COMMENTS REGARDING CERTIFICATE OF NEED APPLICATIONS FILED FOR INPATIENT REHABILITATION BEDS IN HSA IV

Submitted by:
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OVERVIEW

A total of four certificate of need applications were filed in the September 1, 2012 review cycle requesting inpatient rehabilitation beds in Health Service Area (HSA) IV, pursuant to a need determination for 20 additional inpatient rehabilitation beds in the 2012 State Medical Facilities Plan (SMFP):

- WakeMed d/b/a WakeMed Rehab Hospital (J-10018-12) – Develop 12 new inpatient rehab beds and replace 29 existing beds for a total of 110 beds, for a total cost of $25,234,051/Wake County;

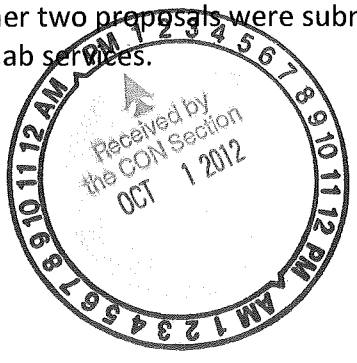
- Johnston Memorial Hospital Authority d/b/a/ Johnston Health (J-10022-12) – Proposal to develop an 8-bed inpatient rehabilitation unit at Johnston Medical Center in Smithfield for a total cost of $2,205,533/Johnston County;

- University of North Carolina (UNC) Hospitals (J-10017-12) – Proposal to develop 12 inpatient rehabilitation beds at its existing location for a total of 42 beds, for a total cost of $2,677,000/Orange County;

- Duke University Health System d/b/a Duke Raleigh Hospital (J-10021-11) – Proposal to develop a 12-bed inpatient rehabilitation unit at Duke Raleigh Hospital for a total cost of $4,172,000/Wake County.

All of the applications seeking approval in this review cycle are in agreement on the need for additional inpatient rehabilitation beds in HSA IV. The decision before the CON Section is how these additional resources can be most effectively deployed in meeting the needs of HSA IV residents. Because the CON Section can approve no more than 20 inpatient rehab beds, no more than two applicants' proposals can be approved.

Two of the applications came from existing providers of inpatient rehab beds in HSA IV, and the other two proposals were submitted by community hospitals seeking to develop inpatient rehab services.



WakeMed believes that inpatient rehabilitation is a regional health care service that is most effectively provided in facilities offering a range of specialized tertiary services, including cardiology, orthopaedics, neurology, neurosurgery, trauma, and pediatrics. The synergy that these services provide greatly enhances the provision of inpatient rehabilitation care, and allows for better coordination of care throughout the continuum.

The WakeMed proposal to add inpatient rehabilitation beds at WakeMed Rehab Hospital in Wake County is superior to the other proposals under review, and represents the best choice for the residents of HSA IV. WakeMed believes that inpatient rehabilitation is a resource that is best allocated on a regional basis. These comments will show that WakeMed's proposal more effectively meets the CON Review Criteria and Rules for Inpatient Rehabilitation services. WakeMed believes that its proposal is deserving of greater consideration, given the points highlighted below. In addition, there are serious deficiencies in other proposals that render them nonconforming with applicable CON Rules and Review Criteria. The bases for these conclusions are set forth in the following discussion.

COMMENTS REGARDING DUKE RALEIGH HOSPITAL
PROJECT NO. J-10021-12

Duke Raleigh Hospital proposes to develop 12 inpatient rehabilitation beds in renovated space at its existing location in Raleigh. Duke Raleigh contends that development of an inpatient rehab unit will allow it to better treat its existing orthopaedic and neuroscience patients, and would allow other Duke Health System patients to remain within the Duke network for post-acute care.

Specifically, the Duke Raleigh application is nonconforming with a number of CON Review Criteria, as follows.

Review Criterion 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 Duke Raleigh application contains a description of the project and is supported by a need methodology. However, the assumptions in the methodology are unsubstantiated, unreasonable, and not supported by data. Specifically, Duke Raleigh's proposal does not conform to Review Criterion for the following reasons.

<u>Methods Used to Identify Potential Rehab Patients Not Reasonable</u>

Duke Raleigh failed to adequately document the need for its proposal and therefore fails to satisfy Review Criterion 3. The Duke Raleigh need methodology takes a circuitous path in justifying the number of beds requested, and contains data that cannot be independently verified regarding the number of patients eligible for care in an inpatient rehab facility (IRF).

Beginning on page 62, Duke Raleigh describes its methodology for identifying and projecting inpatient rehab patients. Duke Raleigh states that:

> *...during July 2011-May 2012, DRAH referred 127 patients to an IRF, or an annualized volume of 139 patients. Of these 139 patients, seven (7) patients were transferred to DRH's inpatient rehabilitation unit, thus, to remain conservative, DRAH excluded these seven patients from its projections (139 – 7 = 132).*

Duke Raleigh does not mention to which IRFs, besides Durham Regional, that these patients were referred, or their counties of origin. It is worth mentioning that Duke Raleigh, in its application for 14 rehab beds in 2011 (Project No. J-8629-11), stated that it "referred 221

patients to inpatient rehabilitation facilities in CY 2010" (pages 20 and 36). Thus, Duke Raleigh's number of patient referrals to IRFs appears to be declining.

On page 63, the Duke Raleigh application describes how it estimated IRF referrals from Duke University Hospital:

> *For purposes of projecting patients for the proposed project, DRAH only included patients from Wake, Johnston and Franklin counties that were consistent with the types of patients to be served by the proposed inpatient rehabilitation unit. Of the 70 cases, 35 were transferred to either WakeMed or UNC (total 50 percent). Approximately 42 percent of patients were referred to DRH and the remaining eight percent were referred to an IRF outside HSA IV. Therefore, DRAH estimates that 50 percent of patients from Wake, Johnston and Franklin Counties historically transferred from DUH (with a diagnosis appropriate for the proposed DRAH inpatient rehabilitation unit) would be transferred to DRAH's proposed unit.*

Rather than including all IRF patient referrals from Duke University Hospital in its analysis, as it did for its own IRF referrals, Duke Raleigh instead limits the analysis to patients from Wake, Johnston and Franklin Counties, rather than all of HSA IV.

Also on page 63, Duke Raleigh adds back the inpatient rehabilitation patients from Wake, Johnston and Franklin Counties that were acute care patients at Durham Regional before being referred to another IRF.

If Duke Raleigh limited the estimated IRF referrals from Duke University Hospital and Durham Regional Hospital to include only patients from Wake, Johnston and Franklin Counties, why would it not do so for Duke Raleigh Hospital, as well? One can surmise that patients referred to an IRF from Duke Raleigh did not originate exclusively from these three counties, and that limiting the analysis to those three counties would significantly reduce the number of patients referred to an IRF. This inconsistency calls into question the veracity of the Duke Raleigh projections.

