	$2,682	**$7,106.36**
Total Outpatient Revenue	$7,450,384	$23,466,795
Outpatient Days (Outpatient Revenue/Inpatient Revenue per Patient Day)	2,778	3,302
Adjusted Patient Days (Inpatient Days + Outpatient Days)	4,921	5,445
Total Operating Costs Per Adjusted Patient Day		
Total Operating Costs	$13,516,289	$13,516,289
Total Operating Cost per Adjusted Patient Day	$2,746	$2,482
Total Net Revenue Per Adjusted Patient Day		
Total Net Patient Revenue	$13,199,129	$13,199,129
Total Net Patient Revenue per Adjusted Patient Day	$2,682	$2,424

FirstHealth erroneously applied net revenue to patient days, and understated Inpatient Revenue per patient day as shown in the previous table.

F. Financial Comparison to Small Hospitals in Other States Not Applicable

FirstHealth proposes to construct an 8-bed acute care hospital to serve Hoke County residents. Much is made by FirstHealth about financial viability of its proposed 8-bed hospital.

On page 165 of the FirstHealth Application, FirstHealth provides a list of fourteen hospitals in other states; only two have 8 beds. Both 8-bed hospitals are located in Texas. FirstHealth does not, however, provide any financial information on any of the listed hospitals from which one could reasonable assess the financial viability of a listed hospital. It is noteworthy that of the five states with listed hospitals, only Louisiana is a certificate of need state. The other four states (Texas, Indiana, Utah, and New Mexico) do not have certificate of need law in effect.[12]

In North Carolina, the Office of Research, Demonstrations and Rural Health Development has supported small rural hospital for many years and has focused on the development of critical access hospitals throughout North Carolina to improve health services in rural communities and to enhance the financial situation of rural hospitals. There are over 20 critical access hospitals in North Carolina and usually are located in communities with limited populations and geographic access to health care services is limited and travel to larger communities difficult. The eight bed hospital proposed here does not meet these standards. It is not reasonable health planning and it

[12] http://www.ncsl.org/IssuesResearch/Health/CONCertificateofNeedStateLaws/tabid/14373/Default.aspx

has not been the policy or practice in North Carolina to approve an 8-bed acute care hospital. This is even more obvious when, as here, it cannot qualify as a critical access hospital.

G.S. 131E-183 (6)

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

FirstHealth-Hoke did not adequately demonstrate the need to develop a hospital with 8 acute care beds and one operating room. Please see discussion included in the context of Criterion 3. Therefore, FirstHealth did not adequately demonstrate that the proposed hospital would not result in an unnecessary duplication of the existing or approved health services. Consequently, the FirstHealth Application is nonconforming to Criterion 6.

A. Duplication of Acute Care Beds in Hoke/Moore Acute Care Service Area

Please see discussion included in the context of Criterion 3, which reflects an excess of acute care beds at FirstHealth-Moore, and results in a duplication of acute care services between the proposed and existing FirstHealth facilities.

B. Duplication of Operating Rooms in Hoke/Moore Acute Care Service Area

Please see discussion included in the context of Criterion 3, which reflects an excess of operating rooms at FirstHealth-Moore, and results in a duplication of surgical services between the proposed and existing FirstHealth facilities.

C. Impact on Cape Fear Valley Medical Center

On page 199, the FirstHealth Application states:

> [h]owever, it is FirstHealth's **desire to decrease the number of Inpatients and Emergency Department visits originating from Hoke County that travel** outside of Hoke County **to** Pinehurst or **Fayetteville** for emergency services. **[Emphasis added.]**

Cape Fear Valley Medical Center is 19 miles from the proposed location of FirstHealth-Hoke; FirstHealth-Moore is 24 miles.[13]

On page 200, FirstHealth "projects that approximately 3,200 emergency patients [...] annually will stay in Hoke County rather than be treated at CFVMC." Then, FirstHealth states that the proposed hospital will have the following impact on Cape Fear Valley Medical Center:

[13] FirstHealth Application N- 8354-09 at page 149.

- Approximately 9 emergency department patients per day.
- Less than 2 patients per day per 10 emergency treatment rooms.
- Less than 3 percent of total FY 2008 reported emergency cases will be effect[ed]

FirstHealth deliberately underplays the impact of the proposed FirstHealth-Hoke on Cape Fear Valley Medical Center.

G.S. 131E-183 (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.

A review of the FirstHealth staffing chart reveals the following.

- It is not clear that operating rooms scheduling includes 24 hour coverage. "On-call" operating rooms for after hours and weekends requires full staffing and extra salaries
- Although on p. 34 FHCF states that "Anesthesiologists and certified nurse anesthetists will provide anesthesia services", neither of these positions are listed in the Section VII (p. 308) proposed medical staff chart, nor are they listed on the chart on p. 298, proposed staff for projects involving operating rooms.
- It also is not clear whether or not FirstHealth accounts for staffing for MRI contrast scans.

G.S. 131E-183 (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.

FirstHealth has not demonstrated that arrangements for the provision of the necessary ancillary and support services have been made and that FirstHealth-Hoke will be coordinated with the existing health care system.

FirstHealth fails to discuss expenses associated with anesthesiology, radiology and pathology associated with inpatient and outpatient services to be provided at FirstHealth-Hoke. Furthermore, FirstHealth fails to provide documentation from physicians agreeing to serve as medical director for anesthesiology or pathology services for the proposed FirstHealth-Hoke.

FirstHealth lists four providers on page 247 of the FirstHealth Application and indicates that working agreements exist with each. Exhibit E contains letters addressed to the four providers. A transfer agreement or working agreement does not exist with Cape Fear Valley Health System even though the FirstHealth assures the CON Section that it does have such agreement.

The physics vendor whose letter appears in Exhibit 27 agreeing to calibrate and maintain the proposed CT scanner failed to document coverage of the planned nuclear medicine equipment. No agreement for coverage for nuclear medicine is included in the FirstHealth Application.

Therefore, FirstHealth has not demonstrated that arrangements for the provision of the necessary ancillary and support services have been made or that FirstHealth-Hoke will be coordinated with the existing health care system and is not conforming to Criterion 8.

G.S. 131E-183 (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.

FirstHealth proposes to provide a substantial portion of the projected MRI services to individuals not residing in the Moore-Hoke MRI service area. However, FirstHealth does not document any special needs or circumstances that warrant projected in-migration.

On page 196, FirstHealth states that "[t]he service area is Hoke County. Patients residing in Hoke County represent 100.0 percent of project hospital patients." However, the defined MRI Service Area includes both Hoke and Moore Counties. FirstHealth specifically excludes MRI services from the geographic boundaries of the proposed FirstHealth-Hoke Hoke County service area for all other inpatient, outpatient, and emergency services to be provided by FirstHealth-Hoke.

On page 197, FirstHealth projects MRI patients by county of origin in the first two project years (FY 2012 and FY 2013), as shown in the following table.

FirstHealth-Hoke MRI Patient Origin: FY 2012 and FY 2013

County	FY 2012	FY 2013
Hoke	56.8%	61.9%
Scotland/Robeson	43.2%	38.1%
Total	100.0%	100.0%

Source: FirstHealth Application at page 96.

FirstHealth proposed that a substantial portion of the project's services, nearly 40% of MRI services, to residents not residing in the *SMFP* defined MRI service area of Moore-Hoke. FirstHealth provides no documentation regarding any special needs or circumstances that warrant service to these individuals. Furthermore, FirstHealth provides no explanation or documentation why the residents of Scotland and Robeson County would choose to seek care at FirstHealth-Hoke instead of FirstHealth-Moore, or at a provider in their respective counties.

On page 198, FirstHealth states that "[FirstHealth-Hoke] may have patients from outside of Hoke County receive care at [FirstHealth-Hoke], but the numbers will be insignificant to the financial

feasibility of the project." As shown in the following table, the numbers of unweighted MRI scans projected to be performed on residents of Scotland/Robeson Counties may well be significant to the financial feasibility of MRI services. Without the projected volume from Scotland and Robeson Counties there would be no need for the MRI scanner.

FirstHealth-Hoke Projected Unweighted MRI Scans: FY 2012 and FY 2013

County	FY 2012 Percent of Scans	FY 2012 Number of Scans	FY 2013 Percent of Scans	FY 2013 Number of Scans
Hoke	56.80%	521	61.90%	672
Scotland/Robeson	43.20%	396	38.10%	413
Total	100.00%	917	100.00%	1,085

Source: FirstHealth Application N- 8354-09 at page 96.

Again, no explanation is provided to explain why MRI services do not have the same geographic boundaries and patient origin projections as all other proposed hospital inpatient and outpatient services.

Based on the foregoing, it is reasonable to conclude that there is no need to for the proposed relocated fixed MRI scanner at FirstHealth-Hoke.

G.S. 131E-183 (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.

A. Graduated Construction of Emergency Hospital vs. Community Hospital in Hoke County

FirstHealth proposes an emergency hospital with eight inpatient beds, instead of meeting the identified needs of the residents of Hoke County for a full service community hospital. As previously discussed, there is a need for a larger community hospital to serve the residents of Hoke County.

On page 203, FirstHealth states that:

> [f]urthermore, the BRAC Regional Task Force recommends the development of a facility plan to determine the feasibility of establishing an acute-care hospital in Hoke County. **It was determined that Hoke County's projected population could support eighty to ninety acute-care beds and with the development of fifty-bed hospitals in North Carolina, Hoke County may be the next best location for a new hospital. [Emphasis added.]**

FirstHealth discounts the BRAC study, but uses the population growth in all projections. In addition, FirstHealth acknowledges this in a back handed way on page 190 where FirstHealth implies that as a result of Hoke County becoming its own Acute Care Service Area for planning purposes in the annual *SMFP*, additional acute care and operating room capacity will be available for expansion in the future as inpatient volume increases.

The cost of building piece by piece will result in significantly greater expense as construction costs increase annually. In addition, a letter from GMK Architects included in Attachment 9, discusses additional capital and operating expenses associated with the proposed FirstHealth-Hoke project.

When a justified need exists the cost of delaying construction multiplies annually. Therefore, the concept of expanding an eight bed hospital as necessary results in additional expense and does not represent the most reasonable alternative for the residents of Hoke County.

B. FirstHealth Does Not Control Property At Any of the Three Locations

As previously discussed, FirstHealth does not have an option to purchase any of the three proposed locations for FirstHealth-Hoke. A $3.3 million maximum was incorporated into the financials associated with the project. However, the proposed project has conflicting site costs as reflected in the following table.

Proposed FirstHealth-Hoke Property Cost

Land	Section VIII – Project Cost, page 310[14]	Section XI – Site Information, pages 321, 326 & 330	Differential Cost
30 acres	$3,300,000	$2,550,000	$(750,000)
~36 acres		$3,420,000	$120,000
~28 acres		$2,800,000	$(500,000)

Source: FirstHealth Application pages 321, 326 & 330

As shown in the above table, one of the proposed sites is well over the maximum of $3.3 million. Neither FirstHealth's capital cost estimate in Section VIII nor its funding commitment letter in Exhibit S to the application demonstrates a sufficient commitment of funds for this expense. Furthermore, while identifying proposed sites is acceptable in CON Review, because FirstHealth does not have a legal option to purchase on any of these properties, the cost could be potentially higher and negatively impact the already negative net income for the first three years of the project. In any event, a proper analysis of the financials for the project should utilize the highest cost provided and there are not adequate funds for that site in the application.

[14] These costs were used in FirstHealth's pro formas.

C. FirstHealth Omits Assumptions Associated with Capital Expenditure for the Proposed Project

Section VIII. (1) (b) of the Application requires each applicant to provide all assumptions and the specific methodology used to project capital costs. The following expenses were omitted or documentation regarding the projected expenses are not included in the FirstHealth Application.

- The Information Technology estimates in Exhibit R of $541,000 have no source as to their origin, no technology letter from an estimator or equipment vendor.
- The GE Vendor in Exhibit 7 provided no cost estimates for the CT Scanner.
- The architect's letter in Exhibit U gave no detail/disclosure on the construction, labor, material or how much contingency was included in the construction estimates. The analyst is unable to determine if adequate contingency/escalation is included in the $19,340,000.
- The equipment list in Exhibit R of $8,044,118 has no contingency, does not include a line item for a Pyxis System,
- It is not clear if the proposed project will include a 16-slice or a 64-slice CT as both are referenced in the Application page 233 and 240 and the Application included a very non-specific vendor quote for CT without an itemized capital expenditure. The difference in cost is substantial.

Section XI. 5. (b) of the CON Application requires each applicant to provide an explanation of the assumptions or the basis for the projected construction costs. The following expenses were omitted or documentation regarding the projected expenses are not included in the FirstHealth Application.

- An explanation of the basis of the estimate was not provided by the architect in his certification letter in Exhibit U.
- FirstHealth's calculations of construction cost per bed are erroneous in Section XI. 4. (f): The applicant states that construction cost per bed per line item VIII. (11) is $2.35 million. The correct math per line item VIII. (11) of $19,340,000 divided by 8 beds is $2,417,000.

As a result, the proposed project in not conforming to Criterion 12. FirstHealth has not demonstrated that the cost, design, and means of construction represent the most reasonable alternative.

G.S. 131E-183 (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;

FirstHealth-Moore has been identified as the primary provider for residents of Hoke County in the annual *State Medical Facilities Plan* since 2001. However, the following analysis shows that Cape Fear Valley Medical Center has in fact been the primary provider for Medicaid and self pay patients from Hoke County for the last three years.

Historical Hoke County Payor Mix All DRGs

	2006			2007			2008		
Payor	Hoke County Discharges by Payor	CFVHS Hoke Cty Discharges by Payor	FirstHealth-Moore Hoke Cty Discharges by Payor	Hoke County Discharges by Payor	CFVHS Hoke Cty Discharges by Payor	FirstHealth-Moore Hoke Cty Discharges by Payor	Hoke County Discharges by Payor	CFVHS Hoke Cty Discharges by Payor	FirstHealth-Moore Hoke Cty Discharges by Payor
Medicare	33.6%	20.6%	48.1%	33.2%	22.3%	46.6%	29.9%	21.6%	40.7%
Medicaid	25.8%	36.3%	15.3%	28.5%	39.8%	18.1%	28.4%	**40.4%**	15.6%
Tricare	6.4%	7.3%	3.4%	5.5%	5.9%	3.3%	7.4%	**9.4%**	2.9%
Other Government	3.9%	2.8%	4.4%	2.1%	0.9%	2.9%	2.5%	0.1%	4.7%
BC	9.9%	10.5%	10.8%	9.9%	10.7%	9.8%	11.4%	12.5%	11.2%
HMO	0.0%	0.0%	0.0%	3.7%	6.9%	0.7%	3.3%	6.6%	0.0%
HMO/PPO	4.0%	7.3%	1.5%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%
Indemnity	8.4%	5.4%	11.1%	7.2%	4.6%	9.6%	3.1%	1.9%	2.9%
PPO	0.0%	0.0%	0.0.%	0.3%	0.0%	0.8%	1.2%	0.0%	2.5%
Self Pay	7.2%	9.7%	5.2%	6.8%	8.6%	5.4%	7.3%	**6.7%**	7.2%
Medicare HMO	0.0%	0.0%	0.0%	1.2%	0.0%	2.7%	5.0%	0.0%	12.2%
Unknown	0.5%	0.0%	0.0%	1.3%	0.0%	0.0%	0.1%	0.0%	0.0%
WC	0.3%	0.1%	0.2%	0.3%	0.3%	0.1%	0.5%	0.8%	0.1%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: Thomson Reuters NC Hospital Database; Attachment 3

On page 189 of the FirstHealth Application, FirstHealth states that obstetrical services are not to be provided as a result of the number of neonates from Hoke County needing specialty care in a NICU. However, 354 normal newborns or 72.5% of all newborns did not need a NICU in FY 2008. Furthermore, population growth associated with BRAC in southeastern Hoke County is

young and of childbearing age. Therefore, the need for obstetrical services will continue to grow.

The lack of OB-GYN coverage is a major issue with the underserved. FirstHealth does not address how the proposed FirstHealth-Hoke will address emergency handling of OB-GYN issues. Furthermore, FirstHealth compares the decision to not provide OB-GYN to the recent approval of Davie County Hospital's replacement hospital which does not offer OB-GYN services. The two are not related as the fact pattern for the two projects are very different. Davie County Hospital was replacing an existing hospital with existing services, not developing a new hospital. In addition, existing providers, including the Davie County Hospital applicant, provided obstetrical services to the residents of Davie County under an existing agreement to maximize educational opportunities for the medical school located in the urban market.

The following table illustrates that even when the obstetrical population is excluded, during the last three years, Cape Fear Valley Health System has provided inpatient services to a substantially greater number of Medicaid and self-pay patients.

Hoke County Payor Mix without Obstetrical DRGs

	2006			2007			2008		
Payor	Hoke County Discharges by Payor	CFVHS Hoke Cty Discharges by Payor	FirstHealth-Moore Hoke Cty Discharges by Payor	Hoke County Discharges by Payor	CFVHS Hoke Cty Discharges by Payor	FirstHealth-Moore Hoke Cty Discharges by Payor	Hoke County Discharges by Payor	CFVHS Hoke Cty Discharges by Payor	FirstHealth-Moore Hoke Cty Discharges by Payor
Medicare	43.3%	34.5%	52.8%	42.1%	35.7%	50.8%	38.3%	35.0%	44.1%
Medicaid	17.2%	23.1%	11.3%	19.2%	24.5%	14.5%	18.0%	**24.9%**	11.8%
Tricare	6.9%	8.9%	3.4%	6.1%	7.7%	3.3%	6.5%	**8.3%**	2.4%
Other Government	3.8%	2.2%	4.3%	2.4%	0.9%	2.8%	3.1%	0.2%	5.1%
BC	9.3%	9.9%	10.3%	9.2%	10.5%	9.0%	10.9%	12.2%	10.9%
HMO	0.0%	0.0%	0.0%	2.8%	6.2%	0.6%	2.8%	6.7%	0.0%
HMO/PPO	3.2%	7.5%	1.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%
Indemnity	8.9%	5.1%	11.3%	7.6%	4.4%	9.7%	3.4%	2.0%	2.7%
PPO	0.0%	0.0%	0.0%	0.3%	0.0%	0.5%	1.2%	0.0%	2.1%
Self Pay	6.4%	8.7%	5.4%	6.8%	9.6%	5.6%	8.7%	**9.5%**	7.5%
Medicare HMO	0.0%	0.0%	0.0%	1.5%	0.0%	3.0%	6.3%	0.0%	13.3%
Unknown	0.6%	0.0%	0.0%	1.6%	0.0%	0.0%	0.1%	0.0%	0.0%
WC	0.4%	0.1%	0.2%	0.4%	0.5%	0.2%	0.6%	1.2%	0.1%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: Thomson Reuters NC Hospital Database; Attachment 3

The above table shows that CFVHS provided care to more Medicaid and self-pay patients (32.1% vs. 17.0%) in FY 2008. As a result, CFVHS has provided more inpatient care to the underserved residents of Hoke County.

FirstHealth-Moore has a higher percentage of Medicare inpatient admissions from Hoke County in FY 2008. However, it should be noted that those patients, had secondary Medicare supplemental payors with better reimbursement, as shown in the following table.

Medicare Supplemental Payors – FY 2008

	FirstHealth Moore	CFVHS
BC and Other Commercial	32.8%	15.9%
Medicaid/Self Pay	59.1%	70.5%
VA and Champus	8.0%	8.7%
Medicare HMO	0.0%	5.0%
Total Medicare	100.0%	100.0%

Source: Thomson Reuters NC Hospital Database; Attachment 3

As a result, CFVHS has provided more inpatient care to the underserved residents of Hoke County.

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. *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*

Over 60% of babies delivered to Hoke County mothers are Medicaid patients and the majority of patients admitted with medical problems have Medicare and Medicaid. In addition, reimbursement from Medicare and Medicaid is significantly lower for medical patients than surgical patients. Therefore, in determining not to provide inpatient medical admissions and deliver babies, FirstHealth is selectively choosing to not serve underserved populations. The following table reflects total payor mix for residents of Hoke County in FY 2008.

Hoke County Payor Mix

Medicare and Medicare HMO	Medicaid	Tricare	Other Government	BC	HMO/PPO	Indemnity	Self Pay	Other	Total
Total Hoke County Discharges by Payor									
1,321	1,078	282	93	432	171	119	275	22	3,793
34.8%	28.4%	7.4%	2.5%	11.4%	4.5%	3.1%	7.3%	0.6%	100.0%
Hoke County OB DRGs									
4	335	63	0	75	42	15	18	0	552
0.7%	60.7%	11.4%	0.0%	13.6%	7.6%	2.7%	3.3%	0.0%	100.0%
Hoke County w.o. OB DRGs									
1,317	743	219	93	357	129	104	257	22	3,241
40.6%	22.9%	6.8%	2.9%	11.0%	4.0%	3.2%	7.9%	0.7%	100.0%

Source: Thomson Reuters NC Hospital Database; Attachment 3

As shown in the above table, excluding obstetrical services at the proposed FirstHealth-Hoke, results in a decrease of over 5% in Medicaid patients. Please see additional discussion above regarding the proposed payor mix and the impact on the underserved. FirstHealth is non-conforming to Criterion 13.c. as it fails to meet the needs of the underserved populations in Hoke County, particularly pregnant women.

FirstHealth also **failed to address the needs of the growing Hispanic population in Hoke County.** In its own analysis on pages 152 and 153 of the FirstHealth Application, FirstHealth uses the growing presence of the Hispanic population to document the need for a hospital in Hoke County; however, FirstHealth-Hoke will not provide obstetrical services, which are greatly used by the Hispanic population. In addition, FirstHealth-Hoke did not provide any documentation regarding the availability of translators for non-English speaking patients.

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.

The proposed FirstHealth-Hoke is not conforming to Criterion 13.d. because the only means by which a patient will have access to its inpatient services is through the emergency room. As previously discussed, inpatient utilization of the proposed FirstHealth-Hoke is wholly based upon emergency room utilization.

In addition, FirstHealth did not discuss the availability of translator services for non-English speaking Hoke County residents which is important, especially for Emergency Department purposes.

G.S. 131E-183 (14)

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

FirstHealth references Exhibit D for information regarding accommodations for clinical needs of health professional training programs. However, Exhibit D does not include a draft agreement or reference what FirstHealth facilities are covered by the list of existing agreements. Therefore , FirstHealth has not demonstrated that FirstHealth-Hoke will accommodate the clinical needs of health professional training programs in the area, as applicable, and is not conforming to Criterion 14.

G.S. 131E-183 (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.

FirstHealth-Hoke is not designed to be a competitive inpatient hospital. Rather it is designed as a way station for emergency patients half of whom will be transferred to FirstHealth-Moore. As a result, it is designed to increase market share for FirstHealth-Moore, and will negatively impact patients and their families requiring them to travel further for care than they currently travel to Cape Fear Valley Health System. Cape Fear Valley-West is a better alternative which will truly enhance access to all inpatient and outpatient services, not just emergency care.

III. CON Criteria and Standards

A. Criteria and Standards for Operating Room – 10 NCAC 14C .2100

FirstHealth erroneously concluded that the Criteria and Standards for Operating Rooms were not applicable to the proposed project. There are in fact, applicable. The proposed project includes the development of a **new separately licensed acute care hospital** which currently does not exist and has no operating rooms. The proposed project will result in a new licensed facility with one operating room which did not previously exist.

The proposed project is non-conforming to the special criteria and standards for operating rooms as follows.

10 NCAC 14C .2102 Information Required of Applicant

FirstHealth indicated that these criteria were not applicable and did not respond. In fact, the proposed project includes the development of FirstHealth-Hoke, a **new separately licensed acute care hospital** which currently does not exist and has no operating rooms. The proposed project will result in a new licensed facility with one operating room which did not previously exist. As a result the proposed project involves **increasing operating rooms at FirstHealth-Hoke.**

FirstHealth did respond to 10 NCAC 14C .2102(c)(1)-(9) indicating that the proposal was a relocation but these rules were not applicable since the operating rooms were not being relocated from one "existing" licensed facility to another "existing" licensed facility.

Responses for 10 NCAC 14C .2102(c)(1)-(9) were reviewed to determine conformity with 10 NCAC 14C .2102(b)(1)-(9).

- *10 NCAC 14C .2102(b)(1)(2) – response found at 10 NCAC 14C .2102(c)(1)(2)*

The number and type of operating rooms reported by FirstHealth at FirstHealth-Moore was not consistent with the number and type of operating rooms reported by FirstHealth in the 2009 Licensure Renewal Application or the previous CON for the FirstHealth-Moore Heart Hospital Project I.D. # Project ID # H-7121-04. FirstHealth failed to explain the changes, which

represents a major assumption for the project since projections are based upon 16 operating rooms and not 14 operating rooms (the 2 open heart ORs would be excluded).

FirstHealth also failed to acknowledge ownership in the Surgery Center of Pinehurst as previously discussed. Therefore, the project is not conforming to these criteria.

- *10 NCAC 14C .2102(b)(3)(4) – response found at 10 NCAC 14C .2102(c)(3)(4)*

FirstHealth failed to provide historical data or projected utilization for the Surgery Center of Pinehurst. Therefore, the project is not conforming to these criteria.

- *10 NCAC 14C .2102(b)(5) – response found at 10 NCAC 14C .2102(c)(5)*

FirstHealth randomly selected 50% as the appropriate inpatient surgical volume to shift from FirstHealth-Hoke to FirstHealth-Moore. The undocumented assumptions and problems with inpatient surgical projections at FirstHealth-Hoke are discussed in detail in the context of Criterion 3. The basis for this determination was not what was needed or appropriate at FirstHealth-Hoke, but what FirstHealth-Moore did not need.

Outpatient surgical projections are included in the FirstHealth Application on page 236. FirstHealth assumes a 45% outpatient surgical market share to project outpatient surgical volume for FirstHealth-Hoke. This represents a **32% increase** of FirstHealth-Moore's 2008 outpatient surgical market share. Based upon an analysis of hospitals located in counties with comparable populations, FirstHealth assumed that FirstHealth-Hoke, with only eight inpatient beds and one operating room would operate like larger hospitals with 65 to 182 acute care beds and three to five operating rooms. It will not. These hospitals are full service hospitals which provide scheduled inpatient surgical services, and inpatient care with a large number of physicians on staff. The proposed FirstHealth-Hoke is not a full service hospital; it is an emergency hospital with no elective inpatient surgical services or general inpatient admissions as stated on page 211 of the FirstHealth Application.

Other than the comparison to the larger full service community hospitals, FirstHealth did not provide any additional documentation to indicate physicians currently utilizing outpatient surgical services at Cape Fear Valley Medical Center, or at the freestanding surgical centers in Cumberland and Moore Counties would consider joining the Medical Staff at the proposed FirstHealth-Hoke.

In addition, the one operating room also will be the only operating room available for emergencies, resulting in bumping of scheduled outpatient cases. On page 230 of the FirstHealth Application FirstHealth-Hoke projected 207 surgical hours which represents over 10% of the 1,872 operating room hours available in the one operating room for emergency patients in need of surgery. Even if 50% of emergency surgical procedures are performed after scheduled hours or on weekends, over 5% of available operating room capacity is subject to unscheduled surgical procedures. This will result in scheduled outpatient surgical procedures being bumped or delayed on any given day. Few surgeons would continue practicing at FirstHealth-Hoke after being bumped and told to wait an hour to three or more hours to perform elective surgery.

Included in Attachment 9 is a letter from Dr. John Henley at Fayetteville Surgery Center regarding this subject. As a result the projected market share is exceedingly overstated and unreasonable.

Furthermore, FirstHealth failed to document assumptions associated with the 0.5% growth rate utilized for FirstHealth-Moore inpatient and outpatient surgical projections. This undocumented assumption is discussed in detail in the context of Criterion 3.

- *10 NCAC 14C .2102(b)(7)(8) – response found at 10 NCAC 14C .2102(c)(7)(8)*

It is not clear if current and projected surgical rates included in the FirstHealth Application on pages 68 and 69 if the reported average reimbursement is for inpatient or outpatient procedures. Therefore, they cannot be compared to Cape Fear Valley – West projected average reimbursement. However, comparing FirstHealth's current and projected average reimbursement a substantial decrease in reimbursement from 2009 to 2013 as reflected in the following table.

Comparison Top 20 Current and Projected

Procedure	Mar-09	FY 2013	Difference	Percent Change
Laprascopic Cholecystectomy	$ 4,363	$ 2,394	$ (1,969)	-45.1%
Local Exis Breast Lesion	$ 3,142	$ 1,068	$ (2,074)	-66.0%
Other Local Destrc Skin	$ 1,551	$ 811	$ (740)	-47.7%
Opn Dir Ing Hern - Gft Ne	$ 2,423	$ 1,359	$ (1,064)	-43.9%
Tonsillectomy/Adenoidectomy	$ 1,978	$ 1,513	$ (465)	-23.5%
Tu Destrc Bladder Les Ne	$ 1,921	$ 828	$ (1,093)	-56.9%
Tu Remov Ureter Obstruction	$ 4,277	$ 1,906	$ (2,371)	-55.4%

Source: FirstHealth Application, pages 68, 69

As shown in the above table reimbursement is projected to decrease between 23% and 66% for the six surgical procedures consistent in the two tables. This is an unreasonable assumption and FirstHealth did not provide any rationale for such a substantial decrease over a four year timeframe.

- *10 NCAC 14C .2102(b)(9) – response found at 10 NCAC 14C .2102(c)(9)*

FirstHealth fails to discuss expenses associated with anesthesiology, radiology and pathology associated with inpatient and outpatient services to be provided at FirstHealth-Hoke. Furthermore, FirstHealth fails to provide documentation from physicians agreeing to serve as medical director for anesthesiology or pathology services for the proposed FirstHealth-Hoke.

10 NCAC 14C .2103 Performance Standards

- *10 NCAC 14C .2103(b)(1)*

Inpatient and outpatient surgical projections for FirstHealth-Hoke and FirstHealth-Moore are overstated as discussed previously in detail in the context of Criterion 3 and 10 NCAC 14C .2102(b)(5). Therefore, assumptions associated with inpatient and outpatient surgical projections are unreasonable and the proposed projected is not conforming to this criterion.

- *10 NCAC 14C .2103(g)*

FirstHealth referenced Section IV. regarding the assumptions utilized to project surgical volume for FirstHealth-Hoke. As previously discussed, the assumptions associated with surgical growth at both FirstHealth-Hoke and FirstHealth-Moore are unsubstantiated.

Therefore, assumptions associated with inpatient and outpatient surgical projections are unreasonable and the proposed projected is not conforming to this criteria.

10 NCAC 14C .2104 Support Services

- *10 NCAC 14C .2104(b)(1)*

FirstHealth proposes to transfer 50% of all emergency patients in need of inpatient care by ambulance to FirstHealth-Moore. FirstHealth-Moore is located approximately 30 miles from the proposed FirstHealth-Hoke locations included in the FirstHealth Application. In addition, the road system to FirstHealth-Hoke from the proposed location is a two lane winding road. The ambulance ride is estimated to take 40 minutes[15].

Cape Fear Valley Medical Center is located 15 miles from the proposed FirstHealth-Hoke locations included in the FirstHealth Application. The road system to CFVMC from the proposed location is a four lane straight road. An ambulance ride to CFVMC is estimated to take 20 minutes. FirstHealth does reference using their existing helicopter service but due to the expense associated with this service, it would not be reasonable for all patients transferred to be moved via helicopter. FirstHealth-Hoke does not include acquisition of a helicopter, therefore, the helicopter would have to be called, justified and fly from its designated home location to FirstHealth-Hoke. It is unclear if the capital expense for the helicopter-pad is included in the total capital expenditures for the project.

As a result, it appears that FirstHealth proposes to subject emergency patients to 20 additional minutes in an ambulance. In the FirstHealth Application on pages 149 and 150 FirstHealth discusses the importance of getting patients to emergency care as a reason for the proposed hospital. However, FirstHealth does not appear concerned about an additional transfer of 20

[15] Time and travel distance based upon proposed location 1 and mapped using Microsoft MapPoint analysis included in Attachment 7.

minutes for critical emergency patients in need of specialty services that will not be offered at the proposed FirstHealth-Hoke.

FirstHealth fails to discuss the proximity of CFVMC for those critical emergency patients in need of specialty services that will not be offered at the proposed FirstHealth-Hoke. Therefore, the project is not conforming to this criterion.

10 NCAC 14C .2105 Staffing and Staff Training

- *10 NCAC 14C .2105*

A review of the FirstHealth staffing chart reveals the following.

- It is not clear that operating rooms scheduling includes 24 hour coverage. "On-call" operating rooms for after hours and weekends requires full staffing and extra salaries
- Although on p. 34 FHCF states that "Anesthesiologists and certified nurse anesthetists will provide anesthesia services", neither of these positions are listed in the Section VII (p. 308) proposed medical staff chart, nor are they listed on the chart on p. 298, proposed staff for projects involving operating rooms.

B. Criteria and Standards for CT – 10 NCAC 14C .2300

FirstHealth does not justify the need for the proposed CT at FirstHealth-Hoke. The proposed project is non-conforming to the special criteria and standards for CT Scanners as follows.

10 NCAC 14C .2302 Information Required of Applicant

- *10 NCAC 14C .2302(j)*

The proposed CT scanner will only be available 40 hours per week for **routinely** scheduled procedures. Therefore, the proposed project is not conforming to this criterion.

10 NCAC 14C .2303 Performance Standards

- *10 NCAC 14C .2303(1)*

Projected CT scans are based upon the projected emergency department volume plus outpatient CT utilization. As discussed in the context of Criterion 3, emergency department assumptions are overstated resulting in overstating emergency visits by at least 3.5%. This would result in decreasing emergency rooms CT volumes by 3.5%.

Other CT outpatient volumes are projected on page 239 of the FirstHealth Application. As stated on page 239 FirstHealth assumed a "conservative" 15% market share of outpatient CT volume. FirstHealth does not provide any documentation, or detail regarding where the outpatient CT

volume will originate. Letters included in Exhibit 30 do not support sufficient CT volume. FirstHealth also did not provide any documentation or data regarding the volume of outpatient CT currently performed at FirstHealth-Moore for Hoke County residents.

However, in the table on page 239 it appears that the projected CT volume in Project Year 3 is based upon a "less conservative" market share of 20.0%.

The following reflects CT procedures projected in the application and adjusted CT volume which reflects the impact of assuming the "conservative" 15% market share referenced in the text of the FirstHealth Application for Project Year 3 for outpatient CT volume and adjusting emergency CT volume to reflect the 3.5% decrease in emergency visits previously discussed in the context of Criterion 3.

