Comments on Competing Application for Additional Acute Care Beds in Durham County

May 31, 2022

In accordance with N.C. GEN. STAT. § 131E-185(a1)(1), the University of North Carolina Hospitals at Chapel Hill (UNC Health) submits the following comments related to a competing application filed by Duke University Health System, Inc. (DUHS) (Project ID # J-12211-22) to develop additional acute care beds at Duke University Hospital to meet the need identified in the *2022 State Medical Facilities Plan* (*2022 SMFP*) for 68 additional acute care beds in the Durham County/Caswell County service area. UNC Health's comments on DUHS's application include "discussion and argument regarding whether, in light of the material contained in the application and other relevant factual material, the application complies with the relevant review criteria, plans and standards." See N.C. GEN. STAT. § 131E-185(a1)(1)(c). To facilitate the Agency's review of these comments, UNC Health has organized its discussion by issue, noting the Certificate of Need statutory review criteria creating the non-conformity on the application.

UNC Health's detailed comments include general comments about DUHS's competing application as well as application-specific comments and a comparative analysis related to its application.

GENERAL COMMENTS

Given the competitive nature of this review, UNC Health understands that the Agency will conduct a comparative analysis of the applications. Given the analysis of the competing application to follow, as well as the factors noted below, UNC Health believes it has presented the most compelling application to develop additional acute care bed capacity between the two applications in this review. In particular, the following factors demonstrate that UNC Hospitals-RTP is the most effective applicant:

- Geographic Accessibility
- Need for Community Hospital Services
- Opportunity to Meet Multiple Needs

Each of these factors is discussed in turn below.

<u>Geographic Accessibility</u>

UNC Health proposes to develop additional acute care bed capacity at UNC Hospitals-RTP, an approved acute care hospital in Research Triangle Park in southern Durham County. As demonstrated in UNC Hospitals-RTP's application, the south region of Durham County where the approved hospital will be located is a highly populated and fast growth region with a limited approved acute care bed inventory. Conversely, DUHS proposes to develop additional acute care bed capacity at Duke University Hospital in the central region of Durham County where all the other existing acute care beds in the county are located. Thus, DUHS's proposal will not enhance geographic accessibility for acute care. In addition, the Agency Findings for the 2021 Durham/Caswell Acute Care Bed and Durham County Operating Room Review included a "Geographic Accessibility" comparative factor in its analysis of the acute care bed applications and the Agency stated on page 118 of its findings, "*the three existing hospitals [in Durham County] are all located in Central Durham County, within approximately five miles of one another. Duke University Hospital proposes to add 40 acute care beds at its existing facility in Central Durham County. UNC Hospitals-RTP proposes to develop a new hospital with two ORs in South Durham County. UNC Hospitals-RTP proposes to develop acute care beds in South Durham County where there are currently no existing acute care beds. Therefore, UNC Hospitals-RTP is a more effective alternative with regard to geographic accessibility and Duke University Hospital is a less effective alternative.*" While there are (40) approved acute care beds for UNC Hospitals-RTP, as previously noted, all the other existing licensed acute care beds are located in central Durham County.

In light of this information, UNC Health's proposal to develop additional acute care bed capacity at UNC Hospitals-RTP is the most effective alternative.

<u>Need for Community Hospital Services</u>

At present, UNC Health believes that the most effective alternative to meet the need for additional acute care beds in the Durham County/Caswell County service area is to develop them to provide basic community hospital services (non-tertiary), which are generally lower acuity, higher frequency services needed by a significant portion of the population. As demonstrated on page 61 of the UNC Hospitals-RTP application, utilization of "selected services," or the services to be offered initially at UNC Hospitals-RTP, at Durham County hospitals increased 3.7 percent annually from Calendar Year (CY) 2017 to CY 2019, while other services increased only 1.2 percent annually during the same period of time. Please see the table below which is also included on page 61 of the UNC Hospitals-RTP application.

Historical Selected Services Acute Care Days - Durham County Hospitals

	CY17	*CY18*	*CY19*	*CAGR*
Selected Services Days	204,929	210,701	220,429	3.7%
Other Services Days	146,420	148,544	150,010	1.2%
Total Days	**351,349**	**359,245**	**370,439**	**2.7%**
Selected Services ADC	561.4	577.3	603.9	3.7%
Other Services ADC	401.2	407.0	411.0	1.2%
Total ADC	**962.6**	**984.2**	**1,014.9**	**2.7%**

Source: IBM data.