On pages 63-64, Duke Raleigh provides an analysis of its patients referred to skilled nursing facilities and which of these would be "appropriate for the proposed rehabilitation unit". Missing from its analysis is any data to support the following statement:

> *...many DRAH patients are currently referred to a skilled nursing facility due to the inability to secure an inpatient rehabilitation bed at area facilities.*

Duke Raleigh describes the number of patients referred to skilled nursing facilities with diagnoses appropriate for admission to an IRF, based on analysis of *one year's data*, and concludes that "29 patients (approximately 31 percent of patients with an appropriate rehabilitation diagnosis) would have been eligible for inpatient rehabilitation and appropriate for the proposed unit at DRAH." Duke Raleigh provides no description of how it arrived at this

proportion, and whether this percentage is consistent from year to year. More importantly, Duke Raleigh did not indicate whether it sought admission to IRFs for any of the patients whom it referred to a skilled nursing facility, and if so, if any of the admissions were delayed or denied. Without this information, there is no way for the analyst to verify if Duke Raleigh's claims are true, much less reasonable. The criterion for IRFs is different from that of SNFs, so patients who were appropriate for a skilled nursing facility were likely not appropriate for an inpatient rehabilitation facility stay. Placement of patients into the appropriate level of care based on medical necessity and rigorous admission criteria is a high priority for regulatory compliance through CMS and the OIG. Patients who qualify for SNF level of care should rarely qualify for IRF level of care.

On pages 64-66, Duke Raleigh provides a number of statistics, from both internal and external sources, to justify projected growth in potential inpatient rehab patients from FY 2012-2017. Duke Raleigh projects that its potential inpatient rehab patients will grow by 6 percent per year, a statistic which is both significantly overstated and not supported by any data. Inpatient rehabilitation utilization, both statewide and within HSA IV, has been growing in recent years, albeit by a much lower annual rate, as evidenced by the following table.

Table 1
Changes in Inpatient Rehabilitation Patient Days in HSA IV and North Carolina, 2008-2011

Rehab Patient Days	2008	2009	2010	2011	Percent Change 2008-2011	CAGR, 2008-2011
HSA IV Total	45,768	41,138	48,301	48,639	6.27%	2.05%
North Carolina Total	216,438	219,890	222,326	226,044	4.44%	1.46%

Source: Proposed 2013 State Medical Facilities Plan, Chapter 8, Table 8A

Data from the Proposed 2013 State Medical Facilities Plan show inpatient rehabilitation utilization in HSA IV increased by approximately 2 percent per year from 2008-2011, which mirrors HSA IV population growth statistics. Duke Raleigh's projected annual growth of 6 percent is not based on any mathematical or statistical calculation, within either the market or the Duke system. The application lists a number of service lines that have grown at Duke Raleigh in recent years or are projected to experience double-digit growth over the next decade as proof that the 6 percent annual growth rate is reasonable. Historical data shows this projection is overestimated and unreasonable.

Moreover, Duke Raleigh begins the 6 percent annual growth rate for rehab patients during the *interim years*, before its proposed rehab beds would become operational. Like UNC Hospitals' application, Duke Raleigh's utilization projections are dependent on achieving a high growth rate each year throughout the interim years and Project Years 1-3 to attain sufficient utilization levels to meet required performance standards.

Need Not Quantified for All Services

On pages 58-60, Duke Raleigh describes its proposed scope of services for the project. The application contains the following passage:

> *...it is anticipated that the majority of patients transferred from acute care service at DRAH to the proposed inpatient rehabilitation unit will have stroke, amputation, neurologic disorders, and/or orthopaedic disorders.*

Duke Raleigh provides statistical data regarding stroke and orthopaedic diagnoses, but did not include any data related to amputations or neurological disorders. Duke Raleigh does not elaborate on what diagnoses constitute "neurological disorders", and offered no historical data to quantify the need for this service. Instead, Duke Raleigh provides a table on page 82 indicating that it served 7 "neurological" patients in FY 2012.

Projected Rehab Growth Rates Not Based on Population Growth

Step 3 of the Duke Raleigh need methodology, which begins on page 67, attempts to estimate Duke Raleigh's potential market share for inpatient rehabilitation within HSA IV. Using Thomson Reuters (now Truven) data, Duke Raleigh identifies inpatient rehabilitation cases originating in HSA IV counties from 2007-2011, and uses this to develop inpatient rehab use rates for each year, as well as 5-year average use rates per 1000 population. In turn, each county's 5-year average use rate is multiplied by its projected population each year from 2012-2017 to project the number of total rehab cases in the HSA IV counties. This closely mirrors WakeMed's own need methodology found in its application.

However, while Duke Raleigh projects that its internal growth in inpatient rehab cases will be 6 percent per year, the Duke Raleigh application projects on page 71 that the HSA IV "market" cases will grow by a CAGR of 1.6 percent per year from 2012-2017, mirroring the projected population growth from the Office of State Budget and Management and shown on Duke Raleigh application page 70. Therefore, the so-called "organic" market share growth touted on page 74 is predicated on Duke Raleigh's internal inpatient rehab cases increasing at nearly 4 times the rate of HSA IV's corresponding growth in rehab cases. This also calls in question the reasonableness of Duke Raleigh's projected patient volumes.

Also in Step 3, Duke Raleigh unreasonably estimates its FY 2012 market share of HSA IV counties based on the number of patients either referred to an IRF or qualifying for IRF admission (from page 64) divided by the number of estimated number of FY 2012 total rehab cases from HSA IV counties (page 71). In doing so, Duke Raleigh assumes that it would capture 100 percent of the rehab patients it has identified. In other words, *every* Duke Raleigh patient identified as a candidate for an IRF would hypothetically remain at Duke Raleigh for rehab care, regardless of their diagnosis, condition, county of origin or patient/family choice. If even one-quarter of these patients went to IRFs other than Duke Raleigh, it would seriously compromise the Duke Raleigh utilization projections. Please see the discussion below.

Unfounded Market Share Gains

Step 3 of the Duke Raleigh methodology provides the assumptions used for its projected market shares in HSA IV counties. Duke Raleigh assumes, unreasonably, that *every* potential rehab patient it has identified for inpatient rehab care will be referred to Duke Raleigh, and uses these cases to project its hypothetical market shares. Duke Raleigh extrapolates this to estimate its market shares of HSA IV counties during interim years (FYs 2012-2014) - a period when its proposed rehab beds would not be operational – as well as Project Years 1-3 (FYs 2015-2017). In Duke Raleigh's theoretical calculations, it would have had a 10.9 percent share of Wake County's rehab cases in FY 2012, which it expects to increase to 13.3 percent by FY 2017.

