Acute Care Committee Agency Report
Adjusted Need Determination Petition
for the Johnston County Acute Care Bed Service Area
in the 2023 State Medical Facilities Plan

Petitioner:
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Request:
UNC Health Johnston (Johnston Health) requests that the *2023 State Medical Facilities Plan* (*SMFP or "Plan"*) include 24 additional acute care beds in the Johnston County service area.

Background Information:
Chapter Two of the SMFP notes that during the summer, the Agency accepts petitions that "involve requests for adjustments to need determinations in the Proposed SMFP. Petitioners may submit a written petition requesting an adjustment to the need determination in the Proposed SMFP if they believe that special attributes of a service area or institution give rise to resource requirements that differ from those provided by the standard methodologies and policies." It should be noted that any person may submit a certificate of need (CON) application for a need determination in the Plan. The CON review could be competitive and there is no guarantee that the Petitioner would be the approved applicant.

Several steps are included in the acute care bed need methodology. In Steps 3 through 6 of the methodology, inpatient days of care (DOC) as reported to the Hospital Industry Data Institute (HIDI) are used to project DOC for the projection year. To do this, the methodology typically requires calculating the percentage change in inpatient DOC over the previous five reporting years to determine each service area's Growth Rate Multiplier (GRM). When the GRM is negative, the inpatient DOC for the reporting year is the same as the projected DOC for the facility. When the GRM is positive, it is compounded for four years of growth and multiplied by the current year's reported inpatient DOC to determine projected DOC. The projected DOC is divided by 365.25. This number is adjusted by an occupancy factor – based on a target occupancy percentage - to project the number of beds needed. A hospital's target occupancy depends on its average daily census (ADC; *Proposed 2023 SMFP*, p. 34).

Normally, Step 3 would indicate the use of the DOC data from FY 2017 – 2021 to calculate each GRM for the *2023 SMFP*. However, for the *2023 SMFP* only, the State Health Coordinating Council (SHCC) has approved the use of DOC reported over the five fiscal years preceding the COVID-19 pandemic due to its continued impact on projection calculations. In other words, rather than calculate the GRM based on FY 2017 – 2021 utilization, in the *Proposed 2023 SMFP*, each service area's DOC for FY 2015 – 2019 was applied instead. In the *Proposed 2023 SMFP*, Johnston County's GRM is 1.0062.

As is typical, the final steps of the methodology determine the number of beds, if any, needed in a service area. In the case of a service area with a single hospital and no need determinations from prior SMFPs, a need is determined if the hospital has a projected deficit of beds that equal at least 20 beds or 10% of the hospital's planning inventory.

Johnston Health, the only hospital operating in Johnston County, has a total of 176 licensed acute care beds (excluding 3 neonatal intensive care unit or "NICU" beds) located on two campuses – one in Smithfield and the other in the Clayton. The *Proposed 2023 SMFP* indicates a surplus of 11 beds and, therefore, no current need for additional acute care beds in the Johnston County service area. The Agency also notes that when the acute care bed need methodology was applied using the unadjusted GRM, the calculated need was for 54 beds in Johnston.

Analysis/Implications:
The Petitioner asserts that use of the adjusted GRM is not appropriate for Johnston County. Specifically, in 2015, Johnston Health implemented a program to reduce average length of stay (ALOS). The program seemed effective during FY 2016 and 2017, but its impacts were not sustained. Because the need determination methodology for the *Proposed 2023 SMFP* is based on the DOC for 2015 – 2019, changes in the ALOS during that time frame impact the need determination. As shown in Table 1, ALOS decreased dramatically in FY 2017. Notwithstanding implementation of the ALOS reduction program, the Petitioner's ALOS began increased each fiscal year between 2019 and 2021. Note that even though the methodology now excludes Level II-IV NICU beds, discharge data is reported as a total for the facility rather than by category on the License Renewal Applications (LRAs). Thus, calculation of ALOS in Table 1 requires use of facility DOC that are also inclusive of NICU DOC.

