

PETITION FOR AN ADJUSTED NEED DETERMINATION

Petition to Create an Adjusted Need Determination for 24 Acute Care Beds in Johnston County in the *2023 State Medical Facilities Plan*

PETITIONER

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STATEMENT OF THE PROPOSED CHANGE

UNC Health Johnston respectfully requests that the State Health Coordinating Council allocate 24 additional acute care beds for Johnston County in the *2023 State Medical Facilities Plan (SMFP)*.

BACKGROUND

UNC Health Johnston, formerly Johnston Health, is the sole hospital system in Johnston County, and is comprised of a 149-bed hospital in Smithfield (including 129 acute care and 20 psychiatry beds) and a 50-bed acute care hospital in Clayton¹. For purpose of the revised acute care bed methodology in the *Proposed 2023 SMFP*, UNC Health Johnston has 176 licensed beds, accounting for the exclusion of its three licensed Level II neonatal beds (for which the associated volume is also excluded for FFY 2021). In 2014, Johnston Health partnered with UNC Health, ultimately becoming UNC Health Johnston, thereby enhancing both the scope and quality of its services, as well as providing Johnston County residents with direct access to the broader scope of services provided by UNC Health facilities across the Triangle region. At the same time, UNC Health Johnston is benefitting from UNC Health's focus on ensuring that patients receive high quality care, closer to home, as appropriate. In just the first half of 2022 alone, UNC Health Johnston has received numerous statewide and national honors for the quality of its care, including the American Heart Association's *GoldPlus* Get With the Guidelines® - Stroke quality achievement award, an "A" Leapfrog Hospital Safety Grade in the spring of 2022, and a Healthgrades Patient Safety Excellence Award™. UNC Health Johnston believes that these quality awards will continue to bolster its reputation in the communities it serves, supporting the already growing need for additional acute care capacity in Johnston County.

¹ Please note that the number of operational acute care beds reported on UNC Health Johnston's HLRAs reflects the number that are staffed using employed, non-contract (i.e., excluding agency nurses or travelers) staff on that date. UNC Health Johnston does not have any licensed acute care beds that are unable to be placed into service when needed to accommodate up to its licensed bed capacity.

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In determining acute care bed need for the *Proposed 2023 SMFP*, the State Health Coordinating Council (SHCC) initially analyzed the results of the standard Acute Care Need Methodology. In doing so, “[c]ounty Growth Rate Multipliers (CGRM) for each service area were calculated to reflect annual changes in acute care bed days of care (DOC) provided from FFY 2017 – 2021².” After utilizing this methodology and data range, a need determination of 54 additional acute care beds was generated for Johnston County.

However, the SHCC ultimately determined that overall bed need in North Carolina was “unprecedented” and “[did] not reflect historical growth³.” Given that a portion, albeit not a majority, of this dataset overlapped with the COVID-19 pandemic, it was determined that this increase was “most likely related to the lengthier stays of COVID patients⁴.” As such, the SHCC modified the CGRM, opting to use that of the *2021 SMFP*, which reflected data from FFY 2015 to FFY 2019, thereby avoiding potential pandemic-related anomalous growth.

Given the circumstances of the past two years, UNC Health Johnston is not questioning the need for an adjusted need determination methodology for use in the statewide methodology, and, to the contrary, applauds the SHCC and DHSR staff in their efforts to develop a more reasonable approach to determining statewide need. However, UNC Health Johnston believes that there are special attributes relating to Johnston County that render this adjusted methodology less effective for the service area. In particular, the adjusted methodology understates the need for acute care beds in Johnston County, based on UNC Health Johnston’s data and experience. Specifically, the utilization of FFY 2016 and FFY 2017 data in the *Proposed 2023 SMFP*’s calculations – years that UNC Health Johnston’s days of care decreased for reasons described below – results in an erroneously deflated adjusted need determination for Johnston County, one that allocates no additional acute care bed need for the county when need is in fact warranted.

UNC Health Johnston believes that its request to allocate 24 additional acute care beds for Johnston County is not only conservative (considering the unadjusted standard methodology’s need projection of 54 beds), but also necessary, given the quantitative and qualitative factors discussed below. As such, UNC Health Johnston respectfully requests that the SHCC consider the unique needs of Johnston County that merit the approval of a special need adjustment outside of the adjusted methodology as shown in the *Proposed 2023 SMFP*.