In Step 4, Duke Raleigh further projects "market share gains" on pages 75-76 in Wake, Johnston and Franklin Counties during the first three years following project completion, based on referrals from other facilities. Their market share of Wake County's rehab cases in FY 2014, 11.8 percent, is inflated to 15.3 percent by FY 2017. These so-called "gains" are completely unfounded and not justified by any data. Thus, in addition to assuming its market shares of rehab cases in HSA IV will increase even in years when it has no rehab beds, Duke Raleigh inflates its market shares in the three counties that will contribute the highest proportions of patients.

The effect of the market share gains raises Duke Raleigh's projected case volumes well above the 6 percent annual growth rate discussed on pages 64-66. The table below shows Duke Raleigh's projected rehab cases for FYs 2012-2017, along with the percent change from the previous year.

Table 2
Duke Raleigh Hospital Projected Rehab Cases, FYs 2012-2017

	Pages 66 & 73			*Pages 77, 78 & 79*		
	FY 2012	**FY 2013**	**FY 2014**	**FY 2015 Year 1**	**FY 2016 Year 2**	**FY 2017 Year 3**
Cases from HSA IV	171	181	192	220	249	263
Change from prev. year	--	5.8%	6.1%	14.6%	13.2%	5.6%
Cases from Outside HSA IV	29	31	33	38	44	47
Change from prev. year	--	6.9%	6.5%	15.2%	15.8%	6.8%
Total Cases	200	212	225	258	293	310
Change from prev. year	--	6.0%	6.1%	14.7%	13.6%	5.8%

In reality, Duke Raleigh uses the theoretical market share increases in its projections to inflate its projected rehab cases well beyond 6 percent per year from 2014-2015 and 2015-2016. This is important, because it allows Duke Raleigh to project sufficient case volumes to meet the Year 2 performance standard of 80 percent as required in 10A NCAC 14C .2803(b) – if Duke Raleigh continued forward with a 6 percent annual growth rate, it would fall short of this standard. Please see the following table.

Table 3 Duke Raleigh Hospital Projected Inpatient Rehab Utilization Using 6% Annual Growth					
Year	Projected Cases	Change from Previous Year	ALOS	Projected Patient Days	Percent Utilization
2012	200	--			
2013	212	6%			
2014	225	6%			
2015 - Year 1	239	6%	12.8	3,059	69.8%
2016 - Year 2	253	6%	12.9	3,264	**74.3%**
2017 - Year 3	268	6%	12.9	3,457	78.9%

High and Unjustified In-migration Proportion

Duke Raleigh's Step 5 provides a description of projected in-migration to their proposed rehab program from outside HSA IV. Duke Raleigh notes on page 77 that "approximately 25 percent of WakeMed's inpatient rehabilitation patients originate from counties outside HSA IV", and conservatively assumes that 15 percent of its own rehab patients will come from outside HSA IV. On page 80, Duke Raleigh comments that it did not consider Maria Parham Medical Center's in-migration percentage as comparable:

> *...because a) Maria Parham's size and scope of services is smaller compared to DRAH, b) DRAH has strategic initiatives that are consistent with the growth of services necessary to support the proposed inpatient rehabilitation unit and 3)* [sic] *Maria Parham's geographic location is not proximate to many of the counties outside HSA IV in North Carolina. Thus, it is not reasonable to use Maria Parham's historical in-migration as a proxy for DRAH's proposed unit.*

Missing from this explanation is Maria Parham's actual historical in-migration percentage from outside HSA IV – according to data from Truven, this was approximately 6.5 percent in FY 2011. With a comparably-sized inpatient rehab unit of 11 beds which has been in operation more than 15 years, Maria Parham, a community hospital with 11 rehabilitation beds, might be the *ideal* facility with which to compare to Duke Raleigh. At any rate, Duke Raleigh's rehab projections are based on 15 percent in-migration from *unidentified* areas outside HSA IV. Moreover, this in-migration factor is applied to total cases both pre-market share gain and post-market share gain.

Effect of Avoidable Patient Days is Overstated

On page 89, Duke Raleigh justifies the need for the project in part by stating:

> *With well over 300 known avoidable patient days per year for Duke University Hospital and Duke Raleigh Hospital acute care patients, the impact on acute care bed availability and health care costs are significant.*

This statistic of "avoidable patient days" in the Duke system equates to less than one patient day per calendar day (300 ÷ 365 = 0.82) across the 924 licensed acute care beds at Duke University Hospital and 186 beds at Duke Raleigh Hospital (a total of 1,110 beds), and hardly supports the need for the proposed Duke Raleigh project. Rehab beds at Durham Regional Hospital, which were utilized at 77.3 percent in FY 2011, have more than enough available capacity to absorb these patient days.

Project Will Not Serve All of HSA IV

Based on Duke Raleigh's description of its need for inpatient rehabilitation beds, it is apparent that Duke Raleigh's top priority with this project is serving its *own* patients, and not providing regional service to residents of HSA IV. The project's secondary goal is serving other patients in the Duke Health System. The in-migration described on pages 77-80, which was only anecdotally projected and not identified, may or may not represent patients served in the Duke system. Because Duke Raleigh did not project to serve any patients from Chatham or Person Counties (unusual when one considers that Duke University Health System is part owner of Person Memorial Hospital through its affiliation with Duke LifePoint Healthcare), it is apparent that the Duke Raleigh project will not serve all of HSA IV.

Duke Raleigh Hospital's application does not specify or provide reliable historical data for how they will meet the needs of "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", as mandated by Criterion 3. Generalized reports of unreimbursed or charity care can be easily misinterpreted. The majority of patients who require inpatient rehabilitation have encountered an unplanned, sudden critical health event which has left them with some degree of physical impairment. The medically at-risk populations with low income, minority, and elderly are often under- or uninsured and receive treatment from tertiary hospitals. Duke Raleigh's projections are primarily from their own inpatient hospital which does not proportionately receive patients within these demographics.

Utilization Projections Unrealistically High

On pages 85 and 102, Duke Raleigh provides its projected rehab utilization for Project Years 1-3. The proposal's Year 1 utilization is 75.5 percent, increasing to 91.3 percent by Year 3. This level of utilization is grossly overstated for an inpatient rehabilitation of the size proposed by Duke Raleigh, particularly by the third year following project completion. By comparison, only *one* rehab provider in the state operated above 90 percent in FY 2011; statewide average utilization in FY 2011 was 61.6 percent, and programs with less than 15 beds were utilized at an average

of 50.0 percent (please see Table 5). Duke Raleigh assumes an unrealistic fill rate, given the issues raised in the paragraphs above.

Without the inclusion of much critical information, the Duke Raleigh application cannot be found conforming with Review Criterion 3, in that it did not adequately define the population to be served. Its projections are based on over-inflated annual growth percentages during the interim years and Project Years 1-3, and further bolstered by an Out of Area proportion of 15 percent for areas that are not identified.