Projected CT Volume in FirstHealth Application and Adjusted CT Volumes to Reflect the Impact of Overstated Market Share and Overstated ED Visits

	FirstHealth Application	Adjusted
Hoke County Total CT Volume Based upon CT Use Rate on page 237 of FirstHealth Application	4,216	4,216
FirstHealth-Hoke Market Share discussed in text on page 239 of FirstHealth Application	-	15.0%
FirstHealth-Hoke Market Share in table on page 239 of FirstHealth Application	20.0%	-
FirstHealth-Hoke Outpatient CT Scans	843	632
FirstHealth-Hoke CT Scans Based upon Emergency Department Volume on page 230	2,756	2,756
CT Volume decrease resulting from 3.5% overstated ED visits (2,756 x 3.5%)	-	96
FirstHealth-Hoke ED CT Volume	2,756	2,659
FirstHealth-Hoke Total CT Volume page 243 of FirstHealth Application (ED CT volume + Outpatient CT volume)	3,599	3,292
Avg HECTs per CT scan (Projected HECTS / CT Volume)	1.53	1.53
Projected HECTS page 243 of FirstHealth Application	5,505	**5,035**

As reflected in the above table, the proposed CT scanner does not achieve 5,100 HECTS in Project Year 3. Therefore, the project is not conforming to this criterion.

10 NCAC 14C .2304 Support Services

- *10 NCAC 14C .2304(a)*

FirstHealth did not provide any documentation regarding the availability of the required services at FirstHealth-Hoke which will be a separately licensed hospital.

IV. Comparative Analysis

The Cape Fear Valley West Application is comparatively superior to the FirstHealth Application, as shown in the following four tables.

Metric	Cape Fear Valley West	FirstHealth-Hoke
Services Provided	Emergency Room – 16 ED Bays	Emergency Room – 8 ED Bays
	Inpatient Admissions – 21 General Acute Care Beds	Emergency Inpatient Services – 8 Acute Care Beds
	Inpatient and Outpatient Surgery – 2 ORs	Emergency Inpatient and Outpatient Surgery – 1 OR
	Obstetrical Services – 16 Bed Obstetrics Unit	
	1 C-Section OR	
	Intensive Care Unit – 4 ICU Beds	
	Observation Beds - 9	Observation Beds – 8
	Outpatient Diagnostic Imaging	Outpatient Diagnostic Imaging
	CT	CT
	Mobile MRI	MRI
	X-Ray	X-Ray
	Ultrasound	Ultrasound
		Mammography
		Nuclear Medicine
	Laboratory	Laboratory
	Pharmacy	Pharmacy
	Physical Therapy	
	Respiratory Therapy	
	Speech Therapy	

Source: Section XI of FirstHealth Application and Cape Fear Valley Health System Application.

Metric	Cape Fear Valley West	FirstHealth-Hoke
Capital Cost Per Bed	$2,187,133	$4,354,813
Patient Access	41 Acute Care Beds	8 Acute Care beds
Capital Cost per Sq Ft	$614.90	$697.48
Square feet for services	147,832	49,949

Source: Section XI of FirstHealth Application and Cape Fear Valley Health System Application.

Metric	Cape Fear Valley West	FirstHealth-Hoke
Inpatient Revenue Per Patient Day	$5,019 - Yr 1	$7,106 - Yr 1
Total Operating Cost Per Adjusted Patient	$1,806 - Yr 1	

Day		$2,482 - Yr 1
Total Net Revenue per Adjusted Patient Day	$1,456, - Yr 1	$2,424 - Yr 1

Source: Please see Section X.3 above for Cape Fear Valley West; please see table under Criterion 5 above for FirstHealth

Metric	Parent Company of Cape Fear Valley West: Cumberland County Hospital System, Inc.	Parent Company of FirstHealth-Hoke: FirstHealth of the Carolinas, Inc.
Medicaid FY2008	40.4% of Hoke County Discharges	15.6% of Hoke County Discharges

Source: Thomson Reuter

Metric	Parent Company of Cape Fear Valley West: Cumberland County Hospital System, Inc.	Parent Company of FirstHealth-Hoke: FirstHealth of the Carolinas, Inc.
Historical Charity Care FY2008	10.7% of net Revenue	7.5% of Net Revenue

Source: 2009 Annual Hospital License Renewal Applications

Metric	Cape Fear Valley West	FirstHealth
Community Endorsement: Petitions, email, letters	1,202 signatures obtained throughout Cumberland and Hoke Counties	190 emails and 33 letters

Source: Exhibit W of FirstHealth Application; Exhibit 24 of Cape Fear Valley West Application

The FirstHealth Application is deficient in the following respects:

- FirstHealth does not provide the best alternative for improved access for Hoke County residents. Cape Fear Valley Health System proposes to maximize resources in providing the largest access by relocating 41 acute care beds from Cape Fear Valley Health System to Cape Fear Valley West while FirstHealth proposes to transfer 8 surplus acute care beds from FirstHealth-Moore.

- The FirstHealth Application is not the least costly or most effective alternative as shown above with the highest charges per patient day, highest adjusted operating cost per patient day and highest adjusted net revenue per patient day.

- The FirstHealth Application cannot be approved because it has omitted required historical financial information including a complete financial picture of the entire FirstHealth of the Carolinas, Inc.'s entity.

- FirstHealth cannot be approved because projected inpatient and outpatient utilization is based upon erroneous assumptions resulting in overstated projections as a result the facility will incur greater losses with the 8-bed facility.

- FirstHealth cannot justify the projected MRI utilization and will incur greater losses with the 8-bed facility. The planned relocation of the MRI unit to Hoke County will result in unnecessary duplication of services being provided to residents of that area by FirstHealth and Cape Fear Valley Health System, particularly with the planned acquisition of another MRI scanner in Moore County.

- FirstHealth understated its working capital needs for FirstHealth-Hoke in the first year by $2.7 million.

- Referral letters submitted in support of the FirstHealth Application do not support the numbers of procedures projected by FirstHealth to operate the transferred MRI scanner in Hoke County.

- Cape Fear Valley Health System projects superior patient payor mix and financial class access to Cape Fear Valley West, while FirstHealth selectively choose a payor mix that does not serve Medicare and Medicaid patients.

- Several cost estimates were not documented as discussed above and the basis of the construction costs and amount of contingencies were not disclosed.

- FirstHealth failed to document its physics coverage of all equipment utilizing radiation and provided erroneous information regarding working agreements with surrounding providers.

For all of the above reasons, FirstHealth is non-conforming to the Review Criteria for a New Institutional Health Service, and the FirstHealth Application must be denied.

V. Conclusion

The majority of Hoke County residents live and are expected to live in the eastern side of the County, which is closer to Cape Fear Valley Medical Center and the proposed Cape Fear Valley West.

On pages 154, 160, and 161 of the FirstHealth Application, FirstHealth confirms that:

- McLauchlin and Raeford Townships are the most populated townships in Hoke County.
- McLauchlin Township is projected to have a greater school age population growth due to the impact of BRAC.
- Combined, McLauchlin and Raeford Townships represent 68.9 percent of Hoke County's 2009 population and 70.3 percent of the County's 2014 population.

An analysis of census tract population for Hoke County also illustrates that the population growth is projected to continue in the eastern part of the county as shown in the following table.

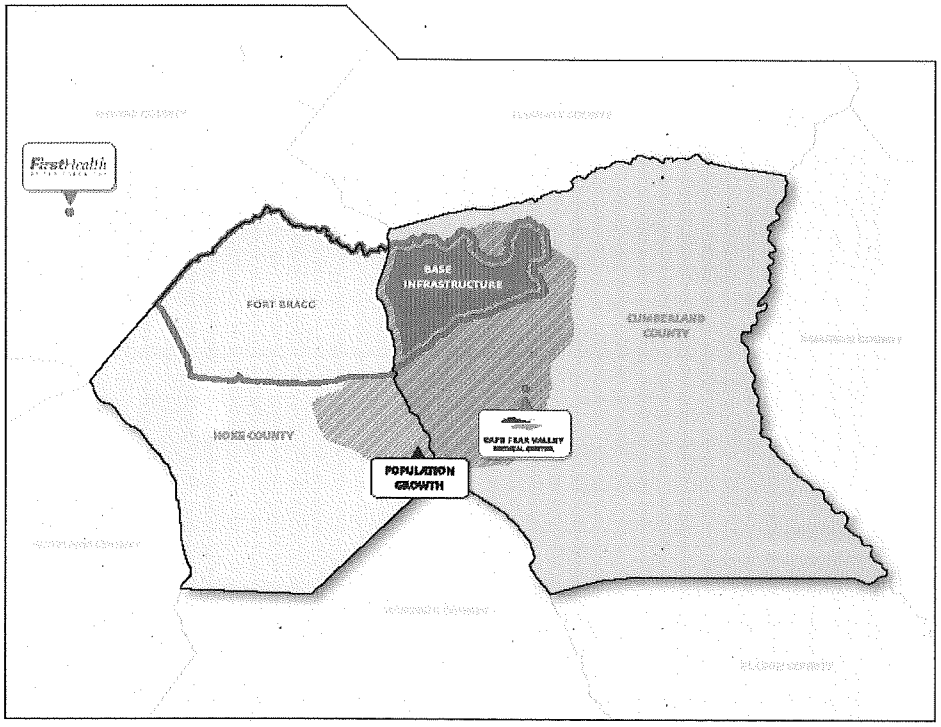
Hoke County Census Tract Population Data

	Total		Women 15-44		65+		Under 18	
Census Tract	**2009**	**2014**	**2009**	**2014**	**2009**	**2014**	**2009**	**2014**
9701	23,531	28,266	5,945	6,647	1,022	1,648	7,959	9,298
9702	9,292	10,243	1,800	1,929	728	1,103	2,468	2,668
9703	4,988	5,133	950	949	854	960	1,175	1,200
9704	6,814	7,351	1,498	1,620	490	799	2,108	2,238
Total	44,625	50,993	10,193	11,145	3,094	4,510	13,710	15,404
Percent of Total								
9701	52.7%	55.4%	25.3%	23.5%	4.3%	5.8%	33.8%	32.9%
9702	20.8%	20.1%	19.4%	18.8%	7.8%	10.8%	26.6%	26.0%
9703	11.2%	10.1%	19.0%	18.5%	17.1%	18.7%	23.6%	23.4%
9704	15.3%	14.4%	22.0%	22.0%	7.2%	10.9%	30.9%	30.4%

Source: Claritas

As shown in the above table, the largest and fastest growing population base in Hoke County is census tract 9701. That census tract includes the population in eastern Hoke County and in the north, the training grounds for Fort Bragg Military Reservation which does not include any civilian population. The following map shows the location of the proposed population growth and the locations of the existing FirstHealth-Moore and Cape Fear Valley Health System.

Hoke County Population Growth



As illustrated in the above map, the northern section of Hoke County is the location of the Fort Bragg Military Reservation which does not include any civilian population. The map also

illustrates that the projected population growth in Hoke County will be in the southeastern portion of the County adjacent to Cumberland County and closer to Cape Fear Valley West.

Cape Fear Valley Health System proposes to maximize existing resources by relocating 41 acute care beds from Cape Fear Valley Health System to Cape Fear Valley West. The proposed Cape Fear Valley-West is the best alternative to meet the needs of Hoke County residents and will result significant expansion in access to health care services. FirstHealth-Hoke proposes a limited service hospital with only eight acute care beds.

Bed Need State Office of Demographics Population Data

Hoke County	2009	2010	2011	2012	2013	2014
Population	45,602	46,762	47,922	49,082	50,243	51,402
Use Rate	69.27	69.27	69.27	69.27	69.27	69.27
Projected Cases	3159	3239	3319	3400	3480	3560
ALOS	4.87	4.87	4.87	4.87	4.87	4.87
Total Projected Days	15398	15790	16182	16573	16965	17357
ADC	42	43	44	45	46	48
Occupancy Rate	66.7%	66.7%	66.7%	66.7%	66.7%	66.7%
Beds Needed	63	65	66	68	70	71
Mkt Share	70%	70%	70%	70%	70%	70%
Projected Days	10779	11053	11327	11601	11876	12150
ADC	29.5	30.3	31.0	31.8	32.5	33.3
Occupancy Rate	66.7%	66.7%	66.7%	66.7%	66.7%	66.7%
Beds Needed	44	45	47	48	49	50

Source: NCOSBM; State Office of Demographics

Market share consistent with FHCH CON Application page 151

Bed Need Including BRAC Population Data Page 159 of FHCH CON Application

Hoke County	2009	2010	2011	2012	2013	2014	CAGR
Population	48,066	46,762	47,922	49,082	50,243	55,144	1.0279
Use Rate	69.27	69.27	69.27	69.27	69.27	69.27	
Projected Cases	3329	3239	3319	3400	3480	3820	
ALOS	4.87	4.87	4.87	4.87	4.87	4.87	
Projected Days	16230	15790	16182	16573	16965	18620	
ADC	44	43	44	45	46	51	
Occupancy Rate	66.7%	66.7%	66.7%	66.7%	66.7%	66.7%	
Beds Needed	67	65	66	68	70	76	
Mkt Share	70%	70%	70%	70%	70%	70%	
Projected Days	11361	11053	11327	11601	11876	13034	
ADC	31.1	30.3	31.0	31.8	32.5	35.7	
Occupancy Rate	66.7%	66.7%	66.7%	66.7%	66.7%	66.7%	
Beds Needed	47	45	47	48	49	54	

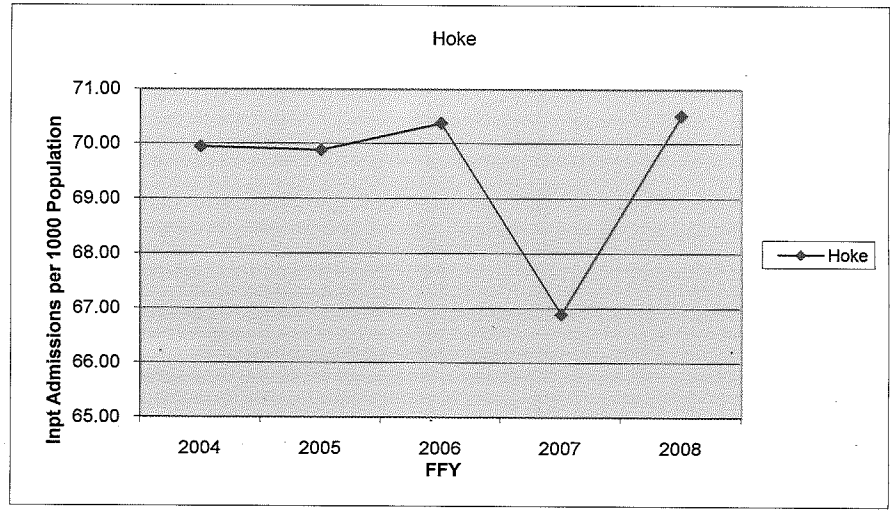
Source: NCOSBM; State Office of Demographics; FHCH CON Application pg 159

Market share consistent with FHCH CON Application page 151

County	Inpatient Cases				
	2004	2005	2006	2007	2008
Hoke	2662	2788	2923	2863	3,134
Population	38,054	39,891	41,530	42,796	44,442
Use Rate	69.95	69.89	70.38	66.90	70.52
Annual Change		-0.1%	0.7%	-5.0%	5.4%
County	**Inpatient Days**				
	2004	**2005**	**2006**	**2007**	**2008**
Hoke	11950	13091	14245	14081	15,146
Population	38,054	39,891	41,530	42,796	44,442
Use Rate	314.03	328.17	343.01	329.03	340.80
Annual Change		4.5%	4.5%	-4.1%	3.6%

Source: Thomson Data

County	Inpatient Cases						
	2004	2005	2006	2007	2008	5 Yr Avg	3 Yr Avg
Hoke	69.95	69.89	70.38	66.90	70.52	69.53	69.27
County	**Inpatient Days**						
	2004	**2005**	**2006**	**2007**	**2008**	**3 Yr Avg**	**3 Yr Avg**
Hoke	314.03	328.17	343.01	329.03	340.80	331.01	337.61
County	**ALOS**						
	2004	**2005**	**2006**	**2007**	**2008**	**3 Yr Avg**	**3 Yr Avg**
Hoke	4.49	4.70	4.87	4.92	4.83	4.76	4.87
Annual Change		4.6%	3.8%	0.9%	-1.7%		



FY 2008 - Patient Origin - Inpatient Admissions			Historical	Pop CAGR	Projected					
	FY 2008		FF2008 PD	2008-2014	2009	2010	2011	2012	2013	2014
Chatham	308	1.4%	1,052	2.4%	1,079	1,107	1,134	1,161	1,188	1,216
Cumberland	508	2.4%	1,736	0.9%	1,752	1,771	1,789	1,805	1,820	1,833
Harnett	757	3.5%	2,586	2.8%	2,665	2,744	2,823	2,901	2,980	3,059
Hoke	1,505	7.0%	5,142	2.5%	5,276	5,410	5,544	4,606	3,591	2,504
Lee	1,416	6.6%	4,838	2.0%	4,938	5,039	5,140	5,241	5,341	5,442
Montgomery	1,638	7.6%	5,596	0.4%	5,620	5,645	5,669	5,694	5,718	5,743
Moore	9,880	46.1%	33,754	1.8%	34,392	35,024	35,652	36,276	36,896	37,510
Richmond	2,239	10.4%	7,649	0.2%	7,659	7,684	7,702	7,715	7,725	7,732
Robeson	1,178	5.5%	4,024	1.0%	4,064	4,103	4,142	4,181	4,220	4,260
Scotland	914	4.3%	3,123	0.9%	3,150	3,181	3,212	3,242	3,273	3,304
All other	1,102	5.1%	3,765		3,824	3,884	3,944	3,945	3,941	3,933
Total Pt Days	21,445	100.0%	73,264		74,419	75,592	76,752	76,768	76,695	76,535
ADC			201		204	207	210	210	210	210
Occupancy			62.7%		63.7%	64.7%	65.7%	65.7%	65.7%	65.5%
Bed Need at 75.2%			267		271	275	280	280	279	279
Licensed and Approved Inventory			320		320	320	320	320	320	320
Surplus Beds (-)			-53		-49	-45	-40	-40	-41	-41

Hoke County Volume Adjusted PYs 1-3 to reflect Hoke Volume p 133 of application

County	2008	2009	2010	2011	2012	2013	2014	2015	CAGR 2008-2014	Weighted Pop Growth Rate
CHATHAM	60,895	62,471	64,047	65,624	67,199	68,775	70,352	71,927		
Annual Change		2.6%	2.5%	2.5%	2.4%	2.3%	2.3%	2.2%	2.4%	0.035%
CUMBERLAND	316,945	319,883	323,472	326,718	329,653	332,310	334,712	336,886		
Annual Change		0.9%	1.1%	1.0%	0.9%	0.8%	0.7%	0.6%	0.9%	0.022%
HARNETT	109,659	113,001	116,342	119,684	123,025	126,367	129,709	133,049		
Annual Change		3.0%	3.0%	2.9%	2.8%	2.7%	2.6%	2.6%	2.8%	0.100%
HOKE	44,442	45,602	46,762	47,922	49,082	50,243	51,402	52,562		
Annual Change		2.6%	2.5%	2.5%	2.4%	2.4%	2.3%	2.3%	2.5%	0.172%
LEE	57,511	58,709	59,906	61,105	62,302	63,500	64,697	65,894		
Annual Change		2.1%	2.0%	2.0%	2.0%	1.9%	1.9%	1.9%	2.0%	0.131%
MONTGOMERY	27,656	27,777	27,898	28,019	28,139	28,260	28,381	28,503		
Annual Change		0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.033%
MOORE	85,293	86,905	88,503	90,091	91,667	93,233	94,785	96,328		
Annual Change		1.9%	1.8%	1.8%	1.7%	1.7%	1.7%	1.6%	1.8%	0.817%
RICHMOND	46,853	46,913	47,065	47,178	47,258	47,316	47,361	47,393		
Annual Change		0.1%	0.3%	0.2%	0.2%	0.1%	0.1%	0.1%	0.2%	0.019%
ROBESON	130,341	131,610	132,880	134,149	135,418	136,689	137,958	139,227		
Annual Change		1.0%	1.0%	1.0%	0.9%	0.9%	0.9%	0.9%	1.0%	0.052%
SCOTLAND	37,072	37,397	37,763	38,129	38,494	38,860	39,226	39,591		
Annual Change		0.9%	1.0%	1.0%	1.0%	1.0%	0.9%	0.9%	0.9%	0.040%
STATE	9,227,016	9,398,080	9,572,644	9,744,887	9,917,532	10,088,393	10,259,526	10,429,282		
Annual Change		1.9%	1.9%	1.8%	1.8%	1.7%	1.7%	1.7%		1.422%

Cape Fear Valley Health System
FirstHealth Moore Regional Patient Days
Excludes Psych, Rehab and Normal Newborns

Fiscal Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
2007	6,927	6,617	6,884	7,444	6,640	7,147	6,625	6,833	5,825	5,882	6,458	5,833	79,115
2008	6,429	6,076	6,226	6,323	6,821	6,507	6,200	6,025	5,475	6,006	5,912	5,763	73,763
2009	6,669	6,272	6,710										19,651
May 08-Dec 09													48,832
May 08-April 09 in CON Application - page 173													86237
Patient Days for Jan - Apr 09													37,405
ADC Jan-Apr 09													312
Licensed Acute Care Bed Capacity													297

	Q1 Pt Days	Total Yr	Percent	2010	2011	2012	2013	2014	2015
Q1 2007	20,428	79,115	25.8%						
Q1 2008	18,731	73,763	25.4%						
Q1 2009	19,651	76,106	25.8%	75727	76106	76486	76869	77253	77639
							1072	1124	1170
							75797	76129	76469
							66.6%	66.9%	67.1%
							2144	2248	2340
							77941	78377	78809
							66.7%	67.1%	67.5%
	Q1 Pt Days	**Total Yr**	**Percent**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**
Q1 2007	20,428	79,115	25.8%						
Q1 2008	18,731	73,763	25.4%						
Q1 2009	19,651	85,439	23%	85014	85439	85866	86296	86727	87161
		36,607					1072	1124	1170
		305.06					85224	85603	85991
		102.7%					74.8%	75.2%	75.5%
							2144	2248	2340
							87368	87851	88331
							74.8%	75.2%	75.6%

Attachment 1: Hoke County Bed Need Analysis
Monthly PD Data

	(10/03-9/06)	*(10/04-9/05)*	*(10/05-9/06)*	*(10/06-9/07)*	*(10/07-9/08)*	**April 2008 – March 2009***
SMFP Patient Days	80,761	75,770	74,037	78,816	73,264	**86,237**
% Change		-6.2%	-2.3%	6.5%	-7.0%	17.7%
LRA Patient Days	79,839	75,327	77,037	80,897	76,079	**86,237**
% Change		-5.7%	2.3%	5.0%	-6.0%	13.4%
Varience Internal Data to Thomson	-1.1%	-0.6%	4.1%	2.6%	3.8%	
Licensed Acute Care Beds	297	297	297	297	297	**297**
Occupancy	74.5%	69.9%	68.3%	72.7%	67.6%	79.6%
Average Monthly Census	6,730	6,314	6,170	6,568	6,105	
ADC	224	210	206	219	204	
Monthly Occupancy	75.5%	70.9%	69.2%	73.7%	68.5%	

FirstHealth Moore	**FY 2009**	**FY 2010**
CON Application N-8354-09: Projected Days of Care	86,237	86,668
Project ID #H-7121-04: Projected Days of Care	89,043	90,245
Difference	2,806	3,577
% Difference	3.2%	4.0%

Bed Category	**FY 2008**	**FY 2009**	**FY 2010**	**Annual % Change**	**FY 2011**	**FY 2012**	**FY 2013**	**FY 2014**
ICU	15,108	15,561	16,028	3.00%	16,509	17,004	17,514	18,040
General	72,755	73,482	74,217	1.00%	74,959	75,709	76,466	77,231
Total	**87,863**	**89,043**	**90,245**	**1.30%**	**91,468**	**92,713**	**93,980**	**95,270**

FirstHealth Moore	**FY 2009**	**FY 2010**	**FY 2011**	**FY 2012**	**FY 2013**	**FY 2014**
CON Application N-8354-09: Projected Days of Care	86,237	86,668	87,102	86,465	86,851	87,245
FirstHealth Hoke				**FY 2012**	**FY 2013**	**FY 2014**
CON Application N-8354-09: Projected Days of Care				2,143	2,248	2,340
Total	**FY 2009**	**FY 2010**	**FY 2011**	**FY 2012**	**FY 2013**	**FY 2014**
CON Application N-8354-09: Projected Days of Care	86,237	86,668	87,102	88,608	89,099	89,585
FirstHealth Moore	**FY 2009**	**FY 2010**	**FY 2011**	**FY 2012**	**FY 2013**	**FY 2014**
Project ID #H-7121-04: Projected Days of Care	89,043	90,245	91,468	92,713	93,980	95,270
Difference	2,806	3,577	4,366	4,105	4,881	5,685
% Difference	3.2%	4.0%	4.8%	4.4%	5.2%	6.0%

Attachment 1. Hoke County Bed Need Analysis
Historical Bed Data

2009 - Attachment 2

OR Need State Office of Demographics Population Data

Hoke County	2009	2010	2011	2012	2013	2014
Population	45,602	46,762	47,922	49,082	50,243	51,402
Inpt Surgical Use Rate	19.22	19.22	19.22	19.22	19.22	19.22
Projected Inpt Cases	876	899	921	943	965	988
Outpatient Surgical Use Rate	48.15	48.15	48.15	48.15	48.15	48.15
Projected Outpt Cases	2196	2252	2308	2363	2419	2475
Weighted OR Hours	5923	6073	6224	6375	6525	6676
Total OR Need	3.16	3.24	3.32	3.41	3.49	3.57
Inpt Mkt Share	50%	50%	50%	50%	50%	50%
Projected Inpt Cases	438	449	460	472	483	494
Outpt Mkt Share	70.0%	70%	70%	70%	70%	70%
Projected Outpt Cases	1537	1576	1615	1654	1694	1733
Weighted OR Hours	3620	3712	3804	3896	3989	4081
Total OR Need	1.93	1.98	2.03	2.08	2.13	2.18

Source: NCOSBM; State Office of Demographics

Market share consistent with FHCH CON Application page 151

OR Need Including BRAC Population Data Page 159 of FHCH CON Application

Hoke County	2009	2010	2011	2012	2013	2014	CAGR
Population	48,066	46,762	47,922	49,082	50,243	55,144	1.0279
Inpt Surgical Use Rate	19.22	19.22	19.22	19.22	19.22	19.22	
Projected Inpt Cases	924	899	921	943	965	1060	
Outpatient Surgical Use Rate	48.15	48.15	48.15	48.15	48.15	48.15	
Projected Outpt Cases	2315	2252	2308	2363	2419	2655	
Weighted OR Hours	6243	6073	6224	6375	6525	7162	
Total OR Need	3.33	3.24	3.32	3.41	3.49	3.83	
Inpt Mkt Share	50%	50%	50%	50%	50%	50%	
Projected Inpt Cases	462	449	460	472	483	530	
Outpt Mkt Share	70%	70%	70%	70%	70%	70%	
Projected Outpt Cases	1620	1576	1615	1654	1694	1859	
Weighted OR Hours	3816	3712	3804	3896	3989	4378	
Total OR Need	2.04	1.98	2.03	2.08	2.13	2.34	

Source: NCOSBM; State Office of Demographics; FHCH CON Application pg 159

Market share consistent with FHCH CON Application page 151

Medicare	Medicare HMO	Medicaid	Tricare	Other Government	BC	HMO	HMO/PPO	Indemnity	PPO	Self Pay	Medicare HMO	Unknown	WC	Total
Total Hoke County Discharges by Payor														
1,133	188	1,078	282	93	432	127	2	119	44	275		2	18	3,793
29.9%	5.0%	28.4%	7.4%	2.5%	11.4%	3.3%	0.1%	3.1%	1.2%	7.3%		0.1%	0.5%	
Hoke County OB DRGs														
4	0	335	63	0	75	36	0	15	6	18		0	0	552
0.7%	0.0%	**60.7%**	11.4%	0.0%	13.6%	6.5%	0.0%	2.7%	1.1%	3.3%		0.0%	0.0%	100.0%
Hoke County w.o. OB DRGs														
1,129	188	743	219	93	357	91	2	104	38	257		2	18	3,241
34.8%	5.8%	22.9%	6.8%	2.9%	11.0%	2.8%	0.1%	3.2%	1.2%	7.9%		0.1%	0.6%	100.0%
Medicare	**Medicare HMO**	**Medicaid**	**Tricare**	**Other Government**	**BC**	**HMO**	**HMO/PPO**	**Indemnity**	**PPO**	**Self Pay**	**Medicare HMO**	**Unknown**	**WC**	**Total**
CFVHS Total Hoke County Discharges by Payor														
370		512	127	2	186	99		30		93			13	1432
25.8%		35.8%	8.9%	0.1%	13.0%	6.9%		2.1%		6.5%			0.9%	
CFVHS Hoke County OB DRGs														
1		274	54	0	60	36		10		15			0	450
0.2%		**60.9%**	12.0%	0.0%	13.3%	8.0%		2.2%		3.3%			0.0%	
CFVHS Hoke County w.o. OB DRGs														
369		238	73	2	126	63		20		78			13	982
37.6%		24.2%	7.4%	0.2%	12.8%	6.4%		2.0%		7.9%			1.3%	
Medicare	**Medicare HMO**	**Medicaid**	**Tricare**	**Other Government**	**BC**	**HMO**	**HMO/PPO**	**Indemnity**	**PPO**	**Self Pay**	**Medicare HMO**	**Unknown**	**WC**	**Total**
FHMRH Total Hoke County Discharges by Payor														
575		184	33	67	152			39	31	80	172		1	1334
43.1%		13.8%	2.5%	5.0%	11.4%			2.9%	2.3%	6.0%	12.9%		0.1%	
FHMRH Hoke County OB DRGs														
1		48	6	0	13			4	6	3	0		0	81
1.2%		**59.3%**	7.4%	0.0%	16.0%			4.9%	7.4%	3.7%	0.0%		0.0%	
FHMRH Hoke County w.o. OB DRGs														
574		136	27	67	139			35	25	77	172		1	1253
45.8%		10.9%	2.2%	5.3%	11.1%			2.8%	2.0%	6.1%	13.7%		0.1%	

Attachment 3. Hoke County Payor Mix
Primary Payor

FirstHealth Moore			Ratio FH/CFVHS	CFVHS		
Blue Cross	136	22.3%	3.58	Blue Cross	38	9.7%
Champus	47	7.7%	1.38	Champus	34	8.7%
Commercial	64	10.5%	2.67	Commercial	24	6.2%
HMO	0	0.0%	0.00	HMO	20	5.0%
Medicaid	272	44.7%	1.96	Medicaid	139	35.5%
Self Pay	88	14.4%	0.64	Self Pay	137	34.9%
Medicaid/Self Pay	360	59.1%	1.30	Medicaid/Self Pay	276	70.5%
VA	2	0.3%	0.00	VA	0	0.0%
Total Medicare	609	100.0%	1.55	Total Medicare	392	100.0%

FirstHealth Moore			CFVHS		
Blue Cross	136	22.3%	Blue Cross	38	9.7%
Commercial	64	10.5%	Commercial	24	6.2%
BC and Other Commercial	200	32.8%	BC and Other Commerc	62	15.9%
HMO	0	0.0%	HMO	20	5.0%
Medicaid	272	44.7%	Medicaid	139	35.5%
Self Pay	88	14.4%	Self Pay	137	34.9%
Medicaid/Self Pay	360	59.1%	Medicaid/Self Pay	276	70.5%
VA	2	0.3%	VA	0	0.0%
Champus	47	7.7%	Champus	34	8.7%
VA and Champus	49	8.0%	VA and Champus	34	8.7%
Total Medicare	609	100.0%	Total Medicare	420	107.2%

Medicare Supplemental Payor	FirstHealth Moore	CFVHS
BC and Other Commercial	32.8%	15.9%
Medicaid/Self Pay	59.1%	70.5%
VA and Champus	8.0%	8.7%
Medicare HMO	0.0%	5.0%
Total Medicare	100.0%	100.0%

Attachment 3. Hoke County Payor Mix
Secondary Payor

	FirstHealth Application	Adjusted Per Discussion
Hoke County Total CT Volume Based upon CT Use Rate on page 237 of FirstHealth Application	4216	4216
FHCH Market Share stated on page 239 of FirstHealth Application	20.0%	15.0%
FHCH Outpatient CT Scans	843	632
FHCH CT Scans Based upon Emergency Department Volume on page	2756	2756
ED visits overstated by 3.5%	-	96
ED CT Volume	2756	2659
Total CT Volume page 243 of FirstHealth Application	3599	3292
Avg HECTs per CT scan	1.53	1.53
Projected HECTS page 243 of FirstHealth Application	5505	5035

County	FY 2012 Percent of Scans	FY 2012 Number of Scans	FY 2013 Percent of Scans	FY 2013 Number of Scans
Hoke	56.80%	521	61.90%	672
Scotland/Robeson	43.20%	396	38.10%	413
Total	**100.00%**	**917**	**100.00%**	**1,085**

FirstHealth Moore	2006 SMFP (10/03-9/04)	2007 SMFP (10/04-9/05)	2008 SMFP (10/05-9/06)	2009 SMFP (10/06-9/07)	Proposed 2010 SMFP (10/07-9/08)	CAGR 10/03-9/06	CAGR 10/03-9/07	CAGR 10/03-9/08	YTD Annualized
unweighted	13,095	11,147	12,154	12,802	11,470	0.9754	0.9944	0.9738	12,216
		-14.9%	9.0%	5.3%	-10.4%				
weighted	16,076	13,959	16,080	15,950	13,993	1.0001	0.9980	0.9726	no data
		-13.2%	15.2%	-0.8%	-12.3%				
unweighted: weighted	81.5%	79.9%	75.6%	80.3%	82.0%				
Average scans per scanner at 4,805 weighted scans/year	3.3	2.9	3.3	3.3	2.9				no data

Proposed 2010 SMFP, Table 9K, May 21, 2009
3 fixed MRI in all years

FirstHealth Moore	*Proposed 2010 SMFP (10/07-9/08)**	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014
Unweighted scans	11,470	11,814	12,169	12,534	12,910	13,297	13,696
Weighted scans	13,993	14,413	14,845	15,291	15,749	16,222	16,708
MRI scanners needed at 4,805 weighted scans/year	2.912	3.000	3.090	3.182	3.278	3.376	3.477
Annual growth rate	3.0%						

Projected MRI Volume Page 105		2007	2008	2009	2010	2011	2012	2013	2014
FHCH - 1.5T LX	Inpt	993	791	923	963	1,006	31	32	33
	Outpt	2,888	2,667	2,776	2,898	3,026	887	1,053	1,227
FMRH - 1.5T Avanto plus 0.7T Openspeed	Inpt	1,780	1,418	1,655	1,728	1,804	1,065	1,112	1,160
	Outpt	7,141	6,594	6,863	7,164	7,480	6,785	6,963	7,186
Proposed New MRI at FMRH - 1.5T Discovery	Inpt	0	0	0	0	0	1,964	2,051	2,141
	Outpt	0	0	0	0	0	3,770	3,927	4,058
Total	Inpt	2,773	2,209	2,578	2,691	2,810	3,060	3,195	3,334
	Outpt	10,029	9,261	9,639	10,062	10,506	11,442	11,943	12,471

Projected MRI Volume Page 105 w.o Proposed 1.5T Discovery		2007	2008	2009	2010	2011	2012	2013	2014
FHCH - 1.5T LX	Inpt	993	791	923	963	1,006	31	32	33
	Outpt	2,888	2,667	2,776	2,898	3,026	887	1,053	1,227
FMRH - 1.5T Avanto plus 0.7T Openspeed	Inpt	1,780	1,418	1,655	1,728	1,804	3,029	3,163	3,301

	Outpt	7,141	6,594	6,863	7,164	7,480	10,555	10,890	11,244
Total	Inpt	2,773	2,209	2,578	2,691	2,810	3,060	3,195	3,334
	Outpt	10,029	9,261	9,639	10,062	10,506	11,442	11,943	12,471
Utilization of Remaining Two MRIs at FMRH Page 105 w.o Proposed 1.5T Discovery		**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**
FMRH - 1.5T Avanto plus 0.7T Openspeed	Inpt	1,780	1,418	1,655	1,728	1,804	3,029	3,163	3,301
	Outpt	7,141	6,594	6,863	7,164	7,480	10,555	10,890	11,244
Total MRI Procedures		8,921	8,012	8,518	8,892	9,284	13,584	14,053	14,545
Weighted MRI Procedures*	1.24						16,844	17,426	18,036
Avg Procedures Per MRI	2						8,422	8,713	9,018
Capacity of 1 MRI 66 Hours per Week									6,864
Utilization of Remaining Two MRIs at FMRH									131.4%
Weekly Hours of operating required to provide 9018 procedures									87
Avg Hours per Day Seven Days per Week @ 100% Utilization									12
Avg Hours per Day Seven Days per Week @ 80% Utilization									15

*Avg Weight for MRI Procedures at FMRH = Total on Pg 155 - FHCH Total on Pg 116

Moore County 65+ Population

2009	65-74	75-84	85-94	95+	65+	Total	Percent
MOORE	8,095	6,411	2,735	272	17,513	86,905	20.2%
STATE	657,181	371,975	130,431	12,956	1,172,543	9,398,080	12.5%

	2008	2009	2010	2011	2012	2013	2014
Hoke Outpatient ED	10148	10402	10663	10930	11204	11485	11773
Comparable Cty ED Growth Rate	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%
	2008	2009	2010	2011	2012	2013	2014
Hoke Outpatient ED	10148	10664	11206	11775	12374	13003	13663
Comparable Cty ED Growth Rate	5.1%	5.1%	5.1%	5.1%	5.1%	5.1%	5.1%
Total Hoke ED Project FH CON					12,960	13,591	14,147
FHCH ED Volume					8,541	8,957	9,323
Inpt Cases Project FH CON					1,383	1,450	1,510
Percent Inpt Days of ED Volume					16.2%	16.2%	16.2%
ED Variance					4.7%	4.5%	3.5%
Mkt Share					65.9%	65.9%	65.9%
Adjusted ED Cases					8,154	8,569	9,004
Adjusted Inpt Cases					1,320	1,387	1,458
Inpt Case Variance					4.7%	4.5%	3.5%
50% of Adjusted Inpt Cases					660	694	729
ALOS - pg 231					3.1	3.1	3.1
					2,047	2,150	2,260
					5.6	5.9	6.2
					70.1%	73.6%	77.4%

Hoke County Population Growth with BRAC

	2008	2009	2010	2011	2012	2013	2014	CAGR
Hoke County Population	44,538				52,475	53,985	55,144	3.6%

Source: pg 214, 215

Category	Providers & Service Use								
Subcategory	Hospital Trends								
Topic	ER Visits, 1999-2007								
Full Title	Hospital Emergency Room Visits per 1,000 Population, 1999-2007								
Data Type	Number								
	1999	2000	2001	2002	2003	2004	2005	2006	2007
North Carolina	371.8	369.4	394.2	400.0	407.7	407.9	436.3	434.0	449.0
		-2.5	24.8	5.8	7.7	0.1	28.5	-2.3	15.0
		-0.7%	6.7%	1.5%	1.9%	0.0%	7.0%	-0.5%	3.5%

Notes: Data are for community hospitals, which represent 85% of all hospitals. Federal hospitals, long term care hospitals, psychiatric hospitals, institutions for the mentally retarded, and alcoholism and other chemical dependency hospitals are not included.

