# Acute Care Committee Agency Report
# Adjusted Need Petition
# for the Wake County and Durham/Caswell Acute Care Bed Service Areas
# in the 2022 State Medical Facilities Plan

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**Petitioner*:***
Duke University Health System, Inc.
310 Blackwell Street 4th Floor
Durham, NC 27701

**Contact:**
Catharine W. Cummer
Regulatory Counsel, Strategic Planning - Duke University Health System
Catharine.cummer@duke.edu
(919) 668-0857

**Request:**
Duke University Health System requests an adjusted need determination in the *2022 State Medical Facilities Plan* (*SMFP* or the "Plan") for an additional 46 acute care beds in Wake County, which would create a need determination for a total of 91 acute care beds in the service area. The Petitioner also requests removal of the Durham/Caswell service area need determination for 68 acute care beds from the Plan.

**Background Information:**
Chapter Two of the *SMFP* provides that "[a]nyone who finds that the *North Carolina State Medical Facilities Plan* policies or methodologies, or the results of their application, are inappropriate may petition for changes or revisions. Such petitions are of two general types: those requesting changes in basic policies and methodologies, and those requesting adjustments to the need projections." The annual planning process and timeline allow for submission of petitions requesting adjustments to need projections during the comment period for the proposed SMFP in the summer. This includes petitions for adjustments based on a belief that "unique or special attributes of a particular geographic area or institution give rise to resource requirements that differ from those provided by application of the standard planning procedures and policies…." Any person might submit a certificate of need (CON) application for a need determination in the Plan. However, the CON review could be competitive and there is no guarantee that the Petitioner would be the approved applicant.

In the acute care need methodology in the *SMFP*, a single-county service area is a county that has at least one licensed acute care hospital (hospital). Not each county has a licensed hospital. In such cases, a multicounty service area is created. A multicounty service area is formed by two or more counties that are grouped according to the county(ies) where patients originating from the county without a hospital go to receive inpatient acute care services. The *SMFP* distinguishes between "single" hospitals and "hospitals under common ownership." Hospitals that are under common

ownership are "owned by the same or a related legal entity as at least one other acute care hospital in the same service area."

There are multiple steps involved in determining the number of beds, if any, needed in a service area. First, it is determined whether a single hospital or a group of hospitals under common ownership in the service area has a deficit of beds that equal at least 20 beds or 10% of the single hospital's or group of hospital's planning inventory. Next, the deficits of all single hospitals and groups of hospitals are added together. From that number, need determinations from prior SMFPs for which CONs have not been issued are subtracted. If this difference is at least 20 beds, or 10% of the planning inventory of a single hospital, or 10% of the inventory of a group of hospitals, then the need determination is equal to the difference.

There have been changes to the need determination calculation for the Wake County and Durham/Caswell service areas since the publication of the *Proposed 2022 SMFP*. All North Carolina hospitals submit their days of care (DOC) data to the statewide data processor, the Hospital Industry Data Institute (HIDI), twice a year. This process allows facilities to correct or "refresh" their DOC data as necessary, which might create changes in need determinations.

The Wake County service area has four hospitals: Duke Raleigh, operated by Duke University Health System; Rex Hospital, operated by UNC Health Care System; WakeMed Hospital and WakeMed Cary Hospital, both operated by the WakeMed System. According to the acute care need determination methodology using refreshed 2020 DOC data, Duke Raleigh, UNC Rex and the WakeMed System hospitals all project bed deficits which total a 45-bed need determination for the service area. Duke Raleigh Hospital is licensed for 186 beds.

The Durham/Caswell service area has three hospitals: Duke Regional Hospital and Duke University Hospital (DUH), both operated by Duke University Health System; and North Carolina Specialty Hospital. There are 40 beds from the *2021 SMFP* need determination which are not yet CON approved. Based on refreshed 2020 DOC data, the Durham/Caswell service area shows a need determination for 68 acute care beds in in the service area.