Review Criterion 4

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

While Duke Raleigh proposes to develop its inpatient rehab unit in existing space, it does not plan to convert any acute care beds to rehabilitation beds. With an acute care utilization consistently well below 50 percent[1], it appears unusual that Duke Raleigh proposes to maintain all 186 licensed acute care beds. Conversion of acute care beds to rehabilitation would allow Duke Raleigh to better utilize some of its excess acute care capacity.

In the alternatives described in response to Application Section III.3, Duke Raleigh discussed: (1) maintaining the status quo; (2) developing a 12-bed freestanding rehabilitation hospital; (3) developing an inpatient rehab unit with more than 12 beds; and (3) developing 12 rehabilitation beds in renovated space at Duke Raleigh Hospital. However, Duke Raleigh did not discuss the alternative of developing fewer than 12 rehab beds, which would likely be less costly than the chosen alternative. Another alternative not discussed in the Duke Raleigh application was the feasibility of Duke Health System developing additional inpatient rehab beds in Durham County.

For these reasons, the Duke Raleigh application is nonconforming with Review Criterion 4.

Review Criterion 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.

Inconsistencies in Pro Formas

[1] According to its 2012 Hospital License Renewal Application, Duke Raleigh staffed only 148 of its 186 acute care beds in Fiscal Year 2011, with was utilized at 46.1 percent.

An analysis of Duke Raleigh's financial projections identifies a number of inconsistencies that call into question the financial feasibility of the project.

In Form B for Duke Raleigh Rehab, Duke Raleigh projects gross revenue for Charity Care/Indigent/Self Pay of $97,825 in Project Year 1, which declines to $63,083 in Year 3, a decrease of 35.5 percent that is not explained in the assumptions. Charity Care declines from 0.8 percent of total gross revenue in Year 1 to 0.4 percent in Year 3, while the number of Charity/Indigent/Self days increases each year; again, there is no explanation to describe these contrasting trends.

In Form B, Duke Raleigh projects deductions from gross revenue for Charity Care that are *far greater* than the gross patient revenue for Charity/Indigent/Self. There is no explanation provided to describe why deductions from revenue would *exceed* gross patient revenue.

Table 4
Duke Raleigh Hospital
Projected Charity Care/Indigent/Self Pay Statistics Reported in CON Application

	Form D Patient Days	Form B Gross Revenue	Form B Deductions from Gross Rev.	Form C Gross Revenue	Form D Net Revenue
Year 1	26	$97,825	$496,744	$97,825	$0
Year 2	30	$80,795	$597,003	$80,795	$0
Year 3	32	$63,083	$669,037	$63,083	$0

Based on the pro formas, Duke Raleigh's Charity Care declines both in total dollars and as a percent of total gross revenue. Net Revenue for Charity Care does not match deductions from gross revenue. Because these numbers cannot be reconciled and are not explained, one cannot determine Duke Raleigh's true projected charity care for the proposed project.

Volume Projections Not Justified

The Duke Raleigh proposal does not conform with Review Criterion 5. Duke Raleigh did not adequately demonstrate how it projected inpatient rehab utilization. Therefore, its operational projections, and by extension its financial projections, are not based on reasonable assumptions, thereby calling into question the financial feasibility of the project.

Relocation Costs

On page 11, Duke Raleigh states that the proposed project will necessitate the relocation of infusion services, the ostomy clinic and a dialysis room, and that upfit costs have been included in the project cost. However, Duke Raleigh does not specifically disclose where these services will be relocated, nor do the line drawings for the project contained in Exhibit 10 indicate the new sites for relocated services. The "moving allowance" cited on page 138, line 19 does not

specify how much money is specifically allotted for relocation and upfit expenses. Therefore, it is impossible to determine if Duke Raleigh budgeted sufficient expenses for the services proposed for relocation.

Review Criterion 6

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

The Duke Raleigh application does not conform to Review Criterion 6, in that it will unnecessarily duplicate inpatient rehabilitation services in Wake County. Duke Raleigh proposes a second alternative for inpatient rehabilitation beds in Raleigh, only 4.3 road miles from WakeMed Rehabilitation Hospital, yet history indicates that locating two inpatient rehab programs in the same city, particularly when owned and managed by separate entities, tends to result in a detrimental effect on utilization of both programs. Please see discussion for Review Criterion 18a below for more details regarding experiences of inpatient rehab programs in Winston-Salem and Hickory.

Review Criterion 8

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

<u>No Documentation of Ancillary and Support Services</u>

The Duke Raleigh application contained no correspondence from Duke Raleigh's administration, verifying the availability of ancillary and support services to support the proposed inpatient rehabilitation program. In response to 10A NCAC 14C .2802(c)(1) and (2), Duke Raleigh provided a broad anecdotal explanation that ancillary and support services are available, but did not provide any specific documentation that these services are adequate to support the proposed inpatient rehab program.

<u>Program Will Not Be Coordinated With Existing Health Care System</u>

Throughout its application, Duke Raleigh describes the benefits of developing an inpatient rehab program for facilities in the Duke University Health System. However, there is virtually no explanation how, and to what extent, the establishment of inpatient rehab at Duke Raleigh will benefit the community and region at-large. Nearly all of Duke Raleigh's physician letters of support are from Duke physicians, and the only hospital letter of support provided with the application was written by an affiliate of Duke LifePoint Healthcare. There is little documented evidence that the Duke Raleigh program would accept any tangible number of referrals from

other providers in central North Carolina. Instead, this application appears to be envisioned to serve the Duke system.

For these reasons, the Duke Raleigh application does not conform to Review Criterion 8.

Review Criterion 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.

On pages 115-116, in response to Question V.8.(a), Duke Raleigh makes the claim that another provider of inpatient rehabilitation services in Wake County will improve competition and accessibility within Wake County and HSA IV. In reality, there is evidence to demonstrate that: (1) small inpatient rehabilitation programs tend to be less well-utilized than their larger counterparts, and, (2) co-locating two separately-owned inpatient rehab programs in the same city has a detrimental effect on both programs.

<u>Small Rehab Programs Have Lower Utilization</u>

Twenty-six inpatient rehabilitation facilities are currently in operation in North Carolina, with 981 licensed beds. Programs range in size from 7-119 beds, located across the state in both community hospitals and regional tertiary referrals centers. An analysis of these programs shows noteworthy differences in average utilization by bed size. There appears to be a correlation between the number of licensed rehab beds and percent utilization. Larger inpatient rehabilitation programs, particularly those associated with regional tertiary hospitals and/or State-designated trauma centers, are better utilized, can draw from a larger referral base, and have more clinical and ancillary resources available to serve the needs of an HSA's population.

A total of 5 rehab facilities are licensed for 12 beds or less; the 2011 average utilization for these providers was 50.0 percent.

