Comments on Competing Applications for Additional Acute Care Beds and Operating Rooms in Mecklenburg County

December 31, 2020

Competitive Comments on Mecklenburg County
Acute Care Bed and Operating Room Applications

submitted by

The Charlotte-Mecklenburg Hospital Authority
d/b/a Atrium Health

In accordance with N.C. GEN. STAT. § 131E-185(a1)(1), The Charlotte-Mecklenburg Hospital Authority (CMHA) d/b/a Atrium Health[1] hereby submits the following comments related to competing applications to develop additional acute care beds and operating rooms to meet needs identified in the *2020 State Medical Facilities Plan* (*SMFP*) for 126 additional acute care beds and 12 additional operating rooms in Mecklenburg County, respectively. CMHA's comments 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*."[2] *See* N.C. GEN. STAT. § 131E-185(a1)(1)(c). CMHA's comments relate to the following applications:

Application for Additional Acute Care Beds and Operating Rooms

- **Novant Health Steele Creek Medical Center (NHSCMC), Develop a New Hospital with 32 Acute Care Beds and Two Operating Rooms, Project ID # F-11993-20**

Application for An Additional Operating Room

- **South Charlotte Surgery Center (SCSC), Develop a New Single Specialty Ambulatory Surgical Facility with One Operating Room, Project ID # F-12004-20**

CMHA's comments include general and issue-specific comments on the Novant Health and South Charlotte Surgery Center applications as well as a comparative analysis related to its applications:

Applications for Additional Acute Care Beds

- **Carolinas Medical Center (CMC), Add 119 Acute Care Beds, Project ID # F-12006-20**
- **Atrium Health Pineville, Add Seven Acute Care Beds, Project ID # F-12009-20**

Application for Additional Operating Rooms

- **CMC, Add Twelve Additional Operating Rooms, Project ID # F-12008-20**

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[1] The Charlotte-Mecklenburg Hospital Authority is part of the Atrium Health, Inc. enterprise. Atrium Health, Inc. is a nonprofit corporation that manages and oversees the activities, personnel, shared services, and business facilities of its enterprise including The Charlotte-Mecklenburg Hospital Authority and Wake Forest University Baptist Medical Center. Throughout these comments, the use of "Atrium Health" refers to The Charlotte-Mecklenburg Hospital Authority d/b/a Atrium Health and not to Atrium Health, Inc.

[2] CMHA is providing comments consistent with this statute; as such, none of the comments should be interpreted as an amendment to its applications filed on November 16, 2020.

As detailed above, given the number of applications and the number of proposed additional acute care beds and additional operating rooms, all of the applications cannot be approved as proposed. The comments below include substantial issues that CMHA believes render both the Novant Health and South Charlotte Surgery Center applications non-conforming with applicable statutory and regulatory criteria. However, as presented at the end of these comments, even if all these applications were conforming, the applications filed by CMHA are comparatively superior to the others and represent the most effective alternative for expanding access to acute care and surgical services in Mecklenburg County.

NOVANT HEALTH STEELE CREEK MEDICAL CENTER (NHSCMC), DEVELOP A NEW HOSPITAL WITH 32 ACUTE CARE BEDS AND TWO OPERATING ROOMS, PROJECT ID # F-11993-20

General Comments

The NHSCMC application should not be approved as proposed. Not only does the NHSCMC application fail to adequately demonstrate the need for the project, but it also fails to adequately identify the services proposed in the project and thereby fails to adequately demonstrate the need the population has for those services.

Issue-Specific Comments

1. The NHSCMC application fails to adequately demonstrate the need for the proposed project insofar as its need argument is prefaced, in part, on the need to "manage competition" in Mecklenburg County.

   In outlining the needs of the population it proposes to serve, the NHSCMC application relies in part on a factor it calls "*Need for Competitive Balance in Mecklenburg County*." *See* the NHSCMC application page 41. (Of note, the only other factors discussed under "*Needs of the Population to be Served*" are: (1) "*ED Is Needed and Will Improve Competitive Balance*"; (2) "*Need for Operating Rooms*"; and, (3) "*Service Area Residents Will Benefit from Novant Health's Access for Underserved Populations*", each of which will be discussed in these comments.) The NHSCMC application cites to Criterion 18(a), stressing the need to improve competitive balance, comparing the distribution of facilities between the health systems, and arguing that "[*m*]*aintaining competitive balance is important for access, cost, and quality of services to residents of Mecklenburg County and surrounding counties*." *See* the NHSCMC application page 42. On page 91 of the NHSCMC application, Novant Health goes so far as to say that the need for the proposed project is in part "*to improve competitive balance by reducing Atrium Health's market dominance in Mecklenburg County*."

   At its core, Novant Health's argument misstates the Certificate of Need statute. Of note, Criterion 18(a) states:

   > "*The applicant shall demonstrate the expected effects of the proposed services on competition in the proposed service area, including how any enhanced competition will have a positive impact upon the cost effectiveness, quality, and access to the services proposed; and in the case of applications for services where competition between providers will not have a favorable impact on cost effectiveness, quality, and access to the services proposed, the applicant shall demonstrate that its application is for a service on which competition will not have a favorable impact*."

   Nowhere does Criterion 18(a) call for "competitive balance," rather, it speaks to expected effects on competition and enhanced competition. Further, and contrary to Novant Health's argument, existing providers adding beds under Criterion 18(a) does enhance competition. In fact, such position has been articulated by the Chief of the Certificate of Need Section. *See* Attachment 1, *AH North Carolina Owner, LLC d/b/a The Heritage of Raleigh v. NC DHHS*, 12 DHR 01164 (Deposition Transcript of Martha Frisone dated August 8, 2012, noting that "*the addition of…beds,*

regardless of who is approved for them, enhances competition, even for the facilities owned by that same provider, by adding additional capacity, which gives increased choice to the residents of Wake County and surrounding counties.")

The NHSCMC application goes on to cite the Findings of Fact in the Certificate of Need statute, N.C. GEN. STAT. § 131E-175, as reflective of the legislature's intention to "*manage competition through the CON and health planning process to protect North Carolina citizens*." *See* the NHSCMC application page 44.

Once again, Novant Health has misstated the Certificate of Need statute. Interestingly enough, Novant Health does not point to any specific language in the Findings of Fact in the Certificate of Need statute which support its contention that the intent of the legislature was to "*manage competition*." Arguably, this is because there is no mention of managing competition in the Findings of Fact.

In contrast, N.C. GEN. STAT. 131E-176(1), Finding of Fact (1), states:

> "*That the financing of health care, particularly the reimbursement of health services rendered by health service facilities, limits the effect of free market competition and government regulation is therefore necessary to control costs, utilization, and distribution of new health service facilities and the bed complements of these health service facilities*."

Finding of Fact (1) excerpted above establishes that government regulation is needed to ensure that healthcare facilities and bed complements are developed based on the needs of the population. While Novant Health correctly quotes Finding of Fact (1) on page 41 of its application (noting that "*the North Carolina General Assembly recognized that healthcare market imperfections made the CON program as administered by the Agency 'necessary to control costs, utilization, and distribution of new health service facilities and the bed complements of these health service facilities'*"), Novant Health is not correct in its assertion that "*distribution of health service facilities*" includes the distribution of facilities between health systems. Notably, Finding of Fact (1) includes no mention of the need for competitive balance or an obligation on the part of the Agency to somehow "manage" competition by counting resources and/or preferring one healthcare entity over another.

Finding of Fact (3), N.C. GEN. STAT. 131E-176(3), states:

> "*That, if left to the market place to allocate health service facilities and health care services, geographical maldistribution of these facilities and services would occur and, further, less than equal access to all population groups, especially those that have traditionally been medically underserved, would result*."

Finding of Fact (3) excerpted above establishes that healthcare should not be a laissez-faire industry. That is, allocation of healthcare resources and services should not be left to the market as it could result in maldistribution of such resources and services, in particular relative to the medically underserved. These concerns articulated in Finding of Fact (3) are not about ensuring competitive balance, but rather, about ensuring access to services to the medically underserved. As noted in the CMHA applications, Atrium Health facilities serve a disproportionately high share

of the medically underserved compared to Novant Health. *See* the CMC bed application pages 23-24, 48-49, and 109-110; the CMC operating room application pages 14-15 and 94-95; and the Atrium Health Pineville application pages 23-24, 47-48, and 104-105. As discussed in Section B.10 of the CMHA bed applications and Section B.3 of the CMC operating room application, in 2019, 69.3% of all Medicaid inpatients from Mecklenburg County were treated at an Atrium Health facility, compared with Atrium Health's 61.3% share of all patients. In addition, 64.6% of Medicare and 71.8% of Self-Pay acute care discharges in Mecklenburg County were treated at an Atrium Health facility. Notably, Atrium Health served more than twice as many Medicaid patients and over three times as many Self-Pay patients as Novant Health. This means that while Atrium Health facilities served more than half of acute care discharges originating from Mecklenburg County in 2019, it served a disproportionately higher share of these underserved patients compared to Novant Health. Based on CMHA's demonstrated experience serving the underserved, the approval of the proposed CMHA projects will serve to enhance competition for all patients in the service area, including the medically underserved that are served disproportionately by CMHA.

Finding of Fact (4), N.C. GEN. STAT. 131E-176(4), states:

> "*That the proliferation of unnecessary health service facilities results in costly duplication and underuse of facilities, with the availability of excess capacity leading to unnecessary use of expensive resources and overutilization of health care services*."

Finding of Fact (4) excerpted above establishes that the development of unnecessary healthcare facilities results in costly duplication and underuse of facilities and in so doing, serves to create excess capacity. These concerns articulated in Finding of Fact (4) are not about ensuring competitive balance, but rather, about preventing unnecessary duplication of costly healthcare services. Relative to this Finding of Fact, it is important to note that as between Atrium Health facilities and Novant Health facilities, the *SMFP* continues to show a surplus of beds and operating rooms for Novant Health and a continued and significant deficit for Atrium Health.

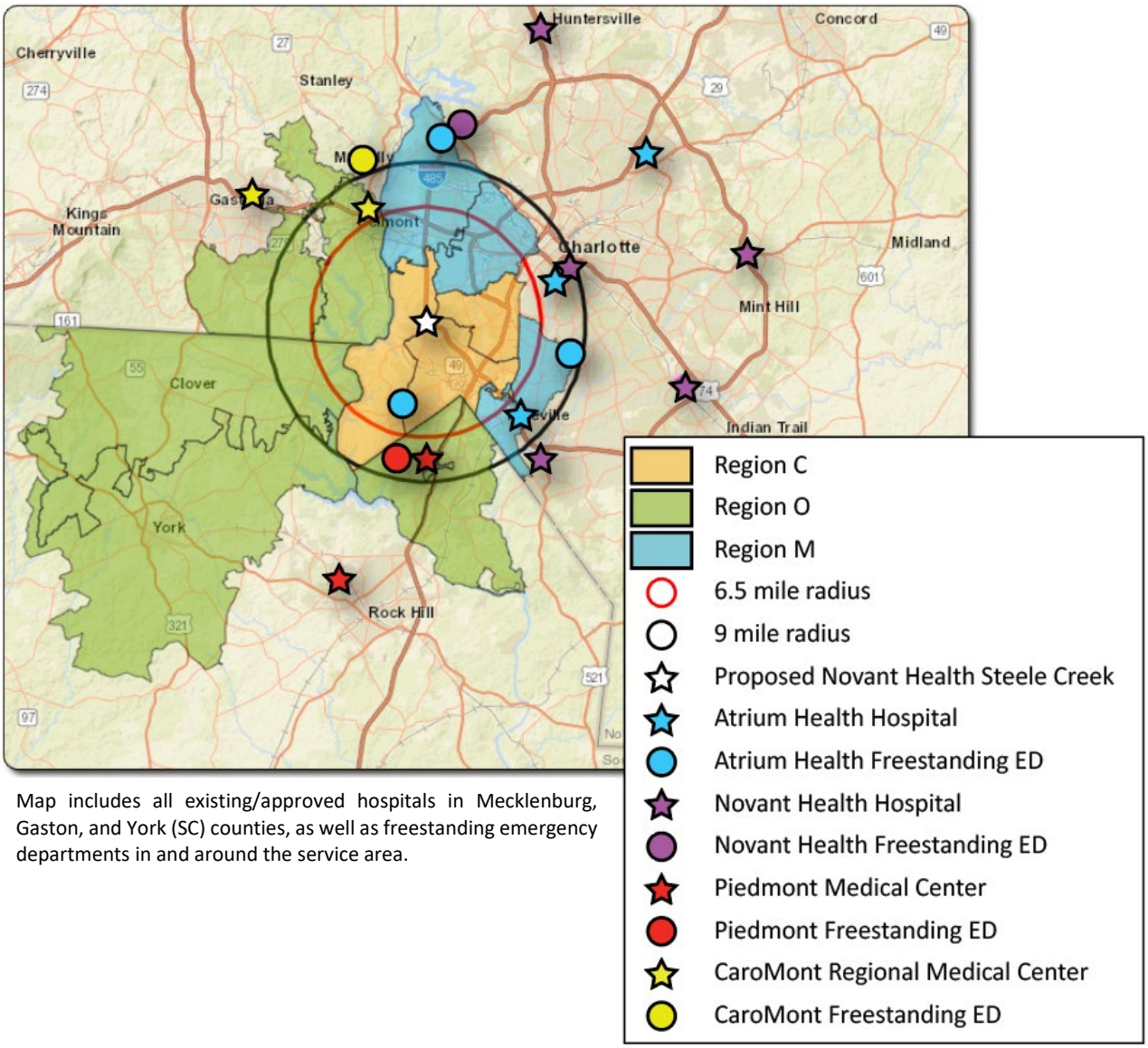
Finding of Fact (7), N.C. GEN. STAT. 131E-176(7), states:

> "*That the general welfare and protection of lives, health, and property of the people of this State require that new institutional health services to be offered within this State be subject to review and evaluation as to need, cost of service, accessibility to services, quality of care, feasibility, and other criteria as determined by provisions of this Article or by the North Carolina Department of Health and Human Services pursuant to provisions of this Article prior to such services being offered or developed in order that only appropriate and needed institutional health services are made available in the area to be served*."

Finding of Fact (7) excerpted above establishes that new institutional health services must be subject to review and evaluation regarding need, cost of service, accessibility to services, quality of care, and feasibility. Notably, there is no mention of a review or evaluation of competitive balance or an obligation on the part of the Agency to somehow "manage" competition by counting resources and/or preferring one healthcare entity over another.

Furthermore, the proposed service area for NHSCMC has an abundance of competition already – accessible, existing/approved hospitals, particularly compared with other areas of Mecklenburg County such as the northern I-77 Lake Norman region, as illustrated by the map below.

For information purposes, as described in the NHSCMC application, the proposed service area is divided into three regions: Region C, Region M, and Region O. On page 33 of the NHSCMC application it states: "[T]*he core region ("Region C") is comprised of ZIP codes where NH Steele Creek is closer by drive time than other hospitals and the ZIP codes generally have other similar characteristics. The remaining service area ZIP codes are other Mecklenburg County ZIP codes ("Region M") and other ZIP codes outside of Mecklenburg County ("Region O"). All of the ZIP codes in Region C and Region M are located in Mecklenburg County. Region O contains ZIP Codes in Gaston County, NC and York County, SC*."



Map includes all existing/approved hospitals in Mecklenburg, Gaston, and York (SC) counties, as well as freestanding emergency departments in and around the service area.

Page 41 of the NHSCMC application begins a discussion of the needs of the population proposed to be served and introduces its purported factor of the need for competitive balance. Novant Health states: "[*t*]*here is no community hospital in southwest Mecklenburg County, so this location will improve geographic access to acute care beds and ORs*." While it is true that there is not a hospital within the three ZIP codes defined as its core region, the proposed service area extends well beyond those three ZIP codes, and NHSCMC proposes that more than half of its patients will originate from the service area beyond its core region.[3] As shown on the map above, there are five existing/approved hospitals located within a nine-mile radius of the proposed site, representing four different health systems. In addition to those hospitals, there are three additional freestanding emergency departments within that nine-mile radius.

Novant's claim that more access and more competitive balance is needed in the NHSCMC application is contradictory to its argument opposing CMHA's application to develop a new hospital in Cornelius, Atrium Health Lake Norman (AHLN) (Project ID # F-11810-19). Please see Attachment 2(a) for excerpts from the trial testimony of Novant Health's expert Dr. Ronald Luke in response to a question about the CMHA application's conformity with Criterion 18a in the contested case, *The Charlotte-Mecklenburg Hospital Authority d/b/a Atrium Health Lake Norman v. NC DHHS and Presbyterian Medical Care Corporation and Novant Health, Inc.*, 20 DHR 01836 and 20 DHR 03986.

In the AHLN 2019 review, Novant Health provided a map showing the 6.5- and nine-mile radii around the proposed AHLN hospital. *See* Attachment 3. The map provided by Novant Health showed that there were only two existing hospitals within either a nine-mile radius of the proposed hospital or within the entirety of the AHLN proposed service area. Moreover, the existing hospitals Novant Health claimed were sufficient to address competition in the service area, Atrium Health Cabarrus and Atrium Health University City, were outside the service area and located 24 to 31 minutes from the proposed hospital location. Now, in its NHSCMC application, Novant Health claims that having an existing/approved Novant Health Mecklenburg County hospital within 14 minutes of ZIP code 28217 (NH Presbyterian), within 16 minutes of ZIP code 28273 (NH Ballantyne), or within 23 minutes of ZIP code 28278 (NH Ballantyne) is not sufficient to provide needed access or address competition in the service area. *See* NHSCMC Exhibit C-4.1, NH Steele Creek Service Area Regions: Driving Time from ZIP Code to Hospitals.

Ultimately, Novant Health's need argument not only misstates the Certificate of Need statute, but also is oversimplified. As discussed in greater detail relative to the comparative factors, competition is not a simple comparison of existing capacity nor is it under the Agency's authority to protect market share.

Moreover, Novant Health's oversimplification ignores other relevant factors in the market. As extensively detailed in its applications, Atrium Health does not have sufficient capacity to accommodate all the patients that attempt to choose its facilities. CMHA has clearly documented in its applications the negative impact not having sufficient capacity has on patients that are seeking care at its facilities, including extensive delays. *See* the CMC acute care bed application pages 33-45 and the Atrium Health Pineville application pages 32-44. Without sufficient capacity, Atrium Health is <u>unable to compete</u> with Novant Health for additional patients. In contrast,

[3] *See also* comments under paragraph # 6.

Novant Health has excess capacity. As cited on page 45 of the CMC bed application and page 44 of the Atrium Health Pineville application, "*of the more than 100 patients Atrium Health was not able to admit in 2019 because of limited bed capacity, the majority were admitted to a Novant Health hospital instead*." Clearly, Novant Health is advantaged by Atrium Health's lack of capacity and its own excess capacity.

If acute care beds and operating rooms continue to be awarded to existing systems with surpluses, one of the foundational principles of the *SMFP* and Certificate of Need process will be disregarded as these resources are awarded based on factors other than the need of the population as determined by their choice of system.

Based on the discussion above, Novant Health fails to demonstrate the need for the proposed project in accordance with Criterion 3. As such, the NHSCMC application is non-conforming with Criteria 1 and 3.

2. The NHSCMC application fails to demonstrate that the need of the population for its proposed Emergency Department.

On page 47 of the NHSCMC application it states, "*NH Steele Creek will offer a full-service emergency department ("ED") with 15 examination rooms (including an isolation room), triage areas, a decontamination room, and all necessary support space*." The NHSCMC application goes on to state, "[*T*]*here are two existing EDs in the North Carolina portion of the proposed service area: AH Steele Creek and AH Pineville.*" While the NHSCMC application proposes to develop 15 emergency department rooms and cites the room deficits of CMHA's existing emergency departments in the proposed service area (showing a room deficit of 12 to 21 on page 47) as a demonstration of the need for its NHSCMC emergency department, Novant Health fails to take into account CMHA's approved emergency department with six rooms at Mountain Island Lake (Project ID # F-11658-19), even though five of the NHSCMC service area ZIP codes – including two of the three Region C ZIP codes – overlap with that of CMHA's approved project. Furthermore, Novant Health fails to take into account its own approved Certificate of Need application to develop a freestanding emergency department in Mountain Island Lake with a two-bay triage area, 12 emergency exam rooms (including one trauma room), diagnostic imaging equipment essential for emergency services (including CT, X-ray, and ultrasound), a laboratory, and medication dispensing (pharmacy) (Project ID # F-11806-19). Nowhere in the NHSCMC application does Novant Health even acknowledge its recently approved project, nor does Novant Health provide an analysis of why the NHSCMC emergency department is needed in addition to its freestanding emergency department, even though the proposed service area for NHSCMC includes five out of the 13 ZIP codes included in Novant Health's Mountain Island Lake freestanding emergency department service area, as shown below.

Novant Health Mountain Island Lake Emergency Department and NHSCMC Service Area Overlap

ZIP Codes in Novant Health Mountain Island FSED Service Area	*Located in NHSCMC Service Area?*	*NHSCMC Service Area Region*
28012	Yes	Region O = Other
28037	No	
28078	No	
28120	No	
28164	No	
28202	No	
28208	Yes	Region M = Mecklenburg County
28214	Yes	Region M = Mecklenburg County
28216	No	
28262	No	
28269	No	
28273	Yes	Region C = Core
28278	Yes	Region C = Core

Source: Project ID # F-11806-19, Form C Assumptions and Methodology, page 4 and NHSCMC application, page 38.

As shown above, not only do five of the ZIP codes in NHSCMC's proposed service overlap with Novant Health Mountain Island Lake emergency department's service area, but two of the ZIP codes that overlap are in NHSCMC's core region. Given that Novant Health failed to even acknowledge its own or CMHA's previously approved freestanding emergency departments in Mountain Island Lake, or provide an analysis of the need for its proposed NHSCMC emergency room given these two approved facilities, Novant Health fails to demonstrate the need for the proposed emergency department.

Novant Health opined on several occasions in the contested case for the 2019 review, *The Charlotte-Mecklenburg Hospital Authority d/b/a Atrium Health Lake Norman v. NC DHHS and Presbyterian Medical Care Corporation and Novant Health, Inc.*, 20 DHR 01836 and 20 DHR 03986, that CMHA did not sufficiently demonstrate need for its proposed hospital because, although the application did discuss its existing freestanding emergency department located in the proposed service area, Novant Health did not believe there was adequate analysis to support the need for the proposed hospital's emergency room, in addition to the freestanding emergency department. Please see Attachment 2(b) for excerpts from Dr. Luke's expert report as well as his trial testimony. In its own application for a new hospital in this 2020 review, however, Novant Health *fails to even mention* the existence of its approved Mountain Island Lake freestanding emergency department, nor the Atrium Health freestanding emergency department, also in Mountain Island Lake. In the 2019 review, notwithstanding CMHA's discussion of its existing freestanding emergency department located in the service area, it was found non-conforming with Criterion 3 by the Agency. Here, Novant Health completely omits any discussion of its freestanding emergency department or the Atrium health freestanding emergency department. CMHA would

argue that if an applicant that includes a discussion of all of the facilities in its service area can be found non-conforming under Criterion 3, then most certainly an applicant that completely omits discussion of facilities in its service area fails to demonstrate the need for the services it proposes to develop and should be found non-conforming under Criterion 3.

Based on the discussion above, Novant Health fails to demonstrate the need the population has for the services it proposes to provide. As such, the NHSCMC application is non-conforming with Criteria 1 and 3.

3. The NHSCMC application fails to adequately demonstrate the need for the proposed project; in particular, Novant Health does not demonstrate the need for two operating rooms at NHSCMC.

As demonstrated in Section C.4 and on its Form C Utilization, Novant Health projects that NHSCMC will need only 0.9 operating rooms in the third full fiscal year of the project. Novant Health fails to demonstrate the need for the two proposed operating rooms to be developed at NHSCMC.

Novant Health clearly states in the NHSCMC application that "*the calculated OR need at NH Steele Creek in Y3 is 1 OR*." *See* the NHSCMC application page 54. Despite acknowledging that it demonstrates the need for only one operating room, Novant Health is seeking approval for two operating rooms, which would result in a surplus of 1.1 operating rooms in its third year. Such a position in this 2020 review is contradictory to its argument opposing CMHA's application to develop a new hospital in Cornelius, AHLN (Project ID # F-11810-19)[4]. Please see Attachment 2(c) for excerpts from Dr. Luke's expert report as well as his trial testimony.

In the 2019 review, even though the Agency found that CMHA demonstrated a need for all six operating rooms allocated in the *2019 SMFP* (*see* Findings[5], p 112, included in Attachment 4), Novant Health took the position that because the entire Atrium Health University City license was projected to show a surplus in year three, even if projections for the proposed new hospital facility did not, the AHLN application was properly denied under Criterion 3. CMHA would argue that if the surplus at another campus on the same license is sufficient to deny an applicant for new operating rooms under Criterion 3, then most certainly a projected surplus at the applicant's proposed facility fails to demonstrate the need for the operating rooms it proposes to develop.

Based on the discussion above, Novant Health fails to demonstrate the need for the proposed project in accordance with Criterion 3. As such, the NHSCMC application is non-conforming with Criteria 1 and 3.

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[4] In the 2019 application, AHLN was proposed to be licensed as part of Atrium Health University City. AHLN's utilization projections calculated a need for two operating rooms. Nevertheless, the Agency examined the utilization of the entire license, including the Atrium Health University City campus, in its conclusion that AHLN did not demonstrate a need for the operating rooms it proposed to develop.

[5] The Findings state, in part, "CMC could hold its current utilization steady through OY3 and it would not only show the need for the two additional ORs it proposes to add, but it would also by itself meet the standard promulgated in 10A NCAC 14C .2103(a). In other words, CMC-Main shows a need for all six ORs that are proposed in the three Atrium applications….The health system's historical utilization already meets the performance standard promulgated in 10A NCAC .2103(a)."

4. The NHSCMC application fails to adequately demonstrate the need for the proposed project insofar as its need argument is prefaced, in part, on the need for "improved financial access to services by uninsured and low-income patients" in Mecklenburg County.

   In outlining the needs of the population it proposes to serve, the NHSCMC application relies in part on a factor it calls "*Service Area Residents Will Benefit from Novant Health's Access for Underserved Populations*." *See* the NHSCMC application page 57. In support of its position, Novant Health references its financial assistance policies and various partnerships with area philanthropic organizations. While informative, this information does not demonstrate how access to a new Novant Health satellite hospital facility will improve access to the medically underserved, particularly in light of the fact that Atrium Health facilities serve a disproportionately high share of the medically underserved compared to Novant Health. *See* the CMC bed application pages 23-24, 48-49, and 109-110; the CMC operating room application pages 14-15 and 94-95; and the Atrium Health Pineville application pages 23-24, 47-48, and 104-105. As discussed in Section B.10 of the CMHA bed applications and Section B.3 of the CMC operating room application, in 2019, 69.3% of all Medicaid inpatients from Mecklenburg County were treated at an Atrium Health facility, compared with Atrium Health's 61.3% share of all patients. In addition, 64.6% of Medicare and 71.8% of Self-Pay acute care discharges in Mecklenburg County were treated at an Atrium Health facility. Notably, Atrium Health served more than twice as many Medicaid patients and over three times as many Self-Pay patients as Novant Health. This means that while Atrium Health facilities served more than half of acute care discharges originating from Mecklenburg County in 2019, it served a disproportionately higher share of these underserved patients compared to Novant Health. Thus, access to a new Novant Health hospital with its disproportionately low share of underserved patient populations may not necessarily improve access for the underserved .

   Based on the discussion above, Novant Health fails to demonstrate the need for the proposed project in accordance with Criterion 3. As such, the NHSCMC application is non-conforming with Criteria 1 and 3.

5. The NHSCMC application fails to adequately demonstrate the need for the proposed project; in particular, the NHSCMC application fails to demonstrate the need the population has for all of the proposed service components.

   The NHSCMC application fails to adequately demonstrate the need for the proposed project as it fails demonstrate the need the population has for all of the proposed service components. As detailed below, the NHSCMC application contains conflicting information with regard to a number of services that may be provided at the proposed community hospital.

   Imaging Services

   The NHSCMC application does not demonstrate the need the population has for all of the imaging equipment it proposes to acquire, specifically the additional units listed in Exhibit F-1.2 as compared to the units identified in Section A.4(f) and Section C.1. of the NHSCMC application. The table below compares the imaging equipment included in the project equipment list in Exhibit F-1.2 against the imaging equipment identified by Novant Health in Section A.4(f) and Section C.1 of the NHSCMC application.

	CT Scanner	X-Ray	Ultrasound
Equipment List, Exhibit F-1.2	2	8	10
Narrative, Section A.4(f) and Section C.1	1	5	2

As noted above, Exhibit F-1.2 indicates the development of two CT scanners, eight X-ray units, and ten ultrasound units, compared to the sections of the application that describe the development of one, five, and two units, respectively. Please see Attachment 5 for a table detailing all of the inconsistencies relative to imaging equipment.[6]

Moreover, and as discussed below relative to Criterion 12, these inconsistencies make it impossible for CMHA or the Analyst to properly assess whether the design, cost, and means of construction is the most reasonable alternative.

Further, as noted in the table above, the equipment list included in Exhibit F-1.2 of the NHSCMC application includes two CT scanners. According to the equipment list, one of the two CT scanners is associated with zero capital cost ($0), while the second CT scanner is priced at $1,882,450. Without any explanation from Novant Health, it would appear that perhaps the CT scanner associated with zero capital cost is referring to the existing CT scanner that it proposes to relocate from Novant Health Presbyterian Medical Center (NH Presbyterian or NHPMC) to the new community hospital. Notably, the NHSCMC application does not provide any response to the Criteria and Standards for Computed Tomography Equipment (*see* page 68 of the NHSCMC application) to address the acquisition of a second, new CT scanner, despite its inclusion in the equipment list in Exhibit F-1.2 and the total medical equipment line item in the capital cost from provided in Form F.1a. Given the capital cost associated with the second CT scanner ($1,882,450), it qualifies as major medical equipment under the Certificate of Need statute and is subject to review. The NHSCMC application does not demonstrate the need for this unit of major medical equipment.

Limited Range of Services

The NHSCMC application proposes to develop a new community hospital with 32 acute care beds and two operating rooms (as well as one dedicated C-Section room) in the Steele Creek area of Mecklenburg County. Novant Health indicates that its proposed community hospital will see a limited range of acute care inpatients during the first three years of operation. In Exhibit B-1 of the NHSCMC application, Novant Health provides a list of Medicare Severity-Diagnosis Related Group (MS-DRGs) codes proposed to be provided at NHSCMC. Novant Health projects that NHSCMC, as a proposed community hospital, will provide only a select list of MS-DRGs, or what Novant Health describes as "*the limited acute care (LAC) MSDRGs*." Page 28 of the NHSCMC application states:

> "[*T*]*he limited Acute Care (LAC) MSDRGs exclude all MSDRGs in these product lines: Cardiac Surgery, Diagnostic Cardiac Cath, lnterventional Cardiac Cath,*

[6] Please note that in addition to imaging equipment inconsistencies, Attachment 5 also includes a summary of other discrepancies included the NHSCMC application.

Implantable Cardioverter Defibrillator procedures (ICD), Invasive Cardiology, Medical Spine, Surgical Spine, Mental Diseases & Disorders, Neurosurgery, Pacemakers, Substance Abuse, Tracheostomy, Transplant, Ungroupable MSDRGs, Vascular Surgery, Other Vascular, Rehabilitation, Normal Newborns, Non-Acute Neonates, and NICU."

As stated throughout the NHSCMC application, Novant Health assumes that NHSCMC will be similar to Novant Health Mint Hill Medical Center (NH Mint Hill or NHMHMC) in that, "*NH Mint Hill has 36 acute care beds, offers obstetrics and ICU, and 97.3 percent of its acute care days are in LAC MSDRGs. NH Matthews and NH Huntersville are larger, more mature community hospitals, but over 85 percent of their acute care days are in LAC DRGs*." *See* the NHSCMC application, page 34. Even though Novant Health provides a list of MS-DRGs it proposes to provide at NHSCMC and claims that 97.3% of discharges at NHMHMC were for LAC MS-DRGs, based on IBM Watson data accessed by CMHA, CMHA believes that there are discrepancies within Novant Health's assumptions that render its utilization projections unreasonable and unsupported.

According to IBM Watson data, NHMHMC did not serve patients in more than half of the LAC MS-DRGs proposed to be provided at NHSCMC; in fact, NHMHMC served patients in only 229 of the 498 LAC MS-DRGs that Novant Health says are appropriate for NHSCMC. *See* Attachment 6.

A review of the list of MS-DRGs in the application's Exhibit B-1 shows that there are approximately 1,000 MS-DRGs in total. Of those, NHSCMC defines 498 as LAC MS-DRGs. However, of those 498 NHSCMC classifies as LAC MS-DRGs, discharge data show that more than 150 of those DRGs are appropriate for tertiary or quaternary-level care hospitals only, not community hospitals such as the proposed NHSCMC. The discharge data confirms CMHA's acuity analysis of these DRGs as well. According to 2019 IBM Watson data for Regions C and M of NHSCMC's service area as provided in Attachment 6, almost 89% of discharges from these 164 tertiary or quaternary MS-DRGs were in fact provided at Carolinas Medical Center/Atrium Health Mercy, NH Presbyterian, or Atrium Health Pineville, which are all hospitals that provide tertiary or quaternary-level care. The three existing community hospitals in Mecklenburg County – NHMMC, NHHMC, and Atrium Health University City – combined, served less than 4% of total discharges from these tertiary/quaternary MS-DRGs. These findings suggest that these 164 MS-DRGs, demonstrated as appropriate for tertiary or quaternary-level care hospitals, would not be provided at NHSCMC, a proposed community hospital.

In consideration of this information, CMHA believes that the utilization projections for NHSCMC are based upon assumptions that are unreasonable and not adequately supported. As shown in Attachment 6, CMHA's analysis of the IBM Watson data for 2019 annualized shows a total of 16,265 discharges from Regions C and M, when including all 498 DRGs proposed for NHSCMC, which is materially consistent with the 16,115 discharges in 2019 from Regions C and M that Novant Health shows on page 157 of its application.

Excluding the tertiary DRGs, clearly not provided with any material volume at community hospitals in Mecklenburg County, would reduce the market discharge volumes in Region C and M by 1,837 discharges, or 11.3%. *See* Attachment 6. CMHA did not analyze data from the two South Carolina ZIP codes but believes the result would be materially consistent with the adjacent population. Thus, total volume for NHSCMC is overstated by at least 11.3%.

Based on the discussions above, Novant Health fails to demonstrate the need for the proposed project in accordance with Criterion 3. As such, the NHSCMC application is non-conforming with Criteria 1 and 3.

6. The NHSCMC application fails to adequately demonstrate the need for the proposed project; in particular, the projected market share of service area patients for NHSCMC is unsupported and unreasonable.

Throughout the NHSCMC application, Novant Health discusses that it has developed three community hospitals in Mecklenburg County, including NHMHMC, Novant Health Huntersville Medical Center (NH Huntersville or NHHMC), and Novant Health Matthews Medical Center (NH Matthews or NHMMC), and that "*NH Steele Creek will complete the ring of Novant Health community hospitals to establish locations in all parts of Mecklenburg County*." *See* the NHSCMC application, page 45. While the proposed new hospital in Steele Creek may "*complete the ring of Novant Health community hospitals*" in the area, Novant Health failed to provide adequate or reasonably supported information to demonstrate that NHSCMC is needed or will be effectively utilized. Page 34 of the NHSCMC application states, "*NH Mint Hill opened in 2018 and is the most similar to the proposed NH Steele Creek hospital*." As such, several of the key assumptions used by Novant Health to project market share and utilization of the proposed acute care beds, operating rooms, and emergency department rooms to be developed at NHSCMC are based on the limited experience of NHMHMC, even though there are important differences between the way in which Novant Health planned and developed its hospital in Mint Hill and the proposed development of NHSCMC. The NHSCMC application projects that the proposed new hospital will achieve market share of the proposed service area, as evident on page 164 of the NHSCMC application, based on the following assumption: "[*T*]*he assumed market shares will come from the shift in market share from hospitals the Service Area residents currently use*." Said another way, Novant Health assumes that patients who have historically accessed other existing hospitals, including Atrium Health hospitals, will choose NHSCMC in the future at a rate similar to what NHMHMC experienced.

Specifically, Novant Health assumes, as stated on page 165 of the NHSCMC application: "[*F*]*or CY 2026, the first full fiscal year of operation, the Applicants based NH Steele Creek's market share in each service area Region in part on NH Mint Hill market shares in CY 2019*." The excerpt below is from page 158 of the NHSCMC application, which illustrates the projected market share for each region of the proposed NHSCMC service area.

Step 3: Project NH Steele Creek Acute Care Utilization

LAC Med/Surg	LAC Med/Surg Market Share^			
	2025Q4	2026	2027	2028
Region C	9.5%	12.0%	14.9%	17.9%
Region M	1.2%	2.5%	3.1%	3.7%
Region O	0.8%	1.5%	1.8%	2.2%

Source: NHSCMC application, page 158.

As shown above, Novant Health projects NHSCMC to achieve 17.9% market share of the self-described "core region" of NHSCMC's proposed service area by 2028, NHSCMC's third full project year. While Novant Health provides NHHMC's volume ramp-up to ostensibly support its second and third year market share estimates for NHSCMC, the NHHMC data is not sufficient to provide

that support. First, the NHHMC ramp-up is based on its total volume of discharges, which would include the impact of not just share growth but also population growth and use rate growth. NHSCMC applies that ramp-up assumption, not to total volume but to market share only, which it then applies to market discharges for which it has already adjusted for population growth. Second, as discussed previously, the region in which NHHMC is located has fewer hospitals in proximity to its location than will NHSCMC, which may dampen the growth of NHSCMC compared with NHHMC. Third, as discussed below, Novant Health proposes to develop NHSCMC under a different strategy than it did NHMHMC, by concurrently developing a physician presence rather than prior to the development of the hospital. For these reasons, Novant Health does not demonstrate the reasonableness of the calendar year (CY) 2028 market share estimates, which are 50% higher than the CY 2026 estimates. Moreover, the CY 2026 market share estimate, which is the basis of the CY 2028 estimate, is unreasonable and not adequately supported because its reliance on NHMHMC's experience is not comparable for the following reasons.

Difference in MOB Development. NHMHMC opened October 2018. Prior to the opening of NHMHMC, Novant Health opened a medical office building (MOB) in Mint Hill on November 15, 2016. Novant Health's Mint Hill MOB offers primary, women's, and pediatric care in a facility equipped with 27 patient exam rooms, ultrasound and X-ray capabilities, and a full service lab.[7] The development of the MOB prior to the opening of the hospital in Mint Hill is a noticeably different, and consequential, strategy than the one proposed in the NHSCMC application. Page 31 of the NHSCMC application states:

> "*NH plans to build a medical office building (MOB) on the Steele Creek campus that does not need CON approval and is not part of this project. The planned MOB supports the need and utilization projections in this application…The MOB and NH Steele Creek will open concurrently…NH Steele Creek will submit an exemption letter for the MOB following issuance of the CON for the hospital* [emphasis added]."

First, these statements suggest that Novant Health is committed to enhancing its care to the Steele Creek community only if the NHSCMC application is approved, because otherwise Novant Health will not develop an MOB in Steele Creek. Second, as noted above, Novant Health's MOB in Mint Hill opened two years prior to the opening of its Mint Hill hospital. As such, physicians that practice at the Mint Hill MOB had two years to develop their patient panels such that when the hospital opened, those physicians had an established practice of patients from which to refer to the new hospital. In contrast, NHSCMC unreasonably assumes that it will achieve the same market share as that of NHMHMC, but without an established MOB on campus two years in advance.

Further, the NHSCMC application fails to provide any information regarding the existing Novant Health employed or Novant Health-affiliated physician presence in the proposed Steele Creek service area. On page 116 of the application it states, "*NH has a large network of physicians it can rely on to admit patients to NH Steele Creek. In 2019, 549 physicians referred patients from the*

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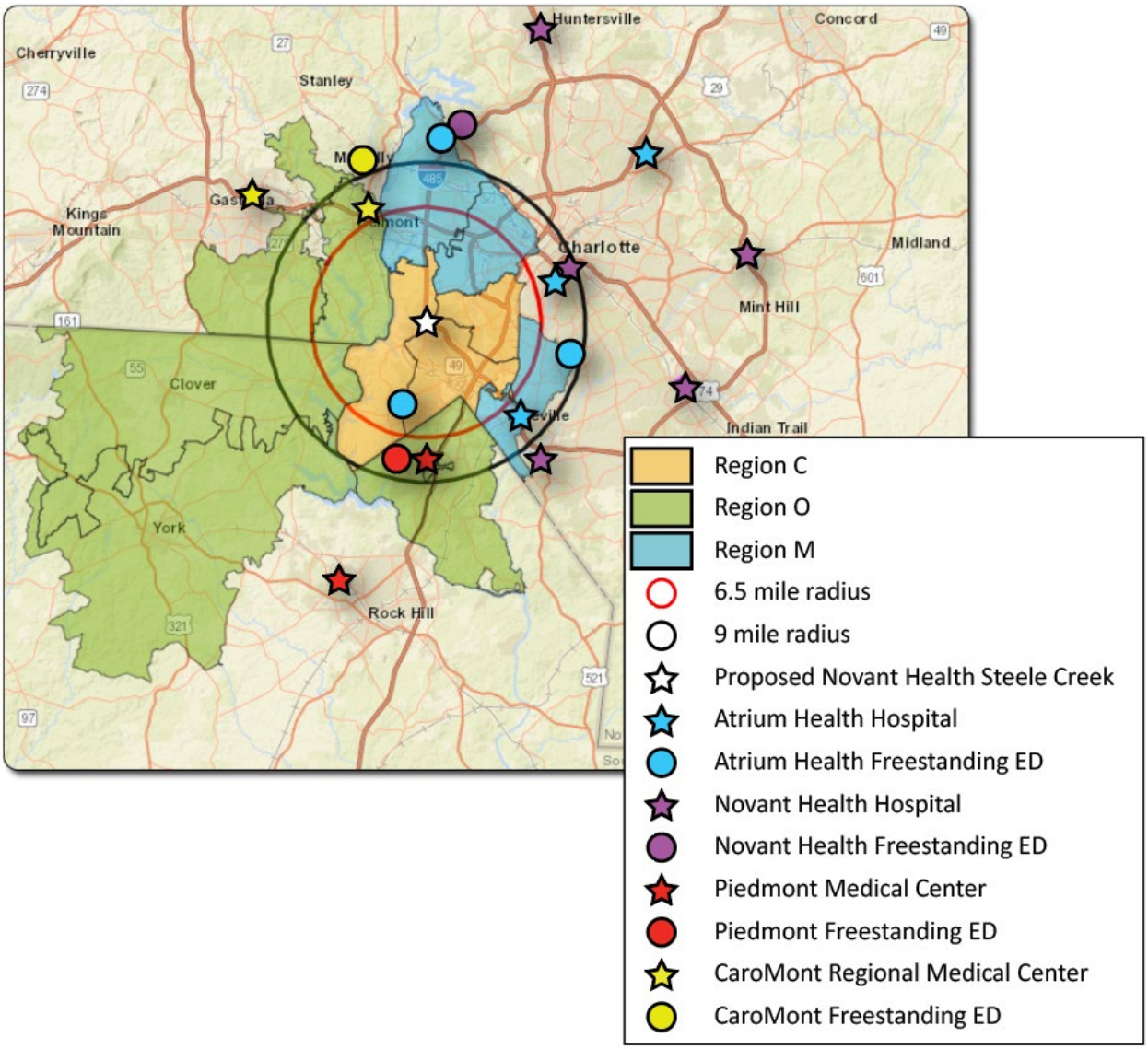
[7] Novant Health Opens Its New Mint Hill Location. Accessed at https://www.minthilltimes.com/business-spotlight/novant-health-opens-its-new-mint-hill-location/.

service area ZIP codes to NH Mecklenburg County hospitals for inpatient treatment." On the following page of the NHSCMC application (page 117), Novant Health provides a table that lists the number of physicians, by specialty, that referred patients originating from the proposed Steele Creek service area to Novant Health hospitals in 2019, and Novant Health assumes that these physicians will refer their patients to NHSCMC. However, Novant Health provides no further detail concerning the physicians listed in the table. There is no information regarding the location of these physicians, including whether or not they are even located in the proposed Steele Creek service area. Additionally, there is no information as to which hospital these physicians have referred patients in the past and the degree to which these 549 physicians would be expected to refer to NHSCMC. Due to this lack of information, it is difficult to analyze the legitimacy of Novant Health's claim that these 549 physicians will refer patients to NHSCMC.

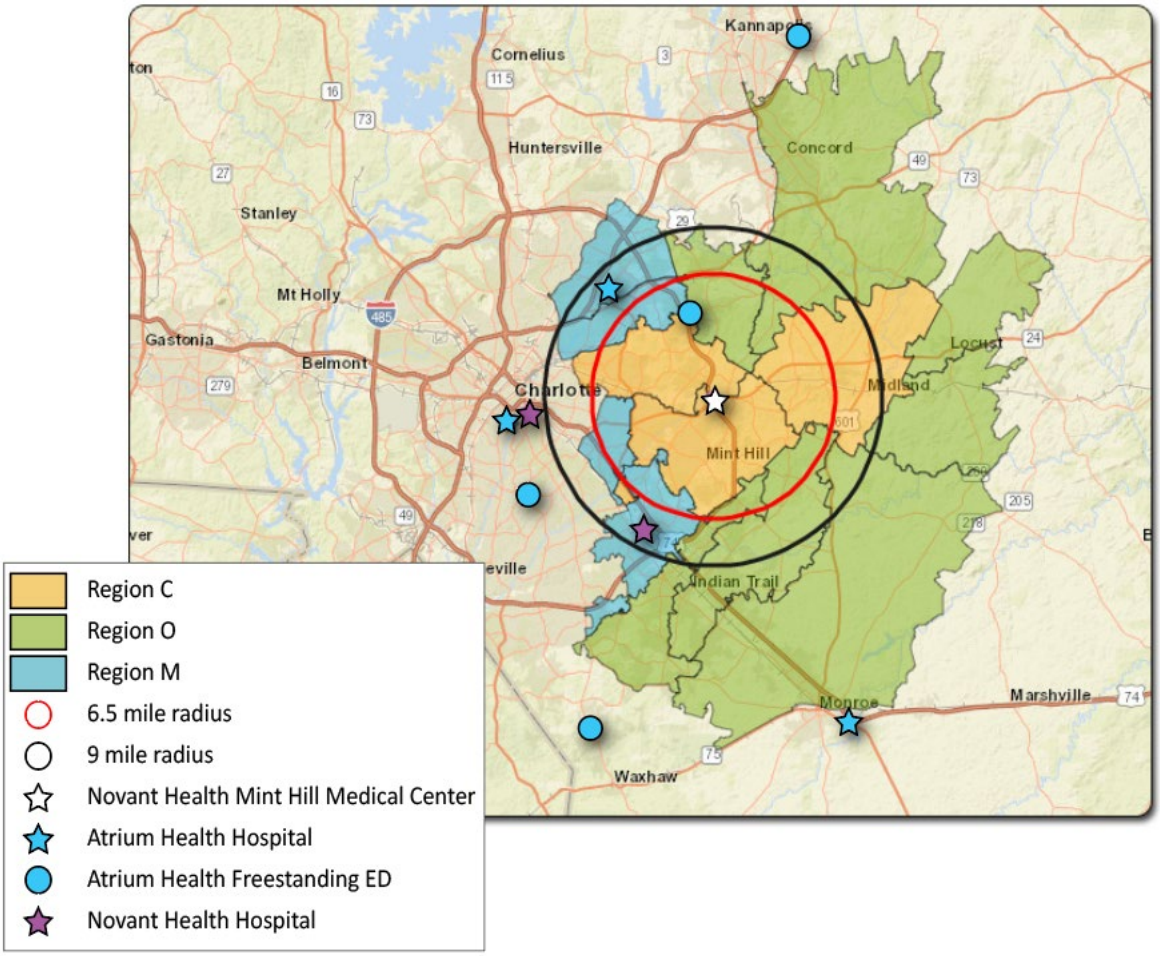
Further, there is no documentation that patients of these physicians would be appropriate clinically to be treated at NHSCMC. The table on page 117 of the NHSCMC application includes specialty care providers that would not be expected to practice at a community hospital, including gynecologic oncology, neurosurgery, interventional cardiology, and cardiothoracic surgery. The inclusion of these specialized providers in a list that is provided to demonstrate the number of providers that are expected to refer patients to NHSCMC is misleading. Additionally, the table on page 117 lists gastroenterology providers even though NHSCMC does not propose to provide GI/endoscopy services, according to page 170 of the application.

No Support for Market Share Shift. Moreover, while the table on page 117 illustrates that 549 physicians referred patients from the proposed Steele Creek service area to Novant Health hospitals in 2019, the NHSCMC application includes only 38 physician support letters. CMHA is not suggesting that there is any particular threshold for the number of physician support letters that must be submitted with a Certificate of Need that proposes to develop a new hospital. However, the number of physicians listed in the table on page 117, compared to the minimal number of physician support letters provided with the NHSCMC application, calls into question the actual level of support provided by physicians that are expected to refer patients to NHSCMC, which subsequently calls into question the reasonableness of the market share and utilization projections provided in the NHSCMC application. Of particular importance, upon review of the physician support letters included with the NHSCMC application, it is apparent that the physicians who signed a letter are in support of the project because as each one states: "[*T*]*he project will allow me to refer patients in my practice to a more conveniently located hospital that allows me to follow their care within the Novant Health system* [emphasis added]." None of these letters demonstrate that physicians who currently refer patients to Atrium Health or other non-Novant Health facilities are supportive of the proposed hospital and intend to shift their referrals to NHSCMC. This is a critical deficiency, as Novant Health assumes that NHSCMC's market share will come from a shift in market share from hospitals that service area residents currently use, as stated previously. Specifically, Novant Health assumes that NHSCMC's market share shift will match that of NHMHMC, which page 45 of the application and Exhibit C.4-1 demonstrate that approximately 47% of NHMHMC's market share was shifted from Atrium Health hospitals (calculating 5.5% loss at Atrium Health facilities / 11.8% gain at NHMHMC) and approximately 53% was shifted from other Novant Health hospitals. Novant Health has provided no physician support documenting its ability to shift nearly half of the volume expected at NHSCMC from other existing providers. In addition, NHSCMC's ability to achieve the market share of NHMHMC is not supported based on the differences in existing competition and access described in the following section.

More Access Already Exists. As noted previously, the proposed service area for NHSCMC has an abundance of accessible, existing/approved hospitals, particularly compared with other areas of Mecklenburg County such as the northern I-77 Lake Norman region, as illustrated by the map below.



As illustrated above, within nine miles of the proposed site for NHSCMC are five existing/approved hospitals, associated with four different health systems – Novant Health, Atrium Health, Piedmont Medical Center, and CaroMont. In contrast, at the time of its opening in 2018, within nine miles of NHMHMC, there were only two hospitals, associated with only two health systems – Novant Health and Atrium Health.



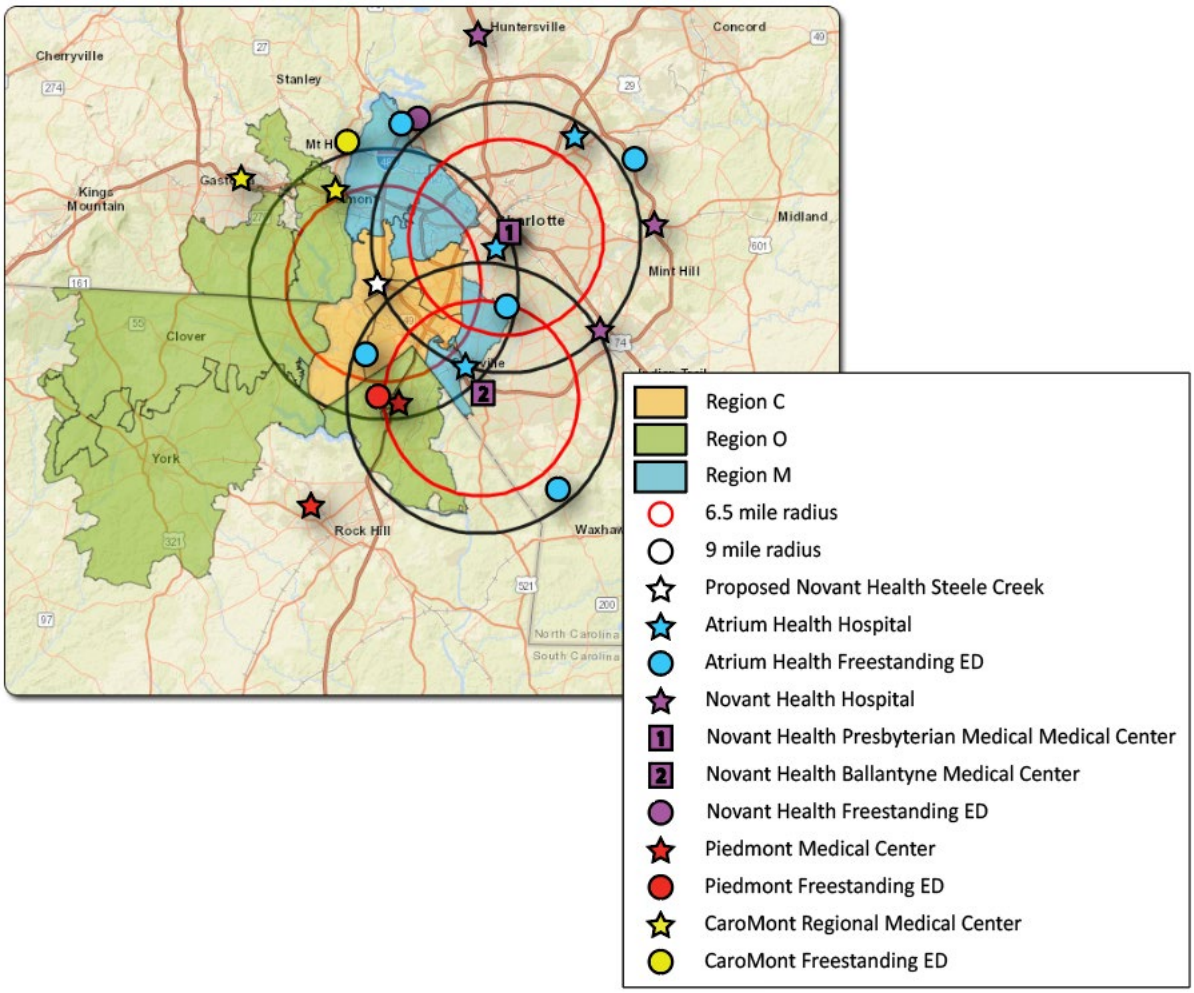
Furthermore, as demonstrated in Section C.3(a) and C.3(b) of the NHSCMC application, Novant Health is projecting that 48% of all patients to be served at NHSCMC will originate from the three ZIP codes (28217, 28273, and 28278) that comprise NHSCMC's core service area region and 52% will originate from areas outside of NHSCMC's Region C, which Novant Health acknowledges is closer to other existing and approved hospitals.

As discussed previously, Novant Health proposes by virtue of its reliance on the experience of NHMHMC that it will shift both patients that are currently choosing existing Novant Health hospitals and patients that are choosing other existing hospitals, largely Atrium Health (at least per NHMHMC experience). The assumptions regarding its proposed shift of its existing patients and shift of market share from other providers in the context of the geography of its proposed service area is particularly notable given its contrary position regarding the AHLN application in the 2019 review. Please see Attachment 2(d) for excerpts from Dr. Luke's expert report as well as his trial testimony which detail Novant Health's contrary position regarding the AHLN application in the 2019 review.

As the map Dr. Luke references in his expert report shows, reproduced in Attachment 3, the two ZIP codes on which Dr. Luke centers his testimony regarding this point are largely outside the nine-mile radius of the proposed AHLN hospital. He argues that because they are outside the

nine-mile radius of AHLN and largely within the nine-mile radius of CMC, CMHA did not reasonably support an assumption that patients would shift to the new hospital from existing hospitals.

In this application for NHSCMC, Novant Health argues the opposite and to a greater degree than what was proposed by CMHA in AHLN. CMHA has created a map with a 6.5- and nine-mile radii around the proposed NHSCMC site, as well as to NHPMC and NHBMC, to illustrate the contrary argument Novant Health makes in this application.



- First, as noted previously, Novant Health argues that NHSCMC is needed because there is no community hospital in "*southwest Mecklenburg County*." It faulted AHLN for referencing the "*Lake Norman area*" in its application based on a service area that included seven ZIP codes in two counties and spanning less than 25 miles, but yet claims in this review a new hospital is needed in what it terms *"southwest Mecklenburg County,"* based on a service area that includes 13 ZIP codes across three different counties and spanning more than 30 miles.

- Second, Dr. Luke did not find it reasonable for AHLN to project that 45% of its patient population would originate from its proposed secondary service area (SSA), given the proximity to existing, larger hospitals, none of which are located within the nine-mile

radius of AHLN's proposed campus. In contrast, NHSCMC projects that 52% of its patient population will originate from outside the core region ZIP codes.

- Third, as shown on the AHLN map in Attachment 3, the nine-mile radius around the AHLN campus does encompass some portions of the SSA, though not all of it. According to the drive time analysis, also included in Attachment 3, the geographic center of those ZIP codes range from 10 to 23 minutes' drive time to CMC and Atrium Health University City. Furthermore, except for an insignificant portion of ZIP code 28078, none of the AHLN primary service area (PSA) is within the 6.5- or nine-mile radius of CMC or Atrium Health University City. For NHSCMC, the map above shows not only is there one existing Novant hospital (NH Presbyterian) and four other existing/approved hospitals within the nine-mile radius of NHSCMC (with NHBMC just beyond), making existing hospitals much more accessible to the service area residents than was the case for AHLN, but also several of the ZIP codes are much closer to these existing/approved hospitals than in the AHLN circumstance. Specifically*:*
    - Mecklenburg County ZIP 28217 is almost entirely within the 6.5-mile radius of NH Presbyterian and the center of the ZIP code is a 14-minute drive time from NH Presbyterian, according to the application's Exhibit C.4-1. This ZIP code essentially runs the distance between NC Presbyterian and the proposed NHSCMC*.*
    - Mecklenburg County ZIP 28210 is within the 6.5-mile radius of at least one, if not both, NH Presbyterian and NHBMC than to NHSCMC. The center is a 17-minute drive to NHBMC and 20 minutes to NH Presbyterian*.*
    - York County ZIP code 29715 is mostly, and 29708 is partially, within the 6.5-mile radius of NHBMC; conversely, these ZIP codes are almost completely out of the 6.5 mile, and significant portions of the nine-mile, radii for NHSCMC*.*

- Fourth, AHLN's proposed service area population totaled nearly 400,000, with 60% – more than 200,000 – residing within its PSA, virtually all of whom resided outside the 6.5-mile radius of all but two other hospitals. As demonstrated above, the proposed NHSCMC is only marginally more convenient than other existing and approved hospitals for the approximately 107,000 residents that currently live in the three ZIP codes that represent the core region of NHSCMC's proposed service area, which is **less than one-quarter of the population of the entire proposed service area** according to Esri population data provided on page 41 of the NHSCMC application. These residents have access to five other hospitals operated by four different systems within a nine-mile radius of the NHSCMC proposed site*.*

Given Novant Health's proposal to open an MOB concurrently with the proposed hospital in Steele Creek, rather than two years in advance as it did in Mint Hill, the lack of information regarding the physicians who Novant Health expects to refer patients to NHSCMC, the failure to demonstrate support by physicians to shift market share from other hospitals, and the notably greater number of existing/approved hospitals and health systems within the proposed service area than experienced in Mint Hill, the projected market share of service area patients for NHSCMC is unsupported and unreasonable.

Lastly, to the extent Novant Health relies on the Charlotte-Mecklenburg EMS (MEDIC) to gain market share at NHSCMC as it states on page 50 of the NHSCMC application, "[*A*]*dding NH Steele*

Creek will shift some patients and market share from Atrium Health to Novant Health," there are a few important considerations. As further stated on page 50, "[*F*]*or patients transported by MEDIC and who do not state a preference in facilities, MEDIC has computer algorithms in its dispatch system that direct the EMS driver where to deliver a patient without a preference based on the shortest straight-line distance from the pickup point to an appropriate facility.*" Thus, in order for NHSCMC to gain any market share from CMHA through patient transport from MEDIC, a patient being transported by MEDIC would have to not state a preference, the patient would have to be appropriate for NHSCMC, and the patient's pickup point would have to be the shortest drive time (not necessarily the shortest distance) to NHSCMC than any other hospital that is capable of caring for the patient. While there is the potential that a patient will be transported to NHSCMC under these conditions, it is questionable that this will happen at a rate significant enough to result in a substantial shift of market share to NHSCMC, particularly given the fact that there are existing and approved hospitals in the proposed NHSCMC service area that are closer to some service area residents than the proposed location of NHSCMC, as discussed above.

For all these reasons, Novant Health failed to demonstrate that its market share assumptions and projected utilization are reasonable and adequately supported; thus, the NHSCMC application does not adequately demonstrate the need for the proposed project.

Based on the discussion above, Novant Health fails to demonstrate the need for the proposed project in accordance with Criterion 3. As such, the NHSCMC application is non-conforming with Criteria 1 and 3.

7. <u>The NHSCMC application fails to use the correct county growth rate multiplier to project acute care bed days.</u>

As demonstrated on pages 70, 71, 72, 73, and 74 of the NHSCMC application, Novant Health claims that it is using the county growth rate multiplier (CGRM) for Mecklenburg County from Table 5A of the *Proposed 2021 SMFP* to project acute care days at its Mecklenburg County hospitals, but Novant Health uses a CGRM of 1.0325 instead of the 1.0298 CGRM for Mecklenburg County that is published in the *Proposed 2021 SMFP.* Novant Health references the incorrect CGRM as follows:

- On page 70 of the NHSCMC application, "[*T*]*he Applicants used FFY 2019, the most recent public data, as the base data year for the projection. The applicants applied the County Growth Rate Multiplier ("CGRM") method from the 2020 SMFP to the base data year and projection years. Rows 1 through 8 apply the 2020 SMFP Acute Care Bed Need Methodology to the Novant Health hospitals in Mecklenburg County* [<u>emphasis added</u>]."

- The table on page 71 titled "*Novant Health Mecklenburg County Acute Care Occupancy Rate and SMFP Acute Care Bed need Y3 Using <u>2021 Proposed SMFP CGRM</u> and the SMFP Acute Care Bed Need Methodology* [<u>emphasis added</u>]," uses a CGRM of 1.0325 instead of the correct CGRM of 1.0298.

- Page 72 of the application states, "[*T*]he *Applicants reasonably assume the number of acute care days at NH acute care hospitals will increase at 3.25 percent per year, the four-year average change in Mecklenburg County acute care bed days during the last five reporting periods. The table below shows the calculation of the CGRM using the most*

recent data available. <u>This is the CGRM in the Acute Care Bed Need Methodology for the Proposed 2021 SMFP</u> [<u>emphasis added</u>]."

- The excerpt below from page 73 of the NHSCMC application demonstrates that Novant Health calculated the incorrect Mecklenburg County CGRM in order to project acute care bed days at its Mecklenburg County facilities.

Mecklenburg County Acute Care Growth Rate Multiplier 2021 Proposed SMFP

Mecklenburg Total	FFY 2015	FFY 2016	FFY 2017	FFY 2018	FFY 2019	CGRM
Acute Care Bed Days	562,638	565,440	581,200	596,723	638,866	
Difference from Previous Year		2,802	15,760	15,523	42,143	1.0325
Percent Change		0.5%	2.8%	2.7%	7.1%	

*Source: 2017 SMFP – 2021 Proposed SMFP. * 1 + Four Year Average Percent Change*

Source: NHSCMC application, page 73.

- The excerpt below from page 74 of the NHSCMC application demonstrates that Novant Health assumed the incorrect Mecklenburg County CGRM in order to project acute care bed days at its Mecklenburg County facilities.

Projection Scenario Growth Rate	FFY 2019 Acute Care Days	CGRM	CY 2028 Days	CY 2028 ADC	Approved and Proposed Beds*	Occupancy	Bed Need (Deficit)
2021 Proposed SMFP CGRM	217,163	1.0325	291,952	798	926	86.2%	171
Novant Health CGRM	217,163	1.0417	316,938	866	926	93.5%	264
Novant Health CGRM w/o NH Mint Hill	217,163	1.0331	293,526	802	926	86.6%	177
2020 SMFP CGRM	217,163	1.0278	279,880	765	926	82.6%	128

Source: NHSCMC application, page 74.

The multiple references above demonstrate that Novant Health failed to use the correct Mecklenburg County acute care bed day CGRM from the *Proposed 2021 SMFP*; Table 5A of the *Proposed 2021 SMFP* provides that the Mecklenburg County CGRM is 1.0298, not the 1.0325 used by Novant Health. *See* Attachment 7.[8] Even though Novant Health claims on several pages that it used the CGRM from the *Proposed 2021 SMFP*, it is clear that Novant Health used the incorrect CGRM to project acute care bed days. The excerpt above from page 73 of the NHSCMC applications shows that Novant Health sourced the *Proposed 2021 SMFP* when calculating the CGRM that is used to project total acute care bed days; however, the Federal Fiscal Year (FFY) 2019 acute care bed days provided by Novant Health in the table above is incorrect. The correct number of acute care bed days for Mecklenburg County published in the Table 5A of the *Proposed 2021 SMFP* is 632,248. The table below provides the correct CGRM, using the correct number of FFY 2019 Mecklenburg County acute care bed days from the *Proposed 2021 SMFP*.

[8] Please note that Attachment 7 also includes a draft copy of Table 5A distributed at the Acute Care Services Committee meeting on September 15, 2020. These two documents are the most recent source of the Mecklenburg County acute care bed day CGRM. Atrium Health contacted the Healthcare Planning Section to request a copy of the final version of Table 5A that was included in the *2021 SMFP* and sent to the Governor, but was informed that a copy could not be provided as of December 18, 2020.

Mecklenburg County Facilities' Historical Acute Care Utilization

	2015 Days	*2016 Days*	*2017 Days*	*2018 Days*	*2019 Days*	*CGRM*
CMHA Total Days	377,117	382,846	395,604	405,977	421,703	
Novant Total Days	185,521	182,594	185,596	190,746	210,545	
County Total Days	**562,638**	**565,440**	**581,200**	**596,723**	**632,248**	
Annual Change		**0.50%**	**2.79%**	**2.67%**	**5.95%**	**1.0298**

Source: *2016* to *Proposed 2021 SMFPs*.

As demonstrated above, calculating the Mecklenburg County acute care bed day CGRM using the correct number of FFY 2019 acute care bed days, results in a CGRM of 1.0298 as published in the *Proposed 2021 SMFP* and confirmed by Table 5A distributed at the Acute Care Services Committee meeting on September 15, 2020.

While this error directly impacts Novant Health's projected patient days as it is the actual growth rate used to project Novant Health patient days, Novant Health's expert in the 2019 review opined that a misstatement by CMHA in the AHLN application, which involved a statement in support of its projections but not the actual growth rate used in its projections, was a reasonable basis for finding the application not reasonable and adequately supported. Please see Attachment 2(e) for excerpts from Dr. Luke's expert report as well as his trial testimony.

Based on the discussion above, Novant Health fails to meet the performance standards in the acute care bed rules (10A NCAC 14C .3803) as it failed to reasonably project acute care bed days and its data used to develop the projections do not support the projected inpatient utilization and average daily census.

8. The NHSCMC application fails to demonstrate that the needs of the population presently served (by the CT scanner to be relocated from NH Presbyterian to NHSCMC) will be met adequately by the proposed relocation.

As detailed in the NHSCMC application, the proposed project involves the relocation of one of NH Presbyterian's four existing CT scanners to NHSCMC. In Section D of the NHSCMC application, Novant Health states:

> "*There are four CT scanners on the NH Presbyterian License. Upon completion of this project, there will be three. Form D in Section Q shows the projected scans and HECTs on the NH Presbyterian License. It shows the remaining three CT scanners at NH Presbyterian can manage this volume as the HECTs per scanner at NH Presbyterian will be comparable to the 24,375 HECTs per scanner reported on NH Matthews' 2020 LRA* [*emphasis added*]."
>
> *See* page 86 of the NHSCMC application.

This statement is completely disingenuous considering the fact that at the time the NHSCMC application was filed (November 16, 2020), NH Matthews had submitted a No Review Request to acquire a third CT scanner (October 13, 2020) and received approval from the Certificate of Need Section (October 22, 2020). Please see Attachment 8 for a copy of the No Review Request and

response. With the approval for a third CT scanner, the HECTs per scanner reported on NH Matthews' 2020 HLRA will go from 24,375 HECTs per scanner (48,751 HECTs / two CT scanners) to 16,250 HECTs per scanner (48,751 HECTs / three CT scanners).

On page 89 of the NHSCMC application, Novant Health states that "[*t*]*he relocation of a CT scanner from NH Presbyterian to NH Steele Creek will have no adverse effect on the groups listed above*." However, Novant Health artificially constricts the projected growth of the CT scanners on NH Presbyterian's license[9] by assuming historical scans will grow by the 2019-2023 Mecklenburg County population compound annual growth rate (CAGR) of 2%. This assumption simply is not reasonable given that the number of CT scans on the NH Presbyterian license grew 10.2% from 2019 to 2020 (as reported in NH Presbyterian's 2019 and 2020 HLRAs)[10], 6.8% from 2018 to 2019 (as reported in NH Presbyterian's 2018 and 2019 HLRAs)[11], and 9.1% from 2017 to 2018 (as reported in NH Presbyterian's 2017 and 2018 HLRAs)[12].

If Novant Health's Form D utilization were to assume a reasonable growth rate based on its historical experience, such as 7%, roughly the growth from 2018 to 2019, the remaining three CT scanners on the NH Presbyterian license would be performing 99,937 HECT units (or 33,312 HECT units per scanner) in the first full fiscal year, significantly more than the 71,488 HECT units (or 23,829 HECT units per scanner) as put forth by Novant Health in its Form D.

	Prior Full FY (01/01/19 - 12/31/19)	**Interim Full FY (01/01/20 - 12/31/20)**	**Interim Full FY (01/01/21 - 12/31/21)**	**Interim Full FY (01/01/22 - 12/31/22)**	**Interim Full FY (01/01/23 - 12/31/23)**	**Interim Full FY (01/01/24 - 12/31/24)**	**Interim Partial FY (01/01/25 - 09/30/25)**	**Interim Partial FY (10/01/25 - 12/31/25)**	**First Full FY (01/01/26 - 12/31/26)**
# of Units	4	4	4	4	4	4	4	3	3
# of Scans	42,921	45,925	49,140	52,580	56,261	60,199	48,310	16,103	68,922
# of HECT Units	62,235	66,592	71,253	76,241	81,578	87,288	70,049	23,350	99,937
# of HECT Units Per Scanner	15,559	16,648	17,813	19,060	20,394	21,822	17,512	7,783	33,312

As such, use of a more reasonable growth rate calls into question Novant Health's statement that "*NH Presbyterian can manage this volume as the HECTs per scanner at NH Presbyterian will be comparable to the 24,375 HECTs per scanner reported on NH Matthews' 2020 LRA*." Contrary to Novant Health's statement, if a more reasonable growth rate is used, the HECTs per scanner at

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9 Please note that the NH Presbyterian license includes not only the NH Presbyterian campus (which operates three CT scanners), but also Charlotte Orthopaedic Hospital (COH), which operates one CT scanner.

10 10.2% = (42,707 - 38,760)/38,760. Note: 42,707 includes 41,468 CT scans at NH Presbyterian and 1,239 CT scans at COH and 38,760 includes 37,602 CT scans at NH Presbyterian and 1,158 CT scans at COH.

11 6.8% = (38,760 - 36,285)/36,285. Note: 38,760 includes 37,602 CT scans at NH Presbyterian and 1,158 CT scans at COH and 36,285 includes 34,662 CT scans at NH Presbyterian and 1,623 CT scans at COH.

12 9.1% = (36,285 - 33,249)/33,249. Note: 36,285 includes 34,662 CT scans at NH Presbyterian and 1,623 CT scans at COH and 33,249 includes 31,967 CT scans at NH Presbyterian and 1,282 CT scans at COH.

NH Presbyterian – 33,312 in the first full fiscal year – are not comparable to the 24,375 HECTs per scanner reported on NH Matthews' 2020 LRA and it is nearly double the HECTs per scanner at NH Matthews now with the addition of a third CT scanner.

Based on the discussion above, it is clear that Novant Health fails to demonstrate how the needs of the population presently served will be met adequately by the proposed relocation in accordance with Criterion 3a. As such, the NHSCMC application is non-conforming with Criteria 1, 3, and 3a.

9. <u>The NHSCMC application fails to demonstrate that the least costly or most effective alternative has been proposed.</u>

Novant Health fails to demonstrate that it has proposed the least costly or most effective alternative. In Section E, pages 91 to 94, Novant Health discussed several alternatives it considered prior to the submission of its application as proposed. The alternatives considered by Novant Health include:

- "*Doing nothing*
- *Adding beds and ORs to an existing NH hospital*
- *Building a community hospital in a different location*
- *Building a community hospital with a different number of beds and ORs*
- *Not offering obstetric services upon opening*
- *Proposing additional services initially*
- *Transferring the beds and ORs from the project from a different NH facility*"

Given the current market, Novant Health failed to select the most effective alternative. In reviewing NHSCMC's alternatives, CMHA believes that Novant Health failed to adequately demonstrate why transferring existing assets was not the most effective alternative. Namely, the NHSCMC application does not include any substantive discussion of an alternative involving the transfer of existing assets from one of its existing facilities to the proposed new community hospital, particularly in light of the *2020 SMFP*'s projected surplus of 78 acute care beds and 5.58 operating rooms within Novant Health. Relative to transfer of existing assets from NH Presbyterian, the NHSCMC application simply states "[*w*]*ith the current and projected balance of licensed beds and patient volume, further transfers of existing assets from NH Presbyterian is no longer reasonable*" and "*NH Presbyterian will likely have a deficit of acute care beds in the future…*" *See* the NHSCMC application page 92.

The duplicity of this statement in light of Novant Health's arguments opposing the AHLN hospital in the 2019 review is noteworthy. The table below compares relevant statistics between Atrium Health and Novant Health at the time of the AHLN 2019 review and now at the 2020 review.

Statistic	2019 Review		2020 Review	
	Atrium Health	Novant Health	Atrium Health	Novant Health
Applicable SMFP Bed Deficit/Surplus (-)	126	-130	202	-78
Next Yr Proposed *SMFP* Bed Deficit/Surplus (-)	202	-78	232	-11
# of Consecutive *SMFP* with Bed Deficit or Surplus	4 w deficit	8 w surplus	5 w deficit	9 w surplus
Last FFY Occupancy Relative to Target Occupancy of Existing/Approved Beds^	+9.7 (84.9)	-8.6 (66.6)	+3.9 (79.1%)	-10.7 (64.5%)
Project FFY3 Projected Occupancy w Existing/Approved/Proposed Beds*	+7.9 (83.1%)	+4.3 (79.5%)	+11.9 (87.1%)	+11.2 (86.4%)
Use of Temporary Bed Licenses	Yes	No	Yes	No
Routine Use of Licensed Beds for Obs Patients	No	Yes	No	Yes

Sources: *2019, 2020,* and *Proposed 2021 SMFPs*; respective CON applications.
^For purposes of these comments in the 2020 Review calculations, CMHA has adopted Novant Health's assumption in its NHSCMC application that 20 beds will be awarded to NH Matthews from the 2019 review. Although the beds have been approved but not yet awarded, CMHA maintains its position that the beds should not be awarded to Novant Health.
*For the 2019 review, Project FFY3 was 2025 for Novant Health and 2026 for CMHA. For the 2020 review, Project FFY3 was 2028 for Novant Health and 2030 for CMHA. For the 2020 review, the Project FFY3 occupancy is based on the projections included in the NHSCMC application, notwithstanding the error in the assumed growth rate. Correcting the growth rate, Novant Health's Project FY3 projected occupancy would be 84.3%, 9.1 points higher than the target rate.

Despite the significant differences in need demonstrated by these statistics, Novant Health is on the record in *The Charlotte-Mecklenburg Hospital Authority d/b/a Atrium Health Lake Norman v. NC DHHS and Presbyterian Medical Care Corporation and Novant Health, Inc.*, 20 DHR 01836 and 20 DHR 03986 stating that CMHA had sufficient bed capacity to accommodate the patients it proposed to serve in the 30 beds it was seeking to develop at AHLN. Please see Attachment 2(f) for excerpts from Dr. Luke's expert report as well as his trial and deposition testimony.

As demonstrated in Attachment 2(f), Novant Health is clearly on the record stating that existing acute care bed providers can create bed capacity without the need for additional beds by using the following operational tactics:

- Avoid using licensed acute care beds for observation patients;
- Operate acute care beds up to 90% occupancy rates, on average annually;
- Once reaching the 90% "operational threshold," request temporary licensed beds via 10A NCAC 13B .3111.

Based on these operational tactics espoused, Novant Health has more than sufficient capacity of its existing acute care bed complement and does not demonstrate a need for 32 additional beds. As illustrated in the table below, Novant Health projects a system-wide total of 291,952 days in

CY 2028 (based on the erroneous CGRM), or an average daily census of 800 patients. Assuming that Novant Health does not use its licensed acute care beds for observation patients, as Dr. Luke opined, Novant Health would need 889 beds in 2028 to operate at a 90% occupancy rate. Novant Health currently has 894 existing and approved acute care beds (including the 20 beds the Agency approved in the 2019 review that are under appeal and not yet been awarded[13]), resulting in a surplus of five beds in CY 2028. In addition, as Dr. Luke opined, Novant Health would be eligible to apply for temporary bed capacity once operating at 90%, providing another 89 beds, or 983 total. Thus, Novant Health can operate at a surplus of 95 beds in CY 2028, without the award of additional beds in the 2020 review, by executing the tactics for which it opined in the 2019 contested case. To paraphrase Dr. Luke: *"My opinion is that with the permanently licensed, the approved beds, the temporary licensed beds, and using their observation beds, they have quite adequate capacity to accommodate the 291,952 patient days that are projected for CY 2028 in their application."*

CY 2028 Projected Days	291,952
CY 2028 Projected ADC	800
Beds Needed at 90% Occupancy	889
Existing Licensed and Approved Beds	894
CY 2028 Deficit/(Surplus) at 90% Occupancy	(5)
Beds w Maximum Temporary Bed Capacity	983
CY 2028 Deficit/(Surplus) at 90% Occupancy w Temporary Beds	(95)

Based on the discussion above, Novant Health fails to demonstrate that it proposed the least costly or most effective alternative in accordance with Criterion 4. As such, the NHSCMC application is non-conforming with Criteria 1, 3, and 4.

10. The NHSCMC application fails to adequately demonstrate that the financial and operational projections are based on reasonable assumptions and therefore fails to demonstrate the immediate and long-term financial feasibility of its proposal.

As discussed above relative to Criterion 3, Novant Health fails to adequately demonstrate the need the population has for its proposed project, as such, Novant Health failed to demonstrate that its proposed project is financially feasible under Criterion 5.

Based on the discussion above, Novant Health fails to demonstrate that the financial and operational projections are based on reasonable assumptions and therefore fails to demonstrate the immediate and long-term financial feasibility of its proposal in accordance with Criterion 5. As such, the NHSCMC application is non-conforming with Criteria 1, 3, and 5.

[13] For purposes of these comments, CMHA has adopted Novant Health's assumption in its NHSCMC application that these beds will be awarded to Novant Health. Although these beds have been approved but not yet awarded, CMHA maintains its position that the beds should not be awarded to Novant Health.

11. The NHSCMC application fails to demonstrate that its proposal will not result in the unnecessary duplication of services.

On page 47 of the NHSCMC application it states, "*NH Steele Creek will offer a full-service emergency department ("ED") with 15 examination rooms (including an isolation room), triage areas, a decontamination room, and all necessary support space*." The NHSCMC application goes on to state, "[*T*]*here are two existing EDs in the North Carolina portion of the proposed service area: AH Steele Creek and AH Pineville.*" While the NHSCMC application proposes to develop 15 emergency department rooms and acknowledges CMHA's existing emergency departments in the proposed service area, Novant Health fails to take into account CMHA's approved emergency department with six rooms at Mountain Island Lake (Project ID # F-11658-19), even though five of the NHSCMC service area ZIP codes – including two of the three Region C ZIP codes – overlap with that of CMHA's approved project. Furthermore, Novant Health fails to take into account its own approved Certificate of Need application to develop a freestanding emergency department in Mountain Island Lake with a two-bay triage area, 12 emergency exam rooms (including one trauma room), diagnostic imaging equipment essential for emergency services (including CT, X-ray, and ultrasound), a laboratory, and medication dispensing (pharmacy) (Project ID # F-11806-19). Nowhere in the NHSCMC application does Novant Health acknowledge its recently approved project, nor does Novant Health provide an analysis of the potential impact of the proposed emergency department at NHSCMC on its freestanding emergency department in Mountain Island Lake, even the proposed service area for NHSCMC includes five out of the 13 ZIP codes includes in Novant Health's Mountain Island Lake freestanding emergency department service area, as shown below.

Novant Health Mountain Island Lake Emergency Department and NHSCMC Service Area Overlap

ZIP Codes in Novant Health Mountain Island FSED Service Area	*Located in NHSCMC Service Area?*	*NHSCMC Service Area Region*
28012	Yes	Region O = Other
28037	No	
28078	No	
28120	No	
28164	No	
28202	No	
28208	Yes	Region M = Mecklenburg County
28214	Yes	Region M = Mecklenburg County
28216	No	
28262	No	
28269	No	
28273	Yes	Region C = Core
28278	Yes	Region C = Core

Source: Project ID # F-11806-19, Form C Assumptions and Methodology, page 4 and NHSCMC application, page 38.

As shown above, not only do five of the ZIP codes in NHSCMC's proposed service overlap with Novant Health Mountain Island Lake emergency department's service area, but two of the ZIP codes that overlap are in NHSCMC's core service area region. In light of the fact that Novant Health failed to acknowledge its previously approved freestanding emergency department in Mountain Island Lake, nor Atrium Health's freestanding emergency department also approved for Mountain Island Lake, nor did it provide an analysis of the potential impact of the proposed emergency department at NHSCMC on either of the two approved Mountain Island Lake freestanding emergency departments, Novant Health fails to demonstrate that its proposal will not result in unnecessary duplication.

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

12. The NHSCMC application fails to demonstrate that the cost, design, and means of construction proposed represent the most reasonable alternative.

Novant Health fails to demonstrate that the cost, design, and means of construction proposed represent the most reasonable alternative. Novant Health proposes to develop a three-story, 185,992 square foot facility. According to Novant Health, the design architect and its team, "*developed a facility layout that maximizes space and efficiency*." *See* the NHSCMC application page 120. Contrary to Novant Health's statement, it is not clear from the information presented in its application that the proposed layout will maximize space or efficiency. As noted previously, not only are there inconsistencies in the scope presented in the NHSCMC application, but also there are a number of unidentified spaces in the line drawings included in Exhibit K.1 that further call into question the use of, and need for, the space. By way of example, the Imaging Department, which appears in peach in the line drawings, appears to contain no fewer than 11 unidentified spaces.

Moreover, while the certified construction cost letter included in Exhibit F-1.1 indicates that the "*Anticipated Construction Cost is $104,632,459 which includes $5,231,623 for estimated Architectural and Engineering Fees*", according to the capital cost form included in Form F.1a, the total construction costs and architect and engineering fees are $96,749,352 (this includes $91,517,729 in construction costs and $5,231,623 in architect and engineering fees).

Based on the discussion above, Novant Health fails to demonstrate that the cost, design, and means of construction proposed represent the most reasonable alternative in accordance with Criterion 12. As such, the NHSCMC application is non-conforming with Criteria 1 and 12.

In summary, based on the numerous issues detailed above, Novant Health has failed to demonstrate that the project is consistent with the review criteria implemented under N.C. GEN. STAT. § 131E-183 and that the project is needed, and the NHSCMC application should be found non-conforming with Criteria 1, 3, 3a, 4, 5, 6, and 12 as well as the performance standards in the acute care bed rules (10A NCAC 14C .3803). The NHSCMC application should not be approved.

SOUTH CHARLOTTE SURGERY CENTER (SCSC), DEVELOP A NEW SINGLE SPECIALTY AMBULATORY SURGICAL FACILITY WITH ONE OPERATING ROOM, PROJECT ID # F-12004-20

General Comments

SCSC proposes to develop a new single specialty ambulatory surgical facility (ASF) specializing in general and vascular surgery with one operating room. Of note, historically, there have been multiple *SMFP* petitions regarding the need for vascular access ASFs and all have been denied. One such petitioner was Metrolina Vascular Access Care. According to SCSC, its proposal, which will provide interventional vascular surgery for the veins, arteries, and heart is unique when compared to other ASFs in the service area. SCSC goes on to specifically note that "*Metrolina Vascular Access Care has the only other one (1)-OR specializing in interventional vascular nephrology for dialysis access*." While it is questionable that SCSC's proposal would not duplicate existing resources in the area, more glaring is the fact that the SCSC application is rife with missing and incomplete information, making a complete review by the Agency impossible.

CMHA believes the SCSC application should be denied based on the specific issues outlined below.

Issue-Specific Comments

1. <u>The SCSC application cannot be approved as submitted, as it is incomplete and fails to include all information necessary for the Agency to conduct the review pursuant to N.C. GEN. STAT. § 131E-182(b).</u>

   Specifically, the SCSC application fails to provide all requested information required in response to the Certificate of Need application form as it fails to include the following:

   - Response to Criteria and Standards for Surgical Services and Operating Rooms
   - Demonstration of need for the proposed project
   - Methodology and assumptions for utilization projections
   - Reasonable and supported assumptions for capital costs and financial pro formas

   Based on this issue, the SCSC application fails to provide information necessary to determine whether the proposed project is consistent with the review criteria implemented under N.C. GEN. STAT. § 131E-183 and with duly adopted standards, plans, and criteria. As such, the SCSC application should be found non-conforming with Criteria 1, 3, 4, 5, and the performance standards at 10A NCAC 14C .2103.

2. <u>The SCSC application fails to demonstrate a reasonable basis for or need for the project</u>.

   The SCSC application includes no response to Section C.4.(a), which instructs the applicant to: "Describe the need the patients projected to use the ORs, GI endo rooms or procedure rooms in the facility identified in Section A, Question 5 have for the proposed project." In response to Section C.4.(b), which instructs the applicant to: "Provide any supporting documentation for your response in an Exhibit," on page 19 of its application, SCSC states only the following: *"The area population growth of the four counties, Mecklenburg, Gaston, York, and Lancaster averages an annual growth of 2.1% per year. Assuming the same number of physicians on the Medical Staff, a conservative growth average per year was estimated at 2%. (See Exhibit 2 for growth trends)."*

While there is no Exhibit 2 included with the SCSC application, there is an exhibit labeled "Exhibit C.4b Population – Charlotte Growth," which contains two documents. The first is a print-out of demographic statistics for Mecklenburg County, Lancaster County (SC), York County (SC), and Gaston County obtained from U.S. Census Bureau QuickFacts (www.census.gov/quickfacts). The second is a demographic overview of the Steele Creek area of Charlotte obtained from Weichert, (www.weichert.com), which appears to be a national real estate company.

Likewise, SCSC fails to demonstrate coordination with the existing healthcare system in its proposed service area calling into question its ability generally to meet the need for surgical services in the service area. Of note, the SCSC application includes no letters of support, even from the six surgeons it states will practice at the proposed ASF. Moreover, there is no discussion in the application to suggest the support of the local healthcare system and community or to demonstrate the intent of any surgeons to perform cases at the proposed ASF.

Finally, it must be noted that while the SCSC application purports to be for the development of a freestanding ASF with one operating room in response to the need determination for 12 additional operating rooms for Mecklenburg County in the *2020 SMFP*, the floor plans included in Exhibit K.1b of the SCSC application does not identify an operating room at all. Rather, the floor plan identifies two spaces labeled "Cath Lab 01" and "Cath Lab 02" separated by a control room and space labeled "Cath Eqip. Room," which is puzzling to say the least. Further, on page 50 of its application, SCSC states, *"This ASC would be the first Vascular ASC in the area. With Medicare recently including more cardiac catheterization procedures for reimbursement, Vascular surgical procedures will be driven into these facilities traditional performed in hospitals."*

In short, nowhere in its application does SCSC even attempt to demonstrate the need the population has for its proposed project nor is it completely clear the scope of service SCSC proposes to provide.

Based on these issues, the SCSC application should be found non-conforming with at least Criteria 1, 3, 4, 5, 6, 8, 12, and 18a, as well as the performance standards at 10A NCAC 14C .2103.

3. <u>The SCSC application fails to provide reasonable and supported utilization projections.</u>

The SCSC application contains no discussion of the assumptions or methodology used to project utilization of the proposed ASF. Rather, rudimentary calculations appear beneath the requisite table in Form C in Section Q that include what appear to be historical and projected annual cases for the six surgeons that SCSC states will practice at the ASF. While 2019 case counts are shown for each surgeon, there is no information provided to indicate what these cases represent, whether they were actually performed by these surgeons in surgical operating rooms, and if so, where the cases were performed and whether or not they are appropriate to be performed in a freestanding ASF. For three of the six surgeons, SCSC projects 2022 cases by applying a one-time (not annual) growth rate of 2% to each surgeon's 2019 cases; cases for these three surgeons are then grown at 2% per year from 2023 through the third year of the project. For the remaining three surgeons, 2022 cases are projected at a seemingly arbitrary percentage of 2019 cases (10% for two of the surgeons and 8% for the third); cases for these three surgeons are then grown at 2% per year from 2023 through the third year of the project. SCSC provides no information to support the reasonableness of these assumptions. As noted above, SCSC provides no evidence of support or intent to perform cases at the proposed ASF from any physician, including the six

whose surgical cases SCSC's entire utilization projections rely upon. Similarly, SCSC provides no assumptions for its projected patient origin.

Further, nowhere in its application does SCSC provide any response to the Criteria and Standards for Surgical Services and Operating Rooms at 10A NCAC 14C .2100. Rather, on page 23 of its application, SCSC simply states, *"Pursuant to 10A NCAC 14C .2100, SCSC agrees and acknowledges to these rules – See Exhibit 9c."* Exhibit 9c is a one-page exhibit that includes the Definitions section of the Criteria and Standards for Surgical Services and Operating Rooms at 10A NCAC 14C .2101 with no response. Both the application and Exhibit 9c completely omit any reference to the Performance Standards at 10A NCAC 14C .2103. Based on application of the *SMFP* operating room need methodology to SCSC's projected total surgical hours and its assignment as a Group 6 facility, SCSC projects a need for 0.50 operating rooms in the third full fiscal year of its proposed project, which rounded, would demonstrate conformity with 10A NCAC 14C .2013. However, nowhere in its application does SCSC provide reasonable or supported assumptions for its projected utilization or information to suggest that it reasonably will meet the performance standards.

Based on these issues, the application should be found non-conforming with Criteria 1, 3, 5, 6, and 18a, as well as the performance standards at 10A NCAC 14C .2103.

4. <u>The financial information and statements in the application contain multiple errors, omissions, and inconsistencies.</u>

   a. <u>Unsupported capital costs</u>. SCSC provides no substantive assumptions for its projected capital costs, including construction costs and architect and engineering fees, which combined, account for 63% of the total cost. In Exhibit K.4 (c-f), SCSC provides a letter from an architect licensed to do business in North Carolina, but the letter contains no reference to proposed construction costs or architect and engineering fees. Rather, the letter provides a description of the proposed site and documentation regarding zoning and the availability of utilities. The assumptions provided to Form F.1a in Section Q indicate that construction costs are based on a cost of $120 per square foot, but the architect's letter does not attest to the reasonableness of this assumption.

   b. <u>No interest expense/no amortization schedule</u>. In Section F.2(b), the application instructs applicants funding the proposed project with a loan, as SCSC proposes, to include an amortization schedule for the loan. The application includes no amortization schedule; however, a letter from TowneBank included in Exhibit F.2b demonstrates a loan commitment to finance the construction of the entire 20,505 square foot medical office building of which the proposed ASF will occupy 4,250 square feet. The TowneBank letter indicates a 10-year term with a fixed interest rate of 3.5% for the term of the loan; however, Form F.3 includes no allocation of interest expense.

   c. <u>Understated rent expense.</u> The loan commitment letter from TowneBank included in Exhibit F.2b contains a lease requirement that states: "*Prior to closing, the Borrowers shall provide the Bank with acceptable lease from South Charlotte General and Vascular Surgery, PLLC with the following minimum parameters: Practice will occupy the entire second floor with a 10 year term or longer at a lease rate of $27.50/per square foot triple net*." SCSC indicates on page 7 of its application that the proposed ASF will occupy 4,250 square feet on the second floor. According to the lease requirement in the TowneBank letter, the annual rent expense for the

proposed ASF should be $116,875 at a minimum ($27.50 per square foot x 4,250 square feet). Form F.3 of SCSC's application includes a rental expense of $85,000 in each of the first three full fiscal years of the proposed project. The revenue and expense assumptions included in Exhibit F.4a of the SCSC application shows an assumed annual lease expense of $85,000 based on a rate of $20.00 per square foot applied to the 4,250 square feet proposed for the ASF. As such, SCSC appears to have understated its rent expense by at least $31,875 each year.

d. Understated expenses for support services. While Form F.2 of the SCSC application includes expenses for support services such as housekeeping and maintenance, Form H includes no FTEs or related salary expenses for the provision of these services. Further, neither Form F.2 nor Form H includes any expenses allocated to support services such as clerical and medical records needs for the ASF, and Section I.1 includes no discussion of what support services will be made available or how they will be provided. SCSC also states on page 11 of its application that because it has no experience developing an ASF, it *"has commissioned Acumen Healthcare out of Atlanta Georgia, a consulting company, specializing in the development and operations/accounting of ambulatory surgery centers since 1999."* It then refers to Exhibit 1 for a full profile of Acumen Healthcare. While Form F.3 does include an expense of $4,800 per year for independent contractors, the expense assumptions in Exhibit F.4a indicate that the $4,800 annual expense shown on Form F.3 is for accounting services. It is not evident that SCSC has included any expenses related to services to be provided by Acumen Healthcare.

e. Inconsistent payor mix assumptions. Projected cases by payor included in SCSC's revenue and expense assumptions in Exhibit F.4a are not consistent with the payor mix provided in response to Section L.3.(a) on page 45 of its application. Further, projected revenue by payor included in Exhibit F.4a is not consistent with the payor mix provided in response to Section L.3.(a) or with the revenue by payor projected in Form F.2. Finally, there are no assumptions provided for SCSC's projected payor mix. On page 46 of its application, in response to Section L.3.(b) which instructs the applicant to provide the assumptions and methodology used to project each payor source, SCSC states: *"Assumption: No change in Payor Mix."* However, it is unclear to what presumed historical payor mix SCSC is referring or whether that payor mix is reasonable for the proposed project.

f. No substantive assumptions. The SCSC application provides no substantive assumptions to its pro forma financial statements, including Forms F.2, F.3, and H. While it includes an exhibit that it purports to include revenue and expense assumptions (Exhibit F.4a), that exhibit primarily contains the calculations used, but not substantive assumptions or a reasonable and adequately supported basis for those assumptions.