In addition, also demonstrated on page 61 of the UNC Hospital-RTP application, despite the growth at existing tertiary and quaternary facilities in Durham, the basis of growth in acute care bed days was the need for lower acuity, community hospital services. The higher growth in the selected services, even at facilities providing higher acuity care, including Duke Regional Hospital and Duke University Hospital, demonstrates that the need for additional acute care bed capacity in Durham County can be met most effectively by expanding access to these lower acuity services. Despite this information, page 33 of the DUHS application states, "[*T*]*he ongoing need for additional acute care bed capacity in Durham County is driven solely by the inpatient utilization at DUH and not by any other hospital. Failing to recognize the need for additional beds at Duke University Hospital would only continue to exacerbate the growing bed deficit that cannot be addressed by any community hospital provider or applicant*." In its application, DUHS failed to analyze or provide any discussion of the type or types of services that are potentially impacting growth in acute care service utilization at Duke University Hospital. Had such an analysis been performed, similar to UNC Hospitals, DUHS would have identified that it is not quaternary-level services driving growth; rather it is the non-tertiary, basic community hospital services proposed to be offered initially at UNC Hospitals-RTP. DUHS's failure to discuss or analyze acute care utilization in this manner is a significant oversight and contributes to its erroneous conclusion that the most effective alternative for the need for additional acute care bed capacity in the Durham County/Caswell County service area is to develop additional bed capacity at Duke University Hospital.

UNC Health believes that rather than increasing inpatient capacity at Duke Regional Hospital or Duke University Hospital, patients will be better served at a recently approved community hospital in a new location in the county, where patients will have access to a smaller, community hospital, rather than needing to navigate a large, congested hospital campus. Moreover, additional acute care beds at UNC Hospitals-RTP will not only enhance UNC Health's ability to meet the need for lower acuity community services, but it will in turn allow Duke Regional Hospital and Duke University Hospital to focus more resources on patients who need care in a tertiary or quaternary setting. Given this information, the project proposed by UNC Health is the most effective to meet the need for additional acute care bed capacity in the Durham County/Caswell County service area identified in the *2022 SMFP*.

Opportunity to Meet Multiple Needs

Notwithstanding UNC Health's belief that the DUHS application is not approvable, standing alone, because UNC Health's proposal seeks to develop only 34, or one-half, of the 68 acute care beds identified in the need determination in the *2022 SMFP*, its proposed project enables the development of the 34 remaining

acute care beds for other providers to meet other identified needs should the Agency find the other applicant conforming with all applicable statutory and regulatory review criteria.

Nonetheless, as demonstrated below, UNC Health believes that it is the only applicant that has demonstrated conformity with the statutory and regulatory review criteria. The following sections provide detailed comments on DUHS's application as well as a more detailed comparative analysis.

DUHS ISSUE-SPECIFIC COMMENTS

DUHS's application to add 68 acute care beds should not be approved. The information in the application as submitted is insufficient to make a determination of conformity with the statutory review criteria and specific regulatory criteria and standards. UNC Health has grouped the issues that contribute to DUHS's non-conformity:

(1) Failure to demonstrate the reasonableness of projected utilization
(2) Failure to demonstrate financial feasibility and reasonable financial assumptions
(3) Failure to demonstrate that the least costly or most effective alternative has been proposed
(4) Failure to demonstrate that proposal will not result in unnecessary duplication of existing or approved health service capabilities or facilities

Each of the issues listed above is discussed in turn. Please note that relative to each issue, UNC Health has identified the statutory review criteria and specific regulatory criteria and standards creating the non-conformity.

1. The DUHS application fails to demonstrate the reasonableness of projected utilization.

DUHS fails to demonstrate the reasonableness of its projected utilization as it uses unsupported growth rates and overstated average length of stay (ALOS) assumptions. For example, as demonstrated in its utilization projections, in order to project acute care bed days for Duke University Hospital, DUHS assumes adult, pediatric, and neonatal discharges will all ultimately increase at an annual rate of 1.5 percent through FY 2026, the proposed third FY of the DUHS's project.[1] DUHS does not provide any discussion or data to support its discharge growth rate assumptions. For all three services, DUHS simply states that it increased discharges by 1.5 percent through project year 3 and provides no support or explanation for the purported assumption. As a point of reference, on page 34 of the DUHS application, DUHS provides historical utilization demonstrating that discharges decreased from 40,975 in FY 2016 to 40,906 in FY 2021. In addition, population growth rates presented on pages 36 to 37 of the DUHS application yield an expected 1.3 percent compound annual growth rate (CAGR) for Durham and Caswell counties and 1.0 percent CAGR for all of North Carolina from 2020 to 2030. As such, even in consideration of information elsewhere in its application, DUHS fails to provide any rationale or justification for its annual discharge growth rate assumption.