**Analysis/Implications:**
Wake County's data for the 2019 reporting year did not yield a need determination for the service area in the *2021 SMFP*. Accordingly, DUH presented a petition for an adjusted need determination for 20 acute care beds in Wake County during that planning cycle. The State Health Coordinating Committee (SHCC) denied the petition on the basis that Agency staff projected a 23-bed deficit in Wake County for the 2020 reporting year that would meet the thresholds described above and result in a need determination of 23 beds for Wake in the *2022 SMFP*. In sum, in the Agency's view, the petition did not appear to present a compelling reason to accelerate the need determination via an adjustment.

Agency staff analyzed inpatient acute days of care DOC for the 2020 data reporting year for all NC hospitals and found a pattern of depressed utilization of acute care beds in hospitals across the State most likely attributable to the COVID-19 pandemic. To address this issue, the SHCC approved an adjustment to the calculation of projected DOC for the Acute Care Bed Need Methodology in the *2022 SMFP*. Steps 2 and 3 of the methodology in the *Proposed 2022 SMFP* describe how each facility's reported 2020 DOC were adjusted by using calculations that included

the facility's number of DOC for the months of March, April, May and June during the years of 2017, 2018 and 2019 (Steps 2 – 3, p. 35, *Proposed 2022 SMFP*). Table 1 shows the variation in acute DOC for hospitals in the Wake County service area since FY 2015. On average, annual growth in DOC over the past five years (2015 – 2020 FY) is 1.1%. In comparison, the service area's adjusted 2020 DOC is 1.8% greater than its 2019 DOC. In other words, the adjustments to the 2020 DOC did not reduce the possibility that a need would be generated in Wake.

**Table 1. Trends in Wake County Inpatient Acute Days of Care, FY 2015 – 2020**

| Facility | FY 2015 | FY 2016 | FY 2017 | FY 2018 | FY 2019 | FY 2020, unadjusted | FY 2020, adjusted | | |
|---|---|---|---|---|---|---|---|---|---|
| WakeMed | 164,899 | 157,938 | 162,849 | 160,470 | 165,273 | 163,457 | 168,950 | | |
| WakeMed Cary | 45,744 | 37,623 | 46,740 | 45,294 | 48,593 | 46,310 | 47,898 | | |
| **WakeMed Total** | **210,643** | **195,561** | **209,589** | **205,764** | **213,866** | **209,767** | **216,848** | | |
| Duke Raleigh | 37,423 | 38,773 | 43,615 | 43,805 | 49,334 | 48,885 | 50,222 | | |
| Rex | 117,686 | 110,540 | 111,647 | 114,684 | 118,708 | 116,121 | 121,590 | **CAGR, FY 2015-2019** | **annual change FY 2019-2020, adjusted** |
| **Wake Total** | **365,752** | **344,874** | **364,851** | **364,253** | **381,908** | **374,773** | **388,660** | **1.1** | **1.8%** |

Sources:*2017 – 2021 SMFP*; Table 5A, Draft – 9/14/2021

In one step of the methodology, projected inpatient acute DOC are calculated for the projection year. To do this, the percentage change in inpatient DOC over the previous five reporting years is used to determine each service area's Growth Rate Multiplier (GRM or "multiplier"). When the multiplier is positive, it is compounded for four years of growth and multiplied by the current year's reported inpatient DOC. This number is divided by 365.25 and adjusted by an occupancy factor to project the number of beds needed. The occupancy factor is based on each facility's average daily census (ADC). It is important to note that facilities with higher ADCs have lower occupancy factors. As a result, the adjusted projected number of beds needed increases as the ADC decreases (*Proposed 2022 SMFP*, p. 36). Duke Raleigh Hospital reported an ADC of 132.5 on their 2020 LRA and an ADC of 133.7 on their 2021 LRA. Duke University Hospital reported an ADC of 823.2 on their 2020 LRA and an ADC of 810.0 on their 2021 LRA.