Definitions: NA: Not applicable when state/local government, non-profit, or for-profit hospitals do not exist in the state.Community Hospitals: All nonfederal, short-term general, and specialty hospitals whose facilities and services are available to the public.

Sources: Calculation based on 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006 and 2007 AHA Annual Surveys. Copyright 2009 by Health Forum LLC, an affiliate of the American Hospital Association, available at http://www.ahaonlinestore.com/ProductDisplay.asp?ProductID=637; Annual Population Estimates by State, July 1, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, and 2007 Populations, U.S. Census Bureau, available at http://www.census.gov/popest/states/NST-annest.html.

County	Hospital		FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	CAGR
Beaufort	Beaufort Cty	P - 151	20,793	19,541	18,599	20,402	21,035	21,067	0.3%
Beaufort	Pungo	P - 151	5,396	5,520	5,663	5,475	5,401	5,328	-0.3%
Davie	Davie	P - 166	11,573	11,419	12,579	12,389	11,866	12,312	1.2%
McDowell	The McDowell	P - 166	15,898	16,426	17,950	17,514	19,015	20,142	4.8%
Pasquotank	Albemarle	P - 166	28,831	30,115	40,155	34,365	34,146	34,774	3.8%
Vance	Maria Parham	P - 166	31,157	29,690	30,243	32,829	33,179	32,579	0.9%
Watauga	Blowing Rock	P - 151	1,545	1,481	1,557	1,446	1,492	1,411	-1.8%
Watauga	Watauga	P - 151	15,964	16,626	16,337	15,532	18,472	20,208	4.8%
Yadkin	Hoots	P - 166	6,958	7,076	6,774	6,806	7,516	8,492	4.1%
Total Emergency Visits			138,115	137,894	149,857	146,758	152,122	156,313	2.51%

Source: LRAs

County	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	CAGR
BEAUFORT	45,331	45,437	45,610	45,986	45,922	46,600	
DAVIE	37,061	37,720	38,627	39,571	40,306	40,980	
MCDOWELL	42,964	42,930	43,019	43,493	43,991	44,570	
PASQUOTANK	36,353	37,512	38,709	39,850	40,784	41,178	
VANCE	43,561	43,408	43,106	43,467	43,466	43,497	
WATAUGA	43,080	43,176	43,345	43,995	44,618	45,325	
YADKIN	36,715	36,909	37,178	37,508	37,734	38,172	
Total	285,065					300,322	1.0%

Source: NC Office State Demographics

County	Hospital		FY 2003	FY 2008	CAGR
Cumberland	CFVMC		70,649	116,433	10.5%
Cumberland	Highsmith		18,367	0	0.0%
Durham	Duke		60,107	61,277	0.4%
Durham	Durham Reg		47,419	57,394	3.9%
Forsyth	FMC		76,126	100,500	5.7%
Forsyth	NCBH		62,119	90,909	7.9%
Guilford	HighPoint		72,036	61,776	-3.0%
Guilford	Moses Cone		110,327	119,549	1.6%
Mecklenburg	CMC		116,614	124,769	1.4%
Mecklenburg	CMC Mercy Pineville		59,470	79,125	5.9%
Mecklenburg	CMC University		63,805	70,623	2.1%
Mecklenburg	PHH		0	30,841	0.0%
Mecklenburg	PHM		32,207	47,259	8.0%
Mecklenburg	Presbyterian		60,334	84,865	7.1%
Orange	UNC		42,243	62,524	8.2%
Pitt	Pitt		63,384	87,907	6.8%
Wake	Duke Raleigh		30,344	32,978	1.7%
Wake	Rex		38,119	55,718	7.9%
Wake	WakeMed		110,838	149,107	6.1%
Wake	WakeMedCary		0	54,430	0.0%
			1,134,508	1,487,984	5.6%

Source: LRAs

County	FY 2003	FY 2008	CAGR
Cumberland	89,016	116,433	5.5%
Durham	107,526	118,671	2.0%
Forsyth	138,245	191,409	6.7%
Guilford	182,363	181,325	-0.1%
Mecklenburg	332,430	437,482	5.6%
Orange	42,243	62,524	8.2%
Pitt	63,384	87,907	6.8%
Wake	179,301	292,233	10.3%
	1,134,508	1,487,984	5.6%

Source: LRAs

Attachment 4. FirstHealth Hoke Analysis
ED Comparison

2009- Attachment 5

FORT BRAGG AND POPE AIR FORCE BASE
BRAC
REGIONAL
TASK FORCE
COMMUNITY PLANNING FOR BRAC IMPLEMENTATION

Comprehensive Regional Growth Plan for the Fort Bragg Region

Assessment and Recommendations

Chapter 13
Hoke County

September 2008

Submitted to the:

FORT BRAGG AND POPE AFB
BRAC REGIONAL TASK FORCE

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In Partnership with:

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ERISS Corporation (Workforce)
The e-NC Authority (Information & Communication Technologies)
Health Planning Source, Inc (Health Care)
Hobbs, Upchurch & Associates (Water and Wastewater)
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ICF International (Economic Modeling & Transportation)
Martin/Alexiou/Bryson, PLLC (Transportation)
Operations Research/Education Lab, N.C. State University (Education k-12)
PKF Consulting (Hospitality and Cultural Resources)
Richardson Smith Gardner & Associates (Solid Waste)

DISCLAIMER

This report is intended as an aid to planners, managers, elected officials, and other decision makers in the Fort Bragg region. Our aim is not to dictate what should be done, but to assist in ongoing efforts to achieve goals and objectives identified and valued by the residents of the region. The recommendations presented in this report are suggestions for how the region could work towards those goals and objectives, based on best available information and current understandings.

The information, projections and estimates in this report are based upon publicly available data and have been prepared using generally accepted methodologies and formulas. The projections and needs presented in this report are based upon best estimates using the available data. It is important to note that currently available information and understandings are incomplete and cannot account for the inevitable, but unpredictable, impacts of unexpected global, national, state, and/or local events. Actual results and needs may differ significantly from the projections of this report due to such unforeseen factors and conditions, as well as inaccuracy of available data, and/or factors and conditions not within the scope of this project. Persons using this information to make business and financial decisions are cautioned to examine the available data for themselves and not to rely solely on this report.

Neither the BRAC Regional Task Force, Training and Development Associates, Inc. nor its subcontractors guarantee or warrant that the projections set forth in this report will, in fact, occur. The BRAC Regional Task Force, Training and Development Associates, Inc. and its subcontractors disclaim any liability for any errors or inaccuracies in the information, projections and needs analysis, regardless of how the data is used, or any decisions made or actions taken by any person in reliance upon any information and/or data furnished herein.

Contents

Chapter 13: Hoke County

A. Introduction

This report presents the results of a thorough assessment of the impact of the expansion at Fort Bragg and identifies action items that need to be taken to prepare for this growth. The assessment process included dozens of individual interviews and working group meetings attended by a diverse group of planners and engineers, elected officials, city and county employees, representatives of chambers of commerce, and other stakeholders. Their insights guided teams of experts in their information gathering and analysis. Following the sustainability guidelines described in the introduction to the full report, the information presented here is intended to support proactive, integrated, regional planning through which the region's communities can develop innovative and effective responses to potential as well as already existing problems.

This section, which identifies issues facing Hoke County and presents strategies for accommodating the impact of military-related growth, can be read either independently or as part of the larger Growth Management Plan. It includes an assessment of the following topics:

- Economic Impact
- Education (K-12)
- Housing
- Information and Communication Technologies
- Water, Sewer, & Solid Waste
- Health Care
- Hospitality and Cultural Resources

Hoke County encompasses approximately 392 square miles. It includes the incorporated municipality of Raeford and several small, unincorporated communities and villages (Figure 1).

1. Growth Scenarios Used in This Report

The terms "normal growth" and "expected growth" figure prominently in the following discussion.

Figure 1. Map of Hoke County

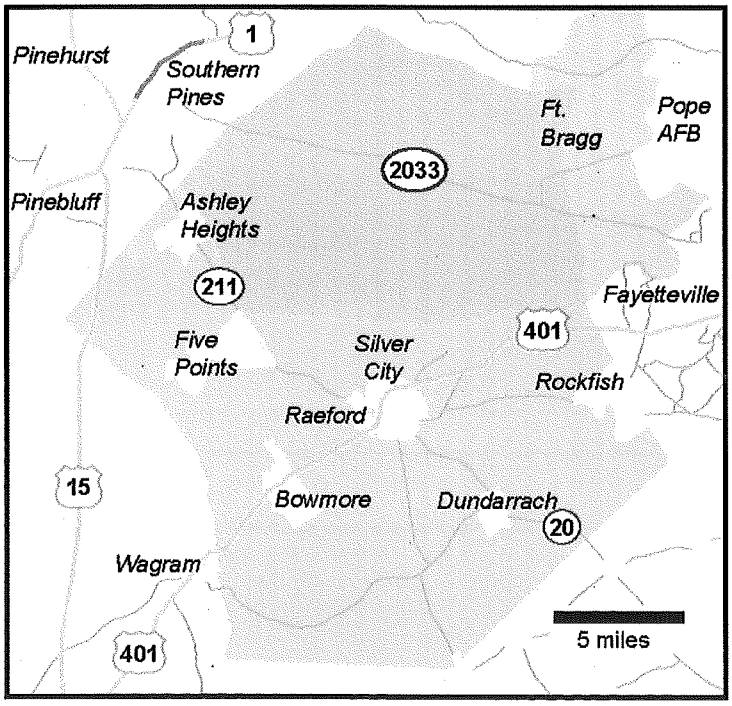


Table 1: Expected Number of Additional Military-Related Personnel

	2006	2007	2008	2009	2010	2011	2012	2013	Totals
Active-Duty Army	2,242	129	1854	1,310	477	-700	153	143	5,608
Active-Duty Air Force	-309	-1088	-786	-579	-460	70	155	50	-3,247
Army Civilians	393	102	149	216	17	1,072	0	0	1,949
Air Force Civilians	23	257	-19	-85	-31	-3	0	0	142
Defense Contractors	1274	632	253	120	120	1,226	504	-27	4,102
Totals	3,623	32	1,451	982	123	1,615	762	116	8,704

"Normal"—that is, natural—growth refers to the changes in local population and other economic factors that would be affecting housing markets and school systems even if there were no military expansion at Fort Bragg. "Expected growth" refers to the additional growth that will occur as a result of the planned expansion at Fort Bragg.

The number of additional military-related personnel expected to relocate to the region from 2006 through 2013 is shown in **Table 1**.

In addition, the expected growth scenario includes expected construction expenditures for military projects managed by the Army Corps of Engineers, as well as privatized military housing projects managed by Picerne Housing. Military construction expenditures total $1.3 billion[1] between 2006 and 2013, and privatized military housing construction totals $336 million[2] between 2006 and 2013. For a complete discussion of the economic modeling and associated assumptions developed for this project, refer to the regional economic impact chapter.

2. Recommended Actions

The "Recommended Actions" section located at the end of each section lists specific actions suggested as responses to the challenges identified in the chapter. All of the recommended actions are important for the region as a whole; each recommended action is classified as being either "critical" or "important" based on the relevance of the action to the mission of Fort Bragg. Critical actions are urgent actions; failure to implement them could jeopardize the base's mission. Important actions represent a less urgent "best practice" of more general value to the region, in that failure to implement an important action could adversely affect community planning but would not jeopardize Fort Bragg's mission.

1. Estimates provided by Glenn Prillaman, Fort Bragg Directorate of Public Works
2. Estimates provided by Gary Knight, Picerne Housing

B. Economic Impact of Military Growth

The infusion of military, civilian, and supporting contractors, together with the concomitant investments needed for construction and related activities, is expected to provide a boost to the Hoke County economy and lead to a more than $41 million increase in Gross Regional Product in 2013. The Fort Bragg expansion will also account for an additional $53 million in personal income, $46 million in disposable income, $31 million in output (sales), and $61 million in demand in 2013. The total population for Hoke County in 2013 is expected to be 56,704, including 3,836 that are a result of military expansion.

In order to understand how a community is going to change, it is necessary to identify where that community currently stands. When considering the growth of an entire county, broad demographics that show population, income, employment, and commuting trends can provide a reliable snapshot of where the county is now and where it is headed.

1. Population

The population of Hoke County increased over 25% between 2000 and 2006. According to the North Carolina State Data Center (SDC) estimates, county population increased from 33,646 in April 2000 to 42,202 in July 2006, the most recent date for which

Table 2. Population Growth in Hoke County, 2000-2006

Municipality	April 2000 Population	July 2006 Population	Change (number)	Change (%)
Raeford	3,386	3,823	437	12.91
Unincorporated Area	30,260	38,379	8,119	26.83
Hoke County Total	33,646	42,202	8,556	25.43

data are available. That 25.4% population increase was significantly greater than the 10.1% average statewide increase for the period. As shown in , the City of Raeford also grew in population between April 2000 and July 2006. As of July 2006, Raeford had the 159th largest population of the 541 North Carolina municipalities. The majority of the population growth has occurred in the unincorporated portion of Hoke County (**Table 2**).

At the completion of the expansion at Fort Bragg and Pope Air Force Base in 2013, the total population in Hoke County is expected to increase to approximately 56,704, corresponding to an increase of 3,742 attributable to military growth. Over 80% of the population growth is expected to consist of civilian households.

2. Income, Gross Regional Product (GRP), Output, and Demand

As a result of military growth, personal income[3] in Hoke County will increase in 2013 from roughly $1.37 billion to $1.42 billion - or by $53 million (**Table 3**). At the completion of the Fort Bragg expansion in 2013, disposable income[4] in Hoke County will have grown by $46 million to $1.246 billion. Similar to the trends seen in other variables, income changes in the regional economy spike at the peak of the military expansion in 2011, then settle to a more gradual increase over the long run as the regional economy absorbs the expansion. Gross regional product (GRP), the most commonly used metric for measuring value added to the regional economy, is analogous to the gross domestic product used for benchmarking activities in the national economy. While it was thought that the local economy would grow at a fair pace without the military expansion (that is, normal growth), the infusion of military, civilian, and supporting contractors, together with the investments needed for construction and related activities, is expected to provide a further boost to the Hoke County economy and lead to a GRP increase of $41 million in 2013. Total sales to local businesses (output) is affected by changes in industry demand, the local region's share of each market, and international exports from the local region. The increase in 2013 is estimated to be $31 million. Total demand is defined as the amount of goods and services demanded by the local region;

3. Personal income, defined as the aggregate income received by all persons from all sources, is calculated as the sum of wage and salary disbursements, supplements to wages and salaries, proprietors' income, rental income, personal dividend income, personal interest income, and personal current transfer receipts, less contributions to government social insurance.. (REMI Model Documentation Version 9.5).

4. Disposable income is defined as the portion of personal income that is available for consumers to spend. Disposable income equals personal income, less taxes and social security contributions, plus dividends, rents, and transfer payments (REMI Model Documentation Version 9.5).

Table 3. Economic Impact of Military Growth (excludes normal growth)

	2013 (millions)
Personal Income	+ $53
Disposable Income	+ $46
Gross Regional Product	+ $41
Total Sales (output)	+ $31

it includes both imports and local supply. Under the Fort Bragg expansion, total demand for Hoke County is expected to grow by about $61 million in 2013 (from about $1.87 billion to $1.93 billion).

C. K-12 Education

Hoke County Schools, which have a 2007-2008 K-12 enrollment of 7,459 students, will experience military-related growth estimated at nearly 500 students between the 2006-2007 and the 2013-2014 school years. The expected impact will be heaviest in the northeastern and eastern parts of the county, primarily south of US 401. Because the staffing of new classrooms in order to maintain current levels of education services will cost $27.9 million over six years and because $18.9 million will be needed for new school construction, the securing of funding for capital improvements has become a major priority.

School systems nationwide are facing difficult planning challenges arising from increasing student populations, aging school infrastructures, and increasing complexity in pupil assignments. These challenges are shared by the county, which must fund building and renovation projects based not only on normal population growth but also on the expected growth that will occur as a result of the military expansion at Fort Bragg.

1. Current Conditions

a. Background

Hoke County Schools, with an enrollment of 7,459,[5] in 2007-08, is the fifty-third largest school district in North Carolina. Other characteristics of the district include:

- Eight elementary schools, two middle schools, one high school, and two alternative schools
- Nine hundred and twenty two employees, including 50 administrators, 461 teachers, 170 teacher assistants, and 241 support staff[6]
- Elementary school students account for 53.5% of the student population, with middle school and high school students making up 22.3% and 24.1%, respectively.
- Approximately 18% of students in 2007 were connected to the military which resulted in an average Federal Impact Aid per student of $317.21[7]

b. Facility Needs

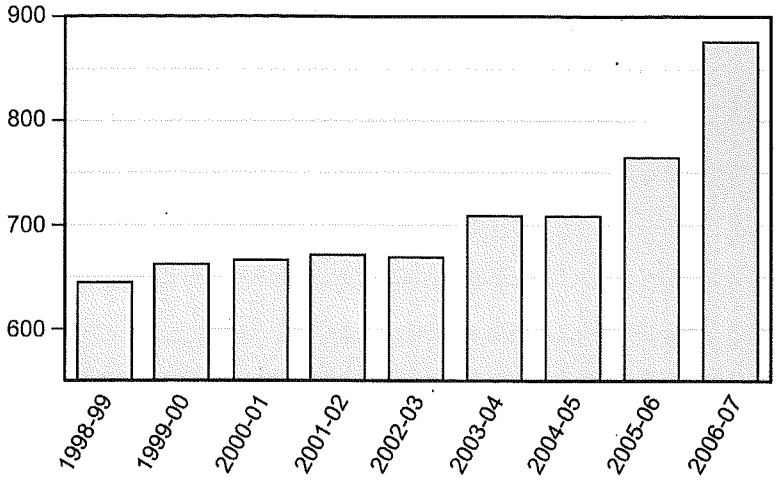
As part of this assessment, a detailed out-of-capacity analysis of each school in the district was completed. Enrollment projections were developed based on historical trends and the expected impact of military expansion. These projections were compared to the existing permanent capacity of each school and capacity gaps or surpluses were determined. Estimates for the 2008-2009 school year suggest that, system-wide, the existing permanent building capacity is approximately 8,916 students, which means there is a current system-wide capacity surplus of about 1,044 students. At the individual school level, there are several schools in the Rockfish, Hoke, Upchurch and Sandy Grove elementary school areas that are expected to experience significant military-related impact. The new 850-student Don D. Steed Elementary, which opens in 2008, will provide temporary relief in the military-impacted areas until 2012. Middle schools in the county have a current capacity surplus of 261 students, while the high school has a current capacity surplus of 35 students.

c. Historical Growth

Resident Hoke County live births have been increasing since 1998, and recent years have seen an especially significant rise in new births (**Figure 2**).[8] It is not surprising, then, that the six-year trend in Average Daily Membership for Month 2 is increasing by a little more than 110 students per year (**Figure 3**), bringing the average yearly growth rate during this period to 3.3%.

5. North Carolina Department of Public Instruction, 2007-2008 Average Daily Membership (ADM), Month-Two Report.
6. "EAC Education Site Visit, September 9, 2008, Fort Bragg, North Carolina" presented by Dr. Dan Honeycutt, Superintendent, Harnett County Schools.
7. "EAC Education Site Visit, September 9, 2008, Fort Bragg, North Carolina" presented by Dr. Dan Honeycutt, Superintendent, Harnett County Schools.
8. North Carolina Department of Health and Human Services

Figure 2. The number of live births to residents of Hoke County per school year.



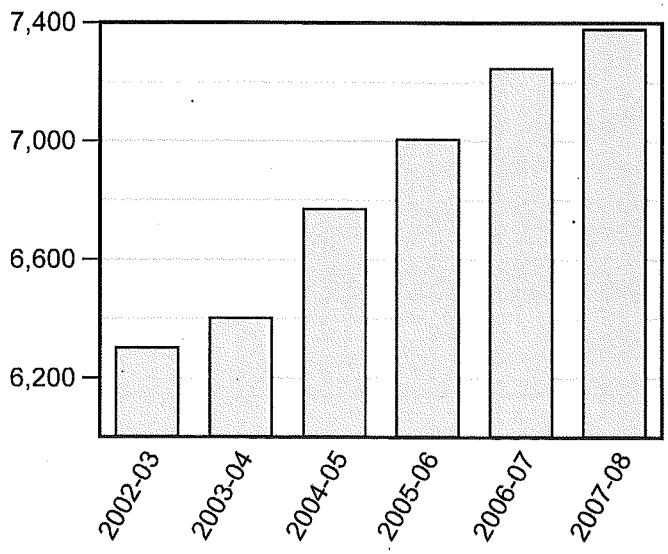
2. Future Conditions

a. Geographic Distribution of Growth

Hoke County schools experienced a five-year (2002-03 to 2007-08) average annual growth rate of 3.26%, with yearly student population growth rates ranging from 1.62 to 5.80%. The projected normal growth rate for Hoke County schools is expected to average 4.27% per year over this period. Military-related growth is expected to add 500 school-aged children to Hoke County schools between the 2008-09 and 2013-14 school years, resulting in a system-wide increase of 2,400. In 2011, the current system-wide capacity surplus will yield to a capacity gap of 900 by 2013.

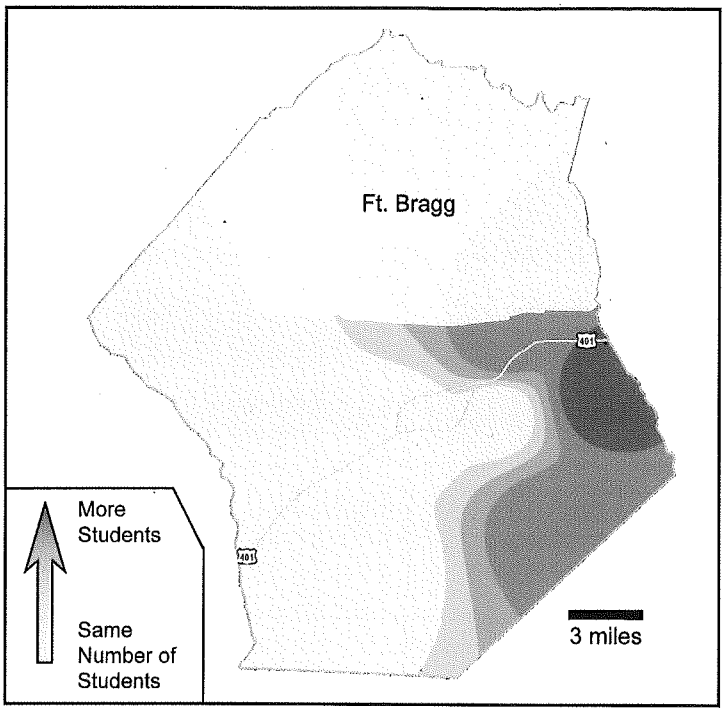
Figure 4 shows how this expected growth in the K-12 student population will be distributed throughout the county. This map is derived from GIS analyses—of where current students live, where military personnel live, and where land parcels available for

Figure 3. Average Daily Membership (ADM) for Month 2 in Hoke County schools.[1]



1. ADM is the sum for all students of the total number of school days during the second month of the school year that the student's name is on the class roll divided by the number of school days in that month. ADC provides a more accurate count of the number of students in school than does enrollment.

Figure 4. Growth potential for K-12 student population in Hoke County. Darker blue indicates areas where the number of school-aged children is expected to grow the most



development are located—as well as from interviews with a wide range of knowledgeable stakeholders. Both information sources are important; strong residential growth does not necessarily correlate with increasing student populations, and expert local knowledge is required to identify likely patterns. As the map indicates, the strongest potential for military-related student growth seems to be in the northeastern and eastern areas of the county. These areas roughly correspond to the Rockfish Hoke, Upchurch, and Sandy Grove elementary school districts.

b. Projected Growth and Facilities Capacity

System-Wide. Ten year enrollment projections were developed for all schools in the district[9]. Projections were based on historical school enrollment records as well as available data about the number of newborn babies in each school district. The analysis determined cohort survival ratios, defined as the proportion of students enrolled in one grade in a specific school year relative to the number of students enrolled in the next grade level and school year.

9. At the time of this analysis, actual 20 day ADM numbers were not available for the 2008-09 school year. Estimates were used based on available data.

These ratios, in turn, were used to develop a system-wide, enrollment forecast, which was then compared with estimates of school capacity in order to project capacity shortfalls in 2013. The total anticipated growth[10] in school enrollments between the 2008-09 and 2013-14 school years is approximately 1,946 students (includes 478 students resulting from military-related growth). **Figure 5** details the projected school enrollments.

Projections for the 2013-2014 school year suggest that, system-wide, the permanent facilities capacity gap will be 902 students (**Figure 6**).

It should be noted that 2007-08 Month Two Average Daily Membership data indicate that Rockfish Hoke and Upchurch schools are already over capacity by more than 350 students (combined). These areas will experience the greatest capacity challenges, and thus will have the greatest need for new classroom space and staff. Expected growth suggests that

10. Includes normal growth plus the expected military-related growth.

Figure 5. Projected Growth in Student Enrollment by School Level (2008-09 to 2013-14)

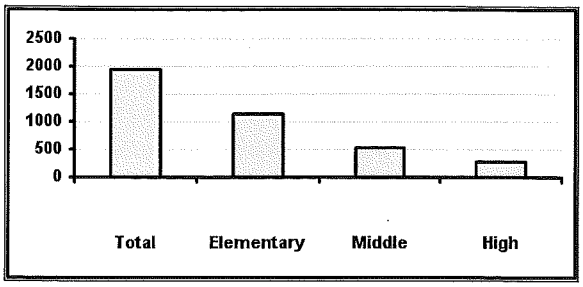
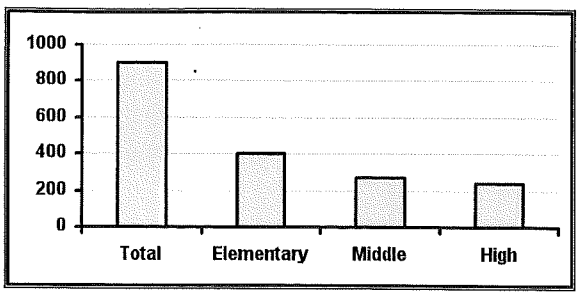


Figure 6. Projected Capacity Gap in Permanent Facilities by School Level (# of students)



almost eighty military-related K-5 students will be added, per year, to Rockfish Hoke Elementary School, contributing to a total increase of nearly 500 such students by 2013-14. This projected increase would push the school over its capacity by almost 600 students. Sandy Grove and Upchurch elementary schools are expected to experience similar growth, although Sandy Grove currently has a larger capacity and can absorb more student growth.

Military–Impacted School Clusters. In order to assess the impact of pending school construction projects on capacity gaps and to provide guidance on the siting of future schools, military-impacted school clusters were identified. Clusters include the individual school attendance areas - at the elementary, middle and high school levels - expected to receive the largest military impact. Once specific clusters were identified, the out-of-capacity analysis was redone at the cluster levels to illustrate year-by-year capacity gaps (**Table 4**).

The schools included in the elementary cluster are Rockfish Hoke Elementary, Sandy Grove Elementary, Upchurch Elementary, and Don Steed Elementary (to be completed in 2008). The updated out-of-capacity analysis suggests that all schools are either at or below capacity for the 2008-09 school year. The 2013-14 school year projections however reveal that several schools in the elementary cluster will be operating well above capacity. An additional elementary school will likely be needed as soon as 2012. The schools included in the middle school cluster are East Hoke Middle and West Hoke Middle. An updated out-of-capacity analysis suggests that both schools are below capacity for the 2008-09 school year. Projections for the 2011-12 school year reveal that an additional middle school will be needed. Hoke County High School is the only high school in the county. The out-of-capacity analysis suggests that Hoke County High School is operating near capacity for the 2008-09 school year; projections reveal that capacity demands will increase and an additional high school will likely be needed in 2011.

3. Gaps

As mentioned, approximately 478 additional students will enroll in Hoke County schools as a result of military-related growth.[11] This additional influx of students translates into a need to spend an additional $18.9 million to construct new schools[12] (**Figure 7**).

Hoke County passed a $20 million bond in November 2006, with $13 million allocated to the new Dan D. Steed Elementary school that will have a capacity of 850 and will open in 2008. The remaining $7 million is targeted toward a new middle school opening in 2010 with a capacity of 650. Even with this funding for a new elementary school, the unfunded portion of new construction costs remains at approximately $12 million.

11. Compares the 2008-09 enrollment to the projected 2013-14 enrollment.

12. Based on enrollment projections, the ratio of elementary school, middle school, and high school attendance in the county was determined for the 2008-09 school year. Based on this ratio, the total military-connected students moving into the district were allocated to elementary, middle and high school categories. The average cost per student to construct a school was obtained from Smith Sinnett Architects and assumes a 5-year construction inflation cost and a $20K per acre land cost. The estimate is $35,784 for an elementary school, $40,388 for a middle school and $48,429 for a high school. Thus, the cost of construction is determined by multiplying the number of students at each school level by the applicable cost per student to construct a school.