Table 1. Acute Bed Days of Care, Discharges, and Average Length of Stay, UNC Health Johnston

FY	2015	2016	2017	2018	2019	2020	2021
DOC*	34,156	33,540	30,321	31,161	34,620	34,883	42,670
DOC Annual Change Rate		-1.8%	-9.6%	2.8%	11.1%	0.8%	22.3%
# discharges**	8,934	8,827	9,161	9,457	9,906	9,439	9,727
ALOS	3.82	3.80	3.31	3.30	3.49	3.70	4.39
ALOS Annual Change Rate		-0.6%	-12.9%	-0.4%	6.1%	5.7%	18.7%

* Source: Data provided to statewide data processors: Truven Health Analytics (FY 2014 - 2017), IBM Watson Health (FY 2018 - 2019), and the Hospital Industry Data Institute (FY 2020 - 2021)

** Source: 2016 - 2022 License Renewal Applications

As noted, the Petitioner believes that Johnston's lack of a need determination is due to the temporary impacts of a program to reduce ALOS. Thus, Agency staff examined what the result of need determination methodology calculations might have been had the program not been implemented. The methodology was done using a GRM based on DOC for FY 2015 – 2019. For this analysis, DOC for FY 2016, 2017 and 2018 (i.e., fiscal years when DOC were lower in comparison to the year before the program was implemented) were interpolated to equal the DOC for FY 2019. In other words, an assumption of this analysis is the number of DOC for FY 2016 – 2018 might have reached FY 2019 levels (DOC = 34,620) sooner if not for the ALOS-reducing program. These need determination methodology calculations indicate a projected surplus of 13 beds for Johnston County (see Table 2).

Table 2. Johnston County Need Determination*

Facility	Licensed Beds	CONs	Inpatient DOC	GRM	Projected DOC	2025 Projected ADC	2025 Beds Adj. for Target Occupancy	2025 Projected Surp (-)/ Def
UNC Johnston	176	0	41,988	1.0034	42,561	117	163	-13

* Need determination for the *Proposed 2023 SMFP* using adjusted DOC for FY 2016 – 2018

However, as noted above, when the unadjusted GRM (i.e., based on DOC growth from FY 2017 – 2021) is used in the calculations, Johnston is found to have a projected need for 54 acute care beds. Not surprisingly, this result reflects a "bounce-back" in DOC growth; UNC Johnston's acute care bed DOC increased more than 20% between FY 2020 and 2021. This dramatic increase in DOC is believed to be a temporary, COVID-induced phenomenon experienced by hospitals statewide.

Nonetheless, in the face of such disparate need determination results, utilization trends are additionally informative. UNC Johnston's reported FY 2021 ADC is 117.9, which indicates a target occupancy percentage of 71.4%. However, between FY 2016 - 2020, its ADC was under 100, which meant its target occupancy percentage had been 66.7%. Table 3 demonstrates that utilization of its acute care beds has remained below occupancy thresholds despite the fluctuation in ADC.

Table 3: Utilization and Target Occupancy, UNC Johnston Health

	FY					
	2016	**2017**	**2018**	**2019**	**2020**	**2021**
DOC*/**	32,797	29,676	30,884	34,574	34,248	41,988
Licensed Beds*	177	177	177	176	176	176
Capacity	64,649	64,649	64,649	64,284	64,284	64,284
Utilization	50.7%	45.9%	47.8%	53.8%	53.3%	65.3%
Target Occupancy Percentage***	66.7%	66.7%	66.7%	66.7%	66.7%	71.4%

* Excludes Level II, III, IV NICU DOC and beds
** Source: HIDI
*** Target Occupancy Percentages are based on reports of facility ADC on 2017 - 2022 LRAs

Agency Recommendation:
The Petitioner has requested an adjusted need determination for 24 acute care beds in the Johnston County service area in the *2023 SMFP*. UNC Health Johnston's program to reduce ALOS has had a minimal impact on the service area need determination. Further, utilization data do not indicate a strain on bed capacity within the service area. Thus, given available information and comments submitted by the August 10, 2022 deadline, and in consideration of factors discussed above, the Agency recommends denial of the petition for an adjusted need determination for 24 acute care beds in the Johnston County service area in the *2023 SMFP*.