In fact, the lack of information provided in DUHS's application to support its projected discharge growth rate of 1.5 percent through project year 3 is particularly concerning in light of the information provided in the UNC Hospitals-RTP application regarding what services are driving the growth in inpatient days of care

[1] Of note, as stated on page 94 of the DUHS application, "*DUH projects that its [neonatal] discharges will increase 10% in FY 2023, leading to operation at approximately 80% of neonatal bed capacity. Thereafter, it projects a more modest increase of 1.5% per year.*"

in Durham County. Specifically, as stated earlier in these comments, as discussed on page 61 of the UNC Hospitals-RTP application, despite the growth at existing tertiary and quaternary facilities in Durham, the basis of this growth was the need for lower acuity, community hospital services. The higher growth in the selected services, even at facilities providing higher acuity care, demonstrates that the need for additional acute care bed capacity in Durham County can be met most effectively by expanding access to these lower acuity services. DUHS's utilization methodology lacks any discussion or analysis of data to indicate what types of services are impacting utilization at Duke University Hospital. Particularly as an academic medical center, it is concerning that DUHS's application includes no explanation of the quaternary-level services that are impacting acute card bed utilization and provides no approach to attempt to substantiate the need for additional beds that it asserts can only be met at Duke University Hospital. The table below is from page 61 of the UNC Hospitals-RTP application and demonstrates clearly that the majority of patient days provided at Duke University Hospital were for UNC Hospitals-RTP's "selected services," or the community hospital services proposed to be initially offered at UNC Hospitals-RTP.

Historical Selected Services Acute Care Days – Durham County Hospitals

Provider	*CY17*	*CY18*	*CY19*	*Growth*	*CAGR**
Duke Regional Hospital	**65,419**	**65,139**	**70,336**	**4,917**	**3.7%**
Selected Services	51,017	51,273	55,121	4,104	3.9%
Other Services	14,402	13,866	15,215	813	2.8%
Duke University Hospital	**282,366**	**291,036**	**297,149**	**14,783**	**2.6%**
Selected Services	150,434	156,410	162,459	12,025	3.9%
Other Services	131,932	134,626	134,690	2,758	1.0%
North Carolina Specialty Hospital	**3,564**	**3,070**	**2,954**	**(610)**	**-9.0%**
Selected Services	3,478	3,018	2,849	(629)	-9.5%
Other Services	86	52	105	19	10.5%
Total	**351,349**	**359,245**	**370,439**	**19,090**	**2.7%**

Source: IBM data.
*Compound annual growth rate

As shown in the table above, "selected services," or the services proposed to be offered initially at UNC Hospitals-RTP, at Duke University Hospital accounted for 53 (150,434 / 282,366 = 0.53), 54 (156,410 / 291,036 = 0.54), and 55 (162,459 / 297,149 = 0.55) percent of total days of care provided at Duke University Hospital in CYs 2017, 2018, and 2019, respectively, which equates to a CAGR of 3.9 percent from CY 2017 to CY 2019. This demonstrates clearly that it is not quaternary-level care causing the most significant impact on acute care utilization at Duke University Hospital, rather it is the non-tertiary, community hospital services. In light of this discussion and the fact that the DUHS application includes no explanation for the need for additional beds to support quaternary-level services, UNC Health believes the discharge growth rates used by DUHS in its utilization methodology to be unreasonable and unsupported.

In addition, DUHS overstates its ALOS which results in superficially inflated inpatient bed need projections. On the first page of its utilization methodology, DUHS discusses that its utilization in FY 2020 and 2021 were impacted by the COVID-19 pandemic as it states, "[*D*]ue *to the impacts of COVID-19, in FY 2020 and FY 2021 DUH experienced declines in inpatient discharges compared to prior years. This was related to reductions in elective surgeries and other procedures (both due to restrictions implemented by the hospital and due to patient reluctance to seek non-emergent healthcare), reduced ED admissions with children*

home from school and limited extracurricular/sports options, etc. However, FY 2021 inpatient days of care reflect a significant increase not only over FY 2020 but also over previous years due to longer average length of stay." However, after stating that its FY 2021 ALOS of 7.13 is inflated due to COVID-19, DUHS selects a projected ALOS of 7.25 days, which is even higher than the ALOS for adult and pediatric inpatients in 2021. DUHS then assumes that the inflated ALOS of 7.25 days will remain constant through project year 3 as it applied the purported ALOS to projected discharges in order to estimate inpatient days of care for Duke University Hospital through CY 2026. DUHS does not demonstrate why its ALOS assumption is reasonable to use to project future days of care for Duke University Hospital, particularly in light of its discussion that the ALOS has been impacted by the pandemic. DUHS historical data presented on page 34 of its application shows an average ALOS of 6.84 days for 2016 through 2019, the last period before COVID 19. If that historical ALOS is applied to FY 2026 discharges, projected patient days are **reduced by 31,797, which equates to a reduction in projected Average Daily Census of 87 patients, and a projected need for a total of 116 fewer beds, based on 75.2 percent target occupancy rates**.