Table 4. Out-of-Capacity Projections for Military-Impacted Schools

	Capacities	Projected Month 2 ADM						
	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Elementary								
Rockfish Hoke Elem	639	640	680	707	762	814	877	937
Sandy Grove Elem	911	782	835	870	943	1011	1093	1172
Upchurch Elem	720	702	747	776	837	894	963	1029
Don Steed Elem *(2008)*	850	562	597	621	669	715	770	822
Totals	3120	2685	2859	2974	3211	3435	3702	3959

	Capacities	Projected Month 2 ADM						
	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Middle								
East Hoke Mid	989	925	979	1096	1219	1332	1366	1405
West Hoke Mid	942	745	756	780	804	827	834	842
Totals	1931	1670	1735	1876	2024	2160	2200	2247
High								
Hoke County High	1775	1740	1790	1791	1826	1874	2009	2141
Totals	1775	1740	1790	1791	1826	1874	2009	2141

In addition to the cost of constructing new schools, there are additional administrative and operations costs, such as salaries, instructional supplies, utilities, maintenance, transportation, etc. The Hoke County school district operates with money from local, state, and federal sources. Public schools are funded largely through tax dollars. The State provides the overwhelming majority of school funding in Hoke County, with the federal government providing the least. Seventy-three percent of school funding comes from state sources, 14% from federal sources, and 13% from local sources.[13] The total per-pupil expenditure in Hoke County is $8,247 annually compared to an average of $7,800 for the Tier I counties. Based on these costs, in order to maintain the same level of educational services for six years[14], approximately $27.9 million will be necessary to educate the 478 additional military-related students. The local portion of this cost is about $3.6 million (**Figure 8**).

Figure 7. Additional School Construction Cost associated with Military-Related Growth ($ in millions)

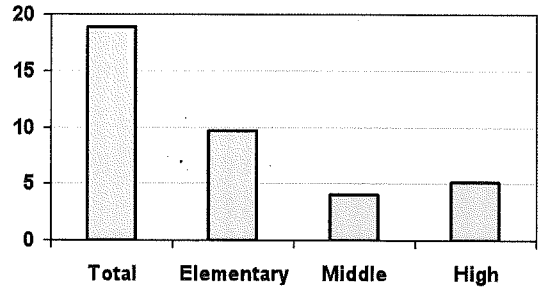
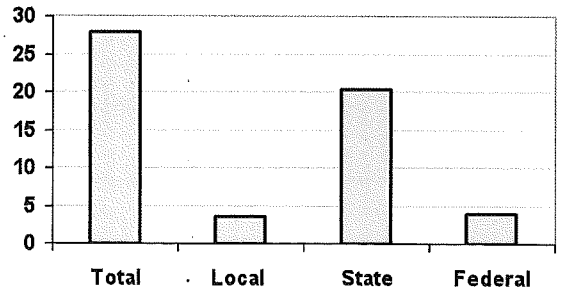


Figure 8. Additional Administrative and Operations Cost associated with Military-Related Growth ($ in millions)



13. North Carolina Department of Public Instruction, 2006-2007 School Statistical Profile
14. From the 2008-09 through 2013-14 school years

4. Recommended Actions

Critical Action 1: Identify potential funding sources for the construction and operation of the additional school capacity

Description: Current funding sources will not provide sufficient funding to fill the capital and operating needs of the County. A committee should be formed to identify potential sources for additional funding. Potential funding sources include: (1) a higher level of Federal Impact Aid, which is supposed to compensate local educational agencies for "substantial and continuing financial burden" resulting from federal activities such as the enrollments of children of military parents who live or work on federal land; and (2) traditional funding sources, such as general obligation bonds and raising property or sales taxes, which would need a focused effort to build public support since they require voter approval. In addition, the committee should explore the possibilities for obtaining special funding from the Department of Defense to deal with the special burden imposed on local schools by the BRAC process. Legislation, such as the Military Children's School Investment Act recently introduced in Congress by Congressman Robin Hayes, should be supported.

Responsible Parties: With the support of the BRAC Regional Task Force, Hoke County Schools and Hoke County Government should work collaboratively to pursue all available funding resources.

Critical Action 2: Update out-of-capacity analysis using actual 2008-09 enrollment numbers

Description: The military-impacted school cluster analysis in this assessment was based on estimated enrollments for the 2008-09 school year. The actual enrollment numbers – based on the 20-day ADM - are now available. This update will verify the need for the additional elementary, middle and high schools recommended in this assessment. An update may also impact the optimal location of each of the schools recommended.

Responsible Parties: The BRAC Regional Task Force will work with Hoke County Schools to ensure that the most up-to-date information is used in any future assessments.

Critical Action 3: Collaboratively identify optimal sites for new schools

Description: Because the projected school capacity gap in Hoke County is not evenly distributed across the county, efficient use of limited capital improvement funds will require strategic distribution of new facilities. Hoke County Schools and local governments should consider adopting Smart Growth principles whereby school facility planning and local government planning efforts are integrated so as to reach multiple community goals—educational, economic, social, and fiscal. Collaborative decisions regarding the location of schools, houses, and neighborhoods will promote policies that are consistent across governmental and functional boundaries. The availability and price of land is obviously an important factor in siting schools. GIS-driven technology – such as the technology recently used to determine optimal school sites in Harnett County - is available that will assist in correlating school decision-making with projected land use trends.

Responsible Parties: The integration of a collaborative model of decision making is recommended for all counties in the region. The BRAC Regional Task Force is well positioned to provide further assistance in using GIS technology to identify optimal site locations for new schools.

D. Housing

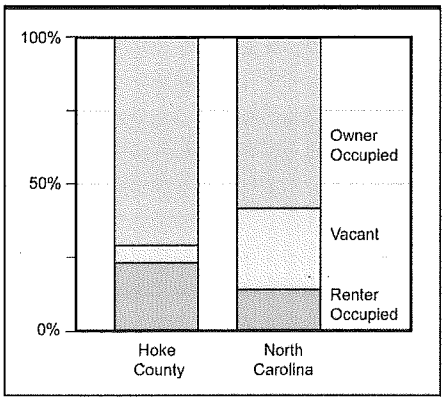
The Hoke County for-sale housing market continues to outperform the national and regional housing markets. The area's housing, which is substantially more affordable than is the case in most areas of the United States, has a history of housing price appreciation. Although the local market has begun to slow in the last eighteen months, negative impacts to the local economy are being reduced substantially by military spending at Fort Bragg. Hoke County offers its present and future residents a wide variety of housing choices, ranging from smaller homes for less than $100,000 to larger estate homes for $275,000 plus.

1. Current Conditions

a. Housing Characteristics

The number of housing units in Hoke County in 2007 is estimated to be 15,858,[15] which is up from 12,518 housing units in 2000. The average annual growth rate for this period would thus be an estimated 3.81%. Approximately 951 (6.0%) of these housing units are vacant, compared to a statewide vacancy rate of 14.2%. The remaining 14,907 units in Hoke County are owner-occupied (75.3%) and renter-occupied (24.7%),[16] while the statewide rates for owner-occupied units and renter-occupied units are 59.6% and 27.9% respectively (**Figure 9**).

Figure 9. Housing occupancy by type in Hoke County in 2007, compared with the statewide average



b. For-Sale Housing

Because complete information on all of Hoke County's "for-sale" housing is not available, the following analysis combines figures for existing and newly constructed single-family homes. The average sales price of a single-family home grew from $96,769 in 2002 to $141,281 in 2006, which indicates an average annual increase of 9.2%. Through October, 2007, the average sales price was $148,928, an increase of 5.4% over 2006.[17]

Home sale prices have continued to appreciate despite the decline in prices nationally and in the South.

A total of 3,914 single-family units were sold in Hoke County between 2002 and 2006, an average of 783 units annually. A total of 655 units were sold through October of 2007. Three-bedroom units, which comprised 85.2% of all units sold, took an average of 167 days to sell. Overall there is an eleven-month inventory of homes on the market, compared to a national inventory of approximately nine months for existing homes and slightly less than ten months for new homes. As of October 2007, the locally available inventory of all homes (both existing and newly constructed) included 549 three-bedroom units having an average price of $157,009.

Factors to consider when determining whether the typical homebuyer can qualify for a mortgage on a typical Hoke County home include:[18]

- The median price for a typical three-bedroom, two-bathroom new home that contains approximately 1,400 square feet is $150,923
- A minimum down payment of 5% of the purchase price is required.
- Mortgage principal and interest cannot exceed 28% of the median monthly income.
- The prevailing mortgage interest rate is assumed to be 6.5%.

17. The Median sales price of a three bedroom unit, including both existing and new construction. Data provided by the Fayetteville Association of REALTORS, Inc., Debbie McFayden, e-Pro MLS Director 2412 Raeford Road Fayetteville, N.C. 28305 (910) 323-1421 dmcfaydn@fayettevillencmls.com

18. According to the Ft Bragg Community Impact Assessment (page 17), 71% of the military families coming into the area will be pay grades E3 through E5 and 10% will be pay grades O1 through O3

Affordability analyses are commonly based on index values. An index value of 100 means that a homebuyer has exactly enough income to qualify for a mortgage on a typical, median-priced new home. An index value above 100 signifies that a homebuyer earning the median income has more than enough income to qualify for a mortgage loan on a median-priced new home. For example, an affordability index of 120.0 means that a homebuyer has 120% of the income necessary to qualify for a loan covering 95% of a median-priced, new single-family home.

Single active-duty military personnel have affordability indices ranging from eighty-one for a junior enlisted (E2) to 271 for a company grade office (O5). This suggests that the typical three-bedroom, two-bathroom new home would be affordable for junior enlisted personnel, except for E2s.

Issuance of single-family housing permits rose between 2003 and 2006, with 686 permits being issued in 2006. An additional 521 single-family permits were issued in 2007. Permitting activity will likely continue to decline as the existing inventory of new homes is reduced.

c. Rental Housing

The price of rental housing typically averages from $510 a month for a one-bedroom, one-bath unit to $773 a month for a three-bedroom, two-bath unit. Construction of multi-family properties has halted since 2003 as no multi-family housing permits have been secured since that time.

In general, incoming military families within the E2 pay grade and civilian families earning at or below 84% of the median income may have trouble finding affordable housing in Hoke County, and may have some difficulty obtaining sufficient cash to pay closing costs on a home. However, military families in all other pay grades and civilian families with higher incomes should be able to find homes and pay closing costs.

Rental affordability depends on both affordable monthly rent rates and the availability of units having such rates. Under U.S. Department of Housing and Urban Development (HUD) guidelines, a family should spend no more than 30% of its income on rent and utilities. To assess the affordability of housing for military personnel, military income is defined as base

Table 5. Rental Affordability for Military Families in Hoke County

Two Person Household						
Rank	E2	E6	W2	W4	O3	O5
Annual Income	$31,377	$51,322	$68,454	$91,588	$71,553	$105,225
Monthly Housing Expense @ 30% of Annual Income	$784	$1,283	$1,711	$2,290	$1,789	$2,631
Fair Market Rent (1-bedroom)	$510	$510	$510	$510	$510	$510
Affordability Gap	$274	$773	$1,201	$1,780	$1,279	$2,121
Fair Market Rent (2-bedroom)	$565	$565	$565	$565	$565	$565
Affordability Gap	$219	$718	$1,146	$1,725	$1,224	$2066
Three- and Four-Person Household						
Rank	E2	E6	W2	W4	O3	O5
Annual Income	$31,377	$51,322	$68,454	$91,588	$71,553	$105,225
Monthly Housing Expense @ 30% of Annual Income	$784	$1,283	$1,711	$2,290	$1,789	$2,631
Fair Market Rent (2-bedroom)	$565	$565	$565	$565	$565	$565
Affordability Gap	$219	$718	$1,146	$1,725	$1,224	$2,066
Fair Market Rent (3-bedroom)	$773	$773	$773	$773	$773	$773
Affordability Gap	$11	$510	$938	$1,517	$1,016	$1,858

pay, subsistence allowance, and housing allowance. Representative pay grades at the lowest number of service years are used when determining the floor necessary to achieve affordability for military families.

HUD defines a Fair Market Rent as the average rent in the county, by unit size. **Table 5** provides an analysis of the ability of military families at various military income levels to pay the fair market rent.

The current Fair Market Rents in Hoke County are affordable to all pay grades.

2. Future Conditions

a. Anticipated For-Sale Housing Need

The future need for for-sale homes to accommodate the normal growth and the expected military growth in the County can be estimated by using population projections and dividing the population growth by the average household size. The percentage of homeowner households is applied to the total households to determine the need for housing.

Table 6 shows 3,091 for-sale units will be needed to house the total growth expected from 2007 through 2013. The majority of these units (2,395) will be needed for the population associated with normal growth, and thus would have been needed even without the base expansion; the remainder (695) is due to military-related growth. Given the existing inventory of for-sale homes in the County, it is expected that most of this need will be addressed through the sale of homes already on the market. It should be noted that this is an estimate of homebuyer requirements and should be relied upon only as a guideline.

Rapid growth has occurred in Hoke County in recent years. **Appendix A** highlights the development that is planned for the County.

b. Anticipated Rental Housing Need

Similar to the for-sale homes, the future need for rental homes to accommodate the normal growth and the expected military growth in the County can be estimated by using population projections and dividing the population growth by the average household size. The percentage of renter households is applied to the total households to determine the need for housing.

Table 7 shows 1,014 for-rent units will be needed to house the total growth expected from 2007 through

Table 6. Needs Analysis of For-Sale Housing Units in Hoke County

	2007	2008	2009	2010	2011	2012	2013	
Population								
Normal Growth	43,865	45,545	47,158	48,525	49,970	51,420	52,868	
Expected Growth	1,129	2,016	2,464	2,570	3,010	3,393	3,742	
Total	44,994	47,561	49,622	51,095	52,980	54,813	56,610	
Total Households								
Normal Growth	15,500	16,094	16,664	17,147	17,657	18,170	18,681	
Expected Growth	399	712	871	908	1,064	1,199	1,322	
Total	15,899	16,806	17,534	18,055	18,721	19,369	20,004	
Homeowner Households								
Normal Growth	11,672	12,119	12,548	12,911	13,296	13,682	14,067	
Expected Growth	300	536	656	684	801	903	996	
Total	11,972	12,655	13,203	13,595	14,097	14,585	15,063	
For-Sale Housing Units								
Normal Growth	--	447	429	364	384	386	385	2,395
Expected Growth	--	236	119	28	117	102	93	695
Total	--	683	548	392	502	488	478	3,091

2013. The majority of these units (786) will be needed for the population associated with normal growth, and thus would have been needed even without the base expansion; the remainder (228) is due to military-related growth. It should be noted that this is an estimate of renter requirements and should be relied upon only as a guideline.

3. Gaps

There are several housing-related challenges that continue to face the region and the county. The inventory of for-sale properties remains high, credit standards are tightening, availability of future affordable rental housing is unclear, and green building efforts require additional emphasis. These gaps are discussed in this section.

The number of homes listed for sale has recently declined in many markets throughout the country. One factor contributing to reduced inventories is that potential sellers are not listing their homes because they do not want to compete with builders and banks that have been cutting prices in order to reduce their inventories of new or foreclosed homes. Although the supply of for-sale housing is no longer rapidly increasing, the inventories remain abundant. Until the for-sale inventories return to a six month supply, local marketing efforts should continue and those interested in constructing additional new for-sale housing should be cautious.

Credit standards have been getting tighter all year, reducing the number of people who qualify for loans. However, many potential homebuyers can still qualify for a loan. Qualified borrowers should have little difficulty finding conforming and FHA-insured mortgages. Given the present "buyer's housing market", it may be time to accelerate homebuyer financing and counseling efforts. Of course, the continued increase in foreclosures nationally should give caution to any agency considering such an initiative. Many families may not be ready to purchase a home. The number one barrier to buying a home is poor credit. In addition, some families simply cannot afford a down payment. Buyer investment in the home is important for the long-term sustainability of home ownership. For those families that are ready, homebuyer education and counseling that provides both pre-purchase and post-purchase counseling is essential. Such counseling and education will promote awareness of the home-buying process, educate homebuyers on financing alternatives, and provide information necessary to

Table 7. The Anticipated Need for Rental Housing Units in Hoke County

	2007	2008	2009	2010	2011	2012	2013	
Population								
Normal Growth	43,865	45,545	47,158	48,525	49,970	51,420	52,868	
Expected Growth	1,129	2,016	2,464	2,570	3,010	3,393	3,742	
Total	44,994	47,561	49,622	51,095	52,980	54,813	56,610	
Total Households								
Normal Growth	15,500	16,094	16,664	17,147	17,657	18,170	18,681	
Expected Growth	399	712	871	908	1,064	1,199	1,322	
Total	15,899	16,806	17,534	18,055	18,721	19,369	20,004	
Renter Households								
Normal Growth	3,829	3,975	4,116	4,235	4,361	4,488	4,614	
Expected Growth	99	176	215	224	263	296	327	
Total	3,927	4,151	4,331	4,460	4,624	4,784	4,941	
For-Rent Housing Units								
Normal Growth	--	147	141	119	126	127	126	786
Expected Growth	--	77	39	9	38	33	30	228
Total	--	224	180	129	165	160	157	1,014

sustain homeownership—information, for example, on home maintenance and budgeting.

Green building is another consideration. Green building is "the practice of creating structures and using processes that are environmentally responsible and resource-efficient throughout a building's life-cycle from siting to design, construction, operation, maintenance, renovation and deconstruction"[19]. Green buildings reduce the overall impact of the built environment on human health and the natural environment by more efficiently using energy and other natural resources and reducing waste, pollution, etc. As mentioned, caution should be exercised in the construction of new housing, particularly for-sale housing. However, when new construction or rehabilitation is needed the integration of green building standards is encouraged.

The availability of affordable rental housing for lower income households is essential to the success of local community and economic development efforts. To date, fair market rents have been affordable to the majority of households in the county. Recent trends suggest that the rental housing market is tightening. More families are opting to rent instead of buy a home and more lower-income households are moving to the area. The rental market should continue to be assessed to ensure that new rental developments not only provide market-rate housing, but also provide affordable opportunities for lower-income households.

E. Water, Wastewater, and Solid Waste

The projected population increase to Hoke County as a result of the military-related growth is approximately 3,742 people. This could translate into an additional peak water and sewer demand of approximately 600,000 gallons per day. Likely able to meet the additional demand with respect to water supply, any additional sewer capacity will only aggravate the county's sewer capacity struggles. Hoke County is largely without municipal sewer, a severely limiting factor in the growth of the county. The county has very recently commissioned a study to construct a sewer plant in the eastern portion of the Hoke County. However, planning for this project has thus far not included new demands from growth at Fort Bragg. Meeting projected demand for normal growth through 2030 will cost the County approximately $11.3 million for water and $11.7 million for wastewater; the military-related growth will cost an additional $2.8 million for water and $5.6 million for wastewater.

1. Current Conditions

a. Water

Hoke County: Hoke County runs its own public water system. Hoke County obtains its water from groundwater as well as purchases from Fayetteville PWC, N.C. Department of Corrections, and Robeson County. The County obtains its groundwater from deep wells; the system has fourteen wells with a total twelve-hour yield of 2.72 million gallons per day (MGD). Hoke County also has an emergency connection with Raeford. The system has a finished water storage capacity of 2.3 MG. The system has approximately 307 miles of water distribution lines. The County's water system has a population of 13,680. The average daily demand is was 0.640 MGD. Additional demands on the water system would likely be met by construction of additional wells, although the effort is unfunded at this time.

City of Raeford: The City of Raeford, located in the center of Hoke County, runs its own public water system. Raeford is within the Lumber River Basin. Raeford obtains its water from groundwater deep wells; the system has seventeen wells with a total twelve-hour yield of 2.147 MGD and a central ground water treatment plant with a 3.00 MGD capacity. Raeford also has an emergency connection with Hoke County. The system has a finished water storage capacity of 1.8 MG, and approximately 40 miles of water distribution lines. The Raeford water system has a population of 2,300. The average daily demand is 1.57 MGD. Total water use was divided as follows: 85% residential, 14% commercial, 0.5% industrial and 0.5% institutional.

19. U.S. Environmental Protection Agency (http://www.epa.gov/greenbuilding/pubs/about.htm)

b. Wastewater

Hoke County: Hoke County currently does not have a wastewater system and relies on limited capacities from the City of Raeford and PWC, a total of about 1.0 MGD. This limitation has severely limited the growth of the County. The County is currently pursuing plans for design and construction of a wastewater treatment plant to serve the existing populations in eastern Hoke County. To this end, the County has submitted a request for speculative effluent limits for a new regional wastewater treatment plant on Rockfish Creek at Puppy Creek at 9.2 MGD. If this request is approved, the first phase of the plant would be designed and constructed with a capacity in the range of 2.0 to 5.0 MGD. The specific capacity would be based on what, if any, amount of flow is sent from the City of Raeford to the new facility. The regional facility could accommodate flows from the City of Raeford during a later phase, but the County is hopeful that Raeford will be a part of the initial phase due to the economics of scale that could be realized. Hoke County is now engaged in a study of the proposed discharges to the creek in order to satisfy NCDENR such that discharge limits can be established. Depending on State approval, funding, and other issues, Hoke County hopes to fast-track this process, aiming for completion of the plant and first phase of outfalls within approximately four years.

City of Raeford: The City of Raeford has a wastewater treatment plant with a permitted capacity of 3.00 MGD, with current demands almost at capacity. The City supplies the County with 0.50MGD. The plant discharges into Rockfish Creek. The City is currently in discussion with Hoke County regarding the planning and design of a new County regional wastewater treatment plant, as described above.

c. Solid Waste

There are two governments with solid waste management programs in Hoke County including, the County and the Town of Raeford. Hoke County operates five staffed convenience centers for the collection of residential waste and recyclables. The County transfers waste collected at each convenience center to the Hoke County Transfer Station in Raeford. Each of the County convenience centers is fenced for security and is equipped with a stationary compactor for residential waste to limit the number of trips for transfer vehicles. Raeford offers twice weekly residential rear-yard waste collection using Town staff. The town, which also provides commercial collection services, implemented a pay-as-you-throw (PAYT) program for commercial waste in early 2007. This program, which was partially enable by a grant from the North Carolina Division of Pollution Prevention and Environmental Assistance (DPPEA) involves:

- Commercial dumpsters with locking lids to prevent abuse by non-commercial customers;
- An electronic scale system on hauling vehicles; and
- The installation of radio-frequency tags on dumpsters to facilitate automatic billing.

Waste collected in Hoke County is primarily taken to the Hoke County Transfer Station in Raeford, which is owned and operated by the County under State Permit No. 47-02T. In FY 2005-06, 28,896 tons of waste were handled at the transfer station.

Recycling: Recycling is provided by Hoke County at each of its convenience centers. Raeford also has one staffed convenience center for recyclables. Harnett County does allow residents of Raeford to use its convenience centers for the drop-off of recyclables.

Raeford also provides commercial collection of newsprint and cardboard. As part of the implementation of the Town's pay-as-you-throw program for commercial waste, ten new cardboard recycling bins were deployed, bringing the Town's total to forty-two.

Special Waste Management: Hoke County collects used oil, lead acid batteries, tires, and pesticide containers. Raeford does not currently provide collection of special wastes.

Yard Waste Handling: Yard wastes in Hoke County are collected and disposed of at the County's land clearing and inert debris (LCID) landfill in Raeford. Raeford provides curbside collection of yard waste. This waste is mulched/composted at the Town's site.

Solid Waste Disposal: Municipal solid waste collected at the Hoke County Transfer Station is hauled by contract with Republic Services to the Uwharrie Regional Landfill facility in Mt. Gilead (State Permit No. 62-04). The County's contracts for hauling and disposal will expire in April 2009. Hoke County currently charges a $48/ton tipping fee at its transfer station.

2. Future Needs

a. Water and Sewer

The County is actively engaged in developing a plan to address current and future sewer needs, which it considers to be a priority. Hoke County already has commitments from various developers that will exceed its current sewer treatment capacity. The County's growth potential could justify a 5.0 MGD plant in the next few years. Should the efforts described above be thwarted by regulatory or other reasons, the County has four options with respect to sewer treatment:

- Re-open negotiations for capacity from PWC. Those negotiations are stalled at this point.
- Negotiate for capacity from Raeford. However, the N.C. Department of Environment and Natural Resources has said that it will place a 5.0 MGD total limit on the discharge; this is not satisfactory to Hoke County because the 2.0 MGD that the County would net from this limit is very likely not enough to make it worthwhile, and other provisions would need to be made.
- A former textile mill in Wagram, located in Scotland County, had a treatment plant. It may be possible to rehab that plant and get the permit current. Hoke County has explored this option to some extent in its current study. This plant had considerable capacity; it is likely that an increase in permitted capacity could be obtained because the plant discharged to the Lumber River and would have more natural stream flow to mix with the treated discharge. The obvious concern if this turned out to be a pursued option, would be the cost of getting the wastewater to this plant location as it's about 16 miles, as the crow flies, from eastern Hoke County to Wagram.
- The final option would be to treat the wastewater and spray irrigate the effluent. The county would not likely realize the capacity they are hoping for under this option, but they could likely get a few MGD out of this. The land requirements are approximately 150 acres per 1 MGD. The effluent would require minimal treatment (primary and secondary lagoons) before it was sprayed, and could be sprayed on fescue or other hay to be harvested several times a year.

With respect to water, Hoke County is in the process of moving forward with Phase Five of its Regional Water System expansion program. Water supply improvements for the urban service area are needed immediately to meet current demand. The estimated project cost of $10.5 million dollars is divided between supply, treatment, storage, distribution expansion and upgrades. The design phase for the water projects is nearing completion, with plans to move forward with construction in the 2008/09 fiscal year. Current plans call for long term U.S. Department of Agriculture financing, which will impact the amount of debt the County may be able to incur for the regional waste water treatment and collection project discussed above.

b. Solid Waste

The state measures changes in waste-disposal rates by comparing the current year's per capita waste disposal rate to fiscal year 91-92's per capita rate—which is considered the base rate. (Per capita disposal rates are calculated by dividing the total tonnage of disposed waste by the number of users served.) Negative numbers indicate a decrease in the per capita disposal rate; positive numbers indicate an increase. Waste reduction is a change from the base year, not a change from year to year. The state per capita disposal rate is 1.34 tons per person per year, an increase of 25% from the FY 91-92 base year.

Despite the addition of a few new curbside programs in the state, the overall number of municipal curbside recycling programs has declined in recent years. The recycling industry has evolved dramatically in the past fifteen years and, unless small and mid-sized municipal governments update their programs to reflect the current state of the industry, it is likely that the trend towards fewer curbside recycling programs

will continue. In a properly developed program, each household could potentially generate up to 750 pounds of recyclables per year. North Carolina households are contributing only about 240 pounds of recycling per year to their local recovery programs. It is very clear that improving the breadth of program collection and increasing participation are keys to improving recovery.[20]

3. Gaps

Meeting projected demand without considerations for the military-related growth through 2030 will cost the County approximately $11.3 million for water and $11.7 million for sewer.[21] The population increase in Hoke County as a result of military growth is projected to be about 3,742 in 2013. This could translate into an additional design water and sewer demand of approximately .56 MGD, resulting in an additional capital requirement of $2.8 million for water and $5.6 million for sewer. These estimates are based on an assumed cost of $5 per gallon for water and $10 per gallon for sewer. The actual cost of this infrastructure will be dependent on a number of variables, including the specific configuration of each plant; therefore, these estimates should be considered as approximate and should be used only to provide a rough idea of future budget requirements.

Maintaining safe drinking water and environmentally sound sewer services is one of the most important responsibilities of any local government. As it becomes increasingly expensive to provide water and sewer services, local governments will need to balance their obligation to provide these fundamental services at affordable prices against the equally compelling need to manage their programs in a financially sustainable manner. While there are many financial and revenue strategies that are designed with local conditions and objectives in mind, managing water and sewer services inevitably involves asking customers to pay more for the services. Leaders should never forget that the failure to sufficiently fund these services will inevitably expose their communities to health and environmental hazards.

This section describes major financing alternatives available to local governments including bonds, grant and loans, local rates, tap and impact fees, and special assessments.

General Obligation Bonds. Private market lenders, who are the primary source of water and sewer financing, account for 70% of the total financing for such projects. Because of low bond ratings, approximately 60% of the state's local governments cannot qualify for most infrastructure lending programs. Cumberland County and the City of Fayetteville, however, have solid ratings. They also have considerably more conservative general-obligation debt ratios (ratios, that is, that are calculated by comparing the governmental entity's total indebtedness with its appraised property valuation and its population) (**Table 8**).[22]

Revenue Bonds and Installment Financing. Revenue bonds can be offered publicly with a typical 25-year term. The debt is secured by the net revenues of the project and no voter approval is required. However, specific financial tests must be met and specific covenants are required. Alternatively, installment financing can be provided without voter approval with a typical 20-year term. The security for installment financing is a pledge to appropriate funding for debt service and a lien on the financed asset. However, there are challenges putting liens on utility assets[23].

Grants and Loans. The federal role in financing water and wastewater projects has declined in recent years. The U.S. Environmental Protection Agency (EPA) and the U.S. Department of Agriculture (USDA) have significantly reduced the number of grant funds available for water and sewer improvements.[24] Nonetheless, several sources of

20. North Carolina Solid Waste Management Annual Report July 1, 2006 – June 30, 2007.
21. Water, Sewer and Stormwater Capital Needs 2030, N.C. Rural Center
22. Analysis of Debt at 6-30-2007. Department of State Treasurer, Division of State and Local Government Finance.
23. Presentation entitled "Utility Financing Alternatives and The Financing Team" by Rebecca B. Joyner, Attorney with Parker Poe Adams & Bernstein, LLP. January 22, 2008.
24. N.C. Rural Economic Development Center, Water 2030 Executive Summary.

Table 8. Analysis of General Obligation Debt*

	Ratings		Ratio of Total Generall Obligation Debt	
	Moody's	S&P	Property Valuation (%)	Per Capita ($)
Hoke County	A2	BBB+	1.337 (avg.)	624 (avg.)
Counties (25,000 – 49,999 pop.)	Na	Na	0.764 (avg.)	794 (avg.)
City of Raeford	A3	A	0.147 (avg.)	113 (avg.)

*Total Outstanding general obligation debt, authorized and un-issued general obligation debt and Installment purchase (excluding all enterprise debt)

potential financing for water and wastewater projects remain, particularly at the state level. The following agencies have grant and/or loan programs available.

- Appalachian Regional Commission
- Economic Development Administration, U.S. Department of Commerce
- U.S. Department of Agriculture
- N.C. Department of Environment and Natural Resources, Division of Water Quality
- N.C. Department of Environment and Natural Resources, Public Water Supply Section
- N.C. Department of Commerce, Division of Community Assistance
- N.C. Department of Commerce, Commerce Finance Center
- N.C. Clean Water Management Trust Fund
- N.C. Rural Economic Development Center

Tap Fees, Impact Fees, and Special Assessments. In general, utilities charge three types of fees in North Carolina: tap fees, impact fees, and special assessments. Tap fees are designed to recover all or a portion of the cost (materials and labor) of water or sewer service line installation; impact fees are associated with system-capacity development. Because individual utilities have great flexibility in setting tap and impact fees, these fees can vary widely from one locale to another. Special assessments, on the other hand, are strictly defined in the NC General Statues and may only be assessed by utilities (municipalities, counties, and authorities) under specific circumstances defined by the authorizing statute (§162A-216, §153A-185 and §162A-6, respectively).[25]

25. One-time Fees for Residential Water and Sewer Connections in North Carolina. A publication of the Environmental Finance Center at the University of North Carolina at Chapel Hill, Report by: Andrew Westbrook, westbrok@sog.unc.edu. 3/27/06.

There is expected to be some impact to the County and Raeford's solid waste programs from the military-related growth. However, it is likely that these impacts can be handled by existing facilities and practices. Nonetheless, the County's recent recycling efforts should be applauded and other jurisdictions should consider implementing additional recycling programs. Available funding includes:

- Community Waste Reduction and Recycling Grants are a standard annual grant cycle that the State Division of Pollution Prevention and Environmental Assistance (DPPEA) offers to local government and non-profit recycling programs to expand and improve community recycling efforts.
- Business Recycling Grants, also offered by DPPEA, are designed to help businesses afford or leverage a critical capital expenditure and thereby expand their material-handling capacity. These expansions, in turn, translate into new market opportunities for local government recycling programs and for waste generators of all kinds.
- The State's Recycle Guys and RE3 Outreach Campaigns increase public participation in recycling.

In addition to the above opportunities, North Carolina offers a tax exemption on equipment and facilities used exclusively for recycling and resource recovery. The tax program also includes special tax treatment for the corporate state income tax and the franchise tax on domestic and foreign corporations. The N.C. Division of Waste Management administers the Tax Certification Program.

4. Recommended Actions

Critical Action 1: Expand sewer capacity in the County by pursuing development of a new treatment facility

Description: Hoke County currently does not have a wastewater system and relies on limited capacities from the City of Raeford and PWC, a total of about 1.0 MGD. This limitation has severely limited the growth of the County. The County is currently pursuing plans for design and construction of a wastewater treatment plant to serve the existing populations in eastern Hoke County. Depending on State approval, funding, and other issues, Hoke County hopes to fast-track this process, aiming for completion of the plant and first phase of outfalls within approximately four years. The rapid development of the County and the lack of adequate sewage capacity has caused this action to be critical.

Responsible Parties: Hoke County and City of Raeford staff, local elected officials, state regulators, and other stakeholders should work collaboratively to share best practices and implement new regional policies as necessary.

Important Action 2: Proactively plan water and sewer projects in conjunction with development activities

Description: Because water and sewer services are such crucial components of any community's utility infrastructure, it is important that planning for their construction and maintenance be done with the utmost care and professionalism. The City of Fayetteville/Cumberland County 2030 Vision Plan recommends several principles that planners in general and those in the Fort Bragg region in particular should observe. General principles include:

- The placement of water and sewer lines should determine where development is done, rather than the other way around.
- Development density should be determined by the availability of infrastructure.
- Generally, infrastructure with excess capacity should be utilized first before additional monies are spent to install and maintain new infrastructure elsewhere.
- Adequate utilities infrastructure (water supply, sewage collection and treatment capacity, stormwater management, etc.) must be in place before the new development it serves is occupied.

Responsible Parties: Municipal and county public works and planning directors, local elected officials, and planning commissions should work collaboratively to share best practices and implement new policies as necessary. The BRAC Regional Task Force could facilitate such regional collaboration.

Important Action 3: Coordinate local water and wastewater planning with the Fort Bragg Garrison

Description: New infrastructure should not be placed in areas where it would encourage development incompatible with the mission of the Fort Bragg/ Pope military complex. Fort Bragg should be included in all major local infrastructure planning. This will be especially important as Fort Bragg and surrounding local communities seek mutually beneficial opportunities to enhance services.

Responsible Parties: Municipal and county public works and planning directors, local elected officials, and planning commissions should work collaboratively to share best practices and implement new policies as necessary. The BRAC Regional Task Force could facilitate such regional collaboration.

Important Action 4: Seek special funding from the North Carolina Legislature for capital improvements

Description: As part of its effort to meet anticipated water and sewer capital needs, the county should give its support to State of North Carolina legislation that would address the utility needs of all the state's BRAC-impacted communities. This legislation would create a fund, to be administered by the N.C. Rural Economic Development Center, designed to mitigate the critical present and future water and sewer problems facing these communities. Federal and local matching funds should also be pursued.