Table 5 2011 Utilization at Inpatient Rehabilitation Providers with 12 Beds or Less[2]				
HSA	**Facility**	**Beds**	**2011 Patient Days**	**2011 Utilization**
II	Hugh Chatham	12	1,075	24.5%
III	Rowan Regional	10	2,279	62.4%
III	Stanly Regional	10	1,755	48.1%
IV	Maria Parham	11	2,657	66.2%
V	Scotland	7	1,354	53.0%
TOTAL/AVG UTIL		**50**	**9,120**	**50.0%**

Source: Proposed 2013 State Medical Facilities Plan, Chapter 8, Table 8A

By contrast, inpatient rehabilitation facilities with 75 or more rehab beds had significantly higher utilization in 2011; the 5 facilities in this category were utilized at 73.0 percent.

Table 6 2009 Utilization at Inpatient Rehabilitation Providers with 75 or More Beds				
HSA	**Facility**	**Beds**	**2011 Patient Days**	**2011 Utilization**
I	Care Partners	80	17,123	58.6%
III	Carolinas Rehab + Levine Children's	132	35,787	74.3%
IV	WakeMed Rehab	84	28,415	92.7%
V	Southeastern Regional Rehab	78	18,245	64.1%
VI	Pitt Memorial Rehab	75	20,096	73.4%
TOTAL/AVG UTIL		**449**	**119,666**	**73.0%**

Source: Proposed 2013 State Medical Facilities Plan, Chapter 8, Table 8A

Two Rehab Programs in Same City Are Duplicative

WakeMed believes that inpatient rehabilitation is a regional service, and that locating two or more separately-owned inpatient rehab programs in the same community has a negative effect on both programs. An analysis of 2011 data provided in the Proposed 2013 SMFP provides confirmation that, when two separately-owned inpatient rehabilitation providers are located in the same city, the effect is detrimental to both programs, as is illustrated below for the cities of Winston-Salem and Hickory.

[2] Note: Beds at Levine Children's Hospital were not included in Table 5, because these are at the same physical location as Carolinas Rehabilitation Hospital (1000 Blythe Blvd., Charlotte, NC 28203).

Table 7 2011 Utilization at Inpatient Rehabilitation Providers Located in the Same City and Under Separate Ownership				
City	**Facility**	**Rehab Beds**	**2011 Patient Days**	**2011 Utilization**
Winston-Salem	NC Baptist	39	9,852	69.2%
Winston-Salem	Whitaker Rehab (Forsyth)	68	13,804	55.6%
Total for Winston-Salem		**107**	**23,656**	**60.6%**
Hickory	Catawba Valley	20	1,519	20.8%
Hickory	Frye Regional	29	1,397	13.2%
Total for Hickory		**49**	**3,464**	**16.3%**

Source: Proposed 2013 State Medical Facilities Plan, Chapter 8, Table 8A

Neither program in the cities listed above has a critical mass of beds and services that allows it to obtain higher utilization. Both programs must compete for licensed therapists, therapy assistants, and rehabilitation nurses, which are very well-paid and in short supply. Inpatient rehabilitation is a specialty service requiring specialized staff and resources. A full-service inpatient rehab program must employ physical, occupational and recreational therapists, speech-language pathologists, social workers, rehab case managers, admissions staff, psychologists, nurses specifically trained to work with rehab patients, patient educators, nutritionists, and financial personnel knowledgeable of reimbursement requirements. The program staff works hand-in-glove with physicians specializing in Physical Medicine and Rehabilitation, who in turn work closely with their colleagues in other medical specialties such as neurology, neurosurgery, trauma surgery, general surgery, orthopaedic surgery, urological surgery, cardiology and pediatrics to ensure that patients' medical needs are addressed and resolved throughout their inpatient stay. Competition for specialized and often scarce clinical staff does not benefit consumers.

Physicians specializing in Physical Medicine and Rehabilitation must either compete with one another for referrals, or be spread across two programs, which diminishes their efficiency. When inpatient rehabilitation programs are located too closely together, competition neither enhances patient care nor the financial viability of either program.

10A NCAC 14C .2800 – Criteria and Standards for Rehabilitation Services

The Duke Raleigh proposal does not conform to the following CON Rules:

- 10A NCAC 14C .2802(c)(1) -- The application did not include correspondence from Duke Raleigh Hospital administration verifying the availability of support services for inpatient rehabilitation.

- 10A NCAC 14C .2802(c)(2) – The application did not include correspondence from Duke Raleigh Hospital administration verifying the availability of ancillary services for inpatient rehabilitation.

Conclusion

In summary, Duke Raleigh's CON application is missing critical information required for the Agency to make an informed decision regarding the approvability of its proposal. Further, its need methodology relies more upon on subjective estimates, rather than actual data, to justify the project. Approval of a second inpatient rehab program in Raleigh would be duplicative of existing resources. For these reasons, the Duke Raleigh project should be disapproved.

COMMENTS REGARDING UNC HOSPITALS
PROJECT NO. J-10017-12

UNC Hospitals proposes to develop 12 additional inpatient rehabilitation beds at its existing location in Chapel Hill in Orange County, for a total of 42 beds. UNC cites its high rehab utilization in recent years and lack of private patient rooms, as well as the pressing need to continue to train medical students and residents in physical medicine and rehabilitation, as justifications for its proposed project.

It is clear from the UNC application that the proposed project is designed to serve only UNC Hospitals' patients. There is virtually no mention of UNC increasing its ability to accept rehabilitation referrals from other facilities in HSA IV and beyond. Specifically, the UNC application is nonconforming with a number of CON Review Criteria, as described below.

Review Criterion 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.

Geographic Distribution of Rehab Beds in HSA IV

On page 52 of its application, UNC discusses the locations of existing and approved inpatient rehabilitation beds in HSA IV and claims that beds are maldistributed within the region. Specifically, UNC states:

> *...other hospitals in HSA IV have more compact and localized service areas which are reflected in their respective patient origin data. The current allocation of 98 existing and approved inpatient rehabilitation beds located in Wake County provides abundant inpatient rehabilitation capacity to serve the Wake County population. The previous CON approval to add 14 beds to the existing 84 beds at WakeMed (CON Project ID # J-8631-11) assigned to them 58 percent of the inpatient Rehabilitation bed inventory in Wake County, which has only 50 percent of the total population of HSA IV.*

According to UNC, the fact that Wake County has 58 percent of HSA IV's inpatient rehab beds but only 50 percent of the HSA's total population is sufficient proof that no additional inpatient rehab beds are needed in Wake County. The fallacy of this argument can be brought to light by applying the same logic to Orange County, which is home to 17.8 percent of HSA IV's inpatient rehab beds (30 of 169 existing/approved beds), but only 7.8 percent of its total population. In reality, UNC's argument has no meaning. Inpatient rehabilitation beds are allocated on a regional, not county-specific, basis, and the largest concentrations of rehab beds in the state

are in the major population centers within each HSA. As such, rehab beds located in Wake County do not serve Wake County residents only, as UNC implies.