By overstating both discharges and ALOS, DUHS creates the perception that it will meet performance standards. However, if DUHS's unreasonable projections are corrected to align with either Durham County/Caswell County or North Carolina population growth rates and are then combined with DUHS's actual average ALOS from 2016 to 2019, DUHS will not meet performance standards as occupancy rates fall below the 75.2 percent required by the performance standards as shown below.

	2022	***2023***	***2024***	***2025***	***2026***
Discharges (Increased 1.3% annually)	42,898	43,456	44,021	44,593	45,173
ALOS (Based on 2016-2019 average)	7.59	6.84	6.84	6.84	6.84
Total Days	325,636	297,237	301,101	305,015	308,980
Beds	1,048	1,062	1,130	1,130	1,130
Occupancy	**85.1%**	**76.7%**	**73.0%**	**74.0%**	**74.9%**

Of note, using the more reasonable and supported projections in the table above, DUHS could meet the performance standard for acute care beds with only 34 additional beds, which would have a projected occupancy rate of 77.2 percent (308,980 days ÷ 365 = 846.52 ÷ 1,096 (1,062 + 34 new beds) = 77.2%). Moreover, even with 34 additional acute care beds (and not 68), based on these projections DUHS would be operating at a lower occupancy rate than what it has projected for 2022. In addition, in the summer of 2021, DUHS petitioned for the complete removal of the acute care bed need in the *2022 SMFP*, which was then a need for 67 beds. That petition was filed during the pendency of the 2021 review in which DUHS and UNC Health had each applied for 40 acute care beds. Thus, DUHS took the position that the need in the service area was no more than 40 additional beds, and that the beds that DUHS had previously been awarded were sufficient, noting, "*there is significant capacity that is either only recently put into service or is still in development. In addition to this new capacity, there is a pending review of applications [emphasis added] to develop another 40 beds in the service area pursuant to the 2021 SMFP need determination*[2]." Clearly DUHS believed that the approval of one of the 2021 applications would be sufficient, at least for the time being, and given its position on the need determination for acute care beds in the Durham/Caswell service area in the *2022 SMFP*, and based on the analysis above, it is clear that its acute care bed utilization projections are unsupported, and it has not demonstrated the need for 68 additional acute care beds. DUHS also continues to fail to demonstrate that it needs the 40 additional

[2] https://info.ncdhhs.gov/dhsr/mfp/pets/2021/August11/A03-PetitionNeedAdjustment2022WakeDurhamCountybeds.pdf

beds it proposed in its 2021 application, the denial of which it is currently appealing. As such, **the DUHS application is non-conforming with Criteria 3, 4, 5, 6, and 18a, and the performance standards for Acute Care Beds (10A NCAC 14C .3803).**

2. The DUHS application fails to demonstrate financial feasibility and reasonable financial assumptions.

DUHS overstates the Medicare portion of its payor mix. Per DUHS's Form F.2 and F.3 assumptions for Duke University Hospital adult inpatient beds, "[*P*]*er guidance from Cost & Revenue Accounting, the only adjustment to payor mix made was a 2.9% annual shift from Managed Care to Medicare for FY 2022 due to the aging of the population*. *This shift is based on review of census data for the area for individuals >65 years old and prior year actual shifts from Managed Care to Medicare."* DUHS does not provide any data to support the shift, nor does it provide any discussion or data on the aging of its service area population in its application. This adjustment is contradictory to the actual changes in payor mix based on DUHS's last three acute care bed applications, which show a trend of declining Medicare in its payor mix. Per Section L of the applications, Medicare represented 42.3 percent of the entire facility in FY 2017 (Project ID # J-11426-17), 42.0 percent in FY 2018 (Project ID # J-11717-19), 38.1 percent in FY 2020 (Project ID # J-12069-21), and now 37.8 percent in the current application. Moreover, this adjustment is also contradictory to DUHS's overall financial projections. In DUHS's Forms F.2a and F.2b, Medicare represents 45.5 percent of charges for all six fiscal years (2021 through 2026). As such, there is clearly no adjustment to shift Managed Care patients to Medicare. In fact, given the lack of adjustment to DUHS's overall financial projections, in light of the projected increase in Medicare for adult inpatient services, DUHS actually projects a decrease in Medicare for all other services, which clearly is inconsistent with its stated assumption.