Responsible Parties: Local and state elected officials and the BRAC Regional Task Force could work together to advocate the introduction and passage of new legislation.

Important Action 4: Update financial plans for capital water and sewer improvements

Description: The county and its municipalities should ensure that their estimates regarding both the quantity and the condition of their physical assets are up to date and accurate. It is important that local governments have reliable estimates as to how many and what kind of new water and wastewater facilities will be needed over the next five years. One set of estimates will target those new water and wastewater facilities that are used to expand capacity or address environmental health concerns. A separate set of estimates will be needed for those assets used for rehabilitation or for the replacement of existing infrastructure.

Careful consideration should be given to the identification of funding sources and to determining what percentage of total funding will come from each source (grants, debt, capital reserves, user rates, tap and impact fees, and special assessments). Local Capital Improvement Plans should be updated as necessary.

Responsible Parties: Municipal and county managers and local elected officials should work collaboratively to share best practices and identify funding sources as necessary.

F. Information and Communication Technology

1. Current Conditions

a. Current Access Status

Hoke County ranks second among Tier I counties with respect to broadband Internet access. Broadband access is available for purchase at 90.15 % of households in the county. While this figure compares favorably with the statewide average access rate of 83.54%, it needs to be better. The 90.15% figure includes cable and DSL-based access, as self-reported by the provider companies. The ways that providers define service coverage are not wholly reliable, however, which means that the composite figure may not reflect the actual percentage of households that can obtain broadband access. For example, cable companies designate service areas that are identified by zip codes as "covered," when in fact all locations within a given zip code may not be served by the cable companies.

There are other reasons why the 90.15% coverage estimate should be questioned. The actual extent of Internet availability for Hoke County is shown in **Figure 10**. As this map indicates, access is not nearly as ubiquitous as the high estimate suggests. There is a sizable swath in southern Hoke County—at the border with Robeson County—where broadband access falls between 50 and 69 %.

Another factor that compromises existing access coverage estimates is the significant overlap between the areas served by cable-modem and those having DSL-based services. Removing the cable-served locations from the map shown in Figure 10 would not significantly enlarge the portion of the county that does not have adequate service. This means that in Hoke County there may be significant overlap in areas served by cable-modem and by DSL-based services.

Providers of ICT in Hoke County are listed in **Table 9**.

Figure 10. Average availibility of DSL service and location of videoconferencing sites in Hoke County

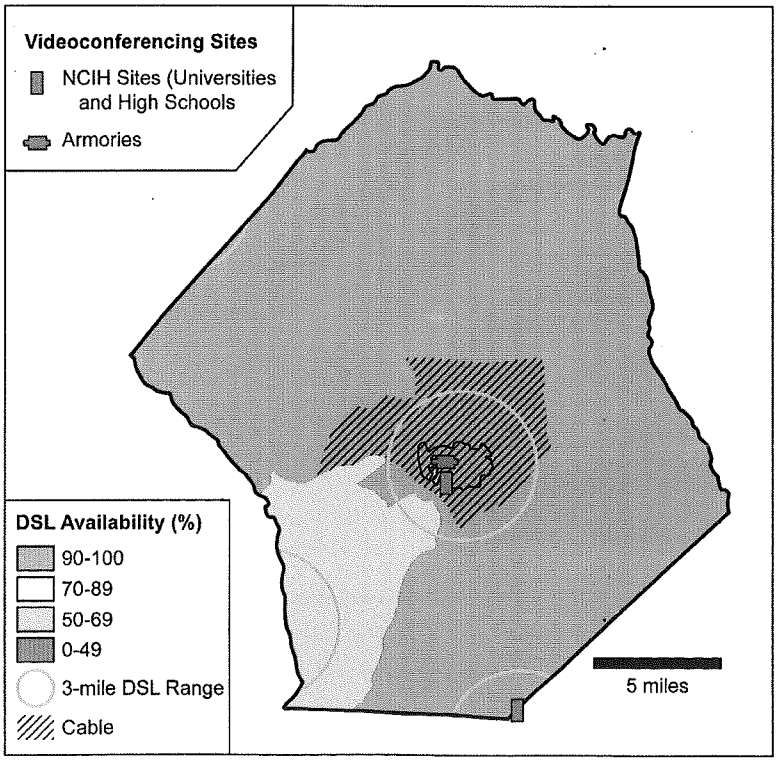


Table 9. Providers of available Internet connections in Hoke County

Telcos	Embarq and Windstream
Satellite	Hoke County customers with a clear view of the southern sky have access to Direcway & Starband high-speed Internet Service.
Wireless	No wireless high-speed Internet access providers in Hoke County have registered with the e-NC Authority.

In addition to localized problems of inadequate access, there is the more generalized issue of inadequate speed and bandwidth. Broadband access in Hoke County is largely accomplished through cable modem and DSL-level access speeds. The speeds and bandwidth supported by these types of technologies will be increasingly inadequate as a growing number of voice, data, and video applications use Internet protocols (IP) for service delivery. Health, education, and government sectors are just beginning to tap the benefits of ICT-driven transformation, even as new ICT technologies—such as Radio Frequency Identification (RFID), wireless broadband, and voice recognition— begin to drive new applications. The result is that, as acceptable transmission speeds ratchet up, broadband standards are rising.[26]

b. Sector-Specific Connectivity Issues

Efforts already underway in Hoke County highlight the need to make ICT and universal broadband access a cornerstone of the county's economic and community development plans. These efforts are described below.

Public Safety. Hoke County is working to fully equip all its public safety and emergency response personnel to be part of the Voice Interoperability Plan for Emergency Responders (VIPER) first-responder communication network. Partial implementation of this network, which is managed by the State Highway Patrol,[27] has been funded through grants made to North Carolina by the U.S. Homeland Security Agency. A combination of local and federal funds is expected to cover the costs of fully implementing this program. At present, the county's single VIPER transmission tower, sited at McCain, is on the air and operational. An additional 244 radios costing a total of $793,000 are needed to complete the Hoke VIPER network. **Table 10** below indicates the number of radios required by specific sectors of Hoke County's first responders.

Education. The Hoke County school system, like school systems nationwide, is facing difficult challenges arising from increased student populations, inadequate school infrastructure, increasing use of technology in the development and delivery of instructional content, and the need to support "anytime, anywhere" instruction through distance-learning programs. Hoke County already has a rapidly growing demand for broadband Internet access to support the educational and training needs

26. Acceptable transmission speeds are expected to rise from the currently recommended minimum of 384 kbps to an anticipated minimum need at home and at businesses for 1.5 mbps symmetrical (up and down). (FCC Order on Broadband, issued March 19, 2008)

27. More information about the VIPER program is available at http://www.nccrimecontrol.org/Index2.cfm?a=000001,001148

Table 10. Hoke County VIPER implementation status-Emergency radio requirement for Hoke County

Agency	Number of Radios
Law Enforcement (1 Per Sworn + 1 Per 1/3 Civilian not VIPER Compatible)	60
Fire Department not currently VIPER Compatible	168
Rescue Squad not currently VIPER Compatible	16
TOTAL Radios for Emergency Responders	244

of students in K-12, professional development, and training programs. Several existing statewide initiatives will significantly improve the network through which web-based resources are delivered to the county's schools.[28] Access to these programs will require the availability of robust, high-speed connectivity and adequate video-conferencing facilities.

K-12 Schools. Connectivity to all public schools that are elements of the Hoke County Local Education Agency (LEA) is fully funded by a combination of federal e-Rate dollars and the N.C. School Connectivity Initiative. Time Warner Communications provides fiber-based service to the LEA Central Office. A Wide-Area Network (WAN) connects all schools in the system to the LEA at speeds up to 100 Mbps. Through the LEA, all schools are linked to the North Carolina Research and Education Network (NCREN)-managed statewide education network. This network links schools to all of the state's on-line education resources, to the public Internet, and to the higher level Internet-2 research network. At this point, the County's primary responsibility for ensuring that schools have on-going access to these resources consists of regular and timely filing of its annual e-Rate application.

Hardware and Software: Establishing connectivity is only one of the ICT issues facing public schools in Hoke County. There is a continual need for upgrading of the hardware and software that is required by the BETA, Earn and Learn, Learn NC, and Impact projects. Even End-of-the-Year testing requires up-to-date computers and software. Schools cannot just use donated or other outdated equipment and software but must make ICT equipment a fixture in their annual budgets.

Impact of Connectivity on School Infrastructure: The need for enhanced access affects other areas of county school planning. Changes in the construction codes for schools and other public-sector buildings are required to ensure that these codes support the wiring and HVAC needs for additional ICT equipment. During a recent BRAC ICT focus group meeting, for example, representatives of the region's public schools cited the lack of sufficient electrical outlets in classrooms as a serious challenge to delivering web-assisted instruction.

Impact of Connectivity on School Human-Resource Needs: A shortage of skilled network-management technicians may emerge as one of the most critical impediments to meeting the demands of growth in Hoke County and the region. Additional ICT personnel at the professional and certificate levels will be needed to support higher requirements for ICT infrastructure in schools and other public settings. Schools in the Fort Bragg region were surveyed regarding the numbers and types of ICT support personnel they employed. Results varied widely and did not allow for a qualitative statement of the actual levels of training or expertise achieved by the ICT technicians in the various counties. The data are none-the-less revealing and raise serious concerns. Each ICT technician in Hoke County serves an average of 2.4 schools, the lowest number among the BRAC Tier I counties. A troubling result is the finding that only one of the twelve technical service personnel employed by Hoke County reported being certified in the LAN/WAN technology that connects each school—through the central office—to the public Internet and state education networks. It is clear that more and better certified technical-support personnel are needed to manage the growing ICT needs of Hoke County schools. This need for more skilled technicians should be factored into plans for expanding ICT-relevant programs and degree offerings at the area's community colleges and universities.

Proximity to the tech-intensive Research Triangle Park creates special challenges for the Fort Bragg

28. Web-based resources available to the county's schools include distance-learning programs that originate with the military and National Guard and are designed for their personnel; implementation of the Business Education Technology Alliance (BETA) study and state investment in regional education networks; implementation of the N.C. School Connectivity Initiative to support K-20 virtual-learning programs and the Initiative's requirements for the state's schools and connectivity to the home; the N.C. School of Science and Mathematics Distance- Learning courses; NC Wise; AMDG; OSU; North Carolina Virtual Public Schools; the Learn and Earn Initiative's requirement for online college courses; Two-plus-Two programs that integrate community college curricula with university degree programs; UNC-Greensboro iSchool courses; the UNC Tomorrow program; and even the pioneering web academies.

region in terms of attracting and keeping highly trained ICT personnel. Both instructors and graduates of computer and network training programs are frequently drawn to more lucrative employment opportunities in the RTP region.

Higher Education/Adult Learning. Sandhills Community College in Moore County has ICT-related education and training programs that can help prepare the skilled technicians and professionals needed to meet the growing demand for ICT services in the county and region. Training and educational opportunities are augmented by strong programs at Fayetteville Technical Community College and at other colleges and universities in the region. The issue is one of throughput—more graduates are needed. Course offerings, degree programs, and the administrative contacts for each of the county's higher education institutions are listed in the Appendix for this chapter. Similar data for other institutions in the region are available in the Appendix of the Regional chapter of this report.

Infrastructure Issues: Videoconferencing facilities efficiently deliver distance-education programs to multiple students. Such facilities are particularly important in regions where they serve to support the increasing training needs of military and National Guard personnel. The National Guard supports two controlled-access networks (Guard Net II and Guard Net 132) with access at National Guard Armories in Raeford. In addition, the National Guard is paying to build computer labs at nearby Fayetteville Technical Community College where Guard members can take continuing education courses. The Guard's community-college-based facilities are also available for use by civilians. Two addition N.C. Information Highway sites at high schools make central and southern Hoke County relatively well-equipped with videoconference centers, as shown in Figure 10. Northern Hoke is proximate to sites in Cumberland County, but students and the public in the western portion of the county do not have ready access to facilities that support distance learning in a group setting.

Government. Movement of government services to an electronic platform ("e-government") allows for cost-effective delivery, improved responsiveness, and increased transparency. E-government is proving to be particularly important in that it allows military personnel to access local government services while deployed. Military-related growth is expected to significantly impact the demand for government services.

Hoke County has made significant strides in developing a website that is useful to citizens as well as businesses. It has also developed useful links as well as content relevant to newcomers and relocating military personnel. Further enhancements are recommended.

Hoke County's e-government website has been evaluated on the basis of content and usability against best practice models in Havelock, NC (http://www.cityofhavelock.com/) and Northwest Florida (http://www.welcometonorthwestflorida.com/index1.html). Results of the analysis are summarized in **Table 11**. Note that the absence of a newcomer's guide and links to properties for sale detract significantly from the usefulness of the site to incoming residents and businesses.

While smaller towns and communities would benefit from having an attractive website populated with current content, most of them lack the means to develop and maintain such a site. In this regard, Hoke might consider following the example of Montgomery County. Montgomery provides and maintains a common template that its smaller municipalities can populate with current information. In so doing, Montgomery enhances its ICT services and supports balanced growth across the county.

A shortage of skilled network management technicians may emerge as one of the most critical impediments to meeting growth demands in Hoke County and the region. Additional ICT personnel at the professional and certificate level will be needed to support the growing number of web-based government services.

Info-engineer its website to best-practice status for delivering to private and corporate citizens information and government services, and extend to municipalities in the county the electronic platforms, hosting services and training needed to make Hoke an e-county of e-communities.

Table 11. Hoke County Website Analysis

Website Address	www.hokecounty.org
Preliminary Questions	Observations
Links to Local Government?	YES
Links to BRAC-RTF?	NO
General Items	Observations
Website Appearance	Historical renderings on homepage not necessarily representative of 21st-century thinking
Usability	Not very intuitive or easy to navigate
Site Structure	Always necessary to go back to home page to access additional pages
Audio/Visual Capabilities	NONE
External Web links	Links to local, state, and federal information
Contact Information	Need contact information on every page
Employee Directory	E-mail directory of county employees .
Calendar	Scheduled events displayed, but no community calendar
Searchable Databases	Search and retrieve Register of Deeds information
Forms, Applications, & Permits	NONE
Scheduling System	NONE
Transactional Capabilities	Online utility payments
BRAC Information	Links to Fort Bragg and Pope AFB, but no specific mention of BRAC
GIS	GIS/Property Tax information
Newcomer's Guide	Newcomer's Guide
Listing of Property for Sale	NONE
Tax Information	Tax information
Employment Opportunities	Downloadable employment application
Library Link	Link to library website
Website's Capacity to Facilitate Citizen Involvement	NONE
Feedback Form	Feedback Form
Alert Mechanisms	NONE
Translation of Content	NONE
Intranet	NONE
Content Copyright	Copyright protection where applicable
Frequency of Updates	Does not have a last updated date and webmaster contact information is hard to find

2. Future Needs

Information and communication technologies (ICT), especially those supporting high-speed broadband Internet use, are increasingly critical to local, state, and national economic and community development—with real and measurable impacts in employment, the number of businesses overall, and the number of businesses in ICT-intensive sectors. ICT is particularly important in Hoke County, as it adapts to changes caused by military-related growth. Many of the military personnel being transferred to Fort Bragg are technologically adept and will expect to have immediate and sophisticated access to ICT functions such as e-government, e-learning, e-health, and e-commerce. If they are to establish an immediate professional and personal connection with the community, these personnel will need access to a high-speed, broadband Internet connection, both on- and off-base. As bandwidth needs increase for

base operations, new applications will continue to be developed and these will create further connectivity challenges for the region.

As part of its overall effort to support the incoming FORSCOM and US Army Reserve Command (USARC), and to sustain the incumbent military units as a vital economic engine for the region, Hoke County would greatly benefit from upgrading its telecommunications capacity. The county's ability to attract and support a diverse and growing economy beyond the military will also be inextricably tied to the quality, speed, and ubiquity of high-speed *broadband Internet connectivity*. The level of broadband access that will be needed to accommodate the area's military-related growth is suggested by the results of a November, 2007, survey conducted among FORSCOM personnel in the Atlanta region. Ninety-seven percent of the respondents have and use broadband access at home. This percentage is higher than the percentage of home Internet connections available in Hoke County. Sixty-one percent of the FORSCOM personnel use DSL to access the Internet, 36% use cable, and less than 4% rely on dial-up modem connections. As shown in **Table 12**, the survey respondents and their families use the Internet at home for a wide range of tasks. It is highly likely, therefore, that the influx of FORSCOM personnel will increase the demand for high-quality broadband availability and web-based services in Hoke County.

Table 12. Routine uses of the Internet at home by FORSCOM personnel and their families

Check mail	98%
Educational (research, course, or Army on-line training)	52%
General Information searches (news, weather, sports)	86%
Work, professional.information searches (government, business)	72%
Pay utility bills	74%
Pay taxes	33%
Search for medical information	73%
Do job-related tasks	43%
Search for jobs	47%
Commercial activities (shop, pay bills, etc.)	83%

3. Recommended Actions

Important Action 1: Improve ICT infrastructure throughout the county to have high-speed access available at 95% of households

Description: Updated and new network technology needs to be implemented in underserved areas of the county to make high-speed access (defined as >200 kilobits per second) available to 95% of households.

Responsible Parties: A partnership of public (federal, state and local) and private (corporate and foundation) organizations.

Critical Action 2: Fully equip public safety and emergency personnel to participate in North Carolina's VIPER first-responder network

Description: The Voice Interoperability Plan for Emergency Responders (VIPER) System being implemented by the NC Highway Patrol will enable public safety officials at all levels to communicate directly with one another over a secure and reliable network without having to relay messages through a communications center. The importance of this capability in times of emergency is increasing as the influx of military personnel into the region significantly raises the threat profile of the region. Hoke can reach compliance with the new VIPER standard with the purchase of 244 communications radios.

Responsible Parties: Local, state, and federal government partnering to fully implement and equip the network. A request for federal support to equip the Fort Bragg region has been developed by the e-NC Authority for the BRAC Regional Task Force; prospects for federal funding are not certain at this time.

Important Action 3: Participate in formation of Regional K-20 Education Connectivity Task Force and Planning Group

Description: Strong potential exists to achieve greater returns on investment by utilizing regional strategies for developing and supporting the K-20 school connectivity infrastructure, by sponsoring professional development opportunities in instructional technology, and by increasing throughput of certified and trained network and communications specialists from higher-education and technical training programs in the region.

Responsible Parties: Leaders from County government, and education leaders from public and private schools K-16 in the Fort Bragg region, in collaboration with state BETA and e-learning commission.

Important Action 4: Make connectivity a strategic focus for the county and a springboard for regional planning and economic and community development efforts

Description: Hoke County should partner with counties in the region to develop a regional ICT Council comprised of a Chief Information/Technology Officer from each county in the Fort Bragg region to guide development and use of connectivity. Outcomes will include collaborative learning, cost efficiencies realized through joint purchasing agreements and regional software licenses, and more competitive bids for federal and state program support.

Responsible Parties: CIO/CTOs for each county and Fort Bragg

Important Action 5: Champion effort to define and establish a BRAC Regional Health ICT Network

Description: Hoke County should work with the N.C. Telemedicine Network to extend to the Fort Bragg region efforts funded by the Federal Communications Commission to enhance connectivity and should champion their use by appropriate health and medical institutions, including the public health department and public and private health clinics.

Responsible Parties: County government and health leaders in collaboration with the N.C. Telemedicine Network, the e-NC Authority, and NCHICA

Important Action 6: Establish Hoke County as a best-practice e-government model

Description: Hoke County should re-engineer its website to best-practice status for delivering to private and corporate citizens information and government services, and extend to municipalities in the county the electronic platforms, hosting services and training needed to make Hoke an e-county of e-communities.

Responsible Parties: Hoke County CIO/CTO, local government IT directors, the e-NC Authority, the N.C. League of Municipalities, and the Center for Public Technology at the UNC School of Government at UNC-CH.

G. Health Care

Hoke County has the smallest supply of health services in the region, with less than ten physicians and extenders and no acute-care hospital. Hoke County needs are met primarily by providers in Moore and Cumberland Counties. Theoretically, Hoke County's population could support the development of a small hospital. Whether or not a facility is developed, there is a need for additional physician services in the county.

1. Current Conditions

a. Health Care Provider Supply

With approximately 9.9 full-time equivalent physicians and physician extenders, Hoke County has the smallest number of health care providers in the Fort Bragg region. Because there are no acute-care and outpatient services located in Hoke County proper, all of Hoke County's physicians are on medical staffs at hospitals in surrounding counties, such as Cape Fear Valley Medical Center or FirstHealth Moore Regional. With only six resident dentists, Hoke County (according to the Cecil G. Sheps Center for Health Services Research) has one of the lowest dentist-to-population ratios in the state.

b. Acute Care Hospitals

There is no acute care hospital in Hoke County. The majority of patients originating in Hoke County are treated at FirstHealth Moore Regional in Moore County and, to a lesser extent, at the Cape Fear Valley Medical Center in Cumberland County. **Table 13** shows the number of Hoke County acute-care patients (as reported in 2008 Hospital License Renewal Applications) that each of these hospitals discharged in fiscal year 2007.

The University of North Carolina Hospitals also reported having discharged 171 Hoke County patients in fiscal year 2007. No more than 100 patients from Hoke County were treated at any other facility in the state.

c. Outpatient Services

All outpatient services in Hoke County are located in physician offices. There are no operating rooms, diagnostic centers, or urgent-care centers in the county.

d. Home Health

Home-health services are provided in the home to individuals who are confined to the home. Such services are offered to those who do not need hospitalization but who do need nursing services or therapy, medical supplies, and/or special outpatient services. Liberty Home Care operates the only home-health agency in Hoke County. There is no need for additional home health agencies in the county, and the military expansion at Fort Bragg is expected to have a minimal impact on the short-term need for such services.

e. Behavioral Health

In Hoke County, behavioral health services are managed by the Sandhills Center for MH/DD/SAS.[29] The Sandhills Center manages and in some cases provides the following services:

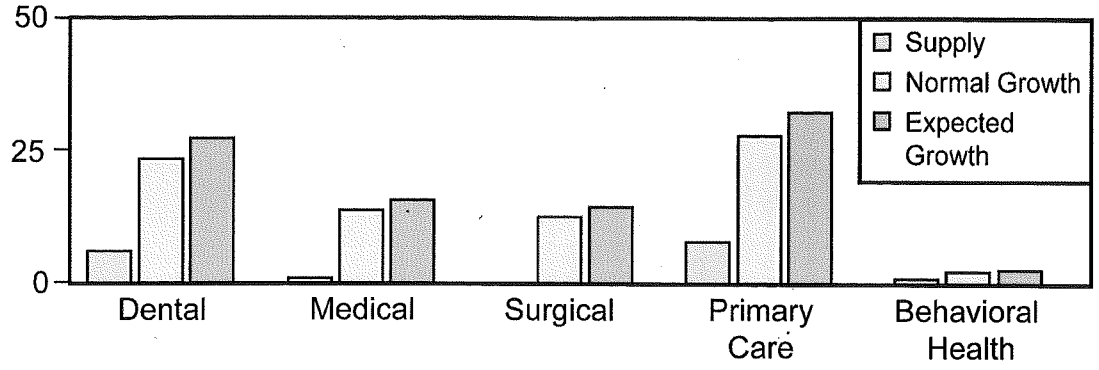
- Outpatient therapy
- Psychiatric services
- Case management
- Residential services
- Day services
- Twenty-four-hour inpatient services
- Periodic services
- Emergency services.

29. MH/DD/SS is short for Mental Health/Developmental Disabilities/Substance Abuse Services.

Table 13. Acute Care Discharges from Hoke County

Facility Name	Hoke County Discharges
FirstHealth Moore Regional	1,438
Cape Fear Valley Medical Center	1,142

Figure 11. Projected number of health care professionals needed in Hoke County in 2013 compared to the estimated supply



Access to these services is provided through the Hoke County access unit, which is located on East Elwood Avenue in Raeford.

There are no inpatient psychiatric beds in Hoke County.

2. Future Needs

a. Physician Needs

Although Hoke County's need for additional physicians is lower than that of any other county in the Fort Bragg area, it is still the case that the existing supply of physicians is low enough to warrant pro-active planning.

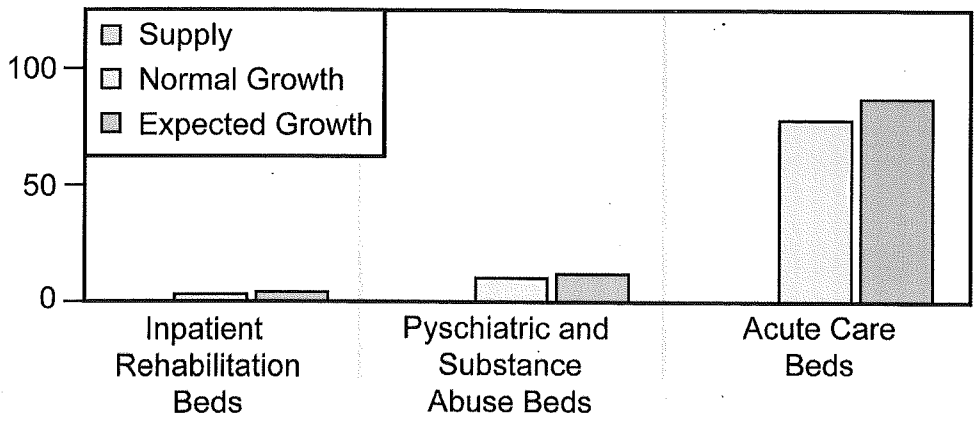
As shown in **Figure 11**, Hoke County has a particular need for twenty to twenty-five additional primary care physicians. Although the county's population is relatively young (approximately 66% of the population will be under forty-four in 2013), there will be a need for additional medical and surgical specialists as the population ages. Hoke's population will be needing cardiologists, nephrologists, oncologists, general surgeons, and orthopedic surgeons, as well as other specialties.

At present the county's needs only two to three behavioral health physicians. This being the case, the addition of four to six physician extenders should be sufficient to meet the needs of Hoke County residents.

Because it has a need for seventeen to twenty-two dentists, Hoke County should be a key participant in discussions regarding the recruitment of dentists to the region.

According to the North Carolina Rural Economic Development Center, approximately one-fifth of Hoke County residents are uninsured, another factor that negatively affects the health status of county residents. This being the case, it is imperative that any new physicians in the county be willing to treat such patients.

Figure 12. Projected need for inpatient beds in Hoke County in 2013 compared to the estimated supply



b. Inpatient Bed Needs

The projected need for inpatient beds is shown in **Figure 12**. Because the majority of inpatient discharges of Hoke County residents are at FirstHealth Moore Regional, the Medical Facilities Planning Section[30] has treated Hoke County and Moore County as a single region when assessing the need for acute-care beds. Since a nearly equivalent number of patients were treated at Cape Fear Valley Medical Center, however, the needs of Hoke County residents are not entirely accounted for in the Planning Section's calculations. The Hoke County population alone could support a small community hospital with a small inpatient psychiatric unit. Inpatient rehabilitation services can be absorbed by a larger referral center in a neighboring county.

30. The Medical Facilities Planning Section provides staff support to the North Carolina State Health Coordinating Council in the development of the annual State Medical Facilities Plan (SMFP) and Semiannual Dialysis Reports (SDR).

3. Recommended Actions

Important Action 1: Recruit additional primary care services to the region

Description: Primary care providers are generally an entry point to health services. As such, the recruitment of additional primary care providers to Hoke County will likely have a significant impact on the overall health status of Hoke County residents. It is recommended that a collaborative working group of providers be convened to develop additional physician practices and/ or clinics in the county

Responsible Party: Representatives from key regional acute-care providers, such as CFVMC, FHMR, and SERMC

Important Action 2: Develop a facility plan to determine the feasibility of establishing an acute-care hospital in Hoke County.

Description: Hoke County's projected population can support eighty to ninety acute-care beds. As fifty-bed hospitals become more prevalent in North Carolina, Hoke County may represent the next best location for a new facility. The creation of a development plan is suggested for Hoke County.

Responsible Party: Key leadership in Hoke County with support from regional providers and the BRAC Regional Task Force

H. Hospitality and Cultural Resources

Lodging and food and beverage establishments are extremely limited in Hoke County; nearly all the accommodations that do exist are located in and around the community of Raeford, which provides just one hotel operation and a few quick service-oriented restaurants. Meeting space is practically non-existent throughout the county, with a minimal number of facilities capable of accommodating small groups. Although Hoke residents generally rely on the programs and facilities in neighboring Cumberland County, a modest array of parks, recreation, and cultural programs are offered in the county. Funding for culture and the arts continues to be a challenge.

1. Current Conditions

a. Lodging

The Days Inn in downtown Raeford is the county's only hotel (**Table 14**).[31] Its demand is generated primarily by visiting friends and relatives and a small amount of business-related traffic.

Proximity to hotels in neighboring Cumberland, Moore, and Scotland Counties is a major factor in determining the needs for additional lodging in Hoke County. Cumberland and Scotland Counties appear to fulfill the need for economy, limited-service, full-service, and extended-stay properties, while Moore County accommodates demand for upscale and resort accommodations. As previously mentioned, the primary driver of demand is visiting friends and family; there is limited Fort Bragg-related use of the Days Inn.

The overwhelming majority of food and beverage establishments in Hoke County are located in Raeford. They tend to be fast-food and independent, casual restaurants. Again, Cumberland and Moore Counties appear to fulfill the demand for a wider variety of eating and drinking establishments.

31. Source: Smith Travel Research; PKF Consulting

b. Meeting Space

Meeting space is very limited in Hoke County. The Raeford Civic Center - which accommodates, at most, 600 people - is the largest meeting space in the county. Hoke County has very little available inventory of meeting space. **Table 15** indicates the meeting facilities available in the county.

c. Parks and Recreation

Hoke County has a small number of parks with playing fields, courts, picnic facilities, and trails. The County Parks and Recreation Department also runs a youth sports program. More substantial facilities are available in neighboring counties. Hoke County's major parks and recreation facilities include:

- Carolina Horse Park
- Paraclete XP SkyVenture

Carolina Horse Park, located at Five Points in the northwest section of the county, opened in 2001. This 250-acre facility hosts equestrian competitions, shows, and clinics comparable to those at the Virginia Horse Center and Kentucky's Horse Park. The facility is linked to the affluent communities in Moore County and new developments in northwestern Hoke County.

Paraclete XP SkyVenture is a unique facility located in eastern Raeford. The facility features an indoor vertical wind tunnel that enables users to experience indoor "bodyflight." Although most of its visitors come from neighboring Cumberland County, the facility does appear to have the potential to attract a wider demand base. Paraclete's owners are reportedly considering the development of a small hotel at the same location. The attraction's proximity to

Table 14. Accommodations in Hoke County

Name of Establishment	City	Rooms
Days Inn Raeford	Raeford	44

Table 15. Meeting Facilities - Hoke County

Name of Establishment	City
Raeford Civic Center	Raeford
Bayonet at Puppy Creek Golf Course	Raeford

Cumberland County may make such a project viable if it begins to draw visitors from beyond the local area.

d. Culture and Arts

Compared to its neighbors, Hoke County has relatively few arts and cultural offerings. Each September the county's major public event, the North Carolina Turkey Festival, features dinners, sporting events, arts, music, and other events. The festival attracts approximately 60,000 visitors annually to McLaughlin Park. The county is home to one museum, the Raeford-Hoke Museum, which is open only on Sunday. Residents and visitors to the county generally frequent the arts and cultural attractions in surrounding counties, especially Cumberland County.

2. Future Needs

Hoke County offers ample hospitality and cultural opportunities for its residents; lodging, restaurants, meeting space, parks and recreational facilities, and cultural activities are generally only short drive away. Overall, the expected military expansion is not expected to significantly impact most of these resources.

- A limited supply of lodging and food and beverage establishments are available in Hoke County. Most demand generated by businesses and residences located in Hoke County is accommodated in neighboring Cumberland, Moore, and Scotland counties, each of which has an ample supply of lodging and food and beverage establishments.
- Hoke County has historically been a primarily residential community; few of its businesses required meeting space. Fort Bragg-related meetings will continue to be held primarily in Cumberland and Moore Counties, where infrastructure, demand, and appropriate spaces exist.
- A modest network of parks and recreational facilities and programs are offered throughout Hoke County. The Carolina Horse Park is a significant local feature that attracts equestrian enthusiasts from around the region.
- Culture and Arts programs and attractions are in limited supply in Hoke County. The county's major annual event, the North Carolina Turkey Festival, attracts visitors from the surrounding counties and beyond. Most local residents rely on neighboring Cumberland County for cultural and arts programming.

3. Gaps

Lodging demand generated by Fort Bragg residents and visitors will probably continue to be accommodated either on the installation or in off-post hotels in Cumberland County. There may be times, however, when turnaway demand exceeds Cumberland's hotel capacity. Given the relatively easy access to Fort Bragg along U.S. 401 (Raeford Road) and the potential justification for a new hotel created by the success of Paraclete XP SkyVenture, this potential overflow demand could help support a new hotel in Hoke County. While it is not expected that increased military demand would by itself be enough to warrant establishment of a new Hoke County hotel, this demand, together with increased demand from other mainstay sources, such as Paraclete, may well justify such development.

While the analysis of the current status of the county's parks, recreation, and cultural resources organizations did not reveal any need for additional facilities, it was recognized that funding for existing operations continues to be a pressing problem, one that will be increased, however minimally, by military-related growth. Additional funding sources, available from the entities established to assist BRAC-impacted communities, should be explored.

4. Recommended Actions

Important Action 1: New Hotel at Paraclete Ventures

Description: While it is not expected that increased military demand would by itself be enough to warrant establishment of a new Hoke County hotel, this demand, together with increased demand from other mainstay sources, such as Paraclete, may well justify such development.

Responsible Party: Local hotels and county economic development officials should monitor local lodging demand to determine if a new hotel may be justified in the future.

Important Action 2: Solicit additional operational funds for county parks, recreation, and cultural-resources organizations

Description: Existing operations continues to be a pressing problem for the County's Parks and Recreation programs. Additional funding sources, available from the entities established to assist BRAC-impacted communities, should be explored.

Responsible party: Hoke County Parks and Recreation Department should continue to aggressively solicit funds.

I. Appendix A - Residential Development Activities

With regard to subdivision developments, Hoke County planning staff suggested that active subdivisions should be considered as those approved from October 2005 to the present, and that subdivisions approved prior to that date could be considered built out. The following data regarding subdivisions approved since October 2005.