REASON FOR THE REQUESTED ADJUSTMENT

As previously discussed, the adjusted need determination utilizes a CGRM that reflects FFY 2015 to FFY 2019. The use of this time period understates Johnston County’s acute care bed need. In 2015, UNC Health Johnston embarked on an aggressive program to decrease its average length of stay (ALOS). This included partnering with local community Paramedics and long term care facilities. The program initially proved to be effective as ALOS dropped slightly in FFY 2016 before dropping sharply in FFY 2017. While UNC Health Johnston believed that the partnership could permanently lower ALOS while also decreasing unnecessary readmissions, over the long term,

² https://info.ncdhhs.gov/dhsr/mfp/pdf/2022/acsc/04_5A_withNICU_ACS.pdf.

³ Ibid.

⁴ <https://info.ncdhhs.gov/dhsr/mfp/pdf/2022/shcc/04-ACSCCommitteeReport-6-1-22-Final.pdf>.

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readmissions did not decrease as expected and therefore, UNC Health Johnston ultimately terminated the program to prevent unnecessary readmissions and to ensure that Johnston maintained its high quality of care. As a result, ALOS increased to a nominal level, although it remained below historical levels. UNC Health Johnston’s historical volumes are provided in the table below and show the impact of both initiating and terminating this program:

FFY	Days of Care	Discharges	ALOS
2015	35,336	8,934	3.96
2016	34,601	8,827	3.92
2017	30,408	9,161	3.32
2018	31,323	9,457	3.31
2019	34,806	9,906	3.51
2020	35,166	9,439	3.73
2021	43,036	9,727	4.42

Source: License Renewal Applications; used instead of SMFP data to provide discharges for ALOS calculation

As established in the table above, in FFY 2017 UNC Health Johnston experienced a considerable decline in patient days despite an increase in discharges of 3.8 percent, resulting from the decline in ALOS following implementation of the program described above. Because the adjusted need methodology utilizes the days of care growth rate from FFY 2015 to FFY 2019, it includes two years of declining patient days, which UNC Health Johnston does not believe is indicative of future need, as discussed below.

First, as demonstrated in the table above, both discharges and patient days increased in 2018 and more significantly in 2019, prior to the onset of COVID, driven by the growth and aging of the population, an increase of the number of patients being cared for locally, and the return to higher ALOS, discussed above. Thus, the primary reason for a lack of a need determination in Johnston County is the temporary decline experienced in the two years prior to 2018. The table below shows the impact of the use of data from 2015 and 2016 in calculating the CGRM, as is used in the adjusted need methodology in the *Proposed 2023 SMFP*.

FFY	Days of Care	Annual Growth Rate
2015	34,156	NA
2016	33,540	.9820
2017	30,321	.9040
2018	31,161	1.0277
2019	34,620	1.1110
CGRM		1.0062

Source: SMFPs, Healthcare Planning Section data

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While UNC Health Johnston agrees with the SHCC that the inclusion of its 2020-2021 growth rate, 1.1813, which resulted in a CGRM of 1.0867 and a need for 54 additional acute care beds, potentially overstates the need for additional beds in the immediate future, it also believes that the use of 2015 and 2016 data understate the future growth, as explained above. To compensate for these data issues and determine a more reasonable CGRM, UNC Johnston Health considered alternative approaches. One alternative would be to ignore the first two growth rates and average the last two (1.0277 and 1.1110), which would result in a CGRM of 1.0694. While this is a lower rate than results from the unadjusted methodology, it uses only two years of data. A more conservative alternative would be to use the annual growth rates from the unadjusted methodology but exclude the growth rate for 2020-2021. Of note, while UNC Health Johnston did admit some COVID patients in 2020, the growth rate for 2019 to 2020 was not anomalous and was actually comparable with the change from 2017 to 2018, as well as being significantly lower than the previous year's growth rate, which preceded COVID, as shown below.

FFY	Days of Care	Growth Rate for SMFP
2017	30,321	NA
2018	31,161	1.0277
2019	34,620	1.1110
2020	35,545	1.0267
2021*	41,988	1.1813
CGRM		1.0867

Source: Data tables used to develop the *Proposed 2023 SMFP*

*Excludes neonatal patient days

UNC Health Johnston believes that by excluding the last year of growth (2021), the anomalous impact of COVID on growth rates can be eliminated, resulting in a more reasonable CGRM, as shown below.