Also on page 52, UNC states that "[h]ospitals located in Wake County draw the majority of their patients from within the home county and are less effective as compared to UNC Hospitals at serving populations of rural counties both within and outside of HSA IV." WakeMed is uncertain of the meaning of this statement, but responds that during the most recent 12-month period preceding the submittal of its application (see Project No. J- 10018-12, pages 85-86), WakeMed Rehab Hospital served patients from 47 North Carolina counties, plus patients from out of state. This is far from a "localized service area".

Patients Transferred to Other Inpatient Rehab Facilities

On page 60, UNC discusses the need for additional private rooms in its Rehab Center. Of the 59 patients UNC referred to other IRFs during the past year, seven patients could not be accommodated due to lack of an available bed; this equates to approximately *one patient every 52 calendar days*. The remaining 52 patients referred to other rehab facilities either chose an IRF that was closer to patients' homes or were the result of patient/family choice. Although UNC surmises that half of these remaining patients chose other hospitals because no private patient rooms were available at UNC, there is no statistical or anecdotal data provided in the application to support this claim. Thus, the issue of patient referrals outside UNC Hospitals due to bed inavailability appears to be minor at best.

WakeMed understands the challenges associated with filling beds in semi-private rooms. Sixty percent of UNC Hospitals' 30 rehab beds are in semi-private rooms; at WakeMed, 69 percent of its existing 84 beds are currently housed in semi-private rooms.

No Basis for Projected Annual Growth in Rehab Utilization

UNC's projections for inpatient rehab utilization are based on an annual growth rate of 8 percent per year, beginning in FY 2013 and continuing through Project Year 3. Like Duke Raleigh's assumption regarding growth, UNC's growth rate is based almost entirely on supposition, and not grounded in any statistical data. As was shown with the Duke Raleigh application above, inpatient rehab utilization has been growing in HSA IV and statewide by a much lower rate. Please see the following table.

Table 8
Changes in Inpatient Rehabilitation Patient Days in HSA IV and North Carolina, 2008-2011

Rehab Patient Days	2008	2009	2010	2011	Percent Change 2008-2011	CAGR, 2008-2011
HSA IV Total	45,768	41,138	48,301	48,639	6.27%	2.05%
North Carolina Total	216,438	219,890	222,326	226,044	4.44%	1.46%

Source: Proposed 2013 State Medical Facilities Plan, Chapter 8, Table 8A

UNC's inpatient rehab utilization increased by 8.16 percent from FY 2006-2012, with a compound annual growth rate (CAGR) of 1.32 percent, as the following table demonstrates.

Table 9
UNC Hospitals
Inpatient Rehabilitation Utilization Trends, 2006-2012

Year Ending Sept. 30:	Licensed Rehab Beds	Total Rehab Patient Days	Percent Utilization	Percent Change in Pt. Days from Prev. Yr.	Percent Change in Pt. Days 2006-12	CAGR for Pt. Days 2006-12
2006	30	8,429	76.98%	--		
2007	30	9,084	82.96%	7.8%		
2008	30	9,046	82.39%	-0.4%		
2009	30	9,303	84.96%	2.8%		
2010	30	8,937	81.62%	-3.9%		
2011	30	9,100	83.11%	1.8%		
2012 (9 mos. ann.)	30	9,117	83.03%	0.2%	8.16%	1.32%

Source: UNC CON Application (Project No. J-10017-12), page 61

WakeMed does not dispute UNC's historical inpatient rehab utilization, but offers that there is nothing in its historical utilization to substantiate an 8 percent *annual* growth rate moving forward.

Quarterly utilization tables found on pages 71 and 85 indicate that UNC projects very rapid growth in inpatient rehab during the interim years, as well as during Project Years 1-3. UNC projects that its rehab utilization will grow from 83.2 percent in FY 2012 to 90.1 percent in FY 2013, and to 97.31 percent in FY 2014 – this constitutes a 2-year increase of 16.6 percent in patient days for a program whose utilization has historically grown by an average of 1.32 percent per year. This level of projected utilization appears grossly overinflated and unsustainable. To illustrate using UNC's projections, its Rehab Center would have only 295 unutilized patient days for all of FY 2014 [calculation: 10,950 available days - 10,655 projected days = 295] – this equates to an average daily census of 29.2 for 30 beds. During the fourth quarter of FY 2014, UNC projects a utilization rate of 99.53 percent, with only 13 unutilized patient days over 91 calendar days [calculation: 2,730 available days - 2,717 projected patient days = 91]. To put this in perspective, UNC projects that its 30 rehab beds will be utilized at 100 percent for 78 of the 91 calendar days in the 4th Quarter of FY 2014. These projections are completely unreasonable and unrealistic.

UNC's FY 2013 projected utilization would be the highest ever for its program, by a wide margin, and its FY 2014 annual utilization would be the highest rate *ever experienced by an inpatient rehabilitation facility in North Carolina*. It requires a suspension of disbelief to accept that UNC could achieve such high utilization levels during the interim period, particularly given its limitations regarding semi-private rooms.

Annual Growth Rate Tied to Performance Standards

WakeMed believes that UNC projected its inpatient rehab growth rate at 8 percent per year for a specific reason: namely, that a lower annual growth rate would not enable UNC to achieve at least 80 percent utilization by Project Year 2 as required by 10A NCAC 14C .2803(b). In order to meet this performance standard, WakeMed calculated that UNC would need to achieve a growth rate of *at least* 7.8 percent per year during the interim years and Project Years 1-3. Please see the following table.

Table 10
Projected Utilization for UNC Inpatient Rehabilitation Beds Using Annual Growth Rate Scenarios

		Annual Growth Rate							
		2.05% per year – HSA IV CAGR 2008-11		*7.0% per year*		*7.8% per year*		*8% per year - Used in application*	
Year	Rehab Beds	Projected Days	Percent Util.	Projected Days	Percent Util.	Projected Days	Percent Util.	Projected Days	Percent Util.
2012	30	9,135	83.20%	9,135	83.20%	9,135	83.20%	9,135	83.20%
2013	30	9,322	85.13%	9,774	89.26%	9,848	89.94%	9,866	90.10%
2014	30	9,513	86.88%	10,458	95.51%	10,616	96.95%	10,655	97.31%
2015 - Year 1	42	9,708	63.33%	11,190	72.99%	11,444	74.65%	11,507	75.06%
2016 - Year 2	42	9,907	**64.45%**	11,973	**77.89%**	12,337	**80.26%**	12,428	**80.85%**
2017 - Year 3	42	10,110	65.95%	12,811	83.57%	13,299	86.75%	13,422	87.55%

The table above illustrates that UNC cannot meet the required Year 2 performance standard unless it projects this inordinately high annual rate of growth, which is inconsistent with trends in HSA IV and statewide, as well as with its own historical utilization.