- *Bentley Acres*—79 lots located on Camden Road.
- *Birkland*—43 lots located on Koonce Road; preliminary approval in April 2006.
- *Briarcrest*—25 lots located on Rockfish Road.
- *Bridgeport Subdivision*—104 lots located on Johnson Mill Road. The windshield survey showed 25 houses occupied, 17 completed and ready for occupancy, and seven under construction.
- *Brookside, Section II*—33 lots located on Gillis Hill Road. The windshield survey found roads under construction but no houses yet under construction.
- *Brownstone Farms, Sections I and II*—200 total lots located on S. Parker Church Road. The windshield survey revealed one house occupied, five completed and ready for occupancy, and seven under construction.
- *Churchill*—68 lots on Rockfish Road. The windshield survey showed 18 houses occupied, two completed and ready for occupancy, and one under construction.
- *Clover Meadow*—26 lots located on Rockfish Road. The windshield survey found 12 houses occupied, eight completed and ready for occupancy, and six under construction.
- *Club Pond Estates*—67 lots located on Club Pond Road.
- *Copper Creek North*—11 lots located on Rockfish Road. The windshield survey showed no houses occupied or ready for occupancy, and five under construction. Four houses were also noted under construction in the Copper Creek subdivision.
- *Creekview Farms*—12 lots located on Hall Road.
- *Eagles' Ridge*—106 lots located on Mock Road. The windshield survey showed construction had not yet started on this subdivision.
- *Falcon Ridge*—16 lots with houses priced from the $130,000s, located on N. Parker Church Road. The windshield survey revealed no houses occupied, two completed and ready for occupancy, and 11 under construction.
- *Galatia Farms*—67 lots with houses priced $170,000-$200,000, located on Galatia Church Road. The windshield survey found 51 houses occupied, four completed and ready for occupancy, and two under construction.
- *Galatia Hills*—36 lots located on Galatia Church Road. The windshield survey showed roads under construction, but no houses under construction.
- *Hendrix Farms*—207 total lots (Section I=92 lots; Section II=115 lots) located on Phillipi Church Road. The windshield survey found two houses occupied, 20 completed and ready for occupancy, and five under construction.
- *Hunter's Creek*—36 lots located on Rockfish Road.
- *Liberty Chase*—located on NC 211 west of Raeford; 110 lots, with houses priced from the $140,000s to the $170,000s. The windshield survey showed no houses occupied, three completed and ready for occupancy, and three under construction.
- *Liberty Point, Sections II and III*—110 total lots (Section II=69 lots; Section III=41 lots) located on N. Parker Church Road. The windshield survey revealed one house completed and ready for occupancy in an older section of the subdivision, and three houses under construction in the newer section.
- *Lindsay Farms*—located on Wayside Road. The windshield survey showed two houses occupied, two completed and ready for occupancy, and one under construction.
- *Lockhaven Estates*—26 lots on Rockfish Road.
- *Parker's Grove, Section IV*—33 lots located on US 401. The windshield survey found eight houses completed and ready for occupancy, five under construction, and approximately nine undeveloped lots.
- *Pine Valley*—63 lots located on Posey Farm Road. The windshield survey found that this

subdivision was built out; however, eight existing houses were listed for sale.

- *Potter's Ridge*—111 lots located on Rockfish Road. The windshield survey revealed 21 houses occupied, 37 houses completed and ready for occupancy, and four under construction.
- *Ridgeview, Sections I and II*—121 total lots (Section I=40; Section II=81 lots) located on Rockfish Road. The windshield survey showed 33 houses occupied, five completed and ready for occupancy, and no houses under construction.
- *Riverbrooke*—400 units priced from the $130,000s, located on US 401 Business. The windshield survey found that roads and other infrastructure were under construction and that housing construction had not yet started.
- *Southampton*—14 lots located on Pittman Grove Church Road. The windshield survey showed this subdivision to be built out, with one existing house listed for sale.
- *Steeplechase, Section II*—located on NC 211 west of Raeford; 50 lots located on Aberdeen Road. The windshield survey revealed 28 houses occupied, five completed and ready for occupancy, five under construction in the original section of this subdivision (47 lots), and roads constructed (but no houses yet constructed) in Section II.
- *Turning Leaf North*—40 lots located on N. Parker Church Road. The windshield survey found no houses occupied or completed and 10 under construction.
- *Turning Leaf South*—19 lots located on N. Parker Church Road.
- *Westgate*—845 total units located on Adcox Road. The windshield survey showed one house occupied, 12 completed and ready for occupancy, and four under construction. In The Oaks at Westgate, 16 houses were completed and ready for occupancy, and four houses were under construction. The Holleys at Westgate section was built out.
- *Unnamed*—approximately 40 lots on Club Pond Road. The windshield survey found road and infrastructure construction in progress but no houses yet under construction.

No multi-family residential units have been constructed in unincorporated Hoke County, nor were there any planned at the time of the interviews.

No mobile-home parks had been approved recently in the unincorporated county area, nor had there been any expansions to existing mobile-home parks at the time of the interviews.

Raeford planning staff stated that the primary area for growth in that city would be the Lemont Street area off NC 211 West. A planner stated that the city was saturated with apartments. Residential development in Raeford includes:

Raeford Village—80+ lots located off NC 210 west of downtown, priced from the $130,000s. The windshield survey found one house occupied, nine completed and ready for occupancy, and nine under construction.

Raeford Commons—approximately 220 lots located south of Raeford Village off Thomas Road. This development, consisting of larger houses with four bedrooms, has been approved. Apartment units were deemed likely to be occupied by senior citizens and therefore unlikely to include school-age children.

There is only one large undeveloped parcel of land, located north of the intersection of NC 211 and Turnpike Road, within the Raeford city limits. That parcel is zoned for industrial uses.

A mobile-home park located on Mockingbird Hill Road was said to have had some housing units removed and was seen as a location for potential redevelopment with single-family housing units.

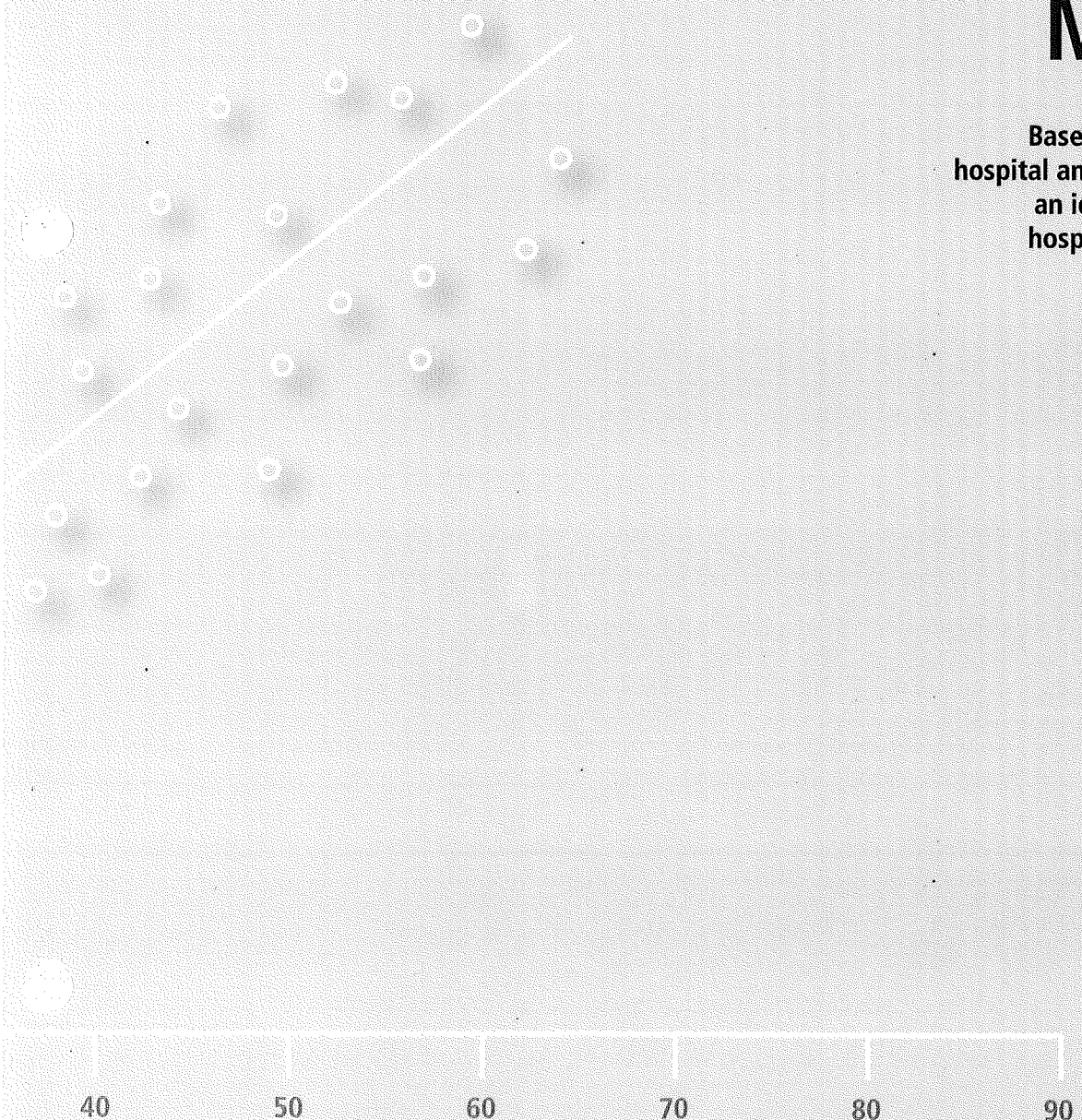
2009- Attachment 6

imv
information for the decisions ahead

Benchmark Report

MRI 2007

Based on responses from 2,373 hospital and non-hospital sites out of an identified universe of 7,194 hospital and non-hospital sites.



Benchmark Report

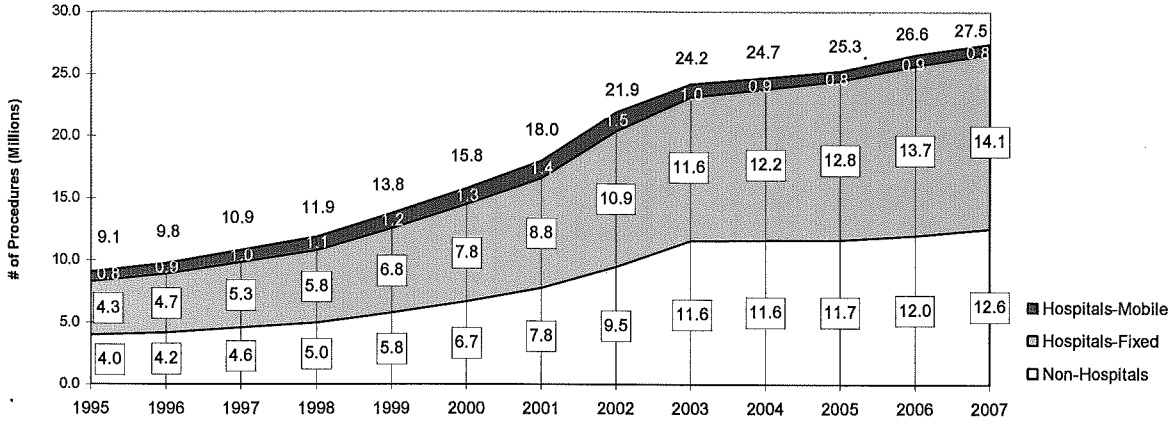
MRI

2007

Procedure Volume Trends

An estimated 27.5 million MRI procedures were performed in the U.S. in 2007, in 7,195 hospital and non-hospital sites. This represents a ~14% increase over the 2003 volume of 24.2 million procedures performed in 7,030 sites, as estimated in IMV's previous 2004 MRI Census, for an average annual increase of ~3% per year since 2003. This represents a slowdown in procedure growth compared to the beginning of the decade, when the average annual growth rate from 1999 to 2003 was ~15% per year.

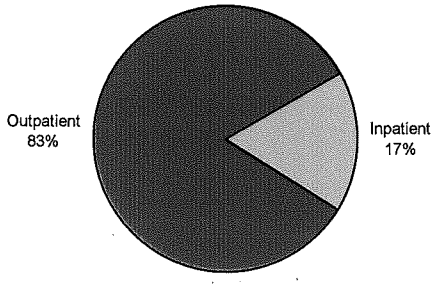
TOTAL MRI PROCEDURE VOLUME, HOSPITAL AND NON-HOSPITAL SITES, 1995-2007



Inpatient vs. Outpatient Mix

In 2007, 83% of all MRI procedures were performed on an outpatient basis vs. 17% inpatient.

MRI INPATIENT VS. OUTPATIENT MIX, ALL SITES, 2007



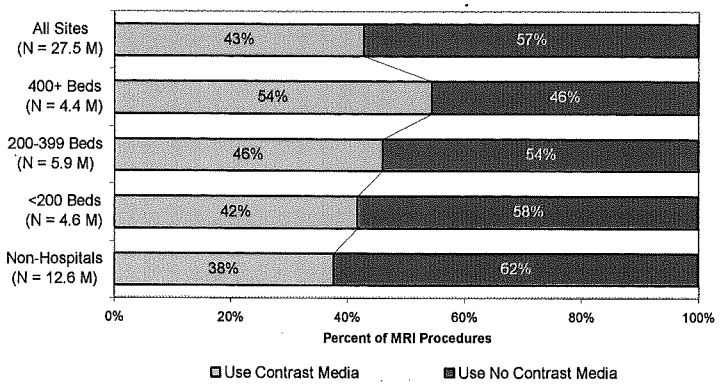
N = 27.5 Million Procedures

Contrast Media

Percent of Procedures Using Contrast Media

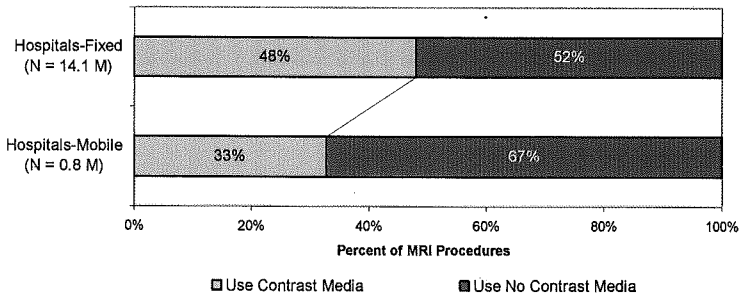
Data reported by participating MRI sites indicate that 43% of all MRI procedures were performed using contrast media. By hospital bed size, it appears that the smaller <200 bed hospitals and non-hospitals are less likely to use contrast media than the other site types.

PERCENT OF MRI PROCEDURES USING CONTRAST MEDIA, BY SITE TYPE, 2007



Mobile MRI sites are less likely to use contrast media than are fixed MRI sites.

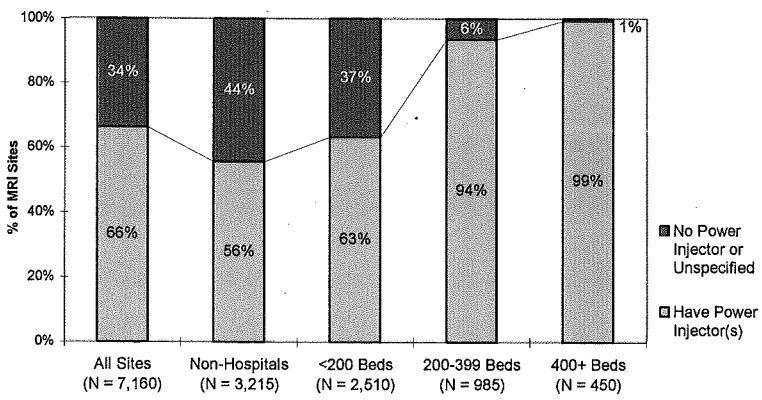
PERCENT OF MRI PROCEDURES USING CONTRAST MEDIA, BY FIXED VS. MOBILE SITE TYPE, 2007



Use of Power Injectors for MRI Contrast

Overall, two-thirds (66%) of the sites indicate they have at least one power injector for use with MRI contrast. By site type, larger hospitals are more likely to have power injectors, with 99% of 400+ bed hospitals and 94% of 200-399 bed hospitals having power injectors, compared to 63% of <200 bed hospitals and 56% of non-hospitals.

PERCENT OF MRI SITES WITH AT LEAST ONE POWER INJECTOR, BY SITE TYPE, AS OF 2007 CENSUS SURVEY



Data Collection and Methodology

Data Collection

This *2007 MRI Benchmark Report* summarizes the results from the 2006/07 IMV Census Database of MRI facilities. This database of MRI facilities is the eighth IMV census of sites performing MRI procedures. Telephone interviews were used to collect the information that makes up the 2006/07 MRI Census Database. The initial candidate sites were identified using the American Hospital Association's *AHA Guide: The AHA Guide to the Health Care Field* and the prior IMV MRI Census database, supplemented by site lists identified through secondary research. In addition, survey respondents were asked to identify other sites in their service area.

Database

The MRI Census Database used for creating this report includes responses from 2,373 total sites, of which 1,498 are hospitals and 875 are non-hospital sites performing MRI imaging procedures, either in a fixed configuration or using a mobile service. These responses were projected to a universe of 7,194 sites (3,950 hospitals and 3,244 non-hospitals), which was the identified universe as of the time of the writing of the report. The survey dates for the respondent sample used for this report are from October 2006 through April 2008.

Methodology

Once the data are collected and tabulated, IMV analyzes the data and calculates numerous descriptive statistics. While the results reported by a census-level sample such as this can be very accurate and reliable in assessing the status and operations of the field, it is important to recognize the data's characteristics and therefore its limitations. The following briefly describes the statistics and methods used to prepare and present the data in this benchmark report.

For some of the results, such as the regression analyses on procedure volumes vs. staffing levels, the data are taken directly from the sample of sites that responded to the specific questions, without projecting the sample data to the universe. For other results, such as the estimates for total procedure volume, procedure mix and contrast media budgets, the sample of those responding was projected to the universe of sites, to provide a total nationwide estimate.

Many of the tables and graphs refer to the **mean or average value**. This is calculated by taking the sum of all reported values, and dividing by the total number of values reported. The data presented in the **scatter diagrams** have been subjected to **regression and correlation analyses**. The value reported by each participant in the census for each analysis is represented in the scatter diagram by a plotted square. This gives a visual representation of the variance in reported values. Linear regression analysis provides an estimate of the linear relationship between the variables, which is described by the equation given and is visually represented by the line plotted through the observations.

The **correlation coefficient (r^2)** indicates the extent to which the relationship really exists and provides a measure of the relative strength of the relationship. An r^2 value of 1.0 means that the distribution of the data adheres perfectly to the relationship described by the regression equation. In a sense, r^2 value provides a measure of the confidence with which one should/ could apply the equation for the relationship between the variables derived through the regression analysis to another observation in order to calculate an expected result.

Many of the variables included in the regressions show a very wide range of values. So great a dispersion leads to a smaller r^2 value. Because the data in this IMV census represents a large proportion of all MRI sites, the r^2 reported here realistically represents the actual dispersions in the relationships between variables. Because some of these correlations are so small, it is apparent that these relationships are not strong, and managers and professionals in the field must look to other factors and variables to explain variances.

In reviewing the survey results, keep in mind that variance from the "average" is not necessarily negative or positive - the key is whether it is expected, given known and accepted factors influencing/affecting the specific facility's operations. Evaluation of this information should be combined with the department manager's knowledge of the specific circumstances concerning a department's staff, patient mix, physician services demand, equipment and facility configuration to evaluate the underlying reasons why a facility's profile may vary from the relationships shown in this summary.

About IMV

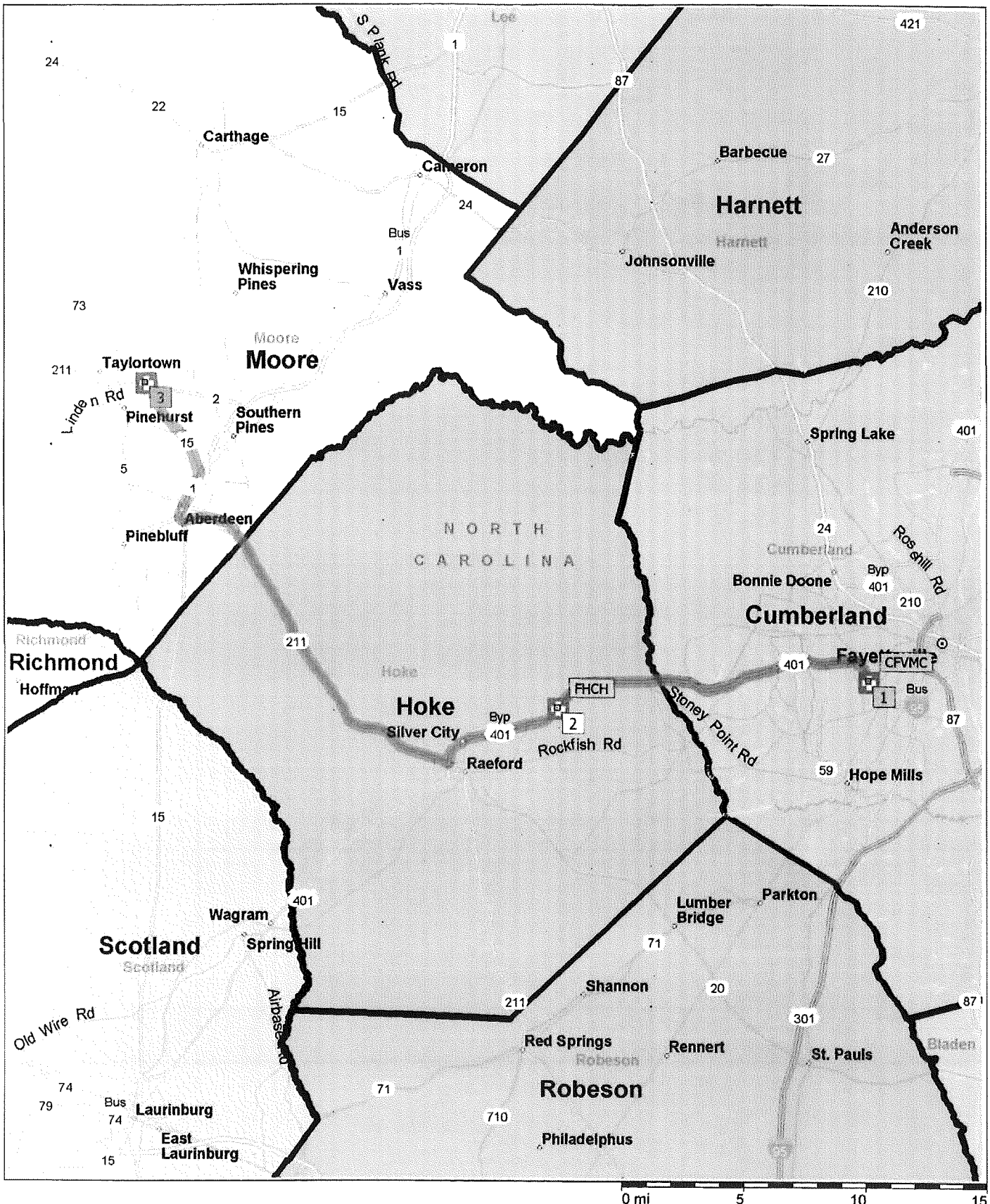
IMV has over thirty years of experience in serving the diagnostic imaging industry including researching user needs and requirements, developing databases of technology applications in clinical sites, and consulting with vendors. Through the methods and principles of market research, IMV provides a structured channel between the clinical users and the developers of technology for diagnostic and therapy services.

For Further Information
If you would like further information on this report or other services, please visit the website at www.imvinfo.com or contact IMV directly at 847/297-1404.

2009- Attachment 7

FHCH.FMRH.CFVMC

43.3 miles; 58 minutes



9:00 AM	0.0 mi	1 Depart CFVMC on Owen Dr (North) for 0.5 mi
9:00 AM	0.5 mi	Keep STRAIGHT onto All American Fwy for 0.3 mi
9:01 AM	0.7 mi	Keep RIGHT onto Ramp for 0.2 mi towards US-401-Br / Raeford Rd
9:01 AM	0.9 mi	Turn LEFT (West) onto US-401 Bus [Raeford Rd] for 2.2 mi
9:04 AM	3.1 mi	Road name changes to US-401 [Raeford Rd] for 11.1 mi
9:17 AM	14.2 mi	Turn LEFT (South-East) onto Local road(s) for 21 yds
9:18 AM	14.2 mi	Turn LEFT (North-East) onto US-401 for 0.2 mi
9:18 AM	14.4 mi	2 At FHCH, stay on US-401 (North-East) for 0.2 mi
9:19 AM	14.6 mi	Turn LEFT (North-West) onto Club Pond Rd, then immediately turn LEFT (South-West) onto US-401 for 1.7 mi
9:22 AM	16.3 mi	Road name changes to US-401 Byp for 3.9 mi
9:26 AM	20.2 mi	Turn RIGHT (West) onto SR-211 [W Prospect Ave] for 16.0 mi
9:46 AM	36.1 mi	Turn RIGHT (North) onto US-15 [US-501] for 0.3 mi
9:46 AM	36.5 mi	Bear RIGHT (North-East) onto US-1 [US-15] for 1.8 mi
9:49 AM	38.3 mi	Bear LEFT (North) onto US-15 [US-501] for 4.3 mi towards US-15 / US-501 / NC-211 / Pinehurst / Carthage
9:55 AM	42.6 mi	Turn LEFT (West) onto Memorial Dr for 0.5 mi
9:57 AM	43.1 mi	Turn LEFT (South-East) onto Local road(s) for 109 yds
9:58 AM	43.2 mi	Turn LEFT (North-East) onto Local road(s) for 32 yds
9:58 AM	43.2 mi	Bear LEFT (North-East) onto Local road(s) for 43 yds
9:58 AM	43.3 mi	3 Arrive Untitled

Petition for Adjustment to Need Determination to Adjust the Acute Care Bed Operating Room and MRI Multi-County Service Areas for Moore, Hoke, and Cumberland Counties by Applying Updated Data in Step 1 of the Defined Methodologies

I. Name, Address, Email Address, and Phone Number of Petitioner:

Cape Fear Valley Health System
Attn: Michael Nagowski, CEO
1638 Owen Drive
Fayetteville, NC 28304
(910) 609-6700
mnagowski@capefearvalley.com

II. Statement for the Proposed Adjustment

Cape Fear Valley Health System ("Cape Fear Valley") requests that the following specific adjustment be made in the 2010 State Medical Facilities Plan ("SMFP"):

1. Designating Hoke and Cumberland Counties as one multi-county service area for acute care beds, operating rooms and magnetic resonance imaging ("MRI"), as a result of updating data used to define service areas in accordance with Step 1 of the defined acute care beds and operating room methodologies and
2. Designating Moore County as a single county service area for acute care beds, operating rooms and MRI as a result of using the same updated data.

III. Background Information Regarding Petitioners

Cape Fear Valley is a non-profit regional health system with 765 beds, five hospitals, and primary care physician offices throughout Cumberland County and surrounding areas, including Hoke County and Bladen County. Cape Fear Valley Medical Center, located in Fayetteville, is an acute-care hospital offering quality care in open-heart surgery, cancer treatment, maternity services, emergency medicine, pediatric intensive care, wellness programs and more. Highsmith-Rainey Specialty Hospital, located in Fayetteville, provides long-term acute care as well as an urgent care facility. Bladen County Hospital, located in Elizabethtown, is a public, not-for-profit facility that includes a 24-hour Emergency Department, a Medical/Surgical Unit, an Intensive Care Unit and an up-to-date Birthing Center. Cape Fear Valley Rehabilitation Center is a physical rehabilitation facility offering inpatient and outpatient care for brain- and spinal-cord injured, neurologically impaired patients, stroke patients and orthopedic patients. Behavioral

Health Care is a comprehensive psychiatric hospital with inpatient and outpatient services for children, adolescents and adults.

Cape Fear Valley has physician offices located throughout Fayetteville and surrounding counties, including a medical office building, Hoke Family Medical Care, in Raeford, Hoke County. This facility is open 6 days per week and currently has 3 primary care physicians, 3 physician extenders, cardiologist coverage, Ob/Gyn coverage, Hematology coverage, Nephrology coverage, Allergy coverage, and GI coverage, and will soon be providing neurology and neurosurgery coverage.

In addition to a broad set of physician coverage in Hoke County, Cape Fear Valley provides after-hours urgent care, radiology services, EKG, pulmonary function, occupational medicine, city employees sick call, all county and city drug testing, Special Olympics participant physicals and a broad array of laboratory services to Hoke County residents.

IV. Reasons for the Proposed Adjustment

In the Proposed 2010 SMFP, Moore and Hoke Counties are grouped together as a multi-county acute care bed service area and multi-county operating room service area for purposes of determining acute care bed need and operating room need based upon Step 1 of both the Acute Care Bed Need Methodology and the Operating Room Need Methodology. (See Attachments 1 and 2—acute care bed and operating room service area maps from the Proposed 2010 SMFP, Chapters 5 and 6.[1]) In addition, the SMFP defines MRI Services Areas as being the same as Acute Care Bed Service Areas.

Acute Care Bed Service Areas

Step 1 of the Acute Care Bed Need Methodology divides the state into service areas. These service areas are defined as

> "...a single county, except where there is no hospital located within the county in which case the county or counties without a hospital are combined in a multi-county grouping with a county that has a hospital. **Multi-county groupings are determined based on the county in which the hospital or hospitals that provide the largest number of inpatient days of care to the residents of the county which has no hospital.**" [emphasis added] (Proposed 2010 SMFP, Chapter 5, Attachment 3).

The State Health Planning Section uses Thomson Reuters, a collector of hospital patient discharge information, as its data source for making the determination for the multi-county

[1] The on-line version of the Proposed 2010 SMFP does not have page numbers. Copies of those portions of the Proposed 2010 SMFP discussed herein are referenced by chapter, and the relevant pages are attached.

groupings. The Thomson Reuters data is available annually around the end of March for the previous fiscal year. **2001 (HCIA) Solucient data** was used in the 2009 SMFP and the Proposed 2010 SMFP. The Thomson Reuters data from 2008, which is the most current data available, shows that the number of inpatient days of care provided to Hoke County residents in Cumberland County was 8.6% higher than the number of Hoke County inpatient days of care provided in Moore County. The data clearly establishes that Cumberland County now has a plurality of inpatient days of care for Hoke County residents.

The data shows that in FY 2008, Hoke County residents utilized Cumberland County inpatient providers more than any inpatient providers in any other county, as shown in the following table.

Hoke County – Acute Care Inpatient Days – Excluding Newborns[2]

	FY 2005	FY 2006	FY 2007	FY 2008
Cape Fear Valley Health System (Cumberland County)	6,043	6,292	6,156	7,829
FirstHealth Moore Regional (Moore County)	6,869	7,116	6,863	6,375
Other Counties	2,272	2,752	2,971	2,729

Source: Thomson Reuters, Attachment 4

The volume of Hoke County residents seeking inpatient care in Cumberland County has increased significantly over the last four years as is evidenced by the above table. In addition, FY 2008 data reflects 7,829 Hoke County patient days in Cumberland County and 6,375 Hoke County patient days in Moore County. This increase for Cumberland County and decrease for Moore County is a continuing trend, not a one-time change, as evidenced by the graph in Attachment 5 (graph of inpatient days).

In addition, FY 2008 data reflects that by every other metric, Cape Fear Valley is providing more acute care services to Hoke County residents than FirstHealth. As reflected in the following charts, in FY 2008, there were more Hoke County (1) inpatient days when newborns were included, (2) cases without newborns, and (3) cases with newborns in Cumberland County than in Moore County.

[2] The SMFP determination of need for acute care services does not include newborn inpatient days.

	FY 2008		
	Cape Fear Valley (Cumberland)	**FirstHealth (Moore)**	**Other Counties**
Hoke County inpatients (including newborns)	8,670	6,424	2,814
Hoke County cases (excluding newborns)	1,484	1,451	443
Hoke County cases (including newborns)	1,835	1,495	463

Source: Thomson Reuters

Based on the above, grouping Moore and Hoke Counties as a multi-county service area in the Proposed 2010 SMFP is incorrect. The 2010 SMFP should be amended to correctly reflect that Hoke County residents are using Cumberland County inpatient providers to meet their acute care needs.

Surgical Service Areas

Step 1 of the Operating Room Need Methodology in the Proposed 2010 SMFP also divides the state into single county and multi-county service areas. These service areas are defined as follows:

> Multi-county groupings were determined based on surgical patient origin data from the Hospital and the Ambulatory Surgical Facility License Renewal Applications, supplemented by surgical patient origin data from Blue Cross and Blue Shield. **Counties without a facility providing operating rooms were grouped with the contiguous county, whenever possible, which served the largest reported number of surgical patients** [emphasis added]. (Proposed 2010 SMFP, Chapter 6, Attachment 6).

The Annual Hospital and Ambulatory Surgical Facility Licensure Renewal Applications show that, starting in 2007, Cumberland County surgical providers have treated more Hoke County patients than Moore County surgical providers have treated. In 2008, the difference between Cumberland and Moore Counties in the provision of surgical procedures to Hoke County residents grew even more.

A review of the applicable data for the Proposed 2010 SMFP shows that in FY 2008, Hoke County residents utilized Cumberland County operating room services more than any surgical providers in any other county. As a consequence the Surgical Service Area definitions in the 2010 SMFP should be changed so that Hoke County is combined with Cumberland County based upon Step 1 of the SMFP's Operating Room Service Area Need Methodology.

The License Renewal data used in the annual SMFP is available annually around the end of March, and therefore is the most recent data available to determine multi-county operating rooms service areas.[3] Based upon **FY 2007 data,** a Hoke-Cumberland multi-county service area should have been reflected in the 2009 SMFP. As the table below shows, the number of Hoke County surgical patients was higher in Cumberland County than Moore County in both 2007 and 2008.

Hoke County Surgical Cases

	FY 2007	FY 2008
Cumberland County Surgical Providers	1,298	1,369
Moore County Surgical Providers	1,276	1,212
Other Counties	422	423

Source: LRAs; Attachment 7

Based on the above, the 2010 SMFP should be written to designate Hoke and Cumberland Counties as a multi-county operating room service area and to designate Moore County as a single-county operating room service area. Clearly, Cumberland County surgical providers provided the plurality of care for surgical cases in 2007 and 2008 for Hoke County residents.

MRI Service Areas

The Proposed 2010 SMFP defines an MRI service area as follows:

> *A fixed MRI Service Area is the same as an Acute Care Service Area as defined in Chapter 5, Acute Care Beds, and contained in Figure 5.1. The fixed MRI Service Area is a single county, except where there is no hospital located within the county, in which case the county or counties without a hospital are combined in a multi-county grouping with a county that has a hospital. Multi-county groupings are determined based on the county in which the hospital or hospitals are located that provide the largest number of inpatient days of care to the residents of the county that has no hospital. A fixed MRI scanner's service area is the MRI service area in which the scanner is located.*

Proposed 2010 SMFP, Chapter 9, Attachment 8.