FFY	Days of Care	Growth Rate for SMFP
2017	30,321	NA
2018	31,161	1.0277
2019	34,620	1.1110
2020	35,545	1.0267
CGRM		1.0551

When this revised CGRM is used in the adjusted methodology in the *Proposed 2023 SMFP*, the following projections result:

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<i>2021 Inpatient Days of Care</i>	<i>County Growth Rate Multiplier</i>	<i>Projected Days of Care</i>	<i>2025 Projected ADC</i>	<i>2025 Beds Adjusted for Target Occupancy</i>	<i>Projected 2025 Deficit</i>
41,988	1.0551	52,044	143	200	24

As shown, using a more conservative CGRM based on three years of recent data, excluding the most recent year of anomalous growth, Johnston County has a net need for 24 additional acute care beds, based on a projected need for 200 beds and a current inventory of 176 adult acute care beds.

UNC Health Johnston also believes the need for acute care beds is supported by other factors not considered in the standard or adjusted methodologies. In addition to inpatient days, like many other providers, UNC Health Johnston is experiencing an increase in the number of patients “admitted” as observation patients. These are not patients being observed post-procedure or in the Emergency Department; rather, these are patients that have a condition that merits a stay of at least one overnight and are housed in an acute care bed, where they can be cared for appropriately by nursing staff. The table below shows the growth in observation days since 2018, when the hospital started measuring the “equivalent days” for observation patients, which equate to an inpatient day of care from a time and resource perspective.

<i>FFY</i>	<i>Observation Day Equivalents</i>
2018	4,430
2019	4,587
2020	4,479
2021	5,264
CAGR*	5.9%

*Compound Annual Growth Rate

Source: Internal Data. Please note that Johnston Health inadvertently underreported its observation patient data on its 2021 and 2022 HLRA. A new staff person interpreted the request on page 5, Question B.5 “Observations: Number of patients in observation status and not admitted as inpatients, excluding Emergency Department patients” to mean that all patients presenting in the Emergency Department and admitted as an observation patient in a licensed acute care bed should be excluded. The correct number of observation patients for 2020 and 2021 are 2,350 and 1,990, respectively.

As shown, observation days have grown at a slightly higher growth rate than acute care days at UNC Health Johnston. While not shown above, annualized 2022 observation days based on the first nine months of the year are more than 9,700 equivalents. Even considering the observation days from 2021, the ADC of observation patients was more than 14, and these patients were primarily housed in licensed beds on acute care units, where they could receive the most optimal care. Of note, the only observation days in the table above provided in unlicensed beds were those provided in two observation beds on the Clayton campus. All the others, equating to an

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ADC of at least 12 patients, were treated in licensed acute care beds based on the clinical need of the patients. The 19 observation beds noted on UNC Health Johnston's HLRA are used for the more traditional observation patients (i.e., those expected to be discharged after a few hours and not stay overnight), such as outpatient therapy (e.g., antibiotic infusions, blood transfusions, etc.), radiology extended recovery (e.g., vascular procedures), and extended cardiac recovery (non-emergent PCI). Since these patients are not included in the calculated days of care used in the acute care bed methodology, the actual occupancy rate of UNC Health Johnston's acute care beds is understated by more than 12 percent (5,264 observation day equivalents compared to 41,988 acute care days). While UNC Health Johnston is not advocating for a methodology change in this petition to include observation days, it believes the clinical and operational realities of addressing the needs of its patients is important to consider, even as a qualitative factor.

Through its relationship with UNC Health, UNC Health Johnston has continued to elevate the services available locally in Johnston County, which is expected to continue to increase the need for acute care capacity. UNC Health Johnston recently recruited an additional interventional cardiologist, which will allow it to initiate an emergent percutaneous coronary intervention (PCI) program to complement its existing elective PCI program. As the SHCC is aware, emergent PCIs are typically provided for patients who are suffering from ST-elevated myocardial infarctions (STEMIs). A type of heart attack, STEMIs require a greater burden of medical care than non-ST elevation myocardial infarctions (NSTEMIs) as they indicate a total blockage of a coronary artery. Typically, STEMIs require an emergent PCI, which usually requires an inpatient admission for the patient to receive additional care and monitoring during their recovery from the event. As such, the increase in UNC Health Johnston's ability to treat STEMIs will not only save lives and mitigate damage to precious heart tissue, but it will ultimately increase the need for inpatient acute care bed capacity. Of note, the *Proposed 2023 SMFP* identifies a need for an additional unit of cardiac catheterization equipment for Johnston County, which, if approved for UNC Health Johnston, would also increase the hospital's capacity to treat these patients, many of whom would require an inpatient stay.