Based on these numerous issues, the SCSC application has failed to demonstrate the availability of funds and the immediate and long-term feasibility of the project, and it has failed to demonstrate that the projections of costs and charges are reasonable or that it will provide the necessary ancillary and support services. As such, the application should be found non-conforming with Criteria 1, 5, 7, 8, 13, and 18a.

5. <u>The SCSC application fails to demonstrate that it is the most effective or least costly alternative and that it will not duplicate existing services.</u>

   As previously noted, SCSC claims that its proposal, which will provide interventional vascular surgery for the veins, arteries, and heart is unique when compared to other ASFs in the service area, including an existing single specialty ASF specializing in vascular surgery. SCSC specifically notes that *"Metrolina Vascular Access Care has the only other one (1)-OR specializing in interventional vascular nephrology for dialysis access."* While there is no reference to it in the application, SCSC provides an Exhibit G.2b, which appears to be a print-out of various pages from Metrolina Access Care of Charlotte's website. It would seem that SCSC provides this exhibit as its only means to demonstrate that its proposed ASF will not duplicate services provided by Metrolina's ASF and to support its claim on pages 50 of its application that *"*[*t*]*his ASC would be the first Vascular ASC in the area."* However, Exhibit G.2b does not sufficiently do so as the content included in no way confirms that Metrolina performs nothing other than vascular access cases for dialysis as SCSC suggests or that there is no duplication of services between Metrolina and SCSC's proposed ASF.

   In addition, the SCSC application includes no response to Section K.3.(a) or (b) and therefore, it does not demonstrate that the cost, design, and means of construction represents the most reasonable alternative or that the project will not unduly increase the costs and charges to the public for the proposed services.

   Based on these issues, the SCSC application should be found non-conforming with Criteria 1, 3, 4, 5, 6, 12, and 18a.

In summary, based on the numerous issues outlined above, South Charlotte Surgery Center has failed to demonstrate that the project is consistent with the review criteria implemented under N.C. GEN. STAT. § 131E-183 and that the project is needed, and the SCSC application should be found non-conforming with Criteria 1, 3, 4, 5, 6, 7, 8, 12, 13, and 18(a), as well as the performance standards at 10A NCAC 14C .2103. The SCSC application should not be approved.

COMPARATIVE ANALYSIS – ACUTE CARE BEDS

The NHSCMC application (Project ID # F-11993-20), the CMC bed application (Project ID # F-12008-20), and the Atrium Health Pineville application (Project ID # F-12009-20), each propose to develop acute care beds in response to the *2020 SMFP* need determination for Mecklenburg County. Given that multiple applicants propose to meet all or part of the need for the 126 additional acute care beds in Mecklenburg County, not all can be approved as proposed. To determine the comparative factors that are applicable in this review, CMHA examined recent Agency findings for competitive acute care bed reviews. Based on that examination and the facts and circumstances of the competing applications in this review, CMHA considered the following factors:

- Conformity with Review Criteria
- Geographic Accessibility
- Meeting the Need for Additional Acute Care Bed Capacity
- Competition
- Geographic Reach
- Access by Underserved Groups
    - Access by Women, 65 and older, and Racial Minorities
    - Projected Medicare and Medicaid
    - Projected Charity Care
- Average Net Revenue per Patient Day
- Average Operating Expense per Day
- Provider Support

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

Conformity with Review Criteria

The CMC bed application and the Atrium Health Pineville application adequately demonstrate that their acute care bed proposals are conforming to all applicable statutory and regulatory review criteria. By contrast, the NHSCMC application does not adequately demonstrate that its proposal is conforming to all applicable statutory and regulatory review criteria as discussed previously. An application that is not conforming to all applicable statutory and regulatory review criteria cannot be approved. Therefore, the CMC bed application and Atrium Health Pineville application are equally effective alternatives and more effective than the NHSCMC application with regard to conformity with review criteria.

Geographic Accessibility

Two of the three applications – the CMC bed application and the Atrium Health Pineville application – propose to add acute care beds to an existing facility. The other application – the NHSCMC application – proposes to develop acute care beds at a new facility to be located at the southeast intersection of I-485 and Steele Creek Road; however, as noted above, the NHSCMC application fails to adequately demonstrate that its proposal is conforming to all applicable statutory and regulatory review criteria. Therefore, while the NHSCMC application would be more effective than the Atrium Health bed applications with regard to improving geographic accessibility, the NHSCMC application cannot be approved. As such, this factor is of little comparative value in this review.

Meeting the Need for Additional Acute Care Bed Capacity

As shown in the *2020 SMFP,* the Atrium Health system has a total deficit of 202 acute care beds including deficits of 15, 24, and 163 beds at Atrium Health Pineville, Atrium Health University City, and CMC/Atrium Health Mercy, respectively. By comparison, the Novant Health system has a total surplus of 78 acute care beds.

Mecklenburg County Facilities' Acute Care Bed Need/Surplus

	2022 Projected ADC	*2022 Beds Adjusted for Target Occupancy*	*Current Bed Inventory*	*Projected 2022 Deficit/ (Surplus)*
Atrium Health Pineville	206	274	206	15
Atrium Health University City	83	124	100	24
CMC/Atrium Health Mercy	951	1218	1010	163
Atrium Health Total	**1240**	**1616**	**1316**	**202**
NH Ballantyne Medical Center	0	0	0	(36)
NH Huntersville Medical Center	76	115	91	(36)
NH Matthews Medical Center	116	162	154	8
NH Mint Hill Medical Center	0	0	36	(50)
NH Presbyterian Medical Center	390	519	567	36
Novant Health Total	**583**	**796**	**848**	**(78)**

Source: *2020 SMFP*.

As shown above, Novant Health currently operates with excess capacity of acute care beds whereas Atrium Health operates with a deficit of beds. Therefore, with regard to meeting the need for additional acute care bed capacity, the Atrium Health Pineville and CMC bed applications are the more effective alternatives. Further, as noted above, Novant Health failed to reasonably demonstrate that the relocation of its existing surplus acute care beds within the Novant Health system was not a more effective alternative to meeting its identified need and consistent with its opinions regarding need on the record in *The Charlotte-Mecklenburg Hospital Authority d/b/a Atrium Health Lake Norman v. NC DHHS and Presbyterian Medical Care Corporation and Novant Health, Inc.*, 20 DHR 01836 and 20 DHR 03986.

Such evaluation of need is necessary to determine the degree to which applicants that are existing facilities may have surplus capacity, as avoiding excess capacity is a foundational finding of the North Carolina Certificate of Need statute. Findings of Fact (4) and (6) state:

> *(4) "That the proliferation of unnecessary health service facilities results in costly duplication and underuse of facilities, with the availability of excess capacity leading to unnecessary use of expensive resources and overutilization of health care services."*
>
> *(6) "That excess capacity of health service facilities places an enormous economic burden on the public who pay for the construction and operation of these facilities as patients, health insurance subscribers, health plan contributors, and taxpayers."*

See N.C. GEN. STAT. § 131E-175. Findings of Fact (4) and (6).

As noted above, Novant Health currently operates with excess capacity of acute care beds. As stated in the statute, excess capacity leads to unnecessary use of expensive resources, overutilization of healthcare services, and an economic burden on the public. By comparison, Atrium Health currently operates with the highest deficit of acute care beds in Mecklenburg County (and the State of North Carolina) and has done so for a number of years running.

CMHA has documented in its bed applications the negative impact not having sufficient bed capacity has on patients that are seeking admission at its facilities, including extensive delays waiting for bed placement and the necessity of turning away some patients for inpatient admission because of the lack of bed capacity. Without sufficient bed capacity, Atrium Health is unable to compete with Novant Health for additional inpatients. In contrast, Novant Health has excess bed capacity as compared to target rates, has not yet requested temporary bed capacity for any of its existing facilities in Mecklenburg County, and thus already has enough bed capacity to effectively compete with Atrium Health for additional inpatients. Atrium Health's system-wide occupancy rate of 84% in FFY 2019 was 24% higher than Novant Health's rate of 68%. As documented on page 51 of the CMC bed application, CMC is able to manage at these high occupancy rates only by operating on temporary bed overflow status. Temporary bed overflow allows CMC to expand its capacity temporarily by 85 beds in order to accommodate its sustained high utilization. The regulation does not, however, contemplate use of the temporary license as a long-term solution, particularly in that temporary bed spaces are not required to meet the same construction standards as a licensed acute care bed. CMC has exercised the maximum number of temporary bed licenses for more than a decade. There is no additional relief available via this mechanism, thus the only solution to address inpatient bed capacity issues is the approval of additional acute care beds. Based on data from Atrium Health's Physician Connection Line, Atrium Health's inability to admit all patients who wish to be served by its physicians at its facilities results in a number of patients who are admitted to a Novant Health hospital. Specifically, of the more than 100 patients Atrium Health was not able to admit in 2019 because of limited bed capacity, the majority were admitted to a Novant Health hospital instead.

Historically, the Agency has conducted such a comparative analysis of need. For example, in the 2013 Mecklenburg County Acute Care Bed Review, the Agency's comparative analysis included "Meeting the Need for Additional Acute Care Beds" as a comparative factor. *See* Exhibit C.4-1 of the CMHA bed applications. This factor compared the projected bed deficit and surplus of each applicant as shown in the *2013 SMFP* and found the applicant with the greatest deficit to be more effective. CMHA believes that applicants with existing facilities should be evaluated based on need in comparison to existing utilization and those with deficits of capacity or higher utilization rates found to be superior to those with surpluses or lower utilization rates. In the 2019 Mecklenburg County Acute Care Beds and Operating Rooms Review, the Agency's comparative analysis included "Historical Utilization" as a comparative factor. However, application of the factor in that review compared the historical utilization rates of each facility as shown in the *2020 SMFP* and found the individual facility with the highest utilization rate to be more effective. If the Agency were to conduct an analysis similar to the 2019 review, it would find the CMHA applications more effective and the NHSCMC application less effective because it is a new facility with no existing utilization. CMHA does not believe in a service area such as Mecklenburg County with two, established, multi-hospital systems that the Agency should compare acute care bed deficits and surpluses – or utilization rates – among individual facilities but rather should make these comparisons at the system-level. A core principle of the *SMFP* acute care bed need methodology is an analysis of need by system in Mecklenburg County; it is the system-based deficits/surpluses that determine whether or not additional acute care beds are needed. Moreover, both existing systems in Mecklenburg County have

been approved for projects – still under development – that proposed to shift both resources and patients between facilities, which is further evidence that a system-to-system comparison under these circumstances is more appropriate and that a facility-specific analysis would create artificial results. An analysis of historical bed need in the *SMFP,* as shown above, demonstrates that the need for additional acute care bed capacity in Mecklenburg County has been overwhelmingly at Atrium Health facilities compared to Novant Health facilities. Therefore, with regard to meeting the need for additional acute care bed capacity, the Atrium Health Pineville and CMC bed applications are the more effective alternatives.

Competition

In recent Mecklenburg County reviews, the Agency has used other comparative factors, such as "Competition," to compare applicants' total bed complement without considering whether the applicants' existing capacity demonstrates a deficit or surplus or higher occupancy rates. The Agency Findings for the 2018 and 2019 Mecklenburg County Acute Care Bed and Operating Room Review included a "Competition" comparative factor in its analysis of both the acute care bed and operating room applications, which found any applicant with fewer beds or operating rooms more effective than applicants with a greater number of beds or operating rooms. As an example of the rationale under this application of the "Competition" comparative factor, an existing provider with ten acute care beds that served zero patients would be found to be a more effective alternative than another provider with fifty beds that served hundreds of patients and demonstrated a deficit of capacity. This example illustrates the faulty reasoning of that analysis, and CMHA believes that the "Competition" comparative factor as applied in the 2018 and 2019 Mecklenburg County reviews is contrary to the purpose of the Certificate of Need statute as discussed above and should not be applied in that manner. Atrium Health and Novant Health are two existing, mature, and well-established acute care service providers in Mecklenburg County. As such, neither Atrium Health or Novant Health would qualify as a "new or alternative provider" under the Agency's historical reasoning of the "Competition (Patient Access to a New or Alternative Provider)" comparative factor in competitive reviews over the last decade. Specifically, the Agency has stated in numerous competitive reviews over the last four years that an applicant proposing to increase access to a "new provider" is a more effective alternative with regard to "Competition/Patient Access to a New or Alternative Provider." *See* Exhibit C.4-2 of the CMHA bed applications as well as page 44 of the CMC bed application and page 43 of the Atrium Health Pineville application. In the 2019 Forsyth County MRI review, the Agency specifically noted with regard to the two applicants that are well-established providers in Forsyth County (Wake Forest Baptist and Novant Health):

> *"Both applicants and/or related entities provide MRI services in the service area of Forsyth County; therefore, neither applicant would qualify as a new or alternative provider in the service area. Thus, with regard to this comparative factor, the proposals are equally effective." See Findings, p 74*

Likewise, both Atrium Health and Novant Health provide acute care services in the Mecklenburg County service area. Neither system qualifies as a new or alternative provider of acute care services in Mecklenburg County. In addition, CMHA has documented in its bed applications the negative impact not having sufficient bed capacity has on patients that are seeking admission at its facilities, including extensive delays waiting for bed placement and the necessity of turning away some patients for inpatient admission because of the lack of bed capacity. Without sufficient bed capacity, Atrium Health is unable to compete with Novant Health for additional inpatients. In contrast, Novant Health has excess bed capacity as compared to target rates, has not yet requested temporary bed capacity for any of its existing

facilities in Mecklenburg County, and thus, based on its own opinions regarding bed need as articulated previously and applied to the NHSCMC application, already has enough bed capacity to effectively compete with Atrium Health for additional inpatients. To demonstrate further, the table below provides Mecklenburg County system-wide occupancy rates, as published in the *Proposed 2021 SMFP*, for all of the existing acute care beds that are in operation at Atrium Health and Novant Health hospitals.

FFY 2019 Atrium Health and Novant Health
Mecklenburg County Acute Care Bed Utilization

	Acute Care Days	***ADC***	***Beds***	***Occupancy***
CMC/Atrium Health Mercy	321,862	882	1,055	83.6%
Atrium Health Pineville	71,985	197	221	89.2%
Atrium Health University City	27,856	76	100	76.3%
Atrium Health Total	**421,703**	**1,155**	**1,376**	**84.0%**
Novant Health Ballantyne Medical Center	0	0	0	0.0%
Novant Health Huntersville Medical Center	26,792	73	139	52.8%
Novant Health Matthews Medical Center	41,285	113	154	73.4%
Novant Health Mint Hill Medical Center	0	0	36	0.0%
Novant Health Presbyterian Medical Center	142,468	390	519	75.2%
Novant Health Total	**210,545**	**577**	**848**	**68.0%**

Source: *Proposed 2021 SMFP*.

As shown above, Atrium Health's system-wide occupancy rate of 84% in FFY 2019 was 24% higher than Novant Health's rate of 68%. Based on data from Atrium Health's Physician Connection Line, Atrium Health's inability to admit all patients who wish to be served by its physicians at its facilities results in a number of patients who are admitted to a Novant Health hospital. Specifically, of the more than 100 patients Atrium Health was not able to admit in 2019 because of limited bed capacity, the majority were admitted to a Novant Health hospital instead. Clearly, more capacity is needed at Atrium Health, not Novant Health, to enhance competition for acute care inpatients.

CMHA acknowledges that a provider that generates the need for additional capacity is not therefore entitled to that need; it must submit an approvable application and demonstrate that it has the most effective alternative for the entire allocation. There may be circumstances in which an applicant demonstrates that their need is more significant or greater than the provider that generated the need. However, in this particular case, CMHA believes that it is not reasonable to award additional capacity to a provider that continues to demonstrate an existing surplus, while denying a provider with continued, existing deficits like Atrium Health, *especially when the conflicting surpluses and deficits have continued for a period of years and the provider that generated the need has already surpassed the projected utilization that created the need*.

If acute care beds continue to be awarded to existing systems with surpluses, one of the foundational principles of the *SMFP* and Certificate of Need process will be disregarded as beds are awarded based on factors other than the need of the population as determined by their choice of physician and health system. Based on the foregoing analysis, it is clear that both applicants are mature, established health systems in Mecklenburg County and neither would enhance competition as a new or alternative provider.

However, as noted above, Atrium Health is not able to compete and must refer patients to Novant Health because of a lack of bed capacity.

Geographic Reach

According to patient origin data submitted on LRAs, less than 59% of patients served by Mecklenburg County acute care bed providers originate from within the county. As shown in the table below, South Carolina patients comprise 13.2% of total acute care bed admissions provided by Mecklenburg County acute care providers followed by neighboring North Carolina counties.

Total Patient Origin for Mecklenburg County Acute Care Bed Providers

NC County/State of Origin	*Percent of Total*
Mecklenburg	58.8%
South Carolina	13.2%
Union	6.9%
All Others	5.9%
Gaston	4.3%
Cabarrus	2.9%
Iredell	2.1%
Lincoln	2.0%
Cleveland	1.5%
Rowan	1.2%
Other States	1.1%
Total	**100.0%**

Source: 2020 LRAs.

As noted in CMHA's bed applications, without the demand for acute care services originating from outside of Mecklenburg County, there would not be a need for additional acute care bed capacity to be located in Mecklenburg County. As CMHA demonstrates in its bed applications, Mecklenburg County would have a surplus of 1,079 acute care beds, or nearly one-half of its existing capacity, if not for the demand for acute care bed services originating from outside of the county. Under these circumstances, CMHA believes the Agency should recognize that the need for additional acute care capacity in Mecklenburg County is driven by residents across the region and evaluate an applicant's geographic reach in assessing the need for additional beds in Mecklenburg County.

The table below illustrates the percentage of total acute care bed services to be provided to residents of HSA III counties and South Carolina. Please note that in some instances the applicants did not provide a percentage for a county and/or state listed in the table below but did otherwise indicate in a footnote or assumption that patients from that county and/or state would be served. In those instances, the table below indicates that the percentage was "Not Provided." If there is no indication that the applicant will serve a county and/or state, the table below assumes zero percent for that county.

NC County / State of Origin	*CMC Bed*	*Atrium Health Pineville*	*NHSCMC IP*
Mecklenburg	50.00%	47.00%	66.00%
South Carolina	10.40%	40.80%	Not Provided
Union	2.90%	4.50%	0.00%
Gaston	7.40%	1.40%	Not Provided
Cabarrus	3.10%	Not Provided	0.00%
Lincoln	2.40%	Not Provided	0.00%
Cleveland	3.80%	Not Provided	0.00%

Source: Section C.3.(a).

As shown in the table above, the Atrium Health Pineville application projects to serve the highest percentage of Union County residents and South Carolina residents, and the CMC bed application projects to serve the highest percentage of Gaston, Cabarrus, Lincoln, and Cleveland County residents. Combined, the CMHA applicants project to serve the highest percentage of South Carolina, Gaston, Cabarrus, Iredell, Lincoln, and Cleveland County residents in comparison to NHSCMC. Therefore, with regard to geographic reach, the Atrium Health Pineville and CMC bed applications are the more effective alternatives.

Please note that previous Agency reviews have included a "Service to Service Area Residents" comparative factor which found applicants that projected to serve a higher percentage of Mecklenburg County residents to be more effective. CMHA believes that this comparative factor, as applied, would be inappropriate for a review of the proposed project. The need for additional acute care bed capacity in Mecklenburg County, and specifically, the need determination in the *2020 SMFP*, is a result of the utilization of all patients that utilize acute care beds located in Mecklenburg County. Mecklenburg County residents comprise less than 59% of that utilization, and there would be a large surplus of capacity if not for the demand for acute care bed services originating from outside the county. Under these circumstances, it would not be appropriate to determine the comparative effectiveness of an applicant based on service to Mecklenburg County residents when the need as identified for the proposed additional acute care bed capacity is not based solely on Mecklenburg County patients. (Other methodologies in the *SMFP*, such as nursing facility beds, are based only on the population residing in the county; a factor for Service to Residents of the Service Area may be more appropriate in such a review, but that is not the case with acute care beds.) Rather, if anything, CMHA believes the Agency should recognize that the need for additional acute care bed capacity in Mecklenburg County is driven by residents across the region and evaluate an applicant's geographic reach in assessing the need for additional acute care bed capacity located in Mecklenburg County. Please note that CMHA's rationale for not including the comparative factor "Service to Service Area Residents" is consistent with the Agency findings in the 2019 Mecklenburg County Acute Care Bed and Operating Room Findings. *See* Attachment 4 for a copy of the Findings (see pages 228 and 241 of the Findings, which indicate that "Access by Service Area Residents" was "Not Evaluated").

Access by Underserved Groups

The following table illustrates each applicant's percentage of acute care utilization to be provided to certain underserved groups as requested in Section C.11. Please note that NHSCMC's response references

the percentage of patients served by its entire facility as identified in Section L.1. The CMHA applications provided the requested information for acute care beds in response to C.11.

Underserved Groups

	Women	*65+*	*Racial Minorities*
CMC Bed	48.40%	38.40%	52.70%
Atrium Health Pineville	46.90%	61.80%	38.00%
NHSCMC	60.00%	24.00%	44.00%

Source: Section C.11.

The CMC bed application projects to serve the highest percentage of racial minorities in its acute care beds. The Atrium Health Pineville application projects to serve the highest percentage of patients age 65 and older. The NHSCMC application projects to serve the highest percentage of women.

Projected Medicare and Medicaid

The following table illustrates each applicant's percentage of acute care utilization to be provided to Medicare and Medicaid patients as stated in Section L.3 of the respective applications.

	% of Medicare	*% of Medicaid*
CMC Bed	47.20%	15.70%
Atrium Health Pineville	66.10%	6.50%
NHSCMC*	50.10%	13.80%

Source: Section L.3.
*Based on the inpatient service component as provided in Section L.3 of the NHSCMC application.

The NHSCMC application includes the following service components: inpatient services, outpatient surgical services, and other outpatient services. Novant Health's inpatient service component includes inpatient surgery, emergency department services provided to an admitted patient, obstetrics patients and newborns, and applicable ancillary services. The CMC bed application and Atrium Health Pineville application include inpatient services provided in general medical surgical beds. As shown above, CMC projects to serve the highest percentage of Medicaid patients and Atrium Health Pineville projects to serve the highest percentage of Medicare patients, making these applications the more effective alternatives. Given this analysis, it bears mention that in the 2019 review, Novant Health is on the record indicating that Medicare is not as underserved of a population as are Medicaid and charity care. Please see Attachment 2(g) for excerpts from Dr. Luke's trial testimony.

Further, and as noted in the CMHA bed applications, Atrium Health facilities serve a disproportionately high share of the medically underserved compared to Novant Health. *See* the CMC bed application pages 23-24, 48-49, and 109-110 and the Atrium Health Pineville application pages 23-24, 47-48, and 104-105. As discussed in Section B.10 of the CMHA bed applications, in 2019, 69.3% of all Medicaid inpatients from Mecklenburg County were treated at an Atrium Health facility, compared with Atrium Health's 61.3% share of all patients. In addition, 64.6% of Medicare and 71.8% of Self-Pay acute care discharges in Mecklenburg County were treated at an Atrium Health facility. Notably, Atrium Health served more than twice as many Medicaid patients and over three times as many Self-Pay patients as Novant Health. This

means that while Atrium Health facilities served more than half of acute care discharges originating from Mecklenburg County in 2019, it served a disproportionately higher share of these underserved patients compared to Novant Health. Based on CMHA's demonstrated experience serving the underserved, the approval of the proposed CMHA projects will serve to enhance access for the medically underserved that are served disproportionately by CMHA.

Projected Charity Care

The following table illustrates each applicant's projected charity care as a percentage of net revenue in the third full fiscal year of operation.

	Charity Care	***Net Revenue***	***Charity Care as a % of Net Revenue***
CMC Bed	$36,881,937	$132,470,092	27.84%
Atrium Health Pineville	$11,013,117	$53,997,488	20.40%
NHSCMC*	$4,027,249	$21,395,824	18.82%

Source: Form F.2.
*Based on the inpatient service component as provided in Section L.3 of the NHSCMC application.

The NHSCMC application includes the following service components: inpatient services, outpatient surgical services, and other outpatient services. Novant Health's inpatient service component includes inpatient surgery, emergency department services provided to an admitted patient, obstetrics patients and newborns, and applicable ancillary services. The CMC bed application and Atrium Health Pineville application include inpatient services provided in general medical surgical beds. As shown in the table above, CMC projects to provide the highest percentage of charity care and NHSCMC projects to provide the lowest. Therefore, CMC is the most effective alternative with regard to charity care and NHSCMC is the least effective alternative.

Average Net Revenue per Day

The following table shows average net revenue per patient day in the third full fiscal year of operation.

	Net Revenue	***# of Days***	***Net Revenue per Day***
CMC Bed	$132,470,092	135,050	$981
Atrium Health Pineville	$53,997,488	61,473	$878
NHSCMC*	$21,395,824	8,812	$2,428

Source: Form F.2.
*Based on the inpatient service component as provided in Section L.3 of the NHSCMC application.

The NHSCMC application includes the following service components: inpatient services, outpatient surgical services, and other outpatient services. Novant Health's inpatient service component includes inpatient surgery, emergency department services provided to an admitted patient, obstetrics patients and newborns, and applicable ancillary services. The CMC bed application and Atrium Health Pineville application include inpatient services provided in general medical surgical beds. As shown above, Atrium

Health Pineville projects the lowest net revenue per patient day and NHSCMC projects the highest. Therefore, Atrium Health Pineville is the most effective alternative with regard to this factor and NHSCMC is the least effective alternative.

Average Expense per Day

The following table shows average operating expense per patient day in the third full fiscal year of operation.

	Operating Expense	*# of Days*	*Expense per Day*
CMC Bed	$124,222,997	135,050	$920
Atrium Health Pineville	$43,760,495	61,473	$712
NHSCMC*	$9,874,086	8,812	$1,121

Source: Form F.2.
*Based on the inpatient service component as provided in Section L.3 of the NHSCMC application.

The NHSCMC application includes the following service components: inpatient services, outpatient surgical services, and other outpatient services. Novant Health's inpatient service component includes inpatient surgery, emergency department services provided to an admitted patient, obstetrics patients and newborns, and applicable ancillary services. The CMC bed application and Atrium Health Pineville application include inpatient services provided in general medical surgical beds. As shown above, Atrium Health Pineville projects the lowest operating expense per patient day and NHSCMC projects the highest. Therefore, Atrium Health Pineville is the most effective alternative with regard to this factor and NHSCMC is the least effective alternative.

Provider Support

The following table illustrates the number of letters of support included with each application from physicians and community members.

	Surgeons/Other Physicians/Providers	*Community*
CMC Bed*	98	15
Atrium Health Pineville*	73	13
NHSCMC	38	4

Source: Support letter exhibits.
*Please note that additional letters of support were submitted during the public comment period.

As shown above, the CMC bed application included the most letters of support from physicians and community members. The NHSCMC application provided the lowest number of letters of support from

physicians and the lowest number of letters combined. Therefore, with regard to provider support,[14] the CMC bed application and the Atrium Health Pineville application are the more effective alternatives.

Summary of Comparative Analysis – Acute Care Beds

The following table summarizes the comparative analysis for acute care beds.

Comparative Factor	*CMC Bed*	*Atrium Health Pineville*	*NHSCMC*
Conformity with Review Criteria	Yes	Yes	No
Geographic Accessibility	Less Effective	Less Effective	More Effective, But Not Approvable
Meeting the Need for Additional Acute Care Bed Capacity	More Effective	More Effective	Less Effective
Competition	Equally Effective	Equally Effective	Equally Effective, But Not Approvable
Geographic Reach	More Effective	More Effective	Less Effective
Access by Women	Less Effective	Less Effective	More Effective, But Not Approvable
Access by 65+	Less Effective	More Effective	Less Effective, But Not Approvable
Access by Racial Minorities	More Effective	Less Effective	Less Effective, But Not Approvable
Projected Medicare	Less Effective	Most Effective	Less Effective, But Not Approvable
Projected Medicaid	Most Effective	Less Effective	Less Effective, But Not Approvable
Projected Charity Care	Most Effective	More Effective	Less Effective
Average Net Revenue per Day	More Effective	Most Effective	Less Effective
Average Expense per Day	More Effective	Most Effective	Less Effective
Provider Support	More Effective	More Effective	Less Effective

[14] While not used in every competitive review, there have been numerous reviews recently in which provider support has been used as comparative factor, including the 2019 Orange County Operating Rooms Review and, in 2018, the Orange County Operating Rooms Review, the Mecklenburg County Operating Rooms Review, the Durham County Operating Rooms Review, the Wake County Operating Rooms Review, the Buncombe County Operating Rooms Review, and the Forsyth County Operating Rooms Review.

COMPARATIVE ANALYSIS – OPERATING ROOMS

The CMC operating room application (Project ID # F-12008-20), the NHSCMC application (Project ID # F-11993-20), and the SCSC application (Project ID # F-12004-20) each propose to develop operating rooms in response to the *2020 SMFP* need determination for Mecklenburg County. Given that multiple applicants propose to meet all or part of the need for the 12 additional operating rooms in Mecklenburg County, not all can be approved as proposed. To determine the comparative factors that are applicable in this review, CMHA examined recent Agency findings for competitive operating room reviews. Based on that examination and the facts and circumstances of the competing applications in this review, CMHA considered the following factors:

- Conformity with Review Criteria
- Geographic Accessibility
- Meeting the Need for Additional Operating Room Capacity
- Competition
- Patient Access to Lower Cost Services
- Geographic Reach
- Patient Access to Multiple Surgical Services
- Access by Underserved Groups – Women, 65+, and Racial Minorities
- Access by Underserved Groups
    - Access by Women, 65 and older, and Racial Minorities
    - Projected Medicare and Medicaid
    - Projected Charity Care
- Projected Average Net Revenue per Case
- Projected Average Operating Expense per Case
- Provider Support

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

<u>Conformity with Review Criteria</u>

The CMC operating room application adequately demonstrates that its operating room proposal is conforming to all applicable statutory and regulatory review criteria. By contrast, neither the NHSCMC application nor the SCSC application adequately demonstrate that its proposal is conforming to all applicable statutory and regulatory review criteria as discussed previously. An application that is not conforming to all applicable statutory and regulatory review criteria cannot be approved. Therefore, the CMC operating room application is the most effective with regard to conformity with review criteria.

<u>Geographic Accessibility</u>

One of the three applications – the CMC operating room application – proposes to add operating rooms to an existing facility. The other two applications – the NHSCMC application and the SCSC application – propose to develop operating rooms at new facilities to be located at the southeast intersection of I-485 and Steele Creek Road and Hoover Creek Boulevard in Charlotte, respectively. However, as noted above, neither of those applications adequately demonstrates that its proposal is conforming to all applicable statutory and regulatory review criteria. Therefore, while the NHSCMC application and the SCSC

applications would be equally effective and more effective than the CMC operating room application with regard to geographic accessibility, neither the NHSCMC application nor the SCSC application can be approved. As such, this factor is of little comparative value in this review.

Meeting the Need for Additional Operating Room Capacity

As shown in the *2020 SMFP,* the Atrium Health system has a total deficit of 16.16 operating rooms including deficits of 16.78 rooms at CMC. By comparison, the Novant Health system has a total surplus of 5.58 operating rooms. The proposed SCSC is not an existing provider of surgical services in Mecklenburg County and therefore did not generate need for operating room capacity in the service area over the reporting period of the *2020 SMFP*.[15]

Atrium Health and Novant Health
Mecklenburg County Facilities' Operating Room Need/Surplus (*2020 SMFP*)

	Projected Surgical Hours for 2021	***Projected Surgical ORs Required in 2021***	***Adjusted Planning Inventory***	***Projected OR Deficit/Surplus (Surplus shows as a "-")***
Atrium Health Huntersville Surgery	0	0.00	1	-1.00
Carolina Center for Specialty Surgery	2,430	1.85	3	-1.15
Atrium Health Pineville	18,991	11.70	11	0.70
CMC/Atrium Health Mercy	133,090	73.78	57	16.78
Atrium Health University City	10,865	7.83	7	0.83
Atrium Health System Total		***95.16***	***79***	***16.16***
NH Mint Hill	0	0.00	4	-4.00
NH Ballantyne Medical Center	0	0.00	2	-2.00
SouthPark Surgery Center	9,562	7.29	6	1.29
NH Ballantyne Outpatient Surgery	1,429	1.09	0	1.09
NH Huntersville Outpatient Surgery	2,834	2.16	2	0.16
Matthews Surgery Center	2,674	2.04	2	0.04
NH Presbyterian Medical Center	65,492	33.59	36	-2.41
NHMMC	10,197	6.80	6	0.80
NH Huntersville	9,690	6.46	7	-0.54
Novant Health Total		***56.42***	***65***	***-5.58***

Source: *2020 SMFP.*

As shown above, Novant Health currently operates with excess capacity of operating rooms whereas Atrium Health operates with a deficit of operating rooms. Therefore, with regard to meeting the need for additional operating room capacity, the CMC operating room application is the most effective alternative. Further, as noted previously, Novant Health failed to reasonably demonstrate that the relocation of its

[15] As such, the SCSC application is not comparable with regard to this comparative factor.

existing surplus operating rooms within the Novant Health system was not a more effective alternative to meeting its identified need.

Such evaluation of need is necessary to determine the degree to which applicants that are existing facilities may have surplus capacity, as avoiding excess capacity is a foundational finding of the North Carolina Certificate of Need statute. Findings of Fact (4) and (6) state:

> *(4) "That the proliferation of unnecessary health service facilities results in costly duplication and underuse of facilities, with the availability of excess capacity leading to unnecessary use of expensive resources and overutilization of health care services."*
>
> *(6) "That excess capacity of health service facilities places an enormous economic burden on the public who pay for the construction and operation of these facilities as patients, health insurance subscribers, health plan contributors, and taxpayers."*
>
> *See* N.C. GEN. STAT. § 131E-175. Findings of Fact (4) and (6).

As noted above, Novant Health currently operates with excess capacity of operating rooms. As stated in the statute, excess capacity leads to unnecessary use of expensive resources, overutilization of healthcare services, and an economic burden on the public. By comparison, Atrium Health currently operates with the highest deficit of operating rooms in Mecklenburg County and has done so for a number of years running.

Historically, the Agency has conducted such a comparative analysis of need. For example, in the 2013 Mecklenburg County Acute Care Bed Review, the Agency's comparative analysis included "Meeting the Need for Additional Acute Care Beds" as a comparative factor (see Exhibit C.4-1 of the CMC operating room application). This factor compared the projected bed deficit and surplus of each applicant as shown in the *2013 SMFP* and found the applicant with the greatest deficit to be more effective. CMHA believes that applicants with existing facilities should be evaluated based on need in comparison to existing utilization and those with deficits of capacity or higher utilization rates found to be superior to those with surpluses or lower utilization rates. In the 2019 Mecklenburg County Acute Care Beds and Operating Rooms Review, the Agency's comparative analysis included "Historical Utilization" as a comparative factor. However, application of the factor in that review compared the historical utilization rates of each facility as shown in the *2020 SMFP* and found the individual facility with the highest utilization rate to be more effective. If the Agency were to conduct an analysis similar to the 2019 review, it would find the CMC application most effective and both the NHSCMC and SCSC applications less effective because they are proposed as new facilities with no existing utilization. CMHA does not believe in a service area such as Mecklenburg County with two, established, multi-hospital systems that the Agency should compare operating room deficits and surpluses – or utilization rates – among individual facilities but rather should make these comparisons of existing providers at the system-level. A core principle of the *SMFP* operating room need methodology is an analysis of need by system in Mecklenburg County; it is the system-based deficits/surpluses that determine whether or not additional operating rooms are needed. Moreover, both existing systems in Mecklenburg County have been approved for projects – still under development – that proposed to shift both resources and patients between facilities, which is further evidence that a system-to-system comparison under these circumstances is more appropriate and that a facility-specific analysis would create artificial results. An analysis of historical operating room need in the *SMFP,* as shown above, demonstrates that the need for additional operating room capacity in Mecklenburg County has been overwhelmingly at Atrium Health facilities compared to Novant Health facilities. Therefore, with regard

to meeting the need for additional operating room capacity, the CMC operating room application is the most effective alternative.

Competition

As noted above, a third application – the SCSC application – proposes to develop an operating room at a new ASF. While the addition of a new provider in the county would arguably enhance competition, as noted above, the SCSC application fails to adequately demonstrate that its proposal is conforming to all applicable statutory and regulatory review criteria. Of particular note, the SCSC application is incomplete and fails to include all information necessary for the Agency to conduct the review pursuant to N.C. GEN. STAT. § 131E-182(b). Please see the issue-specific comments above for additional detail regarding all of the information missing from the SCSC application.

In recent Mecklenburg County reviews, the Agency has used other comparative factors, such as "Competition," to compare applicants' total operating room complement without considering whether the applicants' existing capacity demonstrates a deficit or surplus or higher occupancy rates. The Agency Findings for the 2018 and 2019 Mecklenburg County Acute Care Bed and Operating Room Review included a "Competition" comparative factor in its analysis of both the acute care bed and operating room applications, which found any applicant with fewer beds or operating rooms more effective than applicants with a greater number of beds or operating rooms. As an example of the rationale under this application of the "Competition" comparative factor, an existing provider with one operating room that served zero patients would be found to be a more effective alternative than another provider with two operating rooms that served hundreds of patients and demonstrated a deficit of capacity. This example illustrates the faulty reasoning of that analysis, and CMHA believes that the "Competition" comparative factor as applied in the 2018 and 2019 Mecklenburg County reviews is contrary to the purpose of the Certificate of Need statute as discussed above and should not be applied in that manner. Atrium Health and Novant Health are two existing, mature, and well-established acute care service providers in Mecklenburg County. As such, neither Atrium Health or Novant Health would qualify as a "new or alternative provider" under the Agency's historical reasoning of the "Competition (Patient Access to a New or Alternative Provider)" comparative factor in competitive reviews over the last decade. Specifically, the Agency has stated in numerous competitive reviews over the last four years that an applicant proposing to increase access to a "new provider" is a more effective alternative with regard to "Competition/Patient Access to a New or Alternative Provider." *See* Exhibit C.4-2 of the CMC operating room application as well as page 31 of the CMC operating room application. In the 2019 Forsyth County MRI review, the Agency specifically noted with regard to the two applicants that are well-established providers in Forsyth County (Wake Forest Baptist and Novant Health):

> *"Both applicants and/or related entities provide MRI services in the service area of Forsyth County; therefore, neither applicant would qualify as a new or alternative provider in the service area. Thus, with regard to this comparative factor, the proposals are equally effective." See Findings, p 74*

Likewise, both Atrium Health and Novant Health provide surgical services in the Mecklenburg County service area. Neither system qualifies as a new or alternative provider of surgical services in Mecklenburg County. In addition, CMHA has documented in its operating room application the negative impact not having sufficient operating room capacity has on patients that are seeking care at its facilities, including extensive delays waiting for a surgical procedure. Without sufficient operating room capacity, Atrium Health is unable to compete with Novant Health for additional surgical patients, particularly hospital-

based surgical patients. In contrast, Novant Health has excess operating room capacity as compared to standard hours per operating room per year, as provided in Chapter 6 of the *2020 SMFP*. To demonstrate further, the table below provides Mecklenburg County system-wide utilization rates for Atrium Health and Novant Health, as published in the *Proposed 2021 SMFP*, for all of the existing operating rooms that are in operation at Atrium Health and Novant Health facilities.

FFY 2019 Atrium Health and Novant Health
Mecklenburg County Operating Room Utilization

	Total Cases	*Total ORs*	*Total Surgical Hours*	*Standard OR Hours Total*	*Percent Utilization*
Atrium Health Huntersville Surgery Center	0	1	0	0	0%
Carolina Center for Specialty Surgery	1,979	2	1,979	2,624	75.4%
Atrium Health Pineville	7,809	10	19,386	17,550	110.5%
CMC/Atrium Health Mercy	42,230	57	120,858	111,150	108.7%
Atrium Health University City	7,179	8	9,957	12,000	83.0%
Atrium Health System Total	**59,197**	**78**	**152,180**	**143,324**	**106.2%**
Novant Health Ballantyne Medical Center	0	0	0	0	0.0%
SouthPark Surgery Center	11,900	6	9,322	7,872	118.4%
Novant Health Ballantyne Outpatient Surgery	1,059	2	1,574	2,624	60.0%
Novant Health Huntersville Outpatient Surgery	3,399	2	2,833	2,624	108.0%
Matthews Surgery Center	2,159	2	2,843	2,624	108.3%
Novant Health Presbyterian Medical Center	30,486	37	61,637	72,150	85.4%
Novant Health Matthews Medical Center	5,661	6	9,986	9,000	111.0%
Novant Health Huntersville Medical Center	5,446	6	9,444	9,000	104.9%
Novant Health Mint Hill Medical Center	825	3	1,357	4,500	30.2%
Novant Health Total	**60,935**	**64**	**98,996**	**110,394**	**89.7%**

Source: *Proposed 2021 SMFP*.

As shown above, Atrium Health's system-wide utilization rate of 106.2% in FFY 2019 was 19% higher than Novant Health's rate of 89.7%. Clearly, more capacity is needed at Atrium Health, not Novant Health, to enhance competition for surgical patients.

CMHA acknowledges that a provider that generates the need for additional capacity is not therefore entitled to that need; it must submit an approvable application and demonstrate that it has the most effective alternative for the entire allocation. There may be circumstances in which an applicant demonstrates that their need is more significant or greater than the provider that generated the need. However, in this particular case, CMHA believes that it is not reasonable to award additional capacity to a provider that continues to demonstrate an existing surplus, while denying a provider with continued, existing deficits like Atrium Health, especially when the conflicting surpluses and deficits have continued for a period of years and the provider that generated the need has already surpassed the projected utilization that created the need.

If operating rooms continue to be awarded to existing systems with surpluses, not only will a need for operating rooms in Mecklenburg County be triggered every year in the foreseeable future, but also one

of the foundational principles of the *SMFP* and Certificate of Need process will be disregarded as operating rooms are awarded based on factors other than the need of the population as determined by their choice of system or individual facility. Based on the foregoing analysis, it is clear that both Novant Health and Atrium Health are mature, established health systems in Mecklenburg County and neither would enhance competition as a new or alternative provider.

Patient Access to Lower Cost Surgical Services

Operating rooms can be licensed either under a hospital license or an ASF that does not operate under a hospital license. Generally, a proposal for development of lower cost surgical services in ASF operating rooms would be more effective. Two of the three applications – the CMC operating room application and the NHSCMC application – propose to develop operating rooms as part of a hospital. The third application – the SCSC application – proposes to develop an operating room as part of an ASF; however, as noted above, the SCSC application does not adequately demonstrate that its proposal is conforming to all applicable statutory and regulatory review criteria. Therefore, while the SCSC application would be more effective than the NHSCMC application and the Atrium Health operating room application with regard to this comparative factor, the SCSC application cannot be approved. As such, this factor is of little comparative value in this review.

Geographic Reach

According to patient origin data submitted on LRAs, less than 51% of patients served by Mecklenburg County operating room providers originate from within the county. As shown in the table below, South Carolina patients comprise nearly 14% of total surgical procedures performed by Mecklenburg County operating room providers followed by neighboring North Carolina counties.

Total Patient Origin for Mecklenburg County Operating Room Providers

NC County/State of Origin	*Percent of Total*
Mecklenburg	50.9%
South Carolina	13.9%
All Others	8.8%
Union	7.7%
Gaston	5.1%
Cabarrus	3.6%
Iredell	3.0%
Rowan	2.8%
Lincoln	2.4%
Cleveland	1.9%
Other States	0.9%
Total	**100.0%**

Source: 2020 LRAs.

As noted in the CMC operating room application, without the demand for surgical services originating from outside of Mecklenburg County, there would not be a need for additional operating rooms to be

located in Mecklenburg County. As CMHA demonstrates in its operating room application, Mecklenburg County would have a surplus of 74 operating rooms, if not for the demand for surgical services originating from outside of the county. Under these circumstances, CMHA believes the Agency should recognize that the need for additional operating rooms in Mecklenburg County is driven by residents across the region and evaluate an applicant's geographic reach in assessing the need for additional operating rooms in Mecklenburg County.

The table below illustrates the percentage of total operating rooms cases to be provided to residents of HSA III counties and South Carolina. Please note that in some instances the applicants did not provide a percentage for a county and/or state listed in the table below but did otherwise indicate in a footnote or assumption that patients from that county and/or state would be served. In those instances, the table below indicates that the percentage was "Not Provided." If there is no indication that the applicant will serve a county and/or state, the table below assumes zero percent for that county.

NC County/State of Origin	*CMC OR*	*NHSCMC IP**	*NHSCMC OP Surg**	*SCSC*
Mecklenburg	34.70%	66.00%	66.00%	42.90%
South Carolina	11.80%	Not Provided	Not Provided	26.20%
Union	2.80%	0.00%	0.00%	6.50%
Gaston	7.70%	0.00%	0.00%	14.70%
Cabarrus	5.20%	Not Provided	Not Provided	1.10%
Iredell	1.70%	0.00%	0.00%	Not Provided
Lincoln	2.90%	0.00%	0.00%	Not Provided
Cleveland	4.80%	0.00%	0.00%	1.40%

Source: Section C.3.(a).
*In addition to the proposed outpatient surgery service component, Novant Health's proposed Steele Creek Hospital surgical services also constitute part of the proposed inpatient service component.

As shown in the table above, the CMC operating room application projects to serve the highest percentage of Cabarrus, Iredell, Lincoln, and Cleveland County residents, and the SCSC application projects to serve the highest percentage of South Carolina, Union, and Gaston County residents. Therefore, with regard to geographic reach, the CMC operating room application and the SCSC application are the more effective alternatives.

Please note that previous Agency reviews have included a "Service to Service Area Residents" comparative factor which found applicants that projected to serve a higher percentage of Mecklenburg County residents to be more effective. CMHA believes that this comparative factor, as applied, would be inappropriate for a review of the proposed project. The need for additional operating room capacity in Mecklenburg County, and specifically, the need determination in the *2020 SMFP*, is a result of the utilization of all patients that utilize surgical services located in Mecklenburg County. Mecklenburg County residents comprise a little more than 51% of that utilization, and there would be a large surplus of capacity if not for the demand for surgical services originating from outside the county. Under these circumstances, it would not be appropriate to determine the comparative effectiveness of an applicant based on service to Mecklenburg County residents when the need as identified for the proposed additional operating room capacity is not based solely on Mecklenburg County patients. (Other methodologies in the *SMFP*, such as nursing facility beds, are based only on the population residing in the county; a factor for Service to Residents of the Service Area may be more appropriate in such a review, but that is not the case with operating rooms.) Rather, if anything, CMHA believes the Agency should

recognize that the need for additional operating rooms in Mecklenburg County is driven by residents across the region and evaluate an applicant's geographic reach in assessing the need for additional operating rooms located in Mecklenburg County. Please note that CMHA's rationale for not including the comparative factor "Service to Service Area Residents" is consistent with the Agency findings in the 2019 Mecklenburg County Acute Care Bed and Operating Room Findings. *See* Attachment 4 for a copy of the Findings (see pages 228 and 241 of the Findings, which indicate that "Access by Service Area Residents" was "Not Evaluated").

Patient Access to Multiple Surgical Services

The following table illustrates the surgical specialties that each operating room applicant in this review proposes. Please note that the NHSCMC application and the SCSC application both failed to include a list of surgical specialties as requested in Section C.1 of the OR/GI Endo Room Certificate of Need Application Form, which states "[d]escribe the scope of the project in detail. For projects involving ORs, the response should identify each surgical specialty offered or to be offered by the facility."

	CMC OR	***NHSCMC***	***SCSC***
Cardiothoracic, excl. open heart	x	Not Provided	Not Provided
Open Heart	x	Not Provided	Not Provided
General Surgery	x	Not Provided	x
Neurosurgery (incl. spine)	x	Not Provided	Not Provided
OB GYN (excl. C-Section)	x	Not Provided	Not Provided
Ophthalmology	x	Not Provided	Not Provided
Oral Surgery/Dental	x	Not Provided	Not Provided
Orthopedic (incl. spine)	x	Not Provided	Not Provided
ENT	x	Not Provided	Not Provided
Plastic Surgery	x	Not Provided	Not Provided
Podiatry		Not Provided	Not Provided
Urology	x	Not Provided	Not Provided
Vascular	x	Not Provided	x
Other	x	Not Provided	Not Provided
Total # of Surgical Specialties	**13**		**2**

Source: Section C.1 of the CMC operating room application.

As the above table illustrates, as an acute care quaternary hospital, CMC offers a full continuum of surgical services. SCSC proposes to provide specialized surgical services in general surgery and vascular surgery. NHSCMC did not provide a list of surgical specialties for its proposed facility. As such, CMC is a more effective alternative with regard to access to multiple surgical specialties.

Access by Underserved Groups

The following table illustrates each applicant's percentage of total operating room cases to be provided to certain underserved groups as requested in Section C.8 (and Section C.11 for NHSCMC). The SCSC application failed to provide the requested information in response to Section C.8 (see page 23 of the SCSC application). Relative to the NHSCMC application, Novant Health's response in the NHSCMC

application references the percentage of patients served by its entire facility as identified in Section L.1. The CMC operating room application provided the requested information in its response to Section C.8, as shown below.

Underserved Groups

	Women	*65+*	*Racial Minorities*
CMC OR	43.5%	26.0%	47.6%
NHSCMC IP	60.0%	24.0%	44.0%
NHSCMC OP Surgery	60.0%	24.0%	44.0%
SCSC	Not Provided	Not Provided	Not Provided

Source: Section C.8 of the CMC operating room application, page 56. Section C.11 of the NHSCMC application, page 65.

The CMC operating room application projects to serve the highest percentage of patients age 65 and older and racial minorities in its operating rooms. The NHSCMC application projects to serve the highest percentage of women. The SCSC application failed to provide the requested information.

Projected Medicare and Medicaid

The following table illustrates each applicant's percentage of total operating room cases to be provided to Medicare and Medicaid patients as stated in Section L.3 of the respective applications.

	% Medicare	*% Medicaid*
CMC OR	29.50%	18.80%
NHSCMC IP	50.10%	13.80%
NHSCMC OP Surgery	34.30%	10.60%
SCSC[16]	39.00%	2.00%

Source: Section L.3.

The NHSCMC application includes the following service components: inpatient services, outpatient surgical services, and other outpatient services. Novant Health's inpatient service component includes inpatient surgery, emergency department services provided to an admitted patient, obstetrics patients and newborns, and applicable ancillary services. Novant Health's outpatient surgery service component includes outpatient surgical services. The CMC operating room application provided payor information for inpatient as well as outpatient surgical services at CMC. The SCSC application provided payor information for outpatient surgical services only, as the proposed facility will provide outpatient surgical services only in presumably a dedicated single-specialty freestanding ASF. As a dedicated single-specialty freestanding ASF, the SCSC application is not comparable to the hospital applications. Among the hospital applications, CMC projects to serve the highest percentage of Medicaid patients and NHSCMC proposes

[16] As stated previously, the SCSC application states, "*Metrolina Vascular Access Care has the only other one (1)-OR specializing in interventional vascular nephrology for dialysis access*." In its application, Metrolina Vascular Access Care estimated that it would provide 65.6% of services to Medicare patients and 5.1% to Medicaid, seemingly more consistent with the population to be served by a dedicated vascular surgery center than that estimated by SCSC.

to serve the highest percentage of Medicare patients. In light of the following, it bears mention that in the 2019 review, Novant Health is on the record indicating that Medicare is not as underserved of a population as are Medicaid and charity care. Please see Attachment 2(g) for excerpts from Dr. Luke's trial testimony.

Further, and as noted in the CMC operating room application, Atrium Health facilities serve a disproportionately high share of the medically underserved compared to Novant Health. *See* the CMC operating room application pages 14-15 and 94-95. As discussed in Section B.3 of the CMC operating room application, in 2019, 69.3% of all Medicaid inpatients from Mecklenburg County were treated at an Atrium Health facility, compared with Atrium Health's 61.3% share of all patients. In addition, 64.6% of Medicare and 71.8% of Self-Pay acute care discharges in Mecklenburg County were treated at an Atrium Health facility. Notably, Atrium Health served more than twice as many Medicaid patients and over three times as many Self-Pay patients as Novant Health. This means that while Atrium Health facilities served more than half of acute care discharges originating from Mecklenburg County in 2019, it served a disproportionately higher share of these underserved patients compared to Novant Health. Based on CMHA's demonstrated experience serving the underserved, the approval of the CMC application will serve to enhance access for the medically underserved that are served disproportionately by CMHA.

Projected Charity Care

The following table illustrates each applicant's projected charity care as a percentage of net revenue in the third full fiscal year of operation.

	Charity Care	***Net Revenue***	***Charity Care as a % of Net Revenue***
CMC OR	$210,342,694	$832,052,812	25.28%
NHSCMC IP	$4,027,249	$21,395,824	18.82%
NHSCMC OP Surgery	$1,841,016	$12,097,073	15.22%
SCSC	$184,471	$2,829,112	6.52%

Source: Form F.2.

The NHSCMC application includes the following service components: inpatient services, outpatient surgical services, and other outpatient services. Novant Health's inpatient service component includes inpatient surgery, emergency department services provided to an admitted patient, obstetrics patients and newborns, and applicable ancillary services. Novant Health's outpatient surgery service component includes outpatient surgical services. The CMC operating room application provided financial information for inpatient as well as outpatient surgical services at CMC. The SCSC application provided financial information for outpatient surgical services only in presumably a dedicated single-specialty freestanding ASF. As a dedicated single-specialty freestanding ASF, the SCSC application is not comparable to the hospital applications. Among the hospital applications, CMC projects to provide the highest percentage of charity care.

Projected Average Net Revenue per Case

The following table shows average net revenue per surgical case in the third full fiscal year of operation.

	Net Revenue	*# of Cases*	*Net Revenue per Case*
CMC OR	$832,052,812	39,704	$20,956
NHSCMC IP	$21,395,824	188	$113,808
NHSCMC OP Surgery	$12,097,073	904	$13,382
SCSC	$2,829,112	552	$5,125

Source: Form C Utilization and Form F.2.

The NHSCMC application includes the following service components: inpatient services, outpatient surgical services, and other outpatient services. Novant Health's inpatient service component includes inpatient surgery, emergency department services provided to an admitted patient, obstetrics patients and newborns, and applicable ancillary services. Novant Health's outpatient surgery service component includes outpatient surgical services. The CMC operating room application provided financial information for inpatient as well as outpatient surgical services at CMC. The SCSC application provided financial information for outpatient surgical services only in presumably a dedicated single-specialty freestanding ASF. As a dedicated single-specialty freestanding ASF, the SCSC application is not comparable to the hospital applications. Among the hospital applications, NHSCMC projects the lowest net revenue per outpatient case, as compared CMC's operating expense for total cases, including both inpatient and outpatient cases.

Projected Average Operating Expense per Case

The following table shows average operating expense per surgical cases in the third full fiscal year of operation.

	Operating Expense	*# of Cases*	*Expense per Case*
CMC OR	$371,326,920	39,704	$9,352
NHSCMC IP	$38,946,801	188	$207,164
NHSCMC OP Surgery	$9,874,086	904	$10,923
SCSC	$808,682	552	$1,465

Source: Form C Utilization and Form F.3.

The NHSCMC application includes the following service components: inpatient services, outpatient surgical services, and other outpatient services. Novant Health's inpatient service component includes inpatient surgery, emergency department services provided to an admitted patient, obstetrics patients and newborns, and applicable ancillary services. Novant Health's outpatient surgery service component includes outpatient surgical services. The CMC operating room application provided financial information for inpatient as well as outpatient surgical services at CMC. The SCSC application provided financial information for outpatient surgical services only in presumably a dedicated single-specialty freestanding ASF. As a dedicated single-specialty freestanding ASF, the SCSC application is not comparable to the hospital applications. Among the hospital applications, CMC projects the lowest operating expense per case, including both inpatient and outpatient cases, as compared to the expense per outpatient case only for NHSCMC.

Provider Support

The following table illustrates the number of letters of support included with each application from surgeons, other physicians, and community members.

	Surgeons	***Other Physicians/Providers***	***Community***
CMC OR*	76	22	15
NHSCMC	10	28	4
SCSC	Not Provided	Not Provided	Not Provided

Source: Support letter exhibits.
*Please note that additional letters of support were submitted during the public comment period.

As shown above, the CMC operating room application included the most letters of support from surgeons, other physicians/providers, and community members. The SCSC application failed to provide any letters of support. The NHSCMC application provided fewer letters of support for each of the three groups and fewer letters combined than the CMC operating room application. Therefore, with regard to provider support,[17] the CMC operating room application is the most effective alternative.

[17] While not used in every competitive review, there have been numerous reviews recently in which provider support has been used as comparative factor, including the 2019 Orange County Operating Rooms Review and, in 2018, the Orange County Operating Rooms Review, the Mecklenburg County Operating Rooms Review, the Durham County Operating Rooms Review, the Wake County Operating Rooms Review, the Buncombe County Operating Rooms Review, and the Forsyth County Operating Rooms Review.

Summary of Comparative Analysis – Operating Rooms

The following table summarizes the comparative analysis for operating rooms.

Comparative Factor	*CMC ORs*	*NHSCMC*	*SCSC*
Conformity with Review Criteria	Yes	No	No
Geographic Accessibility	Less Effective	More Effective, But Not Approvable	More Effective, But Not Approvable
Meeting the Need for Additional Operating Room Capacity	More Effective	Less Effective	Not Comparable
Competition	Equally Less Effective	Equally Less Effective	Most Effective, But Not Approvable
Patient Access to Lower Cost Surgical Services	Less Effective	Less Effective	Most Effective, But Not Approvable
Geographic Reach	More Effective	Less Effective	More Effective, But Not Approvable
Patient Access to Multiple Surgical Services	Most Effective	Less Effective	Less Effective
Access by Women	Less Effective	More Effective, But Not Approvable	Not Provided and Not Approvable
Access by 65+	More Effective	Less Effective	Not Provided and Not Approvable
Access by Racial Minorities	More Effective	Less Effective	Not Provided and Not Approvable
Projected Medicare	Less Effective	More Effective, But Not Approvable	Not Comparable
Projected Medicaid	More Effective	Less Effective	Not Comparable
Projected Charity Care	More Effective	Less Effective	Not Comparable
Average Net Revenue per Day	Less Effective	More Effective, But Not Approvable	Not Comparable
Average Expense per Day	More Effective	Less Effective	Not Comparable
Provider Support	More Effective	Less Effective	Less Effective

SUMMARY

Based on both its comparative analysis and the comments on competing applications, CMHA believes that its applications represent the most effective alternatives for meeting the needs identified in the *2020 SMFP* for 126 additional acute care beds and 12 operating rooms in Mecklenburg County, respectively.

As such, the Certificate of Need Section can and should approve the CMHA applications.

Please note that in no way does CMHA intend for these comments to change or amend its applications as filed on November 16, 2020. If the Agency considers any statements to be amending CMHA's applications, those comments should not be considered.

Attachment 1

Condensed Transcript
of the Testimony of

Martha Frisone

August 8, 2012

AH North Carolina Owner v. NC DHHS

Depositions, Inc.
Phone:(919) 557-4640
info@ncdepo.com
www.ncdepo.com

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whether or not one was a new provider versus an existing provider?
MS. HEATH: Objection.
THE WITNESS: I can't agree with you there. We -- each one is evaluated standing alone. And whether they're an existing provider already or they are not, the additional beds developed would enhance competition.
BY MS. MONTGOMERY:
Q. So you don't agree that a new provider may enhance competition better than an existing provider?
MS. HEATH: Objection.
MR. FISHER: Objection.
THE WITNESS: I don't have an opinion one way or the other, but I can't use that as a factor in evaluating conformity with 18A, because I have to evaluate each application standing alone.
BY MS. MONTGOMERY:
Q. Well, was it used in this case in the comparative analysis, which are existing and which are new providers in the county?
A. I don't know what you mean, "was it used." It's not a compare --
Q. Was it used?

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A. Competition is not a comparative factor, but, again, comparative factors are discretionary with the agency.
Q. So you're saying it's not something that you think you can look at in connection with 18A, because each application stands alone, but it's not used as a comparative factor.
MS. FERRELL: Objection.
BY MS. MONTGOMERY:
Q. So where is competition considered?
MS. FERRELL: Object to form. You're mischaracterizing her testimony.
MS. HEATH: Same objection.
THE WITNESS: It's considered in Criterion 18A. We have not chosen to include competition as a comparative factor in this particular review.
BY MS. MONTGOMERY:
Q. Okay. And how -- how did you consider -- let's just take for example the -- the Britthaven application that was proposing to -- that was discussed in the -- I'm sorry.
Britthaven Brier Creek is discussed on 1972, under 18A. There's no mention that Britthaven Brier Creek has existing facilities in Wake County?

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A. Not on page 1972. No. It is discussed elsewhere in the findings, and we were aware that it had existing facility.
Q. Okay.
A. But these would be 120 additional beds, and, therefore, they would enhance competition.
Q. Okay. So in your view a -- an existing provider that's adding additional beds is equivalent, in terms of competition, to a brand new provider in the community?
MR. HEWITT: Objection.
MS. FERRELL: Object to form.
MR. FISHER: Objection.
MS. HEATH: Objection.
THE WITNESS: I would not agree. I would state what I've stated already, that the addition of 120 beds, regardless of who is approved for them, enhances competition, even for the facilities owned by that same provider, by adding additional capacity, which gives increased choice to the residents of Wake County and surrounding counties.
BY MS. MONTGOMERY:
Q. The state medical facilities plan -- and I'll give you a copy of Exhibit 21 that we had looked

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at before, which is portions of the 2011 state medical facilities plan. If you look at --
A. Hold that thought. Sorry about that.
Q. If you look at the second assumption on page two --
A. Yes.
Q. Okay. And read that into the record, if you would?
A. Okay.
Q. That first sentence.
A. "Any advantages to patients that may arise from competition will be fostered by policies, which lead to the establishment of new provider institutions."
Q. And that is a plan that was applicable in this review of the Wake County nursing home reviews; correct?
A. Correct. This is a discussion of the assumptions underlying the SHCC's method of determining need for additional capacity.
Q. You don't believe it has any relevance to the review of the beds that were at issue in the Wake County nursing facility review?
MS. FERRELL: Object to the form.
MR. HEWITT: Object to the form.

Attachment 2

Attachment 2

Attachment 2(a)

I would add that certainly it is in the record that Atrium already has two hospitals serving those markets, Cabarrus and University City, which while the Agency did not note them here also go to the question about whether putting a third Atrium hospital into that market, a community hospital into that market, would do anything through competition to improve access, cost, or quality.

[emphasis added] *See* Draft Trial Tr. Vol. 9, pp. 1819-1820 (Direct of Ronald Luke).

and

THE WITNESS: Well, I think that what it was intended -- it -- it -- I guess it's a term I brought into the discussion. And what I mean by that is -- is that they have a competitive presence in the PSA. And of course looking at the whole service area, it – it's close to 50/50. So I guess what I'm trying to say is they have a -- a competitive presence in that area already through Cabarrus and through University City.

[emphasis added] *See* Draft Trial Tr. Vol. 10, p. 1948 (Cross of Ronald Luke).

Attachment 2(b)

"*131. I discussed my support for the Agency's first reason under Criteria (1) and (3) and incorporate by reference that discussion under this criterion. [Criterion 6] Although the CON application form requires applicants to identify all existing and approved facilities that provide the same service components proposed in this application and are in the proposed service area, Atrium listed no facilities. Instead, Atrium referred the Agency to the SMFP. Atrium addressed only two of its service components (acute care beds and operating rooms) and <u>failed to refer to the freestanding emergency departments</u> or outpatient imaging centers in its service area*….[emphasis added]"

See Expert Report of Ronald Luke, JD, PhD, August 21, 2020.

Q. Okay. Just to refresh my recollection and the Court's, you were critiquing the Atrium Lake Norman on direct examination for not having adequately considered the potentially unnecessarily duplicating in your view what other facilities?
A. It's shown up in a couple of different contexts, and I will try to summarize. I may leave something out. That it did not -- the application did not consider the availability to residents of the PSA and SSA of Atrium Northeast or Atrium Cabarrus. <u>It did not consider the interaction of the FSEDs with a AHLN emergency room</u>, and it didn't really consider the interaction on the license of the supply and demand for operating rooms under the Atrium Health University City license. Now, those are the ones I think of but if I've left something out, please ask.

[<u>emphasis added</u>] *See* Draft Trial Tr. Vol. 9, p. 1872 (Cross of Ronald Luke).

Attachment 2(c)

"*103. In its Findings, the Agency found OR utilization unreasonable in part because Atrium's own projections show AH University City with a surplus of two ORs in the third full fiscal year following project completion and Atrium's OR utilization projections for AH University City and AH Lake Norman combined result in a surplus of 0.5 ORs on AH University City's license in the third full fiscal year following project completion without any additional ORs being added to the license*."

See Expert Report of Ronald Luke, JD, PhD, August 21, 2020.

Q. And Mr. Marvelle testified that the Agency erred in looking at the projected surplus for two additional operational rooms or the surplus -- let me restart that. I apologize. Scratch that question.
Mr. Marvelle had testified that the Agency erred in looking at the projected surplus on the Atrium Health University City license in evaluating the projected utilization for the Atrium Health Lake Norman application. What is your response to Mr. Marvelle's opinion?
A. Well, first of all, I think this is another

example of where differences in professional opinion are being labeled as errors. <u>It was Atrium's decision to propose this hospital as a part of the University City license and, therefore, to make University City's surplus or deficit an issue in the case.</u>
They did not have to make it a campus of University City in order to be able to look at ratios, in order to be able to talk about their medical staff. And so I think once they make that decision, they have to take the good and the bad that goes with it. And in this case, I <u>think it was reasonable to look at what the overall operating room surplus would be</u>.

[<u>emphasis added</u>] *See* Draft Trial Tr. Vol. 9, pp. 1806-1807 (Direct of Ronald Luke).

Q. Okay. Okay. I just wanted to make sure. Okay. So -- and the -- so the [unintelligible] projected surplus at University -- at the University campus as a basis for denying the Atrium Lake Norman application, correct?
A. That is one basis that she cites, yes.
Q. Okay. And that's something that you did refer to in your testimony, correct?
A. I did, not in the context of performance standard but <u>in the context of need for additional ORs on that license</u>.

[<u>emphasis added</u>] *See* Draft Trial Tr. Vol. 9, pp. 1811-1812 (Cross of Ronald Luke).

Attachment 2(d)

"*64. The most unreasonable and unsupported part of the ALHN service area is the two Charlotte ZIP codes in the proposed service area and the assumption those ZIP codes generate 45 percent of AHLN's inpatient days. AHLN's PSA is projected to generate only 55 percent of its patient days…Atrium projects the other 45 percent will come from the Charlotte ZIP Codes. Atrium provided no support for its assumptions that residents from the Charlotte ZIP Codes would drive to Cornelius for their hospital care when there are closer Atrium hospitals in Charlotte as Exhibit 3-4b [6.5- and 9-mile radius map included in Attachment 3] shows*."

…

"*66. Exhibit 3-4d overlays the AHLN service area on Atrium's 2010 population density map, Exhibit 3-4c. The proposed service area is not "the Lake Norman area." The ALHN service area extends far past the Lake Norman area population concentration and into the Charlotte city limits (ZIP Codes 28216 and 28269) to the south and into Iredell county to the north. The geographic midpoints between AHLN and AHUC and between AHLN and CMC are 6.5 miles and 9.0 miles, respectively. Exhibit 3-4d shows a 6.5 mile radius around AHLN and AHUC in yellow and a 9.0-mile radius around AHLN and CMC in dark purple. Geographically, no residents in ZIP Code 28269 are closer to AHLN than to AHUC. The most population dense portions of the SSA (ZIP Codes 28216 and 28269) are much closer to existing Atrium hospitals in Mecklenburg County than to AHLN. The Application does not explain why the residents of the SSA ZIP codes would use AHLN instead of the larger AHUC or CMC, let alone why 20% would shift. The Agency could have found the proposed service area ZIP codes do not reasonably represent the areas where 45 percent of AHLN's patient will reside*."

…

"*95. Atrium did not adequately demonstrate in its Application it is reasonable for such a large percentage of its projected patients from the SSA [45%] to drive to northern Mecklenburg County for acute care services when a closer Atrium hospital offers more services…*"

See Expert Report of Ronald Luke, JD, PhD, August 21, 2020.

Q. Okay. And do you recall Ms. Faenza -- and you recall testimony from -- from one of our expert witnesses earlier in this hearing where Ms. Faenza in her notes talked about where she said that the secondary service area or the two ZIP Codes in the secondary service area were not unreasonable?

A. I accept that, that the definition of the service area geographically could be deemed reasonable. I think

where it's unreasonable is the assumed shifts with no

supporting evidence that such shifts would occur.

See Draft Trial Tr. Vol. 9, pp. 1884-1885 (Direct of Ronald Luke).

The -- actually, from the PSA, other than to CMC, were Atrium patients from the PSA go to Atrium Cabarrus, not to any of the Mecklenburg hospitals, so that they've really ignored the sort of current patient flows on the PSA. And on the SSA, as we've discussed, it is -- many of those people live closer to University City, or as close to University City a larger, fuller-service hospital, than to Atrium Health Lake Norman. So the -- the Agency, I think, is -- has totally valid reasons for finding that there's no reasonable basis for accepting these shifts.

[emphasis added] *See* Draft Trial Tr. Vol. 9, p. 1798 (Direct of Ronald Luke).

Attachment 2(e)

"*60. The Agency found the AHLN Application's projected utilization for acute care beds was not reasonable and adequately supported because Atrium's statement regarding projected growth rates is inaccurate. Atrium stated:* Atrium Health believes these projected growth rates are reasonable given that the historical growth in Atrium Health Lake Norman appropriate days of care served by Atrium Health Mecklenburg County hospitals has been 3.5 percent*."*

and

"*61. That growth rate was not based on growth in AHLN appropriate days of residents of the PSA and SSA that went to Atrium's Mecklenburg hospitals…*"

See Expert Report of Ronald Luke, JD, PhD, August 21, 2020.

17 They
18 simply quoted this erroneous misstatement of 3.5, which I
19 view as highly misleading and certainly not substantiating
20 their assumptions.

See Draft Trial Tr. Vol. 9, p. 1788 (Direct of Ronald Luke).

25 Q. And, in your opinion, was Ms. Faenza correct or

1 was she in error to say that the growth rates for the Atrium
2 Health Lake Norman application were not reasonable and
3 adequately supported?
4 A. She's quite correct. And when you go to the
5 underlying data, it – it's – it's the 3.5. <u>It's a totally</u>
6 <u>misleading number, not a typographical error</u>.

[<u>emphasis added</u>] *See* Draft Trial Tr. Vol. 9, pp. 1791-1792 (Direct of Ronald Luke).

23 Q. Okay. Dr. Luke, there has been some discussion or
24 opinions by Ms. Carter and Mr. Marvelle that the Agency in
25 its analysis of the demonstration of need provided in the

1 Atrium Health Lake Norman application should have overlooked
2 or treated what Atrium has called certain misstatements made
3 with respect to assumptions for the demonstration of need,
4 should have treated those differently, or that the Agency
5 was unfair or too hard on Atrium with respect to those
6 purported misstatements.
7 How would you respond to that?
8 A. I've already discussed that the 3.5, which is the
9 basis they offer for <u>the reasonableness of their growth</u>
10 <u>factors, is -- is -- is a significant and misleading</u>
11 <u>misstatement, not any sort of a typographical error</u>.

[emphasis added] *See* Draft Trial Tr. Vol. 9, pp. 1798-1799 (Direct of Ronald Luke).

Q. Since the utilization projections that we looked at earlier in Form C of the Atrium Lake Norman application did not predicate its utilization projections on the 3.5 percent. Well, let me just ask that. There -- the 3.5 percent was not used to project utilization in the Atrium Lake Norman application, the calculations?
A. I think I've -- I think I have said a number of times, the 3.5 does not appear, but the 3.5 is used as the support for the numbers that were used. And with that being wrong, in effect, there's no support for the numbers that were used.

[emphasis added][1] *See* Draft Trial Tr. Vol. 9, p. 1935 (Cross of Ronald Luke).

[1] The actual growth rate used in the AHLN application was the projected population growth rate and cited in the application, which growth rate was lower than the 3.5% referenced, rendering Dr. Luke's statement that there was no support for the growth rate used in the projections incorrect.

Attachment 2(f)

"*193. …To summarize some of my opinions on this issue: Atrium has the capacity with its existing and approved beds, including its "temporary" bed expansions to accommodate all patients it projected for the first three years of AHLN's operation*."

See Expert Report of Ronald Luke, JD, PhD, August 21, 2020.

Q. And what does the temporary license bed rule tell you about North Carolina policy on the reasonable operational occupancy percentage for acute care hospitals?

A. Well, my interpretation is, is that they have determined that 90 percent is a sort of operational threshold. If you get to that point that you need a temporary expansion, and that's a policy determination by rule making that the state has made as to where they set the operational capacity threshold.

See Draft Trial Tr. Vol. 9, pp. 1766-1767 (Direct of Ronald Luke).

Q. (BY MR. QUALLS) For example, in the hospitals with which you've dealt, is there an occupancy percentage level that -- that you have seen, that when that hospital reaches that occupancy level, it starts to seriously impede that hospital's ability to serve patients?
MS. HANGER: Objection.
MS. RANDOLPH: Objection. Randolph.
A. I -- I don't think there's a general answer to that.
The State of North Carolina has decided that the -- the level at which they can operate is up to 90 percent because 90 percent is when they will give additional temporary beds. Sometimes it's below 90 percent, and I infer from that rule that they believe that the hospital can operate at that average occupancy.

See Deposition Tr., p. 137 (Ronald Luke).

Q. And Novant's historical utilization in Mecklenburg County has been far below that of the Atrium system, correct?
A. In recent years I would agree with the statement. It's been below as far as [unintelligible].
Q. Okay. So if -- I guess the big picture point is that if you're saying Atrium has capacity when it is operating at a much higher occupancy level than Novant, then

Novant certainly has capacity, correct?
A. Not necessarily. I also testified about the fact that if a system has not built additional bed spaces for use as observation beds that they're reported occupancy may be low because, in fact, they still have the observation patients and have to accommodate them. But they are using licensed beds for those.
And based on my work with Novant, I know that to be true at the present time. I do know that, for instance, in the Matthews application, they are now seeing the need to build -- explicitly to build observation beds in addition to their licensed beds. But historically they have not.

See Draft Trial Tr. Vol. 9, p. 1861 (Cross of Ronald Luke).

Q. And if -- if -- so whether or not, for example, Novant would be in a crunch to serve patients and have any capacity constraints, it would have the normal acute care

capacity levels that it could get up to, and then if it ever got there, it could then avail -- Novant could then avail itself of the temporary bed capacity even beyond that, right?
A. Well, that's a hypothetical. I think right now the chances of getting up to the 90 percent are [unintelligible] because in their facilities they are using licensed beds to have as their observation patients.
Q. Okay. And nothing precludes Novant under the CON law from applying from observation -- observation beds, correct?
A. That's right.

See Draft Trial Tr. Vol. 9, pp. 1864-1865 (Cross of Ronald Luke).

Q. Dr. Luke, do you have an opinion based upon reasons other than what were discussed in the offer of proof whether Atrium can have sufficient licensed beds in its Mecklenburg County hospitals, manage the patient census it projected in its 2019 certificate of need application without the 30 beds at Atrium Health Lake Norman?
A. I do.
Q. And what is that opinion?
A. My opinion is that with the permanently licensed, the improved [approved] beds, the temporary licensed beds, and their observation beds, that they have quite adequate bed capacity to accommodate the 451,689 patient days that are projected for 2025 in their -- in their applications.

See Draft Trial Tr. Vol. 9, p. 1778 (Direct of Ronald Luke).

Q. And what are the bases for your opinion, Dr. Luke?
A. Well, the number that we have here, the 451,689, and then the inventory of licensed improved [approved] beds, the reported observation beds from the license renewal applications, and the temporary licensed beds as evidenced by Exhibit 2 of Joint Exhibit 50.

See Draft Trial Tr. Vol. 9, p. 1779 (Direct of Ronald Luke).

Attachment 2(g)

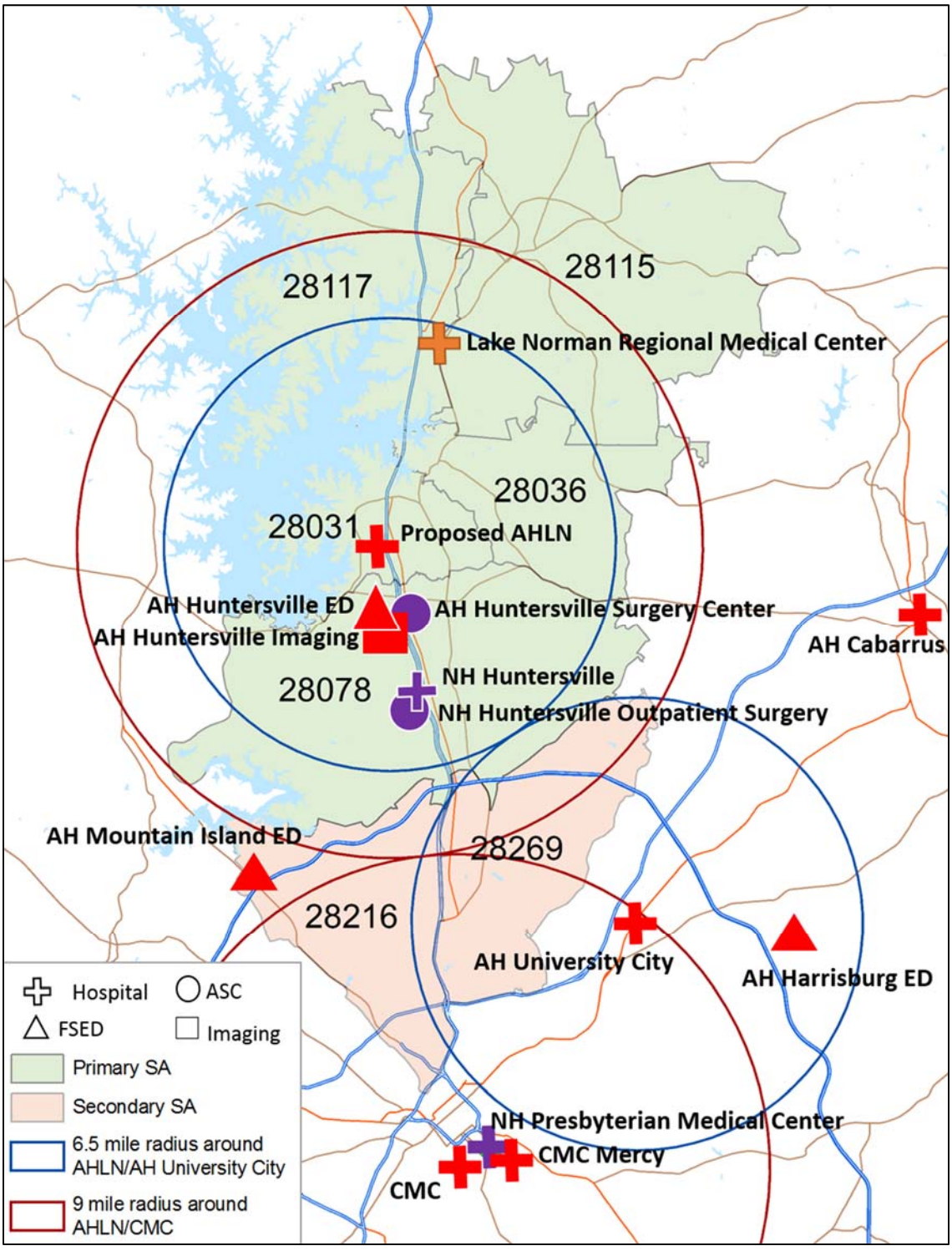
Okay. And you -- you have indicated in the past, and tell me whether you still agree with this, that Medicare is not as underserved of a population as Medicaid and Charity are, correct?

A. I agree with that.

See Draft Trial Tr. Vol. 10, pp. 1972-1973 (Cross of Ronald Luke).

Attachment 3

AHLN Service Area and Existing Providers



The AHLN application did not analyze distance or drive times from service area ZIP Codes to AHLN or existing facilities. The geographic midpoints between AHLN and AH University City and between AHLN and CMC are 6.5 miles and 9.0 miles, respectively. The map shows these distances as circles

Drivetimes from Primary and Secondary Service Area to Atrium Health Lake Norman and Other Licensed Hospitals in Mecklenburg County (peak/non-peak*)

Facility	*Atrium Health Lake Norman*	*Atrium Health Pineville*	*Atrium Health University City*	*CMC/Atrium Health Mercy*	*Atrium Health Cabarrus^*
Primary Service Area ZIP Codes					
28117	17/16	46/43	32/32	37/35	36
28115	26/24	54/51	33/33	46/44	27
28078	13/12	37/33	22/22	26/26	28
28036	20/19	50/47	30/30	41/39	25
28031	6/5	40/35	26/24	29/28	31
Secondary Service Area ZIP Codes					
28216	22/20	26/26	18/18	19/18	26
28269	21/19	32/30	10/10	23/23	21

Source: Google Maps.

*Accessed on November 2, 2020. Peak time was shortest time for typical drive on weekday at 5:00 p.m. and non-peak time was shortest time for typical drive on weekday at 2:30 p.m. Drivetimes are calculated from the geographic center of each ZIP code.

^Accessed on December 14, 2020 at 7:30 p.m.

Note: Comparable to the analysis performed in Novant Health Ballantyne Medical Center page 25 (Project ID # F-11625-18).

Attachment 4

ATTACHMENT - REQUIRED STATE AGENCY FINDINGS

FINDINGS
C = Conforming
CA = Conditional
NC = Nonconforming
NA = Not Applicable

Decision Date: March 26, 2020
Findings Date: April 2, 2020

Project Analyst: Julie M. Faenza
Team Leader: Fatimah Wilson

COMPETITIVE REVIEW

Project ID #:	F-11807-19
Facility:	Novant Health Matthews Medical Center
FID #:	945076
County:	Mecklenburg
Applicants:	Presbyterian Medical Care Corp. Novant Health, Inc.
Project:	Add no more than 1 OR pursuant to the need determination in the 2019 SMFP for a total of no more than 9 ORs upon project completion

Project ID #:	F-11808-19
Facility:	Novant Health Matthews Medical Center
FID #:	945076
County:	Mecklenburg
Applicants:	Presbyterian Medical Care Corp. Novant Health, Inc.
Project:	Add no more than 20 acute care beds pursuant to the need determination in the 2019 SMFP for a total of no more than 174 acute care beds upon project completion

Project ID #:	F-11810-19
Facility:	Atrium Health Lake Norman
FID #:	190513
County:	Mecklenburg
Applicant:	The Charlotte-Mecklenburg Hospital Authority
Project:	Develop a new satellite hospital campus of Atrium Health University City with 30 acute care beds and 2 ORs pursuant to the need determinations in the 2019 SMFP

Project ID #:	F-11811-19
Facility:	Carolinas Medical Center
FID #:	943070
County:	Mecklenburg
Applicant:	The Charlotte-Mecklenburg Hospital Authority
Project:	Add no more than 18 acute beds pursuant to the need determination in the 2019 SMFP for a total of no more than 1,073 acute care beds upon project completion

Project ID #:	F-11812-19
Facility:	Atrium Health University City
FID #:	923516
County:	Mecklenburg
Applicant:	The Charlotte-Mecklenburg Hospital Authority
Project:	Add no more than 16 acute care beds pursuant to the need determination in the 2019 SMFP for a total of no more than 116 acute care beds upon project completion

Project ID #:	F-11813-19
Facility:	Atrium Health Pineville
FID #:	110878
County:	Mecklenburg
Applicant:	The Charlotte-Mecklenburg Hospital Authority
Project:	Add no more than 12 acute care beds pursuant to the need determination in the 2019 SMFP for a total of no more than 271 acute care beds upon completion of this project and Project I.D. #F-11622-18 (add 38 acute care beds)

Project ID #:	F-11814-19
Facility:	Atrium Health Pineville
FID #:	110878
County:	Mecklenburg
Applicant:	The Charlotte-Mecklenburg Hospital Authority
Project:	Add no more than 2 ORs pursuant to the need determination in the 2019 SMFP for a total of no more than 15 ORs upon completion of this project and Project I.D. #F-11621-18 (add 1 OR)

Project ID #:	F-11815-19
Facility:	Carolinas Medical Center
FID #:	943070
County:	Mecklenburg
Applicant:	The Charlotte-Mecklenburg Hospital Authority
Project:	Add no more than 2 ORs pursuant to the need determination in the 2019 SMFP for a total of no more than 64 ORs upon completion of this project, Project I.D. #F-11106-15 (relocate 2 ORs to Charlotte Surgery Center – Wendover Campus), and Project I.D. #F-11620-18 (add 2 ORs)

This competitive review involves two health systems in Mecklenburg County – Atrium Health and Novant Health. Each health system has acute care hospitals, freestanding ambulatory surgical facilities, and numerous other facilities such as satellite emergency departments that will be discussed in these findings. Given the complexity of this review and the numerous facilities involved for each of the two health systems, the Project Analyst created the tables below listing each health system's referenced facilities and the acronyms or abbreviations used in the findings.

Atrium Health System		
Facility Name	**Type of Facility**	**Acronym/Abbreviations Used**
Atrium Health Pineville	Acute care hospital	AH Pineville AH-P (in tables)
Atrium Health Union*	Acute care hospital	AH Union AH-U (in tables)
Atrium Health University City	Acute care hospital	AH University City AH-UC (in tables)
Carolinas Medical Center	Acute care hospital	CMC CMC-Main (when referring to the specific campus)
Atrium Health Mercy	Satellite hospital campus of Carolinas Medical Center	AH Mercy AH-M (in tables) CMC (when referring to the entire licensed facility)
Atrium Health Lake Norman	Proposed satellite hospital campus of Atrium Health University City	AH Lake Norman AH-LN (in tables) May be included in discussions of AH-UC's entire license
Carolina Center for Specialty Surgery	Freestanding ambulatory surgical facility	CCSS
Atrium Health Huntersville Surgery Center	Approved freestanding ambulatory surgical facility (currently licensed as part of AH-UC)	AH Huntersville AH-HSC (in tables)
Atrium Health Huntersville Emergency Department	Satellite emergency department of AH-UC	AH Huntersville ED AH-H-ED (in tables)
Atrium Health Mountain Island Emergency Department	Approved satellite emergency department of AH-UC	AH Mountain Island ED AH-MI-ED (in tables)

*Atrium Health Union is in Union County, not Mecklenburg County; it is included because it is discussed as part of projected utilization for all the Atrium Health facilities in Mecklenburg County.

Novant Health System		
Facility Name	**Type of Facility**	**Acronym/Abbreviations Used**
Novant Health Huntersville Medical Center	Acute care hospital	NH Huntersville NHHMC (in tables)
Novant Health Matthews Medical Center	Acute care hospital	NH Matthews NHMMC (in tables)
Novant Health Mint Hill Medical Center	Acute care hospital	NH Mint Hill NHMHMC (in tables)
Novant Health Presbyterian Medical Center	Acute care hospital	NH Presbyterian NHPMC (in tables) PMC-Main (when referring to the specific campus)
Novant Health Ballantyne Medical Center	Approved acute care hospital	NH Ballantyne NHBMC (in tables)
Novant Health Charlotte Orthopedic Hospital	Satellite hospital campus of Novant Health Presbyterian Medical Center	NH Charlotte NHCOH (in tables) NHPMC (when referring to the entire licensed facility)
Novant Health Ballantyne Outpatient Surgery	Freestanding ambulatory surgical facility	NH Ballantyne OPS NHBOS (in tables)
Novant Health Huntersville Outpatient Surgery	Freestanding ambulatory surgical facility	NH Huntersville OPS NHHOS (in tables)
Matthews Surgery Center	Freestanding ambulatory surgical facility	Matthews Surgery Center MSC (in tables)
SouthPark Surgery Center	Freestanding ambulatory surgical facility	SouthPark SPSC (in tables)

Other Acronyms/Abbreviations Used	
Acronym/Abbreviations Used	**Full Term**
ADC	Average Daily Census (# of acute care days / 365/366 days in a year)
ALOS	Average Length of Stay (average number of acute care days for patients)
ASF/ASC	Ambulatory Surgical Facility
CAGR	Compound Annual Growth Rate
CY	Calendar Year
ED	Emergency Department
FFY	Federal Fiscal Year (October 1 – September 30)
FY	Fiscal Year
GI Endo	Gastrointestinal Endoscopy
HSA	Health Service Area
ICU	Intensive Care Unit
IP	Inpatient
LRA	License Renewal Application
Med/Surg or M/S	Medical/Surgical
NC OSBM	North Carolina Office of State Budget and Management
OP	Outpatient
OR	Operating Room
OY	Operating Year
SMFP	State Medical Facilities Plan

REVIEW CRITERIA FOR NEW INSTITUTIONAL HEALTH SERVICES

N.C. Gen. Stat. §131E-183(a) The Agency shall review all applications utilizing the criteria outlined in this subsection and shall determine that an application is either consistent with or not in conflict with these criteria before a certificate of need for the proposed project shall be issued.

(1) The proposed project shall be consistent with applicable policies and need determinations in the State Medical Facilities Plan, the need determination of which constitutes a determinative limitation on the provision of any health service, health service facility, health service facility beds, dialysis stations, operating rooms, or home health offices that may be approved.

NC – Atrium Health Lake Norman
C – All Other Applications

Need Determinations

Acute Care Beds – The 2019 State Medical Facilities Plan (SMFP) includes a methodology for determining the need for additional acute care beds in North Carolina by service area. Application of the need methodology in the 2019 SMFP identified a need for 76 additional acute care beds in the Mecklenburg County service area. Five applications were submitted to the Healthcare Planning and Certificate of Need Section ("CON Section" or "Agency") proposing to develop a total of 96 new acute care beds in Mecklenburg County. However, pursuant to the need determination, only 76 acute care beds may be approved in this review for Mecklenburg County. See the Conclusion following the Comparative Analysis for the decision.

Only qualified applicants can be approved to develop new acute care beds. On page 38, the 2019 SMFP states:

> *"A person is a qualified applicant if he or she proposes to operate the additional acute care beds in a hospital that will provide:*
>
> *(1) a 24-hour emergency services department,*
> *(2) inpatient medical services to both surgical and non-surgical patients, and*
> *(3) if proposing a new licensed hospital, medical and surgical services on a daily basis within at least five of the major diagnostic categories as recognized by the Centers for Medicare and Medicaid services (CMS), as follows…* [listed on pages 38-39 of the 2019 SFMP]*."*

Operating Rooms (ORs) – Chapter 6 of the 2019 SMFP includes a methodology for determining the need for additional ORs in North Carolina by service area. Application of the need methodology in the 2019 SMFP identifies a need for six additional ORs in the Mecklenburg County service area. Four applications were submitted to the CON Section, proposing to develop a total of seven ORs. However, pursuant to the need determination, only six ORs may be approved in this review for Mecklenburg County. See the Conclusion following the Comparative Analysis for the decision.

Policies – There are two policies applicable to the review of the applications submitted in response to the acute care bed and OR need determinations in the 2019 SMFP for the Mecklenburg County service area.

Policy GEN-3: Basic Principles, on page 31 of the 2019 SMFP, states:

> *"A certificate of need applicant applying to develop or offer a new institutional health service for which there is a need determination in the North Carolina State Medical Facilities Plan shall demonstrate how the project will promote safety and quality in the delivery of health care services while promoting equitable access and maximizing healthcare value for resources expended. A certificate of need applicant shall document its plans for providing access to services for patients with limited financial resources and demonstrate the availability of capacity to provide these services. A certificate of need applicant shall also document how its projected volumes incorporate these concepts in meeting the need identified in the State Medical Facilities Plan as well as addressing the needs of all residents in the proposed service area."*

Policy GEN-4: Energy Efficiency and Sustainability for Health Service Facilities, on page 31 of the 2019 SMFP, states:

> *"Any person proposing a capital expenditure greater than $2 million to develop, replace, renovate or add to a health service facility pursuant to G.S. 131E-178 shall include in its certificate of need application a written statement describing the project's plan to assure improved energy efficiency and water conservation.*
>
> *In approving a certificate of need proposing an expenditure greater than $5 million to develop, replace, renovate or add to a health service facility pursuant to G.S. 131E-178, Certificate of Need shall impose a condition requiring the applicant to develop and implement an Energy Efficiency and Sustainability Plan for the project that conforms to or exceeds energy efficiency and water conservation standards incorporated in the latest editions of the North Carolina State Building Codes. The plan must be consistent with the applicant's representation in the written statement as described in paragraph one of Policy GEN-4.*
>
> *Any person awarded a certificate of need for a project or an exemption from review pursuant to G.S. 131E-184 is required to submit a plan for energy efficiency and water conservation that conforms to the rules, codes and standards implemented by the Construction Section of the Division of Health Service Regulation. The plan must be consistent with the applicant's representation in the written statement as described in paragraph one of Policy GEN-4. The plan shall not adversely affect patient or resident health, safety or infection control."*

F-11807-18/Novant Health Matthews Medical Center/Develop one OR

Presbyterian Medical Care Corp. and Novant Health, Inc., collectively referred to as "Novant" or "the applicant," operate Novant Health Matthews Medical Center ("NH Matthews" or "NHMMC"), an acute care hospital with eight ORs (including two dedicated C-Section ORs).