[3] According to Medical Facilities Planning staff, ***2001*** **Blue Cross/Blue Shield data,** rather than **current** data, was used in the 2009 SMFP and the Proposed 2010 SMFP to determine the multi-county operating room service areas.

Based upon this definition, Hoke and Moore Counties have been designated in the Proposed 2010 SMFP as one multi-county service area for MRI. Because Hoke and Cumberland Counties should be designated in the 2010 SMFP as one multi-county service area for acute care beds, they also should be designated as one multi-county service area for MRI. As such, Moore County should be designated as a single county service area for MRI.

V. Statement of the Adverse Effects on the Population

If the multi-county service areas are not adjusted, there will be a misalignment of the health service areas that will restrict Hoke County residents' access to health care. Hoke County is growing rapidly as a result of the expanding military population associated with Fort Bragg. Cape Fear Valley is working with Fort Bragg representatives to meet the needs of this population. Correcting the multi-county service area designation will allow the development of expanded services for residents of Hoke County in Hoke County, by allowing those Hoke County residents to continue to use resources at Cape Fear Valley. Cape Fear Valley is committed to continue providing high quality healthcare services to residents of Hoke County.

VI. Statement of the Alternatives Considered

There are no alternatives to this proposal. The Petitioners are seeking to have the 2010 SMFP reflect the correct distribution of health care provided to the residents of Hoke County under the procedures established under the SMFP methodologies.

VII. The Project Would Not Result in an Unnecessary Duplication of Services

The Petitioners are not requesting additional resources. They are requesting that the 2010 SMFP correctly reflect what the most current and accurate data shows, which is that Hoke County should be in a multi-county grouping with Cumberland County for acute care bed need, operating room need and MRI need planning purposes.

VIII. The Project is Consistent with the Three Basic Principles Governing the Development of the SMFP

The petition is consistent with the provisions of the Basic Principles. A proper alignment of acute care bed, operating room and MRI service areas ensures that the high quality services provided by Cape Fear Valley will continue to be available to Hoke County residents and that Cape Fear Valley will have the ability to improve geographic access to services for residents of Hoke County. As a result of the Department of Defense's Base Realignment and Closure (BRAC), Fort Bragg will significantly expand, resulting in further growth of the population of

eastern Hoke County and southwestern Cumberland County, along the Cumberland County-Hoke County line. As reflected in the data discussed above, the current population of Hoke County has chosen Cumberland County providers as the providers of choice. The excellent roads and geographic proximity assures continued safe delivery of these services in a timely fashion.

The population of Hoke County now and following the implementation of BRAC indicates that the vast majority of Hoke County residents will be living closer to Cape Fear Valley. Travel safety, access, and the availability of the high quality care provided at Cape Fear Valley all establish that the proposed realignment of Hoke County with Cumberland County supports the Basic Principles.

IX. Conclusion

The Petitioners are requesting an adjustment of need in the SMFP, based upon Step 1 of the relevant need methodologies, to designate Hoke and Cumberland Counties as one multi-county service area for acute care beds, operating rooms and MRI, and to terminate the Hoke-Moore multi-county acute care bed, operating room and MRI service area.

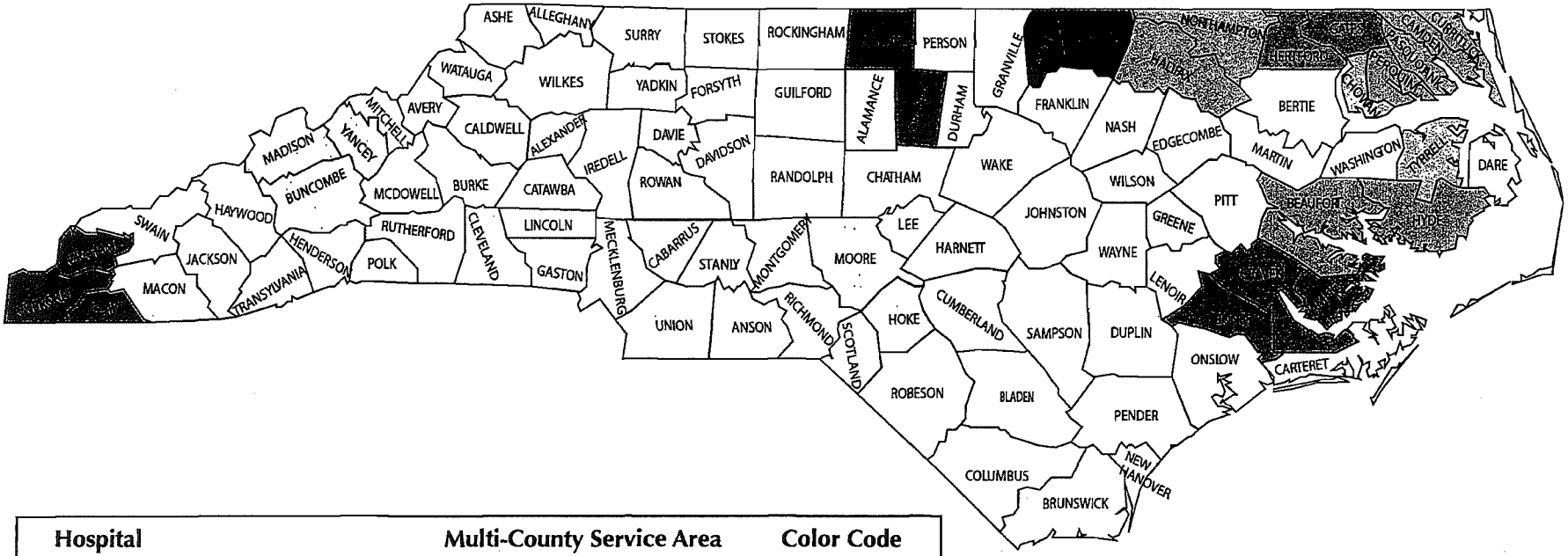
The current multi-county acute care bed and operating room service areas are incorrectly based on outdated data used in Step 1 of the methodologies. The Petitioners request that the State Health Coordinating Council adjust the need determination as requested so that the appropriate local providers can better serve the health care needs of the community. Therefore, the Petitioners request a specific adjustment in the 2010 SMFP approving their request to:

1. Designate Hoke and Cumberland Counties as one multi-county service area for acute care beds, operating rooms, and MRI, and

2. Terminate the Hoke-Moore County multi-county acute care bed, operating room and MRI service area.

INDEX:
CAPE FEAR VALLEY PETITION 2010

Figure 5.1: Acute Care Bed Service Areas



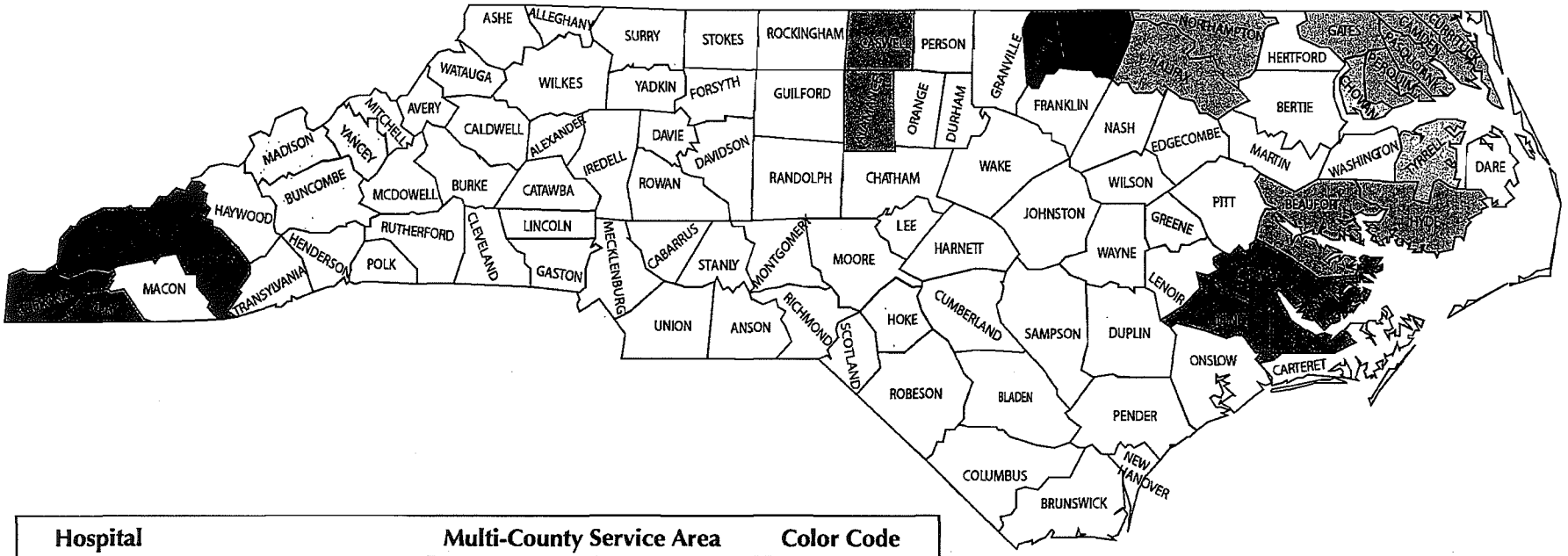
Hospital	Multi-County Service Area	Color Code
Murphy Medical Center	Cherokee, Clay and Graham	
Mission Hospitals	Buncombe, Madison and Yancey	
First Health Moore Regional	Moore and Hoke	
University of North Carolina Hospital	Orange and Caswell	
Maria Parham Hospital	Vance and Warren	
Our Community Hospital and Halifax Regional Medical Center	Halifax and Northampton	
Pitt County Memorial Hospital	Pitt and Greene	
Craven Regional Medical Center	Craven, Jones and Pamlico	
Pungo District Hospital Corporation and Beaufort County Hospital	Beaufort and Hyde	
Roanoke-Chowan Hospital	Hertford and Gates	
Chowan Hospital	Chowan and Tyrell	
Albemarle Hospital	Pasquotank, Camden, Currituck and Perquimans	

Shaded counties are multi-county acute-care bed service areas, consisting of a county with one or more hospitals and a nearby county or counties without an acute care hospital. Counties without acute care hospitals were grouped with the county where a plurality of residents were served.
Source: 2001 (HCIA) Solucient data

2009 - Attachment 6

Attachment 1

Figure 6.1: Operating Room Service Areas



Hospital	Multi-County Service Area	Color Code
Murphy Medical Center	Cherokee and Clay	
Harris Regional Hospital	Jackson, Graham and Swain	
Mission Hospitals	Buncombe, Madison and Yancey	
First Health Moore Regional	Moore and Hoke	
Alamance Regional Hospital	Alamance and Caswell	
Maria Parham Hospital	Vance and Warren	
Our Community Hospital and Halifax Regional Medical Center	Halifax and Northampton	
Pitt County Memorial Hospital	Pitt and Greene	
Craven Regional Medical Center	Craven, Jones and Pamlico	
Pungo District Hospital Corporation and Beaufort County Hospital	Beaufort and Hyde	
Chowan Hospital	Chowan and Tyrell	
Albemarle Hospital	Pasquotank, Camden, Currituck Gates and Perquimans	

Shaded counties are multi-county operating room service areas consisting of a county with one or more licensed facilities with operating rooms and a county or counties with no licensed facilities with operating rooms. Counties with no licensed facilities with operating rooms were grouped with the nearest county where a plurality of residents were served.

Attachment 2

2009 - Attachment 8

Basic Assumptions of the Methodology

- Target occupancies of hospitals should encourage efficiency of operation, and vary with average daily census:

Average Daily Census	Target Occupancy of Licensed Acute Care Beds
1 - 99	66.7 %
100 - 200	71.4 %
Greater than 200	75.2 %

- In determining utilization rates and average daily census, only acute care bed "days of care" are counted.

- If a hospital has received approval to increase or decrease acute care bed capacity, this change is incorporated into the anticipated bed capacity regardless of the licensure status of the beds.

Application of the Methodology

Step 1

The Acute Care Bed Service Area is a single county, except where there is no hospital located within the county in which case the county or counties without a hospital are combined in a multi-county grouping with a county that has a hospital. Multi-county groupings are determined based on the county in which the hospital or hospitals that provide the largest number of inpatient days of care to the residents of the county which has no hospital. Data to determine patient's county of residence (based on the Thomson data) that is used to establish the multi-county groupings were provided by the Sheps Center. *(Note: An acute care bed's service area is the acute care bed planning area in which the bed is located. The acute care bed planning areas are the single and multi-county groupings shown in Figure 5.1.)*

Step 2 *(Columns D and E)*

Determine the number of acute care beds in the inventory by totaling:

(Column D)

(a) the number of licensed acute care beds at each hospital;

(Column E)

(b) the number of acute care beds for which certificates of need have been issued, but for which changes in the license have not yet been made (i.e., additions, reductions, and relocations); and

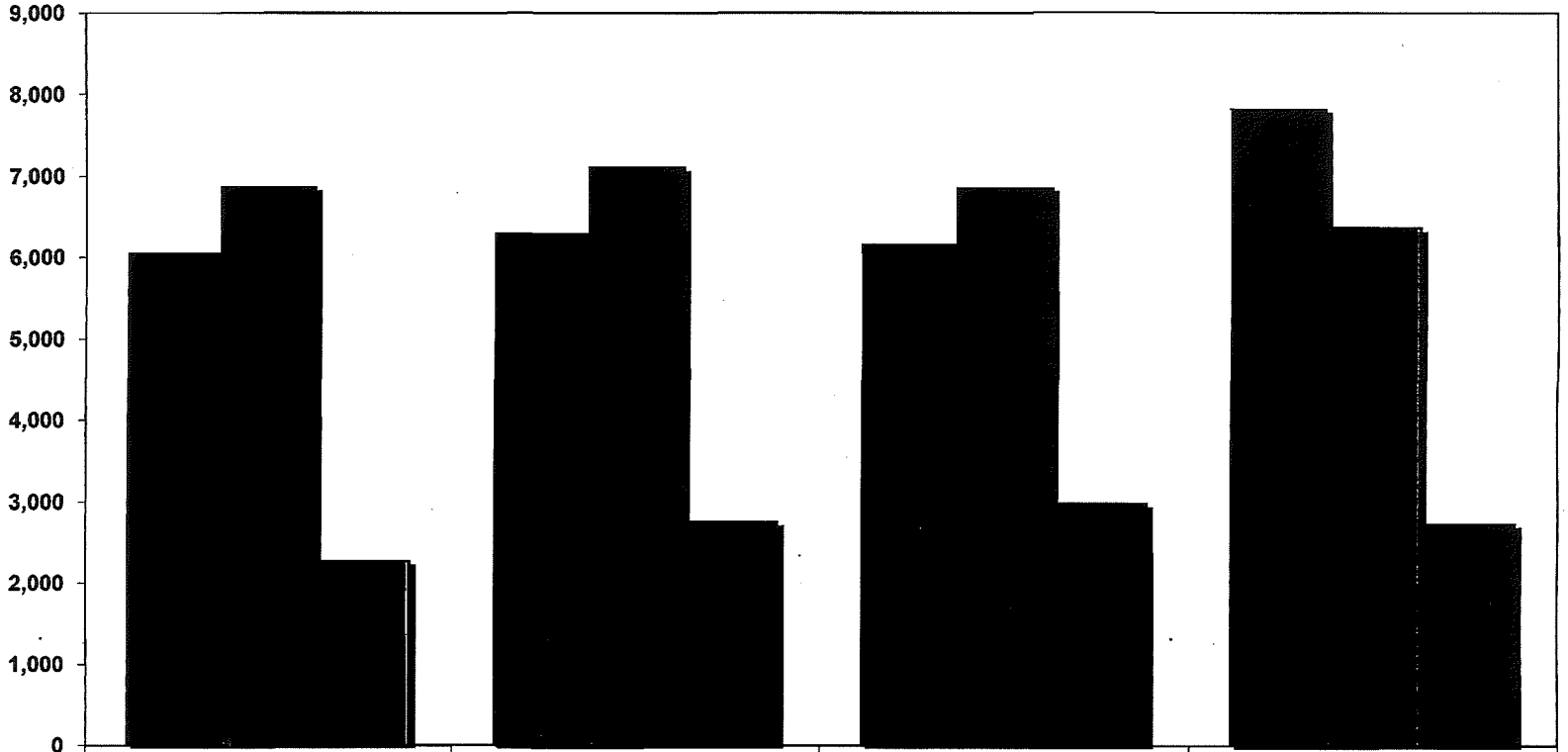
(c) the number of acute care beds for which a need determination in the SMFP is pending review or appeal.

Step 3 *(Column F)*

Determine the total number of acute inpatient days of care provided by each hospital based on the data contained in the above referenced report for Federal Fiscal Year 2008. *(Please see note in "Sources of Data" regarding identification of general acute days of care.)*

Attachment 3

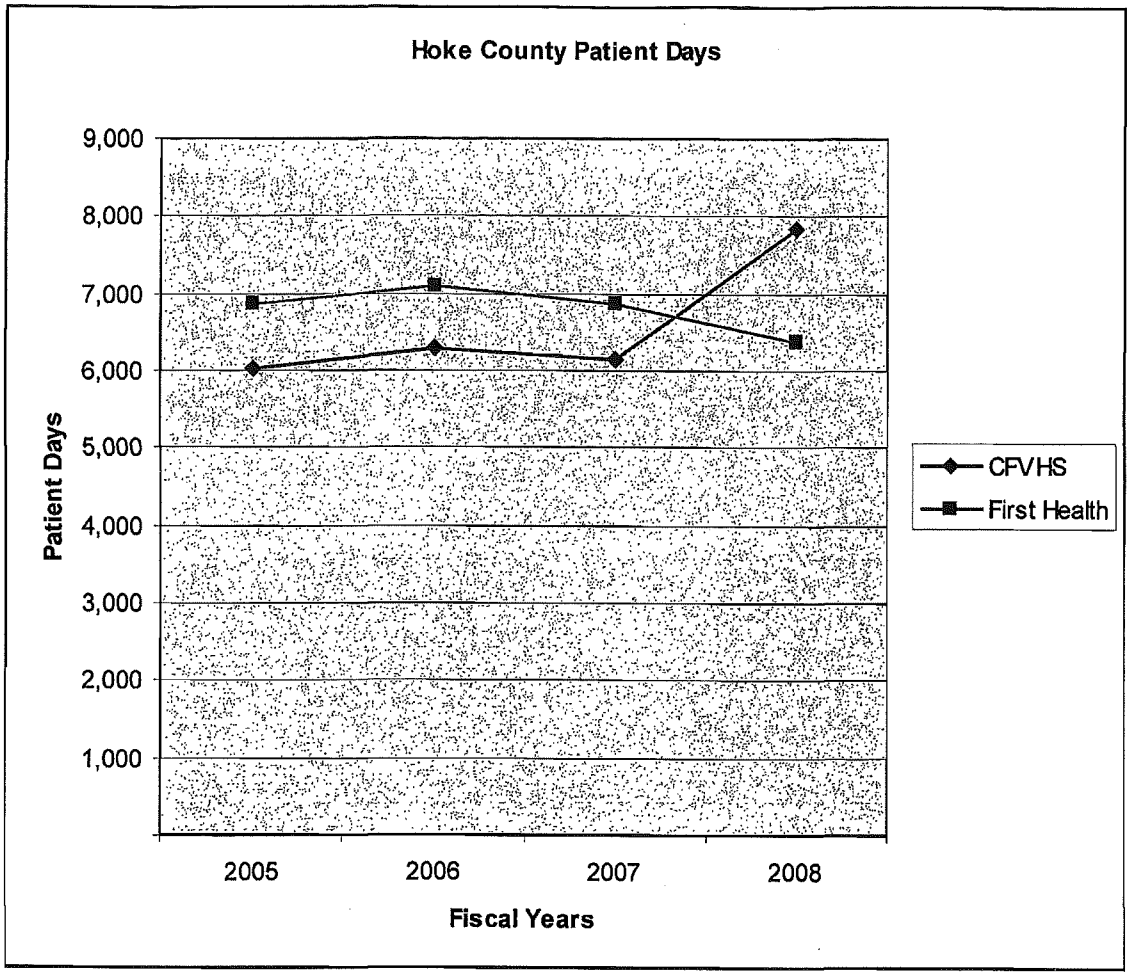
Hoke County - *Patient Days*
(Excludes Normal Newborns)



	FY05 Actual	FY06 Actual	FY07 Actual	FY08 Actual
Cape Fear	6,043	6,292	6,156	7,829
FirstHealth	6,869	7,116	6,863	6,375
All Other	2,272	2,752	2,971	2,729

Attachment 4

2009 - Attachment 9



Attachment

5

Methodology for Projecting Operating Room Need

The following narrative describes the assumptions and methodology used in determining the operating room inventory and in projecting need for additional operating room capacity. The objective of the methodology is to arrive at a reasonable assessment of the adequacy of current resources for performing surgery, compared with an estimate of need for additional capacity.

Step 1 – Delineation of Service Areas *(Column A)*

Each county is a separate Operating Room Service Area except where there is no licensed facility with an operating room located within the county, in which case the county or counties without a licensed facility providing operating rooms are combined in a multi-county grouping with a county that has at least one licensed facility with an operating room. Multi-county groupings were determined based on surgical patient origin data from the Hospital and the Ambulatory Surgical Facility License Renewal Applications, supplemented by surgical patient origin data from Blue Cross and Blue Shield. Counties without a facility providing operating rooms were grouped with the contiguous county, whenever possible, which served the largest reported number of surgical patients. In 2006, in response to an adjusted need determination petition, the State Health Coordinating Council added Swain County to the Jackson-Graham Multi-County Operating Room Service Area. This created a Multi-County Operating Room Service Area including two counties with operating rooms and one county without operating rooms. *(Note: An operating room's service area is the operating room planning area in which the operating room is located. The operating room planning areas are the single and multi-county groupings shown in Figure 6.1. For the Proposed 2010 Plan, the State Health Coordinating Council has identified three additional operating room service areas specifically for the Single Specialty Ambulatory Surgery Demonstration Project, which is described in Table 6D.*

Step 2 – Estimate the Total Surgery Hours for the Previous Year *(Columns B through H)*

Estimate the total number of surgery hours performed during the previous fiscal year based on reported cases by type from Annual License Renewal Applications, as follows:

(a) Sum the number of inpatient surgical cases reported in the Inpatient Cases column of the "Surgical Cases by Specialty Area" table on the annual Hospital License Renewal Applications for all licensed facilities within the OR Service Area. *(NOTE: Cases performed in Dedicated C-Section Rooms; cases reported as "Trauma Cases" by Level I or II Trauma Centers; and cases reported by designated "Burn Intensive Care Units" are excluded for purposes of these need projections.)* Multiply the total number of inpatient cases by three hours to estimate the number of hours utilized for inpatient cases. *(Column B * Column C = Column D)*

(b) Sum the number of ambulatory surgical cases reported in the Ambulatory Cases column of the "Surgical Cases by Specialty Area" table on the annual Hospital License Renewal Applications and the number of Surgical Cases reported on the annual Ambulatory Surgical Facility License Renewal Applications for all licensed facilities within the OR Service Area. Multiply the total number of ambulatory cases by 1.5 hours to estimate the number of hours utilized for ambulatory cases. *(Column E * Column F = Column G)*

Attachment 6

FY 2007 - 2008 LRA					
Outpatient	Cases	Percent	Inpatient Surgery	Cases	Percent
Surgery Center of Pinehurst	550	25.3%	Cape Fear Valley Medical Center	350	42.3%
Fayetteville AmSurg Center	517	23.7%	FirstHealth Moore Regional Hospital	315	38.1%
Cape Fear Valley Medical Center	332	15.3%	University of North Carolina Hospitals	76	9.2%
FirstHealth Moore Regional Hospital	262	12.0%	Duke University Hospital	16	1.9%
The Eye Surgery Center of the Carolinas	149	6.8%	Sandhills Regional Medical Center	12	1.5%
University of North Carolina Hospitals	101	4.6%	WakeMed	12	1.5%
Highsmith-Rainey Memorial Hospital	97	4.5%	Scotland Memorial Hospital and Edwin Morgan Center	9	1.1%
Duke University Hospital	44	2.0%	Southeastern Regional Medical Center	9	1.1%
Scotland Memorial Hospital and Edwin Morgan Center	25	1.1%	Kindred Hospital-Greensboro	5	0.6%
Southeastern Regional Medical Center	16	0.7%	North Carolina Baptist Hospital	5	0.6%
WakeMed	15	0.7%	Carolinas Med. Center-Center for Mental Health	3	0.4%
Raleigh Women's Health Organization	9	0.4%	Lenoir Memorial Hospital	3	0.4%
Sandhills Regional Medical Center	8	0.4%	Highsmith-Rainey Memorial Hospital	2	0.2%
Duke Health Raleigh Hospital	7	0.3%	New Hanover Regional Medical Center	2	0.2%
Betsy Johnson Regional Hospital	5	0.2%	Craven Regional Medical Center	1	0.1%
Central Carolinas Hospital	5	0.2%	Duke Health Raleigh Hospital	1	0.1%
North Carolina Baptist Hospital	4	0.2%	Durham Regional Hospital	1	0.1%
Rex Hospital	4	0.2%	FirstHealth Richmond Memorial Hospital	1	0.1%
WakeMed Cary Hospital	4	0.2%	Forsyth Memorial Hospital	1	0.1%
Moses Cone Health System	3	0.1%	North Carolina Specialty Hospital	1	0.1%
North Carolina Specialty Hospital	3	0.1%	Pitt County Memorial Hospital	1	0.1%
Charlotte Surgery Center	3	0.1%	Rex Hospital	1	0.1%
Surgical Center of Greensboro	3	0.1%			
Surgicenter Services of Pitt, Inc.	2	0.1%			
Carolinas Medical Center-University	1	0.0%			
Johnston Memorial Hospital	1	0.0%			
Maria Parham Medical Center	1	0.0%			
Pitt County Memorial Hospital	1	0.0%			
Presbyterian Orthopedic Hospital	1	0.0%			
Sampson Regional Medical Center	1	0.0%			
Wilson Medical Center	1	0.0%			
HealthSouth Blue Ridge Surgery Center	1	0.0%			
James E. Davis Ambulatory Surgical	1	0.0%			
Total Outpatient	2,177	100.0%	Total Inpatient	827	100.0%
Total Cumberland County	946	43.5%	Total Cumberland County	352	42.3%
Total Moore County	961	44.1%	Total Moore County	315	38.1%
Total All Other	270	12.4%	Total All Other	160	19.6%
			Total Combined Inpt and Outpt	3,004	
			Total Cumberland County	1,298	43.2%
			Total Moore County	1,276	42.5%
			Total All Other	430	14.3%

Attachment 7

FY 2007

FY 2008 - 2009 LRA					
Outpatient	Cases	Percent	Inpatient Surgery	Cases	Percent
Fayetteville AmSurg Center	648	30.3%	Cape Fear Valley Medical Center	356	41.7%
Surgery Center of Pinehurst	492	23.0%	FirstHealth Moore Regional Hospital	335	39.2%
Cape Fear Valley Medical Center	263	12.3%	University of North Carolina Hospitals	70	8.2%
FirstHealth Moore Regional Hospital	230	10.7%	Duke University Hospital	33	3.9%
The Eye Surgery Center of the Carolinas	155	7.2%	Scotland Memorial Hospital and Edwin Morgan Center	11	1.3%
University of North Carolina Hospitals	99	4.6%	Southeastern Regional Medical Center	9	1.1%
Highsmith-Rainey Memorial Hospital	94	4.4%	Highsmith-Rainey Memorial Hospital	8	0.9%
Duke University Hospital	32	1.5%	New Hanover Regional Medical Center	6	0.7%
North Carolina Specialty Hospital	28	1.3%	Sandhills Regional Medical Center	4	0.5%
Scotland Memorial Hospital and Edwin Morgan Center	24	1.1%	Kindred Hospital-Greensboro	3	0.4%
Southeastern Regional Medical Center	15	0.7%	North Carolina Baptist Hospital	3	0.4%
Rex Hospital	10	0.5%	North Carolina Specialty Hospital	3	0.4%
Wilmington SurgCare	7	0.3%	FirstHealth Montgomery Memorial Hospital	2	0.2%
Raleigh Women's Health Organization	6	0.3%	FirstHealth Richmond Memorial Hospital	2	0.2%
Duke Health Raleigh Hospital	5	0.2%	WakeMed Cary Hospital	2	0.2%
Betsy Johnson Regional Hospital	4	0.2%	Carolinas Med. Center-Center for Mental Health	1	0.1%
Charlotte Surgery Center	4	0.2%	Duke Health Raleigh Hospital	1	0.1%
North Carolina Baptist Hospital	3	0.1%	High Point Regional Health System	1	0.1%
WakeMed	3	0.1%	Moses Cone Health System	1	0.1%
Medical Park Hospital	2	0.1%	Rex Hospital	1	0.1%
Moses Cone Health System	2	0.1%	Sampson Regional Medical Center	1	0.1%
James E. Davis Ambulatory Surgical	2	0.1%	WakeMed	1	0.1%
Brunswick Community Hospital	1	0.0%			
Carolinas Med. Center-NorthEast, Inc.	1	0.0%			
Carolinas Med. Center-Center for Mental Health	1	0.0%			
Central Carolinas Hospital	1	0.0%			
Duplin General Hospital	1	0.0%			
Durham Regional Hospital	1	0.0%			
High Point Regional Health System	1	0.0%			
Roanoke-Chowan Hospital	1	0.0%			
Sampson Regional Medical Center	1	0.0%			
Wayne Memorial Hospital	1	0.0%			
Blue Ridge	1	0.0%			
Chapel Hill Surgical Center	1	0.0%			
Total Outpatient	2,140	100.0%	Total Inpatient	854	100.0%
Total Cumberland County	1,005	47.0%	Total Cumberland County	364	41.7%
Total Moore County	877	41.0%	Total Moore County	335	39.2%
Total All Other	258	12.1%	Total All Other	155	19.1%
			Total Combined Inpt and Outpt	2,994	
			Total Cumberland County	1,369	45.7%
			Total Moore County	1,212	40.5%
			Total All Other	413	13.8%

Attachment 7

FY 2008

Fixed MRI Units

Fixed MRI scanner means an MRI scanner that is not a mobile MRI scanner. The principal capital expenditure issue with respect to fixed MRI units is the volume of procedures, which warrants the acquisition of an additional magnet.

Definition of an MRI Service Area

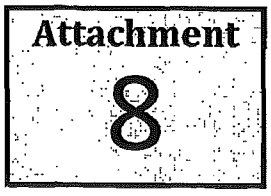
A fixed MRI Service Area is the same as an Acute Care Bed Service Area as defined in Chapter 5, Acute Care Beds, and contained in Figure 5.1. The fixed MRI Service Area is a single county, except where there is no hospital located within the county, in which case, the county or counties without a hospital are combined in a multi-county grouping with a county that has a hospital. Multi-county groupings are determined based on the county in which the hospital or hospitals are located that provide the largest number of inpatient days of care to the residents of the county that has no hospital. A fixed MRI scanner's service area is the MRI service area in which the scanner is located.

Basic Assumptions of the Methodology

1. Facilities that currently offer mobile MRI services, but have received the transmittal of a certificate of need for a fixed MRI scanner are included in the inventory as a fixed MRI scanner in Table 9K.
2. A placeholder of one MRI scanner is placed in Table 9K for each new fixed MRI scanner for which a certificate of need has been issued even if the scanner is not operational. All procedures performed by a single licensed entity are counted as performed at a single site, even if MRI services are provided at more than one site.
3. The need determination for any one Service Area under the methodology for Fixed MRI Scanner Utilization shall not exceed one MRI scanner per year, unless there is an adjusted need determination approved for a specific MRI Service Area.
4. A facility that offers MRI services on a full-time basis pursuant to a service agreement with an MRI provider is not precluded from applying for a need determination in the North Carolina 2010 State Medical Facilities Plan to replace the existing contracted service with a fixed MRI scanner under the applicant's ownership and control. It is consistent with the purposes of the certificate of need law and the State Medical Facilities Plan for a facility to acquire and operate an MRI scanner to replace such a contracted service, if the acquisition and operation of the facility's own MRI scanner will allow the facility to reduce the cost of providing the MRI service at that facility.

Methodology for Determining Need

The methodology includes need thresholds arranged in tiers based on the number of scanners, weighting of procedures based on complexity, and a component addressing MRI service areas that have no fixed MRIs, but have mobile MRI scanners serving the area. The methodology for determining need is based on fixed and mobile procedures performed at hospitals and freestanding facilities with fixed MRI scanners and procedures performed on mobile MRI scanners at mobile sites in the MRI service areas. In addition, equivalent values for mobile scanners in MRI service areas are found in the column labeled Fixed Equivalent in Table 9K.



GMK
ARCHITECTURE

Architecture

Engineering

Interior Design

Design-Build

Construction Services

July 29, 2009

Ms. Sandy T. Godwin
Executive Director of Corporate Planning
Cape Fear Valley Health Systems
1638 Owens Drive
Fayetteville, North Carolina 28302

Dear Ms. Godwin:

In response to your request for an opinion relative to the comparative costs of constructing an 8 bed hospital versus a forty-one bed hospital we offer the following assessment after reviewing theinformation we received for both projects. On the surface given the proposed budgets for the two competing projects simple mathematics indicates that the proposed 8 licensed bed hospital is proposed at a capital cost of 35 Million dollars which translates into a cost per bed of 4.375 Million dollars. Alternatively, the proposed 41 licensed bed hospital at a proposed capital cost of 89 Million dollars translates into a cost per bed of 2.170 Million dollars or approximately half the cost of the first project. This is but the tip of the iceberg, however.

In each case the ancillary service departments provided must be comparable. There is a certain critical mass of services that must be provided regardless of the number of inpatient beds to be licensed. The capacity of the radiology department for example must include a full complement of services as reflected in the seven fixed and two mobile modalities proposed for the 8 bed scheme. Staffing such a department for a maximum of eight patients is highly unproductive. Nonetheless, once the decision is made to include inpatients, observation beds and operating suites the department must be staffed 24 hours per day seven days per week. This, notwithstanding the fact that outpatient utilization will be limited at best to five and one half days per week at a maximum of 8 to 12 hours per day. On the other hand the 41 bed hospital provides a sufficient occupancy level to justify such a full service Radiology department due to potential volumes per the number of inpatient beds.

