NORTH CAROLINA STATE HEALTH COORDINATING COUNCIL

PETITION FOR ADJUSTMENT TO NEED DETERMINATIONS FOR ADDITIONAL ACUTE CARE BEDS

Petitioner Duke University Health System, Inc. ("Duke") hereby submits this petition to adjust the need determinations for inpatient acute care beds in Wake and Durham/Caswell Counties in Chapter 5 of the 2022 State Medical Facilities Plan.

Petitioner

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Statement of the Proposed Changes

Duke proposes the following adjustments:

- that the need determination for inpatient acute care beds in Wake County be adjusted from 43 to 89 in Chapter 5 of the 2022 State Medical Facilities Plan; and

- that the need for 67 inpatient acute care beds in Durham and Caswell Counties in Chapter 5 be eliminated.

Reasons for Proposed Change

Between 2017 and 2021, the SMFP has included a need determination for a total of 170 beds in Durham County, including 40 beds currently under review pursuant to a need determination in the 2021 SMFP. In contrast, the SMFP has not included an inpatient acute care bed need determination for Wake County since 2011. The 2022 Draft Plan includes a need for 67 beds in Durham/Caswell and only 43 in Wake County. At the same time, the population growth in Wake County has historically been, and is projected to be, much higher than the growth in Durham County, both in percentage and in overall numbers.

	Total Population		Population Change 2010-2020	
County	April 2010 Estimate Base	July 2020 Projection	Numeric	Percent
Durham	270,001	321,261	51,260	19
Wake	901,052	1,102,782	201,730	22.4
State	9,535,751	10,587,440	1,051,689	11

	Total Population		Population Change 2020-2030	
County	July 2020 Projection	July 2030 Projection	Numeric	Percent
Durham	321,261	365,859	44,598	13.9
Wake	1,102,782	1,305,154	202,372	18.4
State	10,587,440	11,677,603	1,090,163	10.3

Source: North Carolina OSBM, Standard Population Estimates, Vintage 2019 and Population Projections, Vintage 2020

Based on its existing and historical volume and capacity as well as the additional capacity under development or review in the service area, Duke University Hospital (DUH), whose utilization is the sole engine of need for additional acute care bed capacity in the Durham County, believes that additional capacity is needed for Wake County patients, and that any additional bed need determinations in Durham County should be deferred.

As set forth above, the past 5 years have included a need for 170 additional beds in Durham/Caswell County, 130 of which have been awarded (124 to DUH and 6 to North Carolina Specialty Hospital). Of those 130 beds, DUH licensed and implemented 22 beds in 2019. An additional 88 beds were just licensed at DUH effective June 1, 2021, and are only now in the process of being put into service. The remaining 20 awarded beds (14 at DUH and 6 and NCSH) remain in development. Accordingly, 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 to develop another 40 beds in the service area pursuant to the 2021 SMFP need determination. Consistent with other approved petitions for adjustments to bed needs in the past, DUH would accordingly propose the elimination or deferral of any additional need determination in Durham County until the resulting utilization trends with this additional capacity are known.

At the same time that Durham County has 170 additional beds newly developed or still under review, the Duke University Health System, which operates hospitals in both Durham and Wake Counties, continues to see a growing need for capacity in Wake County, including to meet the needs of Wake County patients currently traveling out of the county for services. Until July 2021, Duke Raleigh Hospital, licensed for 186 beds, had only 131 private rooms with the remaining beds in semi-private rooms. Having to operate beds in semi-private rooms has limited the effective capacity of such beds, for reasons including infection control requirements, matching of patients for gender and clinical needs, and patient comfort. As a result of facility constraints, Duke Raleigh Hospital has also not had significant physical capacity for observation patients or post-surgical patients who have therefore typically been accommodated in inpatient beds even if not admitted as inpatients. Duke Raleigh Hospital has just opened a new bed tower that will allow both for all beds to be operated in private rooms and for additional space for observation patients. Until this year, however, these physical limitations have led to constraints on inpatient utilization. Even with such constraints on its utilization in the past, however, Duke Raleigh Hospital's adjusted utilization generates a need for additional capacity in the 2022 draft Plan.

While Duke Raleigh Hospital utilization has been somewhat curtailed by facility constraints, Duke University Hospital in Durham has a significant annual census of Wake County patients. In FY 2021 (July 2020-June 2021), DUH had 5,920 discharges of Wake County patients for a total of 40,528 patient days. Looking only at low acuity patients with a DRG of less than 2.0 (and specifically excluding transplant and bone marrow transplant cases), DUH had 4,042 discharges of Wake County patients, for a total of 16,969 patient days.[1] This reflects an average daily census of 46.5. Including Wake County patients with a DRG less than 3.0 leads to a utilization of 21,490 patient days for an average daily census of 58.9.

FY 2021 Wake County Patients	Total Cases	Total Days	ADC
Total Patients	5,920	40,258	110.3
Excluding transplant/BMT	5,702	36,725	100.6
And DRG < 3.0	4,695	21.490	58.9
And DRG < 2.0	4,042	16,969	46.5

[1] Centers for Medicare and Medicaid Services (CMS) uses a case mix index to determine hospital reimbursement rates for Medicare and Medicaid beneficiaries that reflects the diversity, complexity, and severity of patient illnesses treated at a given hospital. A higher case mix index reflects more complex, resource-intensive patients. Case mix index is calculated by adding up the relative Medicare Severity Diagnosis Related Group (MS-DRG) weight for each discharge, and dividing that by the total number of Medicare and Medicaid discharges in a given month and year. DRGs are accordingly a measure of a patient's acuity. Based on its experience, Duke anticipates that patients with a DRG less than 2.0 could be accommodated at a variety of community hospital settings.