In addition, DUHS fails to include all expenses in Forms F.2a, F.2b, F.3a, and F.3b of the DUHS adult inpatient beds service component. In its Form F.1a, DUHS presents a capital cost of $4,828,000 which is for only medical equipment as the entirety of the capital cost is on the Medical Equipment line item. However, no depreciation for the proposed medical equipment is included in the income statements for the project, as demonstrated below; thus, expenses for the proposed project are understated.

Depreciation - Buildings	$0	$0	$0
Depreciation - Equipment	$0	$0	$0
Other Expenses (Medical Coverage)	$12,570,497	$14,297,978	$14,655,427
Other Expenses (Medical Coverage) PROF.	$4,017	$5,682	$5,824
Other Expenses	$62,796,231	$69,409,073	$71,967,604
Other Expenses PROF.	$166,536	$134,740	$138,109
Other Expenses (All Indirect Expense)	$424,268,080	$453,026,196	$464,351,851
Other Expenses (All Indirect Expense) PROF.	$547,659	$602,425	$617,486
Total Expenses	**$1,173,733,188**	**$1,278,459,643**	**$1,327,773,888**

F: = From

T: = To

(1) Include only the cost of independent contractors on this line. Employees should be included in the Salaries line.

(2) Do not include salaries on this line. Salaries should be included in the Salaries line.

Applicants may add rows for costs that are not listed.

Applicants may delete rows for costs that are not applicable to the type of facility identified in Section A, Question 4.b.

Applicants may delete Interim Full FY columns if not needed.

While DUHS may respond that these costs are otherwise included in its overall financial projections, they are still omitted from the service specific income statement as requested; thus, its projected costs for the proposed service are understated.

Finally, as noted previously, the volume projections on which DUHS's financials are based are overstated, rendering the financial projections also unreasonable and unsupported.

Based on the discussion above, it is clear that DUHS's application is non-conforming with Criterion 5.

3. The DUHS application fails to demonstrate that the least costly or most effective alternative has been proposed.

DUHS fails to demonstrate that it has proposed the least costly or most effective alternative. In Section E of its application, pages 52 to 53, DUHS discussed several alternatives it considered prior to the submission of its application as proposed. The alternatives considered by DUHS include:

- Pursue no additional inpatient bed expansion (not an alternative to meet the need for the project)
- Construct an off-site facility in Durham County
- Renovate existing space at Duke Regional Hospital
- Renovate existing spaces for incremental beds (proposed alternative)

In reviewing the alternatives presented – listed above – and other information provided in the DUHS application, UNC Health believes that DUHS failed to propose the most effective alternative to meet the need for additional acute care beds in the Durham County/Caswell County service area for several reasons. Primarily, the DUHS application rejects the alternative of developing beds at a new campus in Durham County and cites that "[*A*]*dditional capacity is currently needed in the service area for the tertiary and quaternary care services provided by DUH and which are not readily duplicated at another facility.*" However, as previously discussed in these comments, unlike the UNC Hospitals-RTP application, the DUHS application does not address the needs identified in the current market. In particular, the DUHS application fails to consider what is driving the need for more beds in the service area, which is non-tertiary, basic community hospital services. Moreover, DUHS's response to Section C.4 is very brief, and simply points to its own overall utilization. In contrast, UNC Hospitals-RTP identifies the basis of the projected growth and need for additional acute care beds in the service area, which will be served at its previously approved community hospital that it seeks to expand. In addition, as previously discussed, DUHS petitioned for the complete removal of the acute care bed need in the *2022 SMFP*. In light of DUHS's previous position that the need in the service area was no more than 40 additional beds, and that the beds that DUHS had previously been awarded were sufficient, DUHS should have included in its response to Section E the alternative to "not apply" to develop the additional acute care beds identified in the *2022 SMFP*. DUHS's failure to consider the alternative of not applying to develop the additional acute care bed is counter to what it argued in its summer petition and raises the question as to whether or not DUHS truly needs the additional capacity proposed in its application, particularly given its tepid response to Section C.4.