The applicant proposes to develop one additional OR pursuant to the 2019 SMFP need determination for a total of nine ORs upon project completion.

Need Determination. The applicant does not propose to develop more ORs than are determined to be needed in the Mecklenburg County service area.

***Policy GEN-3*.** In Section B, pages 10-14, the applicant explains why it believes its application is consistent with Policy GEN-3.

***Policy GEN-4*.** The proposed capital expenditure for this project is greater than $2 million but less than $5 million. In Section B, page 15, the applicant describes the project's plan to improve energy efficiency and conserve water. The applicant adequately demonstrates that the application includes a written statement describing the project's plan to assure improved energy efficiency and water conservation.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion for the following reasons:

- The applicant does not propose to develop more ORs than are determined to be needed in Mecklenburg County.

- The applicant adequately demonstrates that the proposal is consistent with Policy GEN-3 and Policy GEN-4 for the following reasons:

    - The applicant adequately documents how the project will promote safety and quality in the delivery of OR services in Mecklenburg County.

    - The applicant adequately documents how the project will promote equitable access to OR services in Mecklenburg County.

    - The applicant adequately documents how the project will maximize healthcare value for the resources expended.

    - The applicant adequately demonstrates that the application includes a written statement describing the project's plan to assure improved energy efficiency and water conservation.

F-11808-19/ Novant Health Matthews Medical Center/Develop 20 acute care beds

Presbyterian Medical Care Corp. and Novant Health, Inc., collectively referred to as "Novant" or "the applicant," operate Novant Health Matthews Medical Center ("NH Matthews" or "NHMMC"), an acute care hospital licensed for 154 acute care beds. The applicant proposes

to develop 20 additional acute care beds pursuant to the 2019 SMFP need determination for a total of 174 licensed acute care beds upon project completion.

Need Determination. The applicant does not propose to develop more acute care beds than are determined to be needed in Mecklenburg County. In Section B, page 11, the applicant adequately demonstrates that it meets the requirements of a "qualified applicant" as defined in Chapter 5 of the 2019 SMFP.

***Policy GEN-3*.** In Section B, pages 17-19, the applicant explains why it believes its application is consistent with Policy GEN-3.

***Policy GEN-4*.** The proposed capital expenditure for this project is greater than $5 million. In Section B, page 20, the applicant describes the project's plan to improve energy efficiency and conserve water. The applicant adequately demonstrates that the application includes a written statement describing the project's plan to assure improved energy efficiency and water conservation.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion for the following reasons:

- The applicant does not propose to develop more acute care beds than are determined to be needed in Mecklenburg County and meets the requirements of a "qualified applicant" as defined in Chapter 5 of the 2019 SMFP to develop the proposed beds.

- The applicant adequately demonstrates that the proposal is consistent with Policy GEN-3 and Policy GEN-4 for the following reasons:

    - The applicant adequately documents how the project will promote safety and quality in the delivery of acute care bed services in Mecklenburg County.

    - The applicant adequately documents how the project will promote equitable access to acute care bed services in Mecklenburg County.

    - The applicant adequately documents how the project will maximize healthcare value for the resources expended.

    - The applicant adequately demonstrates that the application includes a written statement describing the project's plan to assure improved energy efficiency and water conservation.

F-11810-19/Atrium Health Lake Norman/Develop a new satellite hospital campus with 30 acute care beds and 2 ORs

The Charlotte-Mecklenburg Hospital Authority, hereinafter referred to as "CMHA," "Atrium," or "the applicant," proposes to develop Atrium Health Lake Norman ("AH Lake Norman" or "AH-LN"), a new satellite hospital campus to be licensed under Atrium Health University City ("AH University City" or "AH-UC"), by developing 30 acute care beds and two ORs pursuant to the need determinations in the 2019 SMFP.

Need Determination. The applicant does not propose to develop more acute care beds or ORs than are determined to be needed in Mecklenburg County. In Section B, pages 12-14, the applicant adequately demonstrates that it meets the requirements of a "qualified applicant" as defined in Chapter 5 of the 2019 SMFP.

***Policy GEN-3*.** In Section B, pages 23-26, the applicant explains why it believes its application is consistent with Policy GEN-3.

***Policy GEN-4*.** The proposed capital expenditure for this project is greater than $5 million. In Section B, pages 27-28, the applicant describes the project's plan to improve energy efficiency and conserve water. The applicant adequately demonstrates that the application includes a written statement describing the project's plan to assure improved energy efficiency and water conservation.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application
- Written comments
- Responses to comments
- Information publicly available at the time of the review and used by the Agency

Based on that review, the Agency concludes that the application is not conforming to this criterion for the following reasons:

- The applicant does not adequately demonstrate that the proposal is consistent with Policy GEN-3 for the following reasons:

    - The applicant does not demonstrate the need the population proposed to be served has for the proposed project. The discussion regarding need found in Criterion (3) is incorporated herein by reference.

    - The applicant does not adequately demonstrate that the proposal would not result in an unnecessary duplication of existing or approved services in the service area. The discussion regarding unnecessary duplication found in Criterion (6) is incorporated herein by reference.

F-11811-19/Carolinas Medical Center/Develop 18 acute care beds

The Charlotte-Mecklenburg Hospital Authority, hereinafter referred to as "CMHA," "Atrium," or "the applicant," operates Carolinas Medical Center ("CMC"), an acute care hospital licensed for 1,055 acute care beds. The applicant proposes to develop 18 additional acute care beds pursuant to the 2019 SMFP need determination for a total of 1,073 acute care beds upon project completion.

Need Determination. The applicant does not propose to develop more acute care beds than are determined to be needed in Mecklenburg County. In Section B, page 12, the applicant adequately demonstrates that it meets the requirements of a "qualified applicant" as defined in Chapter 5 of the 2019 SMFP.

***Policy GEN-3*.** In Section B, pages 21-24, the applicant explains why it believes its application is consistent with Policy GEN-3.

***Policy GEN-4*.** The proposed capital expenditure for this project is greater than $5 million. In Section B, pages 25-26, the applicant describes the project's plan to improve energy efficiency and conserve water. The applicant adequately demonstrates that the application includes a written statement describing the project's plan to assure improved energy efficiency and water conservation.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion for the following reasons:

- The applicant does not propose to develop more acute care beds than are determined to be needed in Mecklenburg County and meets the requirements of a "qualified applicant" as defined in Chapter 5 of the 2019 SMFP to develop the proposed beds.

- The applicant adequately demonstrates that the proposal is consistent with Policy GEN-3 and Policy GEN-4 for the following reasons:

    - The applicant adequately documents how the project will promote safety and quality in the delivery of acute care bed services in Mecklenburg County.

    - The applicant adequately documents how the project will promote equitable access to acute care bed services in Mecklenburg County.

    - The applicant adequately documents how the project will maximize healthcare value for the resources expended.

- The applicant adequately demonstrates that the application includes a written statement describing the project's plan to assure improved energy efficiency and water conservation.

F-11812-19/Atrium Health University City/Develop 16 acute care beds

The Charlotte-Mecklenburg Hospital Authority, hereinafter referred to as "CMHA," "Atrium," or "the applicant," operates Atrium Health University City ("AH University City" or "AH-UC"), an acute care hospital licensed for 100 acute care beds. The applicant proposes to develop 16 additional acute care beds pursuant to the 2019 SMFP need determination for a total of 116 acute care beds upon project completion.

Need Determination. The applicant does not propose to develop more acute care beds than are determined to be needed in Mecklenburg County. In Section B, page 12, the applicant adequately demonstrates that it meets the requirements of a "qualified applicant" as defined in Chapter 5 of the 2019 SMFP.

Policy GEN-3. In Section B, pages 21-24, the applicant explains why it believes its application is consistent with Policy GEN-3.

Policy GEN-4. The proposed capital expenditure for this project is greater than $5 million. In Section B, pages 24-25, the applicant describes the project's plan to improve energy efficiency and conserve water. The applicant adequately demonstrates that the application includes a written statement describing the project's plan to assure improved energy efficiency and water conservation.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion for the following reasons:

- The applicant does not propose to develop more acute care beds than are determined to be needed in Mecklenburg County and meets the requirements in of a "qualified applicant" as defined in Chapter 5 of the 2019 SMFP to develop the proposed beds.

- The applicant adequately demonstrates that the proposal is consistent with Policy GEN-3 and Policy GEN-4 for the following reasons:

  - The applicant adequately documents how the project will promote safety and quality in the delivery of acute care bed services in Mecklenburg County.

  - The applicant adequately documents how the project will promote equitable access to acute care bed services in Mecklenburg County.

- The applicant adequately documents how the project will maximize healthcare value for the resources expended.

- The applicant adequately demonstrates that the application includes a written statement describing the project's plan to assure improved energy efficiency and water conservation.

F-11813-19/Atrium Health Pineville/Develop 12 acute care beds

The Charlotte-Mecklenburg Hospital Authority, hereinafter referred to as "CMHA," "Atrium," or "the applicant," operates Atrium Health Pineville ("AH Pineville" or "AH-P"), an acute care hospital licensed for 221 acute care beds. Pursuant to Project I.D. #F-11622-18, AH Pineville is approved to develop 38 acute care beds. The applicant proposes to develop 12 additional acute care beds pursuant to the 2019 SMFP need determination for a total of 271 acute care beds upon completion of this project and Project I.D. #F-11622-18.

Need Determination. The applicant does not propose to develop more acute care beds than are determined to be needed in Mecklenburg County. In Section B, page 12, the applicant adequately demonstrates that it meets the requirements of a "qualified applicant" as defined in Chapter 5 of the 2019 SMFP.

Policy GEN-3. In Section B, pages 21-24, the applicant explains why it believes its application is consistent with Policy GEN-3.

Policy GEN-4. The proposed capital expenditure for this project is greater than $5 million. In Section B, pages 25-26, the applicant describes the project's plan to improve energy efficiency and conserve water. The applicant adequately demonstrates that the application includes a written statement describing the project's plan to assure improved energy efficiency and water conservation.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion for the following reasons:

- The applicant does not propose to develop more acute care beds than are determined to be needed in Mecklenburg County and meets the requirements of a "qualified applicant" as defined in Chapter 5 of the 2019 SMFP to develop the proposed beds.

- The applicant adequately demonstrates that the proposal is consistent with Policy GEN-3 and Policy GEN-4 for the following reasons:

    - The applicant adequately documents how the project will promote safety and quality in the delivery of acute care bed services in Mecklenburg County.

- The applicant adequately documents how the project will promote equitable access to acute care bed services in Mecklenburg County.

- The applicant adequately documents how the project will maximize healthcare value for the resources expended.

- The applicant adequately demonstrates that the application includes a written statement describing the project's plan to assure improved energy efficiency and water conservation.

F-11814-19/Atrium Health Pineville/Develop two ORs

The Charlotte-Mecklenburg Hospital Authority, hereinafter referred to as "CMHA," "Atrium," or "the applicant," operates Atrium Health Pineville ("AH Pineville or "AH-P"), an acute care hospital licensed for 12 ORs. Pursuant to Project I.D. #F-11621-18, AH Pineville is approved to develop one OR. The applicant proposes to develop two additional ORs pursuant to the 2019 SMFP need determination for a total of 15 ORs upon completion of this project and Project I.D. #F-11621-18.

Need Determination. The applicant does not propose to develop more ORs than are determined to be needed in Mecklenburg County.

***Policy GEN-3*.** In Section B, pages 10-13, the applicant explains why it believes its application is consistent with Policy GEN-3.

***Policy GEN-4*.** The proposed capital expenditure for this project is greater than $5 million. In Section B, pages 14-15, the applicant describes the project's plan to improve energy efficiency and conserve water. The applicant adequately demonstrates that the application includes a written statement describing the project's plan to assure improved energy efficiency and water conservation.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion for the following reasons:

- The applicant does not propose to develop more ORs than are determined to be needed in Mecklenburg County.

- The applicant adequately demonstrates that the proposal is consistent with Policy GEN-3 and Policy GEN-4 for the following reasons:

  - The applicant adequately documents how the project will promote safety and quality in the delivery of operating room services in Mecklenburg County.

- The applicant adequately documents how the project will promote equitable access to OR services in Mecklenburg County.

- The applicant adequately documents how the project will maximize healthcare value for the resources expended.

- The applicant adequately demonstrates that the application includes a written statement describing the project's plan to assure improved energy efficiency and water conservation.

F-11815-19/Carolinas Medical Center/Develop two ORs

The Charlotte-Mecklenburg Hospital Authority, hereinafter referred to as "CMHA," "Atrium," or "the applicant," operates Carolinas Medical Center ("CMC"), an acute care hospital licensed for 62 ORs. Pursuant to Project I.D. #F-11620-18, CMC is approved to develop two ORs. The applicant proposes to develop two additional ORs pursuant to the 2019 SMFP need determination for a total of 64 ORs upon completion of this project, Project I.D. #F-11106-15 (relocate 2 ORs to Charlotte Surgery Center – Wendover Campus), and Project I.D. #F-11620-18.

Need Determination. The applicant does not propose to develop more ORs than are determined to be needed in Mecklenburg County.

***Policy GEN-3*.** In Section B, pages 10-13, the applicant explains why it believes its application is consistent with Policy GEN-3.

***Policy GEN-4*.** The proposed capital expenditure for this project is greater than $5 million. In Section B, pages 14-15, the applicant describes the project's plan to improve energy efficiency and conserve water. The applicant adequately demonstrates that the application includes a written statement describing the project's plan to assure improved energy efficiency and water conservation.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion for the following reasons:

- The applicant does not propose to develop more ORs than are determined to be needed in Mecklenburg County.

- The applicant adequately demonstrates that the proposal is consistent with Policy GEN-3 and Policy GEN-4 for the following reasons:

    - The applicant adequately documents how the project will promote safety and quality in the delivery of OR services in Mecklenburg County.

- The applicant adequately documents how the project will promote equitable access to OR services in Mecklenburg County.

- The applicant adequately documents how the project will maximize healthcare value for the resources expended.

- The applicant adequately demonstrates that the application includes a written statement describing the project's plan to assure improved energy efficiency and water conservation.

(2) Repealed effective July 1, 1987.

(3) The applicant shall identify the population to be served by the proposed project, and shall demonstrate the need that this population has for the services proposed, and the extent to which all residents of the area, and, in particular, low income persons, racial and ethnic minorities, women, handicapped persons, the elderly, and other underserved groups are likely to have access to the services proposed.

NC – Atrium Health Lake Norman
C – All Other Applications

F-11807-18/Novant Health Matthews Medical Center/Develop one OR

The applicant proposes to add one OR to NH Matthews, its existing acute care hospital, for a total of nine ORs upon project completion.

Novant submitted two applications in this review cycle for acute care beds and ORs at NH Matthews. The other application, Project I.D. #F-11808-19, proposes to add 20 acute care beds to the existing facility for a total of 174 acute care beds upon project completion.

Patient Origin – On page 36, the 2019 SMFP defines the service area for ORs as *"…the operating room planning area in which the operating room is located. The operating room planning areas are the single and multicounty groupings shown in Figure 6.1."* Figure 6.1, on page 40, shows Mecklenburg County as its own OR planning area. Thus, the service area for this facility is Mecklenburg County. Facilities may also serve residents of counties not included in their service area. The following tables illustrate current and projected patient origin.

NHMMC Historical Patient Origin – Surgical Cases (CY 2018)				
County	Inpatient ORs		Outpatient ORs	
	# Patients	% of Total	# Patients	% of Total
Mecklenburg	799	50.3%	1,865	46.6%
Union	527	33.2%	1,494	37.3%
Cabarrus	31	2.0%	85	2.1%
Anson	27	1.7%	43	1.1%
Stanly	21	1.3%	65	1.6%
Gaston	*	*	29	0.7%
Other*	184	11.6%	423	10.6%
Total	**1,589**	**100.0%**	**4,004**	**100.0%**

Source: Section C, page 18

*Other (Inpatient ORs): Brunswick, Caldwell, Catawba, Cherokee, Cleveland, Columbus, Gaston, Guilford, Iredell, Lincoln, Randolph, Richmond, Rowan, Watauga, and Wayne counties in North Carolina as well as other states.

*Other (Outpatient ORs): Alexander, Avery, Brunswick, Buncombe, Caldwell, Catawba, Cleveland, Davidson, Davie, Forsyth, Guilford, Henderson, Iredell, Lincoln, Montgomery, Pender, Pitt, Polk, Randolph, Richmond, Robeson, Rowan, Rutherford, Surry, Transylvania, and Wake counties in North Carolina as well as other states.

NHMMC Projected Patient Origin – Inpatient Surgical Cases						
County	FY 1 (CY 2024)		FY 2 (CY 2025)		FY 3 (CY 2026)	
	# Patients	% of Total	# Patients	% of Total	# Patients	% of Total
Mecklenburg	1,120	50.3%	1,181	50.3%	1,258	50.3%
Union	739	33.2%	779	33.2%	830	33.2%
Other Counties*	367	16.5%	387	16.5%	413	16.5%
Total	**2,227**	**100.0%**	**2,347**	**100.0%**	**2,500**	**100.0%**

Source: Section C, page 19

*Other: Alexander, Avery, Brunswick, Buncombe, Caldwell, Catawba, Cherokee, Cleveland, Columbus, Davidson, Davie, Forsyth, Gaston, Guilford, Henderson, Iredell, Lincoln, Montgomery, Pender, Pitt, Polk, Randolph, Richmond, Robeson, Rowan, Rutherford, Surry, Transylvania, Wake, Watauga, and Wayne counties in North Carolina as well as other states.

NHMMC Projected Patient Origin – Outpatient Surgical Cases						
County	FY 1 (CY 2024)		FY 2 (CY 2025)		FY 3 (CY 2026)	
	# Patients	% of Total	# Patients	% of Total	# Patients	% of Total
Mecklenburg	1,705	46.6%	1,711	46.6%	1,741	46.6%
Union	1,365	37.3%	1,369	37.3%	1,394	37.3%
Other Counties*	589	16.1%	591	16.1%	602	16.1%
Total	**3,659**	**100.0%**	**3,671**	**100.0%**	**3,737**	**100.0%**

Source: Section C, page 19

*Other: Alexander, Avery, Brunswick, Buncombe, Caldwell, Catawba, Cherokee, Cleveland, Columbus, Davidson, Davie, Forsyth, Gaston, Guilford, Henderson, Iredell, Lincoln, Montgomery, Pender, Pitt, Polk, Randolph, Richmond, Robeson, Rowan, Rutherford, Surry, Transylvania, Wake, Watauga, and Wayne counties in North Carolina as well as other states.

In Section C, page 20, the applicant provides the assumptions and methodology used to project patient origin. The applicant's assumptions are reasonable and adequately supported.

Analysis of Need – In Section C, pages 21-36, the applicant explains why it believes the population projected to utilize the proposed services needs the proposed services, as summarized below:

- As part of its assumptions and methodology, the applicant calculated statistics by extrapolating actual historical data from October 1, 2018 through June 30, 2019 to obtain FFY 2019 annualized data.

- Between FFY 2014-2019 annualized, inpatient surgical cases at NH Matthews grew at an average rate of 6.8 percent per year. The applicant states recent small declines in outpatient surgical cases are the result of intentionally shifting lower acuity outpatient surgical cases to ASFs to reduce cost and to provide capacity at NH Matthews for more inpatient surgical cases as well as higher acuity outpatient surgical cases. The applicant states that, despite recent declines, outpatient surgical cases grew at an average rate of 2.3 percent between FFY 2014-2019 annualized.

- Successful recruitment of surgeons to replace retiring surgeons, as well as recruitment of additional surgeons, has resulted in growth in the number of inpatient cases. The applicant states the number of FFY 2019 annualized inpatient surgical cases was more than six percent higher than FFY 2018 inpatient surgical cases at NH Matthews.

- The opening of NH Mint Hill on October 1, 2018 has not affected surgical hours at NH Matthews. The applicant states surgical hours at NH Matthews are 13 percent higher for FFY 2019 annualized than in the year prior to NH Mint Hill offering services.

- Surgical cases at NH Matthews are increasing in complexity and in length of time needed for surgery. The applicant provides data from its annual License Renewal Applications (LRAs) submitted to the Agency showing increases in both inpatient and outpatient surgical case times between FFY 2016 and FFY 2019 annualized. The applicant provides data from Truven documenting the consistent increase in case complexity since FFY 2015.

- Physician recruitment at NH Matthews has resulted in development of new clinical programs that treat more clinically complex patients, and the applicant states these changes have resulted in higher demand for related services.

- According to NC OSBM, the population of Mecklenburg County is projected to grow 9.8 percent between 2019 and 2024, and the population of Union County is projected to grow 11.1 percent between 2019 and 2024.

The information is reasonable and adequately supported for the following reasons:

- The applicant uses historical and demographic data to identify the population to be served, its projected growth, and the need the identified population to be served has for the proposed services.

- There is a need determination for six ORs in Mecklenburg County in the 2019 SMFP. The applicant is applying to develop one OR in Mecklenburg County in accordance with the OR need determination in the 2019 SMFP.

Projected Utilization – In Section C, page 26, the applicant provides projected utilization as illustrated in the following table.

NHMMC Projected Utilization – Surgical Services			
	FY 1 (CY 2024)	**FY 2 (CY 2025)**	**FY 3 (CY 2026)**
Operating Rooms			
Dedicated C-Section ORs	2	2	2
Shared ORs	7	7	7
Total # of ORs	9	9	9
Excluded # of ORs	2	2	2
Total # of ORs – Planning Inventory	7	7	7
Surgical Cases			
# of Inpatient Cases (1)	2,227	2,347	2,500
# of Outpatient Cases	3,659	3,671	3,737
Total # Surgical Cases (1)	5,886	6,018	6,237
Case Times			
Inpatient (2)	117.9	117.9	117.9
Outpatient (2)	90.4	90.4	90.4
Surgical Hours			
Inpatient (3)	4,376	4,612	4,913
Outpatient (4)	5,513	5,531	5,630
Total Surgical Hours	9,889	10,143	10,543
# of ORs Needed			
Group Assignment (5)	4	4	4
Standard Hours per OR per Year (6)	1,500	1,500	1,500
ORs Needed (total hours / 1,500)	6.59	6.76	7.03

Additional sources: Section C, page 39; NH Matthews' 2020 LRA
(1) Excluding C-Sections performed in a dedicated C-Section OR
(2) From Section C, Question 9(c)
(3) [Inpatient Cases (exclude C-Sections performed in dedicated C-Section ORs) x Inpatient Case Time in minutes] / 60 minutes
(4) (Outpatient Cases x Outpatient Case Time in minutes) / 60 minutes
(5) From Section C, Question 9(a)
(6) From Section C, Question 9(b)

In Section C, pages 23-26, and the Form C Assumptions and Methodology subsection found in Section Q, the applicant provides the assumptions and methodology used to project utilization, which are summarized below.

- The applicant reviewed its FFY 2014-2019 annualized data for surgical cases. The applicant calculated a 2-year, 3-year, 4-year, and 5-year CAGR for both inpatient surgical cases and outpatient surgical cases. The applicant assumed its inpatient surgical cases would grow at the lowest of the CAGRs calculated (its 4-year CAGR of 6.3 percent). The applicant assumed its outpatient surgical cases would decrease at the rate of the largest negative CAGR through CY 2023 (its 3-year CAGR of -1.2 percent), and projects

outpatient surgical cases will increase at the lowest positive CAGR in CYs 2024-2026 (its 4-year CAGR of 1.5 percent.

Regarding projected outpatient surgical case growth rates, on pages 23-24 the applicant states:

> *"The number of outpatient surgical cases at NH Matthews has declined slightly in recent years, but the Applicant does not expect the decline to be indefinite. The decline does not show a reduced need for outpatient surgeries at NH Matthews, but the intentional shift of low acuity outpatient cases to other NH* [ASFs] *to reduce cost and to accommodate the growing demand for inpatient surgeries and higher acuity outpatient surgeries. NH has and will continue to increase operating room hours and create efficiencies to accommodate the longer case times of inpatient surgeries. … NH Matthews expects to continue shifting appropriate outpatient surgical cases to other NH ASCs and NH hospitals as needed until it opens another operating room. When the new operating room suite opens in July of 2023, NH Matthews expect the number of outpatient surgeries to increase due to available capacity, physician recruitment, and population growth."*

- The applicant converted FFY data to CY data using the following formula: CY 2018 = [(FFY 2018 / 4) X 3] + (FFY 2019 / 4)

- In Project I.D. #F-11625-18, Novant was approved to develop NH Ballantyne, a new separately licensed hospital by relocating existing beds and ORs from NH Presbyterian. As part of that application, Novant projected some inpatient and outpatient surgical cases would shift from NH Matthews to NH Ballantyne. The applicant states it used much of the same assumptions and methodology it used in Project I.D. #F-11625-18 to calculate projections for NH Ballantyne and its impacts on other Novant facilities, but made some changes which it describes on pages 120-121 of the Form C Assumptions and Methodology subsection found in Section Q. The applicant states these changes result in an increase in the number of surgical cases projected to shift from NH Matthews to NH Ballantyne in the current application than in Project I.D. #F-11625-18. The applicant projects the shift in cases from NH Matthews to NH Ballantyne will begin in CY 2023.

- The applicant used its Final Case Times for inpatient and outpatient surgical cases as listed in the 2019 SMFP.

The table below summarizes the assumptions and methodology used by the applicant.

NHMMC Projected OR Utilization									
	2019*	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**
FFY Baseline Inpatient Cases	1,715	1,823	1,938	2,060	2,190	2,328	2,475	2,631	2,797
Growth Rate	--	6.3%	6.3%	6.3%	6.3%	6.3%	6.3%	6.3%	6.3%
CY Baseline Inpatient Cases	1,742	1,852	1,969	2,093	2,225	2,365	2,514	2,673	--
Baseline Outpatient Cases	3,996	3,948	3,901	3,854	3,808	3,865	3,923	3,982	4,042
Growth Rate	--	-1.2%	-1.2%	-1.2%	-1.2%	1.5%	1.5%	1.5%	1.5%
CY Baseline Outpatient Cases	3,984	3,936	3,889	3,843	3,822	3,880	3,938	3,997	--
Inpatient Cases Shifting to NHBMC	--	--	--	--	-110	-138	-167	-173	--
Outpatient Cases Shifting to NHBMC	--	--	--	--	-187	-221	-267	-260	--
Total Inpatient Cases	1,742	1,852	1,969	2,093	2,115	2,227	2,347	2,500	--
Total Outpatient Cases	3,984	3,936	3,889	3,843	3,635	3,659	3,671	3,737	--
Final Inpatient Case Time (1)	117.9	117.9	117.9	117.9	117.9	117.9	117.9	117.9	--
Final Outpatient Case Time (1)	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	--
Total Surgical Hours (2)	**9,426**	**9,569**	**9,728**	**9,903**	**9,633**	**9,889**	**10,143**	**10,543**	**--**
Average Annual Operating Hours – Group 4 (3)	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	--
Number of ORs Needed (4)	6.28	6.38	6.49	6.60	6.42	6.59	6.76	7.03	--
Number of Existing/Approved ORs	6	6	6	6	6	6	6	6	--
(Surplus) / Deficit	**0.28**	**0.38**	**0.49**	**0.60**	**0.42**	**0.59**	**0.76**	**1.03**	**--**

Sources: Section C, pages 23-26; Form C Assumptions and Methodology subsection of Section Q
*Annualized based on October 2018-June 2019 data.
(1) The Final Case Time in minutes for the facility in the 2019 SMFP.
(2) Total Hours equals Surgical Cases multiplied by the Average Case Time, then divided by 60.
(3) From Steps 4d and 4e of the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP.
(4) # of ORs Needed equals Surgical Hours divided by the Standard Hours per OR per Year.

As shown in the table above, using the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP, the applicant projects a deficit of one OR at NH Matthews in the third full fiscal year following project completion. The applicant proposes to add one additional OR at NH Matthews.

To determine whether the applicant would still demonstrate a need for the proposed OR at NH Matthews if outpatient surgical cases continued to decline (instead of increasing during the first three full fiscal years as projected by the applicant), the Project Analyst recalculated the CY 2024-2026 outpatient surgical cases based on a continued growth rate of -1.2 percent and recalculated surgical hours and OR need. See the Working Papers for these calculations. Even if outpatient surgical case utilization continues to decline at a rate of -1.2 percent through the end of CY 2026, there would still be a projected deficit of 0.69 ORs at the end of CY 2026, which would be rounded to one.

Novant Health System

The Novant health system for ORs in Mecklenburg County consists of NH Matthews, NH Presbyterian, NH Huntersville, NH Mint Hill, the approved NH Ballantyne, Matthews Surgery Center, SouthPark, NH Huntersville OPS, and NH Ballantyne OPS. Pursuant to 10A NCAC 14C .2103(a), the applicant must demonstrate the need for all existing, approved, and proposed ORs in the health system at the end of the third full fiscal year, using the Operating Room Need Methodology in the 2019 SMFP.

In the Form C Methodology and Assumptions subsection of Section Q, the applicant provides the assumptions and methodology used to project utilization for all other facilities with ORs in its Mecklenburg County health system. The assumptions and methodology are summarized below.

As part of Project I.D. #F-11625-18 (proposing to develop NH Ballantyne), the applicant projected a shift in surgical cases from several of its facilities to the proposed NH Ballantyne. The applicant states it will project shifts between facilities in Mecklenburg County as it has in previously approved applications.

- Determine historical utilization by facility – using historical data for FFYs 2015-2018 and FFY 2019 annualized, the applicant calculated 2-year, 3-year, and 4-year CAGRs for each facility for inpatient cases (as applicable) and outpatient cases. The applicant states it substituted the NH system's lowest corresponding CAGR for NH Mint Hill inpatient and outpatient surgical cases since it has only been offering services since October 1, 2018. The applicant states that for NH Huntersville OPS, which has experienced high growth due to initial ramp-up in cases, it substituted the NH system's lowest OP CAGR.

- Project surgical cases through FFY 2027 prior to any shifts and convert to CYs – the applicant applied the selected growth rate to surgical cases at each facility through FFY 2027, and then converted the projections to CYs using the following formula: CY 2018 = [(FFY 2018 / 4) X 3] + (FFY 2019 / 4)

- Project shift of surgical cases to NH Ballantyne – as part of Project I.D. #F-11625-18, the applicant projected some inpatient and outpatient surgical cases would shift to NH Ballantyne. The applicant states it expects cases to shift according to the projections in Project I.D. #F-11625-18, with one exception. The applicant projected some inpatient and outpatient surgical cases would shift from NH Matthews to NH Ballantyne, but now projects a shift in outpatient cases to NH Ballantyne based on projected ratios of inpatient to outpatient surgical cases. The applicant states these changes result in an increase in the number of surgical cases projected to shift from NH Matthews to NH Ballantyne in the current application than in Project I.D. #F-11625-18. The applicant projects the shift in cases from NH Matthews to NH Ballantyne will begin in CY 2023.

- Project shift of surgical cases to NH Mint Hill – the applicant states it plans to shift some surgical cases from NH Presbyterian to NH Mint Hill. The applicant states it projects five inpatient cases per quarter will shift beginning in the last quarter of CY 2019. The applicant also projects 20 outpatient cases per quarter will shift beginning in the last quarter of CY 2019 and which will then grow at the NH system outpatient 4-year CAGR for outpatient cases (5.4 percent).

- Subtract shifts in surgical cases from NH facilities to determine projected OR utilization through CY 2026 – the applicant subtracted the number of surgical cases projected to shift for the relevant Novant facilities in Mecklenburg County through CY 2026 to obtain projected OR utilization at each facility.

A brief summary of the assumptions and methodology used to project OR utilization at each Novant facility follows below.

Novant Health Presbyterian - The applicant starts with historical utilization and determines the lowest inpatient CAGR is its 4-year CAGR (0.7 percent) and the lowest outpatient CAGR is its 3-year CAGR (4.6 percent). The applicant projects FFY inpatient and outpatient surgical cases and converts them to CYs. Then the applicant makes assumptions about shifts of surgical cases to NH Ballantyne and NH Mint Hill. The following table illustrates projected OR utilization at NH Presbyterian.

NH Presbyterian Projected OR Utilization								
	2019*	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**
Baseline CY Inpatient Cases	8,162	8,219	8,277	8,335	8,393	8,452	8,511	8,570
Baseline CY Outpatient Cases	24,612	25,744	26,928	28,167	29,463	30,819	32,237	33,719
IP Cases Shifting to Other Facilities	-5	-20	-20	-20	-141	-171	-202	-208
OP Cases Shifting to Other Facilities	-20	-80	-84	-89	-94	-99	-104	-110
Total Inpatient Cases	8,157	8,199	8,257	8,315	8,252	8,281	8,309	8,362
Total Outpatient Cases	24,592	25,664	26,844	28,078	29,369	30,720	32,133	33,609
Final Inpatient Case Time (1)	186.8	186.8	186.8	186.8	186.8	186.8	186.8	186.8
Final Outpatient Case Time (1)	90.2	90.2	90.2	90.2	90.2	90.2	90.2	90.2
Total Surgical Hours (2)	**62,365**	**64,108**	**66,062**	**68,098**	**69,843**	**71,964**	**74,176**	**76,560**
Avg Annual Operating Hrs – Group 2 (3)	1,950	1,950	1,950	1,950	1,950	1,950	1,950	1,950
Number of ORs Needed (4)	31.98	32.88	33.88	34.92	35.82	36.90	38.04	39.26
Number of Existing/Approved ORs	37	37	37	37	36	36	36	36
(Surplus) / Deficit	**(5.02)**	**(4.12)**	**(3.12)**	**(2.08)**	**(0.18)**	**0.90**	**2.04**	**3.26**

Source: Form C Assumptions and Methodology subsection of Section Q

*Data used to calculate CY 2019 includes FFY 2019 annualized based on October 2018 – June 2019 data.

(1) The Final Case Time in minutes for the facility in the 2019 SMFP.

(2) Total Hours equals Surgical Cases multiplied by the Average Case Time, then divided by 60.

(3) From Steps 4d and 4e of the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP.

(4) # of ORs Needed equals Surgical Hours divided by the Standard Hours per OR per Year.

As shown in the table above, using the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP, the applicant projects a deficit of 3.26 ORs at NH Presbyterian in the third full fiscal year following project completion. Novant does not propose to add any ORs to NH Presbyterian as part of this review.

Novant Health Huntersville - The applicant starts with historical utilization and determines the lowest inpatient CAGR is its 3-year CAGR (3.4 percent) and the lowest outpatient CAGR is its 2-year CAGR (4.3 percent). The applicant projects FFY inpatient and outpatient surgical cases and converts them to CYs. Then the applicant makes assumptions about shifts of surgical cases to NH Ballantyne. The following table illustrates projected OR utilization at NH Huntersville.

NH Huntersville Projected OR Utilization								
	2019*	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**
Baseline CY Inpatient Cases	1,494	1,544	1,597	1,651	1,708	1,766	1,827	1,889
Baseline CY Outpatient Cases	4,058	4,233	4,415	4,605	4,803	5,009	5,225	5,449
IP Cases Shifting to NH Ballantyne	--	--	--	--	-1	-2	-2	-2
Total Inpatient Cases	1,494	1,544	1,597	1,651	1,707	1,764	1,825	1,887
Total Outpatient Cases	4,058	4,233	4,415	4,605	4,803	5,009	5,225	5,449
Final Inpatient Case Time (1)	139.9	139.9	139.9	139.9	139.9	139.9	139.9	139.9
Final Outpatient Case Time (1)	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4
Total Surgical Hours (2)	**9,598**	**9,978**	**10,376**	**10,788**	**11,217**	**11,660**	**12,127**	**12,610**
Avg Annual Operating Hrs – Group 4 (3)	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500
Number of ORs Needed (4)	6.40	6.65	6.92	7.19	7.48	7.77	8.08	8.41
Number of Existing/Approved ORs	6	6	7	7	7	7	7	7
(Surplus) / Deficit	**0.40**	**0.65**	**(0.08)**	**0.19**	**0.48**	**0.77**	**1.08**	**1.41**

Source: Form C Assumptions and Methodology subsection of Section Q

*Data used to calculate CY 2019 includes FFY 2019 annualized based on October 2018 – June 2019 data.

(1) The Final Case Time in minutes for the facility in the 2019 SMFP.

(2) Total Hours equals Surgical Cases multiplied by the Average Case Time, then divided by 60.

(3) From Steps 4d and 4e of the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP.

(4) # of ORs Needed equals Surgical Hours divided by the Standard Hours per OR per Year.

As shown in the table above, using the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP, the applicant projects a deficit of 1.41 ORs at NH Huntersville in the third full fiscal year following project completion. Novant does not propose to add any ORs to NH Huntersville as part of this review.

Novant Health Mint Hill - The applicant starts with its FFY 2019 annualized data for NH Mint Hill, which opened on October 1, 2018, and applies the lowest NH system inpatient CAGR (the 4-year CAGR of 2.2 percent) and the lowest NH system outpatient CAGR (the 3-year CAGR of 5.3 percent). The applicant projects FFY inpatient and outpatient surgical cases and converts them to CYs. Then the applicant makes assumptions about shifts of surgical cases from NH Presbyterian. The following table illustrates projected OR utilization at NH Mint Hill.

NH Mint Hill Projected OR Utilization								
	2019*	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**
Baseline CY Inpatient Cases	156	159	162	166	170	174	178	182
Baseline CY Outpatient Cases	664	699	737	776	818	861	907	955
IP Cases Shifting from NHPMC	5	20	20	20	20	20	20	20
OP Cases Shifting from NHPMC	20	80	84	89	94	99	104	110
Total Inpatient Cases**	161	179	182	186	190	194	198	202
Total Outpatient Cases**	684	779	821	865	912	960	1,011	1,065
Final Inpatient Case Time (1)	112.5	112.5	112.5	112.5	112.5	112.5	112.5	112.5
Final Outpatient Case Time (1)	71.7	71.7	71.7	71.7	71.7	71.7	71.7	71.7
Total Surgical Hours (2)	**1,119**	**1,267**	**1,322**	**1,383**	**1,446**	**1,511**	**1,579**	**1,652**
Avg Annual Operating Hrs – Group 4 (3)	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500
Number of ORs Needed (4)	0.75	0.84	0.88	0.92	0.96	1.01	1.05	1.10
Number of Existing/Approved ORs	3	3	3	3	4	4	4	4
(Surplus) / Deficit	**(2.25)**	**(2.16)**	**(2.12)**	**(2.08)**	**(3.04)**	**(2.99)**	**(2.95)**	**(2.90)**

Source: Form C Assumptions and Methodology subsection of Section Q

*Data used to calculate CY 2019 includes FFY 2019 annualized based on October 2018 – June 2019 data.

**In Section Q and on Form C, the applicant did not add cases from NHPMC to NHMHMC's baseline cases, despite subtracting them from NHPMC's baseline cases. The Project Analyst added the appropriate cases.

(1) From Step 5a of the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP.

(2) Total Hours equals Surgical Cases multiplied by the Average Case Time, then divided by 60.

(3) From Steps 4d and 4e of the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP.

(4) # of ORs Needed equals Surgical Hours divided by the Standard Hours per OR per Year.

As shown in the table above, using the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP, the applicant projects a surplus of 2.90 ORs at NH Mint Hill in the third full fiscal year following project completion. Novant does not propose to add any ORs to NH Mint Hill as part of this review. The Project Analyst notes the total number of surgical hours at NH Mint Hill in these projections is likely understated. According to NH Mint Hill's 2020 LRA, available to the Agency during this review, its actual inpatient case time was 134 minutes and its actual outpatient case time was 129 minutes. If the actual case times for NH Mint Hill were used, NH Mint Hill's surplus would be lower.

Novant Health Ballantyne – NH Ballantyne is not projected to become operational until January 1, 2023. The applicant projects inpatient cases will shift from NH Presbyterian, NH Huntersville, and NH Matthews as projected in Project I.D. #F-11625-18. The applicant projects outpatient cases will shift from NH Ballantyne OPS as projected in Project I.D. #F-11625-18 and projects some additional outpatient cases will shift from NH Matthews. The following table illustrates projected OR utilization at NH Ballantyne.

NH Ballantyne Projected OR Utilization				
	2023	**2024**	**2025**	**2026**
Total Inpatient Cases	394	492	596	614
Total Outpatient Cases	1,319	1,378	1,450	1,469
Final Inpatient Case Time (1)	112.5	112.5	112.5	112.5
Final Outpatient Case Time (1)	71.7	71.7	71.7	71.7
Total Surgical Hours (2)	**2,315**	**2,570**	**2,851**	**2,906**
Avg Annual Operating Hrs – Group 4 (3)	1,500	1,500	1,500	1,500
Number of ORs Needed (4)	1.54	1.71	1.90	1.94
Number of Existing/Approved ORs	2	2	2	2
(Surplus) / Deficit	**(0.46)**	**(0.29)**	**(0.10)**	**(0.06)**

Source: Form C Assumptions and Methodology subsection of Section Q
(1) From Step 5a of the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP.
(2) Total Hours equals Surgical Cases multiplied by the Average Case Time, then divided by 60.
(3) From Steps 4d and 4e of the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP.
(4) # of ORs Needed equals Surgical Hours divided by the Standard Hours per OR per Year.

As shown in the table above, using the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP, the applicant projects a surplus of 0.06 ORs at NH Ballantyne in the third full fiscal year following project completion. Novant does not propose to add any ORs to NH Ballantyne as part of this review.

Novant Health Ballantyne OP Surgery – as part of Project I.D. #F-11625-18, the applicant was approved to relocate the two ORs at NH Ballantyne OPS to NH Ballantyne and projects all future surgical cases will shift to NH Ballantyne. NH Ballantyne OPS will then be delicensed. For purposes of showing projected growth in NH Ballantyne OPS surgical cases, the applicant starts with historical utilization and determines the lowest outpatient CAGR is its four-year CAGR (2.2 percent). The applicant projects FFY outpatient surgical cases and converts them to CYs. Beginning in 2023, the applicant shifts all NH Ballantyne OPS cases to NH Ballantyne. The following table illustrates projected OR utilization at NH Ballantyne OPS.

NH Ballantyne OPS Projected OR Utilization								
	2019*	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**
Baseline CY Outpatient Cases	1,038	1,061	1,084	1,108	1,132	1,157	1,183	1,209
Cases at NH Ballantyne OPS	1,038	1,061	1,084	1,108	--	--	--	--
Cases shifting to NH Ballantyne	--	--	--	--	1,132	1,157	1,183	1,209

Source: Form C Assumptions and Methodology subsection of Section Q
*Data used to calculate CY 2019 includes FFY 2019 annualized based on October 2018 – June 2019 data.

Novant Health Huntersville OP Surgery - The applicant starts with historical utilization. Because of tremendous growth in utilization at NH Huntersville OPS during the initial ramp-up period, the applicant substitutes the lowest NH system outpatient CAGR (the 3-year CAGR of 5.3 percent). The applicant projects FFY surgical cases and converts them to CYs. The following table illustrates projected OR utilization at NH Huntersville OPS.

NH Huntersville OPS Projected OR Utilization								
	2019*	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**
Total CY Outpatient Cases	3,568	3,757	3,957	4,167	4,387	4,620	4,865	5,122
Final Outpatient Case Time (1)	52.5	52.5	52.5	52.5	52.5	52.5	52.5	52.5
Total Surgical Hours (2)	**3,122**	**3,287**	**3,462**	**3,646**	**3,839**	**4,043**	**4,257**	**4,482**
Avg Annual Operating Hrs – Group 5 (3)	1,312	1,312	1,312	1,312	1,312	1,312	1,312	1,312
Number of ORs Needed (4)	2.38	2.51	2.64	2.78	2.93	3.08	3.24	3.42
Number of Existing/Approved ORs	2	2	2	2	2	2	2	2
(Surplus) / Deficit	**0.38**	**0.51**	**0.64**	**0.78**	**0.93**	**1.08**	**1.24**	**1.42**

Source: Form C Assumptions and Methodology subsection of Section Q
*Data used to calculate CY 2019 includes FFY 2019 annualized based on October 2018 – June 2019 data.
(1) The Final Case Time in minutes for the facility in the 2019 SMFP.
(2) Total Hours equals Surgical Cases multiplied by the Average Case Time, then divided by 60.
(3) From Steps 4d and 4e of the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP.
(4) # of ORs Needed equals Surgical Hours divided by the Standard Hours per OR per Year.

As shown in the table above, using the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP, the applicant projects a deficit of 1.42 ORs at NH Huntersville OPS in the third full fiscal year following project completion. Novant does not propose to add any ORs to NH Huntersville OPS as part of this review.

SouthPark Surgery Center - The applicant starts with historical utilization and determines the lowest outpatient CAGR is its 4-year CAGR (4.7 percent). The applicant projects FFY surgical cases and converts them to CYs. The following table illustrates projected OR utilization at SouthPark.

SouthPark Projected OR Utilization								
	2019*	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**
Total CY Outpatient Cases	12,201	12,774	13,374	14,003	14,660	15,349	16,071	16,827
Final Outpatient Case Time (1)	50.2	50.2	50.2	50.2	50.2	50.2	50.2	50.2
Total Surgical Hours (2)	**10,208**	**10,688**	**11,190**	**11,716**	**12,266**	**12,842**	**13,446**	**14,079**
Avg Annual Operating Hrs – Group 5 (3)	1,312	1,312	1,312	1,312	1,312	1,312	1,312	1,312
Number of ORs Needed (4)	7.78	8.15	8.53	8.93	9.35	9.79	10.25	10.73
Number of Existing/Approved ORs	6	6	6	6	6	6	6	6
(Surplus) / Deficit	**1.78**	**2.15**	**2.53**	**2.93**	**3.35**	**3.79**	**4.25**	**4.73**

Source: Form C Assumptions and Methodology subsection of Section Q
*Data used to calculate CY 2019 includes FFY 2019 annualized based on October 2018 – June 2019 data.
(1) The Final Case Time in minutes for the facility in the 2019 SMFP.
(2) Total Hours equals Surgical Cases multiplied by the Average Case Time, then divided by 60.
(3) From Steps 4d and 4e of the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP.
(4) # of ORs Needed equals Surgical Hours divided by the Standard Hours per OR per Year.

As shown in the table above, using the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP, the applicant projects a deficit of 4.73 ORs at SouthPark in the third full fiscal year following project completion. Novant does not propose to add any ORs to SouthPark as part of this review.

Matthews Surgery Center - The applicant starts with historical utilization and determines the lowest outpatient CAGR is its 3-year CAGR (2.1 percent). The applicant projects FFY surgical

cases and converts them to CYs. The following table illustrates projected OR utilization at Matthews Surgery Center.

Matthews Surgery Center Projected OR Utilization								
	2019*	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**
Total CY Outpatient Cases	2,155	2,201	2,247	2,294	2,342	2,392	2,442	2,493
Final Outpatient Case Time (1)	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0
Total Surgical Hours (2)	**2,802**	**2,861**	**2,921**	**2,982**	**3,044**	**3,110**	**3,175**	**3,241**
Avg Annual Operating Hrs – Group 6 (3)	1,312	1,312	1,312	1,312	1,312	1,312	1,312	1,312
Number of ORs Needed (4)	2.14	2.18	2.23	2.27	2.32	2.37	2.42	2.47
Number of Existing/Approved ORs	2	2	2	2	2	2	2	2
(Surplus) / Deficit	**0.14**	**0.18**	**0.23**	**0.27**	**0.32**	**0.37**	**0.42**	**0.47**

Source: Form C Assumptions and Methodology subsection of Section Q
*Data used to calculate CY 2019 includes FFY 2019 annualized based on October 2018 – June 2019 data.
(1) The Final Case Time in minutes for the facility in the 2019 SMFP.
(2) Total Hours equals Surgical Cases multiplied by the Average Case Time, then divided by 60.
(3) From Steps 4d and 4e of the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP.
(4) # of ORs Needed equals Surgical Hours divided by the Standard Hours per OR per Year.

As shown in the table above, using the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP, the applicant projects a deficit of 0.47 ORs at Matthews Surgery Center in the third full fiscal year following project completion. Novant does not propose to add any ORs to Matthews Surgery Center as part of this review.

Novant Health System Combined - To meet the performance standard promulgated in 10A NCAC 14C .2103(a) in effect at the time of the submission of this application, an applicant proposing to add new ORs to a service area must demonstrate the need for all of the existing, approved, and proposed ORs in a health system in the third full fiscal year following project completion based on the Operating Room Need Methodology in the 2019 SMFP. Novant proposes to add one OR to its health system as part of this project.

The following table illustrates the need for additional ORs for the entire Novant health system.

Novant Health OR Need			
	Deficits / (Surpluses)		
	1st Full FY CY 2024	**2nd Full FY CY 2025**	**3rd Full FY CY 2026**
NH Matthews	0.59	0.76	1.03
NH Presbyterian	0.90	2.04	3.26
NH Huntersville	0.77	1.08	1.41
NH Mint Hill	(2.99)	(2.95)	(2.90)
NH Ballantyne	(0.29)	(0.10)	(0.06)
NH Huntersville OPS	1.08	1.24	1.42
SouthPark	3.79	4.25	4.73
Matthews Surgery Center	0.37	0.42	0.47
Total Deficit/(Surplus)	**4.22**	**6.74**	**9.36**

Sources: Section C, pages 23-26; Form C Assumptions and Methodology subsection of Section Q

As shown in the table above, the Novant health system has a projected deficit of 9.36 ORs at the end of CY 2026. Novant proposes to add one OR to NH Matthews in this review. The proposal meets the standard promulgated in 10A NCAC 14C .2103(a), which requires an applicant proposing to add new ORs to a service area to demonstrate the need for all the existing, approved, and proposed ORs in a health system in the third full fiscal year following project completion based on the Operating Room Need Methodology in the 2019 SMFP. Projected utilization is reasonable and adequately supported based on the following analysis:

- There is a need determination in the 2019 SMFP for six ORs in the Mecklenburg County OR planning area.
- The applicant relies on its historical utilization in projecting future utilization.
- The applicant still demonstrates the need for the proposed OR even without projecting growth in its outpatient surgical cases.
- The applicant's projected utilization meets the performance standard promulgated in 10A NCAC 14C .2013(a).

Access – In Section C, page 41, the applicant states:

> *"NH makes services accessible to indigent patients without regard to ability to pay. NH Matthews provides services to all persons regardless of race, sex, age, religion, creed, disability, national origin, or ability to pay."*

In Section L, page 83, the applicant projects the following payor mix for the proposed services during the third full fiscal year of operation following project completion, as shown in the table below.

NH Matthews Projected Payor Mix
Third Full OY (CY 2026)

Payor Source	Total Facility	ORs
Self-Pay	1.37%	0.75%
Charity Care	5.21%	2.12%
Medicare*	44.75%	39.12%
Medicaid*	7.48%	4.98%
Insurance*	38.07%	49.32%
Worker's Comp.	0.33%	0.48%
TRICARE	0.90%	1.22%
Other**	1.89%	2.01%
Total	**100.00%**	**100.00%**

*Including any managed care plans
**Includes other government, institutional, and other unspecified payors.

The projected payor mix is reasonable and adequately supported.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application
- Information publicly available during the review and used by the Agency

Based on that review, the Agency concludes that the application is conforming to this criterion for the following reasons:

- The applicant adequately identifies the population to be served.

- The applicant adequately explains why the population to be served needs the services proposed in this application.

- Projected utilization is reasonable and adequately supported.

- The applicant projects the extent to which all residents, including underserved groups, will have access to the proposed services (payor mix) and adequately support its assumptions.

F-11808-19/Novant Health Matthews Medical Center/Develop 20 acute care beds

The applicant proposes to add 20 acute care beds to NH Matthews, its existing acute care hospital, for a total of 174 acute care beds upon project completion.

Novant submitted two applications in this review cycle for acute care beds and ORs at NH Matthews. The other application, Project I.D. #F-11807-19, proposes to add an additional OR to its existing facility for a total of seven shared ORs and two dedicated C-Section ORs upon project completion.

Patient Origin – On page 36, the 2019 SMFP defines the service area for acute care beds as *"the acute care bed planning area in which the bed is located. The acute care bed planning areas are the single and multicounty groupings shown in Figure 5.1."* Figure 5.1, on page 40, shows Mecklenburg County as its own acute care bed planning area. Thus, the service area for this facility is Mecklenburg County. Facilities may also serve residents of counties not included in their service area. The following tables illustrate current and projected patient origin.

NHMMC Current & Projected Patient Origin – Acute Care Beds								
County	Last FY (CY 2018)		FY 1 (CY 2024)		FY 2 (CY 2025)		FY 3 (CY 2026)	
	# Patients	% of Total	# Patients	% of Total	# Patients	% of Total	# Patients	% of Total
Mecklenburg	5,433	51.8%	5,789	51.8%	5,894	51.8%	6,056	51.8%
Union	3,755	35.8%	4,001	35.8%	4,073	35.8%	4,185	35.8%
Stanly	159	1.5%	168	1.5%	171	1.5%	175	1.5%
Cabarrus	157	1.5%	168	1.5%	171	1.5%	175	1.5%
Other Counties*	984	9.4%	1,051	9.4%	1,070	9.4%	1,099	9.4%
Total	**10,488**	**100.0%**	**11,176**	**100.0%**	**11,378**	**100.0%**	**11,691**	**100.0%**

Source: Section C, pages 23-24

*Other: Alexander, Anson, Ashe, Brunswick, Buncombe, Burke, Caldwell, Carteret, Catawba, Cherokee, Cleveland, Columbus, Cumberland, Davidson, Forsyth, Gaston, Greene, Guilford, Halifax, Harnett, Henderson, Hoke, Iredell, Lee, Lincoln, McDowell, Montgomery, Moore, Nash, New Hanover, Onslow, Orange, Pitt, Polk, Randolph, Richmond, Robeson, Rockingham, Rowan, Scotland, Stokes, Surry, Watauga, Wayne, Wilkes, and Wilson counties in North Carolina as well as other states.

In Section C, page 25, the applicant provides the assumptions and methodology used to project patient origin. The applicant's assumptions are reasonable and adequately supported.

Analysis of Need – In Section C, pages 25-47, the applicant explains why it believes the population projected to utilize the proposed services needs the proposed services, as summarized below:

- As part of its assumptions and methodology, the applicant calculated statistics by extrapolating actual historical data from October 1, 2018 through June 30, 2019 to obtain FFY 2019 annualized data.

- The growth of acute care days at Novant hospitals between FFY 2015-2019 annualized was higher than the average growth rate of acute care days for Mecklenburg County during the same time period. Acute care days at Novant hospitals grew 2.8 percent between FFY 2017 and FFY 2018. NH Mint Hill, an acute care hospital with 36 acute care beds, began offering services October 1, 2018. Despite adding 36 additional acute care beds to its Mecklenburg County inventory, acute care days at Novant hospitals in Mecklenburg County grew 11.4 percent between FFY 2018 and FFY 2019 annualized.

- The opening of NH Mint Hill has not affected acute care days at NH Matthews. The applicant states acute care days at NH Matthews increased by 6.4 percent since NH Mint Hill began offering services on October 1, 2018.

- Acute care days at NH Matthews are increasing due to increased clinical complexity of patients and surgical cases. The applicant provides data from Truven documenting the consistent increase in case complexity since FFY 2015. The applicant states NH Matthews is growing faster than any other Novant hospital in Mecklenburg County, and provides data from Truven showing its total acute care days and discharges increased by 26 percent and 23 percent, respectively, between FFY 2014-2019 annualized.

- Physician recruitment at NH Matthews has resulted in development of new clinical programs that treat more clinically complex patients, and the applicant states these changes have resulted in higher demand for related services.

- The applicant states that, despite restrictions at NH Matthews which limited the number of available acute care beds, acute care days at NH Matthews have increased. The applicant states necessary restrictions on acute care beds, such as intermediate care beds, pediatric beds, and obstetrics/gynecology beds, result in acute care beds that are not open to all patients. The applicant states it has between 20-30 observation patients each day, but no observation beds, so observation patients may occupy acute care beds.

- The applicant has taken steps to alleviate some of the capacity issues that exist at NH Matthews, such as the plan to develop a patient bed tower and develop observation beds, but the applicant states these steps do not increase the overall number of acute care beds.

- According to NC OSBM, the population of Mecklenburg County will grow 9.8 percent between 2019 and 2024, and the population of Union County will grow 11.1 percent between 2019 and 2024.

The information is reasonable and adequately supported for the following reasons:

- The applicant uses historical and demographic data to identify the population to be served, its projected growth, and the need the population proposed to be served has for the proposed services.

- There is a need determination for 76 acute care beds in Mecklenburg County in the 2019 SMFP. The applicant is applying to develop 20 acute care beds in Mecklenburg County in accordance with the acute care bed need determination in the 2019 SMFP.

Projected Utilization – On Form C in Section Q, the applicant provides projected utilization as illustrated in the following table.

NHHMC Projected Utilization – Acute Care Beds			
	FY 1 (CY 2024)	**FY 2 (CY 2025)**	**FY 3 (CY 2026)**
# of Beds	174	174	174
# of Patients	11,176	11,378	11,691
# of Acute Care Days	43,588	44,376	45,594

In the Form C Methodology and Assumptions subsection of Section Q, the applicant provides the assumptions and methodology used to project utilization, which are summarized below.

- The applicant assumed that when NH Mint Hill opened on October 1, 2018, a number of patients shifted from NH Matthews to NH Mint Hill. To identify these patients, the applicant began with FFY 2019 annualized discharges from NH Matthews and excluded discharges that required higher acuity care than NH Mint Hill could provide, along with discharges for lines of service not offered at NH Mint Hill. The applicant refers to the remaining subset of patients as “Limited Acute Care Discharges.” The applicant reviewed

the area of patient origin for NH Mint Hill, identified the number of Limited Acute Care Discharges seen at NH Matthews in FFY 2018 and FFY 2019 annualized, and calculated how many of the Limited Acute Care Discharges shifted to NH Mint Hill by subtracting NH Matthews' FFY 2018 Limited Acute Care Discharges from FFY 2019 annualized Limited Acute Care Discharges.

- The applicant calculated the Limited Acute Care Discharges' ALOS for medical/surgical discharges and obstetrics discharges. The applicant then applied the corresponding ALOS to the number of Limited Acute Care Discharges that had shifted from NH Matthews to NH Mint Hill to obtain the number of acute care days that had shifted.

- To project future acute care bed utilization at NH Matthews along with future shifts of acute care days to NH Mint Hill from NH Matthews, the applicant added the acute care days for Limited Acute Care Discharges that had shifted to NH Mint Hill back to NH Matthews. The applicant states it projected growth of overall acute care days and would shift acute care days back to NH Mint Hill later in the projections.

- The applicant projected the combined total acute care days would grow at the Mecklenburg County Growth Rate Multiplier (CGRM) for the last five reporting periods, which corresponds to the Mecklenburg CGRM of 2.78 percent (or 1.0278) as published in the 2020 SMFP. The applicant states use of this growth rate is reasonable because most of NH Matthews' recent historical CAGRs for both discharges and acute care days are higher than 2.78 percent and the average growth rate of Novant system acute care days between FFY 2015 and FFY 2019 annualized is 3.56 percent, a higher growth rate than the applicant uses to project growth for NH Matthews.

- To project NH Matthews' adjusted acute care days and the number of acute care days projected to shift to NH Mint Hill, the applicant assumed the same number of acute care days from NH Mint Hill that it added back to NH Matthews would be shifted back for FFY 2019. The applicant states that, consistent with its projections in Project I.D. #F-7648-06 (develop NH Mint Hill), it projected the acute care days shifting to NH Mint Hill would grow by 24 percent from FFY 2019 to FFY 2020 and by 20 percent from FFY 2020 to FFY 2021. The applicant projected acute care days shifting from NH Matthews to NH Mint Hill beginning in FFY 2021 would increase at the Mecklenburg County Growth Rate Multiplier of 2.78 percent.

- After subtracting the acute care days projected to shift to NH Mint Hill, the applicant converted FFY acute care days to CY acute care days by using the following formula: CY 2018 = [(FFY 2018 / 4) X 3] + (FFY 2019 / 4)

- The applicant subtracted days projected to shift to NH Ballantyne as part of revised projections from Project I.D. #F-11625-18, then used its FFY 2019 annualized ALOS for NH Matthews to calculate its discharges and ADC through CY 2026. Please see Section Q for the details of the applicant's revisions to projections it used in Project I.D. #F-11625-18.

The table below summarizes the assumptions and methodology used by the applicant to project utilization of acute care beds at NH Matthews.

NH Matthews Projected Acute Care Bed Utilization									
	2019*	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**
NH Matthews FFY 2019* Days	40,383								
Days Shifted to NH Mint Hill	1,658								
Baseline FFY Days and Growth (2.78%)	42,041	43,210	44,411	45,646	46,915	48,219	49,559	50,937	52,353
Days to Shift to NH Mint Hill	1,658	2,054	2,466	2,535	2,605	2,677	2,751	2,827	2,906
FFY Days after Shift to NH Mint Hill	40,383	41,156	41,945	43,111	44,310	45,542	46,808	48,110	49,447
Conversion to CY Days	40,576	41,353	42,237	43,411	44,618	45,859	47,134	48,444	
Days to Shift to NH Ballantyne	--	--	--	--	-1,812	-2,271	-2,758	-2,850	
Adjusted CY Acute Care Days	40,576	41,353	42,237	43,411	42,806	43,588	44,376	45,594	
Discharges based on FFY 2019 ALOS	10,404	10,603	10,830	11,131	10,976	11,176	11,378	11,691	
ADC	111.2	113.0	115.7	118.9	117.3	119.1	121.6	124.9	
Beds Needed**	155.7	158.2	162.0	166.5	164.2	166.7	170.2	174.9	
Additional Beds Needed based on 154 beds	**1.7**	**4.2**	**8.0**	**12.5**	**10.2**	**12.7**	**16.2**	**20.9**	

Source: Form C Assumptions and Methodology subsection of Section Q
*FFY 2019 annualized based on October 2018 – June 2019 data.
**Based on 2019 SMFP Chapter 5 Target Occupancy Factor of 1.4.

Novant Health System

The Novant health system in Mecklenburg County consists of NH Matthews, NH Huntersville, NH Presbyterian, NH Mint Hill, and the approved NH Ballantyne. Pursuant to 10A NCAC 14C .3803(a), an applicant proposing to add new acute care beds to a service area must reasonably project that all acute care beds in the service area under common ownership will have a utilization of at least 75.2 percent when the projected ADC is greater than 200 patients.

In Section C, pages 54-56, the applicant projects the combined acute care bed utilization for the entire health system as summarized below:

- Begin with each hospital's FFY 2019 annualized acute care days and apply the same updated Mecklenburg CGRM of 2.78 percent it used to project growth at NH Matthews.

- Convert FFY acute care days to CY acute care days by using the following formula: CY 2018 = [(FFY 2018 / 4) X 3] + (FFY 2019 / 4)

- Calculate CY 2026 utilization based on adding 20 acute care beds to NH Matthews.

The applicant's projections are summarized in the table below.

Novant Health Projected Acute Care Bed Utilization						
	NHPMC	NHMMC	NHHMC	NHMHMC	NHBMC	NH System
FFY 2019 Annualized* Acute Care Days	139,540	40,383	26,472	6,363	0	212,758
Mecklenburg County Growth Rate Multiplier	1.0278	1.0278	1.0278	1.0278	1.0278	1.0278
FFY 2026 Acute Care Days	169,067	48,928	32,074	7,709	0	257,778
FFY 2027 Acute Care Days	173,767	50,288	32,965	7,924	0	264,944
CY 2026 Acute Care Days	170,242	49,268	32,297	7,763	0	259,570
CY 2026 Projected ADC						711
CY 2026 Projected Acute Care Beds						894
CY 2026 NH System Projected Occupancy						79.5%

Source: Section C, pages 54-56
*FFY 2019 annualized based on October 2018 – June 2019 data.

As shown in the table above, in the third operating year following project completion, the applicant projects the average occupancy rate for all acute care beds owned by the applicant in Mecklenburg County will be 79.5 percent. This meets the standard promulgated in 10A NCAC 14C .3803(a), which requires an applicant proposing to add new acute care beds to a service area to reasonably project that all acute care beds in the service area under common ownership will have a utilization of at least 75.2 percent when the projected ADC is greater than 200 patients.

Projected utilization is reasonable and adequately supported based on the following analysis:

- To project utilization at NH Matthews, the applicant uses a growth rate that is lower than most of its recent historical growth.

- To project utilization for the entire Novant health system, the applicant uses a growth rate that is lower than its recent historical system-wide growth.

- The Project Analyst reviewed the 2020 LRAs for each of the facilities in the Novant system, which were available to the Agency during this review, and the actual FFY 2019 number of acute care days for each hospital in the system is higher than the applicant's FFY 2019 annualized acute care days on which it based its utilization projections.

- As part of Project I.D. #F-11625-18, the applicant projected growth in acute care days that would shift to NH Ballantyne; however, the applicant meets the required performance standard even without relying on any projected growth at NH Ballantyne.

Access – In Section C, page 51, the applicant states:

> *"NH makes services accessible to indigent patients without regard to ability to pay. NH Matthews provides services to all persons regardless of race, sex, age, religion, creed, disability, national origin, or ability to pay."*

In Section L, page 87, the applicant projects the following payor mix during the third full fiscal year of operation following project completion, as illustrated in the following table.

NH Matthews Projected Payor Mix Third Full OY (CY 2026)		
Payor Source	**Total Facility**	**Acute Care Beds**
Self-Pay	1.37%	1.26%
Charity Care	5.21%	3.85%
Medicare*	44.75%	53.76%
Medicaid*	7.48%	7.37%
Insurance*	38.07%	31.67%
Worker's Comp.	0.33%	0.13%
TRICARE	0.90%	0.80%
Other**	1.89%	1.16%
Total	**100.00%**	**100.00%**

*Including any managed care plans
**Includes other government, institutional, and other unspecified payors.

The projected payor mix is reasonable and adequately supported.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application
- Information publicly available during the review and used by the Agency

Based on that review, the Agency concludes that the application is conforming to this criterion for the following reasons:

- The applicant adequately identifies the population to be served.

- The applicant adequately explains why the population to be served needs the services proposed in this application.

- Projected utilization is reasonable and adequately supported.

- The applicant projects the extent to which all residents, including underserved groups, will have access to the proposed services (payor mix) and adequately support its assumptions.

F-11810-19/Atrium Health Lake Norman/Develop a new satellite hospital campus with 30 acute care beds and 2 ORs

The applicant proposes to develop AH Lake Norman, a new satellite hospital campus to be licensed under AH University City, by developing 30 acute care beds and two ORs pursuant to need determinations in the 2019 SMFP.

This application is one of six filed in the same review cycle for acute care beds and ORs by Atrium. On February 7, 2018, The Charlotte-Mecklenburg Hospital Authority, which owns and operates the facilities involved in these six applications, announced that it was changing its name and would do business as Atrium Health. There are six facilities relevant to this review

that are part of the Atrium health system in Mecklenburg County. The following table identifies these facilities, the current name, and effective date of the change.

ATRIUM HEALTH ACUTE CARE HOSPITALS – MECKLENBURG COUNTY		
Previous Name	**Current Name**	**Effective Date of Change**
Carolinas Medical Center	Carolinas Medical Center	NA (will not change)
Carolinas Medical Center – Mercy	Atrium Health Mercy	August 1, 2019
Carolinas HealthCare System Union	Atrium Health Union	January 1, 2019
Carolinas HealthCare System Pineville	Atrium Health Pineville	January 1, 2019
Carolinas HealthCare System University	Atrium Health University City	December 1, 2019
Carolinas HealthCare System Huntersville	Atrium Health Huntersville Surgery	December 1, 2019

In Section C, pages 29-32, the applicant proposes to offer the following new services at the proposed facility:

- 30 acute care beds pursuant to the need determination in the 2019 SMFP for Mecklenburg County
- Eight non-licensed observation beds
- Emergency Department (ED) with 10 treatment rooms
- Two shared ORs
- One dedicated C-Section OR
- One procedure room
- Imaging services, including the following:
  - One fixed CT scanner
  - Fluoroscopy
  - Nuclear medicine
  - Ultrasound
  - General radiography
  - Mobile X-ray unit
  - Mobile C-arm
  - Mobile MRI pad/contracted mobile MRI services
- Ancillary and support services

Patient Origin – The 2019 SMFP defines the service area for acute care bed services and ORs as the planning area in which the acute care beds and ORs are located. Thus, the service area for the acute care beds and ORs is Mecklenburg County. Facilities may also serve residents of counties not included in their service area.

In Section C, page 41, and in the Form C Utilization – Methodology and Assumptions subsection of Section Q, the applicant defines its primary area of patient origin (PSA) and its secondary area of patient origin (SSA) by ZIP code, as shown in the table below.

AH-LN Projected Area of Patient Origin	
	ZIP Codes
Primary Patient Origin (PSA)	28031, 28035, 28036, 28070, 28078, 28115, 28117, and 28123
Secondary Patient Origin (SSA)	28216 and 28269

AH Lake Norman is not an existing hospital or campus and thus has no historical patient origin.

The following tables illustrate projected patient origin for the first three full fiscal years (FYs) following project completion.

AH-LN Projected Patient Origin – Entire Facility						
County	FY 1 (CY 2023)		FY 2 (CY 2024)		FY 3 (CY 2025)	
	# Patients	% of Total	# Patients	% of Total	# Patients	% of Total
Mecklenburg	6,898	93.9%	10,577	93.9%	14,362	93.9%
Iredell	451	6.1%	691	6.1%	940	6.1%
Total	**7,349**	**100.0%**	**11,247**	**100.0%**	**15,302**	**100.0%**

Source: Section C, page 34

AH-LN Projected Patient Origin – Acute Care Beds						
County	FY 1 (CY 2023)		FY 2 (CY 2024)		FY 3 (CY 2025)	
	# Patients	% of Total	# Patients	% of Total	# Patients	% of Total
Mecklenburg	947	91.8%	1,448	91.8%	1,969	91.8%
Iredell	84	8.2%	129	8.2%	175	8.2%
Total	**1,031**	**100.0%**	**1,577**	**100.0%**	**2,144**	**100.0%**

Source: Section C, page 33

AH-LN Projected Patient Origin – Shared ORs						
County	FY 1 (CY 2023)		FY 2 (CY 2024)		FY 3 (CY 2025)	
	# Patients	% of Total	# Patients	% of Total	# Patients	% of Total
Mecklenburg	692	85.5%	1,060	85.5%	1,442	85.5%
Iredell	118	14.5%	180	14.5%	245	14.5%
Total	**810**	**100.0%**	**1,240**	**100.0%**	**1,687**	**100.0%**

Source: Section C, page 33

AH-LN Projected Patient Origin – C-Section OR						
County	FY 1 (CY 2023)		FY 2 (CY 2024)		FY 3 (CY 2025)	
	# Patients	% of Total	# Patients	% of Total	# Patients	% of Total
Mecklenburg	86	91.8%	132	91.8%	180	91.8%
Iredell	8	8.2%	12	8.2%	16	8.2%
Total	**94**	**100.0%**	**144**	**100.0%**	**196**	**100.0%**

Source: Section C, page 34

AH-LN Projected Patient Origin – Procedure Room						
County	FY 1 (CY 2023)		FY 2 (CY 2024)		FY 3 (CY 2025)	
	# Patients	% of Total	# Patients	% of Total	# Patients	% of Total
Mecklenburg	539	85.5%	824	85.5%	1,122	85.5%
Iredell	92	14.5%	140	14.5%	191	14.5%
Total	**630**	**100.0%**	**965**	**100.0%**	**1,312**	**100.0%**

Source: Section C, page 34

AH-LN Projected Patient Origin – Emergency Department						
County	FY 1 (CY 2023)		FY 2 (CY 2024)		FY 3 (CY 2025)	
	# Patients	% of Total	# Patients	% of Total	# Patients	% of Total
Mecklenburg	4,633	96.9%	7,093	96.9%	9,651	96.9%
Iredell	150	3.1%	230	3.1%	313	3.1%
Total	**4,784**	**100.0%**	**7,322**	**100.0%**	**9,963**	**100.0%**

Source: Section C, page 34

In Section C, page 36, the applicant states:

> *"For simplicity, projected patient origin for the entire campus of Atrium Health Lake Norman is based on the sum of the projected number of patients by county of origin for each identified service above. Atrium Health recognizes that this sum includes some duplication of patients as a single patient may utilize any number of the services proposed.*
>
> *Projected patient origin for imaging and other ancillary and support services is assumed to be consistent with the patient origin for the entire campus and is not provided separately."*

In Section C, pages 35-36, and in the Form C Utilization – Methodology and Assumptions subsection of Section Q, the applicant provides the assumptions and methodology used to project patient origin. The applicant's assumptions are reasonable and adequately supported.

Analysis of Need – Atrium submitted six applications in response to the Acute Care Bed and OR Need Determinations in the 2019 SMFP. Atrium proposes to develop AH Lake Norman, with 30 acute care beds and two ORs (Project I.D. #F-11810-19); to add 16 acute care beds to AH University City (Project I.D. #F-11812-19); to add 12 acute care beds and two ORs to AH Pineville (Project I.D. #s F-11813-19 and F-11814-19, respectively); and to add 18 acute care beds and two ORs to CMC (Project I.D #s F-11811-19 and F-11815-19, respectively). In Section C, pages 49-63, 65-70, and 73-80, the applicant discusses the need for all of Atrium's acute care bed and OR proposals. In a competitive review, every application is first evaluated independently, as if there are no other applications in the review, to determine whether the application is conforming to all statutory and regulatory review criteria. Therefore, the discussion in this section focuses only on the need as it relates to AH Lake Norman.

In Section C, pages 54 and 62, Atrium states the need for 76 acute care beds and six ORs, respectively, in Mecklenburg County was generated entirely by Atrium facilities. However, anyone may apply to meet the need, not just Atrium. Atrium has the burden of demonstrating the need for the proposed acute care beds and ORs in its applications as submitted.

In Section C, pages 37-49, 63-65, and 70-73, the applicant explains why it believes the population projected to utilize the proposed services needs the proposed services, as summarized below:

- As part of its assumptions and methodology, the applicant extrapolated actual historical data from January – July 2019 to obtain CY 2019 annualized data.

- According to ESRI and the North Carolina Office of State Budget and Management (NC OSBM), the population of the PSA is projected to grow by 2.2 percent between 2019 and 2024, and the population of the SSA is projected to grow by 1.6 percent between 2019 and 2024. The applicant states the population of the combined areas is projected to grow two percent between 2019 and 2024, while the total population of Mecklenburg County is projected to grow 1.9 percent between 2019 and 2024.

- Public roadway projects planned or in progress due to the population growth of the area will make it easier for patients to access AH Lake Norman.

- Atrium has numerous medical facilities and practices in the Lake Norman area, including multiple physician practices, a skilled nursing facility, an approved ASF, an imaging center, a GI endoscopy ASF, and a satellite ED.

- Atrium hospitals served an average of 121 patients per day from the PSA and SSA in 2018, and the number of patients from the PSA and SSA receiving inpatient services from an Atrium hospital in Mecklenburg County and surrounding counties has increased over the last several years.

- In FFY 2018, 15 percent of Iredell County residents received acute care services in Mecklenburg County; development of AH Lake Norman will offer Iredell County patients who have historically used Atrium facilities an option closer to where they live.

- Surgical volumes in Mecklenburg County have grown at higher rates than the state average. Outpatient surgical cases in Mecklenburg County are increasing more quickly than inpatient surgical cases. While the number of outpatient cases performed at ASFs have higher growth rates than outpatient cases performed at hospitals, the difference isn't significant, and the increase in the number of outpatient cases performed at hospitals is more than double the increase in the number of outpatient cases performed at ASFs.

- According to ESRI, the population of the area served by Mecklenburg County facilities – the NC counties in HSA III along with three counties in South Carolina adjacent to the NC border – are projected to grow by an average of 8.7 percent between 2019 and 2024.

However, the information is not reasonable and adequately supported based on the following analysis:

- On pages 46-47, the applicant states:

> *"…, a significant number of residents of the Lake Norman area, 121 each day in 2018, …, bypass Novant Health Huntersville Medical Center for care at an Atrium Health facility. The proposed facility will better serve those Atrium Health patients at Atrium Health Lake Norman as appropriate.*
>
> *The impetus for the proposed project is to locate Atrium Health inpatient services closer to patients in the Lake Norman area that have historically accessed existing Atrium Health hospitals in Mecklenburg County, …"*

Public comments received during the public comment period noted that Atrium appeared to include patients receiving care at Atrium hospitals in other counties, not just patients receiving care at Atrium hospitals in Mecklenburg County. Atrium's response to the public comments acknowledges that the 121 patients cited includes patients from Atrium hospitals outside of Mecklenburg County. The public comments also stated Atrium provided no information to demonstrate any of the 121 patients would be AH Lake Norman-appropriate patients. The applicant states a table provided in Section Q of its application identifies the number of AH Lake Norman-appropriate patients by PSA and SSA. Atrium's response also states that because the 121 patients it discusses in Section C (and Sections E, G, and Q) are not the basis of the utilization projections, there are no problems with its use of the 121 patients in this regard.

The table in Section Q that identifies the number of AH Lake Norman-appropriate patients originating from Mecklenburg County identifies acute care days representing 56 patients – less than half of the 121 patients that supposedly "bypass" NH Huntersville for care at Atrium hospitals in Mecklenburg County. The applicant is correct that, regarding utilization projections, there is no issue with the statement about the 121 Atrium patients; however, the applicant uses that statement repeatedly as a basis to demonstrate the need for the proposed project. If that number isn't accurate or is misleading, that calls into question one of the main reasons cited by the applicant to demonstrate the need for the proposed project.

The applicant does not explain what it means when it says patients "bypass" other facilities, including NH Huntersville; absent that information, the Project Analyst inferred that patients drive past NH Huntersville to access an Atrium hospital in Mecklenburg County. NH Huntersville is located further north in Mecklenburg County than any Atrium hospital. AH University City is the Atrium hospital furthest north in Mecklenburg County, in northeastern Charlotte; CMC and AH Mercy are located near the center of Charlotte and AH Pineville is located close to the state line with South Carolina. The entirety of the SSA is south of NH Huntersville; while AH University is east of the SSA, approximately half of the SSA is south of AH University City's latitude. While geography is not the only measure of distance that is relevant to the location of a proposed facility, the applicant provides no information to suggest patients from the SSA are driving north to the area of NH Huntersville and then driving further south to choose an Atrium hospital in Mecklenburg County, or that traveling that way is faster than driving directly to an Atrium hospital. Even if the Project Analyst interprets "bypass" to mean that NH Huntersville is closer to a patient than an Atrium hospital and the patient chooses to travel to access an Atrium hospital that is further away than NH Huntersville, that still excludes most, if not all, of the SSA.

NH Huntersville is south of almost the entirety of the PSA; it is reasonable to say that patients from the PSA "bypass" NH Huntersville to seek care at an Atrium hospital in Mecklenburg County. In Section C, page 47, the applicant states the number of acute care days it provided to residents of the PSA and SSA at Atrium hospitals. Approximately three quarters of the acute care days are provided to residents of the SSA, which significantly decreases the number of patients that "bypass" NH Huntersville.

In Section C, page 47, the applicant states:

> *"The proposed hospital will have 30 beds, which is only 25 percent of the beds needed to support the PSA/SSA residents that occupied 121 Atrium Health acute care beds in 2018. In addition, as demonstrated in Form C Methodology and Assumptions, Atrium Health projects Atrium Health Lake Norman to have an ADC of 22 patients by the third year of operation, 2025, which said another way means that 22 patients per day will not have to travel from the Lake Norman area to access Atrium Health hospital-based services."*

However, the applicant admitted in its response to comments that the 121 patients it so often cites are not only not all going to Atrium hospitals in Mecklenburg County, but not all needed care that could be provided at the proposed AH Lake Norman. According to the table cited by the applicant in Section Q, approximately three quarters of the acute care days for AH Lake Norman-appropriate patients come from the SSA. Even before the applicant makes assumptions about what percentage of patients from the PSA will be served at AH Lake Norman, the number of AH Lake Norman-appropriate patients originating from the PSA, based on the number of acute care days, is 13.

The applicant states that the proposed AH Lake Norman is needed so residents of the Lake Norman area that have historically traveled to Atrium hospitals for care can have access to an Atrium hospital closer to their homes. However, the applicant does not provide support for numerous statements, including how many patients actually bypassed NH Huntersville to seek care at an Atrium hospital further away, that patients from the SSA are going to be closer to AH Lake Norman than other Atrium hospitals, and how many patients from the PSA and SSA chose care at Atrium hospitals in Mecklenburg County and who would also be appropriate for treatment at AH Lake Norman. Further, the applicant provides no support for the statement that AH Lake Norman-appropriate patients from the SSA would quite literally drive past NH Huntersville, roughly 5-7 miles away on almost the same road as the proposed AH Lake Norman, to seek care at an Atrium hospital which would provide a lower level of care than NH Huntersville (as an example of the differing levels of care, according to NH Huntersville's 2020 LRA, it provides cardiac catheterization, or invasive cardiology services; on page 3 of the Form C Methodology and Assumptions subsection of Section Q, the applicant states patients needing invasive cardiology services are excluded as not AH Lake Norman-appropriate). Without reasonable and adequate support for its assumptions, that further calls into question the need for the proposed project.

Further, the applicant states part of the need for the proposed project is the growth of the population from the PSA and SSA choosing to receive care at Atrium hospitals in Mecklenburg County. On page 47, the applicant states that the number of residents in the PSA and SSA receiving inpatient care at Atrium hospitals in Mecklenburg County was growing at a 2-year CAGR of 3.5 percent. However, in the Form C Methodology and Assumptions subsection of Section Q, along with the applicant's response to comments submitted during the public comment period, the applicant states that the number of residents in the PSA and SSA receiving inpatient services at Atrium hospitals in Mecklenburg County and who were also clinically appropriate to receive services at the proposed AH Lake Norman is 56, not 121. The applicant provides no information about

the growth rate of the clinically appropriate PSA and SSA residents receiving inpatient services at Atrium hospitals in Mecklenburg County. Since the 2-year CAGR of 3.5 percent cited by the applicant as part of demonstrating need includes patients who utilize Atrium facilities outside of Mecklenburg County and patients who are not clinically appropriate to receive inpatient services at AH Lake Norman, use of that growth rate to demonstrate need for AH Lake Norman is not reasonable or adequately supported.

- The applicant states on page 49 that AH Lake Norman will reduce travel time for Iredell County patients who have historically accessed Atrium hospitals in Mecklenburg County, and states FFY 2018 patient origin reports show 15 percent of Iredell County patients received acute care services that were provided in Mecklenburg County. However, FFY 2018 patient origin reports show that of the 2,447 Iredell County patients who were served by Mecklenburg County hospitals, 77 patients, or 3.15 percent of all Iredell County patients, were served by AH University City, the closest Atrium hospital in Mecklenburg County from any location in Iredell County. The applicant provides no information in the application as submitted to substantiate that any Iredell County patients served at its facilities were part of the group of AH Lake Norman-appropriate acute care days. The applicant also does not explain in the application as submitted why Iredell County patients who historically accessed care at CMC (941, or 38.46 percent) or AH Pineville (20, or 0.82 percent) would seek care in the future at an Atrium hospital with fewer services than AH University City when they had historically bypassed AH University City for care at Atrium hospitals with more services.

Projected Utilization – On Form C in Section Q, the applicant provides projected utilization as illustrated in the following tables.

AH-LN Projected Utilization – Acute Care and Observation Beds			
	FY 1 (CY 2023)	**FY 2 (CY 2024)**	**FY 3 (CY 2025)**
Medical/Surgical Beds			
# of Beds	20	20	20
# of Days	2,677	4,093	5,563
Obstetrics Beds			
# of Beds	6	6	6
# of Days	805	1,231	1,674
ICU Beds			
# of Beds	4	4	4
# of Days	333	509	692
Total Acute Care Beds			
# of Beds	30	30	30
# of Patients	1,031	1,577	2,144
# of Acute Care Days	3,814	5,833	7,930
Observation Beds			
# of Beds	8	8	8
# of Days	393	601	816
ALOS*	1.39	1.39	1.39

*ALOS = Average Length of Stay

AH-LN Projected Utilization – Surgical Services			
	FY 1 (CY 2023)	**FY 2 (CY 2024)**	**FY 3 (CY 2025)**
Operating Rooms			
Dedicated C-Section ORs	1	1	1
Shared ORs	2	2	2
Total # of ORs	3	3	3
Excluded # of ORs	1	1	1
Total # of ORs – Planning Inventory	2	2	2
Surgical Cases			
# of C-Sections in Dedicated OR	94	144	196
# of Inpatient Cases (1)	145	222	302
# of Outpatient Cases	665	1,018	1,385
Total # Surgical Cases (1)	810	1,240	1,687
Case Times			
Inpatient (2)	112.6	112.6	112.6
Outpatient (2)	74.1	74.1	74.1
Surgical Hours			
Inpatient (3)	272	416	567
Outpatient (4)	821	1,257	1,710
Total Surgical Hours	1,093	1,673	2,277
# of ORs Needed			
Group Assignment (5)	4	4	4
Standard Hours per OR per Year (6)	1,500	1,500	1,500
ORs Needed (total hours / 1,500)	0.7	1.1	1.5
Procedure Rooms			
# of Rooms	1	1	1
# of Procedures	630	965	1,312

(1) Excluding C-Sections performed in a dedicated C-Section OR
(2) From Section C, Question 9(c)
(3) [Inpatient Cases (exclude C-Sections performed in dedicated C-Section ORs) x Inpatient Case Time in minutes] / 60 minutes
(4) (Outpatient Cases x Outpatient Case Time in minutes) / 60 minutes
(5) From Section C, Question 9(a)
(6) From Section C, Question 9(b)

AH-LN Projected Utilization – Laboratory, Therapies, & Diagnostic			
	FY 1 (CY 2023)	**FY 2 (CY 2024)**	**FY 3 (CY 2025)**
Laboratory	51,804	79,232	107,720
Therapy (all)	460	704	957
CT Scanner			
# of Units	1	1	1
# of Scans	3,503	5,358	7,284
# of HECT Units	5,655	8,650	11,760
MRI Scanner (mobile)			
# of Units	1	1	1
# of Procedures	291	445	605
# of Weighted Procedures	402	615	836
Fixed X-ray (including fluoroscopy)			
# of Units	2	2	2
# of Procedures	6,455	9,873	13,423
Ultrasound			
# of Units	1	1	1
# of Procedures	2,413	3,691	5,018
Nuclear Medicine			
# of Units	1	1	1
# of Procedures	234	358	487
Emergency Department			
# of Treatment Rooms/Beds	10	10	10
# of Visits	4,784	7,322	9,963

In the Form C Utilization – Methodology and Assumptions subsection of Section Q, the applicant provides the assumptions and methodology used to project utilization, which are summarized below.

Projected Acute Care Bed Utilization

- The applicant identified its primary and secondary areas of patient origin (PSA/SSA) and identified a subset of acute care days from the PSA and SSA served at Atrium hospitals in Mecklenburg County in CY 2018 and which were appropriate to be served at AH Lake Norman.

- The applicant assumed 80 percent of the acute care days from the PSA and 20 percent of the acute care days from the SSA would transfer and be served at AH Lake Norman. The applicant also assumed the number of acute care days would grow at the 5-year CAGR for the projected population growth in the PSA and SSA.

- The applicant assumed there would be a ramp-up period for AH Lake Norman's utilization – in CY 2023, 50 percent of acute care days would shift to AH Lake Norman from other Atrium facilities; in CY 2024, 75 percent of acute care days would shift; and in CY 2025, 100 percent of acute care days would shift. The applicant states it used the CY 2018 ALOS for AH Lake Norman-appropriate patients from the PSA and SSA to determine the total number of patient discharges.

- The applicant projected the number of acute care days that would shift from existing Atrium hospitals by determining the percentage of acute care from the PSA and SSA that were served at each Atrium hospital in CY 2018 and applying that to projected acute care days during the first three full fiscal years of operation.

- The applicant calculated its projected obstetrics bed utilization by obtaining the ratio of obstetrics days to total acute care days in CY 2018 for the AH Lake Norman-appropriate acute care days from the PSA and SSA and applied the ratio to the projected number of acute care days at AH Lake Norman.

- The applicant calculated its projected ICU bed utilization by subtracting the projected obstetrics days from the total acute care days; calculating the ratio of ICU days to medical/surgical days at AH University City during CY 2018; and applying that ratio to the remaining acute care days in the PSA and SSA.

- The applicant calculated its projected observation bed utilization by calculating the ratio of observation days to total acute care days at AH University City during CY 2018 and applying the ratio to the total acute care days. The applicant assumed the ALOS for observation beds would be consistent with the CY 2018 historical experience at AH University City and used the ALOS to calculate the projected number of observation patients.

The tables below summarize the characteristics of the PSA and SSA as well as the projected number of acute care days at AH Lake Norman during the first three full fiscal years following project completion.

Characteristics of PSA/SSA Used in Methodology						
	Appropriate days CY 2018	% to Shift to AHLN	CY 2018 Patient Base	Population Growth %	ALOS	% Obstetrics Days
PSA	4,671	80%	3,737	2.21%	3.56	24.7%
SSA	15,948	20%	3,190	1.65%	3.88	16.7%

Source: Section Q, Form C Methodology and Assumptions

AH-LN – Projected Acute Care Bed Utilization			
	CY 2023	CY 2024	CY 2025
PSA Potential Days of Care (1)	4,168	4,260	4,354
SSA Potential Days of Care (1)	3,461	3,518	3,576
Ramp-up	50%	75%	100%
PSA Total Days of Care	2,084	3,195	4,354
SSA Total Days of Care	1,730	2,638	3,576
Total Days of Care	3,814	5,833	7,930
Average Daily Census (ADC) (2)	10	16	22
# of Beds	30	30	30
% Occupancy	34.8%	53.3%	72.4%
PSA Discharges (ALOS = 3.56) (3)	585	897	1,222
SSA Discharges (ALOS = 3.88) (3)	446	680	922
Total Discharges	1,031	1,577	2,144
PSA Obstetrics Days (4)	515	790	1,076
SSA Obstetrics Days (4)	290	442	598
Total Obstetrics Days	805	1,231	1,674
Combined ICU/Med Surg Days (5)	3,010	4,602	6,255
ICU Days AH-UC CY 2018 Ratio	11.1%	11.1%	11.1%
ICU Days	333	509	692
Med Surg Days (6)	2,677	4,093	5,563
Ratio of Observation Days to Total Days	0.14	0.14	0.14
Total Observation Days	544	832	1,131
Observation Patients (ALOS = 1.39)	393	601	816

Source: Section Q, Form C Methodology and Assumptions
(1) CY 2018 Patient Base X Population Growth Rate through CY 2025
(2) ADC = Days of Care / 365 (366) days per year
(3) Days of Care / ALOS
(4) Total Days of Care X % Obstetrics Days
(5) Total Days of Care – Total Obstetrics Days
(6) Combined ICU/Med Surg Days – ICU Days

Atrium Health System

The Atrium health system in Mecklenburg County consists of CMC (including AH Mercy), AH Pineville, and AH University City, including its proposed satellite hospital campus, AH Lake Norman. Pursuant to 10A NCAC 14C .3803(a), an applicant proposing to add new acute care beds to a service area must reasonably project that all acute care beds in the service area under common ownership will have a utilization of at least 75.2 percent when the projected ADC is greater than 200 patients.

In Exhibit C.4-1, the applicant provides the assumptions and methodology used to project acute care bed utilization for all other hospitals in its health system in Mecklenburg County. The assumptions and methodology are summarized below.

Since 2013, Atrium applications involving acute care bed utilization projections have included assumptions and methodology projecting shifts in acute care days between hospitals in both Mecklenburg County and surrounding counties. The applicant states it will project shifts in acute care days between hospitals in Mecklenburg County and in surrounding counties consistent with previously approved applications.

- Determine historical utilization and projected growth rate by hospital – the applicant calculated the 3-year CAGR for each hospital, based on CY 2016-2019 annualized utilization. The applicant projects acute care days at each hospital will grow at one-half the rate of the 3-year CAGR.

- Project acute care days through CY 2025 prior to any shifts – the applicant applied the projected growth rate and projected utilization at each hospital through CY 2025. The applicant states it has historically projected acute care days will shift to other facilities and states it will continue to project shifts in acute care days through CY 2025.

- Project shift of acute care days to Piedmont Fort Mill Medical Center – beginning with applications in 2013, the applicant projected a shift in acute care days to Piedmont Fort Mill Medical Center in South Carolina. The applicant had applied to develop the hospital and was involved in protracted litigation to develop the hospital which was ultimately unsuccessful. The applicant states that, since previous applications assumed Atrium would be developing the hospital in South Carolina instead of a different entity, it adjusts the previous projections accordingly. The applicant states patients admitted to Piedmont Fort Mill Medical Center through the ED may be more likely to continue their care at Piedmont Fort Mill Medical Center, and for each Atrium hospital, it calculated the ratio of CY 2018 acute care days from patients who were admitted through the ED to the total acute care days. The applicant then applies the ratio to the total number of acute care days it previously projected to shift from each Atrium hospital to Piedmont Fort Mill Medical Center.