Additionally, in October 2021, UNC Health Johnston was certified as a Primary Stroke Center. Awarded by The Joint Commission, Primary Stroke Center certification ensures that a healthcare provider is "providing critical elements to achieve long-term success in improving outcomes for stroke patients⁵." Patients who suffer a stroke are often transferred to the nearest health center based on this certification; UNC Health Johnston's certification, while unequivocally advantageous for Johnston County stroke patients, will also increase inpatient acute care volume. The nearest Joint Commission-certified Primary Stroke Center to Johnston County is WakeMed's Raleigh Campus in Wake County, which is over 30 miles from UNC Health Johnston's Smithfield campus. As a Primary Stroke Center, EMS protocols are expected to bring patients that were previously transported out of the county to UNC Health Johnston, where they can receive appropriate, timely intervention to preserve brain function, increasing the need for acute care beds.

⁵ https://www.jointcommission.org/accreditation-and-certification/certification/certifications-by-setting/hospital-certifications/stroke-certification/advanced-stroke/primary-stroke-center/#a2a7a2528b514809843c9f2139d02934_3767131aa9b7497f9302c75aeffb2cd0

In addition to the increase in breadth and quality of UNC Health Johnston’s services, Johnston County’s patient volume is projected to increase due to the overall population growth of the county. Over the next five years, Johnston County’s population is expected to grow over twice as fast as the population of the state.

Table 1: 2022-2027 Population Growth, Johnston County and North Carolina

	2022 Population	2027 Population	CAGR*
Johnston County	230,077	256,733	2.2%
North Carolina	10,631,667	11,184,448	1.0%

*Compound Annual Growth Rate.

Source: NC Office of State Budget and Management, July 2022—July 2027 projections, updated January 2022, accessed July 2022

Economically, the county has already braced for this growth. In June 2022, the Smithfield Town Council approved a 2,005-home residential development project, the largest in the town’s history; all 2,005 units are projected to be completed in 2028⁶. An Amazon import processing center in Smithfield is also currently under construction and is expected to generate over 500 jobs for the county upon its opening in late 2022⁷. Other housing projects are commencing construction county-wide, as well, including a 37-home community on the county’s east side. The area’s growth and affordability were selling points for that community’s developer⁸; the same developer is also planning on similar developments across the county, numbering a total of 299 lots⁹.

Similar developments are also occurring in the Town of Selma. Within four miles of the UNC Health Johnston Campus in Selma, Eastfield Development has established a mixed-use development on a 400-acre site. Within this complex, one of the recently-completed industrial buildings announced last month that its tenant, Do Good Foods, would hire 100 employees. The complex is also partnering with a residential developer to build up to 300 apartments, construction of which is expected to begin in 2023. Eastfield is presently seeking developers for single family homes within the complex as well. In addition, in June 2022, the Selma Town Planning Board approved the development of a 177-acre site located approximately six miles from the UNC Health Johnston campus. This development would add around 350 single family homes and 192 townhomes, with construction expected to begin in the Spring of 2023, and with the homes completed by the second half of 2024.

⁶ <https://jocoreport.com/smithfield-approves-largest-residential-development-in-town-history/>.

⁷ <https://spectrumlocalnews.com/nc/charlotte/news/2021/05/21/smithfield-businesses-excited-for-amazon-s-arrival>.

⁸ “As the triangle area continues to grow, housing affordability continues to create a challenge for us...[g]rowth into the eastern Johnston County market allows us to provide an affordable product in the Triangle that is desperately needed.” –Wade Corbett, president and CEO, Gray Wolf Homes, as quoted in *Triangle Business Journal*, <https://www.bizjournals.com/triangle/news/2022/07/08/gray-wolf-homes-johnston-county.html>.

⁹ These lots are planned on Stallings Street (169 lots), near Lee Road (55 lots), and on Lassiter Road, all in or near Clayton.