Factors Contributing to an Increase in Rehab Utilization

On pages 62-63 in Step 2 of its need methodology, UNC explains the circumstances that it believes will contribute to its 8 percent annual growth rate. These include:

A. Population growth and aging in HSA IV;
B. Increase in UNC Hospitals' acute care bed capacity;
C. Reduction in UNC acute care patients transferred to other IRFs;
D. Increased admissions of pediatric patients; and,
E. Increased admissions of burn patients.

However, with the exception of projections for population growth and aging in HSA IV (found on pages 50-51), none of these factors are accompanied by any statistical data, much less any compelling explanation as to how they will contribute to an 8 percent annual growth rate. For instance, in Factor C UNC proposes to reduce the number of patients that are transferred to other rehab facilities, but provides no data regarding the number of patients currently transferred. Rather, a footnote related to this factor contained on page 65 merely states:

"Based on analysis of patient transfers to other inpatient rehabilitation facilities and new strategies to increase retention of patients to UNC Inpt. Rehab with reduction of patients going to Shriners." The net increase in rehab patients from FY 2013-2017 related to Factor C is 3. UNC does not discuss its patient retention strategies, nor does it provide the number of patients referred to Shriners each year (or the location(s) of Shriners).

Likewise, Factor D discusses an increase in pediatric patients at UNC's Rehab Center. UNC proposes to increase from serving 1 pediatric rehab patient per year in FY 2012 to 14 patients by FY 2017. Yet, there is no explanation or data contained in the UNC application to support this assertion, save for the mention on page 63 that it will rely "on an expected ramp-up to one patient per month following project completion." During the interim years, UNC's pediatric rehab patients will increase from 1 patient in FY 2012 to 11 patients by FY 2014. Again, there is no statistical or anecdotal information provided to support this dramatic increase in such a short period of time. UNC did not rely on any internal or outside data, such as inpatient discharge data from Truven Health Analytics, to justify this increase. UNC relied on data from the Mayo Clinic to estimate the types of pediatric rehabilitation patients and their respective lengths of stay, rather than any North Carolina-specific data. Because the Mayo Clinic data was not accompanied by a source document, it is impossible to determine if this is accurate or reasonable.

For these reasons, the UNC application is nonconforming with Review Criterion 3.

Review Criterion 4

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

The UNC application is not in conformance with Review Criterion 4 for the following reasons:

Not the Most Effective Alternative for More Private Patient Rooms

UNC's application describes the need for more private patient rooms in its Rehab Center. UNC could have opted to accomplish this goal by simply renovating the space adjacent to its existing rehab beds, then "decompressing" its semi-private rooms with additional private rooms. This would create additional private rooms without adding bed capacity.

Other Alternatives For Growing Physical Medicine & Rehabilitation Department

With its current and projected financial losses in inpatient rehabilitation (see discussion of Review Criterion 5 below), a more effective alternative would have been for UNC to develop relationships with existing providers of inpatient rehab to train its physical medicine student and resident physicians. Such an alternative would allow UNC residents to receive clinical training without the need for UNC to incur any capital expenditures. It is not clear how the

addition of only 12 beds will allow for any significant expansion of UNC's Physical Medicine & Rehabilitation department.

UNC did not discuss the option of seeking clinical training arrangements with existing providers of inpatient rehabilitation services in lieu of adding bed capacity, which would be less costly yet allow the Physical Medicine & Rehabilitation department to expand its training opportunities. UNC medical students and residents in other disciplines already complete clinical rotations at non-UNC hospitals.

Review Criterion 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.

The UNC application pro formas contain a number of inconsistencies and irregularities that cast doubt on the financial feasibility of the project.

Unreasonable and Unsubstantiated Projected Case Volumes

The discussion of Review Criterion 3 above discusses the problems in UNC's projected rehabilitation cases, including its unreasonably high annual growth rates, which are not substantiated. The unresolved issues with the projections call into question the reasonableness of the financial projections for a project that does not realize a positive net income from FY 2012 through Project Year 1 (FY 2015).

Contractual Adjustments

On Form B for UNC Rehab, UNC reports positive Other Contractual Adjustments each year, beginning at $3,925,355 in FY 2012, increasing to $7,718,109 in FY 2017. A positive contractual adjustment is a very unusual occurrence, particularly when it involves such large dollar amounts. UNC does not provide any explanation for this irregularity, which is nearly equal to the combined Medicare Contractual Adjustment and Medicaid Contractual Adjustment each year, and *greater than* the combined Gross Patient Revenue for Commercial Insurance, Managed Care and Other payers – the payers that presumably comprise the "Other" category. Please see the following table.

Table 11
UNC Hospitals
Analysis of Contractual Adjustments (C/A) in Form B (Rehab Only – page 136)

	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Medicare C/A	($2,246,124)	($2,571,362)	($2,943,586)	($3,369,818)	($3,857,787)	($4,416,372)
Medicaid C/A	($1,741,911)	($1,994,140)	($2,282,806)	($2,613,357)	($2,991,771)	($3,424,979)
Medicare C/A + Medicaid C/A	($3,988,035)	($4,565,502)	($5,226,392)	($5,983,175)	($6,849,558)	($7,886,351)
Other C/A	$3,925,355	$4,493,746	$5,144,250	$5,889,137	$6,741,884	$7,718,109
Difference (between Medicare C/A + Medicaid C/A and Other C/A)	($62,680)	($71,756)	($82,142)	($94,038)	($107,674)	($168,242)
Gross Patient Revenue for Comm. Insurance + Managed Care + Other	$2,793,229	$3,197,688	$3,660,577	$4,190,629	$4,797,431	$5,492,099

Without these large positive contractual adjustments, the UNC project would not be financially feasible. UNC's pro formas in its 2011 CON application for rehab beds (Project No. J-8630-11) did not include this unusual entry – the line item Other Contractual Adjustments was shown as a negative number, indicating a deduction in revenue.

Increases in Total Expenses Moderate from Interim Years to Project Years 1-3

On Form B, UNC's rehab program shows a net loss during the interim years FYs 2012-2015, but experiences positive net incomes during FYs 2016 and 2017. At first glance, this would appear to result from increases in utilization beginning in 2015. However, UNC projects that its utilization will increase by 8 percent per year beginning in 2013; this is held constant through Project Year 3. Net Revenue increases by 14.5 percent per year during 2012-2017. However, growth in expenses does not follow suit; the annual percentage growth in Total Expenses inexplicably slows beginning in FY 2016, coinciding with the expected completion of the project. Please see the following table.