- Project shift of acute care days to AH Union – the applicant states it used the assumptions and methodology from previously approved applications (Project I.D. #s F-11618-18 and F-11622-18) to project the number of acute care days projected to shift from Atrium hospitals in Mecklenburg County to AH Union.

- Project shift of acute care days to AH Lake Norman – the applicant calculated the number of acute care days projected to shift from Atrium facilities in Mecklenburg County to AH Lake Norman. The applicant determined the ratio of AH Lake Norman-appropriate acute care days that would transfer from each Atrium hospital. For each hospital, the applicant divided the CY 2018 number of AH Lake Norman-appropriate acute care days served at that hospital by the total number of AH Lake Norman-appropriate acute care days for CY 2018. The applicant then applied those ratios to projected utilization in the first three full fiscal years following project completion. The ratios and the number of acute care days that will transfer from each hospital in each of the first three full fiscal years provided by the applicant in the Form C Utilization – Methodology and Assumptions subsection of Section Q are shown in the table below.

Current and Projected Appropriate Days of Care for AH-LN by Facility and Percentage					
	CY 2018 Days	**% of Area**	**CY 2023**	**CY 2024**	**CY 2025**
PSA					
Atrium Health Pineville	121	2.6%	54	83	113
Atrium Health University City	1,297	27.8%	579	887	1,209
CMC	2,656	56.9%	1,185	1,817	2,476
Atrium Health Mercy	597	12.8%	266	408	557
PSA Total	**4,671**	**100.0%**	**2,084**	**3,195**	**4,354**
SSA					
Atrium Health Pineville	300	1.9%	33	50	67
Atrium Health University City	4,704	29.5%	510	778	1,055
CMC	7,501	47.0%	814	1,241	1,682
Atrium Health Mercy	3,443	21.6%	374	570	772
SSA Total	**15,948**	**100.0%**	**1,730**	**2,638**	**3,576**
Combined Total					
Atrium Health Pineville	421	--	87	132	180
Atrium Health University City	6,001	--	1,089	1,665	2,264
CMC	10,157	--	1,999	3,058	4,158
Atrium Health Mercy	4,040	--	640	978	1,328
Total	**20,619**	**--**	**3,814**	**5,833**	**7,930**

Source: Section Q, Form C Methodology and Assumptions

- Subtract shifts in acute care days from each Atrium hospital to determine projected utilization of acute care beds through CY 2025 – the applicant subtracted the number of acute care days projected to shift to different hospitals from each of the Atrium hospitals in Mecklenburg County through CY 2025 to obtain the projected acute care days at each facility.

The table below summarizes the applicant's assumptions and methodology used to calculate the number of acute care days projected to shift from each Atrium hospital in Mecklenburg County and each hospital's projected acute care days through CY 2025.

Summary of Projected Shifts in Acute Care Days									
	3-year CAGR	Projected Growth %	CY 2019 Annualized	CY 2020	CY 2021	CY 2022	CY 2023 (FY 1)	CY 2024 (FY 2)	CY 2025 (FY 3)
AH Lake Norman									
Acute Care Days	--	--	--	--	--	--	3,814	5,833	7,930
AH Pineville									
Acute Care Days	5.63%	2.81%	71,997	74,022	76,104	78,244	80,445	82,708	85,034
Projected Shifts			--	-528	-806	-1,639	-7,168	-7,910	-8,193
Adjusted Acute Care Days			--	73,494	75,298	76,605	73,278	74,753	76,841
AH University City									
Acute Care Days	7.11%	3.55%	27,660	28,643	29,661	30,715	31,806	32,937	34,107
Projected Shifts				-25	-39	-79	-1,252	-1,858	-2,461
Adjusted Acute Care Days				28,618	29,622	30,636	30,555	31,078	31,646
Carolinas Medical Center*									
Acute Care Days	2.03%	1.01%	281,338	284,190	287,070	289,980	292,919	295,888	298,887
Projected Shifts				-4,171	-4,834	-6,824	-12,502	-15,069	-16,352
Adjusted Acute Care Days				280,019	282,237	283,156	280,416	280,820	282,536
AH Mercy**									
Acute Care Days	5.39%	2.69%	45,572	46,800	48,060	49,355	50,684	52,049	53,451
Projected Shifts				2,618	2,463	2,000	375	-318	-714
Adjusted Acute Care Days				49,417	50,523	51,354	51,059	51,732	52,737

Sources: Section Q, Form C Methodology and Assumptions; Exhibit C.4-1

*Carolinas Medical Center's license includes AH Mercy as a satellite campus. The campuses are displayed separately because the applicant calculated growth rates separately for each campus.

**Even though the two campuses are on the same license, the applicant projected a shift in acute care days from Carolinas Medical Center to AH Mercy in previous applications, which is why AH Mercy appears to gain acute care days through CY 2023.

Atrium Health System Summary – The following table illustrates projected utilization for acute care beds at all Atrium hospitals in Mecklenburg County.

Mecklenburg County - Atrium Projected Total Acute Care Bed Utilization			
	FY 1 (CY 2023)	FY 2 (CY 2024)	FY 3 (CY 2025)
Atrium Health Lake Norman	3,814	5,833	7,930
Atrium Health Pineville	73,278	74,753	76,841
Atrium Health University City	30,555	31,078	31,646
Carolinas Medical Center	280,416	280,820	282,536
Atrium Health Mercy	51,059	51,732	52,737
Projected Total Acute Care Bed Days	439,123	444,216	451,689
Average Daily Census (ADC)	1,203	1,214	1,238
Total # of Beds	1,490	1,490	1,490
Occupancy %	81.2%	80.7%	83.1%

Sources: Section Q, Form C Methodology and Assumptions; Exhibit C.4-1

As shown in the table above, in the third operating year following project completion, the applicant projects the average utilization for all acute care beds owned by the applicant in Mecklenburg County will be 83.1 percent. This meets the performance standard promulgated in 10A NCAC 14C .3803(a), which requires an applicant proposing to add new acute care beds to a service area to reasonably project that all acute care beds in the service area under common

ownership will have a utilization of at least 75.2 percent when the projected ADC is greater than 200 patients.

Projected Acute Care Bed Utilization – Obstetrics Beds

The applicant states that, in CY 2018, 24.7 of AH Lake Norman-appropriate acute care days from the PSA and 16.7 percent of AH Lake Norman-appropriate acute care days from the SSA were obstetrics days. The applicant assumed the experience at AH Lake Norman would be consistent with the historical experience of AH Lake Norman-appropriate acute care days, as shown in the table below.

AH Lake Norman Projected Obstetrics Days			
	FY 1 (CY 2023)	FY 2 (CY 2024)	FY 3 (CY 2025)
PSA Total Acute Care Days	2,084	3,195	4,354
PSA % of Obstetrics Days	24.7%	24.7%	24.7%
PSA Obstetrics Days	515	790	1,076
SSA Total Acute Care Days	1,730	2,638	3,576
SSA % of Obstetrics Days	16.7%	16.7%	16.7%
SSA Obstetrics Days	290	442	598
Total Obstetrics Days	805	1,231	1,674

Source: Section Q, Form C Methodology and Assumptions

Projected Acute Care Bed Utilization – ICU Beds

The applicant states it subtracted its obstetric days from its total acute care days to determine the combined number of medical/surgical and ICU days at AH Lake Norman. The applicant states that, in CY 2018, 11.1 percent of AH University City's combined medical/surgical and ICU days were strictly ICU days. The applicant assumed the experience at AH Lake Norman would be consistent with its historical experience at AH University City, as shown in the table below.

AH Lake Norman Projected ICU Days			
	FY 1 (CY 2023)	FY 2 (CY 2024)	FY 3 (CY 2025)
Total Acute Care Days	3,814	5,833	7,930
Obstetrics Days	805	1,231	1,674
Combined Medical/Surgical & ICU Days	3,010	4,602	6,255
ICU % of Combined Days	11.1%	11.1%	11.1%
ICU Days	333	509	692
Medical/Surgical Days	2,677	4,093	5,563

Source: Section Q, Form C Methodology and Assumptions

Projected Acute Care Bed Utilization – Observation Beds

The applicant states that, in CY 2018, AH University City provided a ratio of 0.14 observation days to acute care days, and in CY 2018 the AH University City observation patients had an ALOS of 1.39 days. The applicant assumed the experience at AH Lake Norman would be consistent with its historical experience at AH University City, as shown in the table below.

AH Lake Norman Projected Observation Bed Utilization			
	FY 1 (CY 2023)	FY 2 (CY 2024)	FY 3 (CY 2025)
Total Acute Care Days	3,814	5,833	7,930
Ratio of Observation Days	0.14	0.14	0.14
Observation Days	544	832	1,131
Observation ALOS	1.39	1.39	1.39
Observation Patients	393	601	816

Source: Section Q, Form C Methodology and Assumptions

However, projected utilization of acute care beds is not reasonable and adequately supported based on the following analysis:

- The applicant does not provide information in the application as submitted to demonstrate it is reasonable to assume patients who have historically accessed Atrium hospitals in Mecklenburg County will now access AH Lake Norman simply because they live in the area of patient origin.

  The Agency recognizes that patient choice is an important element of providing access to healthcare. However, many services such as inpatient care and inpatient surgery provided at hospitals, and in most cases a majority of those services provided, are the result of inpatient admissions through the ED as opposed to pure patient choice. In publicly available information (Section Q of Project I.D. #F-11811-19), the applicant provides the following table to show the percentage of total inpatient admissions originating through the ED:

CY 2018 Ratio of ED Admissions to Total Admissions (Project I.D. #F-11811-19)	
AH Pineville	66.7%
AH University City	65.1%
CMC	43.5%
AH Mercy	69.7%

Source: Atrium Health internal data

  While it is possible for a patient to decide which ED to access, ED admissions happen at all hours of day and night. The applicant provides no information in the application as submitted to show that patients who have addresses located more closely to AH Lake Norman than to other hospitals will automatically choose AH Lake Norman for emergency treatment at any hour of the day, regardless of where they work or where they may be in an emergency. Further, while the applicant identifies a subset of AH Lake Norman-appropriate ED patients as part of its ED utilization projections, the applicant provides no information in the application as submitted to explain how patients will now know their acuity level is appropriate for AH Lake Norman and they will choose to utilize the AH Lake Norman ED (and hospital) instead of larger hospital EDs that patients have typically accessed.

- On page 1 of the Form C Utilization – Methodology and Assumptions subsection of Section Q, the applicant states its utilization methodology, approach, and assumptions are consistent with the approved application for Atrium Health Union West (Project I.D. #F-11618-18), a 40-bed satellite hospital campus in Union County. That application proposed

to relocate existing acute care beds and ORs from AH Union to develop a satellite hospital campus. The only two similarities between the two applications, however, is that both involve a satellite hospital campus and the same applicant. Comments received during the public comment period note differences between Union County and Mecklenburg County with regard to the two applications. The Project Analyst summarized some of these differences in the table below.

Comparison of Mecklenburg and Union counties and applications		
Category	**Union County (F-11618-18)**	**Mecklenburg County (F-11810-19)**
Type of Project	Develop a satellite hospital campus by relocating existing acute care beds/ORs	Develop a satellite hospital campus with new acute care beds and new ORs
Total Population*	235,908	1,093,901
Number of Hospitals	1 existing	7 existing, 1 proposed
Number of Acute Care Beds	182 existing; 0 approved	2,224 existing; 50 approved
Number of Owners of Hospitals with Acute Care Beds	Atrium Health (1)	Atrium Health (3) Novant Health (4; 1 approved)
Number of ORs**	9 existing ORs; 1 approved	155 existing; 6 approved
Number of ASFs	2	11
Number of Owners of Hospitals with ORs**	Atrium Health (1)	Atrium Health (3) Novant Health (4; 1 approved)
Number of Owners of ASFs with ORs	Atrium Health (1) Novant Health (1)	Atrium Health (0; 1 approved) Novant Health (4) Charlotte Surgery Center (2) University Surgery Center (1) Valleygate Dental Surgery Center of Charlotte (1) Metrolina Vascular Access Care (1)

Unless otherwise noted, all information obtained from the 2020 SMFP
*Source: https://factfinder.census.gov/; accessed February 24, 2020
**Excludes dedicated C-Section ORs and dedicated trauma ORs

In its responses to the public comments, Atrium stated:

> *"It is not clear…* [how any differences] *between Atrium Health Union West and Atrium Health Lake Norman have a relationship to the application of the same methodology and approach to demonstrate need for Atrium Health Lake Norman. Atrium Health Union West is a recently approved CON application to develop a hospital of similar size as Atrium Health Lake Norman, to be licensed as part of an existing Atrium Health hospital similar to Atrium Health Lake Norman, in the Charlotte metropolitan area like Atrium Health Lake Norman. Given these similarities, Atrium Health provided a utilization methodology for Atrium Health Lake Norman that was consistent with the approach used in the Atrium Health Union West application. However, the specific number, type, patient origin, payor mix, demographic mix, etc. of the patients projected to be served at Atrium Health Lake Norman are based on patients Atrium Health projects to serve at that facility and not based on Atrium Health Union West."*

However, in comments provided to the Agency on December 3, 2007, in response to an application filed by Novant to develop a new hospital by relocating 50 existing acute care beds (Project I.D. #F-7994-07), Atrium argued that similarities in previously approved

community hospital applications submitted by Novant were not similar enough to rely upon with regard to components of need for the proposed services. Specifically, Atrium noted differences in population size and number of existing facilities in an area as reasons why it was not reasonable for Novant to rely on previously approved applications for community hospitals.

Further, while the "specific number, type, patient origin, payor mix, demographic mix, etc." of the patients proposed to be served at AH Lake Norman are based on Atrium patients in Mecklenburg County, the applicant relies on its historical experience at AH University City for many parts of its projections, as it did in Project I.D. #F-11618-18. The applicant provides no information in the application as submitted to explain why it is reasonable to use an approach consistent with that of Project I.D. #F-11618-18 with the numerous differences in the two projects, as highlighted in the table above. The applicant provides no other information in the application as submitted regarding why this approach is reasonable and adequately supported.

- The applicant projects acute care days for AH Lake Norman will grow at an annual rate of 2.21 percent for acute care days originating from the PSA and at an annual rate of 1.65 percent for acute care days originating from the SSA, consistent with ESRI population growth projections. On page 5 of the Form C Utilization – Methodology and Assumptions subsection of Section Q, the applicant states the following regarding its projected growth rates:

  > *"Atrium Health believes these projected growth rates are reasonable given that the historical growth in Atrium Health Lake Norman appropriate days of care served by Atrium Health Mecklenburg County hospitals has been 3.5 percent."*

  However, Atrium's statement is inaccurate. The 3.5 percent growth rate Atrium references refers to the growth of all PSA and SSA patients served at Atrium hospitals, both inside and outside of Mecklenburg County, and which includes patients who are not clinically appropriate for care at AH Lake Norman.

Projected Operating Room Utilization (excluding dedicated C-Section ORs)

The applicant states that, in CY 2018, out of the total AH Lake Norman-appropriate acute care discharges identified by the applicant, 17.2 percent of discharges from the PSA and 9.9 percent of discharges from the SSA were surgical discharges (excluding C-Section discharges). The applicant assumes 17.2 percent of the projected discharges from the PSA and 9.9 percent of the discharges from the SSA will be surgical discharges and equivalent to one inpatient surgical case. The applicant next calculated the CY 2018 ratio of outpatient to inpatient cases at AH University City and assumed the experience at AH Lake Norman would be consistent with its historical experience at AH University City. The applicant then applied the AH University City final inpatient and outpatient case times published in the 2019 SMFP to the number of projected inpatient and outpatient cases at AH Lake Norman to obtain the projected number of surgical hours in CYs 2023-2025. The table below summarizes the assumptions and methodology used by the applicant.

AH-LN Projected Surgical Cases/Hours (excluding C-Sections)			
	FY 1 (CY 2023)	**FY 2 (CY 2024)**	**FY 3 (CY 2025)**
PSA Discharges	585	897	1,222
PSA % Surgical Discharges	17.2%	17.2%	17.2%
PSA Inpatient Cases	101	155	211
SSA Discharges	446	680	922
SSA % Surgical Discharges	9.9%	9.9%	9.9%
SSA Inpatient Cases	44	67	91
Total Inpatient Cases	145	222	302
Ratio of OP Cases to IP Cases	4.59	4.59	4.59
Total Outpatient Cases	665	1,018	1,385
AH-UC Final IP Case Time (1)	112.6	112.6	112.6
AH-UC Final OP Case Time (1)	74.1	74.1	74.1
Total Surgical Hours (2)	**1,093**	**1,673**	**2,277**
Average Annual Operating Hours – Group 4 (3)	1,500	1,500	1,500
Number of ORs Needed (4)	0.73	1.12	1.52
Number of Existing/Approved ORs	0	0	0
(Surplus) / Deficit	**0.73**	**1.12**	**1.52**

Source: Section Q, Form C Methodology and Assumptions
(1) The Final Case Time in minutes for the facility in the 2019 SMFP.
(2) Total Hours equals Surgical Cases multiplied by the Average Case Time, then divided by 60.
(3) From Table 6B in the 2019 SMFP.
(4) # of ORs Needed equals Surgical Hours divided by the Standard Hours per OR per Year.

As shown in the table above, using the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP, the applicant projects a need for 1.52 ORs, which would be rounded to two ORs, by the end of the third full fiscal year (CY 2025).

The applicant projected the number of surgical cases that would shift from existing Atrium hospitals by applying the CY 2018 percentage of acute care days from the PSA and SSA shifting from existing Atrium hospitals to projected inpatient and outpatient surgical cases at AH Lake Norman.

Atrium Health System

The Atrium health system in Mecklenburg County consists of Atrium Health Huntersville (AH Huntersville), Carolina Center for Specialty Surgery (CCSS), CMC (including AH Mercy), AH Pineville, and AH University City, along with the proposed AH Lake Norman. Pursuant to 10A NCAC 14C .2103(a), the applicant must demonstrate the need for all existing, approved, and proposed ORs in the health system at the end of the third full fiscal year following project completion, using the Operating Room Need Methodology in the 2019 SMFP.

In Exhibit C.4-2, the applicant provides the assumptions and methodology used to project utilization at all other facilities in its health system in Mecklenburg County. The assumptions and methodology are summarized below.

Since 2015, Atrium applications involving OR utilization projections have included assumptions and methodology projecting shifts in surgical cases between facilities in both Mecklenburg County and surrounding counties. The applicant states it will project shifts in surgical cases between facilities in Mecklenburg County and in surrounding counties consistent with previously approved applications.

- Determine historical utilization by facility – The applicant calculated 3-year (CY 2015-2018) and 4-year (CY 2015-2019 annualized) CAGRs for inpatient and outpatient surgical cases at each facility.

- Project surgical cases through CY 2025 prior to any shifts – for each facility except AH Pineville, the applicant applied an annual growth rate of 1.99 percent to both inpatient and outpatient surgical cases and projected utilization at each facility through CY 2025. The applicant states it chose a 1.99 percent annual growth rate because it was the annual equivalent of the Growth Factor for Mecklenburg County in Chapter 6 of the 2019 SMFP. (The Project Analyst determined this to be true – please see the Working Papers for analysis.) The applicant states it used the CY 2015-2018 CAGR for inpatient and outpatient surgical cases at AH Pineville to project future utilization because AH Pineville utilization has historically grown faster than utilization at other Atrium facilities and is seeing more complex (and therefore longer) surgical cases. The applicant states it has historically projected surgical cases will shift to other facilities, due to planned efforts to alleviate capacity, and states it will continue to project shifts in surgical cases through CY 2025.

- Project shift of surgical cases to Piedmont Fort Mill Medical Center – beginning with applications in 2015, the applicant projected a shift in surgical cases to Piedmont Fort Mill Medical Center in South Carolina. The applicant had applied to develop the hospital and was involved in protracted litigation to develop the hospital which was ultimately unsuccessful. The applicant states that, since previous applications assumed Atrium would be developing the hospital in South Carolina instead of a different entity, it adjusts the previous projections accordingly. The applicant states patients admitted to Piedmont Fort Mill Medical Center through the ED may be more likely to continue their care at Piedmont Fort Mill Medical Center, and for each Atrium hospital, it calculated the ratio of CY 2018 surgical patients who were admitted through the ED to the total number of acute care admissions. The applicant then applies the ratio to the total number of surgical cases it previously projected to shift from each Atrium facility to Piedmont Fort Mill Medical Center.

- Project shift of surgical cases to AH Union – the applicant states it used the assumptions and methodology used in previously approved applications (Project I.D. #s F-11618-18, F-11619-18, F-11620-18, and F-11621-18) to determine the number of surgical cases projected to shift care from Atrium facilities in Mecklenburg County to AH Union. The applicant states that when previous applications did not project shifts through the end of CY 2025, it used a 1.75 percent growth rate, consistent with Project I.D. #F-11618-18, to project growth in the number of surgical cases projected to shift from Atrium facilities in Mecklenburg County to AH Union through CY 2025.

- Project shift of surgical cases to AH Lake Norman – in the Form C Utilization – Methodology and Assumptions subsection of Section Q, the applicant calculated the number of surgical cases projected to shift from Atrium facilities in Mecklenburg County to AH Lake Norman. The applicant states the inpatient and outpatient cases to be performed at AH Lake Norman are projected to shift from existing Atrium hospitals in Mecklenburg County, based on the CY 2018 acute care days ratio described previously, and projects the number of cases that will shift to AH Lake Norman from each Atrium hospital in Mecklenburg County.

- Project shift of surgical cases to Charlotte Surgery Center – Westover Campus and Charlotte Surgery Center – Museum Campus – the applicant states it used assumptions and methodology consistent with Project I.D. # F-11106-15 (develop Randolph Surgery Center, now known as Charlotte Surgery Center – Wendover Campus, or CSC-W) to determine the number of surgical cases projected to shift from Atrium facilities in Mecklenburg County to CSC-W and Charlotte Surgery Center – Museum Campus (CSC-M), with some modifications. The applicant states that, due to changes in utilization patterns and delays in the development of CSC-W, it projects 75 percent of the surgical cases previously projected to shift from Atrium facilities in Mecklenburg County in Project I.D. #F-11106-15 will shift to CSC-W and CSC-M. The applicant states that, since Project I.D. #F-11106-15 only projected utilization through CY 2022, it used the population growth factor from the 2019 SMFP (1.99 percent) to project growth in the number of surgical cases projected to shift to from Atrium facilities in Mecklenburg County to CSC-W and CSC-M through CY 2025.

- Subtract shifts in surgical cases from each Atrium facility to determine projected OR utilization through CY 2025 – the applicant subtracted the number of surgical cases projected to shift to different facilities from each of the Atrium facilities in Mecklenburg County through CY 2025 to obtain projected utilization at each Atrium facility.

A brief summary of the assumptions, methodology, and projected utilization for each Atrium facility follows below.

Atrium Health Pineville - The applicant projects growth for inpatient surgical cases at a 7.1 percent CAGR and projects growth for outpatient surgical cases using a 2.6 percent CAGR. The CAGRs are the actual CY 2015-2018 historical CAGRs. Then the applicant makes assumptions about shifts of surgical cases to other facilities in Mecklenburg County, Union County, and South Carolina. The following table illustrates projected OR utilization at AH Pineville.

AH Pineville Projected OR Utilization							
	CY 2019*	**CY 2020**	**CY 2021**	**CY 2022**	**CY 2023**	**CY 2024**	**CY 2025**
Baseline Inpatient Cases	3,470	3,715	3,978	4,259	4,560	4,882	5,227
Baseline Outpatient Cases	4,130	4,239	4,351	4,466	4,583	4,704	4,829
Inpatient Cases Shifting to Other Facilities	--	-29	-45	-91	-253	-293	-301
Outpatient Cases Shifting to Other Facilities	--	-36	-55	-111	-167	-216	-228
Total Inpatient Cases	3,470	3,686	3,933	4,168	4,306	4,590	4,926
Total Outpatient Cases	4,130	4,203	4,296	4,354	4,417	4,488	4,600
Final Inpatient Case Time (1)	174.0	174.0	174.0	174.0	174.0	174.0	174.0
Final Outpatient Case Time (1)	101.6	101.6	101.6	101.6	101.6	101.6	101.6
Total Surgical Hours (2)	**17,056**	**17,806**	**18,681**	**19,460**	**19,967**	**20,910**	**22,076**
Average Annual Operating Hours – Group 3 (3)	1,755	1,755	1,755	1,755	1,755	1,755	1,755
Number of ORs Needed (4)	9.72	10.15	10.64	11.09	11.38	11.91	12.58
Number of Existing/Approved ORs	10	11	11	11	11	11	11
(Surplus) / Deficit	**(0.28)**	**(0.85)**	**(0.36)**	**0.09**	**0.38**	**0.91**	**1.58**

Sources: Section Q, Form C; Exhibit C.4-2
*Annualized based on January 2019-July 2019 data.
(1) The Final Case Time in minutes for the facility in the 2019 SMFP.
(2) Total Hours equals Surgical Cases multiplied by the Average Case Time, then divided by 60.
(3) From Table 6B in the 2019 SMFP.
(4) # of ORs Needed equals Surgical Hours divided by the Standard Hours per OR per Year.

As shown in the table above, using the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP, the applicant projects a deficit of 1.58 ORs at AH Pineville in the third OY. Atrium proposes to add two additional ORs at AH Pineville.

Atrium Health University City - There are two projects which were previously approved, but which are not yet developed as of the date of these findings which will impact the total number of ORs at AH University City:

- Project I.D. #F-11106-15/Charlotte Surgery Center – Westover Campus/Relocate three ORs from AH University City to CSC-W

- Project I.D. #F-11349-17/Atrium Health Huntersville Surgery/Separately license one OR currently on the hospital license

After the approved projects are complete, AH University City will have seven ORs.

The applicant projects growth for both inpatient and outpatient surgical cases using the 1.99 percent CAGR previously discussed. The CAGR used is higher than the historical inpatient CAGR (-2.5 percent) but lower than the historical outpatient CAGR (2.1 percent). Then the applicant makes assumptions about shifts of surgical cases to other facilities in Mecklenburg County, Union County, and South Carolina. The following table illustrates projected utilization at AH University City.

AH University City Projected OR Utilization							
	CY 2019*	**CY 2020**	**CY 2021**	**CY 2022**	**CY 2023**	**CY 2024**	**CY 2025**
Baseline Inpatient Cases	944	963	982	1,001	1,021	1,042	1,062
Baseline Outpatient Cases	4,916	5,014	5,114	5,216	5,320	5,425	5,533
Inpatient Cases Shifting to Other Facilities	--	-2	-3	-6	-50	-74	-96
Outpatient Cases Shifting to Other Facilities	--	-410	-462	-517	-717	-831	-945
Total Inpatient Cases	944	961	979	996	971	968	965
Total Outpatient Cases	4,916	4,604	4,652	4,699	4,602	4,595	4,588
Final Inpatient Case Time (1)	112.6	112.6	112.6	112.6	112.6	112.6	112.6
Final Outpatient Case Time (1)	74.1	74.1	74.1	74.1	74.1	74.1	74.1
Total Surgical Hours (2)	**7,843**	**7,489**	**7,582**	**7,671**	**7,506**	**7,491**	**7,478**
Average Annual Operating Hours – Group 4 (3)	1,500	1,500	1,500	1,500	1,500	1,500	1,500
Number of ORs Needed (4)	5.23	4.99	5.05	5.11	5.00	4.99	4.99
Number of Existing/Approved ORs	7	7	7	7	7	7	7
(Surplus) / Deficit	**(1.77)**	**(2.01)**	**(1.95)**	**(1.89)**	**(2.00)**	**(2.01)**	**(2.01)**

Sources: Section Q, Form C; Exhibit C-4.2
*Annualized based on January 2019-July 2019 data.
(1) The Final Case Time in minutes for the facility in the 2019 SMFP.
(2) Total Hours equals Surgical Cases multiplied by the Average Case Time, then divided by 60.
(3) From Table 6B in the 2019 SMFP.
(4) # of ORs Needed equals Surgical Hours divided by the Standard Hours per OR per Year.

As shown in the table above, using the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP, the applicant projects a surplus of 2.01 ORs at AH University City in the third full fiscal year following project completion. However, Atrium does not propose to add any additional ORs at AH University City as part of this review.

Carolinas Medical Center - The applicant projects growth for both inpatient and outpatient surgical cases using the 1.99 percent CAGR previously discussed. These CAGRs are not based on the historical CAGRs at CMC. Then the applicant makes assumptions about shifts of surgical cases to other facilities in Mecklenburg County, Union County, and South Carolina. The following table illustrates projected utilization at CMC. Please note that the Project Analyst combined the CMC and AH Mercy sections into a single section, because the facilities are licensed together; as such, there may be minor discrepancies between the numbers displayed in the table below and the information found in the application. These discrepancies are irrelevant and do not impact the outcome of these findings in any way.

CMC Projected OR Utilization							
	CY 2019*	**CY 2020**	**CY 2021**	**CY 2022**	**CY 2023**	**CY 2024**	**CY 2025**
Baseline Inpatient Cases	20,188	20,590	21,000	21,418	21,843	22,278	22,721
Baseline Outpatient Cases	21,681	22,113	22,552	23,001	23,459	23,925	24,401
Inpatient Cases Shifting to Other Facilities	--	-131	-200	-407	-780	-989	-1,060
Outpatient Cases Shifting to Other Facilities	--	-2,510	-2,932	-3,520	-4,214	-4,696	-5,026
Total Inpatient Cases	20,188	20,459	20,800	21,011	21,062	21,289	21,661
Total Outpatient Cases	21,681	19,602	19,620	19,481	19,245	19,229	19,375
Final Inpatient Case Time (1)	224.7	224.7	224.7	224.7	224.7	224.7	224.7
Final Outpatient Case Time (1)	134.0	134.0	134.0	134.0	134.0	134.0	134.0
Total Surgical Hours (2)	**124,025**	**120,399**	**121,714**	**122,194**	**121,861**	**122,672**	**124,391**
Average Annual Operating Hours – Group 2 (3)	1,950	1,950	1,950	1,950	1,950	1,950	1,950
Number of ORs Needed (4)	63.60	61.74	62.42	62.66	62.49	62.91	63.79
Number of Existing/Approved ORs	57	57	57	57	57	57	57
(Surplus) / Deficit	**6.60**	**4.74**	**5.42**	**5.66**	**5.49**	**5.91**	**6.79**

Sources: Section Q, Form C; Exhibit C.4-2

*Annualized based on January 2019-July 2019 data.

(1) The Final Case Time in minutes for the facility in the 2019 SMFP.

(2) Total Hours equals Surgical Cases multiplied by the Average Case Time, then divided by 60.

(3) From Table 6B in the 2019 SMFP.

(4) # of ORs Needed equals Surgical Hours divided by the Standard Hours per OR per Year.

As shown in the table above, using the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP, the applicant projects a deficit of 6.79 ORs on the CMC license in the third full fiscal year following project completion. Atrium proposes to add two additional ORs at CMC.

Atrium Health Huntersville Surgery – Currently, AH Huntersville is a separate building with one OR and one procedure room that is licensed as part of AH University City. In Project I.D. #F-11349-17, AH Huntersville was approved to become a separately licensed ASF with one OR. The development of the ASF will take place after the completion of CSC-W.

The applicant projects surgical cases using the 1.99 percent CAGR previously discussed. The CAGR is nearly the same as the facility's historical CAGR (2.0 percent). Then the applicant makes assumptions about shifts of surgical cases to other facilities in Mecklenburg County, Union County, and South Carolina.

On page 23, the applicant states it uses the 2018 LRA adjusted case time of 52.4 minutes in its projections since AH Huntersville is *"an existing facility with publicly reported historical case times."* While AH Huntersville is not considered an existing facility, this case time is lower than the corresponding case time for newly licensed ASFs in Group 6. The following table illustrates projected utilization at AH Huntersville.

AH Huntersville Projected OR Utilization							
	CY 2019*	**CY 2020**	**CY 2021**	**CY 2022**	**CY 2023**	**CY 2024**	**CY 2025**
Baseline Outpatient Cases	1,996	2,035	2,076	2,117	2,159	2,202	2,246
Outpatient Cases Shifting to Other Facilities	--	-434	-488	-542	-552	-563	-575
Total Outpatient Cases	1,996	1,601	1,588	1,575	1,607	1,639	1,671
Final Outpatient Case Time (1)	52.4	52.4	52.4	52.4	52.4	52.4	52.4
Total Surgical Hours (2)	**1,743**	**1,398**	**1,387**	**1,376**	**1,403**	**1,431**	**1,459**
Average Annual Operating Hours – Group 6 (3)	1,312	1,312	1,312	1,312	1,312	1,312	1,312
Number of ORs Needed (4)	1.33	1.07	1.06	1.05	1.07	1.09	1.11
Number of Existing/Approved ORs	1	1	1	1	1	1	1
(Surplus) / Deficit	**0.33**	**0.07**	**0.06**	**0.05**	**0.07**	**0.09**	**0.11**

Sources: Section Q, Form C; Exhibit C.4-2
*Annualized based on January 2019-July 2019 data.
(1) The Final Case Time in minutes for the facility in the 2019 SMFP.
(2) Total Hours equals Surgical Cases multiplied by the Average Case Time, then divided by 60.
(3) From Table 6B in the 2019 SMFP.
(4) # of ORs Needed equals Surgical Hours divided by the Standard Hours per OR per Year.

As shown in the table above, using the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP, the applicant projects a deficit of 0.11 ORs in the third full fiscal year following project completion. The applicant does not propose to add any additional ORs at AH Huntersville as part of this review.

Carolina Center for Specialty Surgery – The applicant projects surgical cases using the 1.99 percent CAGR previously discussed. The CAGR is lower than the facility's historical CAGR. Then the applicant makes assumptions about shifts of surgical cases to other facilities in Mecklenburg County, Union County, and South Carolina. The following table illustrates projected OR utilization at CCSS.

CCSS Projected OR Utilization							
	CY 2019*	**CY 2020**	**CY 2021**	**CY 2022**	**CY 2023**	**CY 2024**	**CY 2025**
Baseline Outpatient Cases	2,036	2,077	2,118	2,160	2,203	2,247	2,292
Outpatient Cases Shifting From CMC	--	112	169	225	225	225	225
Total Outpatient Cases	2,036	2,189	2,287	2,385	2,428	2,472	2,517
Final Outpatient Case Time (1)	85.0	85.0	85.0	85.0	85.0	85.0	85.0
Total Surgical Hours (2)	**2,884**	**3,102**	**3,240**	**3,379**	**3,440**	**3,502**	**3,566**
Average Annual Operating Hours – Group 6 (3)	1,312	1,312	1,312	1,312	1,312	1,312	1,312
Number of ORs Needed (4)	2.20	2.36	2.47	2.58	2.62	2.67	2.72
Number of Existing/Approved ORs	3	3	3	3	3	3	3
(Surplus) / Deficit	**(0.80)**	**(0.64)**	**(0.53)**	**(0.42)**	**(0.38)**	**(0.33)**	**(0.28)**

Sources: Section Q, Form C; Exhibit C.4-2
*Annualized based on January 2019-July 2019 data.
(1) The Final Case Time in minutes for the facility in the 2019 SMFP.
(2) Total Hours equals Surgical Cases multiplied by the Average Case Time, then divided by 60.
(3) From Table 6B in the 2019 SMFP.
(4) # of ORs Needed equals Surgical Hours divided by the Standard Hours per OR per Year.

As shown in the table above, using the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP, the applicant projects a surplus of 0.28 ORs in the third full fiscal year

following project completion. The applicant does not propose to add any additional ORs at CCSS as part of this review.

Atrium Health System Combined - To meet the performance standard promulgated in 10A NCAC 14C .2103(a) in effect at the time of the submission of this application, an applicant proposing to add new ORs to a facility in its service area must demonstrate the need for all existing, approved, and proposed ORs in the health system at the end of the third full fiscal year following project completion, using the Operating Room Need Methodology in the 2019 SMFP. Altogether, Atrium proposes to add six ORs to its system:

- Project I.D. #F-11810-19/Atrium Health Lake Norman/Develop two ORs
- Project I.D. #F-11814-19/ Atrium Health Pineville/Add two ORs
- Project I.D. #F-11815-19/Carolinas Medical Center/Add two ORs

The following table illustrates the projected OR surpluses and deficits for the entire health system.

Atrium Health OR Need			
	Deficits / (Surpluses)		
	1st Full FY CY 2023	**2nd Full FY CY 2024**	**3rd Full FY CY 2025**
AH Lake Norman	0.73	1.12	1.52
AH Pineville	0.38	0.91	1.58
AH University City	(2.00)	(2.01)	(2.01)
CMC	5.49	5.91	6.79
AH Huntersville Surgery Center	0.07	0.09	0.11
CCSS	(0.38)	(0.33)	(0.28)
Total Deficit/(Surplus)	**4.29**	**5.69**	**7.71**

Sources: Section Q, Form C; Exhibit C.4-2

As shown in the table above, the Atrium health system projects a deficit of 7.71 ORs by the end of CY 2025. Atrium proposes to add a total of six ORs in the three applications submitted in this review. This meets the standard promulgated in 10A NCAC 14C .2103(a), which requires an applicant proposing to add new ORs to a service area to demonstrate the need for all the existing, approved, and proposed ORs in a health system in the third full fiscal year following project completion based on the Operating Room Need Methodology in the 2019 SMFP.

Projected C-Section OR Utilization

The applicant states that, in CY 2018, 32 percent of AH University City's obstetrics discharges were the result of C-Sections. The applicant states that, in CY 2018, AH Lake Norman-appropriate obstetric patients in the PSA and SSA had an ALOS of 2.73 days. The applicant assumed the experience at AH Lake Norman would be consistent with its historical experience at AH University City and its historical experience with obstetrics patients in the PSA and SSA, as shown in the table below.

AH Lake Norman Projected C-Section OR Utilization			
	FY 1 (CY 2023)	FY 2 (CY 2024)	FY 3 (CY 2025)
Obstetrics Days	805	1,231	1,674
ALOS	2.73	2.73	2.73
Obstetrics Discharges	294	450	613
C-Section % of Discharges	32.0%	32.0%	32.0%
C-Section Cases	94	144	196

Source: Section Q, Form C Methodology and Assumptions

Projected Procedure Room Utilization

The applicant states that, in CY 2018, AH University City had a ratio of 0.78 procedures performed in procedure rooms to OR cases. The applicant assumed the experience at AH Lake Norman would be consistent with its historical experience at AH University City, as shown in the table below.

AH Lake Norman Projected Procedure Room Utilization			
	FY 1 (CY 2023)	FY 2 (CY 2024)	FY 3 (CY 2025)
OR Cases	810	1,240	1,687
Ratio of Procedures to OR Cases	0.78	0.78	0.78
Procedure Room Cases	630	965	1,312

Source: Section Q, Form C Methodology and Assumptions

However, projected utilization for ORs is not reasonable and adequately supported based on the following analysis:

- The applicant does not provide information in the application as submitted to demonstrate it is reasonable to assume patients who have historically accessed Atrium hospitals in Mecklenburg County will now access AH Lake Norman simply because they live in the area of patient origin.

  The Agency recognizes that patient choice is an important element of providing access to healthcare. However, many services such as inpatient care and inpatient surgery provided at hospitals, and in most cases a majority of those services provided, are the result of inpatient admissions through the ED as opposed to pure patient choice. In publicly available information (Section Q of Project I.D. #F-11811-19), the applicant provides the following table to show the percentage of total inpatient admissions originating through the ED:

CY 2018 Ratio of ED Admissions to Total Admissions (Project I.D. #F-11811-19)	
AH Pineville	66.7%
AH University City	65.1%
CMC	43.5%
AH Mercy	69.7%

Source: Atrium Health internal data

  While it is possible for a patient to decide which ED to access, ED admissions happen at all hours of day and night. The applicant provides no information in the application as

submitted to show that patients who have addresses located more closely to AH Lake Norman than to other hospitals will automatically choose AH Lake Norman for emergency treatment at any hour of the day, regardless of where they work or where they may be in an emergency. Further, while the applicant identifies a subset of AH Lake Norman-appropriate ED patients as part of its ED utilization projections, the applicant provides no information in the application as submitted to explain how patients will now know their acuity level is appropriate for AH Lake Norman and they will choose to utilize the AH Lake Norman ED (and hospital) instead of larger hospital EDs that patients have typically accessed.

- On page 1 of the Form C Utilization – Methodology and Assumptions subsection of Section Q, the applicant states its utilization methodology, approach, and assumptions are consistent with the approved application for Atrium Health Union West (Project I.D. #F-11618-18), a 40-bed satellite hospital campus in Union County. That application proposed to relocate existing acute care beds and ORs from AH Union to develop a satellite hospital campus. The only two similarities between the two applications, however, is that both involve a satellite hospital campus and the same applicant. Comments received during the public comment period note differences between Union County and Mecklenburg County with regard to the two applications. Please see the discussion about why use of methodology consistent with Project I.D. #F-11618-18 was not reasonable or adequately supported found under the discussion of projected utilization of acute care beds above.

- The applicant's projections for inpatient surgical case utilization at AH University City are not based on reasonable and adequately supported assumptions. The applicant's historical inpatient utilization at AH University City has a CY 2015-2019 annualized CAGR of -2.5 percent. The applicant cites several reasons to explain its overall decline in OR utilization system-wide, including capacity constraints, increasingly complex and higher acuity inpatient surgical cases, and the prior shift of outpatient surgical cases to area ASFs. However, the applicant provides no information in the application as submitted that would suggest shifts in outpatient surgical cases impact inpatient surgical cases.

  The 2019 SMFP shows that during FFY 2017, AH University City had 960 inpatient surgical cases and 6,423 outpatient surgical cases for a total of 9,731 surgical hours, based on the final inpatient and outpatient case times. Based on its adjusted inventory of seven ORs, this results in a deficit of 0.02 ORs. The 2020 SMFP shows that during FFY 2018, AH University City had 1,084 inpatient surgical cases and 6,745 outpatient surgical cases for a total of 10,865 surgical hours, based on the final inpatient and outpatient case times. Based on its adjusted inventory of seven ORs, this results in a deficit of 0.83 ORs.

  However, the numbers in the SMFP include outpatient cases performed at AH Huntersville, which is approved to become a freestanding ASF, but which is currently still licensed as part of AH University City. Because of how OR utilization is calculated in Chapter 6 of the SMFP, the one approved OR at AH Huntersville is not counted as part of AH University City's adjusted inventory, even though the cases in that OR are being performed under AH University City's license. Thus, the actual inventory of ORs is higher than is reflected in the SMFP. This calls into question whether the applicant's explanation for the recent decline in cases is reasonable and adequately supported.

The Project Analyst prepared two sets of calculations to demonstrate the actual utilization at AH University City and AH Huntersville. One set reflects the actual number of ORs on AH University City's license, and the other reflects what the numbers would show if AH Huntersville was counted separately. These tables do not show projected need; they show current capacity.

AH University City OR Need – including AH Huntersville OR									
Year	IP Cases	Final IP Case Time	OP Cases	Final OP Case Time	Total Hours	Group Hours	Total Need	Current ORs	(Surplus) /Deficit
FFY 2017	960	112.6	6,423	74.1	9,731	1,500	6.49	8	(1.51)
FFY 2018	1,084	123.9	6,745	76.7	10,865	1,500	7.24	8	(0.76)
FFY 2019	963	139.9	6,216	75.0	10,015	1,500	7.22	8	(0.78)

Source: AH University City's 2018, 2019, and 2020 LRAs

AH University City OR Need – without AH Huntersville OR									
Year	IP Cases	Final IP Case Time	OP Cases	Final OP Case Time	Total Hours	Group Hours	Total Need	Current ORs	(Surplus) /Deficit
FFY 2017	960	112.6	4,901	81	8,418	1,500	5.61	7	(1.39)
FFY 2018	1,084	123.9	4,877	83.7	9,042	1,500	6.03	7	(0.97)
FFY 2019	963	139.9	4,422	101.6	9,733	1,500	6.49	7	(0.51)
AH Huntersville									
FFY 2017	NA	NA	1,522	54.4	1,380	1,312	1.05	1	0.05
FFY 2018	NA	NA	1,868	69.8	2,173	1,312	1.66	1	0.66
FFY 2019	NA	NA	1,794	48.4	1,447	1,312	1.10	1	0.10

Source: AH University City's 2018, 2019, and 2020 LRAs

As shown in the tables above, there is currently existing capacity at AH University City. Additionally, the tables above use the applicant's reported inpatient and outpatient case times for FFY 2019 for both facilities and for FFY 2017 and 2018 for when the facilities are split out. If the rules for Final Inpatient and Outpatient Case Times in the Operating Room Need Methodology from Chapter 6 of the SMFP were strictly applied, in some cases the Final Case Times would be lower, resulting in more capacity.

The applicant uses a growth rate of 1.99 percent – equivalent to a single year's Growth Factor as published in the 2019 SMFP for Mecklenburg County – to project both inpatient and outpatient utilization at AH University City in future years. It is not reasonable or adequately supported to project future growth of inpatient surgical cases with historical declines in utilization that are not adequately explained.

Further, comments submitted during the public comment period note that Atrium's own projections show AH University City with a surplus of two ORs in the third full fiscal year following project completion. The public comments also note that Atrium's OR utilization projections for AH University City and AH Lake Norman combined result in a surplus of ORs on AH University City's license in the third full fiscal year following project completion – without any additional ORs being added to the license. The Project Analyst prepared the table below to show the combined totals.

AH University City License – First Three Full Fiscal Years (CYs 2023-2025)			
	CY 2023	**CY 2024**	**CY 2025**
AH-LN IP	145	222	302
AH-UC IP (after shifts)	971	968	966
AH-LN OP	665	1,018	1,385
AH-UC OP (after shifts)	4,602	4,594	4,588
Total IP	1,166	1,190	1,268
Total OP	5,267	5,612	5,973
IP Time	112.6	112.6	112.6
OP Time	74.1	74.1	74.1
Total Surgical Hours	8,600	9,164	9,757
OR Need (1,500 hours)	5.73	6.11	6.50
Existing ORs	7	7	7
Deficit/(Surplus)	**(1.27)**	**(0.89)**	**(0.50)**

Source: Section Q, Form C Methodology and Assumptions; Exhibit C.4-2

In the applicant's response to the comments submitted during the public comment period, the applicant states:

> *"Pursuant to the performance standards in the Criteria and Standards for Surgical Services and Operating Rooms at 10A NCAC 14C .2103, applicants must demonstrate the need for the number of proposed operating rooms in addition to the existing and approved operating rooms in the applicant's health system in the third full fiscal year. Pursuant to an amendment to these performance standards on December 1, 2018, the rules no longer require each individual facility to demonstrate the need for its proposed additional operating rooms. Thus, the rules recognize that overall system need must be demonstrated but that utilization may vary within the applicant's health system."* (emphasis in original)

While it is true that there is no longer a specific performance standard requiring an applicant to demonstrate the need for the number of existing, approved, and proposed ORs at each individual facility, all applicants must still demonstrate the need for the proposed services and demonstrate that projected utilization is based on reasonable and adequately supported assumptions. The requirement to demonstrate the need for the proposed services is found in N.C.G.S. §131E-183(3) and cannot be changed by administrative rule. Applicants no longer need to meet a specific performance standard at each facility as part of demonstrating the need for the proposed services, but applicants must still demonstrate a need for the proposed services. There are an infinite number of potential ways to demonstrate the need for proposed services; meeting a required performance standard may, in some situations, be one way to demonstrate need, but it is not the only way; nor does meeting a required performance standard mean the applicant has automatically demonstrated need.

The applicant does not adequately demonstrate in the application as submitted the need to add two additional ORs at a satellite campus on AH University City's license. The applicant's own projections for the AH University City adjusted OR inventory as it exists on the date of these findings show a surplus in the third full fiscal year following project

completion, including the projected surgical cases at the proposed AH Lake Norman. The applicant does not adequately demonstrate why it needs to add two additional ORs to its license while projecting a surplus of ORs on the license, even when including additional cases due to the proposed AH Lake Norman.

- Basing projections for inpatient and outpatient surgical services on the experience of AH University City is not reasonable or adequately supported. Atrium bases its projections for these services at AH Lake Norman on the experience of AH University City since AH Lake Norman will be licensed under AH University City. However, the applicant proposes to offer much lower acuity services at AH Lake Norman than at AH University City. The applicant does not provide any information in the application as submitted to explain why relying on historical use rates at AH University City is appropriate for AH Lake Norman projections, especially since the applicant specifically relies on statistics from AH Lake Norman-appropriate patients or acute care days in other places.

  Public comments received during the public comment period stated it was unreasonable for Atrium to rely on historical experience at AH University City to project surgical cases at AH Lake Norman because AH University City offers higher acuity levels of care and has more ORs than will AH Lake Norman. Atrium's response states, in part, that the utilization is supported by the numerous letters of support from surgeons. However, the letters of support from almost all physicians are form letters expressing general support for developing AH Lake Norman. While it is entirely permissible for an applicant to submit form letters signed by physicians to demonstrate support, it is not reasonable for an applicant to state that a form letter signed by a physician supports specific utilization projections, such as whether the number of projected surgical cases can be based upon historical experiences at an existing and higher acuity level hospital, without any language in that letter to suggest the physician was lending support to specific utilization projections.

Projected Emergency Department Utilization

To project ED utilization at AH Lake Norman, the applicant identified the number of Atrium Health ED visits for both the PSA and SSA in CY 2018. The applicant assumed that, like acute care days, 80 percent of ED visits from the PSA and 20 percent of ED visits from the SSA would potentially shift to AH Lake Norman, and the number of ED visits would increase from CY 2018 to CY 2025, the third full fiscal year following project completion, at the same projected growth rate as the population in the PSA (2.21 percent) and SSA (1.65 percent). The applicant states that, as part of Project I.D. #F-11658-19 (develop AH Mountain Island ED, a satellite ED to AH University City), it projected utilization at AH Mountain Island ED for CYs 2021-2023. The applicant assumes the number of ED visits at AH Mountain Island ED in CYs 2024-2025 will increase at a rate of 1.8 percent, consistent with the projected population growth in Project I.D. #F-11658-19, and projects all ED visits for AH Mountain Island ED will be subtracted from potential AH Lake Norman ED visits. The applicant also projects ED visits at AH Lake Norman will ramp up in the first three full fiscal years at a rate of 50 percent, 75 percent, and 100 percent, consistent with its projections for acute care days. The applicant's projections are summarized in the tables below.

AH Lake Norman Projected ED Utilization – Potential ED Visits			
	CY 2018 Potential ED Visits	% Served	Potential ED Visits at AH-LN
PSA	10,610	80%	8,488
SSA	35,026	20%	7,005
Total	45,636	--	15,493

Source: Section Q, Form C Methodology and Assumptions

AH Lake Norman Projected ED Utilization							
	CY 2019	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024	CY 2025
PSA Visits (2.21% CAGR)	8,675	8,867	9,063	9,263	9,468	9,677	9,890
SSA Visits (1.65% CAGR)	7,120	7,238	7,357	7,478	7,601	7,726	7,853
Total Potential ED Visits	15,796	16,105	16,420	16,741	17,068	17,402	17,743
AH Mountain Island ED Visits (1.8% CAGR)	--	--	-5,785	-6,628	-7,501	-7,639	-7,780
Adjusted Potential ED Visits	15,796	16,105	10,635	10,113	9,567	9,763	9,963
Ramp-up	--	--	--	--	50%	75%	100%
Projected ED Visits	--	--	--	--	4,784	7,322	9,963
# of ED Rooms	--	--	--	--	10	10	10
# of ED Visits per Room	**--**	**--**	**--**	**--**	**478**	**732**	**996**

Source: Section Q, Form C Methodology and Assumptions

However, projected utilization for ED services is not reasonable and adequately supported based on the following analysis:

- The applicant does not provide information in the application as submitted to demonstrate it is reasonable to assume patients who have historically accessed Atrium hospitals in Mecklenburg County will now access AH Lake Norman simply because they live in the area of patient origin.

  The Agency recognizes that patient choice is an important element of providing access to healthcare. However, many services such as inpatient care and inpatient surgery provided at hospitals, and in most cases a majority of those services provided, are the result of inpatient admissions through the ED as opposed to pure patient choice. In publicly available information (Section Q of Project I.D. #F-11811-19), the applicant provides the following table to show the percentage of total inpatient admissions originating through the ED:

CY 2018 Ratio of ED Admissions to Total Admissions (Project I.D. #F-11811-19)	
AH Pineville	66.7%
AH University City	65.1%
CMC	43.5%
AH Mercy	69.7%

Source: Atrium Health internal data

  While it is possible for a patient to decide which ED to access, ED admissions happen at all hours of day and night. The applicant provides no information in the application as submitted to show that patients who have addresses located more closely to AH Lake Norman than to other hospitals will automatically choose AH Lake Norman for emergency treatment at any hour of the day, regardless of where they work or where they may be in

an emergency. Further, while the applicant identifies a subset of AH Lake Norman-appropriate ED patients as part of its ED utilization projections, the applicant provides no information in the application as submitted to explain how patients will now know their acuity level is appropriate for AH Lake Norman and they will choose to utilize the AH Lake Norman ED (and hospital) instead of larger hospital EDs that patients have typically accessed.

- On page 1 of the Form C Utilization – Methodology and Assumptions subsection of Section Q, the applicant states its utilization methodology, approach, and assumptions are consistent with the approved application for Atrium Health Union West (Project I.D. #F-11618-18), a 40-bed satellite hospital campus in Union County. That application proposed to relocate existing acute care beds and ORs from AH Union to develop a satellite hospital campus. The only two similarities between the two applications, however, is that both involve a satellite hospital campus and the same applicant. Comments received during the public comment period note differences between Union County and Mecklenburg County with regard to the two applications. Please see the discussion about why use of methodology consistent with Project I.D. #F-11618-18 was not reasonable or adequately supported found under the discussion of projected utilization of acute care beds above.

- The applicant does not adequately demonstrate the need to add ED services in the proposed location and the applicant's projected utilization for ED services is not reasonable or adequately supported. The applicant operates AH Huntersville ED, a satellite ED licensed under AH University City. According to Google Maps (see the Working Papers), AH Huntersville ED is less than two miles south of the proposed AH Lake Norman on the same road. In Section C and in Section Q, the applicant does not provide any information or analysis as to any potential impact of AH Huntersville ED on AH Lake Norman or vice versa. In fact, the applicant provides no information in the application as submitted to demonstrate the need for additional ED services less than two miles from existing ED services.

  The applicant does briefly reference AH Huntersville ED in Section G, page 109, where the applicant states:

  > *"All of the services proposed for Atrium Health Lake Norman, which include not only acute care inpatient services, but also emergency services, …, are part of its application to develop a hospital and are essential to the development and operation of its proposed facility as a hospital. …. For example, while freestanding emergency departments in the market such as Atrium Health Huntersville and the approved but not yet developed Atrium Health Mountain Island (Project ID # F-11658-19) are capable of serving emergency patients that are eventually admitted for inpatient care, visits resulting in inpatient admission are provided less frequently at freestanding emergency departments than at the emergency departments of inpatient acute care facilities. Only 1.8 percent of Atrium Health Huntersville's emergency visits in CY 2018 resulted in an inpatient admission, and Atrium Health conservatively projected that Atrium Health Mountain Island would serve only outpatient emergency department visits. Further, Mecklenburg County needs additional capacity for*

> *emergency services. As noted in the Agency Findings for Atrium Health Mountain Island …, Atrium Health has previously demonstrated that Mecklenburg County needs additional capacity for emergency services and could support 29 additional emergency department rooms.*
>
> *Moreover, based on the projected need for emergency department services, Atrium Health Lake Norman, Atrium Health Mountain Island, and Atrium Health Huntersville are all needed. On page 21 of Form C Methodology and Assumptions in the Atrium Health Mountain Island application (Project ID # F-11658-19), Atrium Health projected that Atrium Health Huntersville would provide 17,606 emergency department visits in CY 2023 after the potential impact of Atrium Health Mountain Island. Similarly, after adjusting for the projected utilization of Atrium Health Mountain Island, Atrium Health Lake Norman projects 9,963 emergency department visits in CY 2025, its third project year. Even if all of the 9,963 emergency department visits projected at Atrium Health Lake Norman were shifted from Atrium Health Huntersville (which Atrium Health does not expect), and Atrium Health Huntersville experienced no growth from 2023 to 2025, Atrium Health Huntersville would still provide 7,643 emergency department visits in the third project year of the proposed Atrium Health Lake Norman project (7,643 visits = 17,606 – 9,963) and would clearly still need to maintain its existing services. Thus, based on these analyses that contemplate mutually exclusive patient populations among these three emergency departments, Atrium Health Mountain Island, Atrium Health Lake Norman, and Atrium Health Huntersville are all needed."* (emphasis in original)

In addition to the fact that an analysis of unnecessary duplication is not the same as an analysis of need, there are problems with this analysis:

- Atrium is projecting to serve existing patients who already utilize Atrium facilities, yet the applicant does not address the existence of ED services located less than two miles from the proposed location for AH Lake Norman. Further, most patients Atrium projects to serve live in an area south of the proposed location for AH Lake Norman (and AH Huntersville ED). The applicant does not adequately explain in the application as submitted why patients would drive by an existing ED (literally – AH Huntersville ED and the proposed AH Lake Norman are on the same road) and go to another one simply because it is part of a hospital versus a freestanding ED.

- The applicant references its approved application to develop AH Mountain Island ED (Project I.D. #F-11658-19), where the applicant states it demonstrated that Mecklenburg County could support up to 29 additional ED beds. In that application, the applicant based its need in part on the utilization at existing Atrium facilities and provided an analysis which suggested non-Atrium EDs are not as highly utilized as Atrium EDs. The Project Analyst reviewed FFY 2018 and 2019 data for all EDs in Mecklenburg County, along with FFY 2017 data provided by the applicant in Project I.D. #F-11658-19, and utilization of Atrium ED facilities declined from FFY 2017 to FFY 2019 at a CAGR of -1.2 percent; however, ED visits in Mecklenburg County

increased during that same period at a CAGR of 1.3 percent. Utilization at non-Atrium EDs increased at a CAGR of 6.3 percent between FFY 2017 and FFY 2019. Atrium provides no information in its application as submitted to demonstrate why it needs additional ED services less than two miles from existing ED services, especially since the population it projects to serve (existing Atrium patients) has decreased its utilization of existing Atrium facilities.

Projected Utilization for All Other Service Components

To project utilization for all other service components at AH Lake Norman, the applicant calculated the ratio of inpatient service component use to inpatient discharges and the ratio of outpatient service component volume to inpatient service component volume by using CY 2018 data from AH University City. The applicant then calculated projected service component use by applying the calculated ratios to the previously projected acute care bed discharges. The applicant states it adjusted its outpatient MRI procedures because AH Lake Norman will have a contracted mobile MRI service versus AH University City's fixed MRI scanner. The applicant calculated the projected CT HECT units by assuming the experience at AH Lake Norman would be consistent with its historical experience at AH University City, using AH University's FFY 2017 ratio of HECT units to CT scans (1.614 HECT units per CT scan). The applicant calculated the projected weighted MRI procedures by using assuming the experience at AH Lake Norman would be consistent with its historical experience at AH University City, using AH University City's FFY 2017 ratio of contrast/sedation procedures to total procedures by IP/OP.

The table below summarizes the historical inpatient discharge ratio and the ratio of inpatient service component use to outpatient service component use and the projections for all other service component use at AH Lake Norman during the first three full fiscal years following project completion.

AH Lake Norman Projected Service Component Use				
	Discharge/IP-OP Ratios	**CY 2023**	**CY 2024**	**CY 2025**
Acute Care Discharges		**1,031**	**1,577**	**2,144**
Laboratory				
Inpatient	4.25	4,385	6,707	9,118
Outpatient	10.81	47,419	72,526	98,602
Total		**51,804**	**79,232**	**107,720**
PT/OT/ST/Other				
Inpatient	0.14	140	215	292
Outpatient	2.28	320	489	665
Total		**460**	**704**	**957**
CT – Total Scans				
Inpatient	0.55	572	874	1,189
Outpatient	5.13	2,931	4,483	6,095
Total		**3,503**	**5,358**	**7,284**
HECT Units per Scan		1.614	1.614	1.614
HECT Units		**5,655**	**8,650**	**11,760**
MRI Procedures				
Inpatient	0.19	198	303	412
IP % Contrast/Sedation		25.5%	25.5%	25.5%
IP w/Contrast		50	77	105
IP w/o Contrast		148	226	307
Outpatient	0.47	93	142	193
OP % Contrast/Sedation		32.1%	32.1%	32.1%
OP w/Contrast		30	46	62
OP w/o Contrast		63	96	131
Total Weighted Procedures		**402**	**615**	**836**
X-Ray				
Inpatient	0.97	999	1,527	2,077
Outpatient	5.46	5,456	8,345	11,346
Total		**6,455**	**9,783**	**13,423**
Ultrasound				
Inpatient	0.24	250	383	521
Outpatient	8.64	2,163	3,308	4,497
Total		**2,413**	**3,691**	**5,018**
Nuclear Medicine				
Inpatient	0.03	32	49	67
Outpatient	6.26	202	309	420
Total		**234**	**358**	**487**

Source: Section Q, Form C Methodology and Assumptions

However, projected utilization for all other service components is not reasonable and adequately supported based on the following analysis:

- The applicant does not provide information in the application as submitted to demonstrate it is reasonable to assume patients who have historically accessed Atrium hospitals in Mecklenburg County will now access AH Lake Norman simply because they live in the area of patient origin.

  The Agency recognizes that patient choice is an important element of providing access to healthcare. However, many services such as inpatient care and inpatient surgery provided

at hospitals, and in most cases a majority of those services provided, are the result of inpatient admissions through the ED as opposed to pure patient choice. In publicly available information (Section Q of Project I.D. #F-11811-19), the applicant provides the following table to show the percentage of total inpatient admissions originating through the ED:

CY 2018 Ratio of ED Admissions to Total Admissions (Project I.D. #F-11811-19)	
AH Pineville	66.7%
AH University City	65.1%
CMC	43.5%
AH Mercy	69.7%

Source: Atrium Health internal data

While it is possible for a patient to decide which ED to access, ED admissions happen at all hours of day and night. The applicant provides no information in the application as submitted to show that patients who have addresses located more closely to AH Lake Norman than to other hospitals will automatically choose AH Lake Norman for emergency treatment at any hour of the day, regardless of where they work or where they may be in an emergency. Further, while the applicant identifies a subset of AH Lake Norman-appropriate ED patients as part of its ED utilization projections, the applicant provides no information in the application as submitted to explain how patients will now know their acuity level is appropriate for AH Lake Norman and they will choose to utilize the AH Lake Norman ED (and hospital) instead of larger hospital EDs that patients have typically accessed.

- On page 1 of the Form C Utilization – Methodology and Assumptions subsection of Section Q, the applicant states its utilization methodology, approach, and assumptions are consistent with the approved application for Atrium Health Union West (Project I.D. #F-11618-18), a 40-bed satellite hospital campus in Union County. That application proposed to relocate existing acute care beds and ORs from AH Union to develop a satellite hospital campus. The only two similarities between the two applications, however, is that both involve a satellite hospital campus and the same applicant. Comments received during the public comment period note differences between Union County and Mecklenburg County with regard to the two applications. Please see the discussion about why use of methodology consistent with Project I.D. #F-11618-18 was not reasonable or adequately supported found under the discussion of projected utilization of acute care beds above.

- Basing projections for imaging and ancillary services on the experience of AH University City is not reasonable or adequately supported. Atrium bases its projections for these services at AH Lake Norman on the experience of AH University City since AH Lake Norman will be licensed under AH University City. However, the applicant proposes to offer much lower acuity services at AH Lake Norman than at AH University City. The applicant does not provide any information in the application as submitted to explain why relying on historical use rates at AH University City is appropriate for AH Lake Norman projections, especially since the applicant specifically relies on statistics from AH Lake Norman-appropriate patients or acute care days in other places. Indeed, the applicant noted that it adjusted the number of outpatient MRI scans at AH Lake Norman instead of just

using AH University City's historical ratio because there will be only a mobile MRI scanner at AH Lake Norman versus a fixed MRI scanner at AH University City.

The Project Analyst compared the applicant's projections for utilization of imaging and other services with publicly available information about other facilities offering the same services. Please see the Working Papers for these comparisons. For example, NH Mint Hill is a 36-bed acute care hospital which began offering services on October 1, 2018 and which has a nearly identical ratio of medical/surgical, ICU, and obstetrics beds as the proposed AH Lake Norman. Some ratios are very similar, and some are not. For example, the applicant projected the percent of patients receiving inpatient MRI services that involved sedation or contrast would be 25.5 percent of total inpatient MRI services and patients receiving outpatient MRI services that involved sedation or contrast would be 32.1 percent of patients, based on CY 2018 ratios at AH University City. NH Mint Hill's percentages for inpatient and outpatient MRI services involving sedation or contrast were 35.1 percent and 43.0 percent, respectively – a difference of 10 percent. Further, the applicant states it adjusted its projections for outpatient MRI services since AH Lake Norman will have a mobile MRI. The applicant projected a ratio of 0.47 outpatient MRI scans to inpatient MRI scans; the corresponding ratio from NH Mint Hill was 12.24 outpatient MRI scans to inpatient scans. The ratio of outpatient MRI scans to inpatient MRI scans at NH Mint Hill is not explained by the fact that NH Mint Hill has a fixed MRI scanner and AH Lake Norman will not. WakeMed North, a 30-bed satellite hospital campus of WakeMed in Wake County which also has mobile MRI service, has a ratio of 44.31 outpatient MRI scans to inpatient MRI scans.

The differences between AH Lake Norman projections and NH Mint Hill historical data are not explained by the fact that NH Mint Hill is a separately licensed hospital versus a satellite hospital campus as proposed for AH Lake Norman. The Project Analyst reviewed hospital systems with satellite campuses in other large urban counties – Forsyth, Orange, and Wake counties – and in every case, the ratio of outpatient services to inpatient services for X-ray, ultrasound, and MRI scans was significantly higher at the satellite campuses than at the main campuses – even when the satellite campus was served by a mobile MRI scanner.

There may be facts that explain these differences and which justify reliance, in this situation, on the historical experience at AH University City; however, the applicant provides no information in the application as submitted to explain why it is reasonable to rely on historical experiences at a hospital which will be larger than the proposed satellite campus, which will offer more services than AH Lake Norman and which will offer care for higher acuity patients than AH Lake Norman, and which result in projections which differ from similarly-sized hospitals in Mecklenburg County as well as satellite campuses of hospitals in other urban counties.

Access – In Section C, page 85, the applicant states that AH Lake Norman will provide: *"services to all persons in need of medical care, regardless of race, color, religion, national origin, sex, age, disability, or source of payment."*

In Section L, page 124, the applicant projects the following payor mix during the third full fiscal year of operation following project completion, as illustrated in the following table.

AH-LN Projected Payor Mix 3rd Full FY (CY 2025)								
Payor Source	**Total Facility**	**M/S Beds**	**ICU Beds**	**OB Beds**	**Surg Svcs**	**ED**	**Imaging**	**Other***
Self-Pay	8.2%	7.5%	7.5%	1.5%	4.5%	21.4%	10.3%	6.8%
Medicare**	16.1%	52.7%	52.7%	0.7%	38.2%	19.4%	25.7%	10.9%
Medicaid**	37.2%	17.9%	17.9%	42.5%	6.4%	25.4%	16.5%	45.3%
Insurance**	37.2%	19.5%	19.5%	54.8%	48.4%	30.1%	45.9%	36.2%
Other***	1.2%	2.5%	2.5%	0.4%	2.5%	3.6%	1.7%	0.8%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

*Includes PT, OT, ST, and other services.
**Including any managed care plans
***Includes TRICARE and worker's compensation

The projected payor mix is reasonable and adequately supported.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application
- Written comments
- Responses to comments
- Information publicly available during the review and used by the Agency

Based on that review, the Agency concludes that the application is not conforming to this criterion for the following reasons:

- The applicant does not adequately explain why the population to be served needs the services proposed in this application.

- Projected utilization is not reasonable and is not adequately supported.

F-11811-19/Carolinas Medical Center/Develop 18 acute care beds

The applicant proposes to develop 18 additional acute care beds at CMC, its existing acute care hospital, for a total of 1,073 acute care beds upon project completion.

This application is one of six filed in the same review cycle for acute care beds and ORs by Atrium. On February 7, 2018, The Charlotte-Mecklenburg Hospital Authority, which owns and operates the facilities involved in these six applications, announced that it was changing its name and would do business as Atrium Health. There are six facilities relevant to this review that are part of the Atrium health system in Mecklenburg County. The following table identifies these facilities, the current name, and effective date of the change.

ATRIUM HEALTH ACUTE CARE HOSPITALS – MECKLENBURG COUNTY		
Previous Name	**Current Name**	**Effective Date of Change**
Carolinas Medical Center	Carolinas Medical Center	NA (will not change)
Carolinas Medical Center – Mercy	Atrium Health Mercy	August 1, 2019
Carolinas HealthCare System Union	Atrium Health Union	January 1, 2019
Carolinas HealthCare System Pineville	Atrium Health Pineville	January 1, 2019
Carolinas HealthCare System University	Atrium Health University City	December 1, 2019
Carolinas HealthCare System Huntersville	Atrium Health Huntersville Surgery	December 1, 2019

Patient Origin – On page 36, the 2019 SMFP defines the service area for acute care beds as *"the acute care bed planning area in which the bed is located. The acute care bed planning areas are the single and multicounty groupings shown in Figure 5.1."* Figure 5.1, on page 40, shows Mecklenburg County as its own acute care bed planning area. Thus, the service area for this facility is Mecklenburg County. Facilities may also serve residents of counties not included in their service area. The following table illustrates current and projected patient origin.

CMC Current & Projected Patient Origin – Adult Acute Care Beds								
County	**Last FY (CY 2018)**		**FY 1 (CY 2022)**		**FY 2 (CY 2023)**		**FY 3 (CY 2024)**	
	# Days	**% of Total**	**# Days**	**% of Total**	**# Days**	**% of Total**	**# Days**	**% of Total**
Mecklenburg	47,774	44.9%	50,188	45.0%	49,985	45.3%	50,128	45.3%
York (SC)	7,585	7.1%	8,150	7.3%	7,333	6.6%	7,392	6.7%
Gaston	6,334	6.0%	6,806	6.1%	6,875	6.2%	6,945	6.3%
Union	5,809	5.5%	4,701	4.2%	4,214	3.8%	3,710	3.4%
Cleveland	4,914	4.6%	5,281	4.7%	5,334	4.8%	5,388	4.9%
Cabarrus	3,768	3.5%	4,049	3.6%	4,090	3.7%	4,131	3.7%
Lincoln	3,359	3.2%	3,609	3.2%	3,646	3.3%	3,683	3.3%
Lancaster (SC)	3,328	3.1%	3,576	3.2%	3,612	3.3%	3,649	3.3%
Iredell	2,078	2.0%	2,233	2.0%	2,192	2.0%	2,180	2.0%
Other Counties*	21,342	20.1%	22,932	20.6%	23,165	21.0%	23,399	21.2%
Total	**106,291**	**100.0%**	**111,526**	**100.0%**	**110,447**	**100.0%**	**110,605**	**100.0%**

Source: Section C, pages 28-29

*Other: Alamance, Alexander, Alleghany, Anson, Ashe, Avery, Beaufort, Bladen, Brunswick, Buncombe, Burke, Caldwell, Carteret, Caswell, Catawba, Chatham, Cherokee, Chowan, Clay, Columbus, Craven, Cumberland, Davidson, Davie, Durham, Edgecombe, Forsyth, Graham, Granville, Guilford, Harnett, Haywood, Henderson, Hoke, Jackson, Johnston, Jones, Lee, Lenoir, Macon, Madison, McDowell, Mitchell, Montgomery, Moore, Nash, New Hanover, Onslow, Orange, Pamlico, Pasquotank, Pender, Pitt, Polk, Randolph, Richmond, Robeson, Rockingham, Rowan, Rutherford, Sampson, Scotland, Stanly, Stokes, Surry, Swain, Transylvania, Vance, Wake, Watauga, Wilkes, Wilson, Yadkin, and Yancey counties in North Carolina as well as other states.

In Section C, page 30, the applicant provides the assumptions and methodology used to project patient origin. The applicant's assumptions are reasonable and adequately supported.

Analysis of Need – Atrium submitted four applications in response to the Acute Care Bed Need Determination in the 2019 SMFP. Atrium proposes to develop AH Lake Norman, with 30 acute care beds (Project I.D. #F-11810-19); to add 18 acute care beds to CMC (Project I.D. #F-11811-19); to add 16 acute care beds to AH University City (Project I.D. #F-11812-19); and to add 12 acute care beds to AH Pineville (Project I.D. #F-11813-19). In Section C, pages 30-44, the applicant discusses Atrium's system-wide need for the acute care bed proposals in Mecklenburg County. In a competitive review, every application is first evaluated

independently, as if there are no other applications in the review, to determine whether the application is conforming to all statutory and regulatory review criteria. Therefore, the discussion in this section focuses only on the need as it relates to CMC.

In Section C, page 38, Atrium states the need for 76 acute care beds in Mecklenburg County was generated entirely by Atrium facilities. However, anyone may apply to meet the need, not just Atrium. Atrium has the burden of demonstrating the need for the proposed acute care beds in its applications as submitted.

In Section C, pages 44-50, the applicant explains why it believes the population projected to utilize the proposed services needs the proposed services, as summarized below:

- As part of its assumptions and methodology, the applicant extrapolated actual historical data from January – July 2019 to obtain CY 2019 annualized data.

- CMC's acute care days and ADC have increased at a 2.5 percent CAGR between CY 2016-CY 2019 annualized, despite efforts to alleviate high utilization by shifting patients to different Atrium hospitals.

- CMC's acute care bed average annual utilization was above 80 percent for each of the years between CY 2016-2019 annualized.

- CMC's projected deficit of 91 acute care beds is the highest of any hospital in Mecklenburg County.

- Because of a lack of capacity, some CMC patients have had to stay in the Post-Anesthesia Care Unit (PACU) after surgery due to the lack of an available bed. Additionally, some patients have had to remain in an OR after a surgery is complete because of the resulting lack of space in the PACU. Further, patients are often housed overnight in the ED due to lack of available beds.

- CMC's growth is projected to continue because it is the only provider of quaternary care in Mecklenburg County and the surrounding area.

- According to ESRI, the population of the area served by Mecklenburg County facilities – the NC counties in HSA III along with three counties in South Carolina adjacent to the NC border – are projected to grow by an average of 8.7 percent between 2019 and 2024.

The information is reasonable and adequately supported for the following reasons:

- There is a need determination for 76 acute care beds in Mecklenburg County in the 2019 SMFP. The applicant is applying to develop 18 acute care beds in Mecklenburg County in accordance with the acute care bed need determination in the 2019 SMFP.

- The applicant uses reasonable and clearly identified historical and demographic data to make assumptions regarding identification of the population to be served.

- The applicant provides reliable data, makes reasonable statements about the data, and uses reasonable assumptions about the data to demonstrate the need the population to be served has for the proposed services.

Projected Utilization – In Section Q, the applicant provides projected utilization, as illustrated in the following table.

CMC-Main Adult Med/Surg Acute Care Bed Projected Utilization			
	FY 1 (CY 2022)	FY 2 (CY 2023)	FY 3 (CY 2024)
# of Beds	351	351	351
# of Admissions	21,741	21,531	21,562
# of Acute Care Days	111,526	110,447	110,605

In the Form C Utilization – Assumptions and Methodology subsection of Section Q, the applicant provides the assumptions and methodology used to project utilization, which are summarized below.

- The applicant calculated the CY 2016 through CY 2019 annualized CAGR for CMC-Main's total acute care days and uses one-half of that historical CAGR to project future growth in acute care days through the end of the third full fiscal year (CY 2024).

- The applicant projects a shift of acute care days to Piedmont Fort Mill Medical Center, a hospital that will be developed in South Carolina, consistent with its projections in previous acute care bed applications for CMC-Main. The applicant states that, since previous applications assumed Atrium would be developing the hospital in South Carolina instead of a different entity, it adjusts the previous projections accordingly. The applicant states patients admitted to Piedmont Fort Mill Medical Center through the ED may be more likely to continue their care at Piedmont Fort Mill Medical Center and calculated CMC-Main's CY 2018 ratio of acute care days from patients who were admitted through the ED to total acute care days. The applicant then applied the ratio to the total number of acute care days it previously projected to shift from CMC-Main to Piedmont Fort Mill Medical Center.

- The applicant projects a shift of acute care days to AH Union, and states it used the assumptions and methodology used in previously approved applications (Project I.D. #s F-11618-18 and F-11622-18) to determine the number of acute care days projected to shift care from CMC-Main to AH Union.

- As part of Project I.D. #F-11810-19, the applicant's proposal to develop AH Lake Norman, the applicant calculated the number of acute care days projected to shift from CMC-Main to AH Lake Norman. Please see the discussion regarding projected utilization for Project I.D. #F-11810-19 for the methodology used in projecting shifts of acute care days to AH Lake Norman from Atrium hospitals in Mecklenburg County.

- The applicant projects a shift in acute care days from CMC-Main to AH Mercy, consistent with projections in Project I.D. #F-11268-16 (renovate surgical services and relocate one OR from CMC-Main to AH Mercy).

- The applicant calculated the CY 2018 ratio of medical/surgical acute care days to total acute care days at CMC-Main, then applied that ratio to determine the projected number of medical/surgical acute care days at CMC-Main during the first three full fiscal years following project completion.

- The applicant calculated total acute care discharges and medical/surgical acute care discharges at CMC-Main by using its CY 2018 ALOS for total acute care days (6.10 days) and for medical/surgical acute care days (5.13 days).

The table below summarizes the assumptions and methodology used to project acute care bed utilization at CMC-Main.

CMC-Main Total Acute Care Bed Projected Utilization						
	CY 2019*	**CY 2020**	**CY 2021**	**CY 2022**	**CY 2023**	**CY 2024**
Total Acute Care Days (1.01% growth)	281,338	284,190	287,070	289,980	292,919	295,888
Shift to Piedmont Fort Mill Medical Center	--	--	--	--	-2,284	-2,348
Shift to AH Union	--	-1,260	-1,923	-3,913	-5,308	-6,752
Shift to AH Lake Norman	--	--	--	--	-1,999	-3,058
Shift to AH Mercy	--	-2,911	-2,911	-2,911	-2,911	-2,911
Projected Total Acute Care Days	281,338	280,019	282,237	283,156	280,416	280,820
ADC	770.8	765.1	773.3	775.8	768.3	767.3
Beds	859	859	859	877	877	877
Occupancy %	89.8%	89.3%	90.0%	88.5%	87.6%	87.5%
Total Discharges (based on 6.10 ALOS)	46,121	45,896	46,260	46,410	45,961	46,027
Ratio of Med/Surg Days to Total Days	39.4%	39.4%	39.4%	39.4%	39.4%	39.4%
Projected Med/Surg Acute Care Days	110,847	110,290	111,163	111,526	110,446	110,605
Med/Surg Discharges (based on 5.13 ALOS)	21,608	21,501	21,671	21,741	21,531	21,562

Source: Section Q, Form C Assumptions and Methodology
*Annualized based on January 2019-July 2019 data.
Note: The information in the application has some miscalculations. These are minor and do not affect the outcome in any way. The Project Analyst used the information from the application in this table to be consistent with all applications even though there are some miscalculations.

Atrium Health System

The Atrium health system in Mecklenburg County consists of CMC (including AH Mercy), AH Pineville, and AH University City, including its proposed satellite hospital campus, AH Lake Norman. Pursuant to 10A NCAC 14C .3803(a), an applicant proposing to add new acute care beds to a service area must reasonably project that all acute care beds in the service area under common ownership will have a utilization of at least 75.2 percent when the projected ADC is greater than 200 patients.

In Section Q, the applicant provides the assumptions and methodology used to project acute care bed utilization for all other hospitals in its health system in Mecklenburg County. The assumptions and methodology are summarized below.

Since 2013, Atrium applications involving acute care bed utilization projections have included assumptions and methodology projecting shifts in acute care days between hospitals in both

Mecklenburg County and surrounding counties. The applicant states it will project shifts in acute care days between hospitals in Mecklenburg County and in surrounding counties consistent with previously approved applications.

- Determine historical utilization and projected growth rate by hospital – the applicant calculated the 3-year CAGR for each hospital, based on CY 2016-2019 annualized utilization. The applicant projects acute care days at each hospital will grow at one-half the rate of the 3-year CAGR.

- Project acute care days through CY 2024 prior to any shifts – the applicant applied the projected growth rate and projected utilization at each hospital through CY 2024. The applicant states it has historically projected acute care days will shift to other facilities, due to planned efforts to alleviate capacity, and states it will continue to project shifts in acute care days through CY 2024.

- Project shift of acute care days to Piedmont Fort Mill Medical Center – beginning with applications in 2013, the applicant projected a shift in acute care days to Piedmont Fort Mill Medical Center in South Carolina. The applicant had applied to develop the hospital and was involved in protracted litigation to develop the hospital which was ultimately unsuccessful. The applicant states that, since previous applications assumed Atrium would be developing the hospital in South Carolina instead of a different entity, it adjusts the previous projections accordingly. The applicant states patients admitted to Piedmont Fort Mill Medical Center through the ED may be more likely to continue their care at Piedmont Fort Mill Medical Center, and for each Atrium hospital, it calculated the ratio of CY 2018 acute care days from patients who were admitted through the ED to the total acute care days. The applicant then applies the ratio to the total number of acute care days it previously projected to shift from each Atrium hospital to Piedmont Fort Mill Medical Center.

- Project shift of acute care days to AH Union – the applicant states it used the assumptions and methodology from previously approved applications (Project I.D. #s F-11618-18 and F-11622-18) to project the number of acute care days projected to shift from Atrium hospitals in Mecklenburg County to AH Union.

- Project shift of acute care days to AH Lake Norman – As part of Project I.D. #F-11810-19, the applicant's proposal to develop AH Lake Norman, the applicant calculated the number of acute care days projected to shift from each Atrium hospital to AH Lake Norman. Please see the discussion regarding projected utilization for Project I.D. #F-11810-19 for the methodology used in projecting shifts in acute care days to AH Lake Norman from Atrium hospitals in Mecklenburg County.

- Subtract shifts in acute care days from each Atrium hospital to determine projected utilization of acute care beds through CY 2024 – the applicant subtracted the number of acute care days projected to shift to different hospitals from each of the Atrium hospitals in Mecklenburg County through CY 2024 to obtain the projected acute care days at each facility.

The table below summarizes the applicant's assumptions and methodology used to calculate the number of acute care days projected to shift from each Atrium hospital in Mecklenburg County and each hospital's projected acute care days through CY 2024.

Summary of Projected Shifts in Acute Care Days								
	3-year CAGR	Projected Growth %	CY 2019 Annualized	CY 2020	CY 2021	CY 2022 (FY 1)	CY 2023 (FY 2)	CY 2024 (FY 3)
AH Lake Norman								
Acute Care Days	--	--	--	--	--	--	3,814	5,833
AH Pineville								
Acute Care Days			71,997	74,022	76,104	78,244	80,445	82,708
Projected Shifts	5.63%	2.81%	--	-528	-806	-1,639	-7,168	-7,955
Adjusted Acute Care Days			--	73,494	75,298	76,605	73,278	74,753
AH University City								
Acute Care Days			27,660	28,643	29,661	30,715	31,806	32,937
Projected Shifts	7.11%	3.55%		-25	-39	-79	-1,252	-1,858
Adjusted Acute Care Days				28,618	29,622	30,636	30,555	31,078
Carolinas Medical Center*								
Acute Care Days			281,338	284,190	287,070	289,980	292,919	295,888
Projected Shifts	2.03%	1.01%		-4,171	-4,834	-6,824	-12,502	-15,069
Adjusted Acute Care Days				280,019	282,237	283,156	280,416	280,820
AH Mercy**								
Acute Care Days			45,572	46,800	48,060	49,355	50,684	52,049
Projected Shifts	5.39%	2.69%		2,618	2,463	2,000	375	-318
Adjusted Acute Care Days				49,417	50,523	51,354	51,059	51,732

Source: Section Q, Form C Assumptions and Methodology

*Carolinas Medical Center's license includes AH Mercy as a satellite campus. The campuses are displayed separately because the applicant calculated growth rates separately for each campus.

**Even though the two campuses are on the same license, the applicant projected a shift in days from Carolinas Medical Center to AH Mercy in previous applications, which is why AH Mercy appears to gain acute care days through CY 2023.

Atrium Health System Summary – The following table illustrates projected utilization for acute care beds at all Atrium hospitals in Mecklenburg County.

Mecklenburg County - Atrium Projected Total Acute Care Bed Utilization			
	FY 1 (CY 2022)	FY 2 (CY 2023)	FY 3 (CY 2024)
Atrium Health Lake Norman	--	3,814	5,833
Atrium Health Pineville	76,605	73,278	74,753
Atrium Health University City	30,636	30,555	31,078
Carolinas Medical Center	283,156	280,416	280,820
Atrium Health Mercy	51,354	51,059	51,732
Projected Total Acute Care Bed Days	441,751	439,123	444,216
Average Daily Census (ADC)	1,210	1,203	1,214
Total # of Beds	1,490	1,490	1,490
Occupancy %	81.2%	80.7%	81.5%

Source: Section Q, Form C Assumptions and Methodology

As shown in the table above, in the third operating year following project completion, the applicant projects the average utilization for all acute care beds owned by the applicant in

Mecklenburg County will be 81.5 percent. This meets the performance standard promulgated in 10A NCAC 14C .3803(a), which requires an applicant proposing to add new acute care beds to a service area to reasonably project that all acute care beds in the service area under common ownership will have a utilization of at least 75.2 percent when the projected ADC is greater than 200 patients.

In Project I.D. #F-11810-19 (proposing to develop AH Lake Norman), Atrium does not adequately demonstrate the need for the proposed project and that projected utilization is reasonable and adequately supported. This could potentially call into question whether the projected utilization for all acute care beds owned by Atrium in Mecklenburg County will meet the performance standard promulgated in 10A NCAC 14C .3803(a). However, even if all projected acute care days at AH Lake Norman are removed from the projections (and none are added back to the Atrium hospitals from where they originated), and the 30 acute care beds proposed to be added at AH Lake Norman are still counted toward the performance standard, the applicant still reasonably projects that all acute care beds in the service area under common ownership will have a utilization of at least 75.2 percent. Please see the calculations prepared by the Project Analyst in the table below.

Mecklenburg County - Atrium Projected Total Acute Care Bed Utilization			
	FY 1 (CY 2022)	**FY 2 (CY 2023)**	**FY 3 (CY 2024)**
Atrium Health Lake Norman	--	--	--
Atrium Health Pineville	76,605	73,278	74,753
Atrium Health University City	30,636	30,555	31,078
Carolinas Medical Center	283,156	280,416	280,820
Atrium Health Mercy	51,354	51,059	51,732
Projected Total Acute Care Bed Days	441,751	435,308	438,383
Average Daily Census (ADC)	1,210	1,193	1,198
Total # of Beds*	1,490	1,490	1,490
Occupancy %	81.2%	80.1%	80.4%

Source: Section Q, Form C Assumptions and Methodology
*Includes the 30 acute care beds proposed as part of Project I.D. #F-11810-19

Projected utilization is reasonable and adequately supported for the following reasons:

- There is a need determination in the 2019 SMFP for 76 acute care beds in the Mecklenburg County acute care bed planning area.

- The applicant relies on historical utilization and assumptions consistent with previously approved projects to project future utilization.

- The applicant reasonably projects to meet the performance standard promulgated in 10A NCAC 14C .3803(a).

Access – In Section C, page 54, the applicant states:

> *"CMC provides services to all persons in need of medical care, regardless of race, color, religion, national origin, sex, age, disability, or source of payment."*

In Section L, page 86, the applicant projects the following payor mix during the third full fiscal year of operation following project completion, as illustrated in the following table.

CMC Projected Payor Mix – Third Full FY (CY 2024)		
Payor Source	**Total Facility**	**Med/Surg Beds**
Self-Pay	14.1%	7.2%
Medicare*	26.1%	47.2%
Medicaid*	24.5%	17.0%
Insurance*	33.4%	24.9%
Other**	1.9%	3.7%
Total	**100.0%**	**100.0%**

*Including any managed care plans
**Includes TRICARE and worker's compensation

The projected payor mix is reasonable and adequately supported.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application
- Information publicly available during the review and used by the Agency

Based on that review, the Agency concludes that the application is conforming to this criterion for the following reasons:

- The applicant adequately identifies the population to be served.

- The applicant adequately explains why the population to be served needs the services proposed in this application.

- Projected utilization is reasonable and adequately supported.

- The applicant projects the extent to which all residents, including underserved groups, will have access to the proposed services (payor mix) and adequately support its assumptions.

F-11812-19/Atrium Health University City/Develop 16 acute care beds

The applicant proposes to develop 16 additional acute care beds at AH University City, its existing acute care hospital, for a total of 116 acute care beds upon project completion.

This application is one of six filed in the same review cycle for acute care beds and ORs by Atrium. On February 7, 2018, The Charlotte-Mecklenburg Hospital Authority, which owns and operates the facilities involved in these six applications, announced that it was changing its name and would do business as Atrium Health. There are six facilities relevant to this review that are part of the Atrium health system in Mecklenburg County. The following table identifies these facilities, the current name, and effective date of the change.

ATRIUM HEALTH ACUTE CARE HOSPITALS – MECKLENBURG COUNTY		
Previous Name	**Current Name**	**Effective Date of Change**
Carolinas Medical Center	Carolinas Medical Center	NA (will not change)
Carolinas Medical Center – Mercy	Atrium Health Mercy	August 1, 2019
Carolinas HealthCare System Union	Atrium Health Union	January 1, 2019
Carolinas HealthCare System Pineville	Atrium Health Pineville	January 1, 2019
Carolinas HealthCare System University	Atrium Health University City	December 1, 2019
Carolinas HealthCare System Huntersville	Atrium Health Huntersville Surgery	December 1, 2019

Patient Origin – On page 36, the 2019 SMFP defines the service area for acute care beds as *"the acute care bed planning area in which the bed is located. The acute care bed planning areas are the single and multicounty groupings shown in Figure 5.1."* Figure 5.1, on page 40, shows Mecklenburg County as its own acute care bed planning area. Thus, the service area for this facility is Mecklenburg County. Facilities may also serve residents of counties not included in their service area. The following table illustrates current and projected patient origin.

AH-UC Current & Projected Patient Origin – Medical/Surgical Beds								
County	**Last FY (CY 2018)**		**FY 1 (CY 2022)**		**FY 2 (CY 2023)**		**FY 3 (CY 2024)**	
	# Days	**% of Total**	**# Days**	**% of Total**	**# Days**	**% of Total**	**# Days**	**% of Total**
Mecklenburg	13,786	72.9%	15,478	73.1%	15,337	72.6%	15,541	72.4%
Cabarrus	2,077	11.0%	2,332	11.0%	2,415	11.4%	2,501	11.6%
Iredell	501	2.7%	563	2.7%	522	2.5%	510	2.4%
Gaston	423	2.2%	475	2.2%	492	2.3%	510	2.4%
Lincoln	345	1.8%	387	1.8%	401	1.9%	415	1.9%
Union	236	1.2%	211	1.0%	201	1.0%	191	0.9%
York (SC)	144	0.8%	162	0.8%	130	0.6%	134	0.6%
Other Counties*	1,391	7.4%	1,561	7.4%	1,617	7.7%	1,674	7.8%
Total	**18,905**	**100.0%**	**21,170**	**100.0%**	**21,114**	**100.0%**	**21,476**	**100.0%**

Source: Section C, pages 28-29

*Other: Alamance, Alexander, Alleghany, Anson, Brunswick, Buncombe, Burke, Caldwell, Carteret, Catawba, Cleveland, Columbus, Craven, Cumberland, Davidson, Davie, Durham, Forsyth, Franklin, Granville, Guilford, Haywood, Hertford, Hoke, Jackson, Johnston, Macon, Montgomery, Onslow, Pender, Randolph, Richmond, Robeson, Rockingham, Rowan, Rutherford, Scotland, Stanly, Surry, Wake, Watauga, Wayne, Wilkes, Yadkin, and Yancey counties in North Carolina as well as other states.

In Section C, page 30, the applicant provides the assumptions and methodology used to project patient origin. The applicant's assumptions are reasonable and adequately supported.

Analysis of Need – Atrium submitted four applications in response to the Acute Care Bed Need Determination in the 2019 SMFP. Atrium proposes to develop AH Lake Norman, with 30 acute care beds (Project I.D. #F-11810-19); to add 18 acute care beds to CMC (Project I.D. #F-11811-19); to add 16 acute care beds to AH University City (Project I.D. #F-11812-19); and to add 12 acute care beds to AH Pineville (Project I.D. #F-11813-19). In Section C, pages 30-44, the applicant discusses Atrium's system-wide need for the acute care bed proposals in Mecklenburg County. In a competitive review, every application is first evaluated independently, as if there are no other applications in the review, to determine whether the application is conforming to all statutory and regulatory review criteria. Therefore, the discussion in this section focuses only on the need as it relates to AH University City.

In Section C, page 38, Atrium states the need for 76 acute care beds in Mecklenburg County was generated entirely by Atrium facilities. However, anyone may apply to meet the need, not just Atrium. Atrium has the burden of demonstrating the need for the proposed acute care beds in its applications as submitted.

In Section C, pages 44-48, the applicant explains why it believes the population projected to utilize the proposed services needs the proposed services, as summarized below:

- As part of its assumptions and methodology, the applicant extrapolated actual historical data from January – July 2019 to obtain CY 2019 annualized data.

- AH University City's CY 2016 – CY 2019 annualized CAGR is 7.1 percent, the fastest growth rate for acute care days at any of Atrium's Mecklenburg County hospitals.