This reflects an ongoing trend from the past several years. For example, in 2018 and 2019 DUH had the following utilization of Wake County patients, generally consistent with its 2021 experience:

Wake County Patients	Total Cases	Total Days	Total Cases DRG<2.0 (and excluding transplant and BMT)	Patient Days DRG<2.0 (and excluding transplant and BMT)	ADC
2018	5,915	36,828	3,990	16,389	44.9
2019[2]	6,094	39,756	4,244	17,186	47.1

Duke's experience reflects Wake County utilization more broadly. As set forth in the 2020 patient origin report (https://info.ncdhhs.gov/dhsr/mfp/pdf/por/2020/03-PatientOrigin_Acute-2020.pdf), almost 80% of Wake County patients, or more than 14,000 patients, traveled outside of the county for inpatient services in 2019.

Accordingly, Duke believes that additional capacity is needed more urgently in Wake County than in Durham/Caswell Counties, where additional beds are in development and/or under review.

Adverse effect on providers and consumers without change

Without the requested adjustment to the need determination in Wake County, patients from Wake County may be deprived of their choice of provider, and providers are limited in their ability to develop needed capacity in Wake County. Wake County patients may be required to travel to other counties to obtain needed care if capacity does not increase to meet the population's needs. This trend is already pronounced; as the population increases over the next decade, it can reasonably be expected to continue and increase. At the same time, in Durham County, there are already significant number of beds under development or review. Further adding to the inventory may lead to the unnecessary duplication of existing and approved services, at least until the effects of the additional capacity are known.

Alternatives considered

The proposed alternative in this petition is to add 46 beds to the Wake County bed need determination, as a conservative reflection of the current average daily census of lower acuity

[2] DUH did not evaluate 2020 patient origin or DRG data, as COVID and related measures designed to decrease elective admissions at all inpatient facilities, including DUH, may have had anomalous effects on patient origin and acuity levels of remaining patients. Such data can be provided upon request.

Wake County patients served at Duke University Hospital (defined as patients with a DRG less than 2.). At the same time, Duke is proposing to eliminate the need in the 2022 Plan for beds in Durham/Caswell County.

Because development of additional inpatient beds requires a prior need determination in the State Medical Facilities Plan, there is no alternative to developing sufficient additional bed capacity in Wake County without an adjusted need in the plan. While the current proposal of 43 beds in Wake County is a good start – and Duke certainly supports this need at a minimum – this draft need still underestimates the anticipated need for inpatient capacity to serve the fast growing population in Wake County. The 43 bed need reflects only the utilization at existing Wake County facilities. As set forth above, 14,281 Wake County patients traveled to other counties for inpatient care in 2019. In fact, DUH served only approximately 43% of this outmigration.

Specific alternatives to the proposals presented here would include a change to one service area need but not both (for example, increase the need in Wake County without adjustment to Durham County), or an adjustment of a different number in either or both areas. Duke has proposed an adjustment of an additional 46 beds, for a total of 89, in Wake County, as a conservative assessment of the population's need for inpatient capacity based on the known utilization of low acuity patients at Duke University Hospital in FY 2021.

Evidence that the proposed change would not result in unnecessary duplication of health resources in the area

Earlier this year, the Acute Care Committee reviewed a variety of options to adjust for the artificial deflation of inpatient utilization in the spring of 2020 as a result of the drastic measures to decrease their census that hospitals took in advance of an anticipated surge of COVID patients. The Acute Care Committee elected to proceed with the approach that led to the most conservative need determination in Wake County. The other options led to need determinations ranging from 49 to 116 additional beds. The existing need determination is already a very conservative projection of the need based solely on existing Wake County facilities' utilization. Adjusting that need to 89 beds falls within that range, and would simply provide for capacity to meet some of the existing outmigration of Wake County patients as well as the anticipated utilization based on existing Wake County facility trends.

In addition, to the extent that any increase in beds in Wake County is also accompanied by the elimination or decrease of need in Durham County, this adjustment also mitigates against any unnecessary duplication of health services in the Triangle more broadly.

The elimination of the need for additional beds in Durham County (essentially deferring that need until a later plan) would avoid the potential unnecessary duplication of health resources in Durham County, in light of the 170 beds that are only recently put into service and/or still under review or development. The SHCC has historically approved petitions to eliminate the need for additional beds in similar circumstances.

Evidence that the requested change is consistent with the Basic Principles of Safety and Quality, Access, and Value:

The requested change will improve safety and quality, access and value by creating the opportunity for providers to expand capacity in Wake County to meet patient demand and allow for greater patient choice in one of the fastest growing areas in the state. As set forth above, patient origin data reflect that significant numbers of Wake County patients are seeking inpatient care in other counties; this proposal may allow Wake County patients who may currently leave the county for services to seek needed care closer to home. Given the large number of beds already under development or review in Durham County, eliminating the need in Durham County is consistent with ensuring appropriate utilization of existing and approved assets as well as those under review.