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Given that housing and labor markets in Johnston County are expanding to accommodate the county's growth, it is prudent to expand inpatient acute care capacity as well.

UNC Health Johnston believes the analysis above provides qualitative and quantitative support for additional acute care beds to support the increasing inpatient utilization at UNC Health Johnston, the growing population of Johnston County and the expanded scope of services recently developed at UNC Health Johnston.

ADVERSE EFFECTS IF PETITION IS NOT APPROVED

UNC Health Johnston believes there will be adverse effects for Johnston County residents if additional acute care bed capacity is not allocated. Inpatient acute care days have grown historically, and despite the impact of the pandemic, are likely to continue to grow in the future, based solely on historical trends. Moreover, UNC Health Johnston is developing additional services to allow patients to remain in their local community for care, which will increase the rate of growth in the future, driving the need for more beds. Without sufficient inpatient capacity, patients will be forced to endure long wait times before admission, including in the Emergency Department, or be forced to travel outside their home county for care. While the need methodology might eventually normalize when the pandemic subsides, the impact of COVID on healthcare planning efforts, not to mention the healthcare system itself, has continued far longer than most anticipated. As such, UNC Health Johnston believes that the most prudent approach to offset these deleterious effects is to approve a modest need determination for Johnston County for the *Proposed 2023 SMFP*.

ALTERNATIVES CONSIDERED

UNC Health Johnston believes that the only realistic alternative is waiting for the standard methodology to trigger a need for additional acute care beds; however, this alternative is not viable, for the reasons detailed above. In addition, since the SHCC has determined that the pandemic has impacted the growth rate for acute care days for 2020 and 2021, and may make a similar determination for 2022, it may be several years before the data are purely "post-pandemic" and are able to be used again to project acute care bed need. As such, UNC Health Johnston believes the approval of this petition is the best alternative at present.

UNNECESSARY DUPLICATION

UNC Health Johnston does not believe the proposed change will result in unnecessary duplication of health resources. Given UNC Health Johnston's current and projected utilization, along with its expanding services and Johnston County's projected growth rates, additional beds are needed. In addition, as described above, the acute care bed methodology does not account for all the patients being treated in these beds. Further, the requested need determination, 24 acute care beds, is one of the smallest need determinations among non-rural counties in the *Proposed 2023 SMFP*, and the number of beds needed in these counties ranges from 21 to 164, with some smaller, more rural counties (e.g., Scotland, Hoke) showing a need for more than 24 beds.

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BASIC PRINCIPLES

Safety and Quality

As noted above, UNC Health Johnston is projected to operate above acute care target occupancy levels in the near future. Operating above this threshold has negative ramifications, including possible delays in patient care, which could result in more expensive, inconvenient, or lengthy hospital stays, creating higher costs for both patients and payors. Furthermore, if patients and physicians are forced to access care at another healthcare facility with available capacity, they may encounter disruptions in continuity of their existing care schedule. Physicians and providers work daily to improve the systems of care which leverage information technology, multidisciplinary teams, and processes of care to deliver the right care at the right time to the right person. A facility under the control of another healthcare system cannot provide the same system of care to an unfamiliar physician and patient. As a result, safety and quality may be negatively impacted without the proposed allocation of beds.

Access

The proposed allocation will expand access within the local community. UNC Health Johnston is the sole hospital system in Johnston County, and, as such, the sole county provider of inpatient acute care services. As such, for patients in Johnston County who require medical services that necessitate inpatient care – such as treatment for STEMI and strokes – their most convenient, closest provider is UNC Health Johnston. Without sufficient inpatient acute care capacity, patients will be denied access to necessary care within their home county.

Value

UNC Health Johnston's ability to expand and add capacity as needed will enable safer and higher quality services compared to operating at or above capacity. Delays in treatment, Emergency Department boarding, and transferring patients to other facilities lead to an increase in expenditures by the patient and the payor, thereby increasing the cost of care and decreasing healthcare value.

CONCLUSION

UNC Health Johnston believes that the additional acute care beds requested in this petition are needed to ensure access to inpatient acute care services in Johnston County. Given the increasing inpatient volumes, the growing and expansive breadth of services that UNC Health Johnston is able to provide to its patients, and the rapidly expanding Johnston County community, UNC Health Johnston believes an additional 24 acute care beds are needed in Johnston County.