- AH University City's bed deficit in the Proposed 2020 SMFP is the highest (by percentage) of any hospital in North Carolina in the last decade.

- Because of a lack of capacity, patients often must wait many hours or even overnight in the ED for an acute care bed to become available. The applicant states that in 2018, patients waited an average of five and a half hours in the ED before an acute care bed was available, and in some cases, patients waited in the ED for up to 24 hours.

- According to ESRI, the population of the area served by Mecklenburg County facilities – the NC counties in HSA III along with three counties in South Carolina adjacent to the NC border – are projected to grow by an average of 8.7 percent between 2019 and 2024.

The information is reasonable and adequately supported for the following reasons:

- There is a need determination for 76 acute care beds in Mecklenburg County in the 2019 SMFP. The applicant is applying to develop 16 acute care beds in Mecklenburg County in accordance with the acute care bed need determination in the 2019 SMFP.

- The applicant uses historical and demographic data to make assumptions regarding identification of the population to be served.

- The applicant provides reliable data, makes reasonable statements about the data, and uses reasonable assumptions about the data to demonstrate the need the population to be served has for the proposed services.

Projected Utilization – In Section Q, the applicant provides projected utilization, as illustrated in the following table.

AH-UC Med/Surg Acute Care Bed Projected Utilization			
	FY 1 (CY 2022)	**FY 2 (CY 2023)**	**FY 3 (CY 2024)**
# of Beds	75	75	75
# of Admissions	5,559	5,544	5,639
# of Acute Care Days	21,170	21,114	21,476

In Section C, pages 27-28, the applicant states five of the proposed beds will be developed almost immediately in existing space that currently houses observation beds. The applicant states the remaining 11 beds will be developed in April 2021 after construction associated with downsizing Carolinas ContinueCare Hospital at University, a separately-owned Long Term Acute Care hospital located in existing space on the fourth floor of AH University City, is completed.

In the Form C Utilization – Assumptions and Methodology subsection of Section Q, the applicant provides the assumptions and methodology used to project utilization, which are summarized below.

- The applicant calculated the CY 2016 through CY 2019 annualized CAGR for AH University City's total acute care days and uses one-half of that historical CAGR to project future growth in acute care days through the end of the third full fiscal year (CY 2024).

- The applicant projects a shift of acute care days to Piedmont Fort Mill Medical Center, a hospital that will be developed in South Carolina, consistent with its projections in previous acute care bed applications. The applicant states that, since previous applications assumed Atrium would be developing the hospital in South Carolina instead of a different entity, it adjusts the previous projections accordingly. The applicant states patients admitted to Piedmont Fort Mill Medical Center through the ED may be more likely to continue their care at Piedmont Fort Mill Medical Center and calculated AH University City's CY 2018 ratio of acute care days from patients who were admitted through the ED to total acute care days. The applicant then applied the ratio to the total number of acute care days it previously projected to shift from AH University City to Piedmont Fort Mill Medical Center.

- The applicant projects a shift of acute care days to AH Union, and states it used the assumptions and methodology used in previously approved applications (Project I.D. #s F-11618-18 and F-11622-18) to determine the number of acute care days projected to shift care from AH University City to AH Union.

- As part of Project I.D. #F-11810-19, the applicant's proposal to develop AH Lake Norman, the applicant calculated the number of acute care days projected to shift from AH University City to AH Lake Norman. Please see the discussion regarding projected utilization for Project I.D. #F-11810-19 for the methodology used in projecting shifts of acute care days to AH Lake Norman from Atrium hospitals in Mecklenburg County.

- The applicant calculated the CY 2018 ratio of medical/surgical acute care days to total acute care days at AH University City, then applied that ratio to determine the projected number of medical/surgical acute care days at AH University City during the first three full fiscal years following project completion.

- The applicant calculated total acute care discharges and medical/surgical acute care discharges at AH University City by using its CY 2018 ALOS for total acute care days (3.93 days) and for medical/surgical acute care days (3.81 days).

The table below summarizes the assumptions and methodology used to project acute care bed utilization at AH University City.

AH University City Total Acute Care Bed Projected Utilization						
	CY 2019*	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024
Total Acute Care Days (3.55% growth)	27,660	28,643	29,661	30,715	31,806	32,937
Shift to Piedmont Fort Mill Medical Center	--	--	--	--	-56	-57
Shift to AH Union	--	-25	-39	-79	-107	-136
Shift to AH Lake Norman	--	--	--	--	-1,089	-1,665
Projected Total Acute Care Days	27,660	28,618	29,622	30,636	30,555	31,078
ADC	75.8	78.4	81.2	83.9	83.7	85.1
Beds	100	100	100	116	116	116
Occupancy %	75.8%	78.4%	81.2%	72.3%	72.2%	73.4%
Total Discharges (based on 3.93 ALOS)	7,038	7,289	7,545	7,803	7,782	7,915
Ratio of Med/Surg Days to Total Days	69.1%	69.1%	69.1%	69.1%	69.1%	69.1%
Projected Med/Surg Acute Care Days	19,113	19,775	20,470	21,170	21,114	21,476
Med/Surg Discharges (based on 3.81 ALOS)	5,017	5,193	5,375	5,559	5,544	5,639

Source: Section Q, Form C Assumptions and Methodology
*Annualized based on January 2019-July 2019 data.
Note: The information in the application has some miscalculations. These are minor and do not affect the outcome in any way. The Project Analyst used the information from the application in this table to be consistent with all applications even though there are some miscalculations.

Atrium Health System

The Atrium health system in Mecklenburg County consists of CMC (including AH Mercy), AH Pineville, and AH University City, including its proposed satellite hospital campus, AH Lake Norman. Pursuant to 10A NCAC 14C .3803(a), an applicant proposing to add new acute care beds to a service area must reasonably project that all acute care beds in the service area under common ownership will have a utilization of at least 75.2 percent when the projected ADC is greater than 200 patients.

In Section Q, the applicant provides the assumptions and methodology used to project acute care bed utilization for all other hospitals in its health system in Mecklenburg County. The assumptions and methodology are summarized below.

Since 2013, Atrium applications involving acute care bed utilization projections have included assumptions and methodology projecting shifts in acute care days between hospitals in both Mecklenburg County and surrounding counties. The applicant states it will project shifts in acute care days between hospitals in Mecklenburg County and in surrounding counties consistent with previously approved applications.

- Determine historical utilization and projected growth rate by hospital – the applicant calculated the 3-year CAGR for each hospital, based on CY 2016-2019 annualized utilization. The applicant projects acute care days at each hospital will grow at one-half the rate of the 3-year CAGR.

- Project acute care days through CY 2024 prior to any shifts – the applicant applied the projected growth rate and projected utilization at each hospital through CY 2024. The applicant states it has historically projected acute care days will shift to other facilities, due to planned efforts to alleviate capacity, and states it will continue to project shifts in acute care days through CY 2024.

- Project shift of acute care days to Piedmont Fort Mill Medical Center – beginning with applications in 2013, the applicant projected a shift in acute care days to Piedmont Fort Mill Medical Center in South Carolina. The applicant had applied to develop the hospital and was involved in protracted litigation to develop the hospital which was ultimately unsuccessful. The applicant states that, since previous applications assumed Atrium would be developing the hospital in South Carolina instead of a different entity, it adjusts the previous projections accordingly. The applicant states patients admitted to Piedmont Fort Mill Medical Center through the ED may be more likely to continue their care at Piedmont Fort Mill Medical Center, and for each Atrium hospital, it calculated the ratio of CY 2018 acute care days from patients who were admitted through the ED to the total acute care days. The applicant then applies the ratio to the total number of acute care days it previously projected to shift from each Atrium hospital to Piedmont Fort Mill Medical Center.

- Project shift of acute care days to AH Union – the applicant states it used the assumptions and methodology from previously approved applications (Project I.D. #s F-11618-18 and F-11622-18) to project the number of acute care days projected to shift from Atrium hospitals in Mecklenburg County to AH Union.

- Project shift of acute care days to AH Lake Norman – As part of Project I.D. #F-11810-19, the applicant's proposal to develop AH Lake Norman, the applicant calculated the number of acute care days projected to shift from each Atrium hospital to AH Lake Norman. Please see the discussion regarding projected utilization for Project I.D. #F-11810-19 for the methodology used in projecting shifts in acute care days to AH Lake Norman from Atrium hospitals in Mecklenburg County.

- Subtract shifts in acute care days from each Atrium hospital to determine projected utilization of acute care beds through CY 2024 – the applicant subtracted the number of acute care days projected to shift to different hospitals from each of the Atrium hospitals in Mecklenburg County through CY 2024 to obtain the projected acute care days at each facility.

The table below summarizes the applicant's assumptions and methodology used to calculate the number of acute care days projected to shift from each Atrium hospital in Mecklenburg County and each hospital's projected acute care days through CY 2024.

Summary of Projected Shifts in Acute Care Days								
	3-year CAGR	Projected Growth %	CY 2019 Annualized	CY 2020	CY 2021	CY 2022 (FY 1)	CY 2023 (FY 2)	CY 2024 (FY 3)
AH Lake Norman								
Acute Care Days	--	--	--	--	--	--	3,814	5,833
AH Pineville								
Acute Care Days	5.63%	2.81%	71,997	74,022	76,104	78,244	80,445	82,708
Projected Shifts			--	-528	-806	-1,639	-7,168	-7,955
Adjusted Acute Care Days			--	73,494	75,298	76,605	73,278	74,753
AH University City								
Acute Care Days	7.11%	3.55%	27,660	28,643	29,661	30,715	31,806	32,937
Projected Shifts				-25	-39	-79	-1,252	-1,858
Adjusted Acute Care Days				28,618	29,622	30,636	30,555	31,078
Carolinas Medical Center*								
Acute Care Days	2.03%	1.01%	281,338	284,190	287,070	289,980	292,919	295,888
Projected Shifts				-4,171	-4,834	-6,824	-12,502	-15,069
Adjusted Acute Care Days				280,019	282,237	283,156	280,416	280,820
AH Mercy**								
Acute Care Days	5.39%	2.69%	45,572	46,800	48,060	49,355	50,684	52,049
Projected Shifts				2,618	2,463	2,000	375	-318
Adjusted Acute Care Days				49,417	50,523	51,354	51,059	51,732

Source: Section Q, Form C Assumptions and Methodology

*Carolinas Medical Center's license includes AH Mercy as a satellite campus. The campuses are displayed separately because the applicant calculated growth rates separately for each campus.

**Even though the two campuses are on the same license, the applicant projected a shift in days from Carolinas Medical Center to AH Mercy in previous applications, which is why AH Mercy appears to gain acute care days through CY 2023.

Atrium Health System Summary – The following table illustrates projected utilization for acute care beds at all Atrium hospitals in Mecklenburg County.

Mecklenburg County - Atrium Projected Total Acute Care Bed Utilization			
	FY 1 (CY 2022)	FY 2 (CY 2023)	FY 3 (CY 2024)
Atrium Health Lake Norman	--	3,814	5,833
Atrium Health Pineville	76,605	73,278	74,753
Atrium Health University City	30,636	30,555	31,078
Carolinas Medical Center	283,156	280,416	280,820
Atrium Health Mercy	51,354	51,059	51,732
Projected Total Acute Care Bed Days	441,751	439,123	444,216
Average Daily Census (ADC)	1,210	1,203	1,214
Total # of Beds	1,490	1,490	1,490
Occupancy %	81.2%	80.7%	81.5%

Source: Section Q, Form C Assumptions and Methodology

As shown in the table above, in the third operating year following project completion, the applicant projects the average utilization for all acute care beds owned by the applicant in Mecklenburg County will be 81.5 percent. This meets the performance standard promulgated in 10A NCAC 14C .3803(a), which requires an applicant proposing to add new acute care beds to a service area to reasonably project that all acute care beds in the service area under common

ownership will have a utilization of at least 75.2 percent when the projected ADC is greater than 200 patients.

In Project I.D. #F-11810-19 (proposing to develop AH Lake Norman), Atrium does not adequately demonstrate the need for the proposed project and that projected utilization is reasonable and adequately supported. This could potentially call into question whether the projected utilization for all acute care beds owned by Atrium in Mecklenburg County will meet the performance standard promulgated in 10A NCAC 14C .3803(a). However, even if all projected acute care days at AH Lake Norman are removed from the projections (and none are added back to the Atrium hospitals from where they originated), and the 30 acute care beds proposed to be added at AH Lake Norman are still counted toward the performance standard, the applicant still reasonably projects that all acute care beds in the service area under common ownership will have a utilization of at least 75.2 percent. Please see the calculations prepared by the Project Analyst in the table below.

Mecklenburg County - Atrium Projected Total Acute Care Bed Utilization			
	FY 1 (CY 2022)	**FY 2 (CY 2023)**	**FY 3 (CY 2024)**
Atrium Health Lake Norman	--	--	--
Atrium Health Pineville	76,605	73,278	74,753
Atrium Health University City	30,636	30,555	31,078
Carolinas Medical Center	283,156	280,416	280,820
Atrium Health Mercy	51,354	51,059	51,732
Projected Total Acute Care Bed Days	441,751	435,308	438,383
Average Daily Census (ADC)	1,210	1,193	1,198
Total # of Beds*	1,490	1,490	1,490
Occupancy %	81.2%	80.1%	80.4%

Source: Section Q, Form C Assumptions and Methodology
*Includes the 30 acute care beds proposed as part of Project I.D. #F-11810-19

Projected utilization is reasonable and adequately supported for the following reasons:

- There is a need determination in the 2019 SMFP for 76 acute care beds in the Mecklenburg County acute care bed planning area.

- The applicant relies on historical utilization and assumptions consistent with previously approved projects to project future utilization.

- The applicant reasonably projects to meet the performance standard promulgated in 10A NCAC 14C .3803(a).

Access – In Section C, page 53, the applicant states:

> *"Atrium Health University City provides services to all persons in need of medical care, regardless of race, color, religion, national origin, sex, age, disability, or source of payment."*

In Section L, page 86, the applicant projects the following payor mix during the third full fiscal year following project completion, as illustrated in the following table.

AH University City Projected Payor Mix Third Full FY (CY 2024)		
Payor Source	**Total Facility**	**M/S Beds**
Self-Pay	18.5%	9.4%
Medicare*	22.0%	50.0%
Medicaid*	21.1%	15.9%
Insurance*	34.7%	21.3%
Other**	3.7%	3.4%
Total	**100.0%**	**100.0%**

*Including any managed care plans
**Includes TRICARE and worker's compensation

The projected payor mix is reasonable and adequately supported.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application
- Information publicly available during the review and used by the Agency

Based on that review, the Agency concludes that the application is conforming to this criterion for the following reasons:

- The applicant adequately identifies the population to be served.

- The applicant adequately explains why the population to be served needs the services proposed in this application.

- Projected utilization is reasonable and adequately supported.

- The applicant projects the extent to which all residents, including underserved groups, will have access to the proposed services (payor mix) and adequately support its assumptions.

F-11813-19/Atrium Health Pineville/Develop 12 acute care beds

The applicant proposes to develop 12 additional acute care beds at AH Pineville, its existing acute care hospital, for a total of 271 acute care beds upon completion of this project and Project I.D. #F-11622-18 (add 38 acute care beds).

This application is one of six filed in the same review cycle for acute care beds and ORs by CMHA. On February 7, 2018, The Charlotte-Mecklenburg Hospital Authority, which owns and operates the facilities involved in these six applications, announced that it was changing its name and would do business as Atrium Health. There are six facilities relevant to this review that are part of the Atrium health system in Mecklenburg County. The following table identifies these facilities, the current name, and effective date of the change.

ATRIUM HEALTH ACUTE CARE HOSPITALS – MECKLENBURG COUNTY		
Previous Name	**Current Name**	**Effective Date of Change**
Carolinas Medical Center	Carolinas Medical Center	NA (will not change)
Carolinas Medical Center – Mercy	Atrium Health Mercy	August 1, 2019
Carolinas HealthCare System Union	Atrium Health Union	January 1, 2019
Carolinas HealthCare System Pineville	Atrium Health Pineville	January 1, 2019
Carolinas HealthCare System University	Atrium Health University City	December 1, 2019
Carolinas HealthCare System Huntersville	Atrium Health Huntersville Surgery	December 1, 2019

Patient Origin – On page 36, the 2019 SMFP defines the service area for acute care beds as *"the acute care bed planning area in which the bed is located. The acute care bed planning areas are the single and multicounty groupings shown in Figure 5.1."* Figure 5.1, on page 40, shows Mecklenburg County as its own acute care bed planning area. Thus, the service area for this facility is Mecklenburg County. Facilities may also serve residents of counties not included in their service area. The following table illustrates current and projected patient origin.

AH-P Current & Projected Patient Origin – Medical/Surgical Beds								
County	**Last FY (CY 2018)**		**FY 1 (CY 2022)**		**FY 2 (CY 2023)**		**FY 3 (CY 2024)**	
	# Days	**% of Total**	**# Days**	**% of Total**	**# Days**	**% of Total**	**# Days**	**% of Total**
Mecklenburg	22,367	42.8%	25,671	43.7%	26,332	46.9%	27,042	47.2%
York (SC)	15,215	29.1%	17,463	29.8%	14,233	25.4%	14,633	25.6%
Lancaster (SC)	5,336	10.2%	6,124	10.4%	6,296	11.2%	6,474	11.3%
Union	3,319	6.4%	2,554	4.4%	2,213	3.9%	1,860	3.2%
Gaston	1,180	2.3%	1,354	2.3%	1,392	2.5%	1,432	2.5%
Iredell	77	0.1%	89	0.2%	86	0.2%	85	0.1%
Other Counties*	4,736	9.1%	5,435	9.3%	5,588	10.0%	5,745	10.0%
Total	**52,230**	**100.0%**	**58,689**	**100.0%**	**56,140**	**100.0%**	**57,270**	**100.0%**

Source: Section C, pages 30-31

*Other: Alamance, Alexander, Anson, Ashe, Avery, Brunswick, Buncombe, Burke, Cabarrus, Caldwell, Carteret, Catawba, Cleveland, Columbus, Craven, Cumberland, Dare, Davidson, Davie, Durham, Forsyth, Franklin, Granville, Guilford, Halifax, Haywood, Henderson, Lee, Lincoln, McDowell, Mitchell, Montgomery, Nash, New Hanover, Onslow, Orange, Pender, Pitt, Randolph, Richmond, Robeson, Rockingham, Rowan, Rutherford, Scotland, Stanly, Stokes, Swain, Wake, Watauga, Wayne, Wilkes, and Yancey counties in North Carolina as well as other states.

In Section C, page 32, the applicant provides the assumptions and methodology used to project patient origin. The applicant's assumptions are reasonable and adequately supported.

Analysis of Need – Atrium submitted four applications in response to the Acute Care Bed Need Determination in the 2019 SMFP. Atrium proposes to develop AH Lake Norman, with 30 acute care beds (Project I.D. #F-11810-19); to add 18 acute care beds to CMC (Project I.D. #F-11811-19); to add 16 acute care beds to AH University City (Project I.D. #F-11812-19); and to add 12 acute care beds to AH Pineville (Project I.D. #F-11813-19). In Section C, pages 32-46, the applicant discusses Atrium's system-wide need for the acute care bed proposals in Mecklenburg County. In a competitive review, every application is first evaluated independently, as if there are no other applications in the review, to determine whether the application is conforming to all statutory and regulatory review criteria. Therefore, the discussion in this section focuses only on the need as it relates to AH Pineville.

In Section C, page 40, Atrium states the need for 76 acute care beds in Mecklenburg County was generated entirely by Atrium facilities. However, anyone may apply to meet the need, not just Atrium. Atrium has the burden of demonstrating the need for the proposed acute care beds in its applications as submitted.

In Section C, pages 46-52, the applicant explains why it believes the population projected to utilize the proposed services needs the proposed services, as summarized below:

- As part of its assumptions and methodology, the applicant extrapolated actual historical data from January – July 2019 to obtain CY 2019 annualized data.

- AH Pineville is southern Charlotte's only tertiary care hospital.

- AH Pineville's CY 2016 – CY 2019 annualized CAGR is 5.6 percent and utilization is at almost 90 percent.

- Using its CY 2019 annualized acute care days, AH Pineville has a projected deficit of 55 acute care beds with its current 221 licensed beds. Even after accounting for the 38 acute care beds approved for AH Pineville in Project I.D. #F-11622-18, AH Pineville still has a deficit of 17 beds.

- Because of a lack of capacity, AH Pineville patients have had to stay in the Post-Anesthesia Care Unit (PACU) after surgery because of the lack of an available bed. The average amount of time a patient waited in a PACU bed for an available acute care bed during January 2019 through July 2019 was 113 minutes, a 30 percent increase over the CY 2018 average wait time of 87 minutes. Further, patients are often housed overnight in the ED due to lack of available beds – in CY 2018, patients waited an average of six hours in the ED before an acute care bed was available, and in some cases, patients waited in the ED for up to 24 hours.

- The population of the southern Charlotte area where AH Pineville is located is growing more rapidly than other areas of the county. Historical projections of population growth submitted as part of previously approved applications turned out to be lower than actual population growth during the same time periods.

- According to ESRI, the population of the area served by Mecklenburg County facilities – the NC counties in HSA III along with three counties in South Carolina adjacent to the NC border – are projected to grow by an average of 8.7 percent between 2019 and 2024.

The information is reasonable and adequately supported for the following reasons:

- There is a need determination for 76 acute care beds in Mecklenburg County in the 2019 SMFP. The applicant is applying to develop 12 acute care beds in Mecklenburg County in accordance with the acute care bed need determination in the 2019 SMFP.

- The applicant uses historical and demographic data to make assumptions regarding identification of the population to be served.

- The applicant provides reliable data, makes reasonable statements about the data, and uses reasonable assumptions about the data to demonstrate the need the population to be served has for the proposed services.

Projected Utilization – In Section Q, the applicant provides projected utilization, as illustrated in the following table.

AH-P Med/Surg Acute Care Bed Projected Utilization			
	FY 1 (CY 2022)	FY 2 (CY 2023)	FY 3 (CY 2024)
# of Beds	197	197	197
# of Admissions	15,191	14,531	14,824
# of Acute Care Days	58,689	56,140	57,270

In the Form C Utilization – Assumptions and Methodology subsection of Section Q, the applicant provides the assumptions and methodology used to project utilization, which are summarized below.

- The applicant calculated the CY 2016 through CY 2019 annualized CAGR for AH Pineville's total acute care days and uses one-half of that historical CAGR to project future growth in acute care days through the end of the third full fiscal year (CY 2024).

- The applicant projects a shift of acute care days to Piedmont Fort Mill Medical Center, a hospital that will be developed in South Carolina, consistent with its projections in previous acute care bed applications. The applicant states that, since previous applications assumed Atrium would be developing the hospital in South Carolina instead of a different entity, it adjusts the previous projections accordingly. The applicant states patients admitted to Piedmont Fort Mill Medical Center through the ED may be more likely to continue their care at Piedmont Fort Mill Medical Center and calculated AH Pineville's CY 2018 ratio of acute care days from patients who were admitted through the ED to total acute care days. The applicant then applied the ratio to the total number of acute care days it previously projected to shift from AH Pineville to Piedmont Fort Mill Medical Center.

- The applicant projects a shift of acute care days to AH Union, and states it used the assumptions and methodology used in previously approved applications (Project I.D. #s F-11618-18 and F-11622-18) to determine the number of acute care days projected to shift care from AH Pineville to AH Union.

- As part of Project I.D. #F-11810-19, the applicant's proposal to develop AH Lake Norman, the applicant calculated the number of acute care days projected to shift from AH Pineville to AH Lake Norman. Please see the discussion regarding projected utilization for Project I.D. #F-11810-19 for the methodology used in projecting shifts of acute care days to AH Lake Norman from Atrium hospitals in Mecklenburg County.

- The applicant calculated the CY 2018 ratio of medical/surgical acute care days to total acute care days at AH Pineville, then applied that ratio to determine the projected number of medical/surgical acute care days at AH Pineville during the first three full fiscal years following project completion.

- The applicant calculated total acute care discharges and medical/surgical acute care discharges at AH Pineville by using its CY 2018 ALOS for total acute care days (4.03 days) and for medical/surgical acute care days (3.86 days).

The table below summarizes the assumptions and methodology used to project acute care bed utilization at AH Pineville.

AH Pineville Total Acute Care Bed Projected Utilization						
	CY 2019*	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024
Total Acute Care Days (2.81% growth)	71,997	74,022	76,104	78,244	80,445	82,708
Shift to Piedmont Fort Mill Medical Center	--	--	--	--	-4,857	-4,994
Shift to AH Union	--	-528	-806	-1,639	-2,224	-2,829
Shift to AH Lake Norman	--	--	--	--	-87	-132
Projected Total Acute Care Days	71,997	73,494	75,298	76,605	73,278	74,753
ADC	197.3	200.8	206.3	209.9	200.8	204.2
Beds	221	221	221	271	271	271
Occupancy %	89.3%	90.9%	93.3%	77.5%	74.1%	75.4%
Total Discharges (based on 4.03 ALOS)	17,865	18,234	18,682	19,006	18,180	18,546
Ratio of Med/Surg Days to Total Days	76.6%	76.6%	76.6%	76.6%	76.6%	76.6%
Projected Med/Surg Acute Care Days	55,150	56,306	57,688	58,689	56,140	57,270
ADC	151.1	153.8	158.0	160.8	153.8	156.5
Beds	147	147	147	197	197	197
Occupancy %	102.8%	104.6%	107.5%	81.6%	78.1%	79.4%
Med/Surg Discharges (based on 3.86 ALOS)	14,288	14,574	14,932	15,191	14,531	14,824

Source: Section Q, Form C Assumptions and Methodology
*Annualized based on January 2019-July 2019 data.
Note: The information in the application has some miscalculations. These are minor and do not affect the outcome in any way. The Project Analyst used the information from the application in this table to be consistent with all applications even though there are some miscalculations.

Atrium Health System

The Atrium health system in Mecklenburg County consists of CMC (including AH Mercy), AH Pineville, and AH University City, including its proposed satellite hospital campus, AH Lake Norman. Pursuant to 10A NCAC 14C .3803(a), an applicant proposing to add new acute care beds to a service area must reasonably project that all acute care beds in the service area under common ownership will have a utilization of at least 75.2 percent when the projected ADC is greater than 200 patients.

In Section Q, the applicant provides the assumptions and methodology used to project acute care bed utilization for all other hospitals in its health system in Mecklenburg County. The assumptions and methodology are summarized below.

Since 2013, Atrium applications involving acute care bed utilization projections have included assumptions and methodology projecting shifts in acute care days between hospitals in both Mecklenburg County and surrounding counties. The applicant states it will project shifts in acute care days between hospitals in Mecklenburg County and in surrounding counties consistent with previously approved applications.

- Determine historical utilization and projected growth rate by hospital – the applicant calculated the 3-year CAGR for each hospital, based on CY 2016-2019 annualized utilization. The applicant projects acute care days at each hospital will grow at one-half the rate of the 3-year CAGR.

- Project acute care days through CY 2024 prior to any shifts – the applicant applied the projected growth rate and projected utilization at each hospital through CY 2024. The applicant states it has historically projected acute care days will shift to other facilities, due to planned efforts to alleviate capacity, and states it will continue to project shifts in acute care days through CY 2024.

- Project shift of acute care days to Piedmont Fort Mill Medical Center – beginning with applications in 2013, the applicant projected a shift in acute care days to Piedmont Fort Mill Medical Center in South Carolina. The applicant had applied to develop the hospital and was involved in protracted litigation to develop the hospital which was ultimately unsuccessful. The applicant states that, since previous applications assumed Atrium would be developing the hospital in South Carolina instead of a different entity, it adjusts the previous projections accordingly. The applicant states patients admitted to Piedmont Fort Mill Medical Center through the ED may be more likely to continue their care at Piedmont Fort Mill Medical Center, and for each Atrium hospital, it calculated the ratio of CY 2018 acute care days from patients who were admitted through the ED to the total acute care days. The applicant then applies the ratio to the total number of acute care days it previously projected to shift from each Atrium hospital to Piedmont Fort Mill Medical Center.

- Project shift of acute care days to AH Union – the applicant states it used the assumptions and methodology from previously approved applications (Project I.D. #s F-11618-18 and F-11622-18) to project the number of acute care days projected to shift from Atrium hospitals in Mecklenburg County to AH Union.

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- Subtract shifts in acute care days from each Atrium hospital to determine projected utilization of acute care beds through CY 2024 – the applicant subtracted the number of acute care days projected to shift to different hospitals from each of the Atrium hospitals in Mecklenburg County through CY 2024 to obtain the projected acute care days at each facility.

The table below summarizes the applicant's assumptions and methodology used to calculate the number of acute care days projected to shift from each Atrium hospital in Mecklenburg County and each hospital's projected acute care days through CY 2024.

Summary of Projected Shifts in Acute Care Days								
	3-year CAGR	Projected Growth %	CY 2019 Annualized	CY 2020	CY 2021	CY 2022 (FY 1)	CY 2023 (FY 2)	CY 2024 (FY 3)
AH Lake Norman								
Acute Care Days	--	--	--	--	--	--	3,814	5,833
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Acute Care Days	5.63%	2.81%	71,997	74,022	76,104	78,244	80,445	82,708
Projected Shifts			--	-528	-806	-1,639	-7,168	-7,955
Adjusted Acute Care Days			--	73,494	75,298	76,605	73,278	74,753
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Adjusted Acute Care Days				28,618	29,622	30,636	30,555	31,078
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Projected Shifts				2,618	2,463	2,000	375	-318
Adjusted Acute Care Days				49,417	50,523	51,354	51,059	51,732

Source: Section Q, Form C Assumptions and Methodology

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**Even though the two campuses are on the same license, the applicant projected a shift in days from Carolinas Medical Center to AH Mercy in previous applications, which is why AH Mercy appears to gain acute care days through CY 2023.

Atrium Health System Summary – The following table illustrates projected utilization for acute care beds at all Atrium hospitals in Mecklenburg County.

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Carolinas Medical Center	283,156	280,416	280,820
Atrium Health Mercy	51,354	51,059	51,732
Projected Total Acute Care Bed Days	441,751	439,123	444,216
Average Daily Census (ADC)	1,210	1,203	1,214
Total # of Beds	1,490	1,490	1,490
Occupancy %	81.2%	80.7%	81.5%

Source: Section Q, Form C Assumptions and Methodology

As shown in the table above, in the third operating year following project completion, the applicant projects the average utilization for all acute care beds owned by the applicant in Mecklenburg County will be 81.5 percent. This meets the performance standard promulgated in 10A NCAC 14C .3803(a), which requires an applicant proposing to add new acute care beds to a service area to reasonably project that all acute care beds in the service area under common

ownership will have a utilization of at least 75.2 percent when the projected ADC is greater than 200 patients.

In Project I.D. #F-11810-19 (proposing to develop AH Lake Norman), Atrium does not adequately demonstrate the need for the proposed project and that projected utilization is reasonable and adequately supported. This could potentially call into question whether the projected utilization for all acute care beds owned by Atrium in Mecklenburg County will meet the performance standard promulgated in 10A NCAC 14C .3803(a). However, even if all projected acute care days at AH Lake Norman are removed from the projections (and none are added back to the Atrium hospitals from where they originated), and the 30 acute care beds proposed to be added at AH Lake Norman are still counted toward the performance standard, the applicant still reasonably projects that all acute care beds in the service area under common ownership will have a utilization of at least 75.2 percent. Please see the calculations prepared by the Project Analyst in the table below.

Mecklenburg County - Atrium Projected Total Acute Care Bed Utilization			
	FY 1 (CY 2022)	**FY 2 (CY 2023)**	**FY 3 (CY 2024)**
Atrium Health Lake Norman	--	--	--
Atrium Health Pineville	76,605	73,278	74,753
Atrium Health University City	30,636	30,555	31,078
Carolinas Medical Center	283,156	280,416	280,820
Atrium Health Mercy	51,354	51,059	51,732
Projected Total Acute Care Bed Days	441,751	435,308	438,383
Average Daily Census (ADC)	1,210	1,193	1,198
Total # of Beds*	1,490	1,490	1,490
Occupancy %	81.2%	80.1%	80.4%

Source: Section Q, Form C Assumptions and Methodology
*Includes the 30 acute care beds proposed as part of Project I.D. #F-11810-19

Projected utilization is reasonable and adequately supported for the following reasons:

- There is a need determination in the 2019 SMFP for 76 acute care beds in the Mecklenburg County acute care bed planning area.

- The applicant relies on historical utilization and assumptions consistent with previously approved projects to project future utilization.

- The applicant reasonably projects to meet the performance standard promulgated in 10A NCAC 14C .3803(a).

Access – In Section C, page 57, the applicant states:

> *"Atrium Health Pineville provides services to all persons in need of medical care, regardless of race, color, religion, national origin, sex, age, disability, or source of payment."*

In Section L, page 90, the applicant projects the following payor mix for the proposed services during the third full fiscal year of operation following project completion, as shown in the table below.

AH Pineville Projected Payor Mix Third Full FY (CY 2024)		
Payor Source	**Total Facility**	**M/S Beds**
Self-Pay	12.4%	5.2%
Medicare*	32.6%	64.5%
Medicaid*	13.0%	6.8%
Insurance*	39.3%	21.5%
Other**	2.8%	2.1%
Total	**100.0%**	**100.0%**

*Including any managed care plans
**Includes TRICARE and worker's compensation

The projected payor mix is reasonable and adequately supported.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application
- Information publicly available during the review and used by the Agency

Based on that review, the Agency concludes that the application is conforming to this criterion for the following reasons:

- The applicant adequately identifies the population to be served.

- The applicant adequately explains why the population to be served needs the services proposed in this application.

- Projected utilization is reasonable and adequately supported.

- The applicant projects the extent to which all residents, including underserved groups, will have access to the proposed services (payor mix) and adequately support its assumptions.

F-11814-19/Atrium Health Pineville/Develop two ORs

The applicant proposes to develop two additional ORs at AH Pineville, its existing acute care hospital, for a total of 15 ORs upon completion of this project and Project I.D. #F-11621-18 (add one OR).

This application is one of six filed in the same review cycle for acute care beds and ORs by CMHA. On February 7, 2018, The Charlotte-Mecklenburg Hospital Authority, which owns and operates the facilities involved in these six applications, announced that it was changing its name and would do business as Atrium Health. There are six facilities relevant to this review

that are part of the Atrium health system in Mecklenburg County. The following table identifies these facilities, the current name, and effective date of the change.

ATRIUM HEALTH ACUTE CARE HOSPITALS – MECKLENBURG COUNTY		
Previous Name	**Current Name**	**Effective Date of Change**
Carolinas Medical Center	Carolinas Medical Center	NA (will not change)
Carolinas Medical Center – Mercy	Atrium Health Mercy	August 1, 2019
Carolinas HealthCare System Union	Atrium Health Union	January 1, 2019
Carolinas HealthCare System Pineville	Atrium Health Pineville	January 1, 2019
Carolinas HealthCare System University	Atrium Health University City	December 1, 2019
Carolinas HealthCare System Huntersville	Atrium Health Huntersville Surgery	December 1, 2019

Patient Origin – On page 55, the 2019 SMFP defines the service area for ORs as *"…the operating room planning area in which the operating room is located. The operating room planning areas are the single and multicounty groupings shown in Figure 6.1."* Figure 6.1, on page 60, shows Mecklenburg County as its own OR planning area. Thus, the service area for this facility is Mecklenburg County. Facilities may also serve residents of counties not included in their service area.

The following table illustrates current and projected patient origin.

AH-P Current and Projected Patient Origin - ORs								
County	**Current (CY 2018)**		**FY 1 (CY 2023)**		**FY 2 (CY 2024)**		**FY 3 (CY 2025)**	
	# Patients	**% of Total**	**# Patients**	**% of Total**	**# Patients**	**% of Total**	**# Patients**	**% of Total**
Mecklenburg	3,063	36.9%	3,353	38.4%	3,507	38.6%	3,671	38.5%
York (SC)	2,633	31.7%	2,771	31.8%	2,908	32.0%	3,053	32.0%
Lancaster (SC)	1,012	12.2%	1,113	12.8%	1,167	12.9%	1,225	12.9%
Union	735	8.8%	534	6.1%	498	5.5%	533	5.6%
Gaston	233	2.8%	194	2.2%	204	2.2%	214	2.2%
Chester (SC)	177	2.1%	257	2.9%	269	3.0%	282	3.0%
Iredell	12	0.1%	11	0.1%	11	0.1%	11	0.1%
Other Counties*	445	5.4%	490	5.6%	513	5.7%	538	5.7%
Total	**8,309**	**100.0%**	**8,723**	**100.0%**	**9,078**	**100.0%**	**9,527**	**100.0%**

Source: Section C, pages 19-20

*Other: Alamance, Alexander, Anson, Ashe, Avery, Brunswick, Buncombe, Burke, Cabarrus, Caldwell, Carteret, Catawba, Cleveland, Dare, Davidson, Davie, Durham, Forsyth, Franklin, Granville, Guilford, Henderson, Lincoln, McDowell, Mitchell, Montgomery, New Hanover, Onslow, Orange, Richmond, Robeson, Rockingham, Rowan, Rutherford, Scotland, Stanly, Swain, Wake, Watauga, and Wilkes counties in North Carolina as well as other states.

In Section C, page 21, the applicant provides the assumptions and methodology used to project patient origin. The applicant's assumptions are reasonable and adequately supported.

Analysis of Need – Atrium submitted three applications in response to the OR Need Determination in the 2019 SMFP. Atrium proposes to develop AH Lake Norman, with two ORs (Project I.D. #F-11810-19); to add two ORs to AH Pineville (Project I.D. #F-11814-19); and to add two ORs to CMC (Project I.D. #F-11815-19). In Section C, pages 28-40, the applicant discusses Atrium's system-wide need for the OR proposals in Mecklenburg County. In a competitive review, every application is first evaluated independently, as if there are no other applications in the review, to determine whether the application is conforming to all

statutory and regulatory review criteria. Therefore, the discussion in this section focuses only on the need as it relates to AH Pineville.

In Section C, page 32, Atrium states the need for six ORs in Mecklenburg County was generated entirely by Atrium facilities. However, anyone may apply to meet the need, not just Atrium. Atrium has the burden of demonstrating the need for the proposed ORs in its applications as submitted.

In Section C, pages 22-28 and 41-43, the applicant explains why it believes the population projected to utilize the proposed services needs the proposed services, as summarized below:

- As part of its assumptions and methodology, the applicant extrapolated actual historical data from January – July 2019 to obtain CY 2019 annualized data.

- AH Pineville's 2-year CAGR (FFY 2016-2018) for surgical hours is 8.4 percent. AH Pineville is the only tertiary care hospital in south Charlotte and even with the approved OR from Project I.D. #F-11621-18, at the current growth rate its ORs will reach a utilization rate of 125 percent by 2021.

- The population of the southern Charlotte area where AH Pineville is located is growing more rapidly than other areas in the county. Historical projections of population growth submitted as part of previously approved applications turned out to be lower than actual growth during the same time periods.

- Surgical volumes in Mecklenburg County have grown at higher rates than the state average. Outpatient surgical cases in Mecklenburg County are increasing more quickly than inpatient surgical cases. While the number of outpatient cases performed at ASFs have higher growth rates than outpatient cases performed at hospitals the increase in the number of outpatient cases performed at hospitals is more than double the increase in the number of outpatient cases performed at ASFs.

- According to ESRI, the population of the area served by Mecklenburg County facilities – the NC counties in HSA III along with three counties in South Carolina adjacent to the NC border – are projected to grow by an average of 8.7 percent between 2019 and 2024.

The information is reasonable and adequately supported for the following reasons:

- There is a need determination for six ORs in Mecklenburg County in the 2019 SMFP. The applicant is applying to develop two ORs in Mecklenburg County in accordance with the OR need determination in the 2019 SMFP.

- The applicant uses historical and demographic data to make assumptions regarding identification of the population to be served.

- The applicant provides reliable data, makes reasonable statements about the data, and uses reasonable assumptions about the data to demonstrate the need the population proposed to be served has for the proposed services.

Projected Utilization – In Section Q, the applicant provides projected utilization, as illustrated in the following table.

AH-P Projected Utilization – Surgical Services			
	FY 1 (CY 2023)	**FY 2 (CY 2024)**	**FY 3 (CY 2025)**
Operating Rooms			
Dedicated C-Section ORs	2	2	2
Other Inpatient ORs	1	1	1
Shared ORs	12	12	12
Total # of ORs	15	15	15
Excluded # of ORs	2	2	2
Total # of ORs – Planning Inventory	13	13	13
Surgical Cases			
# of Inpatient Cases (1)	4,306	4,590	4,926
# of Outpatient Cases	4,417	4,488	4,600
Total # Surgical Cases (1)	8,723	9,078	9,527
Case Times			
Inpatient (2)	174.0	174.0	174.0
Outpatient (2)	101.6	101.6	101.6
Surgical Hours			
Inpatient (3)	12,489	13,310	14,286
Outpatient (4)	7,479	7,600	7,790
Total Surgical Hours	19,967	20,910	22,076
# of ORs Needed			
Group Assignment (5)	3	3	3
Standard Hours per OR per Year (6)	1,755	1,755	1,755
ORs Needed (total hours / 1,500)	11.38	11.91	12.58

(1) Excluding C-Sections performed in a dedicated C-Section OR
(2) From Section C, Question 6(c)
(3) [Inpatient Cases (exclude C-Sections performed in dedicated C-Section ORs) x Inpatient Case Time in minutes] / 60 minutes
(4) (Outpatient Cases x Outpatient Case Time in minutes) / 60 minutes
(5) From Section C, Question 6(a)
(6) From Section C, Question 6(b)

In the Form C Utilization – Methodology and Assumptions subsection of Section Q, the applicant provides the assumptions and methodology used to project utilization, which are summarized below.

- The applicant calculated 3-year (CY 2015-2018) and 4-year (CY 2015-2019 annualized) CAGRs for inpatient and outpatient surgical cases. The applicant used the CY 2015-2018 CAGR for inpatient and outpatient surgical cases at AH Pineville to project future OR utilization at AH Pineville, stating AH Pineville OR utilization has historically grown faster than OR utilization at other facilities and is seeing more complex (and therefore longer) surgical cases.

- The applicant projects a shift of surgical cases to Piedmont Fort Mill Medical Center, a hospital that will be developed in South Carolina, consistent with its projections in previous OR applications. The applicant states that, since previous applications assumed Atrium

would be developing the hospital in South Carolina instead of a different entity, it adjusts the previous projections accordingly. The applicant states patients admitted to Piedmont Fort Mill Medical Center through the ED may be more likely to continue their care at Piedmont Fort Mill Medical Center and calculated AH Pineville's CY 2018 ratio of surgical patients who were admitted through the ED to the total number of acute care admissions. The applicant then applied the ratio to the total number of surgical cases it previously projected to shift from AH Pineville to Piedmont Fort Mill Medical Center.

- The applicant projects a shift of surgical cases to AH Union, and states it used the assumptions and methodology used in previously approved applications (Project I.D. #s F-11618-18 and F-11621-18) to determine the number of surgical cases projected to shift care from AH Pineville to AH Union. The applicant states that, when previous applications did not project shifts through the end of CY 2025, it used a 1.75 percent growth rate, consistent with Project I.D. #F-11618-18, to project growth in the number of surgical cases projected to shift from AH Pineville to AH Union through CY 2025.

- As part of Project I.D. #F-11810-19, the applicant's proposal to develop AH Lake Norman, the applicant calculated the number of surgical cases projected to shift from AH Pineville to AH Lake Norman. Please see the discussion regarding projected utilization for Project I.D. #F-11810-19 for the methodology used in projecting shifts of surgical cases to AH Lake Norman from AH Pineville.

- The applicant states it used assumptions and methodology consistent with Project I.D. # F-11106-15 (develop CSC-W) to determine the number of surgical cases projected to shift from AH Pineville to CSC-W and CSC-M, with some modifications. The applicant states that, due to changes in utilization patterns and delays in the development of CSC-W, it projects 75 percent of the surgical cases previously projected to shift from AH Pineville in Project I.D. #F-11106-15 will shift to CSC-W and CSC-M. The applicant states that, since Project I.D. #F-11106-15 only projected utilization through CY 2022, it used the population growth factor from the 2019 SMFP (1.99 percent) to project growth in the number of surgical cases projected to shift to from AH Pineville to CSC-W and CSC-M through CY 2025.

- The applicant subtracted the number of surgical cases projected to shift to different facilities from AH Pineville through CY 2025 to obtain its projected OR utilization at AH Pineville.

The following table shows projected OR utilization at AH Pineville.

AH Pineville Projected OR Utilization							
	CY 2019*	**CY 2020**	**CY 2021**	**CY 2022**	**CY 2023**	**CY 2024**	**CY 2025**
Baseline Inpatient Cases	3,470	3,715	3,978	4,259	4,560	4,882	5,227
Baseline Outpatient Cases	4,130	4,239	4,351	4,466	4,583	4,704	4,829
Inpatient Cases Shifting to Piedmont Fort Mill	--	--	--	--	-126	-130	-134
Inpatient Cases Shifting to AH Union	--	-29	-45	-91	-124	-158	-160
Inpatient Cases Shifting to AH Lake Norman	--	--	--	--	-3	-5	-7
Outpatient Cases Shifting to AH Union	--	-36	-55	-111	-151	-192	-195
Outpatient Cases Shifting to AH Lake Norman	--	--	--	--	-16	-24	-33
Total Inpatient Cases	3,470	3,686	3,933	4,168	4,306	4,590	4,926
Total Outpatient Cases	4,130	4,203	4,296	4,354	4,417	4,488	4,600
Final Inpatient Case Time (1)	174.0	174.0	174.0	174.0	174.0	174.0	174.0
Final Outpatient Case Time (1)	101.6	101.6	101.6	101.6	101.6	101.6	101.6
Total Surgical Hours (2)	**17,056**	**17,806**	**18,681**	**19,460**	**19,967**	**20,910**	**22,076**
Average Annual Operating Hours – Group 3 (3)	1,755	1,755	1,755	1,755	1,755	1,755	1,755
Number of ORs Needed (4)	9.72	10.15	10.64	11.09	11.38	11.91	12.58
Number of Existing/Approved ORs	10	11	11	11	11	11	11
(Surplus) / Deficit	**(0.28)**	**(0.85)**	**(0.36)**	**0.09**	**0.38**	**0.91**	**1.58**

Source: Section Q, Form C Methodology and Assumptions
*Annualized based on January 2019-July 2019 data.
(1) The Final Case Time in minutes for the facility in the 2019 SMFP.
(2) Total Hours equals Surgical Cases multiplied by the Average Case Time, then divided by 60.
(3) From Table 6B in the 2019 SMFP.
(4) # of ORs Needed equals Surgical Hours divided by the Standard Hours per OR per Year.

As shown in the table above, using the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP, the applicant will have a deficit of 1.58 ORs in the third full fiscal year following project completion. AH Pineville proposes to add two ORs to its facility.

Atrium Health System

The Atrium health system in Mecklenburg County consists of Atrium Health Huntersville (AH Huntersville), Carolina Center for Specialty Surgery (CCSS), CMC (including AH Mercy), AH Pineville, and AH University City, along with the proposed AH Lake Norman. Pursuant to 10A NCAC 14C .2103(a), the applicant must demonstrate the need for all existing, approved, and proposed ORs in the health system at the end of the third full fiscal year following project completion, using the Operating Room Need Methodology in the 2019 SMFP.

In the Form C Utilization – Methodology and Assumptions subsection of Section Q, the applicant provides the assumptions and methodology used to project utilization at all other facilities in its health system in Mecklenburg County. The assumptions and methodology are summarized below.

Since 2015, Atrium applications involving OR utilization projections have included assumptions and methodology projecting shifts in surgical cases between facilities in both Mecklenburg County and surrounding counties. The applicant states it will project shifts in surgical cases between facilities in Mecklenburg County and in surrounding counties consistent with previously approved applications.

- Determine historical utilization by facility – The applicant calculated 3-year (CY 2015-2018) and 4-year (CY 2015-2019 annualized) CAGRs for inpatient and outpatient surgical cases at each facility.

- Project surgical cases through CY 2025 prior to any shifts – for each facility except AH Pineville, the applicant applied an annual growth rate of 1.99 percent to both inpatient and outpatient surgical cases and projected utilization at each facility through CY 2025. The applicant states it chose a 1.99 percent annual growth rate because it was the annual equivalent of the Growth Factor for Mecklenburg County in Chapter 6 of the 2019 SMFP. (The Project Analyst determined this to be true – please see the Working Papers for analysis.) The applicant states it used the CY 2015-2018 CAGR for inpatient and outpatient surgical cases at AH Pineville to project future utilization because AH Pineville utilization has historically grown faster than utilization at other Atrium facilities and is seeing more complex (and therefore longer) surgical cases. The applicant states it has historically projected surgical cases will shift to other facilities, due to planned efforts to alleviate capacity, and states it will continue to project shifts in surgical cases through CY 2025.

- Project shift of surgical cases to Piedmont Fort Mill Medical Center – beginning with applications in 2015, the applicant projected a shift in surgical cases to Piedmont Fort Mill Medical Center in South Carolina. The applicant had applied to develop the hospital and was involved in protracted litigation to develop the hospital which was ultimately unsuccessful. The applicant states that, since previous applications assumed Atrium would be developing the hospital in South Carolina instead of a different entity, it adjusts the previous projections accordingly. The applicant states patients admitted to Piedmont Fort Mill Medical Center through the ED may be more likely to continue their care at Piedmont Fort Mill Medical Center, and for each Atrium hospital, it calculated the ratio of CY 2018 surgical patients who were admitted through the ED to the total number of acute care admissions. The applicant then applies the ratio to the total number of surgical cases it previously projected to shift from each Atrium facility to Piedmont Fort Mill Medical Center.

- Project shift of surgical cases to AH Union – the applicant states it used the assumptions and methodology used in previously approved applications (Project I.D. #s F-11618-18, F-11619-18, F-11620-18, and F-11621-18) to determine the number of surgical cases projected to shift care from Atrium facilities in Mecklenburg County to AH Union. The applicant states that when previous applications did not project shifts through the end of CY 2025, it used a 1.75 percent growth rate, consistent with Project I.D. #F-11618-18, to project growth in the number of surgical cases projected to shift from Atrium facilities in Mecklenburg County to AH Union through CY 2025.

- Project shift of surgical cases to AH Lake Norman – as part of Project I.D. #F-11810-19, the applicant's proposal to develop AH Lake Norman, the applicant calculated the number of surgical cases projected to shift from Atrium hospitals in Mecklenburg County to AH Lake Norman. Please see the discussion regarding projected utilization for Project I.D. #F-11810-19 for the methodology used in projecting shifts of surgical cases to AH Lake Norman from Atrium hospitals in Mecklenburg County.

- Project shift of surgical cases to CSC-W and CSC-M – the applicant states it used assumptions and methodology consistent with Project I.D. # F-11106-15 (develop CSC-W) to determine the number of surgical cases projected to shift from Atrium facilities in Mecklenburg County to CSC-W and CSC-M, with some modifications. The applicant states that, due to changes in utilization patterns and delays in the development of CSC-W, it projects 75 percent of the surgical cases previously projected to shift from Atrium facilities in Mecklenburg County in Project I.D. #F-11106-15 will shift to CSC-W and CSC-M. The applicant states that, since Project I.D. #F-11106-15 only projected utilization through CY 2022, it used the population growth factor from the 2019 SMFP (1.99 percent) to project growth in the number of surgical cases projected to shift to from Atrium facilities in Mecklenburg County to CSC-W and CSC-M through CY 2025.

- Subtract shifts in surgical cases from each Atrium facility to determine projected OR utilization through CY 2025 – the applicant subtracted the number of surgical cases projected to shift to different facilities from each of the Atrium facilities in Mecklenburg County through CY 2025 to obtain projected utilization at each Atrium facility.

A brief summary of the assumptions, methodology, and projected utilization for each Atrium facility follows below.

Atrium Health Lake Norman - The applicant calculated the projected inpatient and outpatient surgical cases to be served at AH Lake Norman in Project I.D. #F-11810-19. Please see the section of the Findings which discusses the assumptions and methodology used in Project I.D. #F-11810-19. The applicant used the AH University City final inpatient and outpatient case times published in the 2019 SMFP to calculate the projected number of surgical hours in CYs 2023-2025. The applicant states all surgical cases at AH Lake Norman are projected to shift from other Atrium facilities in Mecklenburg County.

The table below summarizes the assumptions and methodology used by the applicant for AH Lake Norman surgical case projections.

AH-LN Projected Surgical Cases/Hours (excluding C-Sections)			
	FY 1 (CY 2023)	**FY 2 (CY 2024)**	**FY 3 (CY 2025)**
Total Inpatient Cases	145	222	302
Total Outpatient Cases	665	1,018	1,385
AH-UC Final IP Case Time (1)	112.6	112.6	112.6
AH-UC Final OP Case Time (1)	74.1	74.1	74.1
Total Surgical Hours (2)	**1,093**	**1,673**	**2,277**
Average Annual Operating Hours – Group 4 (3)	1,500	1,500	1,500
Number of ORs Needed (4)	0.73	1.12	1.52
Number of Existing/Approved ORs	0	0	0
(Surplus) / Deficit	**0.73**	**1.12**	**1.52**

Source: Section Q, Form C Methodology and Assumptions
(1) The Final Case Time in minutes for the facility in the 2019 SMFP.
(2) Total Hours equals Surgical Cases multiplied by the Average Case Time, then divided by 60.
(3) From Table 6B in the 2019 SMFP.
(4) # of ORs Needed equals Surgical Hours divided by the Standard Hours per OR per Year.

As shown in the table above, using the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP, the applicant projects the need for 1.52 ORs in the third full fiscal year following project completion. Atrium proposes to develop two ORs at AH Lake Norman.

Atrium Health University City - There are two projects which were previously approved, but which are not yet developed as of the date of these findings which will impact the total number of ORs at AH University City:

- Project I.D. #F-11106-15/Charlotte Surgery Center – Wendover Campus/Relocate three ORs from AH University City to CSC-W

- Project I.D. #F-11349-17/Atrium Health Huntersville Surgery/Separately license one OR currently on the hospital license

After the approved projects are complete, AH University City will have seven ORs.

The applicant projects growth for both inpatient and outpatient surgical cases using the 1.99 percent CAGR previously discussed. The CAGR used is higher than the historical inpatient CAGR (-2.5 percent) but lower than the historical outpatient CAGR (2.1 percent). Then the applicant makes assumptions about shifts of surgical cases to other facilities in Mecklenburg County, Union County, and South Carolina. The following table illustrates projected utilization at AH University City.

AH University City Projected OR Utilization							
	CY 2019*	**CY 2020**	**CY 2021**	**CY 2022**	**CY 2023**	**CY 2024**	**CY 2025**
Baseline Inpatient Cases	944	963	982	1,001	1,021	1,042	1,062
Baseline Outpatient Cases	4,916	5,014	5,114	5,216	5,320	5,425	5,533
Inpatient Cases Shifting to Other Facilities	--	-2	-3	-6	-50	-74	-96
Outpatient Cases Shifting to Other Facilities	--	-410	-462	-517	-717	-831	-945
Total Inpatient Cases	944	961	979	996	971	968	965
Total Outpatient Cases	4,916	4,604	4,652	4,699	4,602	4,595	4,588
Final Inpatient Case Time (1)	112.6	112.6	112.6	112.6	112.6	112.6	112.6
Final Outpatient Case Time (1)	74.1	74.1	74.1	74.1	74.1	74.1	74.1
Total Surgical Hours (2)	**7,843**	**7,489**	**7,582**	**7,671**	**7,506**	**7,491**	**7,478**
Average Annual Operating Hours – Group 4 (3)	1,500	1,500	1,500	1,500	1,500	1,500	1,500
Number of ORs Needed (4)	5.23	4.99	5.05	5.11	5.00	4.99	4.99
Number of Existing/Approved ORs	7	7	7	7	7	7	7
(Surplus) / Deficit	**(1.77)**	**(2.01)**	**(1.95)**	**(1.89)**	**(2.00)**	**(2.01)**	**(2.01)**

Source: Section Q, Form C Methodology and Assumptions
*Annualized based on January 2019-July 2019 data.
(1) The Final Case Time in minutes for the facility in the 2019 SMFP.
(2) Total Hours equals Surgical Cases multiplied by the Average Case Time, then divided by 60.
(3) From Table 6B in the 2019 SMFP.
(4) # of ORs Needed equals Surgical Hours divided by the Standard Hours per OR per Year.

As shown in the table above, using the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP, the applicant projects a surplus of 2.01 ORs at AH University City in the third full fiscal year following project completion. However, Atrium does not propose to add any additional ORs at AH University City as part of this review.

Carolinas Medical Center - The applicant projects growth for both inpatient and outpatient surgical cases using the 1.99 percent CAGR previously discussed. These CAGRs are not based on the historical CAGRs at CMC. Then the applicant makes assumptions about shifts of surgical cases to other facilities in Mecklenburg County, Union County, and South Carolina. The following table illustrates projected utilization at CMC. Please note that the Project Analyst combined the CMC and AH Mercy sections into a single section, because the facilities are licensed together; as such, there may be minor discrepancies between the numbers displayed in the table below and the information found in the application. These discrepancies are irrelevant and do not impact the outcome of these findings in any way.

CMC Projected OR Utilization							
	CY 2019*	**CY 2020**	**CY 2021**	**CY 2022**	**CY 2023**	**CY 2024**	**CY 2025**
Baseline Inpatient Cases	20,188	20,590	21,000	21,418	21,843	22,278	22,721
Baseline Outpatient Cases	21,681	22,113	22,552	23,001	23,459	23,925	24,401
Inpatient Cases Shifting to Other Facilities	--	-131	-200	-407	-780	-989	-1,060
Outpatient Cases Shifting to Other Facilities	--	-2,510	-2,932	-3,520	-4,214	-4,696	-5,026
Total Inpatient Cases	20,188	20,459	20,800	21,011	21,062	21,289	21,661
Total Outpatient Cases	21,681	19,602	19,620	19,481	19,245	19,229	19,375
Final Inpatient Case Time (1)	224.7	224.7	224.7	224.7	224.7	224.7	224.7
Final Outpatient Case Time (1)	134.0	134.0	134.0	134.0	134.0	134.0	134.0
Total Surgical Hours (2)	**124,025**	**120,399**	**121,714**	**122,194**	**121,861**	**122,672**	**124,391**
Average Annual Operating Hours – Group 2 (3)	1,950	1,950	1,950	1,950	1,950	1,950	1,950
Number of ORs Needed (4)	63.60	61.74	62.42	62.66	62.49	62.91	63.79
Number of Existing/Approved ORs	57	57	57	57	57	57	57
(Surplus) / Deficit	**6.60**	**4.74**	**5.42**	**5.66**	**5.49**	**5.91**	**6.79**

Source: Section Q, Form C Methodology and Assumptions
*Annualized based on January 2019-July 2019 data.
(1) The Final Case Time in minutes for the facility in the 2019 SMFP.
(2) Total Hours equals Surgical Cases multiplied by the Average Case Time, then divided by 60.
(3) From Table 6B in the 2019 SMFP.
(4) # of ORs Needed equals Surgical Hours divided by the Standard Hours per OR per Year.

As shown in the table above, using the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP, the applicant projects a deficit of 6.79 ORs on the CMC license in the third full fiscal year following project completion. Atrium proposes to add two additional ORs at CMC.

Atrium Health Huntersville Surgery – Currently, AH Huntersville is a separate building with one OR and one procedure room that is licensed as part of AH University City. In Project I.D. #F-11349-17, AH Huntersville was approved to become a separately licensed ASF with one OR. The development of the ASF will take place after the completion of CSC-W.

The applicant projects surgical cases using the 1.99 percent CAGR previously discussed. The CAGR is nearly the same as the facility's historical CAGR (2.0 percent). Then the applicant makes assumptions about shifts of surgical cases to other facilities in Mecklenburg County, Union County, and South Carolina.

On page 23 of the Form C Methodology and Assumptions subsection of Section Q, the applicant states it uses the 2018 LRA adjusted case time of 52.4 minutes in its projections since

AH Huntersville is *"an existing facility with publicly reported historical case times."* While AH Huntersville is not considered an existing facility, this case time is lower than the corresponding case time for newly licensed ASFs in Group 6. The following table illustrates projected utilization at AH Huntersville.

AH Huntersville Projected OR Utilization							
	CY 2019*	**CY 2020**	**CY 2021**	**CY 2022**	**CY 2023**	**CY 2024**	**CY 2025**
Baseline Outpatient Cases	1,996	2,035	2,076	2,117	2,159	2,202	2,246
Outpatient Cases Shifting to Other Facilities	--	-434	-488	-542	-552	-563	-575
Total Outpatient Cases	1,996	1,601	1,588	1,575	1,607	1,639	1,671
Final Outpatient Case Time (1)	52.4	52.4	52.4	52.4	52.4	52.4	52.4
Total Surgical Hours (2)	**1,743**	**1,398**	**1,387**	**1,376**	**1,403**	**1,431**	**1,459**
Average Annual Operating Hours – Group 6 (3)	1,312	1,312	1,312	1,312	1,312	1,312	1,312
Number of ORs Needed (4)	1.33	1.07	1.06	1.05	1.07	1.09	1.11
Number of Existing/Approved ORs	1	1	1	1	1	1	1
(Surplus) / Deficit	**0.33**	**0.07**	**0.06**	**0.05**	**0.07**	**0.09**	**0.11**

Source: Section Q, Form C Methodology and Assumptions
*Annualized based on January 2019-July 2019 data.
(1) The Final Case Time in minutes for the facility in the 2019 SMFP.
(2) Total Hours equals Surgical Cases multiplied by the Average Case Time, then divided by 60.
(3) From Table 6B in the 2019 SMFP.
(4) # of ORs Needed equals Surgical Hours divided by the Standard Hours per OR per Year.

As shown in the table above, using the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP, the applicant projects a deficit of 0.11 ORs in the third full fiscal year following project completion. The applicant does not propose to add any additional ORs at AH Huntersville as part of this review.

Carolina Center for Specialty Surgery – The applicant projects surgical cases using the 1.99 percent CAGR previously discussed. The CAGR is lower than the facility's historical CAGR. Then the applicant makes assumptions about shifts of surgical cases to other facilities in Mecklenburg County, Union County, and South Carolina. The following table illustrates projected OR utilization at CCSS.

CCSS Projected OR Utilization							
	CY 2019*	**CY 2020**	**CY 2021**	**CY 2022**	**CY 2023**	**CY 2024**	**CY 2025**
Baseline Outpatient Cases	2,036	2,077	2,118	2,160	2,203	2,247	2,292
Outpatient Cases Shifting From CMC	--	112	169	225	225	225	225
Total Outpatient Cases	2,036	2,189	2,287	2,385	2,428	2,472	2,517
Final Outpatient Case Time (1)	85.0	85.0	85.0	85.0	85.0	85.0	85.0
Total Surgical Hours (2)	**2,884**	**3,102**	**3,240**	**3,379**	**3,440**	**3,502**	**3,566**
Average Annual Operating Hours – Group 6 (3)	1,312	1,312	1,312	1,312	1,312	1,312	1,312
Number of ORs Needed (4)	2.20	2.36	2.47	2.58	2.62	2.67	2.72
Number of Existing/Approved ORs	3	3	3	3	3	3	3
(Surplus) / Deficit	**(0.80)**	**(0.64)**	**(0.53)**	**(0.42)**	**(0.38)**	**(0.33)**	**(0.28)**

Source: Section Q, Form C Methodology and Assumptions
*Annualized based on January 2019-July 2019 data.
(1) The Final Case Time in minutes for the facility in the 2019 SMFP.
(2) Total Hours equals Surgical Cases multiplied by the Average Case Time, then divided by 60.
(3) From Table 6B in the 2019 SMFP.
(4) # of ORs Needed equals Surgical Hours divided by the Standard Hours per OR per Year.

As shown in the table above, using the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP, the applicant projects a surplus of 0.28 ORs in the third full fiscal year following project completion. The applicant does not propose to add any additional ORs at CCSS as part of this review.

Atrium Health System Combined - To meet the performance standard promulgated in 10A NCAC 14C .2103(a) in effect at the time of the submission of this application, an applicant proposing to add new ORs to a facility in its service area must demonstrate the need for all existing, approved, and proposed ORs in the health system at the end of the third full fiscal year following project completion, using the Operating Room Need Methodology in the 2019 SMFP. Altogether, Atrium proposes to add six ORs to its system:

- Project I.D. #F-11810-19/Atrium Health Lake Norman/Develop two ORs
- Project I.D. #F-11814-19/ Atrium Health Pineville/Add two ORs
- Project I.D. #F-11815-19/Carolinas Medical Center/Add two ORs

The following table illustrates the projected OR surpluses and deficits for the entire health system.

Atrium Health OR Need			
	Deficits / (Surpluses)		
	1st Full FY CY 2023	**2nd Full FY CY 2024**	**3rd Full FY CY 2025**
AH Lake Norman	0.73	1.12	1.52
AH Pineville	0.38	0.91	1.58
AH University City	(2.00)	(2.01)	(2.01)
CMC	5.49	5.91	6.79
AH Huntersville Surgery Center	0.07	0.09	0.11
CCSS	(0.38)	(0.33)	(0.28)
Total Deficit/(Surplus)	**4.29**	**5.69**	**7.71**

Source: Section Q, Form C Methodology and Assumptions

As shown in the table above, the Atrium health system projects a deficit of 7.71 ORs by the end of CY 2025. Atrium proposes to add a total of six ORs in the three applications submitted in this review. This meets the standard promulgated in 10A NCAC 14C .2103(a), which requires an applicant proposing to add new ORs to a service area to demonstrate the need for all the existing, approved, and proposed ORs in a health system in the third full fiscal year following project completion based on the Operating Room Need Methodology in the 2019 SMFP.

There is an issue that potentially calls into question whether Atrium's assumptions and methodology are adequately supported regarding projected utilization. The applicant uses a projected growth rate for both inpatient and outpatient surgical cases at CMC-Main that is not supported by its historical inpatient and outpatient surgical case volumes. The applicant does not adequately demonstrate in the application as submitted that projecting growth for inpatient and outpatient surgical cases is reasonable and adequately supported since CMC-Main's inpatient and outpatient surgical case volume has declined for several years in a row. According to the applicant's 2017-2020 LRAs, available to the Agency during this review, CMC-Main's inpatient surgical case volume was essentially unchanged between FFY 2017 and FFY 2018, decreased slightly between FFY 2018 and FFY 2019, and decreased more significantly between FFY 2019 and FFY 2020. CMC-Main's outpatient surgical case volume decreased between FFY 2017 and FFY 2018, decreased further between FFY 2018 and FFY 2019, and increased slightly between FFY 2019 and FFY 2020 (but did not increase back to the FFY 2019 number of outpatient surgical cases). Further, the applicant uses a projected growth rate for inpatient surgical cases at AH University City that is not supported by historical inpatient surgical case volumes. The applicant does not adequately demonstrate in the application as submitted that projecting growth for inpatient surgical cases at AH University City is reasonable and adequately supported since none of the reasons the applicant provides to explain the recent decline in utilization apply to inpatient surgical cases at AH University City.

Nevertheless, according to information provided by Atrium to the Agency in its 2020 Hospital and ASF LRAs, which were available to the Agency during the review, the Atrium health system already has a significant deficit of ORs. The table below shows the number of inpatient and outpatient surgical cases reported on the 2020 LRA for each Atrium facility. The reporting period is October 1, 2018 to September 30, 2019. Using the Final Case Times for each category as reported in the 2020 SMFP (most facilities report a higher Final Case Time on their 2020 LRA than is reported in the 2020 SMFP), the facilities in the system show the following deficits and surpluses:

Atrium Health OR Deficits/Surpluses Based on 2020 LRA Cases					
Facility	**FY 2018 Cases***	**Final Case Time****	**Average Annual Op. Hours****	**# ORs Needed**	**(Surplus) / Deficit**
CCSS	1,979	68.0	1,312	1.71	(1.29)
AH Pineville Inpatient	3,498	176.0	1,755	10.23	(0.77)
AH Pineville Outpatient	4,311	107.0			
CMC Inpatient***	18,828	224.0	1,950	65.53	8.53
CMC Outpatient***	23,402	147.4			
AH University City Inpatient	963	123.9	1,500	6.62	(0.38)
AH University City Outpatient****	6,216	76.7			
System Total	**59,197**			**84.09**	**6.09**

Sources: 2020 LRAs for each facility; 2020 SMFP
*Does not include C-Sections performed in dedicated C-Section ORs
**From 2020 SMFP
***Includes AH Mercy
****Includes the OR that will become part of AH Huntersville Surgery Center

When using the calculations shown in the table above, CMC has a deficit of 8.53 ORs. The 2019 SMFP showed CMC had a projected deficit of 12.47 ORs, and the 2020 SMFP shows CMC has a projected deficit of 16.78 ORs. CMC could hold its current utilization steady through OY3 and it would not only show the need for the two additional ORs it proposes to add, but it would also by itself meet the standard promulgated in 10A NCAC 14C .2103(a). In other words, CMC-Main shows a need for all six ORs that are proposed in the three Atrium applications using the Operating Room Need Methodology in the 2019 SMFP.

Projected utilization is reasonable and adequately supported for the following reasons:

- There is a need determination in the 2019 SMFP for six ORs in the Mecklenburg County OR planning area.

- The applicant relies on historical utilization and assumptions consistent with previously approved projects to project future utilization.

- The health system's historical utilization already meets the performance standard promulgated in 10A NCAC 14C .2103(a).

Access – In Section C, page 48, the applicant states:

> *"Atrium Health Pineville provides services to all persons in need of medical care, regardless of race, color, religion, national origin, sex, age, disability, or source of payment."*

In Section L, page 79, the applicant projects the following payor mix for the proposed services during the third full fiscal year of operation following project completion, as shown in the table below.

AH Pineville Projected Payor Mix Third Full FY (CY 2025)		
Payor Source	**Total Facility**	**ORs**
Self-Pay	12.4%	3.6%
Medicare*	32.6%	41.0%
Medicaid*	13.0%	4.8%
Insurance*	39.3%	48.6%
Other**	2.8%	2.0%
Total	**100.0%**	**100.0%**

*Including any managed care plans
**Includes TRICARE and worker's compensation

The projected payor mix is reasonable and adequately supported.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application
- Information publicly available during the review and used by the Agency

Based on that review, the Agency concludes that the application is conforming to this criterion for the following reasons:

- The applicant adequately identifies the population to be served.

- The applicant adequately explains why the population to be served needs the services proposed in this application.

- Projected utilization is reasonable and adequately supported.

- The applicant projects the extent to which all residents, including underserved groups, will have access to the proposed services (payor mix) and adequately support its assumptions.

F-11815-19/Carolinas Medical Center/Develop two ORs

The applicant proposes to develop two additional ORs at CMC, its existing acute care hospital, for a total of 64 ORs upon completion of this project, Project I.D. #F-11106-15 (relocate 2 ORs to Charlotte Surgery Center – Wendover Campus), and Project I.D. #F-11620-18 (add 2 ORs).

This application is one of six filed in the same review cycle for acute care beds and ORs by CMHA. On February 7, 2018, The Charlotte-Mecklenburg Hospital Authority, which owns and operates the facilities involved in these six applications, announced that it was changing its name and would do business as Atrium Health. There are six facilities relevant to this review that are part of the Atrium health system in Mecklenburg County. The following table identifies these facilities, the current name, and effective date of the change.

ATRIUM HEALTH ACUTE CARE HOSPITALS – MECKLENBURG COUNTY		
Previous Name	**Current Name**	**Effective Date of Change**
Carolinas Medical Center	Carolinas Medical Center	NA (will not change)
Carolinas Medical Center – Mercy	Atrium Health Mercy	August 1, 2019
Carolinas HealthCare System Union	Atrium Health Union	January 1, 2019
Carolinas HealthCare System Pineville	Atrium Health Pineville	January 1, 2019
Carolinas HealthCare System University	Atrium Health University City	December 1, 2019
Carolinas HealthCare System Huntersville	Atrium Health Huntersville Surgery	December 1, 2019

Patient Origin – On page 55, the 2019 SMFP defines the service area for ORs as *"…the operating room planning area in which the operating room is located. The operating room planning areas are the single and multicounty groupings shown in Figure 6.1."* Figure 6.1, on page 60, shows Mecklenburg County as its own OR planning area. Thus, the service area for this facility is Mecklenburg County. Facilities may also serve residents of counties not included in their service area.

The following table illustrates current and projected patient origin.

CMC Current and Projected Patient Origin - ORs								
County	**Current (CY 2018)**		**FY 1 (CY 2022)**		**FY 2 (CY 2023)**		**FY 3 (CY 2024)**	
	# Patients	**% of Total**	**# Patients**	**% of Total**	**# Patients**	**% of Total**	**# Patients**	**% of Total**
Mecklenburg	13,775	43.0%	13,096	43.8%	12,968	43.5%	13,034	43.4%
York (SC)	2,657	8.3%	2,526	8.4%	2,470	8.3%	2,521	8.4%
Union	2,352	7.3%	1,670	5.6%	1,514	5.1%	1,353	4.5%
Gaston	2,119	6.6%	2,014	6.7%	2,056	6.9%	2,099	7.0%
Cabarrus	1,336	4.2%	1,270	4.2%	1,297	4.4%	1,324	4.4%
Cleveland	1,202	3.7%	1,143	3.8%	1,167	3.9%	1,191	4.0%
Lancaster (SC)	1,034	3.2%	983	3.3%	1,003	3.4%	1,024	3.4%
Lincoln	889	2.8%	846	2.8%	863	2.9%	881	2.9%
Iredell	749	2.3%	712	2.4%	691	2.3%	687	2.3%
Other Counties*	5,953	18.6%	5,659	18.9%	5,777	19.4%	5,897	19.7%
Total	**32,066**	**100.0%**	**29,919**	**100.0%**	**29,808**	**100.0%**	**30,012**	**100.0%**

Source: Section C, pages 18-19

*Other: Alamance, Alexander, Alleghany, Anson, Ashe, Avery, Beaufort, Bladen, Brunswick, Buncombe, Burke, Caldwell, Carteret, Catawba, Chatham, Cherokee, Clay, Columbus, Craven, Cumberland, Davidson, Davie, Durham, Edgecombe, Forsyth, Graham, Granville, Guilford, Harnett, Haywood, Henderson, Hoke, Jackson, Johnston, Jones, Lee, Lenoir, Macon, Madison, McDowell, Mitchell, Montgomery, Moore, Nash, New Hanover, Onslow, Orange, Pender, Pitt, Polk, Randolph, Richmond, Robeson, Rockingham, Rowan, Rutherford, Sampson, Scotland, Stanly, Stokes, Surry, Swain, Transylvania, Vance, Wake, Watauga, Wilkes, Wilson, Yadkin, and Yancey counties in North Carolina as well as other states.

In Section C, page 20, the applicant provides the assumptions and methodology used to project patient origin. The applicant's assumptions are reasonable and adequately supported.

Analysis of Need – Atrium submitted three applications in response to the OR Need Determination in the 2019 SMFP. Atrium proposes to develop AH Lake Norman, with two ORs (Project I.D. #F-11810-19); to add two ORs to AH Pineville (Project I.D. #F-11814-19); and to add two ORs to CMC (Project I.D. #F-11815-19). In Section C, pages 20-29 and 32-37, the applicant discusses Atrium's system-wide need for the OR proposals in Mecklenburg

County. In a competitive review, every application is first evaluated independently, as if there are no other applications in the review, to determine whether the application is conforming to all statutory and regulatory review criteria. Therefore, the discussion in this section focuses only on the need as it relates to AH Pineville.

In Section C, page 24, Atrium states the need for six ORs in Mecklenburg County was generated entirely by Atrium facilities. However, anyone may apply to meet the need, not just Atrium. Atrium has the burden of demonstrating the need for the proposed ORs in its applications as submitted.

In Section C, pages 30-32 and 37-41, the applicant explains why it believes the population projected to utilize the proposed services needs the proposed services, as summarized below:

- As part of its assumptions and methodology, the applicant extrapolated actual historical data from January – July 2019 to obtain CY 2019 annualized data.

- CMC is a Level 1 Trauma Center, offers solid organ transplantation, and is the area's only quaternary academic medical center; as such, it fills a vital role in the region.

- CMC's current OR deficit in the 2019 SMF is 12.32 ORs and it provides more hours per OR than any other facility in Mecklenburg County.

- Surgical volumes in Mecklenburg County have grown at higher rates than the state average. Outpatient surgical cases in Mecklenburg County are increasing more quickly than inpatient surgical cases. While the number of outpatient cases performed at ASFs have higher growth rates than outpatient cases performed at hospitals, the difference isn't significant, and the increase in the number of outpatient cases performed at hospitals is more than double the increase in the number of outpatient cases performed at ASFs.

- According to ESRI, the population of the area served by Mecklenburg County facilities – the NC counties in HSA III along with three counties in South Carolina adjacent to the NC border – are projected to grow by an average of 8.7 percent between 2019 and 2024.

The information is reasonable and adequately supported for the following reasons:

- There is a need determination for six ORs in Mecklenburg County in the 2019 SMFP. The applicant is applying to develop two ORs in Mecklenburg County in accordance with the OR need determination in the 2019 SMFP.

- The applicant uses historical and demographic data to make assumptions regarding identification of the population to be served.

- The applicant provides reliable data, makes reasonable statements about the data, and uses reasonable assumptions about the data to demonstrate the need the population to be served has for the proposed services.

Projected Utilization - In Section Q, the applicant provides projected utilization, as illustrated in the following table.

CMC-Main Projected Utilization – Surgical Services			
	FY 1 (CY 2022)	**FY 2 (CY 2023)**	**FY 3 (CY 2024)**
Operating Rooms			
Dedicated C-Section ORs	4	4	4
Other Inpatient ORs	5	5	5
Shared ORs	29	29	29
Dedicated Ambulatory ORs	10	10	10
Total # of ORs	48	48	48
Excluded # of ORs	5	5	5
Total # of ORs – Planning Inventory	43	43	43
Surgical Cases			
# of Inpatient Cases (1)	15,509	15,554	15,744
# of Outpatient Cases	14,410	14,253	14,267
Total # Surgical Cases (1)	29,919	29,808	30,012
Case Times			
Inpatient (2)	224.7	224.7	224.7
Outpatient (2)	134.0	134.0	134.0
Surgical Hours			
Inpatient (3)	58,082	58,251	58,963
Outpatient (4)	32,182	31,833	31,864
Total Surgical Hours	90,265	90,084	90,826
# of ORs Needed			
Group Assignment (5)	1	1	1
Standard Hours per OR per Year (6)	1,950	1,950	1,950
ORs Needed (total hours / 1,500)	46.29	46.20	46.58

(1) Excluding C-Sections performed in a dedicated C-Section OR
(2) From Section C, Question 6(c)
(3) [Inpatient Cases (exclude C-Sections performed in dedicated C-Section ORs) x Inpatient Case Time in minutes] / 60 minutes
(4) (Outpatient Cases x Outpatient Case Time in minutes) / 60 minutes
(5) From Section C, Question 6(a)
(6) From Section C, Question 6(b)

In the Form C Utilization – Methodology and Assumptions subsection of Section Q, the applicant provides the assumptions and methodology used to project utilization, which are summarized below.

- The applicant calculated 3-year (CY 2015-2018) and 4-year (CY 2015-2019 annualized) CAGRs for inpatient and outpatient surgical cases. The applicant applied a growth rate of 1.99 percent to both inpatient and outpatient surgical cases and projected utilization at CMC-Main through CY 2024. The applicant states it chose a 1.99 percent annual growth rate because it was the annual equivalent of the Growth Factor for Mecklenburg County in Chapter 6 of the 2019 SMFP. (The Project Analyst determined this to be true – please see the Working Papers for analysis.) The growth rate is not based on the historical CAGR.

- The applicant projects a shift of surgical cases to Piedmont Fort Mill Medical Center, a hospital that will be developed in South Carolina, consistent with its projections in previous OR applications. The applicant states that, since previous applications assumed Atrium would be developing the hospital in South Carolina instead of a different entity, it adjusts the previous projections accordingly. The applicant states patients admitted to Piedmont Fort Mill Medical Center through the ED may be more likely to continue their care at Piedmont Fort Mill Medical Center and calculated CMC-Main's CY 2018 ratio of surgical patients who were admitted through the ED to the total number of acute care admissions. The applicant then applied the ratio to the total number of surgical cases it previously projected to shift from CMC-Main to Piedmont Fort Mill Medical Center.

- The applicant projects a shift of surgical cases to AH Union, and states it used the assumptions and methodology used in previously approved applications (Project I.D. #s F-11618-18 and F-11620-18) to determine the number of surgical cases projected to shift care from CMC-Main to AH Union. The applicant states that, when previous applications did not project shifts through the end of CY 2024, it used a 1.75 percent growth rate, consistent with Project I.D. #F-11618-18, to project growth in the number of surgical cases projected to shift from CMC-Main to AH Union through CY 2024.

- As part of Project I.D. #F-11810-19, the applicant's proposal to develop AH Lake Norman, the applicant calculated the number of surgical cases projected to shift from CMC-Main to AH Lake Norman. Please see the discussion regarding projected utilization for Project I.D. #F-11810-19 for the methodology used in projecting shifts of surgical cases to AH Lake Norman from CMC-Main.

- The applicant states it used assumptions and methodology consistent with Project I.D. # F-11106-15 (develop CSC-W) to determine the number of surgical cases projected to shift from CMC-Main to CSC-W and CSC-M, with some modifications. The applicant states that, due to changes in utilization patterns and delays in the development of CSC-W, it projects 75 percent of the surgical cases previously projected to shift from CMC-Main in Project I.D. #F-11106-15 will shift to CSC-W and CSC-M. The applicant states that, since Project I.D. #F-11106-15 only projected utilization through CY 2022, it used the population growth factor from the 2019 SMFP (1.99 percent) to project growth in the number of surgical cases projected to shift to from CMC-Main to CSC-W and CSC-M through CY 2024.

- The applicant states it used the assumptions and methodology from Project I.D. #F-11268-16 (relocate one OR to AH Mercy) to project the number of surgical cases that would shift from CMC-Main to AH-Mercy.

- The applicant states it used the assumptions and methodology from Project I.D. #F-11619-18 (add one OR to CCSS) to project the number of surgical cases that would shift from CMC-Main to CCSS.

- The applicant subtracted the number of surgical cases projected to shift to different facilities from CMC-Main through CY 2024 to obtain its projected OR utilization at CMC-Main.

The following table shows projected OR utilization at CMC-Main.

CMC-Main Projected OR Utilization						
	CY 2019*	**CY 2020**	**CY 2021**	**CY 2022**	**CY 2023**	**CY 2024**
Baseline Inpatient Cases	15,267	15,571	15,881	16,197	16,519	16,848
Baseline Outpatient Cases	15,830	16,145	16,466	16,794	17,128	17,468
IP Cases to Piedmont Fort Mill	--	--	--	--	-108	-111
IP Cases to AH Union	--	-82	-125	-255	-346	-441
IP Cases to AH Lake Norman	--	--	--	--	-78	-120
IP Cases to AH Mercy	--	-432	-432	-432	-432	-432
OP Cases to AH Union	--	-100	-153	-311	-422	-537
OP Cases to AH Lake Norman	--	--	--	--	-358	-548
OP Cases to CSC-W	--	-809	-911	-1,012	-1,032	-1,052
OP Cases to CSC-M	--	-54	-61	-68	-69	-70
OP Cases to AH Mercy	--	-768	-768	-768	-768	-768
OP Cases to CCSS	--	-112	-169	-225	-225	-225
Total Inpatient Cases	15,267	15,057	15,323	15,509	15,554	15,744
Total Outpatient Cases	15,830	14,301	14,405	14,410	14,253	14,267
Final Inpatient Case Time (1)	224.7	224.7	224.7	224.7	224.7	224.7
Final Outpatient Case Time (1)	134.0	134.0	134.0	134.0	134.0	134.0
Total Surgical Hours (2)	**92,529**	**88,325**	**89,556**	**90,265**	**90,084**	**90,826**
Average Annual Operating Hours – Group 1 (3)	1,950	1,950	1,950	1,950	1,950	1,950
Number of ORs Needed (4)	47.45	45.29	45.93	46.29	46.20	46.58
Number of Existing/Approved ORs	41	41	41	41	41	41
(Surplus) / Deficit	**6.45**	**4.29**	**4.93**	**5.29**	**5.20**	**5.58**

Source: Section Q, Form C Methodology and Assumptions
*Annualized based on January 2019-July 2019 data.
(1) The Final Case Time in minutes for the facility in the 2019 SMFP.
(2) Total Hours equals Surgical Cases multiplied by the Average Case Time, then divided by 60.
(3) From Table 6B in the 2019 SMFP.
(4) # of ORs Needed equals Surgical Hours divided by the Standard Hours per OR per Year.

As shown in the table above, using the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP, the applicant projects a deficit of 5.58 ORs at CMC-Main in the third full fiscal year following project completion. Atrium proposes to add two additional ORs at CMC-Main.

Atrium Health System

The Atrium health system in Mecklenburg County consists of Atrium Health Huntersville (AH Huntersville), Carolina Center for Specialty Surgery (CCSS), CMC (including AH Mercy), AH Pineville, and AH University City, along with the proposed AH Lake Norman. Pursuant to 10A NCAC 14C .2103(a), the applicant must demonstrate the need for all existing, approved, and proposed ORs in the health system at the end of the third full fiscal year following project completion, using the Operating Room Need Methodology in the 2019 SMFP.

In the Form C Utilization – Methodology and Assumptions subsection of Section Q, the applicant provides the assumptions and methodology used to project utilization at all other

facilities in its health system in Mecklenburg County. The assumptions and methodology are summarized below.

Since 2015, Atrium applications involving OR utilization projections have included assumptions and methodology projecting shifts in surgical cases between facilities in both Mecklenburg County and surrounding counties. The applicant states it will project shifts in surgical cases between facilities in Mecklenburg County and in surrounding counties consistent with previously approved applications.

- Determine historical utilization by facility – The applicant calculated three-year (CY 2015-2018) and four-year (CY 2015-2019 annualized) CAGRs for inpatient and outpatient surgical cases at each facility.

- Project surgical cases through CY 2024 prior to any shifts – for each facility except AH Pineville, the applicant applied an annual growth rate of 1.99 percent to both inpatient and outpatient surgical cases and projected utilization at each facility through CY 2024. The applicant states it chose a 1.99 percent annual growth rate because it was the annual equivalent of the Growth Factor for Mecklenburg County in Chapter 6 of the 2019 SMFP. The applicant states it used the CY 2015-2018 CAGR for inpatient and outpatient surgical cases at AH Pineville to project future utilization because AH Pineville utilization has historically grown faster than utilization at other Atrium facilities and is seeing more complex (and therefore longer) surgical cases. The applicant states it has historically projected surgical cases will shift to other facilities, due to planned efforts to alleviate capacity, and states it will continue to project shifts in surgical cases through CY 2024.

- Project shift of surgical cases to Piedmont Fort Mill Medical Center – beginning with applications in 2015, the applicant projected a shift in surgical cases to Piedmont Fort Mill Medical Center in South Carolina. The applicant had applied to develop the hospital and was involved in protracted litigation to develop the hospital which was ultimately unsuccessful. The applicant states that, since previous applications assumed Atrium would be developing the hospital in South Carolina instead of a different entity, it adjusts the previous projections accordingly. The applicant states patients admitted to Piedmont Fort Mill Medical Center through the ED may be more likely to continue their care at Piedmont Fort Mill Medical Center, and for each Atrium hospital, it calculated the ratio of CY 2018 surgical patients who were admitted through the ED to the total number of acute care admissions. The applicant then applies the ratio to the total number of surgical cases it previously projected to shift from each Atrium facility to Piedmont Fort Mill Medical Center.

- Project shift of surgical cases to AH Union – the applicant states it used the assumptions and methodology used in previously approved applications (Project I.D. #s F-11618-18, F-11619-18, F-11620-18, and F-11621-18) to determine the number of surgical cases projected to shift care from Atrium facilities in Mecklenburg County to AH Union. The applicant states that when previous applications did not project shifts through the end of CY 2024, it used a 1.75 percent growth rate, consistent with Project I.D. #F-11618-18, to project growth in the number of surgical cases projected to shift from Atrium facilities in Mecklenburg County to AH Union through CY 2024.

- Project shift of surgical cases to CSC-W and CSC-M – the applicant states it modified the assumptions and methodology it used in its application to develop CSC-W (Project I.D. # F-11106-15) to determine the number of surgical cases projected to shift from Atrium facilities in Mecklenburg County to CSC-W and CSC-M. The applicant states that, due to changes in utilization patterns and delays in the development of CSC-W, it projected 75 percent of the surgical cases previously projected to shift from Atrium facilities in Project I.D. #F-11106-15 would shift to CSC-W and CSC-M. The applicant states that, since Project I.D. #F-11106-15 only projected utilization through CY 2022, it used the same growth rate it used for most Atrium facilities (1.99 percent) to project growth in the number of surgical cases projected to shift to CSC-W and CSC-M through CY 2024.

- Project shift of surgical cases from CMC-Main to AH Mercy – the applicant states it used the assumptions and methodology from Project I.D. #F-11268-16 (relocate one OR to AH Mercy) to project the number of surgical cases that would shift from CMC-Main to AH-Mercy.

- Project shift of surgical cases from CMC-Main to CCSS – the applicant states it used the assumptions and methodology from Project I.D. #F-11619-18 (add one OR to CCSS) to project the number of surgical cases that would shift from CMC-Main to CCSS.

- Subtract shifts in surgical cases from each Atrium facility to determine projected OR utilization through CY 2024 – the applicant subtracted the number of surgical cases projected to shift to different facilities from each of the Atrium facilities in Mecklenburg County through CY 2024 to obtain its projected OR utilization at each facility.

A brief summary of the assumptions, methodology, and projected OR utilization for each Atrium facility follows below.

Atrium Health Lake Norman - The applicant calculated the projected inpatient and outpatient surgical cases to be served at AH Lake Norman in Project I.D. #F-11810-19. Please see the section of the Findings which discusses the assumptions and methodology used in Project I.D. #F-11810-19. The applicant used the AH University City final inpatient and outpatient case times published in the 2019 SMFP to calculate the projected number of surgical hours in CYs 2022-2024. The applicant states all surgical cases at AH Lake Norman are projected to shift from other Atrium facilities in Mecklenburg County.

The table below summarizes the assumptions and methodology used by the applicant for AH Lake Norman surgical case projections.

AH-LN Projected Surgical Cases/Hours (excluding C-Sections)		
	FY 1 (CY 2023)	**FY 2 (CY 2024)**
Total Inpatient Cases	145	222
Total Outpatient Cases	665	1,018
AH-UC Final IP Case Time (1)	112.6	112.6
AH-UC Final OP Case Time (1)	74.1	74.1
Total Surgical Hours (2)	**1,093**	**1,673**
Average Annual Operating Hours – Group 4 (3)	1,500	1,500
Number of ORs Needed (4)	0.73	1.12
Number of Existing/Approved ORs	0	0
(Surplus) / Deficit	**0.73**	**1.12**

Source: Section Q, Form C Methodology and Assumptions
(1) The Final Case Time in minutes for the facility in the 2019 SMFP.
(2) Total Hours equals Surgical Cases multiplied by the Average Case Time, then divided by 60.
(3) From Table 6B in the 2019 SMFP.
(4) # of ORs Needed equals Surgical Hours divided by the Standard Hours per OR per Year.

CMC-Main's third full fiscal year is AH Lake Norman's second full fiscal year. As shown in the table above, using the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP, the applicant projects the need for 1.52 ORs in the third full fiscal year following project completion. Atrium proposes to develop two ORs at AH Lake Norman.

Atrium Health Pineville - The applicant projects growth for inpatient surgical cases at a 7.1 percent CAGR and projects growth for outpatient surgical cases using a 2.6 percent CAGR. The CAGRs are the actual CY 2015-2018 historical CAGRs. Then the applicant makes assumptions about shifts of surgical cases to other facilities in Mecklenburg County, Union County, and South Carolina. The following table illustrates projected OR utilization at AH Pineville.

AH Pineville Projected OR Utilization						
	CY 2019*	**CY 2020**	**CY 2021**	**CY 2022**	**CY 2023**	**CY 2024**
Baseline Inpatient Cases	3,470	3,715	3,978	4,259	4,560	4,882
Baseline Outpatient Cases	4,130	4,239	4,351	4,466	4,583	4,704
Inpatient Cases Shifting to Other Facilities	--	-29	-45	-91	-253	-293
Outpatient Cases Shifting to Other Facilities	--	-36	-55	-111	-167	-216
Total Inpatient Cases	3,470	3,686	3,933	4,168	4,306	4,590
Total Outpatient Cases	4,130	4,203	4,296	4,354	4,417	4,488
Final Inpatient Case Time (1)	174.0	174.0	174.0	174.0	174.0	174.0
Final Outpatient Case Time (1)	101.6	101.6	101.6	101.6	101.6	101.6
Total Surgical Hours (2)	**17,056**	**17,806**	**18,681**	**19,460**	**19,967**	**20,910**
Average Annual Operating Hours – Group 3 (3)	1,755	1,755	1,755	1,755	1,755	1,755
Number of ORs Needed (4)	9.72	10.15	10.64	11.09	11.38	11.91
Number of Existing/Approved ORs	10	11	11	11	11	11
(Surplus) / Deficit	**(0.28)**	**(0.85)**	**(0.36)**	**0.09**	**0.38**	**0.91**

Source: Section Q, Form C Methodology and Assumptions
*Annualized based on January 2019-July 2019 data.
(1) The Final Case Time in minutes for the facility in the 2019 SMFP.
(2) Total Hours equals Surgical Cases multiplied by the Average Case Time, then divided by 60.
(3) From Table 6B in the 2019 SMFP.
(4) # of ORs Needed equals Surgical Hours divided by the Standard Hours per OR per Year.