In surgery, we note that the 8 bed hospital contemplates the provision of one Operating Suite. This is highly inefficient as the turnaround time for procedures will severely impact throughput in a one room suite. Additionally, any need for surgery precipitated by the Emergency Department will effectively shut down surgery for the duration of the case causing a severe depletion in potential revenue gained from surgical procedures. The competitive proposal with two operating suites effectively neutralizes this defect and offers enhanced opportunities for inpatient as well as outpatient surgery and a far more efficient utilization of Operating Suite staff.

In the area of patient support services such as medication stations, nourishment soiled and clean utility rooms and nursing stations the 8 bed facility is at a distinct disadvantage. These services are of necessity dictate by code and best practice to have a certain minimum size. One of each of these services can easily support up to 20 beds. Once again the cost of these elements on a per bed basis is roughly halved for the 41 bed facility when compared to that of the 8 bed alternative.

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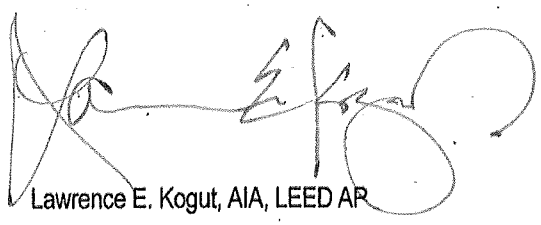
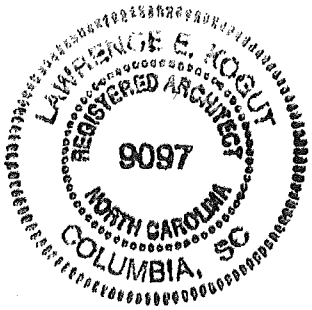
In summary, it is our considered opinion that the creation of an 8 bed hospital is an extremely inefficient use of resources. We note in further support of this conclusion that in the prototype for Critical Access Hospitals of the U.S. Department of Health and Human Services the smallest approved prototype is for 15 beds which utilizes the same basic chassis as that proposed for the 25 bed version.

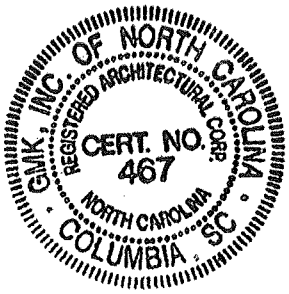
If you should have any questions regarding this information, please do not hesitate to call me at your earliest convenience. It is a pleasure working with you.

Sincerely,

GMK Associates Architectural Division Inc.







Lawrence E. Kogut, AIA, LEED AP
Director of Architecture
North Carolina Registration No. 9097
North Carolina Registered Architectural Corp. No. 467

C: File

Mike Regenhardt, CFVHS
Fred McMillan, CFVHS
Val Satko, GMKA
Danny Owens, GMKA

GMK
ASSOCIATES, INC.

	Application filed 6/15/09			Application filed 4/15/10		
	10/01/11 09/30/12	**10/01/12 09/30/13**	**10/02/13 09/30/14**	**10/01/12 09/30/13**	**10/02/13 09/30/14**	**10/02/14 09/30/15**
# of ED Visits	6,884	7,219	7,513	7,482	7,706	7,932
# of IP Cases	691	725	755	713	735	756
# of Obs Cases	966	1,013	1,055	959	988	1,017
# of Imaging Proc (IP/OP)	18,432	21,120	23,837	17,825	20,248	22,762
# of IP Surgical Cases	63	63	63	65	67	69
# of OP Surgical Cases	718	718	718	393	471	550
Total Utilization	27,754	30,858	33,941	27,437	30,215	33,086
Total IP Cases	754	788	818	778	802	825
Pt Days	2,143	2,144	2,145	2,011	2,077	2,344
ALOS	2.84	2.72	2.62	2.58	2.59	2.84
ADC	5.86	5.87	5.88	5.51	5.69	6.42
Revenue						
Gross Pt Rev						
SP/Charity	3,764,601	4,284,137	4,822,064	3,325,097	3,739,052	4,184,676
Medicare	17,400,555	19,540,833	21,733,761	15,429,861	17,370,711	19,451,616
Medicaid	6,058,979	6,688,632	7,320,947	6,980,586	7,742,313	8,555,357
Commercial Ins	1,850,476	2,040,127	2,230,185	1,871,631	2,173,202	2,499,461
Managed Care	7,602,002	8,896,060	10,256,997	9,362,602	10,541,002	11,805,740
Other	2,019,058	2,304,747	2,600,297	1,732,906	1,956,661	2,196,007
Total	38,695,671	43,754,536	48,964,251	38,702,683	43,522,941	48,692,857
Deducations						
Charity Care	3,345,752	3,790,492	4,249,478	3,007,019	3,334,157	3,684,778
Medicare	12,169,163	13,760,367	15,400,520	9,900,041	11,282,238	12,771,714
Medicaid	4,601,811	5,079,915	5,559,990	5,452,214	5,954,403	6,486,426
Commercial	168,763	200,121	233,349	425,505	586,680	764,260
Managed Care	2,965,839	3,504,823	4,074,335	3,752,211	4,427,341	5,161,479
Other	1,161,735	1,338,285	1,522,286	1,205,703	1,365,130	1,536,156
Bad Debt	1,083,479	1,225,127	1,370,999	1,083,675	1,218,642	1,363,400
Total	25,496,542	28,899,130	32,410,957	24,826,368	28,168,591	31,768,213
Ded %	65.89%	66.05%	66.19%	64.15%	64.72%	65.24%
Charity Care %	8.65%	8.66%	8.68%	7.77%	7.66%	7.57%
Bad Debt %	2.80%	2.80%	2.80%	2.80%	2.80%	2.80%
Net Pt Rev	13,199,129	14,855,406	16,553,294	13,876,315	15,354,350	16,924,644
Total Rev	13,199,129	14,855,406	16,553,294	13,876,315	15,354,350	16,924,644

	Application filed 6/15/09			Application filed 4/15/10		
	10/01/11 09/30/12	10/01/12 09/30/13	10/02/13 09/30/14	10/01/12 09/30/13	10/02/13 09/30/14	10/02/14 09/30/15
Expenses						
Direct						
Salaries - Clinical	6,347,811	6,665,201	6,998,461	6,100,689	6,344,716	6,598,505
Salaries - Other	1,704,728	1,789,965	1,879,463	1,722,836	1,791,749	1,863,419
Total Salaries	8,052,539	8,455,166	8,877,924	7,823,525	8,136,465	8,461,924
Payroll Taxes and Ben	1,932,609	2,029,240	2,130,702	1,916,764	1,993,434	2,073,171
Medical Supplies	1,414,116	1,650,856	1,906,552	1,446,753	1,649,000	1,868,886
Medical and Other Supplies	319,460	372,941	430,705	326,775	372,456	422,121
Food and Nutrition	275,900	289,695	304,180	285,557	295,551	305,896
Total Direct	11,994,624	12,797,898	13,650,063	11,799,374	12,446,906	13,131,998
Indirect						
Housekeeping	62,436	65,558	68,836	64,434	66,689	69,024
Equip Maint	110,000	469,130	469,130	10,785	387,317	387,317
Building and Grounds	39,000	40,950	42,998	40,365	41,778	43,240
Utilities	375,766	394,555	414,282	388,603	402,204	416,281
Overhead	844,463	950,430	1,059,058	901,961	998,033	1,100,102
Capitalized Expense	90,000	90,000	90,000	110,000	110,000	110,000
Depreciation - Bldg	525,806	525,806	525,806	515,168	515,168	515,168
Depreciation - Equip	673,626	1,347,251	1,347,251	687,458	1,374,916	1,374,916
Total Indirect	2,721,097	3,883,680	4,017,361	2,718,774	3,896,105	4,016,048
Total Expenses	14,715,721	16,681,578	17,667,424	14,518,148	16,343,011	17,148,046
Net Income	(1,516,592)	(1,826,172)	(1,114,130)	(641,833)	(988,661)	(223,402)

Notes:
Items in green were added to the presented data along with the variance data
1) on 6-15-09 app, the labels were typed wrong, IP should have been OP and OP should have been IP, verified in Forms D and E
2) under variance data, ED visits grew, imaging and OP surg declined
3) under variance data, gross rev did not change much so I completed review on Gross Revenue, found that ED per case dropped but other services increased, see Gross Revenue Review tab

Total utilization #	27,754	30,858	33,941	27,437	30,215	33,086
Net Rev total utilization #	476	481	488	506	508	512
Exp total utilization #	530	541	521	529	541	518
	(55)	(59)	(33)	(23)	(33)	(7)
	(1,516,592)	(1,826,172)	(1,114,130)	(641,833)	(988,661)	(223,402)

Attachment 3

	Application filed 6/15/09			Application filed 4/15/10			Variance		Variance		Var	Var	Var
	10/01/11	10/01/12	10/02/13	10/01/12	10/02/13	10/02/14	10/01/12		10/02/13		Year	Year	Year
	09/30/12	09/30/13	09/30/14	09/30/13	09/30/14	09/30/15	09/30/13		09/30/14		1	2	3
# of ED Visits	6,884	7,219	7,513	7,482	7,706	7,932	263	3.6%	193	2.6%	598	487	419
# of IP Cases	691	725	755	713	735	756	(12)	-1.7%	(20)	-2.6%	22	10	1
# of Obs Cases	966	1,013	1,055	959	988	1,017	(54)	-5.3%	(67)	-6.4%	(7)	(25)	(38)
# of Imaging Proc (IP/OP)	18,432	21,120	23,837	17,825	20,248	22,762	(3,295)	-15.6%	(3,589)	-15.1%	(607)	(872)	(1,075)
# of IP Surgical Cases	63	63	63	65	67	69	2	3.2%	4	6.3%	2	4	6
# of OP Surgical Cases	718	718	718	393	471	550	(325)	-45.3%	(247)	-34.4%	(325)	(247)	(168)
Total Utilization	27,754	30,858	33,941	27,437	30,215	33,086	(3,421)	-11.1%	(3,726)	-11.0%	(317)	(643)	(855)
Total IP Cases	754	788	818	778	802	825	(10)	-1.3%	(16)	-2.0%	24	14	7
Pt Days	2,143	2,144	2,145	2,011	2,077	2,344	(133)	-6.2%	(68)	-3.2%	(132)	(67)	199
ALOS	2.84	2.72	2.62	2.58	2.59	2.84	(0.14)		(0.03)		(0.26)	(0.13)	0.22
ADC	5.86	5.87	5.88	5.51	5.69	6.42	(0.36)		(0.19)		(0.35)	(0.18)	0.55
Revenue													
Gross Pt Rev													
SP/Charity	3,764,601	4,284,137	4,822,064	3,325,097	3,739,052	4,184,676	(959,040)	-22.39%	(1,083,012)	-22.46%	(439,504)	(545,085)	(637,388)
Medicare	17,400,555	19,540,833	21,733,761	15,429,861	17,370,711	19,451,616	(4,110,972)	-21.04%	(4,363,050)	-20.07%	(1,970,694)	(2,170,122)	(2,282,145)
Medicaid	6,058,979	6,688,632	7,320,947	6,980,586	7,742,313	8,555,357	291,954	4.36%	421,366	5.76%	921,607	1,053,681	1,234,410
Commercial Ins	1,850,476	2,040,127	2,230,185	1,871,631	2,173,202	2,499,461	(168,496)	-8.26%	(56,983)	-2.56%	21,155	133,075	269,276
Managed Care	7,602,002	8,896,060	10,256,997	9,362,602	10,541,002	11,805,740	466,542	5.24%	284,005	2.77%	1,760,600	1,644,942	1,548,743
Other	2,019,058	2,304,747	2,600,297	1,732,906	1,956,661	2,196,007	(571,841)	-24.81%	(643,636)	-24.75%	(286,152)	(348,086)	(404,290)
Total	38,695,671	43,754,536	48,964,251	38,702,683	43,522,941	48,692,857	(5,051,853)	-11.55%	(5,441,310)	-11.11%	7,012	(231,595)	(271,394)
											0	0	0
Deducations											0	0	0
Charity Care	3,345,752	3,790,492	4,249,478	3,007,019	3,334,157	3,684,778	(783,473)	-20.67%	(915,321)	-21.54%	(338,733)	(456,335)	(564,700)
Medicare	12,169,163	13,760,367	15,400,520	9,900,041	11,282,238	12,771,714	(3,860,326)	-28.05%	(4,118,282)	-26.74%	(2,269,122)	(2,478,129)	(2,628,806)
Medicaid	4,601,811	5,079,915	5,559,990	5,452,214	5,954,403	6,486,426	372,299	7.33%	394,413	7.09%	850,403	874,488	926,436
Commercial	168,763	200,121	233,349	425,505	586,680	764,260	225,384	112.62%	353,331	151.42%	256,742	386,559	530,911
Managed Care	2,965,839	3,504,823	4,074,335	3,752,211	4,427,341	5,161,479	247,388	7.06%	353,006	8.66%	786,372	922,518	1,087,144
Other	1,161,735	1,338,285	1,522,286	1,205,703	1,365,130	1,536,156	(132,582)	-9.91%	(157,156)	-10.32%	43,968	26,845	13,870
Bad Debt	1,083,479	1,225,127	1,370,999	1,083,675	1,218,642	1,363,400	(141,452)	-11.55%	(152,357)	-11.11%	196	(6,485)	(7,599)
Total	25,496,542	28,899,130	32,410,957	24,826,368	28,168,591	31,768,213	(4,072,762)	-14.09%	(4,242,366)	-13.09%	(670,174)	(730,539)	(642,744)
Ded %	65.89%	66.05%	66.19%	64.15%	64.72%	65.24%	-1.90%		-1.47%	-2.22%	-1.74%	-1.33%	-0.95%
Charity Care %	8.65%	8.66%	8.68%	7.77%	7.66%	7.57%	-0.89%		-1.02%	-11.73%	-0.88%	-1.00%	-1.11%
Bad Debt %	2.80%	2.80%	2.80%	2.80%	2.80%	2.80%	0.00%		0.00%	0.00%	0.00%	0.00%	0.00%
Net Pt Rev	13,199,129	14,855,406	16,553,294	13,876,315	15,354,350	16,924,644	(979,091)		(1,198,944)	(0)	677,186	498,944	371,350
Total Rev	13,199,129	14,855,406	16,553,294	13,876,315	15,354,350	16,924,644	(979,091)	-6.59%	(1,198,944)	-7.24%	677,186	498,944	371,350

Attachment 3

	Application filed 6/15/09			Application filed 4/15/10			Variance		Variance		Var	Var	Var
	10/01/11 09/30/12	10/01/12 09/30/13	10/02/13 09/30/14	10/01/12 09/30/13	10/02/13 09/30/14	10/02/14 09/30/15	10/01/12 09/30/13		10/02/13 09/30/14		Year 1	Year 2	Year 3
Expenses													
Direct													
Salaries - Clinical	6,347,811	6,665,201	6,998,461	6,100,689	6,344,716	6,598,505	(564,512)	-8.47%	(653,745)	-9.34%	(247,122)	(320,485)	(399,956)
Salaries - Other	1,704,728	1,789,965	1,879,463	1,722,836	1,791,749	1,863,419	(67,129)	-3.75%	(87,714)	-4.67%	18,108	1,784	(16,044)
Total Salaries	8,052,539	8,455,166	8,877,924	7,823,525	8,136,465	8,461,924	(631,641)	-7.47%	(741,459)	-8.35%	(229,014)	(318,701)	(416,000)
Payroll Taxes and Ben	1,932,609	2,029,240	2,130,702	1,916,764	1,993,434	2,073,171	(112,476)	-5.54%	(137,268)	-6.44%	(15,845)	(35,806)	(57,531)
Medical Supplies	1,414,116	1,650,856	1,906,552	1,446,753	1,649,000	1,868,886	(204,103)	-12.36%	(257,552)	-13.51%	32,637	(1,856)	(37,666)
Medical and Other Supplies	319,460	372,941	430,705	326,775	372,456	422,121	(46,166)	-12.38%	(58,249)	-13.52%	7,315	(485)	(8,584)
Food and Nutrition	275,900	289,695	304,180	285,557	295,551	305,896	(4,138)	-1.43%	(8,629)	-2.84%	9,657	5,856	1,716
Total Direct	11,994,624	12,797,898	13,650,063	11,799,374	12,446,906	13,131,998	(998,524)	-7.80%	(1,203,157)	-8.81%	(195,250)	(350,992)	(518,065)
Indirect													
Housekeeping	62,436	65,558	68,836	64,434	66,689	69,024	(1,124)	-1.71%	(2,147)	-3.12%	1,998	1,131	188
Equip Maint	110,000	469,130	469,130	10,785	387,317	387,317	(458,345)	-97.70%	(81,813)	-17.44%	(99,215)	(81,813)	(81,813)
Building and Grounds	39,000	40,950	42,998	40,365	41,778	43,240	(585)	-1.43%	(1,220)	-2.84%	1,365	828	242
Utilities	375,766	394,555	414,282	388,603	402,204	416,281	(5,952)	-1.51%	(12,078)	-2.92%	12,837	7,649	1,999
Overhead	844,463	950,430	1,059,058	901,961	998,033	1,100,102	(48,469)	-5.10%	(61,025)	-5.76%	57,498	47,603	41,044
Capitalized Expense	90,000	90,000	90,000	110,000	110,000	110,000	20,000	22.22%	20,000	22.22%	20,000	20,000	20,000
Total Indirect	1,521,665	2,010,623	2,144,304	1,516,148	2,006,021	2,125,964	(494,475)	-24.59%	(138,283)	-6.45%	(5,517)	(4,602)	(18,340)
Total Expenses	13,516,289	14,808,521	15,794,367	13,315,522	14,452,927	15,257,962	(1,492,999)	-10.08%	(1,341,440)	-8.49%	(200,767)	(355,594)	(536,405)
Net Income before Depr	(317,160)	46,885	758,927	560,793	901,423	1,666,682	513,908		142,496		877,953	854,538	907,755
Depreciation - Bldg	525,806	525,806	525,806	515,168	515,168	515,168	(10,638)		(10,638)		(10,638)	(10,638)	(10,638)
Depreciation - Equip	673,626	1,347,251	1,347,251	687,458	1,374,916	1,374,916	(659,793)		27,665		13,832	27,665	27,665
Net Income after Depr and Taxes	(1,516,592)	(1,826,172)	(1,114,130)	(641,833)	(988,661)	(223,402)	**1,184,339**		**125,469**		**874,759**	**837,511**	**890,728**

Notes:

Items in green were added to the presented data along with the variance data

1) on 6-15-09 app, the labels were typed wrong, IP should have been OP and OP should have been IP, verified in Forms D and E
2) under variance data, ED visits grew, imaging and OP surg declined
3) under variance data, gross rev did not change much so I completed review on Gross Revenue, found that ED per case dropped but other services increased, see Gross Revenue Review tab

Total utilization #	27,754	30,858	33,941	27,437	30,215	33,086	(3,421)		(3,726)		(317)	(643)	(855)
Net Rev total utilization #	476	481	488	506	508	512	24		20		30	27	24
Exp total utilization #	487	480	465	485	478	461	5		13		(2)	(2)	(4)
	(11)	2	22	20	30	50	19		7		32	28	28
	(317,160)	46,885	758,927	560,793	901,423	1,666,682	513,908		142,496		877,953	854,538	907,755

Attachment 3

	Application filed 6/15/09			Application filed 4/15/10			Variance		Variance		Variance	Variance	Variance
	10/01/11 09/30/12	10/01/12 09/30/13	10/02/13 09/30/14	10/01/12 09/30/13	10/02/13 09/30/14	10/02/14 09/30/15	10/01/12 09/30/13		10/02/13 09/30/14		Year 1	Year 2	Year 3
Per Case/Proc Charge													
ED	1,265.88	1,297.52	1,329.96	1,040.38	1,066.38	1,093.04	(257.14)	-19.82%	(263.58)	-19.82%	(225.50)	(231.14)	(236.92)
IP	20,548.18	21,061.88	21,588.43	21,243.13	21,774.20	22,318.56	181.25	0.86%	185.77	0.86%	694.95	712.32	730.13
Obs	7,664.95	7,856.57	8,052.99	8,765.80	8,984.95	9,209.57	909.23	11.57%	931.96	11.57%	1,100.85	1,128.38	1,156.58
Imaging	1,011.68	1,036.97	1,062.89	1,196.18	1,226.08	1,256.73	159.21	15.35%	163.19	15.35%	184.50	189.11	193.84
IP Surg	16,143.75	16,547.34	16,961.03	18,040.00	18,491.00	18,953.28	1,492.66	9.02%	1,529.97	9.02%	1,896.25	1,943.66	1,992.25
OP Surg	4,357.28	4,466.21	4,577.86	4,448.50	4,559.71	4,673.71	(17.71)	-0.40%	(18.15)	-0.40%	91.22	93.50	95.85
Volume													
# of ED Visits	6,884	7,219	7,513	7,482	7,706	7,932	263		193		598	487	419
# of IP Cases	691	725	755	713	735	756	(12)		(20)		22	10	1
# of Obs Cases	966	1,013	1,055	959	988	1,017	(54)		(67)		(7)	(25)	(38)
# of Imaging Procedures (OP)	4,169	6,163	8,269	3,716	5,740	7,882	(2,447)		(2,529)		(453)	(423)	(387)
# of IP Surgical Cases	63	63	63	65	67	69	2		4		2	4	6
# of OP Surgical Cases	718	718	718	393	471	550	(325)		(247)		(325)	(247)	(168)
	13,491	15,901	18,373	13,328	15,707	18,206	(2,573)		(2,666)		(163)	(194)	(167)
Gross Revenue													
ED							(67,628)		(50,871)		(134,849)	(112,565)	(99,269)
IP							(2,175)		(3,715)		15,289	7,123	730
Obs							(49,098)		(62,441)		(7,706)	(28,210)	(43,950)
Imaging							(389,587)		(412,708)		(83,579)	(79,994)	(75,016)
IP Surg							2,985		6,120		3,793	7,775	11,954
OP Surg							5,756		4,483		(29,647)	(23,095)	(16,103)
							(499,747)		(519,132)		(236,699)	(228,965)	(221,655)

	Application filed 6/15/09			Application filed 4/15/10			Variance	Variance
	10/01/11 09/30/12	10/01/12 09/30/13	10/02/13 09/30/14	10/01/12 09/30/13	10/02/13 09/30/14	10/02/14 09/30/15	10/01/12 09/30/13	10/02/13 09/30/14
Adjusted Patient Days per Applications								
Total IP Days	2,143	2,248	2,340	2,011	2,077	2,344	(237)	(263)
Total IP Revenue	5,748,745	6,179,391	6,592,743	6,907,233	7,298,290	7,695,708	727,842	705,547
IP Revenue per Pt Day	2,683	2,749	2,817	3,435	3,514	3,283	686	696
Total OP Revenue	7,450,384	8,676,015	9,960,552	6,969,083	8,056,058	9,228,937	(1,706,932)	(1,904,494)
OP Days (OP Rev/ IP Rev per Day)	2,777	3,156	3,535	2,029	2,293	2,811	(1,127)	(1,243)
Adjusted Patient Days	4,920	5,404	5,875	4,040	4,370	5,155	(1,364)	(1,506)
Total Operating Costs Per Adj Pt Day								
Total Operating Costs	13,516,289	14,808,520	15,794,367	13,315,522	14,452,927	15,257,962	(1,492,998)	(1,341,440)
Total Operating Costs Per Adj Pt Day	**2,747**	**2,740**	**2,688**	**3,296**	**3,308**	**2,960**	**556**	**619**
Total Net Revenue per Adj Pt Day								
Total Net Revenue	13,199,129	14,855,406	16,553,295	13,876,315	15,354,350	16,924,644	(979,091)	(1,198,945)
Total Net Revenue per Adj Pt Day	**2,683**	**2,749**	**2,817**	**3,435**	**3,514**	**3,283**	**686**	**696**
Total IP and OP Revenue per application	13,199,129	14,855,406	16,553,295	13,876,316	15,354,348	16,924,645	(979,090)	(1,198,947)
Total Gross Revenue per Form B	38,695,672	43,754,536	48,964,251	38,702,683	43,522,941	48,692,857	(5,051,853)	(5,441,310)
Total Operating Expense incld Depr	14,715,721	16,681,578	17,667,424	14,518,148	16,343,011	17,148,046	(2,163,430)	(1,324,413)
Per Forms D								
ED	8,714,284	9,366,810	9,991,989	7,784,123	8,217,524	8,669,993	(1,582,687)	(1,774,465)
IP Unit	14,208,043	15,272,387	16,293,988	15,146,352	16,004,037	16,872,831	(126,035)	(289,951)
Obs	7,405,895	7,960,681	8,493,187	8,406,402	8,877,131	9,366,133	445,721	383,944
Imaging	4,218,033	6,390,530	8,788,944	4,445,005	7,037,699	9,905,546	(1,945,525)	(1,751,245)
IP Surg	1,020,895	1,097,371	1,170,777	1,172,600	1,238,897	1,307,776	75,229	68,120
OP Surg	3,128,523	3,666,756	4,225,367	1,748,261	2,147,623	2,570,541	(1,918,496)	(2,077,744)
	38,695,673	43,754,535	48,964,252	38,702,742	43,522,911	48,692,820	(5,051,793)	(5,441,341)
IP Revenue	15,228,938	16,369,758	17,464,765	16,318,952	17,242,934	18,180,608	(50,806)	(221,831)
OP Revenue	23,466,735	27,384,777	31,499,487	22,383,791	26,279,977	30,512,212	(5,000,986)	(5,219,510)
	38,695,673	43,754,535	48,964,252	38,702,742	43,522,911	48,692,820	(5,051,793)	(5,441,341)
Adjusted Patient Days (Corrected)								
Total IP Days	2,143	2,248	2,340	2,011	2,077	2,344	(237)	(263)
Total IP Revenue	15,228,938	16,369,758	17,464,765	16,318,952	17,242,934	18,180,608	(50,806)	(221,831)
IP Revenue per Pt Day	7,106	7,282	7,464	8,115	8,302	7,756	833	838
Total OP Revenue	23,466,735	27,384,777	31,499,487	22,383,791	26,279,977	30,512,212	(5,000,986)	(5,219,510)
OP Days (OP Rev/ IP Rev per Day)	3,302	3,761	4,220	2,758	3,166	3,934	(1,002)	(1,055)
Adjusted Patient Days	5,445	6,009	6,560	4,769	5,243	6,278	(1,239)	(1,318)
Total Operating Costs Per Adj Pt Day								
Total Operating Costs	14,715,721	16,681,578	17,667,424	14,518,148	16,343,011	17,148,046	(2,163,430)	(1,324,413)
Total Operating Costs Per Adj Pt Day	**2,703**	**2,776**	**2,693**	**3,044**	**3,117**	**2,731**	**268**	**424**
Total Net Revenue per Adj Pt Day								
Total Net Revenue	13,199,129	14,855,406	16,553,295	13,876,315	15,354,350	16,924,644	(979,091)	(1,198,945)
Total Net Revenue per Adj Pt Day	**2,424**	**2,472**	**2,523**	**2,909**	**2,929**	**2,696**	**437**	**406**
Variance								
Total Operating Costs Per Adj Pt Day	(45)	36	5	(252)	(190)	(228)		
Total Net Revenue per Adj Pt Day	(259)	(277)	(294)	(525)	(585)	(587)		

Attachment 3

	Application filed 4/15/10		
	10/01/12 09/30/13	**10/02/13 09/30/14**	**10/02/14 09/30/15**
Form B			
Gross Revenue	38,702,683	43,522,941	48,692,857
Form C			
ED	7,784,086	8,217,558	8,670,025
IP and Obs	23,552,750	24,881,165	26,238,961
Imaging	4,444,986	7,037,696	9,905,557
IP Surg and OP Surg	2,920,861	3,386,522	3,878,314
	38,702,683	43,522,941	48,692,857
Form D			
ED	1,040	1,066	1,093
ED	7,482	7,706	7,932
	7,784,123	8,217,524	8,669,993
IP	21,243	21,774	22,319
IP	713	735	756
	15,146,352	16,004,037	16,872,831
Obs	8,766	8,985	9,210
Obs	959	988	1,017
	8,406,402	8,877,131	9,366,133
Imaging	1,196	1,226	1,257
Imaging	3,716	5,740	7,882
	4,445,005	7,037,699	9,905,546
IP Surg	18,040	18,491	18,953
IP Surg	65	67	69
	1,172,600	1,238,897	1,307,776
OP Surg	4,449	4,560	4,674
OP Surg	393	471	550
	1,748,261	2,147,623	2,570,541
Surg	2,920,861	3,386,520	3,878,317
Total Forms D	38,702,742	43,522,911	48,692,820
Var Form B to Forms D	(59)	30	37

Attachment 4

GMK
ARCHITECTURE

Architecture

Engineering

Interior Design

Design-Build

Construction Services

May 26, 2010

Mrs. Sandy T. Godwin
Executive Director of Corporate Planning
Cape Fear Valley Health Systems
1638 Owens Drive
Fayetteville, North Carolina 28302

Dear Mrs. Godwin:

In response to your request for an opinion relative to the comparative costs of constructing an 8 bed hospital versus a forty-one bed hospital we offer the following assessment after reviewing the information we received for both projects. On the surface given the proposed budgets for the two competing projects simple mathematics indicates that the proposed 8 licensed bed hospital is proposed at a capital cost of $34,138,515.00 which translates into a cost per bed of $4,267,314.00. Alternatively, the proposed 41 licensed bed hospital at a proposed capital cost of $92,269,192.00 translates into a cost per bed of $2,250,468.00 or approximately half the cost of the first project. This is but the tip of the iceberg, however.

In each case the ancillary service departments provided must be comparable. There is a certain critical mass of services that must be provided regardless of the number of inpatient beds to be licensed. The capacity of the radiology department for example must include a full complement of services as reflected in the seven fixed and two mobile modalities proposed for the 8 bed scheme. Staffing such a department for a maximum of eight patients is highly unproductive. Nonetheless, once the decision is made to include inpatients, observation beds and operating suites the department must be staffed 24 hours per day seven days per week. This, notwithstanding the fact that outpatient utilization will be limited at best to five and one half days per week at a maximum of 8 to 12 hours per day. On the other hand the 41 bed hospital provides a sufficient occupancy level to justify such a full service Radiology department due to potential volumes per the number of inpatient beds.

In surgery, we note that the 8 bed hospital contemplates the provision of one Operating Suite. This is highly inefficient as the turnaround time for procedures will severely impact throughput in a one room suite. Additionally, any need for surgery precipitated by the Emergency Department will effectively shut down surgery for the duration of the case causing a severe depletion in potential revenue gained from surgical procedures. The competitive proposal with two operating suites effectively neutralizes this defect and offers enhanced opportunities for inpatient as well as outpatient surgery and a far more efficient utilization of Operating Suite staff.

In the area of patient support services such as medication stations, nourishment soiled and clean utility rooms and nursing stations the 8 bed facility is at a distinct disadvantage. These services are of necessity dictate by code and best practice to have a certain minimum size. One of each of these services can easily support up to 20 beds. Once again the cost of these elements on a per bed basis is roughly halved for the 41 bed facility when compared to that of the 8 bed alternative.

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services can easily support up to 20 beds. Once again the cost of these elements on a per bed basis is roughly halved for the 41 bed facility when compared to that of the 8 bed alternative.

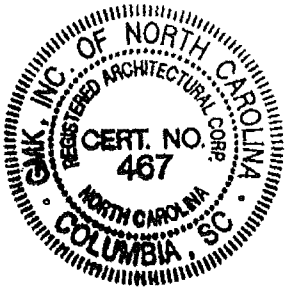
In summary, it is our considered opinion that the creation of an 8 bed hospital is an extremely inefficient use of resources. We note in further support of this conclusion that in the prototype for Critical Access Hospitals of the U.S. Department of Health and Human Services the smallest approved prototype is for 15 beds which utilizes the same basic chassis as that proposed for the 25 bed version.

If you should have any questions regarding this information, please do not hesitate to call me at your earliest convenience. It is a pleasure working with you.

Sincerely,

GMK Associates Architectural Division Inc.

Lawrence E. Kogut, AIA, LEED AP
Director of Architecture
North Carolina Registration No. 9097
North Carolina Registered Architectural Corp. No. 467



C: File
Fred McMillan, CFVHS
Val Satko, GMKA
Danny Owens, GMKA

Page 309	PY1	PY2	PY3
	10/01/2012-	10/01/2013-	10/01/2014-
	9/30/2013	9/30/2014	9/30/2015
Total Inpatient Days	2,011	2,077	2,344
Total Inpatient Revenue	$6,907,233	$7,298,290	$7,695,708
Inpt Rev per Pt Day	$3,435	$3,514	$3,283
Total Outpt Rev	$6,969,083	$8,056,058	$9,228,937
Outpt days	2,029	2,293	2,811
Adj Pt Days	4,040	4,370	5,155
Total Operting costs	$13,315,521	$14,452,929	$15,257,962
Operating cost per adj PD	$3,296	$3,308	$2,960
Total Net Ptient Revenue	$13,876,316	$15,354,348	$16,924,645
Net Pt Rev per adj PD	$3,435	$3,514	$3,283

Page 309 - Corrected w.o. depreciation	PY1	PY2	PY3
	10/01/2012-	10/01/2013-	10/01/2014-
	9/30/2013	9/30/2014	9/30/2015
Total Inpatient Days	2,011	2,077	2,344
Total Inpatient Revenue	$15,146,352	$16,004,037	$16,872,831
Inpt Rev per Pt Day	$7,532	$7,705	$7,198
Total Outpt Rev	$23,556,331	$27,518,903	$31,820,026
Outpt days	3,128	3,571	4,420
Adj Pt Days	5,139	5,648	6,764
Total Operting costs w.o. depreciation	$13,315,521	$14,452,929	$15,257,962
Operating cost per adj PD	$2,591	$2,559	$2,256
Total Net Ptient Revenue	$13,876,316	$15,354,348	$16,924,645
Net Pt Rev per adj PD	$2,700	$2,718	$2,502

Page 309 - Corrected w. depreciation	PY1	PY2	PY3
	10/01/2012-	10/01/2013-	10/01/2014-
	9/30/2013	9/30/2014	9/30/2015
Total Inpatient Days	2,011	2,077	2,344
Total Inpatient Revenue	$15,146,352	$16,004,037	$16,872,831
Inpt Rev per Pt Day	$7,532	$7,705	$7,198
Total Outpt Rev	$23,556,331	$27,518,903	$31,820,026
Outpt days	3,128	3,571	4,420
Adj Pt Days	5,139	5;648	6,764
Total Operting costs w. depreciation	$14,518,147	$16,343,013	$17,148,046
Operating cost per adj PD	$2,825	$2,893	$2,535
Total Net Ptient Revenue	($641,831)	($988,684)	($223,402)
Net Pt Rev per adj PD	($125)	($175)	($33)