Further, interestingly, as described on page 27 of its application, DUHS is proposing to develop the proposed acute care beds in recently constructed bed towers (Duke Medical Pavilion and/or Duke Central Tower) at Duke University Hospital by relocating beds that are currently housed in those towers to Duke North. Prior to the discussion of how DUHS plans to relocate existing beds in the new bed towers to Duke North in order to make room for the proposed beds, it states, "[*T*]he *majority of the hospital's inpatient*

beds are currently located in Duke North tower, which was constructed in 1980 and in need of renovations, including new plumbing, electrical system replacement and expansion, IT infrastructure improvements, and medical gas renovations." Furthermore, DUHS footnotes on page 27 of the application, "[*T*]*he approach of implementing new beds in Duke Medical Pavilion and/or Duke Central Tower after relocation of existing beds to other hospital spaces has been previously discussed with DHSR Certificate of Need and Construction Section Staff*"; however, the DUHS application provides no substantive information regarding the "*other hospital spaces*" and if they meet current building codes, nor did DUHS disclose the substance of its discussion with the CON or Construction Section Staff. If these other hospital spaces require significant renovation to meet code requirements, the timeline proposed in Section P of the DUHS application is unreasonable. As demonstrated in Section P of its application, DUHS projects the new beds to be operational on July 1, 2023, or 13 months from the time of submission of these comments. The DUHS application provides no detail regarding what would be required to operationalize the relocated beds or how much it would cost, nor does it discuss any negative impacts the relocation would have on operations and patient care or if it can even be done in a reasonable amount of time because, as DUHS describes, "*due to the high utilization of these beds [at Duke North], it is not operationally feasible to vacate significant inpatient capacity to accommodate the renovations necessary to house patients in the existing bed tower long-term.*" Not only does the lack of detail regarding what it would take to relocate the existing beds call into question whether or not DUHS's construction timeline is accurate, but also if it accounted for all the capital that would be required to relocate and operationalize the existing beds and develop new ones in the spaces vacated by the existing beds in the new towers. DUHS's footnote stating that it talked to the CON and Construction Section Staff regarding this project is not helpful in evaluating the feasibility of DUHS's approach for relocating existing beds in the recently constructed towers to spaces – that DUHS admits are in need of renovations and updates – in order to make room for the acute care beds proposed in its application. In summary, DUHS's application fails to provide the level of detail needed to truly understand what would need to take place in order to develop its project as proposed.

Given the need of patients in the service area and other information in the DUHS application, DUHS failed to select the most effective alternative. Therefore, and based on the discussion above, DUHS fails to demonstrate that it proposed the least costly or most effective alternative in accordance with Criterion 4. As such, **the DUHS application is non-conforming with Criteria 1, 3, and 4.**

4. The DUHS application fails to demonstrate that its proposed project will not result in unnecessary duplication of existing or approved health service capabilities or facilities

DUHS does not provide an effective analysis to demonstrate that its proposed project will not result in unnecessary duplication of existing or approved health services in Durham County, specifically as Duke Regional Hospital has a surplus of 33 acute care beds according to Table 5A in Chapter 5 of the *2022 SMFP*. The DUHS application claims that developing an additional 68 acute care beds at Duke University Hospital will not result in unnecessary duplication of services that it offers in the county as its states on page 63 of the application, "*Duke Regional Hospital similarly has a different scope and focus than Duke University Hospital. As a community hospital owned by the county and leased to DUHS to operate, DRH does not offer the same quaternary services as DUH. It would be significantly less efficient – and contrary to this criterion – to duplicate DUH's specialized services, including medical coverage, equipment and staffing, at a second hospital in the county than it would be to increase the capacity at DUH.*" This information alone does not obviate it from its burden of demonstrating conformity with Criterion 6. While the performance standards for acute care beds apply only to utilization levels at Duke University Hospital, DUHS must still demonstrate that its proposal will not result in unnecessary duplication of services that it offers in the service area. As discussed throughout these comments, the services driving acute care bed utilization in

Durham County is not the quaternary-level care provided at Duke University Hospital, rather it is the non-tertiary level services proposed to be offered initially at UNC Hospitals-RTP. Nonetheless, if DUHS's main concern is to maintain adequate capacity at Duke University Hospital, then it should consider applying to relocate beds from Duke Regional Hospital to Duke University Hospital. Even though DUHS claims on page 61 of its application that "*Duke Regional Hospital's own utilization is growing, and additional beds are needed throughout the system to meet the demand for the system's inpatient services*," this information alone does not adequately demonstrate that there is not enough capacity within DUHS to meet patient demand for its services, particularly as the DUHS application provides no discussion on the factors that are impacting acute care bed utilization at DUHS. Given the surplus supply of acute care beds at Duke Regional Hospital and the fact that the main driver of acute care bed utilization in Durham County is not the quaternary-level services provided at Duke University Hospital, but lower acuity services that could be provided at Duke Regional Hospital, DUHS has failed to demonstrate that its project will not result in unnecessary duplication of services in the service area.

Based on the discussion above, DUHS fails to demonstrate that its proposed project will not result in unnecessary duplication in accordance with Criterion 6. As such, the DUHS application is non-conforming with Criteria 1 and 6.