As shown in the table above, using the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP, the applicant projects the need for 0.91 ORs in the third full fiscal year following project completion. Atrium proposes to add two additional ORs at AH Pineville.

Atrium Health University City - There are two projects which were previously approved, but which are not yet developed as of the date of these findings which will impact the total number of ORs at AH University City:

- Project I.D. #F-11106-15/Charlotte Surgery Center – Wendover Campus/Relocate three ORs from AH University City to CSC-W

- Project I.D. #F-11349-17/Atrium Health Huntersville Surgery/Separately license one OR currently on the hospital license

After the approved projects are complete, AH University City will have seven ORs.

The applicant projects growth for both inpatient and outpatient surgical cases using the 1.99 percent CAGR previously discussed. The CAGR used is higher than the historical inpatient CAGR (-2.5 percent) but lower than the historical outpatient CAGR (2.1 percent). Then the applicant makes assumptions about shifts of surgical cases to other facilities in Mecklenburg County, Union County, and South Carolina. The following table illustrates projected utilization at AH University City.

AH University City Projected OR Utilization						
	CY 2019*	**CY 2020**	**CY 2021**	**CY 2022**	**CY 2023**	**CY 2024**
Baseline Inpatient Cases	944	963	982	1,001	1,021	1,042
Baseline Outpatient Cases	4,916	5,014	5,114	5,216	5,320	5,425
Inpatient Cases Shifting to Other Facilities	--	-2	-3	-6	-50	-74
Outpatient Cases Shifting to Other Facilities	--	-410	-462	-517	-717	-831
Total Inpatient Cases	944	961	979	996	971	968
Total Outpatient Cases	4,916	4,604	4,652	4,699	4,602	4,595
Final Inpatient Case Time (1)	112.6	112.6	112.6	112.6	112.6	112.6
Final Outpatient Case Time (1)	74.1	74.1	74.1	74.1	74.1	74.1
Total Surgical Hours (2)	**7,843**	**7,489**	**7,582**	**7,671**	**7,506**	**7,491**
Average Annual Operating Hours – Group 4 (3)	1,500	1,500	1,500	1,500	1,500	1,500
Number of ORs Needed (4)	5.23	4.99	5.05	5.11	5.00	4.99
Number of Existing/Approved ORs	7	7	7	7	7	7
(Surplus) / Deficit	**(1.77)**	**(2.01)**	**(1.95)**	**(1.89)**	**(2.00)**	**(2.01)**

Source: Section Q, Form C Methodology and Assumptions
*Annualized based on January 2019-July 2019 data.
(1) The Final Case Time in minutes for the facility in the 2019 SMFP.
(2) Total Hours equals Surgical Cases multiplied by the Average Case Time, then divided by 60.
(3) From Table 6B in the 2019 SMFP.
(4) # of ORs Needed equals Surgical Hours divided by the Standard Hours per OR per Year.

As shown in the table above, using the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP, the applicant projects a surplus of 2.00 ORs at AH University City in CMC-Main's third full fiscal year following project completion. However, Atrium does not propose to add any additional ORs at AH University City as part of this review.

Atrium Health Mercy - The applicant projects growth for both inpatient and outpatient surgical cases using the 1.99 percent CAGR previously discussed. These CAGRs are not based on the historical CAGRs at AH Mercy. Then the applicant makes assumptions about shifts of surgical cases from CMC-Main and shifts of surgical cases to other facilities in Mecklenburg County, Union County, and South Carolina. The following table illustrates projected utilization at AH Mercy.

AH Mercy Projected OR Utilization						
	CY 2019*	**CY 2020**	**CY 2021**	**CY 2022**	**CY 2023**	**CY 2024**
Baseline Inpatient Cases	4,921	5,019	5,119	5,221	5,324	5,430
Baseline Outpatient Cases	5,851	5,968	6,086	6,207	6,331	6,457
Net Inpatient Cases Shifting from Other Facilities	--	383	357	280	184	115
Net Outpatient Cases Shifting to Other Facilities	--	-667	-870	-1,136	-1,340	-1,496
Total Inpatient Cases	4,921	5,402	5,476	5,500	5,508	5,545
Total Outpatient Cases	5,851	5,301	5,216	5,071	4,992	4,960
Final Inpatient Case Time (1)**	224.7	224.7	224.7	224.7	224.7	224.7
Final Outpatient Case Time (1)**	134.0	134.0	134.0	134.0	134.0	134.0
Total Surgical Hours (2)	**31,496**	**32,069**	**32,157**	**31,925**	**31,775**	**31,844**
Average Annual Operating Hours – Group 2 (3)**	1,950	1,950	1,950	1,950	1,950	1,950
Number of ORs Needed (4)	16.15	16.45	16.49	16.37	16.29	16.33
Number of Existing/Approved ORs	16	16	16	16	16	16
(Surplus) / Deficit	**0.15**	**0.45**	**0.49**	**0.37**	**0.29**	**0.33**

Source: Section Q, Form C Methodology and Assumptions

*Annualized based on January 2019-July 2019 data.

**Because AH Mercy operates under CMC's license, it must use the CMC inpatient and outpatient case times in the 2019 SMFP along with the Average Annual Operating Hours for CMC.

(1) The Final Case Time in minutes for the facility in the 2019 SMFP.

(2) Total Hours equals Surgical Cases multiplied by the Average Case Time, then divided by 60.

(3) From Table 6B in the 2019 SMFP.

(4) # of ORs Needed equals Surgical Hours divided by the Standard Hours per OR per Year.

As shown in the table above, using the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP, the applicant projects a deficit of 0.33 ORs at AH Mercy in CMC-Main's third full fiscal year following project completion. The applicant does not propose to add any additional ORs at AH Mercy as part of this review.

Carolinas Medical Center/Atrium Health Mercy Combined – Because CMC-Main and AH Mercy are on the same hospital license, their combined utilization is what any surplus or deficit is calculated against. The table below shows the combined projected utilization at CMC-Main and AH Mercy.

CMC Projected OR Utilization						
	CY 2019*	**CY 2020**	**CY 2021**	**CY 2022**	**CY 2023**	**CY 2024**
CMC-Main IP Cases	15,267	15,057	15,323	15,509	15,554	15,744
CMC-Main OP Cases	15,830	14,301	14,405	14,410	14,253	14,267
AH Mercy IP Cases	4,921	5,402	5,476	5,500	5,508	5,545
AH Mercy OP Cases	5,851	5,301	5,216	5,071	4,992	4,960
Combined Total Inpatient Cases	20,188	20,459	20,800	21,011	21,063	21,289
Combined Total Outpatient Cases	21,681	19,603	19,620	19,481	19,245	19,229
Final Inpatient Case Time (1)	224.7	224.7	224.7	224.7	224.7	224.7
Final Outpatient Case Time (1)	134.0	134.0	134.0	134.0	134.0	134.0
Total Surgical Hours (2)	**124,025**	**120,399**	**121,714**	**122,194**	**121,861**	**122,672**
Average Annual Operating Hours – Group 2 (3)	1,950	1,950	1,950	1,950	1,950	1,950
Number of ORs Needed (4)	63.60	61.74	62.42	62.66	62.49	62.91
Number of Existing/Approved ORs	57	57	57	57	57	57
(Surplus) / Deficit	**6.60**	**4.74**	**5.42**	**5.66**	**5.49**	**5.91**

Source: Section Q, Form C Methodology and Assumptions
*Annualized based on January 2019-July 2019 data.
(1) The Final Case Time in minutes for the facility in the 2019 SMFP.
(2) Total Hours equals Surgical Cases multiplied by the Average Case Time, then divided by 60.
(3) From Table 6B in the 2019 SMFP.
(4) # of ORs Needed equals Surgical Hours divided by the Standard Hours per OR per Year.

As shown in the table above, using the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP, the applicant projects a deficit of 5.91 ORs on CMC's license during the applicant's third full fiscal year following project completion.

Atrium Health Huntersville Surgery – Currently, AH Huntersville is a separate building with one OR and one procedure room that is licensed as part of AH University City. In Project I.D. #F-11349-17, AH Huntersville was approved to become a separately licensed ASF with one OR. The development of the ASF will take place after the completion of CSC-W.

The applicant projects surgical cases using the 1.99 percent CAGR previously discussed. The CAGR is nearly the same as the facility's historical CAGR (2.0 percent). Then the applicant makes assumptions about shifts of surgical cases to other facilities in Mecklenburg County, Union County, and South Carolina.

On page 23 of the Form C Methodology and Assumptions subsection of Section Q, the applicant states it uses the 2018 LRA adjusted case time of 52.4 minutes in its projections since AH Huntersville is *"an existing facility with publicly reported historical case times."* While AH Huntersville is not considered an existing facility, this case time is lower than the corresponding case time for newly licensed ASFs in Group 6. The following table illustrates projected utilization at AH Huntersville.

AH Huntersville Projected OR Utilization						
	CY 2019*	**CY 2020**	**CY 2021**	**CY 2022**	**CY 2023**	**CY 2024**
Baseline Outpatient Cases	1,996	2,035	2,076	2,117	2,159	2,202
Outpatient Cases Shifting to Other Facilities	--	-434	-488	-542	-552	-563
Total Outpatient Cases	1,996	1,601	1,588	1,575	1,607	1,639
Final Outpatient Case Time (1)	52.4	52.4	52.4	52.4	52.4	52.4
Total Surgical Hours (2)	**1,743**	**1,398**	**1,387**	**1,376**	**1,403**	**1,431**
Average Annual Operating Hours – Group 6 (3)	1,312	1,312	1,312	1,312	1,312	1,312
Number of ORs Needed (4)	1.33	1.07	1.06	1.05	1.07	1.09
Number of Existing/Approved ORs	1	1	1	1	1	1
(Surplus) / Deficit	**0.33**	**0.07**	**0.06**	**0.05**	**0.07**	**0.09**

Source: Section Q, Form C Methodology and Assumptions
*Annualized based on January 2019-July 2019 data.
(1) The Final Case Time in minutes for the facility in the 2019 SMFP.
(2) Total Hours equals Surgical Cases multiplied by the Average Case Time, then divided by 60.
(3) From Table 6B in the 2019 SMFP.
(4) # of ORs Needed equals Surgical Hours divided by the Standard Hours per OR per Year.

As shown in the table above, using the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP, the applicant projects a deficit of 0.09 ORs in CMC-Main's third full fiscal year following project completion. The applicant does not propose to add any additional ORs at AH Huntersville as part of this review.

Carolina Center for Specialty Surgery – The applicant projects surgical cases using the 1.99 percent CAGR previously discussed. The CAGR is lower than the facility's historical CAGR. Then the applicant makes assumptions about shifts of surgical cases to other facilities in Mecklenburg County, Union County, and South Carolina. The following table illustrates projected OR utilization at CCSS.

CCSS Projected OR Utilization						
	CY 2019*	**CY 2020**	**CY 2021**	**CY 2022**	**CY 2023**	**CY 2024**
Baseline Outpatient Cases	2,036	2,077	2,118	2,160	2,203	2,247
Outpatient Cases Shifting From CMC	--	112	169	225	225	225
Total Outpatient Cases	2,036	2,189	2,287	2,385	2,428	2,472
Final Outpatient Case Time (1)	85.0	85.0	85.0	85.0	85.0	85.0
Total Surgical Hours (2)	**2,884**	**3,102**	**3,240**	**3,379**	**3,440**	**3,502**
Average Annual Operating Hours – Group 6 (3)	1,312	1,312	1,312	1,312	1,312	1,312
Number of ORs Needed (4)	2.20	2.36	2.47	2.58	2.62	2.67
Number of Existing/Approved ORs	3	3	3	3	3	3
(Surplus) / Deficit	**(0.80)**	**(0.64)**	**(0.53)**	**(0.42)**	**(0.38)**	**(0.33)**

Source: Section Q, Form C Methodology and Assumptions
*Annualized based on January 2019-July 2019 data.
(1) The Final Case Time in minutes for the facility in the 2019 SMFP.
(2) Total Hours equals Surgical Cases multiplied by the Average Case Time, then divided by 60.
(3) From Table 6B in the 2019 SMFP.
(4) # of ORs Needed equals Surgical Hours divided by the Standard Hours per OR per Year.

As shown in the table above, using the Operating Room Need Methodology in Chapter 6 of the 2019 SMFP, the applicant projects a surplus of 0.33 ORs in CMC-Main's third full fiscal

year following project completion. The applicant does not propose to add any additional ORs at CCSS as part of this review.

Atrium Health System Combined - To meet the performance standard promulgated in 10A NCAC 14C .2103(a) in effect at the time of the submission of this application, an applicant proposing to add new ORs to a facility in its service area must demonstrate the need its entire health system has for all of the ORs proposed by the end of the third full fiscal year following project completion. Altogether, Atrium proposes to add six ORs to its system:

- Project I.D. #F-11810-19/Atrium Health Lake Norman/Develop two ORs
- Project I.D. #F-11814-19/ Atrium Health Pineville/Add two ORs
- Project I.D. #F-11815-19/Carolinas Medical Center/Add two ORs

The following table illustrates the need for additional ORs for the entire health system.

Atrium Health OR Need			
	Deficits / (Surpluses)		
	1st Full FY CY 2022	**2nd Full FY CY 2023**	**3rd Full FY CY 2024**
AH Lake Norman	0.00	0.73	1.12
AH Pineville	0.09	0.38	0.91
AH University City	(1.89)	(2.00)	(2.01)
CMC	5.66	5.49	5.91
AH Huntersville Surgery Center	0.05	0.07	0.09
CCSS	(0.42)	(0.38)	(0.33)
Total Deficit/(Surplus)	**3.49**	**4.34**	**5.69**

Source: Section Q, Form C Methodology and Assumptions

As shown in the table above, the Atrium health system projects a deficit of 5.69 ORs at the end of CY 2024, which would be rounded up to a deficit of six ORs. Atrium proposes to add a total of six ORs in the three applications submitted in this review. This meets the standard promulgated in 10A NCAC 14C .2103(a), which requires an applicant proposing to add new ORs to a service area to demonstrate the need for all the existing, approved, and proposed ORs in a health system in the third full fiscal year following project completion based on the Operating Room Need Methodology in the 2019 SMFP.

There is an issue that potentially calls into question whether Atrium's assumptions and methodology are adequately supported regarding projected utilization. The applicant uses a projected growth rate for both inpatient and outpatient surgical cases at CMC-Main that is not supported by its historical inpatient and outpatient surgical case volumes. The applicant does not adequately demonstrate in the application as submitted that projecting growth for inpatient and outpatient surgical cases is reasonable and adequately supported since CMC-Main's inpatient and outpatient surgical case volume has declined for several years in a row. According to the applicant's 2017-2020 LRAs, available to the Agency during this review, CMC-Main's inpatient surgical case volume was essentially unchanged between FFY 2017 and FFY 2018, decreased slightly between FFY 2018 and FFY 2019, and decreased more significantly between FFY 2019 and FFY 2020. CMC-Main's outpatient surgical case volume

decreased between FFY 2017 and FFY 2018, decreased further between FFY 2018 and FFY 2019, and increased slightly between FFY 2019 and FFY 2020 (but did not increase back to the FFY 2019 number of outpatient surgical cases). Further, the applicant uses a projected growth rate for inpatient surgical cases at AH University City that is not supported by historical inpatient surgical case volumes. The applicant does not adequately demonstrate in the application as submitted that projecting growth for inpatient surgical cases at AH University City is reasonable and adequately supported since none of the reasons the applicant provides to explain the recent decline in utilization apply to inpatient surgical cases at AH University City.

Nevertheless, according to information provided by Atrium to the Agency in its 2020 Hospital and ASF LRAs, which were available to the Agency during the review, the Atrium health system already has a significant deficit of ORs. The table below shows the number of inpatient and outpatient surgical cases reported on the 2020 LRA for each Atrium facility. The reporting period is October 1, 2018 to September 30, 2019. Using the Final Case Times for each category as reported in the 2020 SMFP (most facilities report a higher Final Case Time on their 2020 LRA than is reported in the 2020 SMFP), the facilities in the system show the following deficits and surpluses:

Atrium Health OR Deficits/Surpluses Based on 2020 LRA Cases					
Facility	**FY 2018 Cases***	**Final Case Time****	**Average Annual Op. Hours****	**# ORs Needed**	**(Surplus) / Deficit**
CCSS	1,979	68.0	1,312	1.71	(1.29)
AH Pineville Inpatient	3,498	176.0	1,755	10.23	(0.77)
AH Pineville Outpatient	4,311	107.0			
CMC Inpatient***	18,828	224.0	1,950	65.53	8.53
CMC Outpatient***	23,402	147.4			
AH University City Inpatient	963	123.9	1,500	6.62	(0.38)
AH University City Outpatient****	6,216	76.7			
System Total	**59,197**			**84.09**	**6.09**

Sources: 2020 LRAs for each facility; 2020 SMFP
*Does not include C-Sections performed in dedicated C-Section ORs
**From 2020 SMFP
***Includes AH Mercy
****Includes the OR that will become part of AH Huntersville Surgery Center

When using the calculations shown in the table above, CMC has a deficit of 8.53 ORs. The 2019 SMFP showed CMC had a projected deficit of 12.47 ORs, and the 2020 SMFP shows CMC has a projected deficit of 16.78 ORs. CMC could hold its current utilization steady through OY3 and it would not only show the need for the two additional ORs it proposes to add, but it would also by itself meet the standard promulgated in 10A NCAC 14C .2103(a). In other words, CMC-Main shows a need for all six ORs that are proposed in the three Atrium applications using the Operating Room Need Methodology in the 2019 SMFP.

Projected utilization is reasonable and adequately supported for the following reasons:

- There is a need determination in the 2019 SMFP for six ORs in the Mecklenburg County OR planning area.

- The applicant relies on its historical utilization in projecting future utilization.

- The health system's historical utilization already meets the performance standard promulgated in 10A NCAC 14C .2103(a).

Access – In Section C, page 45, the applicant states:

> *"CMC provides services to all persons in need of medical care, regardless of race, color, religion, national origin, sex, age, disability, or source of payment."*

In Section L, page 75, the applicant projects the following payor mix during the third year of operation following project completion, as illustrated in the following table.

CMC Projected Payor Mix – Third Full FY (CY 2024)		
Payor Source	**Total Facility**	**ORs**
Self-Pay	14.1%	7.0%
Medicare*	26.1%	28.2%
Medicaid*	24.5%	18.9%
Insurance*	33.4%	42.8%
Other**	1.9%	3.0%
Total	**100.0%**	**100.0%**

*Including any managed care plans
**Includes TRICARE and worker's compensation

The projected payor mix is reasonable and adequately supported.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application
- Information publicly available during the review and used by the Agency

Based on that review, the Agency concludes that the application is conforming to this criterion for the following reasons:

- The applicant adequately identifies the population to be served.

- The applicant adequately explains why the population to be served needs the services proposed in this application.

- Projected utilization is reasonable and adequately supported.

- The applicant projects the extent to which all residents, including underserved groups, will have access to the proposed services (payor mix) and adequately support its assumptions.

(3a) In the case of a reduction or elimination of a service, including the relocation of a facility or a service, the applicant shall demonstrate that the needs of the population presently served will be met adequately by the proposed relocation or by alternative arrangements, and the effect of the reduction, elimination or relocation of the service on the ability of low income persons, racial and ethnic minorities, women, handicapped persons, and other underserved groups and the elderly to obtain needed health care.

NA – All Applications

None of the applicants propose to reduce, eliminate, or relocate a facility or service. Therefore, Criterion (3a) is not applicable to any of the applications in this review.

(4) Where alternative methods of meeting the needs for the proposed project exist, the applicant shall demonstrate that the least costly or most effective alternative has been proposed.

NC – Atrium Health Lake Norman
C – All Other Applications

F-11807-18/Novant Health Matthews Medical Center/Develop one OR

The applicant proposes to add one OR to NH Matthews, its existing acute care hospital, for a total of nine ORs upon project completion.

In Section E, pages 60-61, the applicant describes the alternatives considered and explains why each alternative is either more costly or less effective than the alternative proposed in this application to meet the need. The alternatives considered were:

- *Maintaining the Status Quo*: The applicant states that, under the status quo, physician and staff efficiency would suffer due to projected growth, and the status quo could result in delays in service; therefore, maintaining the status quo is not an effective alternative.

- *Develop an OR in the Existing Hospital Building*: The applicant states developing the OR in existing space at NH Matthews might bring the surgical capability online more quickly but would require costs to renovate existing space which would ultimately be spent again when the patient tower is finished, and surgical services are moved to the patient tower. The applicant states developing the OR in existing space would decrease the quality of patients' experiences and is not an optimal setup to provide appropriate care; therefore, this is not an effective alternative.

- *Develop an OR in a Different Novant Facility*: The applicant states developing the OR at a different Novant facility would not meet the need for more surgical capacity at NH Matthews; therefore, this is not an effective alternative.

On page 60, the applicant states the proposed project is the best method to meet the need for additional surgical capacity at NH Matthews.

The applicant adequately demonstrates that the alternative proposed in this application is the most effective alternative to meet the need for the following reasons:

- The application is conforming to all statutory and regulatory review criteria.

- The applicant provides credible information to explain why it believes the proposed project is the most effective alternative.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application
- Information publicly available during the review and used by the Agency

Based on that review, the Agency concludes that the applicant demonstrates that this proposal is its least costly or most effective alternative to meet the identified need for an additional OR at NH Matthews. Therefore, the application is conforming to this criterion.

F-11808-19/Novant Health Matthews Medical Center/Develop 20 acute care beds

The applicant proposes to add 20 acute care beds to NH Matthews, its existing acute care hospital, for a total of 174 acute care beds upon project completion.

In Section E, page 63, the applicant describes the alternatives considered and explains why each alternative is either more costly or less effective than the alternative proposed in this application to meet the need. The alternatives considered were:

- *Maintaining the Status Quo*: The applicant states that, under the status quo, patients would face delayed admissions due to projected growth; therefore, maintaining the status quo is not an effective alternative.

- *Develop a Different Number of Acute Care Beds*: The applicant states developing fewer acute care beds would not effectively meet demand for inpatient services. The applicant states it chose the number of acute care beds to apply for based on conservative growth rates and the need for observation beds and adding more than 20 acute care beds was not judged by management to be necessary; therefore, this is not an effective alternative.

- *Relocate Acute Care Beds from a Different Novant Facility*: The applicant states it is already relocating acute care beds from NH Presbyterian to develop NH Ballantyne and relocating acute care beds from NH Mint Hill just as it opened would not be cost-effective; therefore, this is not an effective alternative.

On page 63, the applicant states the proposed project is the best method to meet the need for additional acute care beds at NH Matthews.

The applicant adequately demonstrates that the alternative proposed in this application is the most effective alternative to meet the need for the following reasons:

- The application is conforming to all statutory and regulatory review criteria.

- The applicant provides credible information to explain why it believes the proposed project is the most effective alternative.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application
- Information publicly available during the review and used by the Agency

Based on that review, the Agency concludes that the applicant demonstrates that this proposal is its least costly or most effective alternative to meet the identified need for additional acute care beds at NH Matthews. Therefore, the application is conforming to this criterion.

F-11810-19/Atrium Health Lake Norman/Develop a new satellite hospital campus with 30 acute care beds and 2 ORs

The applicant proposes to develop AH Lake Norman, a new satellite hospital campus to be licensed under AH University City, by developing 30 acute care beds and two ORs pursuant to need determinations in the 2019 SMFP.

In Section E, pages 98-100, the applicant describes the alternatives it considered and explains why each alternative is either more costly or less effective than the alternative proposed in this application to meet the need. The alternatives considered were:

- *Maintaining the Status Quo*: The applicant states maintaining the status quo results in insufficient acute care bed and OR capacity in the Lake Norman area. Additionally, the applicant states Lake Norman residents would continue to drive further into Mecklenburg County to access care, which could create barriers to access; therefore, maintaining the status quo is not an effective alternative.

- *Develop the Hospital in a Different Location*: The applicant states that 121 Lake Norman-area patients occupy a bed in an area Atrium hospital each day, and Atrium has developed a comprehensive framework of healthcare services in the Lake Norman area; therefore, this is not an effective alternative.

- *Develop a Different Number of Acute Care Beds or ORs*: The applicant states it considered developing fewer acute care beds and ORs but believes doing so would not meet the needs of local physicians who may wish to treat their patients at AH Lake Norman. The applicant states it also considered developing more acute care beds and ORs but doing so would prevent the applicant from applying to develop acute care beds and ORs at other Atrium facilities in Mecklenburg County where need exists; therefore, this is not an effective alternative.

On pages 99-100, the applicant states:

> *"Atrium Health's plans and subsequent CON applications represent the development of projects which respond to unmet needs as they are identified and prioritized. While*

each CON application must demonstrate need, each individual project cannot represent the complete and final solution to meeting all of Mecklenburg County needs, as those needs continue to develop as the population grows. As illustrated by the projection of acute care bed and operating room utilization at CMC, Atrium Health Pineville, Atrium Health University City, and Atrium Health Lake Norman (see Form C), the additional acute care and operating room capacity proposed in these complementary applications alone is not sufficient to meet all the future needs; however, these projects are necessary to begin alleviating capacity constraints at Atrium Health's existing facilities in Mecklenburg County while locating appropriate hospital-based services closer to patients."

However, the applicant does not adequately demonstrate that the alternative proposed in this application is the most effective alternative to meet the need based on the following:

- The applicant does not adequately demonstrate the need the population proposed to be served has for the proposed project. The discussion regarding need found in Criterion (3) is incorporated herein by reference.

- The applicant does not adequately demonstrate that projected utilization is based on reasonable and adequately supported assumptions. The discussion regarding projected utilization found in Criterion (3) is incorporated herein by reference.

- The applicant does not adequately demonstrate that the proposal would not result in an unnecessary duplication of existing or approved services in the service area. The discussion regarding unnecessary duplication found in Criterion (6) is incorporated herein by reference.

- The application is not conforming to all statutory and regulatory review criteria. An application that cannot be approved cannot be the most effective alternative.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application
- Written comments
- Responses to comments
- Information publicly available during the review and used by the Agency

Based on that review, the Agency concludes that the application is not conforming to this criterion for the reasons stated above.

F-11811-19/Carolinas Medical Center/Develop 18 acute care beds

The applicant proposes to develop 18 additional acute care beds at CMC, its existing acute care hospital, for a total of 1,073 acute care beds upon project completion.

In Section E, pages 63-64, the applicant describes the alternatives considered and explains why each alternative is either more costly or less effective than the alternative proposed in this application to meet the need. The alternatives considered were:

- *Maintaining the Status Quo*: The applicant states that, under the status quo, patients will continue to face long waits in the ED for acute care beds and in surgical suites after surgeries, which will delay recovery and delay treatment for other patients; therefore, maintaining the status quo is not an effective alternative.

- *Develop a Different Number of Acute Care Beds at CMC*: The applicant states developing fewer acute care beds at CMC would not meet the need for additional capacity. The applicant states all 76 acute care beds in the 2019 SMFP need determination would be well utilized at CMC, but development of all 76 acute care beds at CMC would prevent adding beds to AH Pineville, AH University City, and would prevent the development of AH Lake Norman. The applicant further states space at CMC to develop acute care beds is limited and developing more than 18 acute care beds would result in disruptions to patient care and higher costs; therefore, this is not an effective alternative.

On page 64, the applicant states the proposed project is the most cost-effective, reasonable, and timely alternative to respond to the need for acute care beds at CMC.

The applicant adequately demonstrates that the alternative proposed in this application is the most effective alternative to meet the need for the following reasons:

- The application is conforming to all statutory and regulatory review criteria.

- The applicant provides credible information to explain why it believes the proposed project is the most effective alternative.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application
- Information publicly available during the review and used by the Agency

Based on that review, the Agency concludes that the applicant demonstrates that this proposal is its least costly or most effective alternative to meet the identified need for acute care beds at CMC. Therefore, the application is conforming to this criterion.

F-11812-19/Atrium Health University City/Develop 16 acute care beds

The applicant proposes to develop 16 additional acute care beds at AH University City, its existing acute care hospital, for a total of 116 acute care beds upon project completion.

In Section E, pages 62-63, the applicant describes the alternatives it considered and explains why each alternative is either more costly or less effective than the alternative proposed in this application to meet the need. The alternatives considered were:

- *Maintaining the Status Quo*: The applicant states this alternative would result in continued inefficiencies, long wait times for patients in the ED before being admitted, and lack of options to accommodate future growth in demand; therefore, this is not an effective alternative.

- *Develop a Different Number of Acute Care Beds at AH University City*: The applicant states developing fewer acute care beds would not meet the need for additional capacity at AH University City. The applicant states development of more than 16 additional acute care beds at AH University City would prevent adding beds to AH Pineville, CMC, and would prevent the development of AH Lake Norman; therefore, this is not an effective alternative.

On page 63, the applicant states the proposed project is the most cost-effective, reasonable, and timely alternative to respond to the need for acute care beds at AH University City.

The applicant adequately demonstrates that the alternative proposed in this application is the most effective alternative to meet the need for the following reasons:

- The application is conforming to all statutory and regulatory review criteria.

- The applicant provides credible information to explain why it believes the proposed project is the most effective alternative.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application
- Information publicly available during the review and used by the Agency

Based on that review, the Agency concludes the applicant demonstrates that this proposal is the least costly or most effective alternative to meet the identified need for acute care beds at AH University City. Therefore, the application is conforming to this criterion.

F-11813-19/Atrium Health Pineville/Develop 12 acute care beds

The applicant proposes to develop 12 additional acute care beds at AH Pineville, its existing acute care hospital, for a total of 271 acute care beds upon completion of this project and Project I.D. #F-11622-18 (add 38 acute care beds).

In Section E, pages 66-67, the applicant describes the alternatives it considered and explains why each alternative is either more costly or less effective than the alternative proposed in this application to meet the need. The alternatives considered were:

- *Maintaining the Status Quo*: The applicant states this alternative would result in continued inefficiencies, long wait times for patients in the ED before being admitted, and lack of options to accommodate future growth in demand; therefore, this is not an effective alternative.

- *Develop a Different Number of Acute Care Beds at AH Pineville*: The applicant states developing fewer acute care beds would not meet the need for additional acute care bed capacity at AH Pineville. The applicant states development of more than 12 additional acute care beds at AH Pineville would prevent adding beds to AH University City, CMC, and would prevent the development of AH Lake Norman; therefore, this is not an effective alternative.

On page 67, the applicant states the proposed project is the most cost-effective, reasonable, and timely alternative to respond to the need for acute care beds at AH Pineville.

The applicant adequately demonstrates that the alternative proposed in this application is the most effective alternative to meet the need for the following reasons:

- The application is conforming to all statutory and regulatory review criteria.

- The applicant provides credible information to explain why it believes the proposed project is the most effective alternative.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application
- Information publicly available during the review and used by the Agency

Based on that review, the Agency concludes the applicant demonstrates that this proposal is the least costly or most effective alternative to meet the identified need for acute care beds at AH Pineville. Therefore, the application is conforming to this criterion.

F-11814-19/Atrium Health Pineville/Develop two ORs

The applicant proposes to develop two additional ORs at AH Pineville, its existing acute care hospital, for a total of 15 ORs upon completion of this project and Project I.D. #F-11621-18 (add one OR).

In Section E, pages 56-57, the applicant describes the alternatives it considered and explains why each alternative is either more costly or less effective than the alternative proposed in this application to meet the need. The alternatives considered were:

- *Maintaining the Status Quo*: The applicant states maintaining the status quo would result in more demand at the area's only tertiary care hospital with no increase in resources while the existing ORs are already operating above full capacity; therefore, this is not an effective alternative.

- *Develop a Different Number of ORs at AH Pineville*: The applicant states developing fewer ORs would not meet the need for additional OR capacity at AH Pineville. The applicant also states development of more than two ORs at AH Pineville would prevent adding ORs

to CMC and would prevent the development of AH Lake Norman; therefore, this is not an effective alternative.

On page 57, the applicant states the proposed project is the most cost-effective, reasonable, and timely alternative to respond to the need for acute care beds at AH Pineville.
The applicant adequately demonstrates that the alternative proposed in this application is the most effective alternative to meet the need for the following reasons:

- The application is conforming to all statutory and regulatory review criteria.

- The applicant provides credible information to explain why it believes the proposed project is the most effective alternative.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application
- Information publicly available during the review and used by the Agency

Based on that review, the Agency concludes the applicant demonstrates that this proposal is the least costly or most effective alternative to meet the identified need for ORs at AH Pineville. Therefore, the application is conforming to this criterion.

F-11815-19/Carolinas Medical Center/Develop two ORs

The applicant proposes to develop two additional ORs at CMC, its existing acute care hospital, for a total of 64 ORs upon completion of this project, Project I.D. #F-11106-15 (relocate 2 ORs to Charlotte Surgery Center – Wendover Campus), and Project I.D. #F-11620-18 (add 2 ORs).

In Section E, pages 53-54, the applicant describes the alternatives it considered and explains why each alternative is either more costly or less effective than the alternative proposed in this application to meet the need. The alternatives considered were:

- *Maintaining the Status Quo*: The applicant states this alternative would result in delays in treatment because CMC has the highest number of surgical cases in Mecklenburg County, the largest OR need of any facility in the state, and there is already tremendous need for more ORs; therefore, this is not an effective alternative.

- *Develop a Different Number of ORs at CMC*: The applicant states developing fewer ORs would not meet the need for additional OR capacity at CMC. The applicant states there are currently spaces for two ORs and adding more would require a more intensive and costly project. The applicant also states development of more than two ORs at CMC would prevent the addition of ORs to AH Pineville and would prevent the development of AH Lake Norman; therefore, this is not an effective alternative.

On page 54, the applicant states the proposed project is the most cost-effective, reasonable, and timely alternative to respond to the need for acute care beds at AH University City.

The applicant adequately demonstrates that the alternative proposed in this application is the most effective alternative to meet the need for the following reasons:

- The application is conforming to all statutory and regulatory review criteria.

- The applicant provides credible information to explain why it believes the proposed project is the most effective alternative.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application
- Information publicly available during the review and used by the Agency

Based on that review, the Agency concludes the applicant demonstrates that this proposal is the least costly or most effective alternative to meet the identified need for ORs at CMC. Therefore, the application is conforming to this criterion.

(5) Financial and operational projections for the project shall demonstrate the availability of funds for capital and operating needs as well as the immediate and long-term financial feasibility of the proposal, based upon reasonable projections of the costs of and charges for providing health services by the person proposing the service.

NC – Atrium Health Lake Norman
C – All Other Applications

F-11807-18/Novant Health Matthews Medical Center/Develop one OR

The applicant proposes to add one OR to NH Matthews, its existing acute care hospital, for a total of nine ORs upon project completion.

Capital and Working Capital Costs – In Section Q on Form F.1a, the applicant projects the total capital cost of the project as shown in the table below.

Site Preparation	$15,810
Construction Contract	$622,250
Architect/Engineering Fees	$44,664
Medical Equipment	$1,086,056
Furniture	$11,774
Consultant Fees	$100,000
Other (IT, Security, Contingency)	$282,113
Total	**$2,162,667**

In Section Q, the applicant provides the assumptions used to project the capital cost.

In Section F, page 64, the applicant states there are no projected working capital costs because NH Matthews is already operational.

Availability of Funds – In Section F, pages 62-63, the applicant states the capital cost of the proposed project will be funded by accumulated reserves of Novant Health.

Exhibit F-2.1 contains a letter from the Senior Vice President of Operational Finance for Novant Health, agreeing to commit $2,162,667 in accumulated reserves to fund the proposed project.

Exhibit F-2.2 contains the Consolidated Financial Statements for Novant Health, Inc. and Affiliates for the years ending December 31, 2018 and 2017. The Consolidated Financial Statements indicate that as of December 31, 2018, Novant Health had adequate cash and assets to fund the capital cost of the proposed project.

Financial Feasibility – The applicant provided pro forma financial statements for the first three full fiscal years of operation following project completion. In Form F.2, the applicant projects revenues will exceed operating expenses in the first three full fiscal years following project completion, as shown in the table below.

NH Matthews Revenues and Operating Expenses – ORs			
	1st Full FY CY 2024	2nd Full FY CY 2025	3rd Full FY CY 2026
Total # of Patients	5,886	6,018	6,237
Total Gross Revenues (Charges)	$283,433,850	$301,810,646	$325,483,546
Total Net Revenue	$97,814,064	$103,809,265	$111,610,946
Average Net Revenue per Patient	$16,618	$17,250	$17,895
Total Operating Expenses (Costs)	$47,524,543	$49,568,258	$52,353,182
Average Operating Expense per Patient	$8,074	$8,237	$8,394
Net Income	$50,289,521	$54,241,007	$59,257,764

The assumptions used by the applicant in preparation of the pro forma financial statements are reasonable, including projected utilization, costs, and charges. See Section Q of the application for the assumptions used regarding costs and charges. The discussion regarding projected utilization found in Criterion (3) is incorporated herein by reference.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion for the following reasons:

- The applicant adequately demonstrates the capital costs are based on reasonable and adequately supported assumptions.

- The applicant adequately demonstrates availability of sufficient funds for the capital needs of the proposal.

- The applicant adequately demonstrates sufficient funds for the operating needs of the proposal and that the financial feasibility of the proposal is based upon reasonable projections of costs and charges.

F-11808-19/Novant Health Matthews Medical Center/Develop 20 acute care beds

The applicant proposes to add 20 acute care beds to NH Matthews, its existing acute care hospital, for a total of 174 acute care beds upon project completion.

Capital and Working Capital Costs – In Section Q on Form F.1a, the applicant projects the total capital cost of the project as shown in the table below.

Site Preparation	$474,300
Construction Contract	$21,000,000
Architect/Engineering Fees	$1,470,000
Medical Equipment	$800,474
Furniture	$391,631
Consultant Fees	$100,000
Other (IT, Security, Contingency)	$2,975,712
Total	**$27,212,117**

In Section Q, the applicant provides the assumptions used to project the capital cost.

In Section F, pages 67-68, the applicant states there are no projected working capital costs because NH Matthews is already operational.

Availability of Funds – In Section F, pages 65-66, the applicant states the capital cost of the proposed project will be funded by accumulated reserves of Novant Health.

Exhibit F-2.1 contains a letter from the Senior Vice President of Operational Finance for Novant Health, agreeing to commit $27,212,117 in accumulated reserves to fund the proposed project.

Exhibit F-2.2 contains the Consolidated Financial Statements for Novant Health, Inc. and Affiliates for the years ending December 31, 2018 and 2017. The Consolidated Financial Statements indicate that as of December 31, 2018, Novant Health had adequate cash and assets to fund the capital cost of the proposed project.

Financial Feasibility – The applicant provided pro forma financial statements for the first three full fiscal years of operation following project completion. In Form F.2, the applicant projects revenues will exceed operating expenses in the first three full fiscal years following project completion, as shown in the table below.

NH Matthews Revenues and Operating Expenses – Acute Care Beds			
	1st Full FY CY 2024	2nd Full FY CY 2025	3rd Full FY CY 2026
Total # of Patients	11,176	11,378	11,691
Total Gross Revenues (Charges)	$464,242,166	$486,813,954	$515,180,938
Total Net Revenue	$144,148,895	$151,157,519	$159,965,571
Average Net Revenue per Patient	$12,898	$13,285	$13,683
Total Operating Expenses (Costs)	$117,207,432	$122,028,335	$127,801,798
Average Operating Expense per Patient	$10,487	$10,725	$10,932
Net Income	$26,941,464	$29,129,183	$32,163,773

The assumptions used by the applicant in preparation of the pro forma financial statements are reasonable, including projected utilization, costs, and charges. See Section Q of the application for the assumptions used regarding costs and charges. The discussion regarding projected utilization found in Criterion (3) is incorporated herein by reference.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion for the following reasons:

- The applicant adequately demonstrates the capital costs are based on reasonable and adequately supported assumptions.

- The applicant adequately demonstrates availability of sufficient funds for the capital needs of the proposal.

- The applicant adequately demonstrates sufficient funds for the operating needs of the proposal and that the financial feasibility of the proposal is based upon reasonable projections of costs and charges.

F-11810-19/Atrium Health Lake Norman/Develop a new satellite hospital campus with 30 acute care beds and 2 ORs

The applicant proposes to develop AH Lake Norman, a new satellite hospital campus to be licensed under AH University City, by developing 30 acute care beds and two ORs pursuant to need determinations in the 2019 SMFP.

Capital and Working Capital Costs – In Section Q on Form F.1a, the applicant projects the total capital cost of the project as shown in the table below.

Purchase Price of Land	$3,792,353
Closing Costs	$117,292
Site Preparation	$1,229,513
Construction Contract	$73,525,047
Landscaping	$1,268,400
Architect/Engineering Fees	$10,613,000
Medical Equipment	$19,098,638
Non-Medical Equipment	$155,903
Furniture	$2,956,000
Consultant Fees	$250,000
Financing Costs*	$630,869
Interest During Construction*	$6,145,652
Other (IS, Security, Internal Allocation)	$27,307,459
Total	**$147,090,166**

*In the assumptions for Form F.1a, the applicant states that while it plans to finance the capital cost with accumulated reserves, it is adding financing costs and interest during construction in case it later decides to try to fund the capital costs via bond financing.

In Section Q, the applicant provides the assumptions used to project the capital cost.

In Section F, pages 103-104, the applicant states there are no projected working capital costs because AH Lake Norman will be a satellite campus of AH University City and any associated costs will be attributed to AH University City.

Availability of Funds – In Section F, pages 101-102, the applicant states the capital cost of the proposed project will be funded via accumulated reserves of Atrium Health. Exhibit F-2.1 contains a letter from the Executive Vice President and Chief Financial Officer of Atrium Health, agreeing to commit $147,090,166 in accumulated reserves to fund the proposed project.

Exhibit F-2.2 contains the Basic Financial Statements of Atrium Health for the years ending December 31, 2018 and 2017. The Basic Financial Statements indicate that as of December 31, 2018, Atrium Health had adequate cash and assets to fund its portion of the capital cost of the proposed project.

Financial Feasibility – The applicant provided pro forma financial statements for the first three full fiscal years of operation following project completion. In Form F.2, the applicant projects operating expenses will exceed revenues in the first two full fiscal years following project completion, but revenues will exceed operating expenses in the third full fiscal year following project completion, as shown in the table below.

AH-LN Revenues and Operating Expenses – Entire Facility			
	1st Full FY CY 2023	2nd Full FY CY 2024	3rd Full FY CY 2025
Total Gross Revenues (Charges)	$106,262,418	$167,456,173	$234,570,564
Total Net Revenue	$27,956,302	$44,056,125	$61,714,006
Total Operating Expenses (Costs)	$39,308,337	$47,693,955	$56,221,618
Net Income/(Losses)	**($11,352,035)**	**($3,637,830)**	**$5,492,388**

The applicant also provided pro forma financial statements for the first three full fiscal years of operation by line of service. The tables below summarize the projections from Form F.2 for all acute care beds and for ORs.

AH-LN Revenues and Operating Expenses – Acute Care Beds*			
	1st Full FY CY 2023	2nd Full FY CY 2024	3rd Full FY CY 2025
Total Admissions	1,031	1,577	2,144
Total Gross Revenues (Charges)	$15,104,033	$23,793,701	$33,318,222
Total Net Revenue	$4,313,774	$6,795,851	$9,516,581
Average Net Revenue per Admission	$4,184	$4,309	$4,439
Total Operating Expenses (Costs)	$14,578,822	$17,227,052	$18,828,044
Average Operating Expense per Admission	$14,140	$10,924	$8,782
Net Income/(Losses)	**($10,265,048)**	**($10,431,202)**	**($9,311,463)**

*The applicant provided separate Forms F.2 for medical/surgical beds, ICU beds, and obstetrics beds. This table combines the information for all three types of beds.

AH-LN Revenues and Operating Expenses – ORs			
	1st Full FY CY 2023	2nd Full FY CY 2024	3rd Full FY CY 2025
Total Surgical Cases	810	1,240	1,687
Total Gross Revenues (Charges)	$22,583,846	$35,602,739	$49,890,656
Total Net Revenue	$6,202,114	$9,777,443	$13,701,278
Average Net Revenue per Case	$7,657	$7,885	$8,122
Total Operating Expenses (Costs)	$5,039,666	$6,744,836	$8,711,604
Average Operating Expense per Case	$6,222	$5,439	$5,164
Net Income/(Losses)	**$1,162,449**	**$3,032,607**	**$4,989,674**

However, the assumptions used by the applicant in preparation of the pro forma financial statements are not reasonable and adequately supported because projected utilization is questionable. The discussion regarding projected utilization found in Criterion (3) is incorporated herein by reference. Therefore, since projected revenues and expenses are based at least in part on projected utilization, projected revenues and expenses are also questionable.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application
- Written comments
- Responses to comments

- Information publicly available during the review and used by the Agency

Based on that review, the Agency concludes that the application is not conforming to this criterion because the applicant does not adequately demonstrate sufficient funds for the operating needs of the proposal and that the financial feasibility of the proposal is based upon reasonable projections of costs and charges.

F-11811-19/Carolinas Medical Center/Develop 18 acute care beds

The applicant proposes to develop 18 additional acute care beds at CMC, its existing acute care hospital, for a total of 1,073 acute care beds upon project completion.

Capital and Working Capital Costs – In Section Q on Form F.1a, the applicant projects the total capital cost of the project as shown in the table below.

Construction Contract	$5,029,616
Architect/Engineering Fees	$740,308
Medical Equipment	$2,070,937
Non-Medical Equipment	$79,916
Furniture	$274,485
Consultant Fees	$150,000
Financing Costs*	$47,050
Interest During Construction*	$307,658
Other (IS, Security, Internal Allocation)	$1,827,768
Total	**$10,527,737**

*In the assumptions for Form F.1a, the applicant states that while it plans to finance the capital cost with accumulated reserves, it is adding financing costs and interest during construction in case it later decides to try to fund the capital costs via bond financing.

In Section Q, the applicant provides the assumptions used to project the capital cost.

In Section F, page 67, the applicant states there are no projected working capital costs because CMC is already operational.

Availability of Funds – In Section F, pages 65-66, the applicant states the capital cost of the proposed project will be funded by accumulated reserves of Atrium Health.

Exhibit F-2.1 contains a letter from the Executive Vice President and Chief Financial Officer of Atrium Health, agreeing to commit $10,527,737 in accumulated reserves to fund the proposed project.

Exhibit F-2.2 contains the Basic Financial Statements of Atrium Health for the years ending December 31, 2018 and 2017. The Basic Financial Statements indicate that as of December 31, 2018, Atrium Health had adequate cash and assets to fund the capital cost of the proposed project.

Financial Feasibility – The applicant provided pro forma financial statements for the first three full fiscal years of operation following project completion. In Form F.2, the applicant

projects revenues will exceed operating expenses in the first three full fiscal years following project completion, as shown in the table below.

CMC Revenues and Operating Expenses – Adult General Med/Surg Acute Care Beds			
	1st Full FY CY 2022	2nd Full FY CY 2023	3rd Full FY CY 2024
Total # of Patients	21,741	21,531	21,562
Total Gross Revenues (Charges)	$288,241,514	$294,016,092	$303,272,182
Total Net Revenue	$82,454,791	$84,106,675	$86,754,486
Average Net Revenue per Patient	$3,793	$3,906	$4,023
Total Operating Expenses (Costs)	$70,319,987	$71,730,299	$73,950,484
Average Operating Expense per Patient	$3,234	$3,331	$3,430
Net Income	$12,134,804	$12,376,376	$12,804,002

The assumptions used by the applicant in preparation of the pro forma financial statements are reasonable, including projected utilization, costs, and charges. See Section Q of the application for the assumptions used regarding costs and charges. The discussion regarding projected utilization found in Criterion (3) is incorporated herein by reference.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion for the following reasons:

- The applicant adequately demonstrates the capital costs are based on reasonable and adequately supported assumptions.

- The applicant adequately demonstrates availability of sufficient funds for the capital needs of the proposal.

- The applicant adequately demonstrates sufficient funds for the operating needs of the proposal and that the financial feasibility of the proposal is based upon reasonable projections of costs and charges.

F-11812-19/Atrium Health University City/Develop 16 acute care beds

The applicant proposes to develop 16 additional acute care beds at AH University City, its existing acute care hospital, for a total of 116 acute care beds upon project completion.

Capital and Working Capital Costs – In Section Q on Form F.1a, the applicant projects the total capital cost of the project as shown in the table below.

Construction Contract	$2,103,000
Architect/Engineering Fees	$352,000
Medical Equipment	$577,350
Non-Medical Equipment	$34,700
Furniture	$80,000
Consultant Fees	$100,000
Financing Costs*	$15,492
Interest During Construction*	$81,395
Other (IS, Security, Internal Allocation)	$422,063
Total	**$3,766,000**

*In the assumptions for Form F.1a, the applicant states that while it plans to finance the capital cost with accumulated reserves, it is adding financing costs and interest during construction in case it later decides to try to fund the capital costs via bond financing.

In Section Q, the applicant provides the assumptions used to project the capital cost.

In Section F, pages 66-67, the applicant states there are no projected working capital costs because the facility is already operational.

Availability of Funds – In Section F, pages 64-65, the applicant states the capital cost of the proposed project will be funded by accumulated reserves of Atrium Health.

Exhibit F-2.1 contains a letter from the Executive Vice President and Chief Financial Officer of Atrium Health, agreeing to commit $3,766,000 in accumulated reserves to fund the proposed project.

Exhibit F-2.2 contains the Basic Financial Statements of Atrium Health for the years ending December 31, 2018 and 2017. The Basic Financial Statements indicate that as of December 31, 2018, Atrium Health had adequate cash and assets to fund the capital cost of the proposed project.

Financial Feasibility – The applicant provided pro forma financial statements for the first three full fiscal years of operation following project completion. In Form F.2, the applicant projects revenues will exceed operating expenses in the first three full fiscal years following project completion, as shown in the table below.

AH-UC Revenues and Operating Expenses –Med/Surg Acute Care Beds			
	1st Full FY CY 2022	2nd Full FY CY 2023	3rd Full FY CY 2024
Total # of Patients	5,559	5,544	5,639
Total Gross Revenues (Charges)	$72,340,840	$74,313,226	$77,853,731
Total Net Revenue	$18,735,150	$19,245,968	$20,162,903
Average Net Revenue per Patient	$3,370	$3,471	$3,576
Total Operating Expenses (Costs)	$16,114,173	$16,543,219	$17,311,276
Average Operating Expense per Patient	$2,899	$2,984	$3,070
Net Income	$2,620,978	$2,702,749	$2,851,627

The assumptions used by the applicant in preparation of the pro forma financial statements are reasonable, including projected utilization, costs, and charges. See Section Q of the application for the assumptions used regarding costs and charges. The discussion regarding projected utilization found in Criterion (3) is incorporated herein by reference.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion for the following reasons:

- The applicant adequately demonstrates the capital costs are based on reasonable and adequately supported assumptions.

- The applicant adequately demonstrates availability of sufficient funds for the capital needs of the proposal.

- The applicant adequately demonstrates sufficient funds for the operating needs of the proposal and that the financial feasibility of the proposal is based upon reasonable projections of costs and charges.

F-11813-19/Atrium Health Pineville/Develop 12 acute care beds

The applicant proposes to develop 12 additional acute care beds at AH Pineville, its existing acute care hospital, for a total of 271 acute care beds upon completion of this project and Project I.D. #F-11622-18 (add 38 acute care beds).

Capital and Working Capital Costs – In Section Q on Form F.1a, the applicant projects the total capital cost of the project as shown in the table below.

Site Preparation	$232,415
Construction Contract	$5,355,473
Landscaping	$6,111
Architect/Engineering Fees	$475,490
Medical Equipment	$222,504
Non-Medical Equipment	$56,296
Furniture	$30,643
Consultant Fees	$150,000
Financing Costs*	$33,270
Interest During Construction*	$318,165
Other (IS, Security, Internal Allocation)	$350,735
Total	**$7,231,102**

*In the assumptions for Form F.1a, the applicant states that while it plans to finance the capital cost with accumulated reserves, it is adding financing costs and interest during construction in case it later decides to try to fund the capital costs via bond financing.

In Section Q, the applicant provides the assumptions used to project the capital cost.

In Section F, page 70, the applicant states there are no projected working capital costs because the facility is already operational.

Availability of Funds – In Section F, pages 68-69, the applicant states the capital cost of the proposed project will be funded by accumulated reserves of Atrium Health.

Exhibit F-2.1 contains a letter from the Executive Vice President and Chief Financial Officer of Atrium Health, agreeing to commit $7,231,102 in accumulated reserves to fund the proposed project.

Exhibit F-2.2 contains the Basic Financial Statements of Atrium Health for the years ending December 31, 2018 and 2017. The Basic Financial Statements indicate that as of December 31, 2018, Atrium Health had adequate cash and assets to fund the capital cost of the proposed project.

Financial Feasibility – The applicant provided pro forma financial statements for the first three full fiscal years of operation following project completion. In Form F.2, the applicant projects revenues will exceed operating expenses in the first three full fiscal years following project completion, as shown in the table below.

AH-P Revenues and Operating Expenses –Med/Surg Acute Care Beds			
	1st Full FY CY 2022	2nd Full FY CY 2023	3rd Full FY CY 2024
Total # of Patients	15,191	14,531	14,824
Total Gross Revenues (Charges)	$191,040,009	$188,225,214	$197,774,590
Total Net Revenue	$50,279,195	$49,538,378	$52,051,647
Average Net Revenue per Patient	$3,310	$3,409	$3,511
Total Operating Expenses (Costs)	$39,641,689	$39,109,179	$40,940,934
Average Operating Expense per Patient	$2,610	$2,691	$2,762
Net Income	$10,637,506	$10,429,199	$11,110,713

The assumptions used by the applicant in preparation of the pro forma financial statements are reasonable, including projected utilization, costs, and charges. See Section Q of the application for the assumptions used regarding costs and charges. The discussion regarding projected utilization found in Criterion (3) is incorporated herein by reference.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion for the following reasons:

- The applicant adequately demonstrates the capital costs are based on reasonable and adequately supported assumptions.

- The applicant adequately demonstrates availability of sufficient funds for the capital needs of the proposal.

- The applicant adequately demonstrates sufficient funds for the operating needs of the proposal and that the financial feasibility of the proposal is based upon reasonable projections of costs and charges.

F-11814-19/Atrium Health Pineville/Develop two ORs

The applicant proposes to develop two additional ORs at AH Pineville, its existing acute care hospital, for a total of 15 ORs upon completion of this project and Project I.D. #F-11621-18 (add one OR).

Capital and Working Capital Costs – In Section Q on Form F.1a, the applicant projects the total capital cost of the project as shown in the table below.

Construction Contract	$10,700,000
Architect/Engineering Fees	$172,000
Medical Equipment	$2,300,000
Non-Medical Equipment	$450,000
Furniture	$90,000
Consultant Fees	$150,000
Financing Costs*	$69,144
Interest During Construction*	$664,380
Other (IS, Security, Internal Allocation)	$1,100,000
Total	**$15,695,524**

*In the assumptions for Form F.1a, the applicant states that while it plans to finance the capital cost with accumulated reserves, it is adding financing costs and interest during construction in case it later decides to try to fund the capital costs via bond financing.

In Section Q, the applicant provides the assumptions used to project the capital cost.

In Section F, page 60, the applicant states there are no projected working capital costs because the facility is already operational.

Availability of Funds – In Section F, pages 58-59, the applicant states the capital cost of the proposed project will be funded by accumulated reserves of Atrium Health.

Exhibit F-2.1 contains a letter from the Executive Vice President and Chief Financial Officer of Atrium Health, agreeing to commit $15,695,524 in accumulated reserves to fund the proposed project.

Exhibit F-2.2 contains the Basic Financial Statements of Atrium Health for the years ending December 31, 2018 and 2017. The Basic Financial Statements indicate that as of December

31, 2018, Atrium Health had adequate cash and assets to fund the capital cost of the proposed project.

Financial Feasibility – The applicant provided pro forma financial statements for the first three full fiscal years of operation following project completion. In Form F.2, the applicant projects revenues will exceed operating expenses in the first three full fiscal years following project completion, as shown in the table below.

AH-P Revenues and Operating Expenses – ORs			
	1st Full FY CY 2023	2nd Full FY CY 2024	3rd Full FY CY 2025
Total # of Patients	8,723	9,078	9,527
Total Gross Revenues (Charges)	$458,047,360	$490,976,373	$530,709,352
Total Net Revenue	$141,304,814	$151,322,928	$163,411,038
Average Net Revenue per Patient	$16,199	$16,669	$17,152
Total Operating Expenses (Costs)	$57,052,800	$60,899,910	$65,526,948
Average Operating Expense per Patient	$6,541	$6,709	$6,878
Net Income	$84,252,014	$90,423,018	$97,884,090

The assumptions used by the applicant in preparation of the pro forma financial statements are reasonable, including projected utilization, costs, and charges. See Section Q of the application for the assumptions used regarding costs and charges. The discussion regarding projected utilization found in Criterion (3) is incorporated herein by reference.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion for the following reasons:

- The applicant adequately demonstrates the capital costs are based on reasonable and adequately supported assumptions.

- The applicant adequately demonstrates availability of sufficient funds for the capital needs of the proposal.

- The applicant adequately demonstrates sufficient funds for the operating needs of the proposal and that the financial feasibility of the proposal is based upon reasonable projections of costs and charges.

F-11815-19/Carolinas Medical Center/Develop two ORs

The applicant proposes to develop two additional ORs at CMC, its existing acute care hospital, for a total of 64 ORs upon completion of this project, Project I.D. #F-11106-15 (relocate 2 ORs to Charlotte Surgery Center – Wendover Campus), and Project I.D. #F-11620-18 (add 2 ORs).

Capital and Working Capital Costs – In Section Q on Form F.1a, the applicant projects the total capital cost of the project as shown in the table below.

Construction Contract	$4,153,154
Architect/Engineering Fees	$614,219
Medical Equipment	$1,250,916
Non-Medical Equipment	$76,380
Furniture	$191,666
Consultant Fees	$150,000
Financing Costs*	$35,855
Interest During Construction*	$186,414
Other (IS, Security, Internal Allocation)	$1,316,029
Total	**$7,974,633**

*In the assumptions for Form F.1a, the applicant states that while it plans to finance the capital cost with accumulated reserves, it is adding financing costs and interest during construction in case it later decides to try to fund the capital costs via bond financing.

In Section Q, the applicant provides the assumptions used to project the capital cost.

In Section F, page 57, the applicant states there are no projected working capital costs because the facility is already operational.

Availability of Funds – In Section F, pages 55-56, the applicant states the capital cost of the proposed project will be funded by accumulated reserves of Atrium Health.

Exhibit F-2.1 contains a letter from the Executive Vice President and Chief Financial Officer of Atrium Health, agreeing to commit $7,974,633 in accumulated reserves to fund the proposed project.

Exhibit F-2.2 contains the Basic Financial Statements of Atrium Health for the years ending December 31, 2018 and 2017. The Basic Financial Statements indicate that as of December 31, 2018, Atrium Health had adequate cash and assets to fund the capital cost of the proposed project.

Financial Feasibility – The applicant provided pro forma financial statements for the first three full fiscal years of operation following project completion. In Form F.2, the applicant projects revenues will exceed operating expenses in the first three full fiscal years following project completion, as shown in the table below.

CMC Revenues and Operating Expenses – ORs			
	1st Full FY CY 2022	2nd Full FY CY 2023	3rd Full FY CY 2024
Total # of Patients	29,919	29,808	30,012
Total Gross Revenues (Charges)	$1,452,939,311	$1,490,946,140	$1,546,181,323
Total Net Revenue	$478,125,769	$490,632,860	$508,809,369
Average Net Revenue per Patient	$15,981	$16,460	$16,954
Total Operating Expenses (Costs)	$207,784,014	$213,206,492	$220,990,221
Average Operating Expense per Patient	$6,945	$7,153	$7,363
Net Income	$270,341,755	$277,426,369	$287,819,149

The assumptions used by the applicant in preparation of the pro forma financial statements are reasonable, including projected utilization, costs, and charges. See Section Q of the application for the assumptions used regarding costs and charges. The discussion regarding projected utilization found in Criterion (3) is incorporated herein by reference.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion for the following reasons:

- The applicant adequately demonstrates the capital costs are based on reasonable and adequately supported assumptions.

- The applicant adequately demonstrates availability of sufficient funds for the capital needs of the proposal.

- The applicant adequately demonstrates sufficient funds for the operating needs of the proposal and that the financial feasibility of the proposal is based upon reasonable projections of costs and charges.

(6) The applicant shall demonstrate that the proposed project will not result in unnecessary duplication of existing or approved health service capabilities or facilities.

NC – Atrium Health Lake Norman
C – All Other Applications

The 2019 SMFP includes need determinations for 76 acute care beds and six ORs in the Mecklenburg County service area.

Acute Care Beds. On page 36, the 2019 SMFP defines the service area for acute care beds as *"the acute care bed planning area in which the bed is located. The acute care bed planning areas are the single and multicounty groupings shown in Figure 5.1."* Figure 5.1, on page 40, shows Mecklenburg County as its own acute care bed planning area. Thus, the service area for

this facility is Mecklenburg County. Facilities may also serve residents of counties not included in their service area.

As of the date of this decision, there are 2,288 existing and approved acute care beds, allocated between 10 hospitals owned by two providers (Atrium and Novant) in the Mecklenburg County Service Area, as illustrated in the following table.

Mecklenburg County Acute Care Hospitals	
Facility	**Existing/Approved Beds**
AH Pineville	221 (+38)
AH University City	100
CMC-Main	859
AH-Mercy*	196
Atrium Total	**1,414**
NH Ballantyne Medical Center	0 (+36)
NH Huntersville Medical Center	139 (+12)
NH Health Matthews Medical Center	154
NH Health Presbyterian Medical Center	471 (-36)
NH Charlotte Orthopedic Hospital**	48
NH Mint Hill Medical Center	36 (+14)
Novant Total	**874**
Mecklenburg County Total	**2,288**

Source: Table 5A, 2019 SMFP; applications under review; 2020 LRAs; Agency records.
Note: Numbers in parentheses reflect approved changes in bed inventory which have not yet been developed.
*AH-Mercy is a separate campus but licensed as part of CMC.
**NHCOH is a separate campus but licensed as part of NHPMC.

Operating Rooms. On page 55, the 2019 SMFP defines the service area for ORs as *"…the operating room planning area in which the operating room is located. The operating room planning areas are the single and multicounty groupings shown in Figure 6.1."* Figure 6.1, on page 60, shows Mecklenburg County as its own OR planning area. Thus, the service area for this facility is Mecklenburg County. Facilities may also serve residents of counties not included in their service area.

Not including dedicated C-Section ORs and trauma ORs, there are 161 existing and approved ORs in Mecklenburg County, allocated between 18 facilities, as shown in the table below.

Mecklenburg County OR Inventory						
Facility	**IP ORs**	**OP ORs**	**Shared ORs**	**Excluded C-Section and Trauma ORs**	**CON Adjustments**	**Total ORs**
AH Huntersville Surgery Center	0	0	0	0	1	1
AH Pineville	3	0	9	-2	1	11
AH University City	1	1	7	-1	-1	7
CCSS	0	2	0	0	1	3
CMC	10	9	41	-5	2	57
Atrium Health System Total	**14**	**12**	**57**	**-8**	**4**	**79**
Charlotte Surgery Center – Museum	0	6	0	0	0	6
Charlotte Surgery Center – Wendover	0	6	0	0	0	6
Charlotte Surgery Center System Total	**0**	**12**	**0**	**0**	**0**	**12**
Matthews Surgery Center	0	2	0	0	0	2
NH Ballantyne*	0	0	0	0	2	2
NH Ballantyne OPS*	0	2	0	0	-2	0
NH Huntersville	1	0	6	-1	1	7
NH Huntersville OPS	0	2	0	0	0	2
NH Mint Hill	1	0	3	-1	1	4
NH Matthews	2	0	6	-2	0	6
NH Presbyterian	6	6	28	-3	-1	36
SouthPark Surgery Center	0	6	0	0	0	6
Novant Health System Total	**10**	**18**	**43**	**-7**	**0**	**65**
Carolinas Ctr for Ambulatory Dentistry**	0	2	0	0	0	2
Mallard Creek Surgery Center**	0	2	0	0	0	2
Metrolina Vascular Access Care	0	0	0	0	1	1
Total	**24**	**46**	**100**	**-15**	**5**	**161**

Sources: Table 6A, 2019 SMFP; 2019 LRAs; Agency records

*NHBMC, an approved hospital under development, will have 2 ORs that will be relocated from NHBOS, which will close once the ORs are relocated to NHBMC.

**These facilities are part of demonstration projects and the ORs are not included in the SMFP need determination calculations.

F-11807-18/Novant Health Matthews Medical Center/Develop one OR

The applicant proposes to add one OR to NH Matthews, its existing acute care hospital, for a total of nine ORs upon project completion.

The applicant adequately demonstrates the need to develop an additional OR at its existing facility based on the number of projected patients it proposes to serve.

In Section G, page 69, the applicant states that the proposed project will not result in unnecessary duplication of existing or approved services or facilities because its proposal fills an unmet need. On page 69, the applicant states:

> *"The proposed OR will meet the need for surgical services driven by the growth at NH Matthews. … Surgical demand at NH Matthews is expected to grow due to many of the same factors that have produced past growth, including the increasing acuity of surgical patients, physician recruitment, and the growing acuity of the general inpatient population treated at NH Matthews. The proposed OR will allow NH Matthews to meet the demands of its patient population without duplicating services."*

The applicant adequately demonstrates that the proposal would not result in an unnecessary duplication of existing or approved services in the service area for the following reasons:

- There is a need determination in the 2019 SMFP for six ORs in the Mecklenburg County service area and the applicant proposes to develop one OR.

- The applicant adequately demonstrates that the proposed OR is needed in addition to the existing or approved ORs in Mecklenburg County.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application
- Information publicly available during the review and used by the Agency

Based on that review, the Agency concludes that the application is conforming to this criterion for the reasons stated above.

F-11808-19/Novant Health Matthews Medical Center/Develop 20 acute care beds

The applicant proposes to add 20 acute care beds to NH Matthews, its existing acute care hospital, for a total of 174 acute care beds upon project completion.

The applicant adequately demonstrates the need to develop 20 additional acute care beds at the existing facility based on the number of projected patients it proposes to serve.

In Section G, pages 72-73, the applicant states that the proposed project will not result in unnecessary duplication of existing or approved services or facilities because its proposal fills an unmet need. On page 73, the applicant states:

> *"…, the Applicant demonstrates that by CY 2026, the third full project year, NH surgical* [sic] *facilities in Mecklenburg County will have a collective need for at least the 20 acute care beds requested, if not more.*
>
> *The proposed acute care beds will meet the need for acute care services driven by the growth at NH Matthews. … The proposed acute care beds will allow NH Matthews to meet the demands of its patient population without duplicating services."*

The applicant adequately demonstrates that the proposal would not result in an unnecessary duplication of existing or approved services in the service area for the following reasons:

- There is a need determination in the 2019 SMFP for 76 acute care beds in the Mecklenburg County service area and the applicant proposes to develop 20 acute care beds.

- The applicant adequately demonstrates that the 20 proposed acute care beds are needed in addition to the existing or approved acute care beds in Mecklenburg County.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application
- Information publicly available during the review and used by the Agency

Based on that review, the Agency concludes that the application is conforming to this criterion for the reasons stated above.

F-11810-19/Atrium Health Lake Norman/Develop a new satellite hospital campus with 30 acute care beds and 2 ORs

The applicant proposes to develop AH Lake Norman, a new satellite hospital campus to be licensed under AH University City, by developing 30 acute care beds and two ORs pursuant to need determinations in the 2019 SMFP.

In Section G, pages 108-109, the applicant states the proposed project will not result in unnecessary duplication of existing or approved services or facilities because its proposal fills an unmet need. On pages 108-109, the applicant states:

> *"…the only other Mecklenburg County-based inpatient service provider in the Lake Norman area is Novant Health Huntersville Medical Center. Lake Norman Regional Medical Center is an Iredell County-based inpatient service provider in Mooresville that is also located in the proposed service area. As previously noted, a significant number of residents of the Lake Norman area, 121 each day in 2018, bypass Novant Health Huntersville Medical Center and Lake Norman Regional Medical Center for care at an Atrium Health facility. The proposed facility will better serve those patients in need of the level of care to be offered at Atrium Health Lake Norman. Further, …, Atrium Health proposes to serve only patients from the Lake Norman area that have historically accessed Atrium Health hospitals in Mecklenburg County.*
>
> *All of the services proposed for Atrium Health Lake Norman, which include not only acute care inpatient services, but also emergency services, surgical services, imaging services, as well as ancillary and support services, are part of its application to develop a hospital and are essential to the development and operation of its proposed facility as a hospital. Other existing or approved services in the market do not offer inpatient services, such as inpatient imaging, acute care, or operating room services, as proposed at Atrium Health Lake Norman. …. Further, Mecklenburg County needs additional capacity for emergency services. …, Atrium Health has previously demonstrated that Mecklenburg County needs additional capacity for emergency services and could support 29 additional emergency department rooms."* (emphasis in original)

However, the applicant does not adequately demonstrate that the proposal would not result in an unnecessary duplication of existing or approved services in the service area for the following reasons:

- The applicant does not adequately demonstrate the need the population proposed to be served has for the proposed project. The discussion regarding need found in Criterion (3) is incorporated herein by reference.

- The applicant does not adequately demonstrate that projected utilization is based on reasonable and adequately supported assumptions. The discussion regarding projected utilization found in Criterion (3) is incorporated herein by reference.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application
- Written comments
- Responses to comments
- Information publicly available during the review and used by the Agency

Based on that review, the Agency concludes that the application is not conforming to this criterion for the reasons stated above.

F-11811-19/Carolinas Medical Center/Develop 18 acute care beds

The applicant proposes to develop 18 additional acute care beds at CMC, its existing acute care hospital, for a total of 1,073 acute care beds upon project completion.

The applicant adequately demonstrates the need to develop 18 additional acute care beds at the existing facility based on the number of projected patients it proposes to serve.

In Section G, page 71, the applicant states the proposed project will not result in unnecessary duplication of existing or approved services or facilities because its proposal fills an unmet need. On page 71, the applicant states:

> *"CMC's acute care bed* [sic] *has already reached its capacity and is projected to continue to grow necessitating the proposed 18 additional acute care beds to meet the needs of its patients. As the only hospital in the region that provides quaternary level care, no other provider can meet the needs of CMC's patients."*

The applicant adequately demonstrates that the proposal would not result in an unnecessary duplication of existing or approved services in the service area for the following reasons:

- There is a need determination in the 2019 SMFP for 76 acute care beds in the Mecklenburg County service area and the applicant proposes to develop 18 acute care beds.

- The applicant adequately demonstrates that the 18 proposed acute care beds are needed in addition to the existing or approved acute care beds in Mecklenburg County.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application
- Information publicly available during the review and used by the Agency

Based on that review, the Agency concludes that the application is conforming to this criterion for the reasons stated above.

F-11812-19/Atrium Health University City/Develop 16 acute care beds

The applicant proposes to develop 16 additional acute care beds at AH University City, its existing acute care hospital, for a total of 116 acute care beds upon project completion.

The applicant adequately demonstrates the need to develop 16 additional acute care beds at the existing facility based on the number of projected patients it proposes to serve.

In Section G, page 71, the applicant states the proposed project will not result in unnecessary duplication of existing or approved services or facilities because its proposal will fill an unmet need. On page 71, the applicant states:

> *"Atrium Health University City's acute care bed utilization has already reached its capacity and is projected to continue to grow necessitating the proposed 16 additional acute care beds to meet the needs of its patients."*

The applicant adequately demonstrates that the proposal would not result in an unnecessary duplication of existing or approved services in the service area for the following reasons:

- There is a need determination in the 2019 SMFP for 76 acute care beds in the Mecklenburg County service area and the applicant proposes to develop 16 acute care beds.

- The applicant adequately demonstrates that the 16 proposed acute care beds are needed in addition to the existing or approved acute care beds in Mecklenburg County.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application
- Information publicly available during the review and used by the Agency

Based on that review, the Agency concludes that the application is conforming to this criterion for the reasons stated above.

F-11813-19/Atrium Health Pineville/Develop 12 acute care beds

The applicant proposes to develop 12 additional acute care beds at AH Pineville, its existing acute care hospital, for a total of 271 acute care beds upon completion of this project and Project I.D. #F-11622-18 (add 38 acute care beds).

The applicant adequately demonstrates the need to develop the 12 additional acute care beds at AH Pineville based on the number of projected patients it proposes to serve.

In Section G, page 74, the applicant states that the proposed project will not result in unnecessary duplication of existing or approved services or facilities because its proposal will fill an unmet need. On page 74, the applicant states:

> *"Atrium Health Pineville's acute care bed utilization is projected to continue increasing and will necessitate the proposed 12 additional acute care beds to meet the needs of its patients. As the only tertiary hospital in Mecklenburg County located outside of the center city area, no other provider can meet the needs of Atrium Health Pineville's patients."*

The applicant adequately demonstrates that the proposal would not result in an unnecessary duplication of existing or approved services in the service area for the following reasons:

- There is a need determination in the 2019 SMFP for 76 acute care beds in the Mecklenburg County service area and the applicant proposes to develop 12 acute care beds.

- The applicant adequately demonstrates that the 12 proposed acute care beds are needed in addition to the existing or approved acute care beds in Mecklenburg County.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application
- Information publicly available during the review and used by the Agency

Based on that review, the Agency concludes that the application is conforming to this criterion for the reasons stated above.

F-11814-19/Atrium Health Pineville/Develop two ORs

The applicant proposes to develop two additional ORs at AH Pineville, its existing acute care hospital, for a total of 15 ORs upon completion of this project and Project I.D. #F-11621-18 (add one OR).

The applicant adequately demonstrates the need to develop two additional ORs at its existing facility based on the number of projected patients it proposes to serve.

In Section G, page 65, the applicant states that the proposed project will not result in unnecessary duplication of existing or approved services or facilities because its proposal fills an unmet need. On page 65, the applicant states:

> *"Atrium Health Pineville's surgical utilization has already reached its capacity and is projected to continue to grow, necessitating the proposed additional operating rooms to meet the needs of its patients. As the only tertiary hospital in Mecklenburg County*

located outside of the center city area, no other provider can meet the needs of Atrium Health Pineville's patients."

The applicant adequately demonstrates that the proposal would not result in an unnecessary duplication of existing or approved services in the service area for the following reasons:

- There is a need determination in the 2019 SMFP for six ORs in the Mecklenburg County service area and the applicant proposes to develop two ORs.

- The applicant adequately demonstrates that the two proposed ORs are needed in addition to the existing or approved ORs in Mecklenburg County.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application
- Information publicly available during the review and used by the Agency

Based on that review, the Agency concludes that the application is conforming to this criterion for the reasons stated above.

F-11815-19/Carolinas Medical Center/Develop two ORs

The applicant proposes to develop two additional ORs at CMC, its existing acute care hospital, for a total of 64 ORs upon completion of this project, Project I.D. #F-11106-15 (relocate 2 ORs to Charlotte Surgery Center – Wendover Campus), and Project I.D. #F-11620-18 (add 2 ORs).

The applicant adequately demonstrates the need to develop two additional ORs at its existing facility based on the number of projected patients it proposes to serve.

In Section G, page 62, the applicant states the proposed project will not result in unnecessary duplication of existing or approved services or facilities because its proposal fills an unmet need. On page 62, the applicant states:

"CMC performs more surgical cases than any other facility in Mecklenburg County and has a need for additional operating room capacity to meet the needs of its patient population. As the only Level I trauma center and quaternary academic medical center in the region, no other provider can meet the unique needs of CMC's patients."

The applicant adequately demonstrates that the proposal would not result in an unnecessary duplication of existing or approved services in the service area for the following reasons:

- There is a need determination in the 2019 SMFP for six ORs in the Mecklenburg County service area and the applicant proposes to develop two ORs.

- The applicant adequately demonstrates that the two proposed ORs are needed in addition to the existing or approved ORs in Mecklenburg County.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application
- Information publicly available during the review and used by the Agency

Based on that review, the Agency concludes that the application is conforming to this criterion for the reasons stated above.

(7) The applicant shall show evidence of the availability of resources, including health manpower and management personnel, for the provision of the services proposed to be provided.

C – All Applications

F-11807-18/Novant Health Matthews Medical Center/Develop one OR

In Section Q, Form H, the applicant provides historical and projected staffing for the existing and proposed services as illustrated in the following table.

NH Matthews – Historical and Projected Staffing (ORs)		
Position	**Historical**	**First 3 Full FYs**
CRNAs	18.6	19.6
Registered Nurses	14.9	15.9
Surgical Technicians	19.1	21.1
Central Sterile Supply	10.2	10.2
Administration	5.1	5.1
Total	**67.9**	**71.9**

The assumptions and methodology used to project staffing are provided in Section Q. Adequate costs for the health manpower and management positions proposed by the applicant are budgeted in Form F.3, which is found in Section Q. In Section H, pages 71-73, the applicant describes the methods used to recruit or fill vacant or new positions and its existing training and continuing education programs. The applicant provides supporting documentation in Exhibits H-2.1 through H-2.4 and H-3. In Section I, page 76, the applicant identifies the current medical director for surgical services. In Exhibit I-3.2, the applicant provides a letter from the medical director, expressing his support for the proposed project and stating he plans to continue as medical director for surgical services.

The applicant adequately demonstrates the availability of sufficient health manpower and management personnel to provide the proposed services.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion for the reasons stated above.

F-11808-19/Novant Health Matthews Medical Center/Develop 20 acute care beds

In Section Q, Form H, the applicant provides historical and projected staffing for the existing and proposed services as illustrated in the following table.

NH Matthews Historical and Projected Staffing (Acute Care Beds)		
Position	**Historical**	**First 3 Full FYs**
Registered Nurses	222.7	244.0
Licensed Practical Nurses	1.0	1.0
Aides/Orderlies	78.1	92.8
Clerical Staff	16.4	21.3
Administration	19.3	22.3
Total	**337.5**	**381.4**

The assumptions and methodology used to project staffing are provided in Section Q. Adequate costs for the health manpower and management positions proposed by the applicant are budgeted in Form F.3, which is found in Section Q. In Section H, pages 74-76, the applicant describes the methods used to recruit or fill vacant or new positions and its existing training and continuing education programs. The applicant provides supporting documentation in Exhibits H-2.1 through H-2.4 and H-3. In Section I, page 79, the applicant identifies the current inpatient medical director. In Exhibit 1-3.2, the applicant provides a letter from the current inpatient medical director, expressing his support for the proposed project and indicating his interest in continuing to serve as inpatient medical director for the existing and proposed services.

The applicant adequately demonstrates the availability of sufficient health manpower and management personnel to provide the proposed services.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion for the reasons stated above.

F-11810-19/Atrium Health Lake Norman/Develop a new satellite hospital campus with 30 acute care beds and 2 ORs

In Section Q, Form H, the applicant provides projected staffing for the proposed services as illustrated in the following table.

AH-LN Projected Staffing			
Position	**CY 2023 (FY 1)**	**CY 2024 (FY 2)**	**CY 2025 (FY 3)**
Registered Nurses	59.00	72.60	75.70
Surgical Technicians	6.70	7.20	8.70
Aides/Orderlies	10.50	14.70	14.70
Clerical Staff	20.20	23.30	25.20
Laboratory Technicians	8.40	8.40	8.40
Radiology Technologists	6.20	6.70	7.20
Pharmacists	1.00	1.00	1.00
Pharmacy Technicians	1.50	1.50	1.50
Physical Therapists	1.20	1.20	1.20
Speech Therapists	0.50	0.50	0.50
Occupational Therapists	0.25	0.25	0.50
Respiratory Therapists	8.40	8.40	8.40
Dieticians	0.50	0.50	1.00
Cooks	12.00	13.00	15.00
Social Workers	0.50	0.50	1.00
Housekeeping	10.50	12.60	12.60
Materials Management	2.00	2.00	2.00
Maintenance/Engineering	1.25	1.75	2.50
Administrator	7.80	7.80	13.50
Director of Nursing	1.00	1.00	1.00
Business Office	2.00	2.00	2.00
Specialists	1.75	1.75	2.25
Security	6.90	8.40	8.40
Lactation Consultant	0.25	0.25	0.25
Diagnostic Technician	8.40	8.40	8.40
EEG Tech	0.50	0.50	0.50
Total	**179.20**	**206.20**	**223.40**

The assumptions and methodology used to project staffing are provided in Section Q. Adequate costs for the health manpower and management positions proposed by the applicant are budgeted in Form F.3, which is found in Section Q. In Section H, pages 111-112, the applicant describes the methods it will use to recruit or fill new positions and its proposed training and continuing education programs. In Section I, page 115, the applicant identifies the current chief medical officer for AH University City. In Exhibit I.3, the applicant provides a letter from the chief medical officer, expressing his support for the proposed project and indicating an interest in continuing to serve as chief medical officer for AH University City including the satellite campus of AH Lake Norman.

The applicant adequately demonstrates the availability of sufficient health manpower and management personnel to provide the proposed services.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion for the reasons stated above.

F-11811-19/Carolinas Medical Center/Develop 18 acute care beds

In Section Q, Form H, the applicant provides historical and projected staffing for the existing and proposed services as illustrated in the following table.

CMC Historical and Projected Staffing (Acute Care Beds)				
Position	**Historical**	**CY 2022 (FY 1)**	**CY 2023 (FY 2)**	**CY 2024 (FY 3)**
Registered Nurses	430.05	451.23	446.86	447.51
Licensed Practical Nurses	2.98	3.13	3.10	3.10
Aides/Orderlies	15.13	15.88	15.72	15.74
Clerical Staff	7.46	7.83	7.75	7.76
Administrator	12.03	12.62	12.50	12.52
Technicians	156.05	163.74	162.15	162.38
Temporary Help	1.33	1.40	1.38	1.38
Total	**625.03**	**655.81**	**649.47**	**650.40**

The assumptions and methodology used to project staffing are provided in Section Q. Adequate costs for the health manpower and management positions proposed by the applicant are budgeted in Form F.3, which is found in Section Q. In Section H, pages 73-74, the applicant describes the methods used to recruit or fill vacant or new positions and its existing training and continuing education programs. In Section I, page 76, the applicant identifies the current Chief Medical Officer. In Exhibit I.3, the applicant provides a letter from the current Chief Medical Officer, expressing his support for the proposed project and indicating his interest in continuing to serve as Chief Medical Officer for the existing and proposed services.

The applicant adequately demonstrates the availability of sufficient health manpower and management personnel to provide the proposed services.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion for the reasons stated above.

F-11812-19/Atrium Health University City/Develop 16 acute care beds

In Section Q, Form H, the applicant provides historical and projected staffing for the existing and proposed services as illustrated in the following table.

AH University City Historical and Projected Staffing (Adult Med/Surg Beds)				
Position	**Historical**	**CY 2022 (FY 1)**	**CY 2023 (FY 2)**	**CY 2024 (FY 3)**
Registered Nurses	75.12	84.12	83.90	85.34
Aides/Orderlies	9.81	10.99	10.96	11.14
Clerical Staff	0.88	0.99	0.98	1.00
Administrator	3.02	3.38	3.37	3.43
Technicians	33.40	37.40	37.30	37.94
Temporary Help	6.90	7.73	7.71	7.84
Total	**129.13**	**144.61**	**144.22**	**146.69**

The assumptions and methodology used to project staffing are provided in Section Q. Adequate costs for the health manpower and management positions proposed by the applicant are budgeted in Form F.3, which is found in Section Q. In Section H, pages 73-74, the applicant describes the methods used to recruit or fill vacant or new positions and the existing training and continuing education programs. In Section I, page 76, the applicant identifies the current Chief Medical Officer. In Exhibit I.3, the applicant provides a letter from the current Chief Medical Officer, expressing his support for the proposed project and indicating his interest in continuing to serve as Chief Medical Officer for the existing and proposed services.

The applicant adequately demonstrates the availability of sufficient health manpower and management personnel to provide the proposed services.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion for the reasons stated above.

F-11813-19/Atrium Health Pineville/Develop 12 acute care beds

In Section Q, Form H, the applicant provides historical and projected staffing for the existing and proposed services as illustrated in the following table.

AH Pineville Historical and Projected Staffing (Acute Care Beds)				
Position	**Historical**	**CY 2022 (FY 1)**	**CY 2023 (FY 2)**	**CY 2024 (FY 3)**
Registered Nurses	204.92	230.26	220.26	224.70
Aides/Orderlies	10.12	11.37	10.88	11.10
Clerical Staff	4.41	4.96	4.74	4.84
Administrator	5.19	5.83	5.58	5.69
Technicians	77.42	86.99	83.22	84.89
Temporary Help	8.06	9.06	8.66	8.84
Total	**310.12**	**348.47**	**333.34**	**340.05**

The assumptions and methodology used to project staffing are provided in Section Q. Adequate costs for the health manpower and management positions proposed by the applicant are budgeted in Form F.3, which is found in Section Q. In Section H, pages 76-77, the applicant

describes the methods used to recruit or fill vacant or new positions and the existing training and continuing education programs. In Section I, page 79, the applicant identifies the current Chief Medical Officer. In Exhibit I.3, the applicant provides a letter from the current Chief Medical Officer, expressing her support for the proposed project and indicating her interest in continuing to serve as Chief Medical Officer for the existing and proposed services.

The applicant adequately demonstrates the availability of sufficient health manpower and management personnel to provide the proposed services.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion for the reasons stated above.

F-11814-19/Atrium Health Pineville/Develop two ORs

In Section Q, Form H, the applicant provides historical and projected staffing for the existing and proposed services as illustrated in the following table.

AH Pineville Historical and Projected Staffing (ORs)				
Position	**Historical**	**CY 2023 (FY 1)**	**CY 2024 (FY 2)**	**CY 2025 (FY 3)**
Registered Nurses	61.21	64.26	66.87	70.18
Surgical Technicians	41.35	43.41	45.18	47.41
Aides/Orderlies	10.36	10.88	11.32	11.88
Clerical Staff	7.63	8.01	8.34	8.75
Housekeeping	2.95	3.10	3.22	3.38
Administrator	5.27	5.53	5.76	6.04
Business Office	2.71	2.85	2.96	3.11
Temporary Help	10.12	10.62	11.06	11.60
Total	**141.60**	**148.66**	**154.70**	**162.35**

The assumptions and methodology used to project staffing are provided in Section Q. Adequate costs for the health manpower and management positions proposed by the applicant are budgeted in Form F.3, which is found in Section Q. In Section H, pages 66-67, the applicant describes the methods used to recruit or fill vacant or new positions and the existing training and continuing education programs. In Section I, page 69, the applicant identifies the current Chief of Surgery. In Exhibit I.3, the applicant provides a letter from the current Chief of Surgery, expressing his support for the proposed project and indicating his interest in continuing to serve as Chief of Surgery for the existing and proposed services. In Exhibit I.3, the applicant also includes a letter from the facility's Chief Medical Officer supporting the proposed project.

The applicant adequately demonstrates the availability of sufficient health manpower and management personnel to provide the proposed services.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion for the reasons stated above.

F-11815-19/Carolinas Medical Center/Develop two ORs

In Section Q, Form H, the applicant provides historical and projected staffing for the existing and proposed services as illustrated in the following table.

CMC Historical and Projected Staffing (ORs)				
Position	**Historical**	**CY 2022 (FY 1)**	**CY 2023 (FY 2)**	**CY 2024 (FY 3)**
Registered Nurses	237.16	221.28	220.46	221.97
Licensed Practical Nurses	3.96	3.69	3.68	3.71
Surgical Technicians	165.15	154.09	153.52	154.57
Aides/Orderlies	67.75	63.21	62.98	63.41
Clerical Staff	29.78	27.79	27.68	27.87
Housekeeping	0.32	0.30	0.30	0.30
Administrator	6.47	6.04	6.01	6.06
Business Office	12.76	11.91	11.86	11.94
Specialists	1.12	1.05	1.04	1.05
Temporary Help	4.04	3.77	3.76	3.78
Total	**528.51**	**493.13**	**491.29**	**494.65**

The assumptions and methodology used to project staffing are provided in Section Q. Adequate costs for the health manpower and management positions proposed by the applicant are budgeted in Form F.3, which is found in Section Q. In Section H, pages 63-64, the applicant describes the methods used to recruit or fill vacant or new positions and the existing training and continuing education programs. In Section I, page 66, the applicant identifies the current Chair of the Department of Surgery and Surgeon-in-Chief. In Exhibit I.3, the applicant provides a letter from the current Chair of the Department of Surgery and Surgeon-in-Chief, expressing his support for the proposed project and indicating his interest in continuing to serve as Chair of the Department of Surgery and Surgeon-in-Chief for the existing and proposed services. In Exhibit I.3, the applicant also includes a letter from the facility's Chief Medical Officer supporting the proposed project.

The applicant adequately demonstrates the availability of sufficient health manpower and management personnel to provide the proposed services.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion for the reasons stated above.

(8) The applicant shall demonstrate that the provider of the proposed services will make available, or otherwise make arrangements for, the provision of the necessary ancillary and support services. The applicant shall also demonstrate that the proposed service will be coordinated with the existing health care system.

C – All Applications

F-11807-18/Novant Health Matthews Medical Center/Develop one OR

In Section I, page 74, the applicant states the following ancillary and support services are necessary for the proposed services:

- Materials Management/Purchasing Services
- Billing and Finance Services
- Pre- and Post-Operative Nursing Services
- Anesthesia Services
- Laboratory Services
- Radiology Services
- Pharmacy Services
- Dietary Services
- Environmental Services
- Laundry Services

On page 74, the applicant adequately explains how each ancillary and support service will be made available and provides supporting documentation in Exhibit I-1.

In Section I, pages 74-76, the applicant describes its existing relationships with other local health care and social service providers and provides supporting documentation in Exhibits I-2 and I-3.1. The applicant adequately demonstrates that the proposed services will be coordinated with the existing health care system.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion.

F-11808-19/Novant Health Matthews Medical Center/Develop 20 acute care beds

In Section I, page 77, the applicant states the following ancillary and support services are necessary for the proposed services:

- Materials Management/Purchasing Services

- Billing and Finance Services
- Nursing Services
- Anesthesia Services
- Laboratory Services
- Radiology Services
- Pharmacy Services
- Dietary Services
- Environmental Services
- Laundry Services

On page 77, the applicant adequately explains how each ancillary and support service will be made available and provides supporting documentation in Exhibit I-1.

In Section I, pages 77-79, the applicant describes its existing relationships with other local health care and social service providers and provides supporting documentation in Exhibits I-2 and I-3.1. The applicant adequately demonstrates that the proposed services will be coordinated with the existing health care system.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion.

F-11810-19/Atrium Health Lake Norman/Develop a new satellite hospital campus with 30 acute care beds and 2 ORs

In Section I, pages 113-114, the applicant states the following ancillary and support services are necessary for the proposed services:

- Diagnostic Imaging
- Pharmacy
- Laboratory
- Environmental Services
- Security
- Maintenance
- Administration
- Respiratory Therapy
- Rehabilitation Services
- Food and Nutrition Services
- Housekeeping
- Plant Operations and Maintenance
- Human Resources
- Patient Coding/Billing
- Accounting

On pages 113-114, the applicant adequately explains how each ancillary and support service will be made available and provides supporting documentation in Exhibit I.1.

In Section I, pages 114-115, the applicant describes its existing relationships with other local health care and social service providers and provides supporting documentation in Exhibit I.2. The applicant adequately demonstrates that the proposed services will be coordinated with the existing health care system.

Conclusion - The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion.

F-11811-19/Carolinas Medical Center/Develop 18 acute care beds

In Section I, page 75, the applicant states the following ancillary and support services are necessary for the proposed services:

- Laboratory
- Radiology
- Pharmacy
- Housekeeping
- Maintenance
- Administration
- Other Ancillary and Support Services

On page 75, the applicant adequately explains how each ancillary and support service will be made available and provides supporting documentation in Exhibit I.1.

In Section I, pages 75-76, the applicant describes its existing relationships with other local health care and social service providers and provides supporting documentation in Exhibit I.2. The applicant adequately demonstrates that the proposed services will be coordinated with the existing health care system.

Conclusion - The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion.

F-11812-19/Atrium Health University City/Develop 16 acute care beds

In Section I, page 75, the applicant states the following ancillary and support services are necessary for the proposed services:

- Laboratory
- Radiology
- Pharmacy
- Housekeeping
- Maintenance
- Administration
- Other Ancillary and Support Services

On page 75, the applicant adequately explains how each ancillary and support service will be made available and provides supporting documentation in Exhibit I.1.

In Section I, pages 75-76, the applicant describes its existing relationships with other local health care and social service providers and provides supporting documentation in Exhibit I.2. The applicant adequately demonstrates that the proposed services will be coordinated with the existing health care system.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion.

F-11813-19/Atrium Health Pineville/Develop 12 acute care beds

In Section I, page 78, the applicant states the following ancillary and support services are necessary for the proposed services:

- Laboratory
- Radiology
- Pharmacy
- Housekeeping
- Maintenance
- Administration
- Other Ancillary and Support Services

On page 78, the applicant adequately explains how each ancillary and support service will be made available and provides supporting documentation in Exhibit I.1.

In Section I, pages 78-79, the applicant describes its existing relationships with other local health care and social service providers and provides supporting documentation in Exhibit I.2. The applicant adequately demonstrates that the proposed services will be coordinated with the existing health care system.

Conclusion – The Agency reviewed the:

- Application

- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion.

F-11814-19/Atrium Health Pineville/Develop two ORs

In Section I, page 68, the applicant states the following ancillary and support services are necessary for the proposed services:

- Laboratory
- Radiology
- Pharmacy
- Housekeeping
- Maintenance
- Administration
- Other Ancillary and Support Services

On page 68, the applicant adequately explains how each ancillary and support service will be made available and provides supporting documentation in Exhibit I.1.

In Section I, pages 68-69, the applicant describes its existing relationships with other local health care and social service providers and provides supporting documentation in Exhibit I.2. The applicant adequately demonstrates that the proposed services will be coordinated with the existing health care system.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion.