The Petitioner shares data showing that most of the low acuity patients treated in DUH's inpatient acute care beds are Wake County residents. During FYs 2018, 2019 and 2021, the ADC equating to the DOC provided to these patients has averaged 46.1 (see Petition, pp. 3-4). The Agency finds that based on the need methodology and the target occupancy percentage for Duke Raleigh Hospital (71.4%), this equates to 65 acute care beds. The Petitioner also notes that Duke Raleigh Hospital is opening a new bed tower that will allow for the conversion of 55 semi-private rooms to private rooms and alleviate capacity constraints. In other words, the hospital will be able to fully operate 27 already-licensed beds. These 27 beds and the existing need determination of 45 beds for Wake County total 72 beds – seven more than would be needed in Wake County Raleigh to

serve all low-acuity Wake County residents currently being served at Duke University Hospital in Durham/Caswell.

Wake County currently has 116 undeveloped acute care beds that will be able to provide an additional 42,369 DOC once they are operational. Regardless of the beds that will become available, the petition does not explain how an increase in available beds at Duke Raleigh may reasonably impact whether Wake patients receive acute care services at Duke Raleigh rather than DUH. As noted in the Agency Report in response to the Duke's 2020 summer petition, each year between FY 2015 – 2019, around 12 – 13% of patients served at DUH were Wake County patients. This observation was true whether there were small or large projected surpluses or even a projected deficit of beds in Wake County. Further, according to data for the 2019 reporting year, fewer than 10% of all Wake County acute care patients out-migrate to the Durham/Caswell services area. The percentage of Wake County patients staying in Wake County for inpatient acute care (80%) is similar to the percentage of same-service area patients served in the Durham/Caswell (83%) service area.

Finally, the Petitioner asserts that the need determination for 67 acute beds for Durham/Caswell in the *Proposed 2022 SMFP* is not appropriate and should be removed because many beds have already been added to the inventory over the last five years. As noted above, the revised DOC data results in a need determination for 68 acute care beds in the service area. The acute care methodology deducts each facility's planning inventory – not solely licensed beds - from the number of projected beds needed to arrive at facility surpluses or deficits. In this way, the CON-awarded beds awaiting licensure are factored into need determination calculations. When these beds become licensed, the service area GRM can account for fluctuations in service area bed utilization that may result due to newly operational beds. In other words, because the methodology does not wait to include yet-to-be licensed beds in the calculations and it includes utilization as it occurs, need determinations adequately account for the impact of additions to the inventory. Historically, the Agency has recommended removal of an acute care bed need determination when the actual conditions in a service area are not adequately reflected in a component of the methodology, thereby causing a need determination. The Petitioner does not present evidence that this has occurred in the Durham/Caswell service area for the *2022 SMFP* cycle.

**Agency Recommendation:**
Duke University Health System requests an adjusted need determination for an additional 46 inpatient acute care beds in Wake County for the *2022 SMFP*. Granting this request would create a total need determination of 91 beds in the service area. A total of an additional 72 beds will be accessible due to the existing need determination for 45 beds in Wake County and the increased availability of already-licensed beds at Duke Raleigh Hospital. This is more than the number of beds that would be needed by low-acuity Wake County residents now served at DUH *if* they all shifted to acute care services in Wake County. Also, the Agency emphasizes that the Durham/Caswell service area's need determination is an appropriate projection of bed need because it is based on the service area's total planning inventory and a GRM that accounts for any growth in actual bed utilization. Finally, while the utilization by Duke Health System hospitals created the need in the service area, another entity in the service area is eligible to apply for the beds. Thus, given available information and comments submitted by the August 11, 2021 deadline, and in consideration of factors discussed above, the Agency recommends denial of the petition to

adjust the need determination for Wake County and to remove the need determination in the Durham/Caswell service area.