COMPARATIVE ANALYSIS

The UNC Hospitals-RTP acute care bed application (Project ID # J-12214-22) and the DUHS application (Project ID # J-12211-22) each propose to develop acute care beds in response to the *2022 SMFP* need determination for Durham County/Caswell County. Given that the applicants propose a total of 102 beds to meet the need for the 68 additional acute care beds in Durham County, both cannot be approved as proposed. To determine the comparative factors that are applicable in this review, UNC Health examined recent Agency findings for competitive acute care bed reviews. In particular, UNC Health relied on the 2021 Durham County/Caswell County Acute Care Bed comparative analysis. Based on that examination and the facts and circumstances of the competing applications in this review, UNC Health considered the following comparative factors:

- Conformity with Review Criteria
- Geographic Accessibility
- Provider Support
- Historical Utilization
- Competition (Patient Access to a New Provider)
- Access by Underserved Groups
    - Projected Charity Care
    - Projected Medicare
    - Projected Medicaid
- Projected Average Net Revenue per Case
- Projected Average Operating Expense per Case

UNC Health believes that the factors presented above and discussed in turn below should be used by the Project Analyst in reviewing the competing applications.

Conformity with Applicable Statutory and Regulatory Review Criteria

As discussed in the application-specific comments above, the DUHS application is non-conforming with multiple statutory and regulatory review criteria. In contrast, the UNC Hospitals-RTP application is conforming with all applicable statutory and regulatory review criteria. Therefore, with regard to conformity with statutory and regulatory review criteria, the UNC Hospitals-RTP application is the most effective alternative.

Geographic Accessibility

There are 1,428 existing and approved acute care beds in Durham County and none in Caswell County, allocated between existing and proposed facilities, as shown in the table below.

	Licensed Acute Care Beds	***CON Adjustments***	***Total Acute Care Beds***
Central Durham County			
Duke University Hospital	946	102	1,048
Duke Regional Hospital	316	0	316
Duke Health System Total	1,262	102	1,364
North Carolina Specialty Hospital	18	6	24
Central Durham Total	1,280	108	1,388
South Durham County			
UNC Hospitals-RTP	0	40	40

Source: *2022 SMFP*.

As shown in the table above, the three existing hospitals are all located in central Durham County and are, as previously noted in these comments, within approximately five miles of one another. DUHS proposes to add 68 acute care beds at its existing facility in Central Durham County. UNC Health proposes to develop 34 acute care beds at its approved hospital in southern Durham County.

UNC Health proposes to develop acute care beds in southern Durham County where there are currently no existing acute care beds, just the 40 that were approved in 2021. Therefore, UNC Hospitals – RTP is a more effective alternative with regard to geographic accessibility.

Provider Support

The UNC Health application provided 51 letters of support and the DUHS application provided 15. Thus, both applications documented provider support of their proposed project. Regardless, UNC Hospitals-RTP is the only applicant that is conforming with all statutory and regulatory review criteria. Therefore, UNC Hospitals-RTP is the most effective alternative with regard to provider support.

Historical Utilization

Generally, the application submitted by the applicant with the highest utilization of its available acute care beds is the more effective alternative with regard to this comparative factor. However, UNC Health is not an existing provider of acute care beds in Durham County. Similar to the 2021 Agency Findings, UNC

Health concludes that since UNC Health is not an existing provider of inpatient services in Durham County, this comparative factor is not a valuable tool to compare the applications.

Competition (Patient Access to a New Provider)

Based on the Agency's past position on this comparative factor – that the expansion of an existing provider that currently controls fewer acute care beds than another provider would represent the most effective alternative – UNC Health compared the percent of beds under control by each facility. Of note, UNC Health does not necessarily believe this to be a useful factor as applied by the Agency; nonetheless, below is the result of this factor if the Agency applies it the same way it has historically.

There are 1,428 existing and approved acute care beds in Durham County. Duke University Hospital and Duke Regional Hospital are affiliated with DUHS, which currently controls 1,364 of the 1,428 acute care beds in Durham County, or 95.5 percent. UNC Health controls 40 acute care beds, which are under litigation, representing 2.8 percent.

If DUHS's application to add 68 beds is approved, DUHS would control 1,432 of the 1,496 existing and approved beds, or 95.7 percent. If UNC Hospitals–RTP's application is approved, UNC Hospitals-RTP would control 74 of the 1,496 existing and approved beds, or 4.9 percent.

Therefore, with regard to competition, similar to the 2021 Agency Findings, the application submitted by UNC Hospitals-RTP is the more effective alternative.

Access by Underserved Groups

Projected Charity Care

The following table illustrates each applicant's percentage of total acute care bed charges to be provided to Charity Care patients.