F-11815-19/Carolinas Medical Center/Develop two ORs

In Section I, page 65, the applicant states the following ancillary and support services are necessary for the proposed services:

- Laboratory
- Radiology
- Pharmacy
- Housekeeping
- Maintenance
- Administration
- Other Ancillary and Support Services

On page 65, the applicant adequately explains how each ancillary and support service will be made available and provides supporting documentation in Exhibit I.1.

In Section I, pages 65-66, the applicant describes its existing relationships with other local health care and social service providers and provides supporting documentation in Exhibit I.2. The applicant adequately demonstrates that the proposed services will be coordinated with the existing health care system.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion.

(9) An applicant proposing to provide a substantial portion of the project's services to individuals not residing in the health service area in which the project is located, or in adjacent health service areas, shall document the special needs and circumstances that warrant service to these individuals.

NA – All Applications

None of the applications include projections to provide the proposed services to a substantial number of persons residing in Health Service Areas (HSAs) that are not adjacent to the HSA in which the services will be offered. Furthermore, none of the applications include projections to provide the proposed services to a substantial number of persons residing in other states that are not adjacent to the North Carolina county in which the services will be offered. Therefore, Criterion (9) is not applicable to any of the applications in this review.

(10) When applicable, the applicant shall show that the special needs of health maintenance organizations will be fulfilled by the project. Specifically, the applicant shall show that the project accommodates: (a) The needs of enrolled members and reasonably anticipated new members of the HMO for the health service to be provided by the organization; and (b) The availability of new health services from non-HMO providers or other HMOs in a reasonable and cost-effective manner which is consistent with the basic method of operation of the HMO. In assessing the availability of these health services from these providers, the applicant shall consider only whether the services from these providers:

(i) would be available under a contract of at least 5 years duration;
(ii) would be available and conveniently accessible through physicians and other health professionals associated with the HMO;
(iii) would cost no more than if the services were provided by the HMO; and
(iv) would be available in a manner which is administratively feasible to the HMO.

NA – All Applications

None of the applicants is an HMO. Therefore, Criterion (10) is not applicable to any of the applications in this review.

(11) Repealed effective July 1, 1987.

(12) Applications involving construction shall demonstrate that the cost, design, and means of construction proposed represent the most reasonable alternative, and that the construction project will not unduly increase the costs of providing health services by the person proposing the construction project or the costs and charges to the public of providing health services by other persons, and that applicable energy saving features have been incorporated into the construction plans.

NC – Atrium Health Lake Norman
C – All Other Applications

F-11807-18/Novant Health Matthews Medical Center/Develop one OR

In Section K, page 78, the applicant states the proposed project involves renovating 1,000 square feet of existing space. Line drawings are provided in Exhibit K-2.

On September 9, 2019, the Agency determined that a proposal from Novant to construct a new patient tower on the campus of NH Matthews was exempt from review, pursuant to G.S. 131E-184(g). In that request, Novant proposed to develop a three-story tower, approximately 147,000 square feet in total, which would be adjacent to and connected to NH Matthews. As part of that proposal, Novant stated it planned to relocate surgical and GI endoscopy services to the first floor of the proposed patient tower, and it planned to relocate 18 existing acute care beds and add six observation beds to the second floor of the proposed patient tower.

As part of this proposed project under review, the applicant plans to add four procedure rooms to the surgical space on the first floor, one of which will be converted to an additional shared OR if the proposed project is approved. In Section K, page 78, the applicant states that it included costs for the construction of the relevant portion of the new patient tower in its capital expenditures, allocated by the square footage of the proposed OR and associated pre- and post-operative spaces. Thus, while the applicant states that the space will be renovated, it can also be considered new construction.

On page 78, the applicant adequately explains how the cost, design, and means of construction represent the most reasonable alternative for the proposal. On page 79, the applicant adequately explains why the proposal will not unduly increase the costs to the applicant of providing the proposed services or the costs and charges to the public for the proposed services. On page 79, the applicant identifies any applicable energy saving features that will be incorporated into the construction plans.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application
- Information which was publicly available during the review and used by the Agency

Based on that review, the Agency concludes that the application is conforming to this criterion.

F-11808-19/Novant Health Matthews Medical Center/Develop 20 acute care beds

In Section K, page 82, the applicant states the proposed project involves renovating 30,733 square feet of existing space. Line drawings are provided in Exhibit K-2.

On September 9, 2019, the Agency determined that a proposal from Novant to construct a new patient tower on the campus of NH Matthews was exempt from review, pursuant to G.S. 131E-184(g). In that request, Novant proposed to develop a three-story tower, approximately 147,000 square feet in total, which would be adjacent to and connected to NH Matthews. As part of that proposal, Novant stated it planned to relocate surgical and GI endoscopy services to the first floor of the proposed patient tower, and it planned to relocate 18 existing acute care beds and add six observation beds to the second floor of the proposed patient tower.

As part of this proposed project under review, the applicant plans to develop 20 acute care beds on the third floor of the proposed patient tower, along with four observation beds. In Section K, page 82, the applicant states that it included costs for the construction of the entire third floor of the new patient tower in its capital expenditures, allocated by the square footage of the third floor as compared to the entire patient tower. Thus, while the applicant states that the space will be renovated, it can also be considered new construction.

On page 82, the applicant adequately explains how the cost, design, and means of construction represent the most reasonable alternative for the proposal. On page 83, the applicant adequately explains why the proposal will not unduly increase the costs to the applicant of providing the proposed services or the costs and charges to the public for the proposed services. On page 83, the applicant identifies any applicable energy saving features that will be incorporated into the construction plans.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application
- Information which was publicly available during the review and used by the Agency

Based on that review, the Agency concludes that the application is conforming to this criterion.

F-11810-19/Atrium Health Lake Norman/Develop a new satellite hospital campus with 30 acute care beds and 2 ORs

In Section K, page 118, the applicant states the proposed project involves constructing a new 160,000 square foot building. Line drawings are provided in Exhibit C.1. On page 118, the applicant adequately explains how the cost, design, and means of construction represent the most reasonable alternative for the proposal.

On page 119, the applicant explains why the proposal will not unduly increase the costs to the applicant of providing the proposed services or the costs and charges to the public for the proposed services. However, the applicant does not adequately demonstrate the need the population proposed to be served has for the proposed new hospital campus and does not

adequately demonstrate that the proposal would not result in an unnecessary duplication of existing or approved services in the service area. The discussions regarding analysis of need and unnecessary duplication found in Criteria (3) and (6), respectively, are incorporated herein by reference.

On pages 119-120, the applicant identifies any applicable energy saving features that will be incorporated into the construction plans.

On pages 120-121, the applicant identifies the proposed site and provides information about the current owner, zoning and special use permits for the site, and the availability of water, sewer, and waste disposal and power at the site.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application
- Written comments
- Responses to comments
- Information which was publicly available during the review and used by the Agency

Based on that review, the Agency concludes that the application is not conforming to this criterion for the reasons stated above.

F-11811-19/Carolinas Medical Center/Develop 18 acute care beds

In Section K, page 80, the applicant states the proposed project involves renovating 10,541 square feet of existing space. Line drawings are provided in Exhibit C.1. On page 80, the applicant adequately explains how the cost, design, and means of construction represent the most reasonable alternative for the proposal. On page 81, the applicant adequately explains why the proposal will not unduly increase the costs to the applicant of providing the proposed services or the costs and charges to the public for the proposed services. On pages 81-82, the applicant identifies any applicable energy saving features that will be incorporated into the construction plans.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion.

F-11812-19/Atrium Health University City/Develop 16 acute care beds

In Section K, page 80, the applicant states the proposed project involves renovating 7,509 square feet of existing space. Line drawings are provided in Exhibit C.1-1. On page 80, the applicant adequately explains how the cost, design, and means of construction represent the most reasonable alternative for the proposal. On page 81, the applicant adequately explains why the proposal will not unduly increase the costs to the applicant of providing the proposed

services or the costs and charges to the public for the proposed services. On pages 81-82, the applicant identifies any applicable energy saving features that will be incorporated into the construction plans.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion.

F-11813-19/Atrium Health Pineville/Develop 12 acute care beds

In Section K, page 83, the applicant states the project involves renovating 4,938 square feet of existing space. Line drawings are provided in Exhibit C.1-3.

On August 23, 2018, the Agency determined that a proposal from Atrium to construct a new patient tower on the campus of AH Pineville was exempt from review, pursuant to G.S. 131E-184(g). In that request, Atrium proposed to develop an eight-story tower, approximately 269,000 square feet in total, which would be adjacent to and connected to AH Pineville. As part of that proposal, Atrium stated it planned to relocate 36 existing acute care beds to the second level of the proposed patient tower, and it planned to relocate 22 existing acute care beds and 14 unlicensed observation beds to the third level of the proposed patient tower.

In Project I.D. #F-11622-18, the applicant was approved to develop 38 acute care beds. In Section C, page 29, the applicant states 36 of the previously approved acute care beds will be developed as proposed on the fourth level of the patient tower, and the remaining two acute care beds will replace two of the previously proposed 14 unlicensed observation beds on the third level of the patient tower. As part of this proposed project under review, the applicant plans to develop 12 new acute care beds on the third level of the patient tower instead of the previously proposed unlicensed observation beds. In Section C, page 28, the applicant states that it included in the capital expenditures the total cost to develop 12 acute care beds, including the cost of the core and shell of level three attributable to development of the 12 acute care beds, and the portions of site, foundation, engineering, and other costs that are attributable to development of the 12 acute care beds on level three. Thus, while the applicant states that the space will be renovated, it can also be considered new construction.

On page 83, the applicant adequately explains how the cost, design, and means of construction represent the most reasonable alternative for the proposal. On page 84, the applicant adequately explains why the proposal will not unduly increase the costs to the applicant of providing the proposed services or the costs and charges to the public for the proposed services. On pages 84-85, the applicant identifies any applicable energy saving features that will be incorporated into the construction plans.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion.

F-11814-19/Atrium Health Pineville/Develop two ORs

In Section K, page 72, the applicant states the project involves renovating 10,559 square feet of existing space. Line drawings are provided in Exhibit C.1-2.

On August 23, 2018, the Agency determined that a proposal from Atrium to construct a new patient tower on the campus of AH Pineville was exempt from review, pursuant to G.S. 131E-184(g). In that request, Atrium proposed to develop an eight-story tower, approximately 269,000 square feet in total, which would be adjacent to and connected to AH Pineville. As part of that proposal, Atrium stated it planned to develop the first floor of the patient tower as the entry and as shell space.

As part of this proposed project under review, the applicant plans to develop two new ORs on the first level of the patient tower instead of the previously proposed shell space. In Section C, page 17, the applicant states that it included in the capital expenditures the total cost to develop the two ORs, including the cost of the core and shell of the first level that is attributable to development of the two ORs, and the portions of site, foundation, engineering, and other costs that are attributable to development of the two ORs on the first level of the patient tower. Thus, while the applicant states that the space will be renovated, it can also be considered new construction.

On page 72, the applicant adequately explains how the cost, design, and means of construction represent the most reasonable alternative for the proposal. On page 73, the applicant adequately explains why the proposal will not unduly increase the costs to the applicant of providing the proposed services or the costs and charges to the public for the proposed services. On pages 73-74, the applicant identifies any applicable energy saving features that will be incorporated into the construction plans.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion.

F-11815-19/Carolinas Medical Center/Develop two ORs

In Section K, page 69, the applicant states the proposed project involves renovating 3,014 square feet of existing space. Line drawings are provided in Exhibit C.1. On page 69, the applicant adequately explains how the cost, design, and means of construction represent the most reasonable alternative for the proposal. On page 70, the applicant adequately explains why the proposal will not unduly increase the costs to the applicant of providing the proposed services or the costs and charges to the public for the proposed services.

On pages 70-71, the applicant identifies any applicable energy saving features that will be incorporated into the construction plans.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion.

(13) The applicant shall demonstrate the contribution of the proposed service in meeting the health-related needs of the elderly and of members of medically underserved groups, such as medically indigent or low income persons, Medicaid and Medicare recipients, racial and ethnic minorities, women, and handicapped persons, which have traditionally experienced difficulties in obtaining equal access to the proposed services, particularly those needs identified in the State Health Plan as deserving of priority. For the purpose of determining the extent to which the proposed service will be accessible, the applicant shall show:

(a) The extent to which medically underserved populations currently use the applicant's existing services in comparison to the percentage of the population in the applicant's service area which is medically underserved;

NA – Atrium Health Lake Norman
C – All Other Applications

F-11807-18/Novant Health Matthews Medical Center/Develop one OR

In Section L, page 82, the applicant provides the historical payor mix of patients utilizing NH Matthews during CY 2018, as shown in the table below.

NH Matthews Historical Payor Mix Last Full FY (CY 2018)		
Payor Source	**Total Facility**	**ORs**
Self-Pay	1.37%	0.75%
Charity Care	5.21%	2.12%
Medicare*	44.75%	39.13%
Medicaid*	7.48%	4.97%
Insurance*	38.07%	49.32%
Worker's Comp.	0.33%	0.48%
TRICARE	0.90%	1.22%
Other**	1.89%	2.01%
Total	**100.00%**	**100.00%**

*Including any managed care plans
**Includes other government, institutional, and other unspecified payors.

On page 81, the applicant provides the following comparison.

	% of Total Patients Served at NHMMC during CY 2018	% of the Population of Mecklenburg County
Female	63.51%	51.69%
Male	36.49%	48.31%
Unknown	0.00%	0.00%
64 and Younger	58.36%	86.77%
65 and Older	41.64%	13.23%
American Indian	0.17%	0.47%
Asian	1.62%	4.48%
Black or African-American	15.63%	24.30%
Native Hawaiian or Pacific Islander	0.02%	0.07%
White or Caucasian	63.95%	62.44%
Other Race	5.30%	8.24%
Declined / Unavailable	13.31%	0.00%

Sources: Truven Analytics, Claritas Demographics

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the applicant adequately documents the extent to which medically underserved populations currently use the applicant's existing services in comparison to the percentage of the population in the applicant's service area which is medically underserved. Therefore, the application is conforming to this criterion.

F-11808-19/Novant Health Matthews Medical Center/Develop 20 acute care beds

In Section L, page 86, the applicant provides the historical payor mix of patients utilizing NH Matthews during CY 2018, as shown in the table below.

NH Matthews Historical Payor Mix Last Full FY (CY 2018)		
Payor Source	**Total Facility**	**Acute Care Beds**
Self-Pay	1.37%	1.26%
Charity Care	5.21%	3.85%
Medicare*	44.75%	53.76%
Medicaid*	7.48%	7.37%
Insurance*	38.07%	31.67%
Worker's Comp.	0.33%	0.13%
TRICARE	0.90%	0.80%
Other**	1.89%	1.16%
Total	**100.00%**	**100.00%**

*Including any managed care plans

**Includes other government, institutional, and other unspecified payors.

On page 85, the applicant provides the following comparison.

	% of Total Patients Served at NHMMC during CY 2018	% of the Population of Mecklenburg County
Female	63.51%	51.69%
Male	36.49%	48.31%
Unknown	0.00%	0.00%
64 and Younger	58.36%	86.77%
65 and Older	41.64%	13.23%
American Indian	0.17%	0.47%
Asian	1.62%	4.48%
Black or African-American	15.63%	24.30%
Native Hawaiian or Pacific Islander	0.02%	0.07%
White or Caucasian	63.95%	62.44%
Other Race	5.30%	8.24%
Declined / Unavailable	13.31%	0.00%

Sources: Truven Analytics, Claritas Demographics

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the applicant adequately documents the extent to which medically underserved populations currently use the applicant's existing services in comparison to the percentage of the population in the applicant's service area which is medically underserved. Therefore, the application is conforming to this criterion.

F-11810-19/Atrium Health Lake Norman/Develop a new satellite hospital campus with 30 acute care beds and 2 ORs

Atrium Health Lake Norman is not an existing facility. Therefore, Criterion (13a) is not applicable to this review.

F-11811-19/Carolinas Medical Center/Develop 18 acute care beds

In Section L, page 85, the applicant provides the historical payor mix for medical/surgical acute care patients utilizing CMC during CY 2018, as shown in the table below.

CMC Historical Payor Mix – Last Full FY (CY 2018)		
Payor Source	**Total Facility**	**M/S Beds**
Self-Pay	14.1%	7.2%
Medicare*	26.1%	47.2%
Medicaid*	24.5%	17.0%
Insurance*	33.4%	24.9%
Other**	1.9%	3.7%
Total	**100.0%**	**100.0%**

*Including any managed care plans

**Includes TRICARE and worker's compensation

On page 84, the applicant provides the following comparison.

	% of Total Patients Served at CMC during CY 2018	% of the Population of Mecklenburg County
Female	59.6%	51.9%
Male	40.4%	48.1%
Unknown	0.0%	0.0%
64 and Younger	78.5%	88.8%
65 and Older	21.5%	11.2%
American Indian	0.9%	0.8%
Asian	1.6%	6.4%
Black or African-American	33.0%	32.9%
Native Hawaiian or Pacific Islander	0.2%	0.1%
White or Caucasian	46.0%	57.5%
Other Race	5.6%	2.4%
Declined / Unavailable	12.8%	0.0%

Source: Atrium internal data, US Census Bureau

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the applicant adequately documents the extent to which medically underserved populations currently use the applicant's existing services in comparison to the percentage of the population in the applicant's service area which is medically underserved. Therefore, the application is conforming to this criterion.

F-11812-19/Atrium Health University City/Develop 16 acute care beds

In Section L, page 85, the applicant provides the historical payor mix for patients utilizing AH University City during CY 2018, as shown in the table below.

AH University City Historical Payor Mix Last Full FY (CY 2018)		
Payor Source	**Total Facility**	**M/S Beds**
Self-Pay	18.5%	9.4%
Medicare*	22.0%	50.0%
Medicaid*	21.1%	15.9%
Insurance*	34.7%	21.3%
Other**	3.7%	3.4%
Total	**100.0%**	**100.0%**

*Including any managed care plans

**Includes TRICARE and worker's compensation

On page 84, the applicant provides the following comparison.

	% of Total Patients Served at AH-UC in M/S beds during CY 2018	% of the Population of Mecklenburg County
Female	62.4%	51.9%
Male	37.6%	48.1%
Unknown	0.0%	0.0%
64 and Younger	75.6%	88.8%
65 and Older	24.4%	11.2%
American Indian	1.4%	0.8%
Asian	4.4%	6.4%
Black or African-American	44.4%	32.9%
Native Hawaiian or Pacific Islander	0.1%	0.1%
White or Caucasian	32.8%	57.5%
Other Race	5.4%	2.4%
Declined / Unavailable	11.5%	0.0%

Source: Atrium internal data, US Census Bureau

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the applicant adequately documents the extent to which medically underserved populations currently use the applicant's existing services in comparison to the percentage of the population in the applicant's service area which is medically underserved. Therefore, the application is conforming to this criterion.

F-11813-19/Atrium Health Pineville/Develop 12 acute care beds

In Section L, page 89, the applicant provides the historical payor mix for medical/surgical acute care patients utilizing AH Pineville during CY 2018, as shown in the table below.

AH Pineville Historical Payor Mix Last Full FY (CY 2018)		
Payor Source	**Total Facility**	**M/S Beds**
Self-Pay	12.4%	5.2%
Medicare*	32.6%	64.5%
Medicaid*	13.0%	6.8%
Insurance*	39.3%	21.5%
Other**	2.8%	2.1%
Total	**100.0%**	**100.0%**

*Including any managed care plans

**Includes TRICARE and worker's compensation

In Section L, page 88, the applicant provides the following comparison.

	% of Total Patients Served at AH-P in M/S beds during CY 2018	% of the Population of Mecklenburg County
Female	57.3%	51.9%
Male	42.7%	48.1%
Unknown	0.0%	0.0%
64 and Younger	56.5%	88.8%
65 and Older	43.5%	11.2%
American Indian	0.6%	0.8%
Asian	1.7%	6.4%
Black or African-American	17.8%	32.9%
Native Hawaiian or Pacific Islander	0.1%	0.1%
White or Caucasian	65.4%	57.5%
Other Race	3.0%	2.4%
Declined / Unavailable	11.5%	0.0%

Source: Atrium internal data, US Census Bureau

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the applicant adequately documents the extent to which medically underserved populations currently use the applicant's existing services in comparison to the percentage of the population in the applicant's service area which is medically underserved. Therefore, the application is conforming to this criterion.

F-11814-19/Atrium Health Pineville/Develop two ORs

In Section L, page 78, the applicant provides the historical payor mix for OR patients utilizing AH Pineville during CY 2018, as shown in the table below.

AH Pineville Historical Payor Mix Last Full FY (CY 2018)		
Payor Source	**Total Facility**	**ORs**
Self-Pay	12.4%	3.6%
Medicare*	32.6%	41.0%
Medicaid*	13.0%	4.8%
Insurance*	39.3%	48.6%
Other**	2.8%	2.0%
Total	**100.0%**	**100.0%**

*Including any managed care plans
**Includes TRICARE and worker's compensation

On page 77, the applicant provides the following comparison.

	% of Total Patients Served at AH-P in ORs during CY 2018	% of the Population of Mecklenburg County
Female	57.7%	51.9%
Male	42.3%	48.1%
Unknown	0.0%	0.0%
64 and Younger	70.4%	88.8%
65 and Older	29.6%	11.2%
American Indian	0.8%	0.8%
Asian	1.2%	6.4%
Black or African-American	24.1%	32.9%
Native Hawaiian or Pacific Islander	0.1%	0.1%
White or Caucasian	60.7%	57.5%
Other Race	5.0%	2.4%
Declined / Unavailable	8.2%	0.0%

Source: Atrium internal data, US Census Bureau

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the applicant adequately documents the extent to which medically underserved populations currently use the applicant's existing services in comparison to the percentage of the population in the applicant's service area which is medically underserved. Therefore, the application is conforming to this criterion.

F-11815-19/Carolinas Medical Center/Develop two ORs

In Section L, page 74, the applicant provides the historical payor mix for OR patients utilizing CMC during CY 2018, as shown in the table below.

CMC Historical Payor Mix – Last Full FY (CY 2018)		
Payor Source	**Total Facility**	**ORs**
Self-Pay	14.1%	7.0%
Medicare*	26.1%	28.2%
Medicaid*	24.5%	18.9%
Insurance*	33.4%	42.8%
Other**	1.9%	3.0%
Total	**100.0%**	**100.0%**

*Including any managed care plans
**Includes TRICARE and worker's compensation

On page 73, the applicant provides the following comparison.

	% of Total Patients Served at CMC during CY 2018	% of the Population of Mecklenburg County
Female	59.6%	51.9%
Male	40.4%	48.1%
Unknown	0.0%	0.0%
64 and Younger	78.5%	89.1%
65 and Older	21.5%	10.9%
American Indian	0.9%	0.8%
Asian	1.6%	6.1%
Black or African-American	33.0%	32.8%
Native Hawaiian or Pacific Islander	0.2%	0.1%
White or Caucasian	46.0%	57.8%
Other Race	5.6%	2.4%
Declined / Unavailable	12.8%	0.0%

Source: Atrium internal data, US Census Bureau

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the applicant adequately documents the extent to which medically underserved populations currently use the applicant's existing services in comparison to the percentage of the population in the applicant's service area which is medically underserved. Therefore, the application is conforming to this criterion.

(b) Its past performance in meeting its obligation, if any, under any applicable regulations requiring provision of uncompensated care, community service, or access by minorities and handicapped persons to programs receiving federal assistance, including the existence of any civil rights access complaints against the applicant;

NA – Atrium Health Lake Norman
C – All Other Applications

F-11807-18/Novant Health Matthews Medical Center/Develop one OR

Regarding any obligation to provide uncompensated care, community service, or access by minorities and persons with disabilities, in Section L, page 82, the applicant states it has no such obligation. In Section L, page 82, the applicant states that during the last five years no patient civil rights access complaints have been filed against the facility or any similar facilities owned by the applicant or a related entity and located in North Carolina.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion.

F-11808-19/Novant Health Matthews Medical Center/Develop 20 acute care beds

Regarding any obligation to provide uncompensated care, community service, or access by minorities and persons with disabilities, in Section L, page 86, the applicant states it has no such obligation. In Section L, page 86, the applicant states that during the last five years no patient civil rights access complaints have been filed against the facility or any similar facilities owned by the applicant or a related entity and located in North Carolina.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion.

F-11810-19/Atrium Health Lake Norman/Develop a new satellite hospital campus with 30 acute care beds and 2 ORs

Atrium Health Lake Norman is not an existing facility. Therefore, Criterion (13b) is not applicable to this review.

F-11811-19/Carolinas Medical Center/Develop 18 acute care beds

Regarding any obligation to provide uncompensated care, community service, or access by minorities and persons with disabilities, in Section L, page 85, the applicant states it has no such obligation. In Section L, page 86, the applicant states that during the last five years no patient civil rights access complaints have been filed against the facility or any related entities.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion.

F-11812-19/Atrium Health University City/Develop 16 acute care beds

Regarding any obligation to provide uncompensated care, community service, or access by minorities and persons with disabilities, in Section L, pages 85-86, the applicant states it has no such obligation. In Section L, page 86, the applicant states that during the last five years no patient civil rights access complaints have been filed against the facility or any related entities.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion.

F-11813-19/Atrium Health Pineville/Develop 12 acute care beds

Regarding any obligation to provide uncompensated care, community service, or access by minorities and persons with disabilities, in Section L, pages 89-90, the applicant states it has no such obligation. In Section L, page 90, the applicant states that during the last five years no patient civil rights access complaints have been filed against the facility or any related entities.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion.

F-11814-19/Atrium Health Pineville/Develop two ORs

Regarding any obligation to provide uncompensated care, community service, or access by minorities and persons with disabilities, in Section L, pages 78-79, the applicant states it has no such obligation. In Section L, page 79, the applicant states that during the last five years no patient civil rights access complaints have been filed against the facility or any related entities.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion.

F-11815-19/Carolinas Medical Center/Develop two ORs

Regarding any obligation to provide uncompensated care, community service, or access by minorities and persons with disabilities, in Section L, page 74, the applicant states it has no such obligation. In Section L, page 75, the applicant states that during the last five years no patient civil rights access complaints have been filed against the facility or any related entities.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion.

(c) That the elderly and the medically underserved groups identified in this subdivision will be served by the applicant's proposed services and the extent to which each of these groups is expected to utilize the proposed services; and

C – All Applications

F-11807-18/Novant Health Matthews Medical Center/Develop one OR

In Section L, page 83, the applicant projects the following payor mix for the proposed services during the third full fiscal year of operation following project completion, as shown in the table below.

NH Matthews Projected Payor Mix Third Full FY (CY 2026)		
Payor Source	**Total Facility**	**ORs**
Self-Pay	1.37%	0.75%
Charity Care	5.21%	2.12%
Medicare*	44.75%	39.13%
Medicaid*	7.48%	4.98%
Insurance*	38.07%	49.32%
Worker's Comp.	0.33%	0.48%
TRICARE	0.90%	1.22%
Other**	1.89%	2.01%
Total	**100.00%**	**100.00%**

*Including any managed care plans
**Includes other government, institutional, and other unspecified payors.

As shown in the table above, during the third full fiscal year of operation, the applicant projects that 5.21 percent of total services will be provided to charity care patients, 1.37 percent to self-pay patients, 44.75 percent to Medicare patients, and 7.48 percent to Medicaid patients.

On page 83, the applicant provides the assumptions and methodology used to project payor mix during the third full fiscal year of operation following project completion. The projected payor mix is reasonable and adequately supported for the following reasons:

- The applicant relies on its own historical data in projecting future utilization.

- The applicant explains why there are no changes to its historical payor mix.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion.

F-11808-19/Novant Health Matthews Medical Center/Develop 20 acute care beds

In Section L, page 87, the applicant projects the following payor mix during the third full fiscal year of operation following project completion, as illustrated in the following table.

NH Matthews Projected Payor Mix Third Full FY (CY 2026)		
Payor Source	**Total Facility**	**Acute Care Beds**
Self-Pay	1.37%	1.26%
Charity Care	5.21%	3.85%
Medicare*	44.75%	53.76%
Medicaid*	7.48%	7.37%
Insurance*	38.07%	31.67%
Worker's Comp.	0.33%	0.13%
TRICARE	0.90%	0.80%
Other**	1.89%	1.16%
Total	**100.00%**	**100.00%**

*Including any managed care plans
**Includes other government, institutional, and other unspecified payors.

As shown in the table above, during the third full fiscal year of operation, the applicant projects that 5.21 percent of total services will be provided to charity care patients, 1.37 percent to self-pay patients, 44.75 percent to Medicare patients, and 7.48 percent to Medicaid patients.

On page 87, the applicant provides the assumptions and methodology used to project payor mix during the third full fiscal year of operation following project completion. The projected payor mix is reasonable and adequately supported for the following reasons:

- The applicant relies on its own historical data in projecting future utilization.

- The applicant explains why there are no changes to its historical payor mix.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion.

F-11810-19/Atrium Health Lake Norman/Develop a new satellite hospital campus with 30 acute care beds and 2 ORs

In Section L, page 124, the applicant projects the following payor mix during the third full fiscal year following project completion, as illustrated in the following table.

AH-LN Projected Payor Mix – Third Full FY (CY 2025)								
Payor Source	**Total Facility**	**M/S Beds**	**ICU Beds**	**OB Beds***	**Surg Svcs**	**ED**	**Imaging**	**Other****
Self-Pay	8.2%	7.5%	7.5%	1.5%	4.5%	21.4%	10.3%	6.8%
Medicare***	16.1%	52.7%	52.7%	0.7%	38.2%	19.4%	25.7%	10.9%
Medicaid***	37.2%	17.9%	17.9%	42.5%	6.4%	25.4%	16.5%	45.3%
Insurance***	37.2%	19.5%	19.5%	54.8%	48.4%	30.1%	45.9%	36.2%
Other****	1.2%	2.5%	2.5%	0.4%	2.5%	3.6%	1.7%	0.8%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

*Obstetrics Beds
**Other includes laboratory services, physical therapy, occupational therapy, speech therapy, and other services.
***Including any managed care plans
****Includes TRICARE and worker's compensation

As shown in the table above, during the third full fiscal year of operation, the applicant projects that 8.2 percent of total services will be provided to self-pay patients, 16.1 percent to Medicare patients, and 37.2 percent to Medicaid patients.

On page 124, the applicant states its internal reporting does not capture charity care provided to patients and states patients from any payor source can and do receive charity care.

On page 125, the applicant provides the assumptions and methodology used to project payor mix during the third full fiscal year of operation following project completion. The projected payor mix is reasonable and adequately supported for the following reasons:

- The applicant relies on historical data in projecting future utilization.
- The applicant accounts for the smaller subsection of patients from which the historical payor mix was used to make projections.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion.

F-11811-19/Carolinas Medical Center/Develop 18 acute care beds

In Section L, page 86, the applicant projects the following payor mix during the third full fiscal year of operation following project completion, as illustrated in the following table.

CMC Projected Payor Mix – Third Full FY (CY 2024)		
Payor Source	**Total Facility**	**M/S Beds**
Self-Pay	14.1%	7.2%
Medicare*	26.1%	47.2%
Medicaid*	24.5%	17.0%
Insurance*	33.4%	24.9%
Other**	1.9%	3.7%
Total	**100.0%**	**100.0%**

*Including any managed care plans
**Includes TRICARE and worker's compensation

As shown in the table above, during the third full fiscal year of operation, the applicant projects that 14.1 percent of total services will be provided to self-pay patients, 26.1 percent to Medicare patients, and 24.5 percent to Medicaid patients.

On page 86, the applicant states its internal reporting does not capture charity care provided to patients and states patients from any payor source can and do receive charity care.

On page 86, the applicant provides the assumptions and methodology used to project payor mix during the third full fiscal year of operation following project completion. The projected payor mix is reasonable and adequately supported for the following reasons:

- The applicant relies on its own historical data in projecting future utilization.

- The applicant explains why there are no changes to its historical payor mix.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion.

F-11812-19/Atrium Health University City/Develop 16 acute care beds

In Section L, page 86, the applicant projects the following payor mix during the third full fiscal year following project completion, as illustrated in the following table.

AH University City Projected Payor Mix Third Full FY (CY 2024)		
Payor Source	**Total Facility**	**M/S Beds**
Self-Pay	18.5%	9.4%
Medicare*	22.0%	50.0%
Medicaid*	21.1%	15.9%
Insurance*	34.7%	21.3%
Other**	3.7%	3.4%
Total	**100.0%**	**100.0%**

*Including any managed care plans
**Includes TRICARE and worker's compensation

As shown in the table above, during the third full fiscal year of operation, the applicant projects that 18.5 percent of total services will be provided to self-pay patients, 22 percent to Medicare patients, and 21.1 percent to Medicaid patients.

On page 86, the applicant states its internal reporting does not capture charity care provided to patients and states patients from any payor source can and do receive charity care.

On page 86, the applicant provides the assumptions and methodology used to project payor mix during the third full fiscal year of operation following project completion. The projected payor mix is reasonable and adequately supported for the following reasons:

- The applicant relies on its own historical data in projecting future utilization.

- The applicant explains why there are no changes to its historical payor mix.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion.

F-11813-19/Atrium Health Pineville/Develop 12 acute care beds

In Section L, page 90, the applicant projects the following payor mix for the proposed services during the third full fiscal year of operation following project completion, as shown in the table below.

AH Pineville Projected Payor Mix Third Full FY (CY 2024)		
Payor Source	**Total Facility**	**M/S Beds**
Self-Pay	12.4%	5.2%
Medicare*	32.6%	64.5%
Medicaid*	13.0%	6.8%
Insurance*	39.3%	21.5%
Other**	2.8%	2.1%
Total	**100.0%**	**100.0%**

*Including any managed care plans
**Includes TRICARE and worker's compensation

As shown in the table above, during the third full fiscal year of operation, the applicant projects 12.4 percent of total services will be provided to self-pay patients, 32.6 percent to Medicare patients, and 13 percent to Medicaid patients.

On page 90, the applicant states its internal reporting does not capture charity care provided to patients and states patients from any payor source can and do receive charity care.

On page 90, the applicant provides the assumptions and methodology used to project payor mix during the third full fiscal year of operation following project completion. The projected payor mix is reasonable and adequately supported for the following reasons:

- The applicant relies on its own historical data in projecting future utilization.

- The applicant explains why there are no changes to its historical payor mix.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion.

F-11814-19/Atrium Health Pineville/Develop two ORs

In Section L, page 79, the applicant projects the following payor mix for the proposed services during the third full fiscal year of operation following project completion, as shown in the table below.

AH Pineville Projected Payor Mix Third Full FY (CY 2025)		
Payor Source	**Total Facility**	**ORs**
Self-Pay	12.4%	3.6%
Medicare*	32.6%	41.0%
Medicaid*	13.0%	4.8%
Insurance*	39.3%	48.6%
Other**	2.8%	2.0%
Total	**100.0%**	**100.0%**

*Including any managed care plans
**Includes TRICARE and worker's compensation

As shown in the table above, during the third full fiscal year of operation, the applicant projects 12.4 percent of total services will be provided to self-pay patients, 32.6 percent to Medicare patients, and 13 percent to Medicaid patients.

On page 79, the applicant states its internal reporting does not capture charity care provided to patients and states patients from any payor source can and do receive charity care.

On page 79, the applicant provides the assumptions and methodology used to project payor mix during the third full fiscal year of operation following project completion. The projected payor mix is reasonable and adequately supported for the following reasons:

- The applicant relies on its own historical data in projecting future utilization.

- The applicant explains why there are no changes to its historical payor mix.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion.

F-11815-19/Carolinas Medical Center/Develop two ORs

In Section L, page 75, the applicant projects the following payor mix during the third full fiscal year of operation following project completion, as illustrated in the following table.

CMC Projected Payor Mix – Third Full FY (CY 2024)		
Payor Source	**Total Facility**	**ORs**
Self-Pay	14.1%	7.0%
Medicare*	26.1%	28.2%
Medicaid*	24.5%	18.9%
Insurance*	33.4%	42.8%
Other**	1.9%	3.0%
Total	**100.0%**	**100.0%**

*Including any managed care plans
**Includes TRICARE and worker's compensation

As shown in the table above, during the third full fiscal year of operation, the applicant projects 14.1 percent of total services will be provided to self-pay patients, 26.1 percent to Medicare patients, and 24.5 percent to Medicaid patients.

On page 75, the applicant states its internal reporting does not capture charity care provided to patients and states patients from any payor source can and do receive charity care.

On page 75, the applicant provides the assumptions and methodology used to project payor mix during the third full fiscal year of operation following project completion. The projected payor mix is reasonable and adequately supported for the following reasons:

- The applicant relies on its own historical data in projecting future utilization.

- The applicant explains why there are no changes to its historical payor mix.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion.

(d) That the applicant offers a range of means by which a person will have access to its services. Examples of a range of means are outpatient services, admission by house staff, and admission by personal physicians.

C – All Applications

F-11807-18/Novant Health Matthews Medical Center/Develop one OR

In Section L, page 85, the applicant adequately describes the range of means by which patients will have access to the proposed services.

Conclusion -The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion.

F-11808-19/Novant Health Matthews Medical Center/Develop 20 acute care beds

In Section L, page 89, the applicant adequately describes the range of means by which patients will have access to the proposed services.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion.

F-11810-19/Atrium Health Lake Norman/Develop a new satellite hospital campus with 30 acute care beds and 2 ORs

In Section L, page 126, the applicant adequately describes the range of means by which patients will have access to the proposed services.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion.

F-11811-19/Carolinas Medical Center/Develop 18 acute care beds

In Section L, page 87, the applicant adequately describes the range of means by which patients will have access to the proposed services.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion.

F-11812-19/Atrium Health University City/Develop 16 acute care beds

In Section L, page 87, the applicant adequately describes the range of means by which patients will have access to the proposed services.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion.

F-11813-19/Atrium Health Pineville/Develop 12 acute care beds

In Section L, page 91, the applicant adequately describes the range of means by which patients will have access to the proposed services.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion.

F-11814-19/Atrium Health Pineville/Develop two ORs

In Section L, page 80, the applicant adequately describes the range of means by which patients will have access to the proposed services.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion.

F-11815-19/Carolinas Medical Center/Develop two ORs

In Section L, page 76, the applicant adequately describes the range of means by which patients will have access to the proposed services.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion.

(14) The applicant shall demonstrate that the proposed health services accommodate the clinical needs of health professional training programs in the area, as applicable.

C – All Applications

F-11807-18/Novant Health Matthews Medical Center/Develop one OR

In Section M, page 86, the applicant describes the extent to which health professional training programs in the area will have access to the facility for training purposes and provides supporting documentation in Exhibit H-2.1.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the applicant adequately demonstrates that the proposed services will accommodate the clinical needs of area health professional training programs, and therefore, the application is conforming to this criterion.

F-11808-19/Novant Health Matthews Medical Center/Develop 20 acute care beds

In Section M, page 90, the applicant describes the extent to which health professional training programs in the area will have access to the facility for training purposes and provides supporting documentation in Exhibit H-2.1.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the applicant adequately demonstrates that the proposed services will accommodate the clinical needs of area health professional training programs, and therefore, the application is conforming to this criterion.

F-11810-19/Atrium Health Lake Norman/Develop a new satellite hospital campus with 30 acute care beds and 2 ORs

In Section M, page 127, the applicant describes the extent to which health professional training programs in the area will have access to the facility for training purposes and lists health professional training programs in the area with which Atrium has existing relationships.

Conclusion – The Agency reviewed the:

- Application

- Exhibits to the application

Based on that review, the Agency concludes that the applicant adequately demonstrates that the proposed services will accommodate the clinical needs of area health professional training programs, and therefore, the application is conforming to this criterion.

F-11811-19/Carolinas Medical Center/Develop 18 acute care beds

In Section M, page 88, the applicant describes the extent to which health professional training programs in the area will have access to the facility for training purposes and lists health professional training programs in the area with which it has existing relationships.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the applicant adequately demonstrates that the proposed services will accommodate the clinical needs of area health professional training programs, and therefore, the application is conforming to this criterion.

F-11812-19/Atrium Health University City/Develop 16 acute care beds

In Section M, page 88, the applicant describes the extent to which health professional training programs in the area will have access to the facility for training purposes and lists health professional training programs in the area with which it has existing relationships.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the applicant adequately demonstrates that the proposed services will accommodate the clinical needs of area health professional training programs, and therefore, the application is conforming to this criterion.

F-11813-19/Atrium Health Pineville/Develop 12 acute care beds

In Section M, page 92, the applicant describes the extent to which health professional training programs in the area will have access to the facility for training purposes and lists health professional training programs in the area with which it has existing relationships.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the applicant adequately demonstrates that the proposed services will accommodate the clinical needs of area health professional training programs, and therefore, the application is conforming to this criterion.

F-11814-19/Atrium Health Pineville/Develop two ORs

In Section M, page 81, the applicant describes the extent to which health professional training programs in the area will have access to the facility for training purposes and lists health professional training programs in the area with which it has existing relationships.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the applicant adequately demonstrates that the proposed services will accommodate the clinical needs of area health professional training programs, and therefore, the application is conforming to this criterion.

F-11815-19/Carolinas Medical Center/Develop two ORs

In Section M, page 77, the applicant describes the extent to which health professional training programs in the area will have access to the facility for training purposes and lists health professional training programs in the area with which it has existing relationships.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the applicant adequately demonstrates that the proposed services will accommodate the clinical needs of area health professional training programs, and therefore, the application is conforming to this criterion.

(15) Repealed effective July 1, 1987.
(16) Repealed effective July 1, 1987.
(17) Repealed effective July 1, 1987.
(18) Repealed effective July 1, 1987.

(18a) The applicant shall demonstrate the expected effects of the proposed services on competition in the proposed service area, including how any enhanced competition will have a positive impact upon the cost effectiveness, quality, and access to the services proposed; and in the case of applications for services where competition between providers will not have a favorable impact on cost-effectiveness, quality, and access to the services proposed, the applicant shall demonstrate that its application is for a service on which competition will not have a favorable impact.

NC – Atrium Health Lake Norman
C – All Other Applications

The 2019 SMFP includes need determinations for 76 acute care beds and six ORs in the Mecklenburg County service area.

Acute Care Beds. On page 36, the 2019 SMFP defines the service area for acute care beds as *"the acute care bed planning area in which the bed is located. The acute care bed planning areas are the single and multicounty groupings shown in Figure 5.1."* Figure 5.1, on page 40, shows Mecklenburg County as its own acute care bed planning area. Thus, the service area for this facility is Mecklenburg County. Facilities may also serve residents of counties not included in their service area.

As of the date of this decision, there are 2,288 existing and approved acute care beds, allocated between 10 hospitals owned by two providers (Atrium and Novant) in the Mecklenburg County Service Area, as illustrated in the following table.

Mecklenburg County Acute Care Hospitals	
Facility	**Existing/Approved Beds**
AH Pineville	221 (+38)
AH University City	100
CMC-Main	859
AH-Mercy*	196
Atrium Total	**1,414**
NH Ballantyne Medical Center	0 (+36)
NH Huntersville Medical Center	139 (+12)
NH Health Matthews Medical Center	154
NH Health Presbyterian Medical Center	471 (-36)
NH Charlotte Orthopedic Hospital**	48
NH Mint Hill Medical Center	36 (+14)
Novant Total	**874**
Mecklenburg County Total	**2,288**

Source: Table 5A, 2019 SMFP; applications under review; 2020 LRAs; Agency records.
Note: Numbers in parentheses reflect approved changes in bed inventory which have not yet been developed.
*AH-Mercy is a separate campus but licensed as part of CMC.
**NHCOH is a separate campus but licensed as part of NHPMC.

Operating Rooms. On page 55, the 2019 SMFP defines the service area for ORs as *"…the operating room planning area in which the operating room is located. The operating room planning areas are the single and multicounty groupings shown in Figure 6.1."* Figure 6.1, on page 60, shows Mecklenburg County as its own OR planning area. Thus, the service area for this facility is Mecklenburg County. Facilities may also serve residents of counties not included in their service area.

Not including dedicated C-Section ORs and trauma ORs, there are 161 existing and approved ORs in Mecklenburg County, allocated between 18 facilities, as shown in the table below.

Mecklenburg County OR Inventory						
Facility	**IP ORs**	**OP ORs**	**Shared ORs**	**Excluded C-Section and Trauma ORs**	**CON Adjustments**	**Total ORs**
AH Huntersville Surgery Center	0	0	0	0	1	1
AH Pineville	3	0	9	-2	1	11
AH University City	1	1	7	-1	-1	7
CCSS	0	2	0	0	1	3
CMC	10	9	41	-5	2	57
Atrium Health System Total	**14**	**12**	**57**	**-8**	**4**	**79**
Charlotte Surgery Center – Museum	0	6	0	0	0	6
Charlotte Surgery Center – Wendover	0	6	0	0	0	6
Charlotte Surgery Center System Total	**0**	**12**	**0**	**0**	**0**	**12**
Matthews Surgery Center	0	2	0	0	0	2
NH Ballantyne*	0	0	0	0	2	2
NH Ballantyne OPS*	0	2	0	0	-2	0
NH Huntersville	1	0	6	-1	1	7
NH Huntersville OPS	0	2	0	0	0	2
NH Mint Hill	1	0	3	-1	1	4
NH Matthews	2	0	6	-2	0	6
NH Presbyterian	6	6	28	-3	-1	36
SouthPark Surgery Center	0	6	0	0	0	6
Novant Health System Total	**10**	**18**	**43**	**-7**	**0**	**65**
Carolinas Ctr for Ambulatory Dentistry**	0	2	0	0	0	2
Mallard Creek Surgery Center**	0	2	0	0	0	2
Metrolina Vascular Access Care	0	0	0	0	1	1
Total	**24**	**46**	**100**	**-15**	**5**	**161**

Sources: Table 6A, 2019 SMFP; 2019 LRAs; Agency records

*NHBMC, an approved hospital under development, will have 2 ORs that will be relocated from NHBOS, which will close once the ORs are relocated to NHBMC.

**These facilities are part of demonstration projects and the ORs are not included in the SMFP need determination calculations.

F-11807-18/Novant Health Matthews Medical Center/Develop one OR

The applicant proposes to add one OR to NH Matthews, its existing acute care hospital, for a total of nine ORs upon project completion.

In Section N, pages 88-89, the applicant describes the expected effects of the proposed services on competition in the service area and discusses how any enhanced competition in the service area will promote the cost-effectiveness, quality, and access to the proposed services. On page 88, the applicant states:

> *"To compete with other hospitals, NH Matthews must have the capacity to serve additional patient volume. The proposed project will expand NH Matthews' capacity to provide surgical services to area residents. …, NH Matthews' inpatient surgical services are growing in both volume and acuity. To continue to meet the growing demand for inpatient surgical services, NH Matthews needs an additional OR. This will allow NH Matthews to compete with other hospitals while reducing the need to extend operating room hours."*

The applicant adequately describes the expected effects of the proposed services on competition in the service area and adequately demonstrates:

- The cost-effectiveness of the proposal (see Sections C, F, N, and Q of the application and any exhibits).

- Quality services will be provided (see Sections C, N, and O of the application and any exhibits).

- Access will be provided to underserved groups (see Sections L and N of the application and any exhibits).

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion for the reasons stated above.

F-11808-19/Novant Health Matthews Medical Center/Develop 20 acute care beds

The applicant proposes to add 20 acute care beds to NH Matthews, its existing acute care hospital, for a total of 174 acute care beds upon project completion.

In Section N, pages 91-92, the applicant describes the expected effects of the proposed services on competition in the service area and discusses how any enhanced competition in the service area will promote the cost-effectiveness, quality, and access to the proposed services. On page 91, the applicant states:

> *"To compete with other hospitals, NH Matthews must have the capacity to serve more patients. The proposed project will expand NH Matthews' capacity to serve acute care patients. …, demand for NH Matthews' inpatient medical/surgical discharges is increasing. NH Matthews is now at or near its medical/surgical capacity. To meet the growing demand for inpatient medical/surgical services, NH Matthews needs more acute care beds."*

The applicant adequately describes the expected effects of the proposed services on competition in the service area and adequately demonstrates:

- The cost-effectiveness of the proposal (see Sections C, F, N, and Q of the application and any exhibits).

- Quality services will be provided (see Sections C, N, and O of the application and any exhibits).

- Access will be provided to underserved groups (see Sections L and N of the application and any exhibits).

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion for the reasons stated above.

F-11810-19/Atrium Health Lake Norman/Develop a new satellite hospital campus with 30 acute care beds and 2 ORs

The applicant proposes to develop AH Lake Norman, a new satellite hospital campus to be licensed under AH University City, by developing 30 acute care beds and two ORs pursuant to need determinations in the 2019 SMFP.

In Section N, pages 129-132, the applicant describes the expected effects of the proposed services on competition in the service area and discusses how any enhanced competition in the service area will promote the cost-effectiveness, quality, and access to the proposed services. On page 129, the applicant states:

> *"The proposed project is expected to enhance competition in the service area by promoting cost effectiveness, quality, and access to acute care services."*

However, the applicant does not adequately demonstrate how any enhanced competition will have a positive impact on the cost-effectiveness of the proposal, based on the following analysis:

- The applicant does not adequately demonstrate the need the population proposed to be served has for the proposed project. The discussion regarding need found in Criterion (3) is incorporated herein by reference.

- The applicant does not adequately demonstrate that projected utilization is based on reasonable and adequately supported assumptions. The discussion regarding projected utilization found in Criterion (3) is incorporated herein by reference.

- The applicant does not adequately demonstrate that the proposal would not result in an unnecessary duplication of existing or approved services in the service area. The discussion regarding unnecessary duplication found in Criterion (6) is incorporated herein by reference.

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application
- Written comments

- Responses to written comments
- Information publicly available during the review and used by the Agency

Based on that review, the Agency concludes that the application is not conforming to this criterion for the reasons stated above.

F-11811-19/Carolinas Medical Center/Develop 18 acute care beds

The applicant proposes to develop 18 additional acute care beds at CMC, its existing acute care hospital, for a total of 1,073 acute care beds upon project completion.

In Section N, pages 90-93, the applicant describes the expected effects of the proposed services on competition in the service area and discusses how any enhanced competition in the service area will promote the cost-effectiveness, quality, and access to the proposed services. On page 90, the applicant states:

> *"The proposed project is expected to enhance competition in the service area by promoting cost effectiveness, quality, and access to acute care services."*

The applicant adequately describes the expected effects of the proposed services on competition in the service area and adequately demonstrates:

- The cost-effectiveness of the proposal (see Sections C, F, N, and Q of the application and any exhibits).

- Quality services will be provided (see Sections C, N, and O of the application and any exhibits).

- Access will be provided to underserved groups (see Sections L and N of the application and any exhibits).

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion for the reasons stated above.

F-11812-19/Atrium Health University City/Develop 16 acute care beds

The applicant proposes to develop 16 additional acute care beds at AH University City, its existing acute care hospital, for a total of 116 acute care beds upon project completion.

In Section N, pages 90-93, the applicant describes the expected effects of the proposed services on competition in the service area and discusses how any enhanced competition in the service area will promote cost-effectiveness, quality, and access to the proposed services. On page 90, the applicant states:

> *"The proposed project is expected to enhance competition in the service area by promoting cost effectiveness, quality, and access to acute care services."*

The applicant adequately describes the expected effects of the proposed services on competition in the service area and adequately demonstrates:

- The cost-effectiveness of the proposal (see Sections C, F, N, and Q of the application and any exhibits).

- Quality services will be provided (see Sections C, N, and O of the application and any exhibits).

- Access will be provided to underserved groups (see Sections L and N of the application and any exhibits).

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion for the reasons stated above.

F-11813-19/Atrium Health Pineville/Develop 12 acute care beds

The applicant proposes to develop 12 additional acute care beds at AH Pineville, its existing acute care hospital, for a total of 271 acute care beds upon completion of this project and Project I.D. #F-11622-18 (add 38 acute care beds).

In Section N, pages 94-97, the applicant describes the expected effects of the proposed services on competition in the service area and discusses how any enhanced competition in the service area will promote the cost-effectiveness, quality, and access to the proposed services. On page 94, the applicant states:

> *"The proposed project is expected to enhance competition in the service area by promoting cost effectiveness, quality, and access to acute care services."*

The applicant adequately describes the expected effects of the proposed services on competition in the service area and adequately demonstrates:

- The cost-effectiveness of the proposal (see Sections C, F, N, and Q of the application and any exhibits).

- Quality services will be provided (see Sections C, N, and O of the application and any exhibits).

- Access will be provided to underserved groups (see Sections L and N of the application and any exhibits).

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application
- Information publicly available during the review and used by the Agency

Based on that review, the Agency concludes that the application is conforming to this criterion for the reasons stated above.

F-11814-19/Atrium Health Pineville/Develop two ORs

The applicant proposes to develop two additional ORs at AH Pineville, its existing acute care hospital, for a total of 15 ORs upon completion of this project and Project I.D. #F-11621-18 (add one OR).

In Section N, pages 83-86, the applicant describes the expected effects of the proposed services on competition in the service area and discusses how any enhanced competition in the service area will promote the cost-effectiveness, quality, and access to the proposed services. On page 83, the applicant states:

> *"The proposed project is expected to enhance competition in the service area by promoting cost effectiveness, quality, and access to surgical services."*

The applicant adequately describes the expected effects of the proposed services on competition in the service area and adequately demonstrates:

- The cost-effectiveness of the proposal (see Sections C, F, N, and Q of the application and any exhibits).

- Quality services will be provided (see Sections C, N, and O of the application and any exhibits).

- Access will be provided to underserved groups (see Sections L and N of the application and any exhibits).

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion for the reasons stated above.

F-11815-19/Carolinas Medical Center/Develop two ORs

The applicant proposes to develop two additional ORs at CMC, its existing acute care hospital, for a total of 64 ORs upon completion of this project, Project I.D. #F-11106-15 (relocate 2 ORs to Charlotte Surgery Center – Wendover Campus), and Project I.D. #F-11620-18 (add 2 ORs).

In Section N, pages 79-82, the applicant describes the expected effects of the proposed services on competition in the service area and discusses how any enhanced competition in the service area will promote the cost-effectiveness, quality, and access to the proposed services. On page 79, the applicant states:

> *"The proposed project is expected to enhance competition in the service area by promoting cost effectiveness, quality, and access to acute care services."*

The applicant adequately describes the expected effects of the proposed services on competition in the service area and adequately demonstrates:

- The cost-effectiveness of the proposal (see Sections C, F, N, and Q of the application and any exhibits).
- Quality services will be provided (see Sections C, N, and O of the application and any exhibits).
- Access will be provided to underserved groups (see Sections L and N of the application and any exhibits).

Conclusion – The Agency reviewed the:

- Application
- Exhibits to the application

Based on that review, the Agency concludes that the application is conforming to this criterion for the reasons stated above.

(19) Repealed effective July 1, 1987.

(20) An applicant already involved in the provision of health services shall provide evidence that quality care has been provided in the past.

C – All Applications

F-11807-18/Novant Health Matthews Medical Center/Develop one OR

On Form A in Section Q, the applicant provides a list of all healthcare facilities with ORs located in North Carolina which are owned, operated, or managed by the applicant or a related entity. The applicant identifies a total of 21 hospitals and ASFs located in North Carolina.

In Section O, page 92, the applicant states that, during the 18 months immediately preceding the submittal of the application, there were no incidents which resulted in a finding of immediate jeopardy that occurred in any of these facilities. According to the files in the Acute and Home Care Licensure and Certification Section, DHSR, during the 18 months immediately preceding submission of the application through the date of this decision, incidents related to quality of care occurred in one of these facilities. After reviewing and considering information provided by the applicant and by the Acute and Home Care Licensure and Certification Section and considering the quality of care provided at all 21 facilities, the applicant provided sufficient evidence that quality care has been provided in the past. Therefore, the application is conforming to this criterion.

F-11808-19/Novant Health Matthews Medical Center/Develop 20 acute care beds

On Form A in Section Q, the applicant provides a list of all healthcare facilities with acute care beds located in North Carolina which are owned, operated, or managed by the applicant or a related entity. The applicant identifies a total of 11 hospitals located in North Carolina.

In Section O, page 95, the applicant states that, during the 18 months immediately preceding the submittal of the application, there were no incidents which resulted in a finding of immediate jeopardy that occurred in any of these facilities. According to the files in the Acute and Home Care Licensure and Certification Section, DHSR, during the 18 months immediately preceding submission of the application through the date of this decision, incidents related to quality of care occurred in one of these facilities. After reviewing and considering information provided by the applicant and by the Acute and Home Care Licensure and Certification Section and considering the quality of care provided at all 11 facilities, the applicant provided sufficient evidence that quality care has been provided in the past. Therefore, the application is conforming to this criterion.

F-11810-19/Atrium Health Lake Norman/Develop a new satellite hospital campus with 30 acute care beds and 2 ORs

On Form A in Section Q, the applicant provides a list of all healthcare facilities with acute care beds or ORs located in North Carolina which are owned, operated, or managed by the applicant or a related entity. The applicant identifies a total of 21 hospitals and ASFs located in North Carolina.

In Section O, pages 135-136, the applicant states that, during the 18 months immediately preceding the submittal of the application, there was one incident which resulted in a finding of immediate jeopardy that occurred in any of these facilities. The applicant states the facility is back in compliance and provides supporting documentation in Exhibit O.3. According to the files in the Acute and Home Care Licensure and Certification Section, DHSR, during the 18 months immediately preceding submission of the application through the date of this decision, incidents related to quality of care occurred in four of these facilities. After reviewing and considering information provided by the applicant and by the Acute and Home Care Licensure and Certification Section and considering the quality of care provided at all 21 facilities, the applicant provided sufficient evidence that quality care has been provided in the past. Therefore, the application is conforming to this criterion.

F-11811-19/Carolinas Medical Center/Develop 18 acute care beds

On Form A in Section Q, the applicant provides a list of all healthcare facilities with acute care beds located in North Carolina which are owned, operated, or managed by the applicant or a related entity. The applicant identifies a total of 14 hospitals located in North Carolina.

In Section O, pages 96-97, the applicant states that, during the 18 months immediately preceding the submittal of the application, there was one incident which resulted in a finding of immediate jeopardy that occurred in any of these facilities. The applicant states the facility is back in compliance and provides supporting documentation in Exhibit O.3. According to the files in the Acute and Home Care Licensure and Certification Section, DHSR, during the 18 months immediately preceding submission of the application through the date of this decision, incidents related to quality of care occurred in four of these facilities. After reviewing and considering information provided by the applicant and by the Acute and Home Care Licensure and Certification Section and considering the quality of care provided at all 14 facilities, the applicant provided sufficient evidence that quality care has been provided in the past. Therefore, the application is conforming to this criterion.

F-11812-19/Atrium Health University City/Develop 16 acute care beds

On Form A in Section Q, the applicant provides a list of all healthcare facilities with acute care beds located in North Carolina which are owned, operated, or managed by the applicant or a related entity. The applicant identifies a total of 14 hospitals located in North Carolina.

In Section O, pages 96-97, the applicant states that, during the 18 months immediately preceding the submittal of the application, there was one incident which resulted in a finding of immediate jeopardy that occurred in any of these facilities. The applicant states the facility is back in compliance and provides supporting documentation in Exhibit O.3. According to the files in the Acute and Home Care Licensure and Certification Section, DHSR, during the 18 months immediately preceding submission of the application through the date of this decision, incidents related to quality of care occurred in four of these facilities. After reviewing and considering information provided by the applicant and by the Acute and Home Care Licensure and Certification Section and considering the quality of care provided at all 14 facilities, the applicant provided sufficient evidence that quality care has been provided in the past. Therefore, the application is conforming to this criterion.

F-11813-19/Atrium Health Pineville/Develop 12 acute care beds

On Form A in Section Q, the applicant provides a list of all healthcare facilities with acute care beds owned, operated, or managed by the applicant or a related entity. The applicant identifies a total of 14 hospitals located in North Carolina.

In Section O, pages 100-101, the applicant states that, during the 18 months immediately preceding the submittal of the application, there was one incident which resulted in a finding of immediate jeopardy that occurred in any of these facilities. The applicant states the facility is back in compliance and provides supporting documentation in Exhibit O.3. According to the files in the Acute and Home Care Licensure and Certification Section, DHSR, during the 18 months immediately preceding submission of the application through the date of this decision, incidents related to quality of care occurred in four of these facilities. After reviewing and considering information provided by the applicant and by the Acute and Home Care Licensure

and Certification Section and considering the quality of care provided at all 14 facilities, the applicant provided sufficient evidence that quality care has been provided in the past. Therefore, the application is conforming to this criterion.

F-11814-19/Atrium Health Pineville/Develop two ORs

On Form A in Section Q, the applicant provides a list of all healthcare facilities with ORs located in North Carolina which are owned, operated, or managed by the applicant or a related entity. The applicant identifies a total of 21 hospitals and ASFs located in North Carolina.

In Section O, pages 89-90, the applicant states that, during the 18 months immediately preceding the submittal of the application, there was one incident which resulted in a finding of immediate jeopardy that occurred in any of these facilities. The applicant states the facility is back in compliance and provides supporting documentation in Exhibit O.3. According to the files in the Acute and Home Care Licensure and Certification Section, DHSR, during the 18 months immediately preceding submission of the application through the date of this decision, incidents related to quality of care occurred in four of these facilities. After reviewing and considering information provided by the applicant and by the Acute and Home Care Licensure and Certification Section and considering the quality of care provided at all 21 facilities, the applicant provided sufficient evidence that quality care has been provided in the past. Therefore, the application is conforming to this criterion.

F-11815-19/Carolinas Medical Center/Develop two ORs

On Form A in Section Q, the applicant provides a list of all healthcare facilities with ORs located in North Carolina which are owned, operated, or managed by the applicant or a related entity. The applicant identifies a total of 21 hospitals and ASFs located in North Carolina.

In Section O, pages 85-86, the applicant states that, during the 18 months immediately preceding the submittal of the application, there was one incident which resulted in a finding of immediate jeopardy that occurred in any of these facilities. The applicant states the facility is back in compliance and provides supporting documentation in Exhibit O.3. According to the files in the Acute and Home Care Licensure and Certification Section, DHSR, during the 18 months immediately preceding submission of the application through the date of this decision, incidents related to quality of care occurred in four of these facilities. After reviewing and considering information provided by the applicant and by the Acute and Home Care Licensure and Certification Section and considering the quality of care provided at all 21 facilities, the applicant provided sufficient evidence that quality care has been provided in the past. Therefore, the application is conforming to this criterion.

(21) Repealed effective July 1, 1987.

(b) The Department is authorized to adopt rules for the review of particular types of applications that will be used in addition to those criteria outlined in subsection (a) of this section and may vary according to the purpose for which a particular review is being conducted or the type of health service reviewed. No such rule adopted by the Department shall require an academic medical center teaching hospital, as defined by the State Medical Facilities Plan, to demonstrate that any facility or service at another hospital is being appropriately utilized in

order for that academic medical center teaching hospital to be approved for the issuance of a certificate of need to develop any similar facility or service.

C – All Applications

SECTION .2100 – CRITERIA AND STANDARDS FOR SURGICAL SERVICES AND OPERATING ROOMS are applicable to:

- Project I.D. #F-11807-19/**Novant Health Matthews Medical Center**/Develop one OR
- Project I.D. #F-11810-19/**Atrium Health Lake Norman**/Develop two ORs
- Project I.D. #F-11814-19/**Atrium Health Pineville**/Develop two ORs
- Project I.D. #F-11815-19/**Carolinas Medical Center**/Develop two ORs

10A NCAC 14C .2103 PERFORMANCE STANDARDS

(a) An applicant proposing to increase the number of operating rooms (excluding dedicated C-section operating rooms) in a service area shall demonstrate the need for the number of proposed operating rooms in addition to the existing and approved operating rooms in the applicant's health system in the applicant's third full fiscal year following completion of the proposed project based on the Operating Room Need Methodology set forth in the 2018 State Medical Facilities Plan. The applicant is not required to use the population growth factor.

-C- **Novant Health Matthews Medical Center.** This proposal would add one new OR to NH Matthews for a total of nine ORs upon project completion. The applicant projects sufficient surgical cases and hours to demonstrate the need for an additional OR in the applicant's health system in the third full fiscal year following completion of the proposed project based on the Operating Room Need Methodology in the 2019 SMFP. The discussion regarding projected utilization found in Criterion (3) is incorporated herein by reference.

-NC- **Atrium Health Lake Norman.** This proposal would add two new ORs to AH Lake Norman, a new satellite hospital campus. However, the applicant does not adequately demonstrate the need for the proposed project, or that projected utilization is reasonable and adequately supported. The discussions regarding analysis of need and projected utilization found in Criterion (3) are incorporated herein by reference. Therefore, the application is not conforming with this Rule.

-C- **Atrium Health Pineville.** This proposal would add two new ORs to AH Pineville for a total of 15 ORs upon completion of this project and Project I.D. #F-11621-18 (add one OR). The applicant projects sufficient surgical cases and hours to demonstrate the need for two additional ORs in the applicant's health system in the third full fiscal year following completion of the proposed project based on the Operating Room Need Methodology in the 2019 SMFP. The discussion regarding projected utilization found in Criterion (3) is incorporated herein by reference.

-C- **Carolinas Medical Center.** This proposal would add two new ORs to CMC for a total of 64 ORs upon completion of this project, Project I.D. #F-11106-15 (relocate 2 ORs to Charlotte Surgery Center – Wendover Campus), and Project I.D. #F-11620-18 (add 2 ORs). The applicant projects sufficient surgical cases and hours to demonstrate the need for two additional ORs in the applicant's health system in the third full fiscal year following completion of the proposed project based on the Operating Room Need Methodology in the 2019 SMFP. The discussion regarding projected utilization found in Criterion (3) is incorporated herein by reference.

(b) The applicant shall document the assumptions and provide data supporting the methodology used for each projection in this Rule.

-C- **Novant Health Matthews Medical Center.** In Section C, pages 26-28, and Section Q, the applicant provides the assumptions and data supporting the methodology for its utilization projections. The discussion regarding utilization found in Criterion (3) is incorporated herein by reference.

-NC- **Atrium Health Lake Norman.** In Section Q and Exhibit C.4-2, the applicant provides the assumptions and data supporting the methodology for its utilization projections. However, the applicant does not adequately demonstrate the need for the proposed project, or that projected utilization is reasonable and adequately supported. The discussions regarding analysis of need and projected utilization found in Criterion (3) are incorporated herein by reference. Therefore, the application is not conforming with this Rule.

-C- **Atrium Health Pineville.** In Section Q, the applicant provides the assumptions and data supporting the methodology for its utilization projections. The discussion regarding utilization found in Criterion (3) is incorporated herein by reference.

-C- **Carolinas Medical Center.** In Section Q, the applicant provides the assumptions and data supporting the methodology for its utilization projections. The discussion regarding utilization found in Criterion (3) is incorporated herein by reference.

SECTION .2300 – CRITERIA AND STANDARDS FOR COMPUTED TOMOGRAPHY EQUIPMENT is applicable to:

- Project I.D. #F-11810-19/**Atrium Health Lake Norman**/Develop two ORs

10A NCAC 14C .2303 PERFORMANCE STANDARDS

An applicant proposing to acquire a CT scanner shall demonstrate each of the following:

(1) each fixed or mobile CT scanner to be acquired shall be projected to perform 5,100 HECT units annually in the third year of operation of the proposed equipment;

-NC- **Atrium Health Lake Norman.** The applicant proposes to develop AH Lake Norman, a new satellite hospital campus, and proposes to acquire a CT scanner. In Section Q, the applicant projects to perform 11,760 HECT units in the third year of operation of the proposed equipment. However, the applicant does not adequately demonstrate the need to develop the new satellite hospital campus or that projected utilization, including for the proposed CT scanner, is reasonable and adequately supported. The discussions regarding analysis of need and projected utilization found in Criterion (3) are incorporated herein by reference. Therefore, the application is not conforming with this Rule.

(2) each existing fixed or mobile CT scanner which the applicant or a related entity owns a controlling interest in and is located in the applicant's CT service area shall have performed at least 5,100 HECT units in the 12 month period prior to submittal of the application; and

-C- **Atrium Health Lake Norman.** In Section C, page 91, the applicant identifies its CT service area as its primary and secondary areas of patient origin (the PSA and SSA). The applicant states it currently owns and operates one existing fixed CT scanner in its CT service area, located at Carolinas Imaging Services – Huntersville. The applicant states that between August 2018 and July 2019, the CT scanner at Carolinas Imaging Services – Huntersville performed 6,602 HETC units.

(3) each existing and approved fixed or mobile CT scanner which the applicant or a related entity owns a controlling interest in and is located in the applicant's CT service area shall be projected to perform 5,100 HECT units annually in the third year of operation of the proposed equipment.

-NC- **Atrium Health Lake Norman.** In Section C, page 91, the applicant identifies its CT service area as its primary and secondary areas of patient origin (the PSA and SSA). In Section C, pages 91-92, the applicant states it currently owns and operates one existing fixed CT scanner in its CT service area, located at Carolinas Imaging Services – Huntersville (CIS-Huntersville), and was approved to relocate a fixed CT scanner to be relocated from CMC as part of developing AH Mountain Island ED (Project I.D. #F-11658-19). On page 92, the applicant provides the projected HECT units to be performed by AH Mountain Island ED in its third full fiscal year, CY 2023, and states that the combined average of the three existing, approved, and proposed CT scanners is projected to be more than 5,100 HECT units annually in CY 2025. On page 92, the applicant states:

> *"Even assuming that the CIS-Huntersville CT scanner experiences no growth in utilization from the most recent 12-month period and Atrium Health Mountain Island's fixed CT scanner experiences no growth from its projected CY 2023 volumes…, the existing and approved fixed CT scanners which Atrium Health University City and its related entities operate in the proposed service area will perform more than 5,100 HECT units annually in the third project year…"*

On page 92, the applicant provides the information in the table below.

Projected CT Service Area Utilization – CY 2025	
AH Lake Norman HECT Units	11,760
CIS-Huntersville HECT Units (from August 2018-July 2019)	6,602
AH Mountain Island HECT Units (for CY 2023, Project I.D. #F-11658-19)	3,452
Service Area Total	22,031
Fixed Units	3
HECTs per Fixed Unit	7,344

However, the applicant does not adequately demonstrate the need to develop the new satellite hospital campus or that projected utilization, including for the proposed CT scanner, is reasonable and adequately supported. The discussions regarding analysis of need and projected utilization found in Criterion (3) are incorporated herein by reference. Without the proposed CT scanner at AH Lake Norman, the average HECTs per fixed unit of the remaining two existing and approved CT scanners is not at least 5,100 HECT units in CY 2025. Therefore, the application is not conforming with this Rule.

SECTION .3800 – CRITERIA AND STANDARDS FOR ACUTE CARE BEDS are applicable to:

- Project I.D. #F-11808-19/**Novant Health Matthews Medical Center**/Develop 20 acute care beds
- Project I.D. #F-11810-19/**Atrium Health Lake Norman**/Develop 30 acute care beds
- Project I.D. #F-11811-19/**Carolinas Medical Center**/Develop 18 acute care beds
- Project I.D. #F-11812-19/**Atrium Health University City**/Develop 16 acute care beds
- Project I.D. #F-11813-19/**Atrium Health Pineville**/Develop 12 acute care beds

10A NCAC 14C .3803 PERFORMANCE STANDARDS

(a) An applicant proposing to develop new acute care beds shall demonstrate that the projected average daily census (ADC) of the total number of licensed acute care beds proposed to be licensed within the service area, under common ownership with the applicant, divided by the total number of those licensed acute care beds is reasonably projected to be at least 66.7 percent when the projected ADC is less than 100 patients, 71.4 percent when the projected ADC is 100 to 200 patients, and 75.2 percent when the projected ADC is greater than 200 patients, in the third operating year following completion of the proposed project or in the year for which the need determination is identified in the State Medical Facilities Plan, whichever is later.

-C- **Novant Health Matthews Medical Center.** The applicant proposes to develop 20 additional acute care beds for a total of 174 acute care beds upon project completion. The projected ADC of the total number of licensed acute care beds proposed to be licensed within the service area and owned by Novant is greater than 200. The applicant adequately demonstrates that the projected utilization of the total number of licensed acute care beds proposed to be licensed within the service area and which are owned

by Novant is reasonably projected to be at least 75.2 percent by the end of the third operating year following completion of the proposed project. The discussion regarding utilization found in Criterion (3) is incorporated herein by reference.

-NC- **Atrium Health Lake Norman.** The applicant proposes to develop AH Lake Norman, a new satellite hospital campus, with 30 acute care beds. The projected ADC of the total number of licensed acute care beds proposed to be licensed within the service area and owned by Atrium is greater than 200. However, the applicant does not adequately demonstrate the need for the proposed acute care beds or that its projected utilization is reasonable and adequately supported. The discussions regarding analysis of need and projected utilization found in Criterion (3) are incorporated herein by reference. Therefore, the application is not conforming with this Rule.

-C- **Carolinas Medical Center.** The applicant proposes to develop 18 additional acute care beds for a total of 1,073 acute care beds upon project completion. The projected ADC of the total number of licensed acute care beds proposed to be licensed within the service area and owned by Atrium is greater than 200. The applicant adequately demonstrates that the projected utilization of the total number of licensed acute care beds proposed to be licensed within the service area and which are owned by Atrium is reasonably projected to be at least 75.2 percent by the end of the third operating year following completion of the proposed project. The discussion regarding utilization found in Criterion (3) is incorporated herein by reference.

-C- **Atrium Health University City.** The applicant proposes to develop 16 additional acute care beds for a total of 116 acute care beds upon project completion. The projected ADC of the total number of licensed acute care beds proposed to be licensed within the service area and owned by Atrium is greater than 200. The applicant adequately demonstrates that the projected utilization of the total number of licensed acute care beds proposed to be licensed within the service area and which are owned by Atrium is reasonably projected to be at least 75.2 percent by the end of the third operating year following completion of the proposed project. The discussion regarding utilization found in Criterion (3) is incorporated herein by reference.

-C- **Atrium Health Pineville.** The applicant proposes to develop 12 additional acute care beds for a total of 271 acute care beds upon completion of this project and Project I.D. #F-11622-18. The projected ADC of the total number of licensed acute care beds proposed to be licensed within the service area and owned by Atrium is greater than 200. The applicant adequately demonstrates that the projected utilization of the total number of licensed acute care beds proposed to be licensed within the service area and which are owned by Atrium is reasonably projected to be at least 75.2 percent by the end of the third operating year following completion of the proposed project. The discussion regarding utilization found in Criterion (3) is incorporated herein by reference.

(b) An applicant proposing to develop new acute care beds shall provide all assumptions and data used to develop the projections required in this rule and demonstrate that they support the projected inpatient utilization and average daily census.

-C- **Novant Health Matthews Medical Center.** See Section C, pages 25-47, for the applicant's discussion of need, and Section C, pages 25-47 along with Section Q for the applicant's data, assumptions, and methodology used to project utilization. The discussion regarding utilization found in Criterion (3) is incorporated herein by reference.

-NC- **Atrium Health Lake Norman.** See Section Q and Exhibit C.4-1 for the applicant's data, assumptions, and methodology used to project utilization. However, the applicant does not adequately demonstrate the need for the proposed project or that its assumptions and methodology support the projected inpatient utilization and average daily census. The discussions regarding analysis of need and projected utilization found in Criterion (3) are incorporated herein by reference. Therefore, the application is not conforming with this Rule.

-C- **Carolinas Medical Center.** See Section C, pages 44-50, for the applicant's discussion of need, and Section Q for the applicant's data, assumptions, and methodology used to project utilization. The discussion regarding utilization found in Criterion (3) is incorporated herein by reference.

-C- **Atrium Health University City.** See Section C, pages 44-48, for the applicant's discussion of need, and Section Q for the applicant's data, assumptions, and methodology used to project utilization. The discussion regarding utilization found in Criterion (3) is incorporated herein by reference.

-C- **Atrium Health Pineville.** See Section C, pages 46-52, for the applicant's discussion of need, and Section Q for the applicant's data, assumptions, and methodology used to project utilization. The discussion regarding utilization found in Criterion (3) is incorporated herein by reference.

COMPARATIVE ANALYSIS FOR OPERATING ROOMS

Pursuant to G.S. 131E-183(a)(1) and the 2019 State Medical Facilities Plan, no more than six ORs may be approved for Mecklenburg County in this review. Because the four applications in this review collectively propose to develop seven additional ORs in Mecklenburg County, all the applications cannot be approved for the total number of ORs proposed. Therefore, after considering all the information in each application and reviewing each application individually against all applicable review criteria, the Project Analyst conducted a comparative analysis of the proposals to decide which proposals should be approved.

Below is a brief description of each project included in the Operating Room Comparative Analysis:

- Project I.D. #F-11807-19/**Novant Health Matthews Medical Center**/Develop one additional OR pursuant to the 2019 SMFP need determination
- Project I.D. #F-11810-19/**Atrium Health Lake Norman**/Develop two ORs pursuant to the 2019 SMFP need determination as part of developing a satellite hospital campus
- Project I.D. #F-11814-19/**Atrium Health Pineville**/Develop two additional ORs pursuant to the 2019 SMFP need determination
- Project I.D. #F-11815-19/**Carolinas Medical Center**/Develop two additional ORs pursuant to the 2019 SMFP need determination

Conformity with Review Criteria

Table 6C on page 85 of the 2019 SMFP identifies a need for six additional ORs in Mecklenburg County. As shown in Table 6B, pages 79-80, the Novant Health system shows a projected surplus of 7.06 ORs for 2021 and the Atrium Health system shows a projected deficit of 12.47 ORs in 2021, which results in the Mecklenburg County need determination for six ORs. However, the application process is not limited to the provider (or providers) that show a deficit and create the need for additional ORs. Any provider can apply to develop the six ORs in Mecklenburg County. Furthermore, it is not necessary that an existing provider have a projected deficit of ORs to apply for more ORs. However, it is necessary that an applicant adequately demonstrate the need to develop its project, as proposed.

The applications submitted by **Novant Health Matthews Medical Center**, **Atrium Health Pineville**, and **Carolinas Medical Center** are conforming to all applicable statutory and regulatory review criteria. However, the application submitted by **Atrium Health Lake Norman** is not conforming to all applicable statutory and regulatory review criteria. An application that is not conforming to all applicable statutory and regulatory review criteria cannot be approved. Therefore, regarding this comparative factor, the applications submitted by **Novant Health Matthews Medical Center**, **Atrium Health Pineville**, and **Carolinas Medical Center** are equally effective alternatives and more effective than the application submitted by **Atrium Health Lake Norman**.

Scope of Services

Generally, the application proposing to provide the greatest scope of services is the more effective alternative with regard to this comparative factor.

Novant Health Matthews Medical Center, **Atrium Health Pineville**, and **Carolinas Medical Center** are all existing acute care hospitals which provide numerous types of surgical services. **Atrium Health Lake Norman** is a proposed satellite acute care hospital; however, it will not provide as many types of surgical services as **Novant Health Matthews Medical Center**, **Atrium Health Pineville**, and **Carolinas Medical Center**.

Therefore, **Novant Health Matthews Medical Center**, **Atrium Health Pineville**, and **Carolinas Medical Center** are more effective alternatives with respect to this comparative factor and **Atrium Health Lake Norman** is a less effective alternative.

Geographic Accessibility

Not including dedicated C-Section ORs and trauma ORs, there are 161 existing and approved ORs in Mecklenburg County, allocated between 18 facilities, as shown in the table below.

Mecklenburg County OR Inventory						
Facility	**IP ORs**	**OP ORs**	**Shared ORs**	**Excluded C-Section and Trauma ORs**	**CON Adjustments**	**Total ORs**
AH Huntersville Surgery Center	0	0	0	0	1	1
AH Pineville	3	0	9	-2	1	11
AH University City	1	1	7	-1	-1	7
CCSS	0	2	0	0	1	3
CMC	10	9	41	-5	2	57
Atrium Health System Total	**14**	**12**	**57**	**-8**	**4**	**79**
Charlotte Surgery Center – Museum	0	6	0	0	0	6
Charlotte Surgery Center – Wendover	0	6	0	0	0	6
Charlotte Surgery Center System Total	**0**	**12**	**0**	**0**	**0**	**12**
Matthews Surgery Center	0	2	0	0	0	2
NH Ballantyne*	0	0	0	0	2	2
NH Ballantyne OPS*	0	2	0	0	-2	0
NH Huntersville	1	0	6	-1	1	7
NH Huntersville OPS	0	2	0	0	0	2
NH Mint Hill	1	0	3	-1	1	4
NH Matthews	2	0	6	-2	0	6
NH Presbyterian	6	6	28	-3	-1	36
SouthPark Surgery Center	0	6	0	0	0	6
Novant Health System Total	**10**	**18**	**43**	**-7**	**0**	**65**
Carolinas Ctr for Ambulatory Dentistry**	0	2	0	0	0	2
Mallard Creek Surgery Center**	0	2	0	0	0	2
Metrolina Vascular Access Care	0	0	0	0	1	1
Total	**24**	**46**	**100**	**-15**	**5**	**161**

Sources: Table 6A, 2019 SMFP; 2019 LRAs; Agency records

*NHBMC, an approved hospital under development, will have 2 ORs that will be relocated from NHBOS, which will close once the ORs are relocated to NHBMC.

**These facilities are part of demonstration projects and the ORs are not included in the SMFP need determination calculations.

The following table illustrates where the ORs are located in Mecklenburg County.

City	System	Total OR Inventory*	Population as of July 1, 2018	# of ORs per 10,000 Population
Charlotte	Atrium	60		0.70
	Charlotte Surgery Center	12		0.14
	Carolinas Center for Ambulatory Dentistry	2		0.02
	Mallard Creek Surgery Center	2		0.02
	Metrolina Vascular Access Care	1		0.01
	Novant	42		0.49
Ballantyne	Novant	2		0.02
University City	Atrium	7		0.08
	Charlotte Total	**128**	**852,992**	**1.50**
Pineville	Atrium	**11**	**9,338**	**11.78**
Huntersville	Atrium	1		0.16
	Novant	9		1.47
	Huntersville Total	**10**	**61,220**	**1.63**
Matthews	Novant	**8**	**31,132**	**2.57**
Mint Hill	Novant	**4**	**27,459**	**1.46**
Total		**161**	**982,141**	**1.64**
Total Mecklenburg County		**161**	**1,088,350**	**1.48**

Source: NC OSBM; accessed March 6, 2020.
*Existing and approved ORs, not including dedicated C-Section ORs or excluded trauma ORs.

As shown in the table above, the existing and approved ORs are in Charlotte, Huntersville, Matthews, Mint Hill, and Pineville. **Novant Health Matthews Medical Center** proposes to add one OR to an existing facility in Matthews. **Atrium Health Lake Norman** proposes to develop a new satellite hospital campus with two ORs in Cornelius. **Carolinas Medical Center** proposes to add two ORs to an existing facility in Charlotte. **Atrium Health Pineville** proposes to add two ORs to an existing facility in Pineville. Two of the seven proposed ORs would be in Cornelius, which does not currently have any ORs. Two proposed ORs would be in Charlotte, which already has 128 existing and approved ORs or 1.50 ORs per 10,000 people. One proposed OR would be in Matthews, which already has 8 existing and approved ORs or 2.57 ORs per 10,000 people. The remaining two ORs would be in Pineville, which already has 11 existing and approved ORs or 11.78 ORs per 10,000 people. However, Pineville is located very close to the NC/SC border, and **Atrium Health Pineville** serves a number of SC residents.

Atrium Health Lake Norman proposes to develop ORs in an area of Mecklenburg County where there are not currently any ORs. **Novant Health Matthews Medical Center**, **Atrium Health Pineville**, and **Carolinas Medical Center** propose to add ORs to existing facilities which already have ORs. Therefore, **Atrium Health Lake Norman** is the more effective alternative with regard to geographic accessibility and **Novant Health Matthews Medical Center**, **Atrium Health Pineville**, and **Carolinas Medical Center** are less effective alternatives.

Historical Utilization

The table below shows OR utilization for both Atrium Health and Novant Health facilities based on surgical hours as reported in Table 6A of the 2020 SMFP. Generally, the applicant with the highest historical utilization is the more effective alternative with regard to this comparative analysis factor.

Mecklenburg County Historical OR Utilization (Table 6A of 2020 SMFP)				
Facility	FFY 2018 Surgical Hours	Surgical Hours for Group	Total ORs*	Utilization Rate
NH Matthews	10,112	1,500	6	112.3%
AH Pineville	18,991	1,755	10	108.2%
CMC	133,090	1,950	57	119.7%

*Existing ORs during FFY 2018 only.

As shown in the table above, **Carolinas Medical Center** has the highest historical utilization, followed next by **Novant Health Matthews Medical Center** and then **Atrium Health Pineville**. **Atrium Health Lake Norman** is not an existing facility and as such has no historical utilization.

Therefore, with regard to historical utilization, **Carolinas Medical Center** is the more effective alternative, and **Novant Health Matthews Medical Center**, **Atrium Health Pineville**, and **Atrium Health Lake Norman** are less effective alternatives.

Competition (Patient Access to a New or Alternative Provider)

Generally, the application proposing to increase competition and patient access to a new or alternative provider in the service area is the more effective alternative with regard to this comparative factor.

There are 161 existing and approved ORs (excluding dedicated C-Section ORs and trauma ORs) located in Mecklenburg County. The table below shows the number and percentage of ORs in which each applicant or health system has ownership.

ORs in Mecklenburg County by Health System/Applicant		
Health System (Applicants)	Number of ORs	Percent of ORs
Atrium (AH Lake Norman, AH Pineville, and CMC)	91	56.5%
Novant (NH Matthews)	65	40.4%
Others	5	3.1%
Total	161	100.0%

The table above includes the ORs for CSC-M and CSC-W in the total for Atrium Health. While the two surgery centers may not be associated with Atrium Health for purposes of determining need in the SMFP, LRAs for Atrium hospitals document that Atrium Health owns 45 percent of the two surgery centers; Atrium relocated existing ORs from CMC and AH University City to CSC-W as part of Project I.D. #F-11106-15; and Atrium has included projections for CSC-M and CSC-W in its current and historical applications for ORs.

There is a need determination in the 2019 SMFP for six ORs, which increases the total number of existing and approved ORs (excluding dedicated C-Section ORs and trauma ORs) located in Mecklenburg County to 167 ORs. The table below shows the number of ORs and percentage of the total each applicant or health system would control if all applications were approved as submitted.

ORs in Mecklenburg County by Health System/Applicant – If Approved		
Health System (Applicants)	**Number of ORs**	**Percent of ORs**
Atrium (AH Lake Norman, AH Pineville, and CMC)	97	58.1%
Novant (NH Matthews)	66	39.5%
Others	5	3.0%
Total	167	100.0%

If all Atrium Health applications (**Atrium Health Lake Norman**, **Atrium Health Pineville**, and **Carolinas Medical Center**) are approved as submitted, Atrium would control 97 of the 167 existing and approved ORs located in Mecklenburg County, or 58.1 percent. If **Novant Health Matthews Medical Center's** application is approved, Novant Health would control 66 of the 167 existing and approved ORs located in Mecklenburg County, or 39.5 percent.

Even if CSC-M and CSC-W were not included in Atrium Health's total, Atrium Health would currently control 49.1 percent of the existing and approved ORs in Mecklenburg County, and if all Atrium Health applications were approved as submitted, Atrium Health would control 85 of the 167 existing and approved ORs in Mecklenburg County, or 50.1 percent.

Therefore, with regard to competition, the application submitted by **Novant Health Matthews Medical Center** is the more effective alternative and the applications submitted by **Atrium Health Lake Norman**, **Atrium Health Pineville**, and **Carolinas Medical Center** are less effective alternatives.

Access by Service Area Residents

On page 57, the 2019 SMFP defines the service area for ORs as *"…the operating room planning area in which the operating room is located. The operating room planning areas are the single and multicounty groupings shown in Figure 6.1."* Figure 6.1, on page 62, shows Mecklenburg County as its own OR planning area. Thus, the service area for this facility is Mecklenburg County. Facilities may also serve residents of counties not included in their service area. Generally, the application projecting to serve the highest percentage of Mecklenburg County residents is the more effective alternative with regard to this comparative factor since the need determination is for six additional ORs to be located in Mecklenburg County.

3rd Full FY		
Applicant	**% of Mecklenburg County Residents**	
NH Matthews	50.3% (IP)	46.6% (OP)
AH Lake Norman	85.5% (shared)	91.8% (C-Section)
AH Pineville	38.5%	
CMC	43.4%	

Source: Section C.3 (all applications)

As shown in the table above, **Atrium Health Lake Norman** projects to serve the highest percentage of Mecklenburg County residents during the third full fiscal year of operation following project completion, followed by **Novant Health Matthews Medical Center**, **Carolinas Medical Center**, and **Atrium Health Pineville**.

In comments submitted during the public comment period, Atrium states:

> *"Atrium Health believes that this comparative factor, as applied, would be inappropriate for a review of the proposed project. The need for additional operating room capacity in Mecklenburg County, and specifically, the need determination in the 2019 SMFP, is a result of the utilization of all patients that utilize surgical services located in Mecklenburg County. Mecklenburg County residents comprise a little more than 50 percent of that utilization, and there would be a large surplus of capacity if not for the demand for surgical services originating from outside the county. Under these circumstances, it would not be appropriate to determine the comparative effectiveness of an applicant based on service to Mecklenburg County residents when the need as identified for the proposed additional operating room capacity is not based solely on Mecklenburg County patients."*

Atrium is correct that the Operating Room Need Determination in the 2019 SMFP is based on the total number of surgical hours provided to patients and not based on anything related to Mecklenburg County-specific patients. Further, Mecklenburg County is a large urban county with over one million residents, two large health systems plus other smaller healthcare groups, and is on the border of North Carolina and South Carolina.

For statistical purposes, the United States Office of Management and Budget (US OMB) delineates Metropolitan Statistical Areas (MSAs) when using Census Bureau data. The US Census Bureau states the following about MSAs:

> *"The general concept of a metropolitan or micropolitan statistical area is that of a core area containing a substantial population nucleus, <u>together with adjacent communities having a high degree of economic and social integration with that core.</u>"*[1] (emphasis added)

The first list of MSAs (then known by a different name) was published in October 1950, and Charlotte was considered an MSA at that time. At first, only Mecklenburg County was included; however, by June 1983, the Charlotte-Gastonia MSA comprised six North Carolina counties and one South Carolina county.[2] Today, the Charlotte-Concord-Gastonia MSA is comprised of eight North Carolina counties and three South Carolina counties, and as of July 1, 2018 had an estimated population of more than 2.5 million people.[3]

Considering the discussion above, the Agency believes that in this specific instance attempting to compare the applicants based on the projected OR access of Mecklenburg County residents has little value.

<u>Access by Underserved Groups</u>

"Underserved groups" is defined in G.S. 131E-183(a)(13) as follows:

> *"Medically underserved groups, such as medically indigent or low income persons, Medicaid and Medicare recipients, racial and ethnic minorities, women, and handicapped persons, which*

[1] https://www.census.gov/programs-surveys/metro-micro/about.html, accessed March 6, 2020.
[2]https://www.census.gov/geographies/reference-files/time-series/demo/metro-micro/historical-delineation-files.html, accessed March 6, 2020.
[3]https://www.census.gov/geographies/reference-files/time-series/demo/metro-micro/delineation-files.html, accessed March 6, 2020.

have traditionally experienced difficulties in obtaining equal access to the proposed services, particularly those needs identified in the State Health Plan as deserving of priority."

Projected Charity Care

The following table shows projected charity care during the third full fiscal year following project completion for each facility. Generally, the application projecting to provide the most charity care is the more effective alternative with regard to this comparative factor.

Projected Charity Care – 3rd Full FY			
Applicant	**Projected Total Charity Care**	**Charity Care per Patient**	**% of Net Surgical Revenue**
NH Matthews	$6,918,022	$1,109	6.2%
AH Lake Norman	$2,216,832	$1,314	16.2%
AH Pineville	$18,535,573	$1,946	11.3%
CMC	$107,095,526	$3,568	21.0%

Source: Form F.2 for each applicant.

As shown in the table above, **Carolinas Medical Center** projects the most charity care in dollars, the highest charity care per surgical case, and the highest charity care as a percent of net revenue. Therefore, the application submitted by **Carolinas Medical Center** is the more effective alternative with regard to access to charity care, and the applications submitted by **Novant Health Matthews Medical Center**, **Atrium Health Lake Norman**, and **Atrium Health Pineville** are less effective alternatives. However, differences in the acuity level of patients at each facility, the level of care (community hospital, tertiary care hospital, quaternary care hospital, etc.) at each facility, and the number and types of surgical services proposed by each of the facilities may impact the averages shown in the table above. Thus, the result of this analysis is inconclusive.

Projected Medicare

The following table shows projected Medicare revenue during the third full fiscal year following project completion for each facility. Generally, the application projecting the highest Medicare revenue is the more effective alternative with regard to this comparative factor to the extent the Medicare revenue represents the number of Medicare patients served.

Projected Medicare Revenue – 3rd Full FY			
Applicant	**Projected Total Medicare Revenue**	**Medicare Revenue per Patient**	**% of Gross Surgical Revenue**
NH Matthews	$138,130,124	$22,147	42.4%
AH Lake Norman	$19,051,690	$11,293	38.2%
AH Pineville	$217,600,574	$22,840	41.0%
CMC	$436,360,042	$14,540	28.2%

Source: Form F.2 for each applicant.