Table 12
UNC Hospitals
Annual Percent Changes in Net Revenue and Total Expenses in Form B (Rehab Only – page 136)

	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Net Revenue	$7,830,705	$8,964,150	$10,261,311	$11,746,554	$13,447,044	$15,393,620
% change from prev.yr	--	14.5%	14.5%	14.5%	14.5%	14.5%
Total Expenses	$8,722,036	$9,764,412	$10,996,087	$12,492,169	$13,298,277	$14,494,305
% change from prev.yr	--	12.0%	12.6%	13.6%	6.5%	9.3%

UNC does not project that its annual percentage growth in Net Revenue will change beginning in FY 2015 (Project Year 1), therefore one would not expect the annual change in Total Expenses to be significantly different. However, if UNC's Total Expenses continue to grow at an

annual rate of approximately 12 percent per year – the low end of its annual increases between 2012 and 2015 – the UNC Rehab project will experience overall net losses during Project Year 1-3, casting doubt on the financial feasibility of the project.

Equipment Depreciation

Also on Form B for UNC Rehab, UNC reported equipment depreciation expense of $25,765 each year from FY 2012-2017. This is unusual, given that UNC proposes to acquire $280,000 in Movable Equipment and Furniture totaling $132,000 in its Total Capital Cost table in Section VIII. One would expect an increase in annual depreciation expense resulting from these capital costs. The inclusion of additional depreciation expense related to the project would further undermine its financial feasibility.

For these reasons, the UNC application does not conform to Review Criterion 5.

Review Criterion 9

An applicant proposing to provide a substantial portion of the project's services to individuals not residing 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.

On page 78, in response to Section III.5, UNC Hospitals provides its projected patient origin. UNC proposes to treat rehab patients from 52 North Carolina counties, plus out of state patients. Residents of HSA IV counties will comprise approximately 49 percent of UNC's rehabilitation inpatients, with the remaining 51 percent originating from other areas. UNC did not justify its service to the non-HSA IV counties, nor did it project demand for any of the counties it serves, in its need methodology. Population projections on pages 50-51 are for HSA IV counties only, which does not constitute the majority of the counties UNC proposes to serve.

By contrast, WakeMed Rehab's need methodology clearly justified its service to a 19-county geographic area inclusive of HSA IV, which comprises approximately 94 percent of WakeMed Rehab's patients.

For these reasons, UNC does not conform with Review Criterion 9.

Review Criterion 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.

The UNC application does not conform with Review Criterion 12. UNC proposes to renovate 5,581 square feet, but its construction cost and total cost per square foot are by far the highest in the review. Please see the following table.

Table 13
Comparison of Applicants' Construction/Renovation Costs Per Square Foot

Applicant	Square Feet to Be Constructed/ Renovated	Total Construction Cost	Construction Cost Per Square Foot	Total Project Cost	Total Cost Per Square Foot
Duke Raleigh	15,025	$2,257,600	$153.97	$4,172,000	$277.67
Johnston	9,097	$1,650,625	$181.45	$2,205,533	$242.45
UNC	5,581	$1,852,000	$331.84	$2,677,000	$479.66
WakeMed Rehab	74,794	$17,725,890	$237.00	$25,234,051	$337.38

Review Criterion 14

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

UNC emphasizes the need for the proposed project in terms of using additional rehab beds to increase its ability to train medical students and residents in Physical Medicine and Rehabilitation. However, the project is not the only way to achieve this objective. UNC should consider reaching out to existing providers of inpatient rehabilitation to develop training sites for these students and residents, allowing UNC to partner with existing providers and giving their students and residents additional training sites. Such arrangements would be more cost effective, would allow UNC students and medical residents to obtain valuable training and experience in established settings, and would bring UNC's research and teaching expertise to the community. Please see the discussion for Review Criterion 4.

Review Criterion 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.

UNC professes that its project will enhance competition improving access and reducing delays in admissions. However, because UNC forecasts that less than one-half of its cases and patient days will originate in HSA IV following project completion, it is difficult to comprehend how this

will improve competition within the region. UNC would obtain an additional 12 beds, yet less than half would be filled with HSA IV residents. Therefore, UNC's application does not conform with Review Criterion 18a.

Conclusion

The UNC Hospitals application contains unreliable and unsubstantiated case volumes, which are dependent upon unreasonable growth rates. By extension, UNC's financial projections are also unreasonable, and the financial feasibility of the project is suspect. For these reasons, this application should not be approved.

COMMENTS REGARDING WAKEMED REHAB HOSPITAL
PROJECT NO. J-10018-12

WakeMed Rehab Hospital proposes to develop 12 inpatient rehabilitation beds at its current location at WakeMed Raleigh Campus in Wake County, for a total of 110 beds in private patient rooms upon completion of Project Nos. J-8631-11 and J-10018-12. WakeMed Rehab Hospital's utilization has been above 90 percent for each of the last ten years, despite the fact that WakeMed Rehab added 16 rehab beds in the late 2000s. Clearly, with utilization at this level, it is imperative that WakeMed Rehab Hospital be allowed to expand to continue meeting the needs of Wake County, HSA IV, and central and eastern North Carolina.

It should be noted that approval of any of the other applicants in this review will not assuage WakeMed Rehab Hospital's high utilization and need for more beds.

On a comparative basis, the WakeMed Rehab Hospital application best meets the needs of HSA IV residents, given the following factors:

- WakeMed Rehab Hospital's current utilization is the highest among inpatient rehabilitation facilities in both HSA IV and North Carolina;

- WakeMed Rehab's need methodology projects the need for a 19-county geographic market area, which encompasses approximately 94 percent of WakeMed Rehab patients, one that minimizes the proportion of projected patients from unidentified areas and quantifies the need in each county in the market area.

- WakeMed's proposed growth in inpatient rehabilitation utilization is closely tied to projected population changes in the geographic market area.

- As a comprehensive rehabilitation program, WakeMed Rehab's service mix has a greater degree of depth and breadth than any other provider in this review.

- WakeMed Rehab is the only applicant in this review that proposes to serve a tangible number of pediatric rehabilitation patients ages 14 and under, and which provided a methodology for analyzing pediatric rehab need.

- WakeMed Rehab supports its inpatient program with a number of outpatient rehab facilities, wellness programs and home health. WakeMed Rehab's continuum of services is unmatched among providers in the review.

- WakeMed Rehab currently serves, and will continue to serve, residents in all counties of HSA IV.

- WakeMed Rehab already coordinates with a number of existing providers in the health care delivery system. WakeMed is the only applicant in the review to provide correspondence from all identified providers of ancillary and support services.

- The WakeMed Rehab proposal has support from a large number of physicians and surgeons, representing a broad base of specialties that both admit and provide consultation to rehab inpatients.

- WakeMed Rehab is located in Wake County, the center of HSA IV's population growth and contiguous to HSA IV's population centers in Durham and Johnston Counties.

- WakeMed Rehab Hospital is located near the geographic center of HSA IV, and is accessible to all HSA IV residents.

- The WakeMed Rehab proposal would enhance access to inpatient rehabilitation services in HSA IV by transitioning to an all-private room facility. WakeMed outlined the justification for the project in its application.

For these reasons, the WakeMed Rehab proposal offers the best solution for meet the inpatient rehab needs of HSA IV residents, and should be approved.