Charity Care as Percentage of Total – Project Year 3

	Charity Care Revenue	***Total Gross Revenue***	***Charity Care %***
UNC Hospitals-RTP IP	$20,692,825	$235,457,374	8.8%
Duke University Hospital IP	$106,030,462	$3,606,848,663	2.9%

Source: Form F.2b for UNC Hospitals–RTP Inpatient Services and DUHS Adult Inpatient Beds.

As shown in the table above, UNC Hospitals-RTP projects to serve the highest percentage of charity care patients. Therefore, with regard to access to charity care patients, UNC Hospitals-RTP is the most effective alternative.

Projected Medicare

The following table illustrates each applicant's percentage of total acute care charges to be provided to Medicare patients.

Medicare as Percentage of Total – Project Year 3

	Medicare Revenue	***Total Gross Revenue***	***Medicare %***
UNC Hospitals-RTP IP	$120,659,542	$235,457,374	51.2%
Duke University Hospital IP	$1,780,560,702	$3,606,848,663	49.3%

Source: Form F.2b for UNC Hospitals–RTP Inpatient Services and DUHS Adult Inpatient Beds.

As shown in the table above, UNC Hospitals-RTP projects to serve the highest percentage of Medicare patients. Therefore, UNC Hospitals-RTP is the most effective alternative with regard to access to Medicare patients.

Projected Medicaid

The following table illustrates each applicant's percentage of total acute care charges to be provided to Medicaid patients.

Medicaid as Percentage of Total – Project Year 3

	Medicaid Revenue	***Total Gross Revenue***	***Medicaid %***
UNC Hospitals-RTP IP	$36,194,498	$235,457,374	15.4%
Duke University Hospital IP	$426,696,656	$3,606,848,663	11.8%

Source: Form F.2b for UNC Hospitals–RTP Inpatient Services and DUHS Adult Inpatient Beds.

As shown in the table above, UNC Hospitals-RTP projects to serve the highest percentage of Medicaid patients. Therefore, UNC Hospitals-RTP is the most effective alternative with regard to access to Medicaid patients.

As demonstrated above, UNC Health compared charity care, Medicare, and Medicaid revenue as a percent of total gross revenue. UNC Health does not believe it would be appropriate to compare the applicants based on total charity care, Medicare, or Medicaid dollar amounts given the differences in facility size and service offerings proposed by the two applicants. Comparisons of percentages of gross revenue allows direct comparisons of facilities of differing size and service complements.

Projected Average Net Revenue per Case

The following tables show the projected net revenue per acute care patient in the third year of operation.

Net Revenue per Acute Care Bed Patient – Project Year 3

	Projected Total Patients	*Net Revenue*	*Average Net Revenue per Patient*
UNC Hospitals-RTP	3,858	$92,650,396	$24,015
Duke University Hospital	45,591	$1,197,065,445	$26,257

Source: Forms C and F.2b.

As shown above, UNC Hospitals-RTP projects the lowest average net revenue per patient. Therefore, UNC Hospitals-RTP is the most effective alternative with regard to net revenue.

Projected Average Operating Expense per Case

The following tables show the projected operating expense per acute care bed patient in the third year of operation.

Hospitals Operating Expense per Acute Care Bed Patient – Project Year 3

	Projected Total Patients	*Operating Expense*	*Average Operating Expense per Patient*
UNC Hospitals-RTP	3,858	$79,776,658	$20,678
Duke University Hospital	45,591	$1,488,469,720	$32,648

Source: Forms C and F.2b.

As shown above, UNC Hospitals-RTP projects the lowest average operating expense per patient. Therefore, UNC Hospitals-RTP is the most effective alternative with regard to operating expense.

Summary

The following table lists the comparative factors and states which is the more effective alternative for each comparative factor.

Facility Name	*UNC Hospitals – RTP*	*Duke University Hospital*
Conformity with Review Criteria	Yes	No
Geographic Accessibility	More Effective	Less Effective
Provider Support	More Effective	Less Effective
Historical Utilization	Not Applicable	Not Applicable
Competition	More Effective	Less Effective
Access by Underserved Groups		
Projected Charity Care	More Effective	Less Effective
Projected Medicare	More Effective	Less Effective
Projected Medicaid	More Effective	Less Effective
Projected Average Net Revenue per Case	More Effective	Less Effective
Projected Average Operating Expense per Case	More Effective	Less Effective

As shown above, UNC Hospitals-RTP is the more effective alternative for every comparative factor for which a comparison can be made. The application submitted by UNC Hospitals-RTP is comparatively superior and should be approved.