As shown in the table above, **Carolinas Medical Center** projects the highest total Medicare revenue in dollars, **Atrium Health Pineville** projects the highest Medicare revenue per patient, and **Novant Health Matthews Medical Center** projects the highest Medicare revenue as a percentage of gross surgical revenue in each project's third full fiscal year following project completion. Therefore, the applications submitted by **Novant Health Matthews Medical Center**, **Atrium Health Pineville**, and **Carolinas Medical Center** are more effective alternatives with respect to service to Medicare patients

and the application submitted by **Atrium Health Lake Norman** is a less effective alternative. However, differences in the acuity level of patients at each facility, the level of care (community hospital, tertiary care hospital, quaternary care hospital, etc.) at each facility, and the number and types of surgical services proposed by each of the facilities may impact the averages shown in the table above. Thus, the result of this analysis is inconclusive.

Projected Medicaid

The following table shows projected Medicaid revenue during the third full fiscal year following project completion for each facility. Generally, the application projecting the highest Medicaid revenue is the more effective alternative with regard to this comparative factor to the extent the Medicaid revenue represents the number of Medicaid patients served.

Projected Medicaid Revenue – 3rd Full FY			
Applicant	**Projected Total Medicaid Revenue**	**Medicaid Revenue per Patient**	**% of Gross Surgical Revenue**
NH Matthews	$15,702,756	$2,518	4.8%
AH Lake Norman	$3,186,879	$1,889	6.4%
AH Pineville	$25,667,472	$2,694	4.8%
CMC	$292,436,709	$9,744	18.9%

Source: Form F.2 for each applicant.

As shown in the table above, **Carolinas Medical Center** projects the highest total Medicaid revenue in dollars, the highest Medicaid revenue per patient, and the highest Medicaid revenue as a percentage of gross surgical revenue in the project's third full fiscal year following project completion. Therefore, the application submitted by **Carolinas Medical Center** is the more effective alternative with respect to service to Medicaid patients, and the applications submitted by **Novant Health Matthews Medical Center**, **Atrium Health Lake Norman**, and **Atrium Health Pineville** are less effective alternatives. However, differences in the acuity level of patients at each facility, the level of care (community hospital, tertiary care hospital, quaternary care hospital, etc.) at each facility, and the number and types of surgical services proposed by each of the facilities may impact the averages shown in the table above. Thus, the result of this analysis is inconclusive.

Projected Average Net Revenue per Surgical Case/Patient

The following table shows the projected average net surgical revenue per surgical case or patient in the third full fiscal year following project completion for each facility. Generally, the application projecting the lowest average net revenue per surgical case or per patient is the more effective alternative with regard to this comparative factor to the extent the average reflects a lower cost to the patient or third party payor.

Projected Average Net Revenue per Surgical Case/Patient – 3rd Full FY			
Applicant	**Total # of Patients**	**Net Revenue**	**Average Net Revenue per Patient**
NH Matthews	6,237	$111,610,946	$17,895
AH Lake Norman	1,687	$13,701,278	$8,122
AH Pineville	9,527	$163,411,038	$17,152
CMC	30,012	$508,809,369	$16,954

Source: Form F.2 for each applicant.

As shown in the table above, **Atrium Health Lake Norman** projects the lowest net revenue per surgical case or patient in the third full fiscal year following project completion. Therefore, the application submitted by **Atrium Health Lake Norman** is the more effective alternative with respect to net revenue per surgical case or patient, and the applications submitted by **Novant Health Matthews Medical Center**, **Atrium Health Pineville**, and **Carolinas Medical Center** are less effective alternatives. However, differences in the acuity level of patients at each facility, the level of care (community hospital, tertiary care hospital, quaternary care hospital, etc.) at each facility, and the number and types of surgical services proposed by each of the facilities may impact the averages shown in the table above. Thus, the result of this analysis is inconclusive.

Projected Average Operating Expense per Surgical Case/Patient

The following table shows the projected average operating expense per surgical case or patient in the third full fiscal year following project completion for each facility. Generally, the application projecting the lowest average operating expense per surgical case or patient is the more effective alternative with regard to this comparative factor to the extent it reflects a more cost-effective service which could also result in lower costs to the patient or third party payor.

Projected Operating Expense per Surgical Case/Patient – 3rd Full FY			
Applicant	**Total # of Patients**	**Operating Expenses**	**Average Operating Expense per Patient**
NH Matthews	6,237	$52,353,182	$8,394
AH Lake Norman	1,687	$8,711,604	$5,164
AH Pineville	9,527	$65,526,948	$6,878
CMC	30,012	$220,990,221	$7,363

Source: Form F.2 for each applicant.

As shown in the table above, **Atrium Health Lake Norman** projects the lowest operating expense per surgical case or patient in the third full fiscal year following project completion. Therefore, the application submitted by **Atrium Health Lake Norman** is the more effective alternative with respect to operating expense per surgical case or patient, and the applications submitted by **Novant Health Matthews Medical Center**, **Atrium Health Pineville**, and **Carolinas Medical Center** are less effective alternatives. However, differences in the acuity level of patients at each facility, the level of care (community hospital, tertiary care hospital, quaternary care hospital, etc.) at each facility, and the number and types of surgical services proposed by each of the facilities may impact the averages shown in the table above. Thus, the result of this analysis is inconclusive.

SUMMARY

Due to significant differences in the types of surgical facilities, types of surgical services to be offered, number of total operating rooms, and total revenues and expenses, the comparative factors may be of less value and result in less than definitive outcomes than if all applications were for like facilities of like size and proposing like services.

The following table lists the comparative factors and states which application is the more effective alternative with regard to that particular comparative factor. Note: the comparative factors are listed in the same order they are discussed in the Comparative Analysis, which should not be construed to indicate an order of importance.

Comparative Factor	NH Matthews	AH Lake Norman	AH Pineville	CMC
Conformity with Review Criteria	Yes	No	Yes	Yes
Scope of Services	**More Effective**	Not Approvable	**More Effective**	**More Effective**
Geographic Accessibility	Less Effective	Not Approvable	Less Effective	Less Effective
Historical Utilization	Less Effective	Not Approvable	Less Effective	**More Effective**
Competition/Access to New Provider	**More Effective**	Not Approvable	Less Effective	Less Effective
Access by Service Area Residents	Not Evaluated	Not Evaluated	Not Evaluated	Not Evaluated
Access by Underserved Groups				
Projected Charity Care	Inconclusive	Inconclusive	Inconclusive	Inconclusive
Projected Medicare	Inconclusive	Inconclusive	Inconclusive	Inconclusive
Projected Medicaid	Inconclusive	Inconclusive	Inconclusive	Inconclusive
Projected Average Net Revenue per Case	Inconclusive	Inconclusive	Inconclusive	Inconclusive
Projected Average Operating Expense per Case	Inconclusive	Inconclusive	Inconclusive	Inconclusive

The **Atrium Health Lake Norman** application is not an effective alternative with respect to Conformity with Review Criteria; therefore, it is not approvable and will not be further discussed in the comparative evaluation below:

- With respect to Conformity with Review Criteria, of the approvable applications, **Novant Health Matthews Medical Center**, **Atrium Health Pineville**, and **Carolinas Medical Center** offer equally effective alternatives. See Comparative Analysis for discussion.

- With respect to Scope of Services, of the approvable applications, **Novant Health Matthews Medical Center**, **Atrium Health Pineville**, and **Carolinas Medical Center** offer equally effective alternatives. See Comparative Analysis for discussion.

- With respect to Geographic Accessibility, of the approvable applications, **Novant Health Matthews Medical Center**, **Atrium Health Pineville**, and **Carolinas Medical Center** propose equally effective alternatives. See Comparative Analysis for discussion.

- With respect to Historical Utilization, of the approvable applications, **Carolinas Medical Center** offers the more effective alternative. See Comparative Analysis for discussion.

- With respect to Competition/Access to New Provider, of the approvable applications, **Novant Health Matthews Medical Center** offers the more effective alternative. See Comparative Analysis for discussion.

CONCLUSION

G.S. 131E-183(a)(1) states that the need determination in the SMFP is the determinative limit on the number of ORs that can be approved by the Healthcare Planning and Certificate of Need Section. Approval of all applications submitted during this review would result in ORs in excess of the need determination for Mecklenburg County. However, the application submitted by **Atrium Health Lake Norman** is not approvable and therefore cannot be considered an effective alternative. Consequently, the application submitted by **Atrium Health Lake Norman, Project I.D. #F-11810-19**, is denied. The applications submitted by **Novant Health Matthews Medical Center, Project I.D. #F-11807-19**, **Atrium Health Pineville, Project I.D. #F-11814-19**, and **Carolinas Medical Center, Project**

I.D. #F-11815-19 are the more effective alternatives proposed in this review for new ORs to be located in Mecklenburg County and are therefore approved as conditioned below.

Project I.D. #F-11807-19 is approved subject to the following conditions.

1. Presbyterian Medical Care Corp. and Novant Health, Inc. shall materially comply with all representations made in the certificate of need application.

2. Presbyterian Medical Care Corp. and Novant Health, Inc. shall develop no more than one additional operating room at Novant Health Matthews Medical Center.

3. Upon completion of the project, Novant Health Matthews Medical Center shall be licensed for no more than nine operating rooms, including two dedicated C-Section operating rooms.

4. Presbyterian Medical Care Corp. and Novant Health, Inc. shall not acquire as part of this project any equipment that is not included in the project's proposed capital expenditures in Section Q of the application and that would otherwise require a certificate of need.

5. No later than three months after the last day of each of the first three full fiscal years of operation following initiation of the services authorized by this certificate of need, Presbyterian Medical Care Corp. and Novant Health, Inc. shall submit, on the form provided by the Healthcare Planning and Certificate of Need Section, an annual report containing the:

    a. Payor mix for the services authorized in this certificate of need.
    b. Utilization of the services authorized in this certificate of need.
    c. Revenues and operating costs for the services authorized in this certificate of need.
    d. Average gross revenue per unit of service.
    e. Average net revenue per unit of service.
    f. Average operating cost per unit of service.

6. Presbyterian Medical Care Corp. and Novant Health, Inc. shall acknowledge acceptance of and agree to comply with all conditions stated herein to the Agency in writing prior to issuance of the certificate of need.

Project I.D. #F-11814-19 is approved subject to the following conditions.

1. The Charlotte-Mecklenburg Hospital Authority shall materially comply with all representations made in the certificate of need application.

2. The Charlotte-Mecklenburg Hospital Authority shall develop no more than two additional operating rooms at Atrium Health Pineville for a total of no more than 15 operating rooms upon completion of this project and Project I.D. #F-11621-18 (add one OR).

3. Upon completion of the project, Atrium Health Pineville shall be licensed for no more than 15 operating rooms, including two dedicated C-Section operating rooms.

4. The Charlotte-Mecklenburg Hospital Authority shall not acquire as part of this project any equipment that is not included in the project's proposed capital expenditures in Section Q of the application and that would otherwise require a certificate of need.

5. The Charlotte-Mecklenburg Hospital Authority shall develop and implement an Energy Efficiency and Sustainability Plan for the project that conforms to or exceeds energy efficiency and water conservation standards incorporated in the latest editions of the North Carolina State Building Codes.

6. No later than three months after the last day of each of the first three full fiscal years of operation following initiation of the services authorized by this certificate of need, The Charlotte-Mecklenburg Hospital Authority shall submit, on the form provided by the Healthcare Planning and Certificate of Need Section, an annual report containing the:

   a. Payor mix for the services authorized in this certificate of need.
   b. Utilization of the services authorized in this certificate of need.
   c. Revenues and operating costs for the services authorized in this certificate of need.
   d. Average gross revenue per unit of service.
   e. Average net revenue per unit of service.
   f. Average operating cost per unit of service.

7. The Charlotte-Mecklenburg Hospital Authority shall acknowledge acceptance of and agree to comply with all conditions stated herein to the Agency in writing prior to issuance of the certificate of need.

Project I.D. #F-11815-19 is approved subject to the following conditions.

1. The Charlotte-Mecklenburg Hospital Authority shall materially comply with all representations made in the certificate of need application.

2. The Charlotte-Mecklenburg Hospital Authority shall develop no more than two additional operating rooms at Carolinas Medical Center for a total of no more than 64 operating rooms upon completion of this project, Project I.D. #F-11106-15 (relocate two ORs to Charlotte Surgery Center – Wendover Campus), and Project I.D. #F-11620-18 (add two ORs).

3. Upon completion of the project, Atrium Health Pineville shall be licensed for no more than 64 operating rooms, including four dedicated C-Section operating rooms.

4. The Charlotte-Mecklenburg Hospital Authority shall not acquire as part of this project any equipment that is not included in the project's proposed capital expenditures in Section Q of the application and that would otherwise require a certificate of need.

5. The Charlotte-Mecklenburg Hospital Authority shall develop and implement an Energy Efficiency and Sustainability Plan for the project that conforms to or exceeds energy efficiency and water conservation standards incorporated in the latest editions of the North Carolina State Building Codes.

6. No later than three months after the last day of each of the first three full fiscal years of operation following initiation of the services authorized by this certificate of need, The Charlotte-Mecklenburg Hospital Authority shall submit, on the form provided by the Healthcare Planning and Certificate of Need Section, an annual report containing the:

    a. Payor mix for the services authorized in this certificate of need.
    b. Utilization of the services authorized in this certificate of need.
    c. Revenues and operating costs for the services authorized in this certificate of need.
    d. Average gross revenue per unit of service.
    e. Average net revenue per unit of service.
    f. Average operating cost per unit of service.

7. The Charlotte-Mecklenburg Hospital Authority shall acknowledge acceptance of and agree to comply with all conditions stated herein to the Agency in writing prior to issuance of the certificate of need.

COMPARATIVE ANALYSIS FOR ACUTE CARE BEDS

Pursuant to G.S. 131E-183(a)(1) and the 2019 State Medical Facilities Plan, no more than 76 acute care beds may be approved for Mecklenburg County in this review. Because the applications in this review collectively propose to develop 96 additional acute care beds in Mecklenburg County, all applications cannot be approved for the total number of beds proposed. Therefore, after considering all the information in each application and reviewing each application individually against all applicable review criteria, the Project Analyst conducted a comparative analysis of the proposals to decide which proposal should be approved.

Below is a brief description of each project included in the Acute Care Bed Comparative Analysis.

- Project I.D. #F-11808-19/**Novant Health Matthews Medical Center**/Develop 20 additional acute care beds pursuant to the 2019 SMFP Need Determination
- Project I.D. #F-11810-19/**Atrium Health Lake Norman**/Develop 30 acute care beds pursuant to the 2019 SMFP need determination as part of developing a satellite hospital campus
- Project I.D. #F-11811-19/**Carolinas Medical Center**/Develop 18 additional acute care beds pursuant to the 2019 SMFP Need Determination
- Project I.D. #F-11812-19/**Atrium Health University City**/Develop 16 additional acute care beds pursuant to the 2019 SMFP Need Determination
- Project I.D. #F-11813-19/**Atrium Health Pineville**/Develop 12 additional acute care beds pursuant to the 2019 SMFP Need Determination

Conformity with Review Criteria

Table 5B on page 50 of the 2019 SMFP identifies a need for 76 additional acute care beds in Mecklenburg County. As shown in Table 5A, page 45, the Novant Health system shows a projected surplus of 130 acute care beds for 2021 and the Atrium Health system shows a projected deficit of 126 acute care beds for 2021, which results in the Mecklenburg County need determination for 76 acute care beds. However, the application process is not limited to the provider (or providers) that show a deficit and create the need for additional acute care beds. Any provider can apply to develop the 76 acute care beds in Mecklenburg County. Furthermore, it is not necessary that an existing provider have a projected deficit of acute care beds to apply for more acute care beds. However, it is necessary that an applicant adequately demonstrate the need to develop its project, as proposed.

The applications submitted by **Novant Health Matthews Medical Center**, **Carolinas Medical Center**, **Atrium Health University City**, and **Atrium Health Pineville** are conforming to all applicable statutory and regulatory review criteria. However, the application submitted by **Atrium Health Lake Norman** is not conforming to all applicable statutory and regulatory review criteria. An application that is not conforming to all applicable statutory and regulatory review criteria cannot be approved. Therefore, regarding this comparative factor, the applications submitted by **Novant Health Matthews Medical Center**, **Carolinas Medical Center**, **Atrium Health University City**, and **Atrium Health Pineville** are equally effective alternatives and more effective than the application submitted by **Atrium Health Lake Norman**.

Scope of Services

Generally, the application proposing to provide the greatest scope of services is the more effective alternative with regard to this comparative factor.

Novant Health Matthews Medical Center, **Carolinas Medical Center**, **Atrium Health University City**, and **Atrium Health Pineville** are all existing acute care hospitals which provide numerous types of medical services. **Atrium Health Lake Norman** is a proposed satellite acute care hospital; however, it will not provide as many types of medical services as **Novant Health Matthews Medical Center**, **Carolinas Medical Center**, **Atrium Health University City**, and **Atrium Health Pineville**.

Therefore, **Novant Health Matthews Medical Center**, **Carolinas Medical Center**, **Atrium Health University City**, and **Atrium Health Pineville** are more effective alternatives with respect to this comparative factor and **Atrium Health Lake Norman** is a less effective alternative.

Geographic Accessibility

As of the date of this decision, there are 2,288 existing and approved acute care beds, allocated between 10 hospitals owned by two providers (Atrium and Novant) in Mecklenburg County, as illustrated in the following table.

Mecklenburg County Acute Care Hospitals	
Facility	**Existing/Approved Beds**
AH Pineville	221 (+38)
AH University City	100
CMC-Main	859
AH-Mercy*	196
Atrium Total	**1,414**
NH Ballantyne Medical Center	0 (+36)
NH Huntersville Medical Center	139 (+12)
NH Health Matthews Medical Center	154
NH Health Presbyterian Medical Center	471 (-36)
NH Charlotte Orthopedic Hospital**	48
NH Mint Hill Medical Center	36 (+14)
Novant Total	**874**
Mecklenburg County Total	**2,288**

Source: Table 5A, 2019 SMFP; applications under review; 2020 LRAs; Agency records.
Note: Numbers in parentheses reflect approved changes in bed inventory which have not yet been developed.
*AH-Mercy is a separate campus but licensed as part of CMC.
**NHCOH is a separate campus but licensed as part of NHPMC.

The following table illustrates where the acute care beds are located in Mecklenburg County.

City	System	Total Acute Care Bed Inventory*	Population as of July 1, 2018**	# of Beds per 10,000 Population
Charlotte	Atrium	1,055		
	Novant	483		
Ballantyne	Novant	36		
University City	Atrium	100		
	Charlotte Total	**1,674**	**852,992**	**19.6**
Pineville	Atrium	**259**	**9,338**	**277.4**
Huntersville	Novant	**151**	**61,220**	**24.7**
Matthews	Novant	**154**	**31,132**	**49.5**
Mint Hill	Novant	**50**	**27,459**	**18.2**
Total		**2,288**	**982,141**	**23.3**
Total Mecklenburg County		**2,288**	**1,088,350**	**21.0**

***Existing and approved acute care beds.
****Source:** NC OSBM; accessed March 6, 2020.

As shown in the table above, the existing and approved acute care beds are in Charlotte, Huntersville, Matthews, Mint Hill, and Pineville. **Novant Health Matthews Medical Center** proposes to add 20 acute care beds to an existing facility in Matthews. **Atrium Health Lake Norman** proposes to develop a new satellite hospital campus with 30 acute care beds in Cornelius. **Carolinas Medical Center** proposes to add 18 acute care beds to an existing facility in Charlotte. **Atrium Health University City** proposes to add 16 acute care beds to an existing facility in the University City section of Charlotte. **Atrium Health Pineville** proposes to add 12 acute care beds to an existing facility in Pineville. 30 of the 96 proposed acute care beds would be in Cornelius, which does not currently have any acute care beds. 34 acute care beds would be in Charlotte, which already has 1,674 existing and approved acute care beds or 19.6 acute care beds per 10,000 people. 20 proposed acute care beds would be in Matthews, which already has 154 existing and approved acute care beds or 49.5 acute care beds per 10,000 people. The remaining 12 acute care beds would be in Pineville, which already has 259 existing and approved acute care beds or 277.4 acute care beds per 10,000 people. However, Pineville is located very close to the NC/SC border, and **Atrium Health Pineville** serves a number of SC residents.

Atrium Health Lake Norman proposes to develop acute care beds in an area of Mecklenburg County where there are not currently any acute care beds. **Novant Health Matthews Medical Center**, **Carolinas Medical Center**, **Atrium Health University City**, and **Atrium Health Pineville** propose to add acute care beds to existing facilities which already have acute care beds. Therefore, **Atrium Health Lake Norman** is the more effective alternative with regard to geographic accessibility and **Novant Health Matthews Medical Center**, **Carolinas Medical Center**, **Atrium Health University City**, and **Atrium Health Pineville** are less effective alternatives.

Historical Utilization

The table below shows acute care bed utilization for both Atrium Health and Novant Health facilities based on acute care days as reported in Table 5A of the 2020 SMFP. Generally, the applicant with the higher historical utilization is the more effective alternative with regard to this comparative analysis factor.

Mecklenburg County Historical Acute Care Bed Utilization (Table 5A of 2020 SMFP)				
Facility	**FFY 2018 Acute Care Days**	**ADC**	**# of Acute Care Beds***	**Utilization Rate**
NH Matthews	37,968	104	154	67.5%
CMC	311,337	853	1,010	84.5%
AH University City	27,132	74	100	74.0%
AH Pineville	67,508	185	206	89.8%

*Existing acute care beds during FFY 2018 only.

As shown in the table above, **Atrium Health Pineville** has the highest historical utilization, followed next by **Carolinas Medical Center**, **Atrium Health University City**, and then **Novant Health Matthews Medical Center**. **Atrium Health Lake Norman** is not an existing facility and as such has no historical utilization.

Therefore, with regard to historical utilization, **Atrium Health Pineville** is the more effective alternative, and **Carolinas Medical Center**, **Atrium Health University City**, **Novant Health Matthews Medical Center**, and **Atrium Health Lake Norman** are less effective alternatives.

Competition (Patient Access to a New or Alternative Provider)

There are 2,288 existing and approved acute care beds located in Mecklenburg County. **Atrium Health Lake Norman**, **Carolinas Medical Center**, **Atrium Health University City**, and **Atrium Health Pineville** are all affiliated with Atrium Health, which currently controls 1,414 of the 2,288 acute care beds in Mecklenburg County, or 61.8 percent. **Novant Health Matthews Medical Center** is affiliated with Novant Health, which currently controls 874 of the 2,288 acute care beds in Mecklenburg County, or 38.2 percent.

If **Atrium Health Lake Norman**, **Carolinas Medical Center**, **Atrium Health University City**, and **Atrium Health Pineville** each have their applications approved, Atrium would control 1,490 of the 2,364 existing or approved acute care beds in Mecklenburg County or 63.0 percent. If **Novant Health Matthews Medical Center's** application is approved, Novant Health would control 894 of the 2,364 existing and approved acute care beds in Mecklenburg County or 37.8 percent.

Therefore, with regard to competition, the application submitted by **Novant Health Matthews Medical Center** is the more effective alternative, and the applications submitted by **Atrium Health Lake Norman**, **Carolinas Medical Center**, **Atrium Health University City**, and **Atrium Health Pineville** are less effective alternatives.

Access by Service Area Residents

On page 36, the 2019 SMFP defines the service area for acute care beds as "*the acute care bed planning area in which the bed is located. The acute care bed planning areas are the single and multicounty groupings shown in Figure 5.1.*" Figure 5.1, on page 40, shows Mecklenburg County as its own acute care bed planning area. Thus, the service area for this facility is Mecklenburg County. Facilities may also serve residents of counties not included in their service area. Generally, the application projecting to serve the highest percentage of Mecklenburg County residents is the more effective alternative with regard to this comparative factor since the need determination is for 76 additional acute care beds to be located in Mecklenburg County.

3rd Full FY	
Applicant	**% of Mecklenburg County Residents**
NH Matthews	51.8%
AH Lake Norman	91.8%
CMC	45.3%
AH University City	72.4%
AH Pineville	47.2%

Source: Section C.3 (all applications)

As shown in the table above, **Atrium Health Lake Norman** projects to serve the highest percentage of Mecklenburg County residents during the third full fiscal year of operation following project completion, followed by **Atrium Health University City**, **Novant Health Matthews Medical Center**, **Atrium Health Pineville**, and **Carolinas Medical Center**.

In comments submitted during the public comment period, Atrium states:

> *"Atrium Health believes that this comparative factor, as applied, would be inappropriate for a review of the proposed project. The need for additional acute care bed capacity in Mecklenburg County, and specifically, the need determination in the 2019 SMFP, is a result of the utilization of all patients that utilize acute care beds located in Mecklenburg County. Mecklenburg County residents comprise less than 60 percent of that utilization, and there would be a large surplus of capacity if not for the demand for acute care bed services originating from outside the county. Under these circumstances, it would not be appropriate to determine the comparative effectiveness of an applicant based on service to Mecklenburg County residents when the need as identified for the proposed acute care bed capacity is not based solely on Mecklenburg County patients."*

Atrium is correct that the Acute Care Bed Need Determination in the 2019 SMFP is based on the total number of acute care days at each hospital and not based on anything related to Mecklenburg County-specific acute care days. Further, Mecklenburg County is a large urban county with over one million residents, two large health systems plus other smaller healthcare groups, and is on the border of North Carolina and South Carolina.

For statistical purposes, the United States Office of Management and Budget (US OMB) delineates Metropolitan Statistical Areas (MSAs) when using Census Bureau data. The US Census Bureau states the following about MSAs:

> *"The general concept of a metropolitan or micropolitan statistical area is that of a core area containing a substantial population nucleus, <u>together with adjacent communities having a high degree of economic and social integration with that core.</u>"*[4] (emphasis added)

The first list of MSAs (then known by a different name) was published in October 1950, and Charlotte was considered an MSA at that time. At first, only Mecklenburg County was included; however, by June 1983, the Charlotte-Gastonia MSA comprised six North Carolina counties and one South

[4] https://www.census.gov/programs-surveys/metro-micro/about.html, accessed March 6, 2020.

Carolina county.[5] Today, the Charlotte-Concord-Gastonia MSA is comprised of eight North Carolina counties and three South Carolina counties, and as of July 1, 2018 had an estimated population of more than 2.5 million people.[6]

Considering the discussion above, the Agency believes that in this specific instance attempting to compare the applicants based on the projected acute care bed access of Mecklenburg County residents has little value.

Access by Underserved Groups

"Underserved groups" is defined in G.S. 131E-183(a)(13) as follows:

> *"Medically underserved groups, such as medically indigent or low income persons, Medicaid and Medicare recipients, racial and ethnic minorities, women, and handicapped persons, which have traditionally experienced difficulties in obtaining equal access to the proposed services, particularly those needs identified in the State Health Plan as deserving of priority."*

Projected Charity Care

The following table shows projected charity care during the third full fiscal year following project completion for each facility. Generally, the application projecting to provide the most charity care is the more effective alternative with regard to this comparative factor.

Projected Charity Care – 3rd Full FY			
Applicant	**Projected Total Charity Care**	**Charity Care per Patient**	**% of Net Acute Care Bed Revenue**
NH Matthews	$19,810,814	$1,695	12.4%
AH Lake Norman*	$1,771,645	$826	18.6%
CMC	$21,733,594	$1,008	25.1%
AH University City	$7,309,504	$1,296	36.3%
AH Pineville	$10,199,060	$688	19.6%

Source: Form F.2 for each applicant.
***Includes medical/surgical, obstetrics, and ICU acute care beds.

As shown in the table above, **Carolinas Medical Center** projects the most charity care in dollars, **Novant Health Matthews Medical Center** projects the highest charity care per patient, and **Atrium Health University City** projects the highest charity care as a percent of net revenue. Therefore, the applications submitted by **Carolinas Medical Center**, **Novant Health Matthews Medical Center**, and **Atrium Health University City** are more effective alternatives with regard to access to charity care, and the applications submitted by **Atrium Health Pineville** and **Atrium Health Lake Norman** are less effective alternatives. However, differences in the acuity level of patients at each facility and the level of care (community hospital, tertiary care hospital, quaternary care hospital, etc.) at each facility may impact the averages shown in the table above. Further, **Novant Health Matthews Medical Center** and **Atrium Health Lake Norman** do not provide a method to calculate only

[5]https://www.census.gov/geographies/reference-files/time-series/demo/metro-micro/historical-delineation-files.html, accessed March 6, 2020.
[6] https://www.census.gov/geographies/reference-files/time-series/demo/metro-micro/delineation-files.html, accessed March 6, 2020.

medical/surgical acute care bed patients, whereas **Carolinas Medical Center**, **Atrium Health University City**, and **Atrium Health Pineville** provide information only for their medical/surgical acute care bed patients. Thus, the result of this analysis is inconclusive.

Projected Medicare

The following table shows projected Medicare revenue during the third full fiscal year following project completion for each facility. Generally, the application projecting the highest Medicare revenue is the more effective alternative with regard to this comparative factor to the extent the Medicare revenue represents the number of Medicare patients served.

Projected Medicare Revenue – 3rd Full FY			
Applicant	**Projected Total Medicare Revenue**	**Medicare Revenue per Patient**	**% of Gross Acute Care Bed Revenue**
NH Matthews	$276,993,381	$23,693	53.8%
AH Lake Norman*	$11,389,088	$5,312	34.2%
CMC	$143,340,928	$6,648	47.3%
AH University City	$38,951,812	$6,908	50.0%
AH Pineville	$127,619,701	$8,609	64.5%

Source: Form F.2 for each applicant.
*****Includes medical/surgical, obstetrics, and ICU acute care beds.

As shown in the table above, **Novant Health Matthews Medical Center** projects the highest total Medicare revenue in dollars and the highest Medicare revenue per patient, and **Atrium Health Pineville** projects the highest Medicare revenue as a percentage of gross acute care bed revenue in each project's third full fiscal year following project completion. Therefore, the applications submitted by **Novant Health Matthews Medical Center** and **Atrium Health Pineville** are more effective alternatives with respect to service to Medicare patients, and the applications submitted by **Carolinas Medical Center**, **Atrium Health University City**, and **Atrium Health Lake Norman** are less effective alternatives. However, differences in the acuity level of patients at each facility and the level of care (community hospital, tertiary care hospital, quaternary care hospital, etc.) at each facility may impact the averages shown in the table above. Further, **Novant Health Matthews Medical Center** and **Atrium Health Lake Norman** do not provide a method to calculate only medical/surgical acute care bed patients, whereas **Carolinas Medical Center**, **Atrium Health University City**, and **Atrium Health Pineville** provide information only for their medical/surgical acute care bed patients. Thus, the result of this analysis is inconclusive.

Projected Medicaid

The following table shows projected Medicaid revenue during the third full fiscal year following project completion for each facility. Generally, the application projecting the highest Medicaid revenue is the more effective alternative with regard to this comparative factor to the extent the Medicaid revenue represents the number of Medicaid patients served.

Projected Medicaid Revenue – 3rd Full FY			
Applicant	**Projected Total Medicaid Revenue**	**Medicaid Revenue per Patient**	**% of Gross Acute Care Bed Revenue**
NH Matthews	$38,353,568	$3,281	7.4%
AH Lake Norman*	$8,881,776	$4,143	26.7%
CMC	$51,414,210	$2,384	17.0%
AH University City	$12,341,274	$2,189	15.9%
AH Pineville	$13,344,174	$900	6.7%

Source: Form F.2 for each applicant.
*****Includes medical/surgical, obstetrics, and ICU acute care beds.

As shown in the table above, **Carolinas Medical Center** projects the highest total Medicaid revenue in dollars and **Atrium Health Lake Norman** projects the highest Medicaid revenue per patient and the highest Medicaid revenue as a percentage of gross acute care bed revenue in each project's third full fiscal year following project completion. Therefore, the applications submitted by **Carolinas Medical Center** and **Atrium Health Lake Norman** are more effective alternatives with respect to service to Medicaid patients and the applications submitted by **Novant Health Matthews Medical Center**, **Atrium Health University City**, and **Atrium Health Pineville** are less effective alternatives. However, differences in the acuity level of patients at each facility and the level of care (community hospital, tertiary care hospital, quaternary care hospital, etc.) at each facility may impact the averages shown in the table above. Further, **Novant Health Matthews Medical Center** and **Atrium Health Lake Norman** do not provide a method to calculate only medical/surgical acute care bed patients, whereas **Carolinas Medical Center**, **Atrium Health University City**, and **Atrium Health Pineville** provide information only for their medical/surgical acute care bed patients. Thus, the result of this analysis is inconclusive.

Projected Average Net Revenue per Patient

The following table shows the projected average net revenue per patient in the third full fiscal year following project completion for each facility. Generally, the application projecting the lowest average net revenue per patient is the more effective alternative with regard to this comparative factor to the extent the average reflects a lower cost to the patient or third party payor.

Projected Average Net Revenue per Patient – 3rd Full FY			
Applicant	**Total # of Patients**	**Net Revenue**	**Average Net Revenue per Patient**
NH Matthews	11,691	$159,965,571	$13,683
AH Lake Norman*	2,144	$9,516,581	$4,439
CMC	21,562	$86,754,486	$4,023
AH University City	5,639	$20,162,903	$3,576
AH Pineville	14,824	$52,051,647	$3,511

Source: Form F.2 for each applicant.
*****Includes medical/surgical, obstetrics, and ICU acute care beds.

As shown in the table above, **Atrium Health Pineville** projects the lowest net revenue per patient in the third full fiscal year following project completion. Therefore, the application submitted by **Atrium Health Pineville** is the more effective alternative with respect to net revenue per patient, and the applications submitted by **Novant Health Matthews Medical Center**, **Atrium Health Lake Norman**, **Carolinas Medical Center**, and **Atrium Health University City** are less effective

alternatives. However, differences in the acuity level of patients at each facility and the level of care (community hospital, tertiary care hospital, quaternary care hospital, etc.) at each facility may impact the averages shown in the table above. Further, **Novant Health Matthews Medical Center** and **Atrium Health Lake Norman** do not provide a method to calculate only medical/surgical acute care bed patients, whereas **Carolinas Medical Center**, **Atrium Health University City**, and **Atrium Health Pineville** provide information only for their medical/surgical acute care bed patients. Thus, the result of this analysis is inconclusive.

Projected Average Operating Expense per Patient

The following table shows the projected average operating expense per patient in the third full fiscal year following project completion for each facility. Generally, the application projecting the lowest average operating expense per patient is the more effective alternative with regard to this comparative factor to the extent it reflects a more cost-effective service which could also result in lower costs to the patient or third party payor.

Projected Average Operating Expense per Patient – 3rd Full FY			
Applicant	**Total # of Patients**	**Operating Expenses**	**Average Operating Expense per Patient**
NH Matthews	11,691	$127,801,798	$10,932
AH Lake Norman*	2,144	$18,828,044	$8,782
CMC	21,562	$73,950,484	$3,430
AH University City	5,639	$17,311,276	$3,070
AH Pineville	14,824	$40,940,934	$2,762

Source: Form F.2 for each applicant.
*Includes medical/surgical, obstetrics, and ICU acute care beds.

As shown in the table above, **Atrium Health Pineville** projects the lowest operating expense per patient in the third full fiscal year following project completion. Therefore, the application submitted by **Atrium Health Pineville** is the more effective alternative with respect to operating expense per patient, and the applications submitted by **Novant Health Matthews Medical Center**, **Atrium Health Lake Norman**, **Carolinas Medical Center**, and **Atrium Health University City** are less effective alternatives. However, differences in the acuity level of patients at each facility and the level of care (community hospital, tertiary care hospital, quaternary care hospital, etc.) at each facility may impact the averages shown in the table above. Further, **Novant Health Matthews Medical Center** and **Atrium Health Lake Norman** do not provide a method to calculate only medical/surgical acute care bed patients, whereas **Carolinas Medical Center**, **Atrium Health University City**, and **Atrium Health Pineville** provide information only for their medical/surgical acute care bed patients. Thus, the result of this analysis is inconclusive.

SUMMARY

Due to significant differences in the size of hospitals, levels of acuity each hospital can serve, total revenues and expenses, and the differences in presentation of pro forma financial statements, the comparatives may be of less value and result in less than definitive outcomes than if all applications were for like facilities of like size and reporting in like formats.

The following table lists the comparative factors and states which application is the more effective alternative with regard to that particular comparative factor. Note: the comparative factors are listed

in the same order they are discussed in the Comparative Analysis, which should not be construed to indicate an order of importance.

Comparative Factor	NH Matthews	AH Lake Norman	CMC	AH University City	AH Pineville
Conformity with Review Criteria	Yes	No	Yes	Yes	Yes
Scope of Services	**More Effective**	Not Approvable	**More Effective**	**More Effective**	**More Effective**
Geographic Accessibility	Less Effective	Not Approvable	Less Effective	Less Effective	Less Effective
Historical Utilization	Less Effective	Not Approvable	Less Effective	Less Effective	**More Effective**
Competition/Access to New Provider	**More Effective**	Not Approvable	Less Effective	Less Effective	Less Effective
Access by Service Area Residents	Not Evaluated	Not Evaluated	Not Evaluated	Not Evaluated	Not Evaluated
Access by Underserved Groups					
Projected Charity Care	Inconclusive	Inconclusive	Inconclusive	Inconclusive	Inconclusive
Projected Medicare	Inconclusive	Inconclusive	Inconclusive	Inconclusive	Inconclusive
Projected Medicaid	Inconclusive	Inconclusive	Inconclusive	Inconclusive	Inconclusive
Projected Average Net Revenue per Case	Inconclusive	Inconclusive	Inconclusive	Inconclusive	Inconclusive
Projected Average Operating Expense per Case	Inconclusive	Inconclusive	Inconclusive	Inconclusive	Inconclusive

The **Atrium Health Lake Norman** application is not an effective alternative with respect to Conformity with Review Criteria; therefore, it is not approvable and will not be further discussed in the comparative evaluation below:

- With respect to Conformity with Review Criteria, of the approvable applications, **Novant Health Matthews Medical Center**, **Carolinas Medical Center**, **Atrium Health University City**, and **Atrium Health Pineville** offer equally effective alternatives. See Comparative Analysis for discussion.

- With respect to Scope of Services, of the approvable applications, **Novant Health Matthews Medical Center**, **Carolinas Medical Center**, **Atrium Health University City**, and **Atrium Health Pineville** offer equally effective alternatives. See Comparative Analysis for discussion.

- With respect to Geographic Accessibility, of the approvable applications, **Novant Health Matthews Medical Center**, **Carolinas Medical Center**, **Atrium Health University City**, and **Atrium Health Pineville** propose equally effective alternatives. See Comparative Analysis for discussion.

- With respect to Historical Utilization, of the approvable applications, **Atrium Health Pineville** offers the more effective alternative. See Comparative Analysis for discussion.

- With respect to Competition/Access to New Provider, of the approvable applications, **Novant Health Matthews Medical Center** offers the more effective alternative. See Comparative Analysis for discussion.

CONCLUSION

G.S. 131E-183(a)(1) states that the need determination in the SMFP is the determinative limit on the number of acute care beds that can be approved by the Healthcare Planning and Certificate of Need Section. Approval of all applications submitted during this review would result in acute care beds in excess of the need determination for Mecklenburg County. However, the application submitted by **Atrium Health Lake Norman** is not approvable and therefore cannot be considered an effective alternative. Consequently, the application submitted by **Atrium Health Lake Norman, Project I.D. #F-11810-19**, is denied. The applications submitted by **Novant Health Matthews Medical Center, Project I.D. #F-11808-19**, **Carolinas Medical Center, Project I.D. #F-11811-19**, **Atrium Health University City, Project I.D. #F-11812-19**, and **Atrium Health Pineville, Project I.D. #F-11813-19** are the more effective alternatives proposed in this review for new acute care beds to be located in Mecklenburg County and are therefore approved as conditioned below.

Project I.D. #F-11808-19 is approved subject to the following conditions.

1. Presbyterian Medical Care Corp. and Novant Health, Inc. shall materially comply with all representations made in the certificate of need application.

2. Presbyterian Medical Care Corp. and Novant Health, Inc. shall develop no more than 20 additional acute care beds at Novant Health Matthews Medical Center.

3. Upon completion of the project, Novant Health Matthews Medical Center shall be licensed for no more than 174 acute care beds.

4. Presbyterian Medical Care Corp. and Novant Health, Inc. shall not acquire as part of this project any equipment that is not included in the project's proposed capital expenditures in Section Q of the application and that would otherwise require a certificate of need.

5. Presbyterian Medical Care Corp. and Novant Health, Inc. shall develop and implement an Energy Efficiency and Sustainability Plan for the project that conforms to or exceeds energy efficiency and water conservation standards incorporated in the latest editions of the North Carolina State Building Codes.

6. No later than three months after the last day of each of the first three full fiscal years of operation following initiation of the services authorized by this certificate of need, Presbyterian Medical Care Corp. and Novant Health, Inc. shall submit, on the form provided by the Healthcare Planning and Certificate of Need Section, an annual report containing the:

    a. Payor mix for the services authorized in this certificate of need.
    b. Utilization of the services authorized in this certificate of need.
    c. Revenues and operating costs for the services authorized in this certificate of need.
    d. Average gross revenue per unit of service.
    e. Average net revenue per unit of service.
    f. Average operating cost per unit of service.

7. Presbyterian Medical Care Corp. and Novant Health, Inc. shall acknowledge acceptance of and agree to comply with all conditions stated herein to the Agency in writing prior to issuance of the certificate of need.

Project I.D. #F-11811-19 is approved subject to the following conditions.

1. The Charlotte-Mecklenburg Hospital Authority shall materially comply with all representations made in the certificate of need application.

2. The Charlotte-Mecklenburg Hospital Authority shall develop no more than 18 additional acute care beds at Carolinas Medical Center.

3. Upon completion of the project, Carolinas Medical Center shall be licensed for no more than 1,073 acute care beds.

4. The Charlotte-Mecklenburg Hospital Authority shall not acquire as part of this project any equipment that is not included in the project's proposed capital expenditures in Section Q of the application and that would otherwise require a certificate of need.

5. The Charlotte-Mecklenburg Hospital Authority shall develop and implement an Energy Efficiency and Sustainability Plan for the project that conforms to or exceeds energy efficiency and water conservation standards incorporated in the latest editions of the North Carolina State Building Codes.

6. No later than three months after the last day of each of the first three full fiscal years of operation following initiation of the services authorized by this certificate of need, The Charlotte-Mecklenburg Hospital Authority shall submit, on the form provided by the Healthcare Planning and Certificate of Need Section, an annual report containing the:

    a. Payor mix for the services authorized in this certificate of need.
    b. Utilization of the services authorized in this certificate of need.
    c. Revenues and operating costs for the services authorized in this certificate of need.
    d. Average gross revenue per unit of service.
    e. Average net revenue per unit of service.
    f. Average operating cost per unit of service.

7. The Charlotte-Mecklenburg Hospital Authority shall acknowledge acceptance of and agree to comply with all conditions stated herein to the Agency in writing prior to issuance of the certificate of need.

Project I.D. #F-11812-19 is approved subject to the following conditions.

1. The Charlotte-Mecklenburg Hospital Authority shall materially comply with all representations made in the certificate of need application.

2. The Charlotte-Mecklenburg Hospital Authority shall develop no more than 16 additional acute care beds at Atrium Health University City.

3. Upon completion of the project, Atrium Health University City shall be licensed for no more than 116 acute care beds.

4. The Charlotte-Mecklenburg Hospital Authority shall not acquire as part of this project any equipment that is not included in the project's proposed capital expenditures in Section Q of the application and that would otherwise require a certificate of need.

5. No later than three months after the last day of each of the first three full fiscal years of operation following initiation of the services authorized by this certificate of need, The Charlotte-Mecklenburg Hospital Authority shall submit, on the form provided by the Healthcare Planning and Certificate of Need Section, an annual report containing the:

   a. Payor mix for the services authorized in this certificate of need.
   b. Utilization of the services authorized in this certificate of need.
   c. Revenues and operating costs for the services authorized in this certificate of need.
   d. Average gross revenue per unit of service.
   e. Average net revenue per unit of service.
   f. Average operating cost per unit of service.

6. The Charlotte-Mecklenburg Hospital Authority shall acknowledge acceptance of and agree to comply with all conditions stated herein to the Agency in writing prior to issuance of the certificate of need.

Project I.D. #F-11813-19 is approved subject to the following conditions.

1. The Charlotte-Mecklenburg Hospital Authority shall materially comply with all representations made in the certificate of need application.

2. The Charlotte-Mecklenburg Hospital Authority shall develop no more than 12 additional acute care beds at Atrium Health Pineville for a total of no more than 271 acute care beds upon completion of this project and Project I.D. #F-11622-18 (add 38 acute care beds).

3. Upon completion of the project, Atrium Health Pineville shall be licensed for no more than 271 acute care beds.

4. The Charlotte-Mecklenburg Hospital Authority shall not acquire as part of this project any equipment that is not included in the project's proposed capital expenditures in Section Q of the application and that would otherwise require a certificate of need.

5. The Charlotte-Mecklenburg Hospital Authority shall develop and implement an Energy Efficiency and Sustainability Plan for the project that conforms to or exceeds energy efficiency and water conservation standards incorporated in the latest editions of the North Carolina State Building Codes.

6. No later than three months after the last day of each of the first three full fiscal years of operation following initiation of the services authorized by this certificate of need, The Charlotte-

Mecklenburg Hospital Authority shall submit, on the form provided by the Healthcare Planning and Certificate of Need Section, an annual report containing the:

a. Payor mix for the services authorized in this certificate of need.
b. Utilization of the services authorized in this certificate of need.
c. Revenues and operating costs for the services authorized in this certificate of need.
d. Average gross revenue per unit of service.
e. Average net revenue per unit of service.
f. Average operating cost per unit of service.

7. The Charlotte-Mecklenburg Hospital Authority shall acknowledge acceptance of and agree to comply with all conditions stated herein to the Agency in writing prior to issuance of the certificate of need.

Attachment 5

Page(s)/ Location(s)	*Inconsistencies*								
	Equipment Counts								
	CT Scanner	*Nuclear Medicine Camera*	*Ultrasound*	*X-Ray*					
10	1	1	2	5					
29	1	1	2	5					
Form C	1	1	2	2 (fixed)					
Exhibit F-1.2	2	1	10	8					
	County Growth Rate Multiplier (CGRM)								
	CGRM Novant Health Claims to Use		*CGRM Used by Novant Health*						
70	1.0298		1.0325						
71	1.0298		1.0325						
72	1.0298		1.0325						
73	1.0298		1.0325						
74	1.0298		1.0325						
	Surgical Hours								
	NHPMC	*NHMMC*	*NHHMC*	*NHMHMC*	*NHBMC*	*Matthews Surgery Center*	*Huntersville OP Surgery*	*SPSC*	*Ballantyne OP Surgery*
Performance Standard Table	71,744	11,448	11,003	1,280	0	3,354	3,588	11,377	1,856
Form C	70,826	11,380	10,800	1,650	2,995	3,488	3,652	11,359	0

Attachment 6

MS DRG	Novant Health Mint Hill Medical Center 2019 Annualized Discharges
54	0
55	0
56	1
57	3
58	0
59	4
60	7
63	0
64	8
65	32
66	13
67	0
68	0
69	4
70	3
71	4
72	1
73	0
74	5
75	1
76	1
77	1
78	0
79	0
80	0
81	0
83	0
84	0
86	1
87	0
88	0
89	0
90	0
91	1
92	5
93	3
95	0
98	0
99	1
100	0
101	4
102	3
103	4
114	0
115	0
116	0
117	0
121	0
122	0

MS DRG	Novant Health Mint Hill Medical Center 2019 Annualized Discharges
123	0
124	0
125	0
130	0
132	0
134	0
136	0
137	0
138	0
139	0
146	0
147	0
148	0
149	1
150	0
151	0
152	0
153	3
154	1
155	0
156	1
157	1
158	1
159	0
166	1
167	4
168	0
175	13
176	16
177	29
178	13
179	5
180	4
181	0
182	0
183	0
184	1
185	1
186	0
187	3
188	1
189	57
190	48
191	16
192	3
193	52
194	35
195	13
196	1

MS DRG	Novant Health Mint Hill Medical Center 2019 Annualized Discharges
197	0
198	0
199	4
200	0
201	0
202	24
203	3
204	1
205	1
206	1
208	7
241	0
256	0
257	0
280	4
281	12
282	3
283	0
284	0
285	0
291	86
292	21
293	5
296	0
297	0
298	0
304	3
305	11
308	17
309	21
310	16
311	0
312	8
313	5
326	0
327	0
328	1
329	3
330	4
331	0
334	0
335	0
336	1
337	0
339	0
340	0
341	0
342	0
343	0

MS DRG	Novant Health Mint Hill Medical Center 2019 Annualized Discharges
345	1
346	0
348	0
349	0
350	1
351	0
352	0
354	3
355	1
358	1
368	0
369	1
370	1
371	7
372	9
373	9
374	0
375	3
376	0
377	7
378	32
379	4
380	1
381	3
382	3
383	0
384	0
385	1
386	1
387	3
388	3
389	12
390	21
391	17
392	63
393	1
394	9
395	1
410	0
413	0
416	0
417	3
418	3
419	5
421	0
422	0
425	0
432	4
433	7

MS DRG	Novant Health Mint Hill Medical Center 2019 Annualized Discharges
434	0
435	0
436	3
437	0
438	4
439	12
440	9
441	5
442	4
443	1
444	1
445	1
446	7
463	1
465	0
468	0
469	1
470	9
476	0
479	0
480	3
481	4
482	1
483	5
487	0
488	0
489	0
492	1
493	1
494	1
497	0
499	0
501	1
502	0
504	0
505	0
506	0
508	0
509	0
511	0
512	0
513	0
514	0
515	1
516	0
517	0
533	0
534	1
535	0

MS DRG	Novant Health Mint Hill Medical Center 2019 Annualized Discharges
536	3
537	0
538	0
539	0
540	0
541	1
542	1
543	0
544	0
546	0
547	0
548	0
549	0
550	0
553	0
554	1
555	0
556	0
557	0
558	7
559	0
560	1
561	0
562	0
563	4
564	0
565	1
566	0
571	0
572	0
575	0
578	0
579	0
580	1
581	4
582	0
583	0
584	0
585	0
592	0
593	1
594	1
596	0
597	0
598	0
599	0
600	0
601	0
602	13

MS DRG	Novant Health Mint Hill Medical Center 2019 Annualized Discharges
603	51
604	0
605	1
606	0
607	0
618	0
620	0
621	0
623	0
624	0
626	0
627	0
630	0
637	3
638	39
639	7
640	7
641	16
642	1
643	1
644	5
645	0
657	0
658	1
659	0
660	7
661	4
663	0
664	0
666	1
667	0
669	0
670	0
671	0
672	0
673	1
675	0
682	8
683	27
684	4
685	0
686	0
687	0
688	0
689	24
690	29
691	0
692	0
693	1

MS DRG	Novant Health Mint Hill Medical Center 2019 Annualized Discharges
694	4
695	0
696	1
697	0
698	17
699	8
700	3
707	0
708	0
709	1
710	0
712	1
713	0
714	0
716	0
717	1
718	0
722	1
723	1
724	0
725	0
726	1
727	0
728	0
729	0
730	0
735	0
737	0
738	0
740	0
741	0
742	11
743	19
744	0
745	0
746	0
747	0
748	0
750	0
754	0
755	0
756	0
757	0
758	0
759	1
760	4
761	0
765	0
766	0

MS DRG	Novant Health Mint Hill Medical Center 2019 Annualized Discharges
767	0
768	5
769	4
770	0
774	0
775	0
776	5
777	0
778	0
779	3
780	0
781	0
782	0
783	0
784	7
785	11
786	13
787	24
788	60
796	0
797	0
798	0
801	0
803	1
804	0
805	8
806	55
807	194
808	0
809	4
810	1
811	5
812	29
813	1
814	0
815	1
816	0
818	0
819	1
822	0
823	1
825	0
828	0
830	0
831	1
832	5
833	11
835	0
836	0

MS DRG	Novant Health Mint Hill Medical Center 2019 Annualized Discharges
839	0
840	3
841	0
842	0
843	0
844	0
845	0
847	0
848	0
853	4
854	3
855	0
858	0
862	1
863	1
864	3
865	1
866	4
868	1
869	0
871	138
872	82
902	0
903	0
905	0
906	0
907	0
909	0
913	0
914	1
915	0
916	0
919	0
920	3
921	0
922	0
923	3
934	0
935	0
941	0
947	1
948	0
949	0
950	0
951	21
956	0
964	0
965	0
975	0

MS DRG	Novant Health Mint Hill Medical Center 2019 Annualized Discharges
976	0
977	0
983	0
985	0
986	0
987	1
988	0
989	0

Source: IBM Watson 2019 annualized data for LAC MS-DRGs.

MS-DRG List, Annotated for Inclusion as NHSCMC LAC DRG and Acuity Designation for Adult Patients

MS-DRG	MS-DRG Title	NHSCMC LAC DRG	Adult Acuity Designation
001	HEART TRANSPLANT OR IMPLANT OF HEART ASSIST SYSTEM W MCC	No	
002	HEART TRANSPLANT OR IMPLANT OF HEART ASSIST SYSTEM W/O MCC	No	
003	ECMO OR TRACH W MV >96 HRS OR PDX EXC FACE, MOUTH & NECK W MAJ O.R.	No	
004	TRACH W MV >96 HRS OR PDX EXC FACE, MOUTH & NECK W/O MAJ O.R.	No	
005	LIVER TRANSPLANT W MCC OR INTESTINAL TRANSPLANT	No	
006	LIVER TRANSPLANT W/O MCC	No	
007	LUNG TRANSPLANT	No	
008	SIMULTANEOUS PANCREAS/KIDNEY TRANSPLANT	No	
010	PANCREAS TRANSPLANT	No	
011	TRACHEOSTOMY FOR FACE, MOUTH & NECK DIAGNOSES OR LARYNGECTOMY W MCC	No	
012	TRACHEOSTOMY FOR FACE, MOUTH & NECK DIAGNOSES OR LARYNGECTOMY W CC	No	
013	TRACHEOSTOMY FOR FACE, MOUTH & NECK DIAGNOSES OR LARYNGECTOMY W/O CC/MCC	No	
014	ALLOGENEIC BONE MARROW TRANSPLANT	No	
016	AUTOLOGOUS BONE MARROW TRANSPLANT W CC/MCC OR T-CELL IMMUNOTHERAPY	No	
017	AUTOLOGOUS BONE MARROW TRANSPLANT W/O CC/MCC	No	
020	INTRACRANIAL VASCULAR PROCEDURES W PDX HEMORRHAGE W MCC	No	
021	INTRACRANIAL VASCULAR PROCEDURES W PDX HEMORRHAGE W CC	No	
022	INTRACRANIAL VASCULAR PROCEDURES W PDX HEMORRHAGE W/O CC/MCC	No	
023	CRANIOTOMY W MAJOR DEVICE IMPLANT OR ACUTE COMPLEX CNS PDX W MCC OR CHEMOTHER	No	
024	CRANIO W MAJOR DEV IMPL/ACUTE COMPLEX CNS PDX W/O MCC	No	
025	CRANIOTOMY & ENDOVASCULAR INTRACRANIAL PROCEDURES W MCC	No	
026	CRANIOTOMY & ENDOVASCULAR INTRACRANIAL PROCEDURES W CC	No	
027	CRANIOTOMY & ENDOVASCULAR INTRACRANIAL PROCEDURES W/O CC/MCC	No	
028	SPINAL PROCEDURES W MCC	No	
029	SPINAL PROCEDURES W CC OR SPINAL NEUROSTIMULATORS	No	
030	SPINAL PROCEDURES W/O CC/MCC	No	
031	VENTRICULAR SHUNT PROCEDURES W MCC	No	
032	VENTRICULAR SHUNT PROCEDURES W CC	No	
033	VENTRICULAR SHUNT PROCEDURES W/O CC/MCC	No	
034	CAROTID ARTERY STENT PROCEDURE W MCC	No	
035	CAROTID ARTERY STENT PROCEDURE W CC	No	
036	CAROTID ARTERY STENT PROCEDURE W/O CC/MCC	No	
037	EXTRACRANIAL PROCEDURES W MCC	No	
038	EXTRACRANIAL PROCEDURES W CC	No	
039	EXTRACRANIAL PROCEDURES W/O CC/MCC	No	
040	PERIPH/CRANIAL NERVE & OTHER NERV SYST PROC W MCC	No	
041	PERIPH/CRANIAL NERVE & OTHER NERV SYST PROC W CC OR PERIPH NEUROSTIM	No	
042	PERIPH/CRANIAL NERVE & OTHER NERV SYST PROC W/O CC/MCC	No	
052	SPINAL DISORDERS & INJURIES W CC/MCC	No	
053	SPINAL DISORDERS & INJURIES W/O CC/MCC	No	
054	NERVOUS SYSTEM NEOPLASMS W MCC	Yes	Tertiary
055	NERVOUS SYSTEM NEOPLASMS W/O MCC	Yes	Tertiary
056	DEGENERATIVE NERVOUS SYSTEM DISORDERS W MCC	Yes	Primary_Secondary
057	DEGENERATIVE NERVOUS SYSTEM DISORDERS W/O MCC	Yes	Primary_Secondary
058	MULTIPLE SCLEROSIS & CEREBELLAR ATAXIA W MCC	Yes	Primary_Secondary
059	MULTIPLE SCLEROSIS & CEREBELLAR ATAXIA W CC	Yes	Primary_Secondary
060	MULTIPLE SCLEROSIS & CEREBELLAR ATAXIA W/O CC/MCC	Yes	Primary_Secondary
061	ISCHEMIC STROKE, PRECEREBRAL OCCLUSION OR TRANSIENT ISCHEMIA W THROMBOLYTIC AGEN	No	
062	ISCHEMIC STROKE, PRECEREBRAL OCCLUSION OR TRANSIENT ISCHEMIA W THROMBOLYTIC AGEN	No	
063	ISCHEMIC STROKE, PRECEREBRAL OCCLUSION OR TRANSIENT ISCHEMIA W THROMBOLYTIC AGEN	Yes	Tertiary
064	INTRACRANIAL HEMORRHAGE OR CEREBRAL INFARCTION W MCC	Yes	Primary_Secondary
065	INTRACRANIAL HEMORRHAGE OR CEREBRAL INFARCTION W CC OR TPA IN 24 HRS	Yes	Primary_Secondary
066	INTRACRANIAL HEMORRHAGE OR CEREBRAL INFARCTION W/O CC/MCC	Yes	Primary_Secondary
067	NONSPECIFIC CVA & PRECEREBRAL OCCLUSION W/O INFARCT W MCC	Yes	Primary_Secondary
068	NONSPECIFIC CVA & PRECEREBRAL OCCLUSION W/O INFARCT W/O MCC	Yes	Primary_Secondary
069	TRANSIENT ISCHEMIA W/O THROMBOLYTIC	Yes	Primary_Secondary
070	NONSPECIFIC CEREBROVASCULAR DISORDERS W MCC	Yes	Primary_Secondary
071	NONSPECIFIC CEREBROVASCULAR DISORDERS W CC	Yes	Primary_Secondary

MS-DRG	MS-DRG Title	NHSCMC LAC DRG	Adult Acuity Designation
072	NONSPECIFIC CEREBROVASCULAR DISORDERS W/O CC/MCC	Yes	Primary_Secondary
073	CRANIAL & PERIPHERAL NERVE DISORDERS W MCC	Yes	Primary_Secondary
074	CRANIAL & PERIPHERAL NERVE DISORDERS W/O MCC	Yes	Primary_Secondary
075	VIRAL MENINGITIS W CC/MCC	Yes	Primary_Secondary
076	VIRAL MENINGITIS W/O CC/MCC	Yes	Primary_Secondary
077	HYPERTENSIVE ENCEPHALOPATHY W MCC	Yes	Primary_Secondary
078	HYPERTENSIVE ENCEPHALOPATHY W CC	Yes	Primary_Secondary
079	HYPERTENSIVE ENCEPHALOPATHY W/O CC/MCC	Yes	Primary_Secondary
080	NONTRAUMATIC STUPOR & COMA W MCC	Yes	Primary_Secondary
081	NONTRAUMATIC STUPOR & COMA W/O MCC	Yes	Primary_Secondary
082	TRAUMATIC STUPOR & COMA, COMA >1 HR W MCC	No	
083	TRAUMATIC STUPOR & COMA, COMA >1 HR W CC	Yes	Tertiary
084	TRAUMATIC STUPOR & COMA, COMA >1 HR W/O CC/MCC	Yes	Tertiary
085	TRAUMATIC STUPOR & COMA, COMA <1 HR W MCC	No	
086	TRAUMATIC STUPOR & COMA, COMA <1 HR W CC	Yes	Primary_Secondary
087	TRAUMATIC STUPOR & COMA, COMA <1 HR W/O CC/MCC	Yes	Primary_Secondary
088	CONCUSSION W MCC	Yes	Primary_Secondary
089	CONCUSSION W CC	Yes	Primary_Secondary
090	CONCUSSION W/O CC/MCC	Yes	Primary_Secondary
091	OTHER DISORDERS OF NERVOUS SYSTEM W MCC	Yes	Primary_Secondary
092	OTHER DISORDERS OF NERVOUS SYSTEM W CC	Yes	Primary_Secondary
093	OTHER DISORDERS OF NERVOUS SYSTEM W/O CC/MCC	Yes	Primary_Secondary
094	BACTERIAL & TUBERCULOUS INFECTIONS OF NERVOUS SYSTEM W MCC	No	
095	BACTERIAL & TUBERCULOUS INFECTIONS OF NERVOUS SYSTEM W CC	Yes	Tertiary
096	BACTERIAL & TUBERCULOUS INFECTIONS OF NERVOUS SYSTEM W/O CC/MCC	No	
097	NON-BACTERIAL INFECT OF NERVOUS SYS EXC VIRAL MENINGITIS W MCC	No	
098	NON-BACTERIAL INFECT OF NERVOUS SYS EXC VIRAL MENINGITIS W CC	Yes	Tertiary
099	NON-BACTERIAL INFECT OF NERVOUS SYS EXC VIRAL MENINGITIS W/O CC/MCC	Yes	Tertiary
100	SEIZURES W MCC	Yes	Primary_Secondary
101	SEIZURES W/O MCC	Yes	Primary_Secondary
102	HEADACHES W MCC	Yes	Primary_Secondary
103	HEADACHES W/O MCC	Yes	Primary_Secondary
113	ORBITAL PROCEDURES W CC/MCC	No	
114	ORBITAL PROCEDURES W/O CC/MCC	Yes	Tertiary
115	EXTRAOCULAR PROCEDURES EXCEPT ORBIT	Yes	Primary_Secondary
116	INTRAOCULAR PROCEDURES W CC/MCC	Yes	Primary_Secondary
117	INTRAOCULAR PROCEDURES W/O CC/MCC	Yes	Primary_Secondary
121	ACUTE MAJOR EYE INFECTIONS W CC/MCC	Yes	Primary_Secondary
122	ACUTE MAJOR EYE INFECTIONS W/O CC/MCC	Yes	Primary_Secondary
123	NEUROLOGICAL EYE DISORDERS	Yes	Primary_Secondary
124	OTHER DISORDERS OF THE EYE W MCC	Yes	Primary_Secondary
125	OTHER DISORDERS OF THE EYE W/O MCC	Yes	Primary_Secondary
129	MAJOR HEAD & NECK PROCEDURES W CC/MCC OR MAJOR DEVICE	No	
130	MAJOR HEAD & NECK PROCEDURES W/O CC/MCC	Yes	Tertiary
131	CRANIAL/FACIAL PROCEDURES W CC/MCC	No	
132	CRANIAL/FACIAL PROCEDURES W/O CC/MCC	Yes	Primary_Secondary
133	OTHER EAR, NOSE, MOUTH & THROAT O.R. PROCEDURES W CC/MCC	No	
134	OTHER EAR, NOSE, MOUTH & THROAT O.R. PROCEDURES W/O CC/MCC	Yes	Primary_Secondary
135	SINUS & MASTOID PROCEDURES W CC/MCC	No	
136	SINUS & MASTOID PROCEDURES W/O CC/MCC	Yes	Primary_Secondary
137	MOUTH PROCEDURES W CC/MCC	Yes	Primary_Secondary
138	MOUTH PROCEDURES W/O CC/MCC	Yes	Primary_Secondary
139	SALIVARY GLAND PROCEDURES	Yes	Primary_Secondary
146	EAR, NOSE, MOUTH & THROAT MALIGNANCY W MCC	Yes	Tertiary
147	EAR, NOSE, MOUTH & THROAT MALIGNANCY W CC	Yes	Tertiary
148	EAR, NOSE, MOUTH & THROAT MALIGNANCY W/O CC/MCC	Yes	Tertiary
149	DYSEQUILIBRIUM	Yes	Primary_Secondary
150	EPISTAXIS W MCC	Yes	Primary_Secondary

MS-DRG	MS-DRG Title	NHSCMC LAC DRG	Adult Acuity Designation
151	EPISTAXIS W/O MCC	Yes	Primary_Secondary
152	OTITIS MEDIA & URI W MCC	Yes	Primary_Secondary
153	OTITIS MEDIA & URI W/O MCC	Yes	Primary_Secondary
154	OTHER EAR, NOSE, MOUTH & THROAT DIAGNOSES W MCC	Yes	Primary_Secondary
155	OTHER EAR, NOSE, MOUTH & THROAT DIAGNOSES W CC	Yes	Primary_Secondary
156	OTHER EAR, NOSE, MOUTH & THROAT DIAGNOSES W/O CC/MCC	Yes	Primary_Secondary
157	DENTAL & ORAL DISEASES W MCC	Yes	Primary_Secondary
158	DENTAL & ORAL DISEASES W CC	Yes	Primary_Secondary
159	DENTAL & ORAL DISEASES W/O CC/MCC	Yes	Primary_Secondary
163	MAJOR CHEST PROCEDURES W MCC	No	
164	MAJOR CHEST PROCEDURES W CC	No	
165	MAJOR CHEST PROCEDURES W/O CC/MCC	No	
166	OTHER RESP SYSTEM O.R. PROCEDURES W MCC	Yes	Tertiary
167	OTHER RESP SYSTEM O.R. PROCEDURES W CC	Yes	Tertiary
168	OTHER RESP SYSTEM O.R. PROCEDURES W/O CC/MCC	Yes	Primary_Secondary
175	PULMONARY EMBOLISM W MCC OR ACUTE COR PULMONALE	Yes	Primary_Secondary
176	PULMONARY EMBOLISM W/O MCC	Yes	Primary_Secondary
177	RESPIRATORY INFECTIONS & INFLAMMATIONS W MCC	Yes	Primary_Secondary
178	RESPIRATORY INFECTIONS & INFLAMMATIONS W CC	Yes	Primary_Secondary
179	RESPIRATORY INFECTIONS & INFLAMMATIONS W/O CC/MCC	Yes	Primary_Secondary
180	RESPIRATORY NEOPLASMS W MCC	Yes	Primary_Secondary
181	RESPIRATORY NEOPLASMS W CC	Yes	Primary_Secondary
182	RESPIRATORY NEOPLASMS W/O CC/MCC	Yes	Primary_Secondary
183	MAJOR CHEST TRAUMA W MCC	Yes	Tertiary
184	MAJOR CHEST TRAUMA W CC	Yes	Tertiary
185	MAJOR CHEST TRAUMA W/O CC/MCC	Yes	Primary_Secondary
186	PLEURAL EFFUSION W MCC	Yes	Primary_Secondary
187	PLEURAL EFFUSION W CC	Yes	Primary_Secondary
188	PLEURAL EFFUSION W/O CC/MCC	Yes	Primary_Secondary
189	PULMONARY EDEMA & RESPIRATORY FAILURE	Yes	Primary_Secondary
190	CHRONIC OBSTRUCTIVE PULMONARY DISEASE W MCC	Yes	Primary_Secondary
191	CHRONIC OBSTRUCTIVE PULMONARY DISEASE W CC	Yes	Primary_Secondary
192	CHRONIC OBSTRUCTIVE PULMONARY DISEASE W/O CC/MCC	Yes	Primary_Secondary
193	SIMPLE PNEUMONIA & PLEURISY W MCC	Yes	Primary_Secondary
194	SIMPLE PNEUMONIA & PLEURISY W CC	Yes	Primary_Secondary
195	SIMPLE PNEUMONIA & PLEURISY W/O CC/MCC	Yes	Primary_Secondary
196	INTERSTITIAL LUNG DISEASE W MCC	Yes	Tertiary
197	INTERSTITIAL LUNG DISEASE W CC	Yes	Tertiary
198	INTERSTITIAL LUNG DISEASE W/O CC/MCC	Yes	Primary_Secondary
199	PNEUMOTHORAX W MCC	Yes	Primary_Secondary
200	PNEUMOTHORAX W CC	Yes	Primary_Secondary
201	PNEUMOTHORAX W/O CC/MCC	Yes	Primary_Secondary
202	BRONCHITIS & ASTHMA W CC/MCC	Yes	Primary_Secondary
203	BRONCHITIS & ASTHMA W/O CC/MCC	Yes	Primary_Secondary
204	RESPIRATORY SIGNS & SYMPTOMS	Yes	Primary_Secondary
205	OTHER RESPIRATORY SYSTEM DIAGNOSES W MCC	Yes	Primary_Secondary
206	OTHER RESPIRATORY SYSTEM DIAGNOSES W/O MCC	Yes	Primary_Secondary
207	RESPIRATORY SYSTEM DIAGNOSIS W VENTILATOR SUPPORT >96 HOURS	No	
208	RESPIRATORY SYSTEM DIAGNOSIS W VENTILATOR SUPPORT <=96 HOURS	Yes	Tertiary
215	OTHER HEART ASSIST SYSTEM IMPLANT	No	
216	CARDIAC VALVE & OTH MAJ CARDIOTHORACIC PROC W CARD CATH W MCC	No	
217	CARDIAC VALVE & OTH MAJ CARDIOTHORACIC PROC W CARD CATH W CC	No	
218	CARDIAC VALVE & OTH MAJ CARDIOTHORACIC PROC W CARD CATH W/O CC/MCC	No	
219	CARDIAC VALVE & OTH MAJ CARDIOTHORACIC PROC W/O CARD CATH W MCC	No	
220	CARDIAC VALVE & OTH MAJ CARDIOTHORACIC PROC W/O CARD CATH W CC	No	
221	CARDIAC VALVE & OTH MAJ CARDIOTHORACIC PROC W/O CARD CATH W/O CC/MCC	No	
222	CARDIAC DEFIB IMPLANT W CARDIAC CATH W AMI/HF/SHOCK W MCC	No	
223	CARDIAC DEFIB IMPLANT W CARDIAC CATH W AMI/HF/SHOCK W/O MCC	No	

MS-DRG	MS-DRG Title	NHSCMC LAC DRG	Adult Acuity Designation
224	CARDIAC DEFIB IMPLANT W CARDIAC CATH W/O AMI/HF/SHOCK W MCC	No	
225	CARDIAC DEFIB IMPLANT W CARDIAC CATH W/O AMI/HF/SHOCK W/O MCC	No	
226	CARDIAC DEFIBRILLATOR IMPLANT W/O CARDIAC CATH W MCC	No	
227	CARDIAC DEFIBRILLATOR IMPLANT W/O CARDIAC CATH W/O MCC	No	
228	OTHER CARDIOTHORACIC PROCEDURES W MCC	No	
229	OTHER CARDIOTHORACIC PROCEDURES W/O MCC	No	
231	CORONARY BYPASS W PTCA W MCC	No	
232	CORONARY BYPASS W PTCA W/O MCC	No	
233	CORONARY BYPASS W CARDIAC CATH W MCC	No	
234	CORONARY BYPASS W CARDIAC CATH W/O MCC	No	
235	CORONARY BYPASS W/O CARDIAC CATH W MCC	No	
236	CORONARY BYPASS W/O CARDIAC CATH W/O MCC	No	
239	AMPUTATION FOR CIRC SYS DISORDERS EXC UPPER LIMB & TOE W MCC	No	
240	AMPUTATION FOR CIRC SYS DISORDERS EXC UPPER LIMB & TOE W CC	No	
241	AMPUTATION FOR CIRC SYS DISORDERS EXC UPPER LIMB & TOE W/O CC/MCC	Yes	Tertiary
242	PERMANENT CARDIAC PACEMAKER IMPLANT W MCC	No	
243	PERMANENT CARDIAC PACEMAKER IMPLANT W CC	No	
244	PERMANENT CARDIAC PACEMAKER IMPLANT W/O CC/MCC	No	
245	AICD GENERATOR PROCEDURES	No	
246	PERCUTANEOUS CARDIOVASCULAR PROCEDURES W DRUG-ELUTING STENT W MCC OR 4+ ARTERI	No	
247	PERC CARDIOVASC PROC W DRUG-ELUTING STENT W/O MCC	No	
248	PERCUTANEOUS CARDIOVASCULAR PROCEDURES W NON-DRUG-ELUTING STENT W MCC OR 4+ A	No	
249	PERC CARDIOVASC PROC W NON-DRUG-ELUTING STENT W/O MCC	No	
250	PERC CARDIOVASC PROC W/O CORONARY ARTERY STENT W MCC	No	
251	PERC CARDIOVASC PROC W/O CORONARY ARTERY STENT W/O MCC	No	
252	OTHER VASCULAR PROCEDURES W MCC	No	
253	OTHER VASCULAR PROCEDURES W CC	No	
254	OTHER VASCULAR PROCEDURES W/O CC/MCC	No	
255	UPPER LIMB & TOE AMPUTATION FOR CIRC SYSTEM DISORDERS W MCC	No	
256	UPPER LIMB & TOE AMPUTATION FOR CIRC SYSTEM DISORDERS W CC	Yes	Tertiary
257	UPPER LIMB & TOE AMPUTATION FOR CIRC SYSTEM DISORDERS W/O CC/MCC	Yes	Tertiary
258	CARDIAC PACEMAKER DEVICE REPLACEMENT W MCC	No	
259	CARDIAC PACEMAKER DEVICE REPLACEMENT W/O MCC	No	
260	CARDIAC PACEMAKER REVISION EXCEPT DEVICE REPLACEMENT W MCC	No	
261	CARDIAC PACEMAKER REVISION EXCEPT DEVICE REPLACEMENT W CC	No	
262	CARDIAC PACEMAKER REVISION EXCEPT DEVICE REPLACEMENT W/O CC/MCC	No	
263	VEIN LIGATION & STRIPPING	No	
264	OTHER CIRCULATORY SYSTEM O.R. PROCEDURES	No	
265	AICD LEAD PROCEDURES	No	
266	ENDOVASCULAR CARDIAC VALVE REPLACEMENT & SUPPLEMENT PROCEDURES W MCC	No	
267	ENDOVASCULAR CARDIAC VALVE REPLACEMENT & SUPPLEMENT PROCEDURES W/O MCC	No	
268	AORTIC AND HEART ASSIST PROCEDURES EXCEPT PULSATION BALLOON W MCC	No	
269	AORTIC AND HEART ASSIST PROCEDURES EXCEPT PULSATION BALLOON W/O MCC	No	
270	OTHER MAJOR CARDIOVASCULAR PROCEDURES W MCC	No	
271	OTHER MAJOR CARDIOVASCULAR PROCEDURES W CC	No	
272	OTHER MAJOR CARDIOVASCULAR PROCEDURES W/O CC/MCC	No	
273	PERCUTANEOUS INTRACARDIAC PROCEDURES W MCC	No	
274	PERCUTANEOUS INTRACARDIAC PROCEDURES W/O MCC	No	
280	ACUTE MYOCARDIAL INFARCTION, DISCHARGED ALIVE W MCC	Yes	Primary_Secondary
281	ACUTE MYOCARDIAL INFARCTION, DISCHARGED ALIVE W CC	Yes	Primary_Secondary
282	ACUTE MYOCARDIAL INFARCTION, DISCHARGED ALIVE W/O CC/MCC	Yes	Primary_Secondary
283	ACUTE MYOCARDIAL INFARCTION, EXPIRED W MCC	Yes	Primary_Secondary
284	ACUTE MYOCARDIAL INFARCTION, EXPIRED W CC	Yes	Primary_Secondary
285	ACUTE MYOCARDIAL INFARCTION, EXPIRED W/O CC/MCC	Yes	Primary_Secondary
286	CIRCULATORY DISORDERS EXCEPT AMI, W CARD CATH W MCC	No	
287	CIRCULATORY DISORDERS EXCEPT AMI, W CARD CATH W/O MCC	No	
288	ACUTE & SUBACUTE ENDOCARDITIS W MCC	No	
289	ACUTE & SUBACUTE ENDOCARDITIS W CC	No	

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290	ACUTE & SUBACUTE ENDOCARDITIS W/O CC/MCC	No	
291	HEART FAILURE & SHOCK W MCC	Yes	Primary_Secondary
292	HEART FAILURE & SHOCK W CC	Yes	Primary_Secondary
293	HEART FAILURE & SHOCK W/O CC/MCC	Yes	Primary_Secondary
294	DEEP VEIN THROMBOPHLEBITIS W CC/MCC	No	
295	DEEP VEIN THROMBOPHLEBITIS W/O CC/MCC	No	
296	CARDIAC ARREST, UNEXPLAINED W MCC	Yes	Primary_Secondary
297	CARDIAC ARREST, UNEXPLAINED W CC	Yes	Primary_Secondary
298	CARDIAC ARREST, UNEXPLAINED W/O CC/MCC	Yes	Primary_Secondary
299	PERIPHERAL VASCULAR DISORDERS W MCC	No	
300	PERIPHERAL VASCULAR DISORDERS W CC	No	
301	PERIPHERAL VASCULAR DISORDERS W/O CC/MCC	No	
302	ATHEROSCLEROSIS W MCC	No	
303	ATHEROSCLEROSIS W/O MCC	No	
304	HYPERTENSION W MCC	Yes	Primary_Secondary
305	HYPERTENSION W/O MCC	Yes	Primary_Secondary
306	CARDIAC CONGENITAL & VALVULAR DISORDERS W MCC	No	
307	CARDIAC CONGENITAL & VALVULAR DISORDERS W/O MCC	No	
308	CARDIAC ARRHYTHMIA & CONDUCTION DISORDERS W MCC	Yes	Primary_Secondary
309	CARDIAC ARRHYTHMIA & CONDUCTION DISORDERS W CC	Yes	Primary_Secondary
310	CARDIAC ARRHYTHMIA & CONDUCTION DISORDERS W/O CC/MCC	Yes	Primary_Secondary
311	ANGINA PECTORIS	Yes	Primary_Secondary
312	SYNCOPE & COLLAPSE	Yes	Primary_Secondary
313	CHEST PAIN	Yes	Primary_Secondary
314	OTHER CIRCULATORY SYSTEM DIAGNOSES W MCC	No	
315	OTHER CIRCULATORY SYSTEM DIAGNOSES W CC	No	
316	OTHER CIRCULATORY SYSTEM DIAGNOSES W/O CC/MCC	No	
319	OTHER ENDOVASCULAR CARDIAC VALVE PROCEDURES W MCC	No	
320	OTHER ENDOVASCULAR CARDIAC VALVE PROCEDURES W/O MCC	No	
326	STOMACH, ESOPHAGEAL & DUODENAL PROC W MCC	Yes	Tertiary
327	STOMACH, ESOPHAGEAL & DUODENAL PROC W CC	Yes	Tertiary
328	STOMACH, ESOPHAGEAL & DUODENAL PROC W/O CC/MCC	Yes	Tertiary
329	MAJOR SMALL & LARGE BOWEL PROCEDURES W MCC	Yes	Tertiary
330	MAJOR SMALL & LARGE BOWEL PROCEDURES W CC	Yes	Tertiary
331	MAJOR SMALL & LARGE BOWEL PROCEDURES W/O CC/MCC	Yes	Primary_Secondary
332	RECTAL RESECTION W MCC	No	
333	RECTAL RESECTION W CC	No	
334	RECTAL RESECTION W/O CC/MCC	Yes	Primary_Secondary
335	PERITONEAL ADHESIOLYSIS W MCC	Yes	Tertiary
336	PERITONEAL ADHESIOLYSIS W CC	Yes	Tertiary
337	PERITONEAL ADHESIOLYSIS W/O CC/MCC	Yes	Primary_Secondary
338	APPENDECTOMY W COMPLICATED PRINCIPAL DIAG W MCC	No	
339	APPENDECTOMY W COMPLICATED PRINCIPAL DIAG W CC	Yes	Primary_Secondary
340	APPENDECTOMY W COMPLICATED PRINCIPAL DIAG W/O CC/MCC	Yes	Primary_Secondary
341	APPENDECTOMY W/O COMPLICATED PRINCIPAL DIAG W MCC	Yes	Primary_Secondary
342	APPENDECTOMY W/O COMPLICATED PRINCIPAL DIAG W CC	Yes	Primary_Secondary
343	APPENDECTOMY W/O COMPLICATED PRINCIPAL DIAG W/O CC/MCC	Yes	Primary_Secondary
344	MINOR SMALL & LARGE BOWEL PROCEDURES W MCC	No	
345	MINOR SMALL & LARGE BOWEL PROCEDURES W CC	Yes	Primary_Secondary
346	MINOR SMALL & LARGE BOWEL PROCEDURES W/O CC/MCC	Yes	Primary_Secondary
347	ANAL & STOMAL PROCEDURES W MCC	No	
348	ANAL & STOMAL PROCEDURES W CC	Yes	Primary_Secondary
349	ANAL & STOMAL PROCEDURES W/O CC/MCC	Yes	Primary_Secondary
350	INGUINAL & FEMORAL HERNIA PROCEDURES W MCC	Yes	Primary_Secondary
351	INGUINAL & FEMORAL HERNIA PROCEDURES W CC	Yes	Primary_Secondary
352	INGUINAL & FEMORAL HERNIA PROCEDURES W/O CC/MCC	Yes	Primary_Secondary
353	HERNIA PROCEDURES EXCEPT INGUINAL & FEMORAL W MCC	No	
354	HERNIA PROCEDURES EXCEPT INGUINAL & FEMORAL W CC	Yes	Primary_Secondary

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355	HERNIA PROCEDURES EXCEPT INGUINAL & FEMORAL W/O CC/MCC	Yes	Primary_Secondary
356	OTHER DIGESTIVE SYSTEM O.R. PROCEDURES W MCC	No	
357	OTHER DIGESTIVE SYSTEM O.R. PROCEDURES W CC	No	
358	OTHER DIGESTIVE SYSTEM O.R. PROCEDURES W/O CC/MCC	Yes	Primary_Secondary
368	MAJOR ESOPHAGEAL DISORDERS W MCC	Yes	Primary_Secondary
369	MAJOR ESOPHAGEAL DISORDERS W CC	Yes	Primary_Secondary
370	MAJOR ESOPHAGEAL DISORDERS W/O CC/MCC	Yes	Primary_Secondary
371	MAJOR GASTROINTESTINAL DISORDERS & PERITONEAL INFECTIONS W MCC	Yes	Primary_Secondary
372	MAJOR GASTROINTESTINAL DISORDERS & PERITONEAL INFECTIONS W CC	Yes	Primary_Secondary
373	MAJOR GASTROINTESTINAL DISORDERS & PERITONEAL INFECTIONS W/O CC/MCC	Yes	Primary_Secondary
374	DIGESTIVE MALIGNANCY W MCC	Yes	Tertiary
375	DIGESTIVE MALIGNANCY W CC	Yes	Tertiary
376	DIGESTIVE MALIGNANCY W/O CC/MCC	Yes	Primary_Secondary
377	G.I. HEMORRHAGE W MCC	Yes	Primary_Secondary
378	G.I. HEMORRHAGE W CC	Yes	Primary_Secondary
379	G.I. HEMORRHAGE W/O CC/MCC	Yes	Primary_Secondary
380	COMPLICATED PEPTIC ULCER W MCC	Yes	Primary_Secondary
381	COMPLICATED PEPTIC ULCER W CC	Yes	Primary_Secondary
382	COMPLICATED PEPTIC ULCER W/O CC/MCC	Yes	Primary_Secondary
383	UNCOMPLICATED PEPTIC ULCER W MCC	Yes	Primary_Secondary
384	UNCOMPLICATED PEPTIC ULCER W/O MCC	Yes	Primary_Secondary
385	INFLAMMATORY BOWEL DISEASE W MCC	Yes	Primary_Secondary
386	INFLAMMATORY BOWEL DISEASE W CC	Yes	Primary_Secondary
387	INFLAMMATORY BOWEL DISEASE W/O CC/MCC	Yes	Primary_Secondary
388	G.I. OBSTRUCTION W MCC	Yes	Primary_Secondary
389	G.I. OBSTRUCTION W CC	Yes	Primary_Secondary
390	G.I. OBSTRUCTION W/O CC/MCC	Yes	Primary_Secondary
391	ESOPHAGITIS, GASTROENT & MISC DIGEST DISORDERS W MCC	Yes	Primary_Secondary
392	ESOPHAGITIS, GASTROENT & MISC DIGEST DISORDERS W/O MCC	Yes	Primary_Secondary
393	OTHER DIGESTIVE SYSTEM DIAGNOSES W MCC	Yes	Primary_Secondary
394	OTHER DIGESTIVE SYSTEM DIAGNOSES W CC	Yes	Primary_Secondary
395	OTHER DIGESTIVE SYSTEM DIAGNOSES W/O CC/MCC	Yes	Primary_Secondary
405	PANCREAS, LIVER & SHUNT PROCEDURES W MCC	No	
406	PANCREAS, LIVER & SHUNT PROCEDURES W CC	No	
407	PANCREAS, LIVER & SHUNT PROCEDURES W/O CC/MCC	No	
408	BILIARY TRACT PROC EXCEPT ONLY CHOLECYST W OR W/O C.D.E. W MCC	No	
409	BILIARY TRACT PROC EXCEPT ONLY CHOLECYST W OR W/O C.D.E. W CC	No	
410	BILIARY TRACT PROC EXCEPT ONLY CHOLECYST W OR W/O C.D.E. W/O CC/MCC	Yes	Primary_Secondary
411	CHOLECYSTECTOMY W C.D.E. W MCC	No	
412	CHOLECYSTECTOMY W C.D.E. W CC	No	
413	CHOLECYSTECTOMY W C.D.E. W/O CC/MCC	Yes	Primary_Secondary
414	CHOLECYSTECTOMY EXCEPT BY LAPAROSCOPE W/O C.D.E. W MCC	No	
415	CHOLECYSTECTOMY EXCEPT BY LAPAROSCOPE W/O C.D.E. W CC	No	
416	CHOLECYSTECTOMY EXCEPT BY LAPAROSCOPE W/O C.D.E. W/O CC/MCC	Yes	Primary_Secondary
417	LAPAROSCOPIC CHOLECYSTECTOMY W/O C.D.E. W MCC	Yes	Primary_Secondary
418	LAPAROSCOPIC CHOLECYSTECTOMY W/O C.D.E. W CC	Yes	Primary_Secondary
419	LAPAROSCOPIC CHOLECYSTECTOMY W/O C.D.E. W/O CC/MCC	Yes	Primary_Secondary
420	HEPATOBILIARY DIAGNOSTIC PROCEDURES W MCC	No	
421	HEPATOBILIARY DIAGNOSTIC PROCEDURES W CC	Yes	Tertiary
422	HEPATOBILIARY DIAGNOSTIC PROCEDURES W/O CC/MCC	Yes	Tertiary
423	OTHER HEPATOBILIARY OR PANCREAS O.R. PROCEDURES W MCC	No	
424	OTHER HEPATOBILIARY OR PANCREAS O.R. PROCEDURES W CC	No	
425	OTHER HEPATOBILIARY OR PANCREAS O.R. PROCEDURES W/O CC/MCC	Yes	Tertiary
432	CIRRHOSIS & ALCOHOLIC HEPATITIS W MCC	Yes	Primary_Secondary
433	CIRRHOSIS & ALCOHOLIC HEPATITIS W CC	Yes	Primary_Secondary
434	CIRRHOSIS & ALCOHOLIC HEPATITIS W/O CC/MCC	Yes	Primary_Secondary
435	MALIGNANCY OF HEPATOBILIARY SYSTEM OR PANCREAS W MCC	Yes	Primary_Secondary
436	MALIGNANCY OF HEPATOBILIARY SYSTEM OR PANCREAS W CC	Yes	Primary_Secondary

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437	MALIGNANCY OF HEPATOBILIARY SYSTEM OR PANCREAS W/O CC/MCC	Yes	Primary_Secondary
438	DISORDERS OF PANCREAS EXCEPT MALIGNANCY W MCC	Yes	Primary_Secondary
439	DISORDERS OF PANCREAS EXCEPT MALIGNANCY W CC	Yes	Primary_Secondary
440	DISORDERS OF PANCREAS EXCEPT MALIGNANCY W/O CC/MCC	Yes	Primary_Secondary
441	DISORDERS OF LIVER EXCEPT MALIG, CIRR, ALC HEPA W MCC	Yes	Primary_Secondary
442	DISORDERS OF LIVER EXCEPT MALIG, CIRR, ALC HEPA W CC	Yes	Primary_Secondary
443	DISORDERS OF LIVER EXCEPT MALIG, CIRR, ALC HEPA W/O CC/MCC	Yes	Primary_Secondary
444	DISORDERS OF THE BILIARY TRACT W MCC	Yes	Primary_Secondary
445	DISORDERS OF THE BILIARY TRACT W CC	Yes	Primary_Secondary
446	DISORDERS OF THE BILIARY TRACT W/O CC/MCC	Yes	Primary_Secondary
453	COMBINED ANTERIOR/POSTERIOR SPINAL FUSION W MCC	No	
454	COMBINED ANTERIOR/POSTERIOR SPINAL FUSION W CC	No	
455	COMBINED ANTERIOR/POSTERIOR SPINAL FUSION W/O CC/MCC	No	
456	SPINAL FUS EXC CERV W SPINAL CURV/MALIG/INFEC OR EXT FUS W MCC	No	
457	SPINAL FUS EXC CERV W SPINAL CURV/MALIG/INFEC OR EXT FUS W CC	No	
458	SPINAL FUS EXC CERV W SPINAL CURV/MALIG/INFEC OR EXT FUS W/O CC/MCC	No	
459	SPINAL FUSION EXCEPT CERVICAL W MCC	No	
460	SPINAL FUSION EXCEPT CERVICAL W/O MCC	No	
461	BILATERAL OR MULTIPLE MAJOR JOINT PROCS OF LOWER EXTREMITY W MCC	No	
462	BILATERAL OR MULTIPLE MAJOR JOINT PROCS OF LOWER EXTREMITY W/O MCC	No	
463	WND DEBRID & SKN GRFT EXC HAND, FOR MUSCULO-CONN TISS DIS W MCC	Yes	Tertiary
464	WND DEBRID & SKN GRFT EXC HAND, FOR MUSCULO-CONN TISS DIS W CC	No	
465	WND DEBRID & SKN GRFT EXC HAND, FOR MUSCULO-CONN TISS DIS W/O CC/MCC	Yes	Tertiary
466	REVISION OF HIP OR KNEE REPLACEMENT W MCC	No	
467	REVISION OF HIP OR KNEE REPLACEMENT W CC	No	
468	REVISION OF HIP OR KNEE REPLACEMENT W/O CC/MCC	Yes	Tertiary
469	MAJOR HIP AND KNEE JOINT REPLACEMENT OR REATTACHMENT OF LOWER EXTREMITY W MCC (	Yes	Primary_Secondary
470	MAJOR HIP AND KNEE JOINT REPLACEMENT OR REATTACHMENT OF LOWER EXTREMITY W/O MC	Yes	Primary_Secondary
471	CERVICAL SPINAL FUSION W MCC	No	
472	CERVICAL SPINAL FUSION W CC	No	
473	CERVICAL SPINAL FUSION W/O CC/MCC	No	
474	AMPUTATION FOR MUSCULOSKELETAL SYS & CONN TISSUE DIS W MCC	No	
475	AMPUTATION FOR MUSCULOSKELETAL SYS & CONN TISSUE DIS W CC	No	
476	AMPUTATION FOR MUSCULOSKELETAL SYS & CONN TISSUE DIS W/O CC/MCC	Yes	Tertiary
477	BIOPSIES OF MUSCULOSKELETAL SYSTEM & CONNECTIVE TISSUE W MCC	No	
478	BIOPSIES OF MUSCULOSKELETAL SYSTEM & CONNECTIVE TISSUE W CC	No	
479	BIOPSIES OF MUSCULOSKELETAL SYSTEM & CONNECTIVE TISSUE W/O CC/MCC	Yes	Tertiary
480	HIP & FEMUR PROCEDURES EXCEPT MAJOR JOINT W MCC	Yes	Tertiary
481	HIP & FEMUR PROCEDURES EXCEPT MAJOR JOINT W CC	Yes	Tertiary
482	HIP & FEMUR PROCEDURES EXCEPT MAJOR JOINT W/O CC/MCC	Yes	Tertiary
483	MAJOR JOINT/LIMB REATTACHMENT PROCEDURE OF UPPER EXTREMITIES	Yes	Tertiary
485	KNEE PROCEDURES W PDX OF INFECTION W MCC	No	
486	KNEE PROCEDURES W PDX OF INFECTION W CC	No	
487	KNEE PROCEDURES W PDX OF INFECTION W/O CC/MCC	Yes	Primary_Secondary
488	KNEE PROCEDURES W/O PDX OF INFECTION W CC/MCC	Yes	Tertiary
489	KNEE PROCEDURES W/O PDX OF INFECTION W/O CC/MCC	Yes	Tertiary
492	LOWER EXTREM & HUMER PROC EXCEPT HIP, FOOT, FEMUR W MCC	Yes	Tertiary
493	LOWER EXTREM & HUMER PROC EXCEPT HIP, FOOT, FEMUR W CC	Yes	Tertiary
494	LOWER EXTREM & HUMER PROC EXCEPT HIP, FOOT, FEMUR W/O CC/MCC	Yes	Primary_Secondary
495	LOCAL EXCISION & REMOVAL INT FIX DEVICES EXC HIP & FEMUR W MCC	No	
496	LOCAL EXCISION & REMOVAL INT FIX DEVICES EXC HIP & FEMUR W CC	No	
497	LOCAL EXCISION & REMOVAL INT FIX DEVICES EXC HIP & FEMUR W/O CC/MCC	Yes	Primary_Secondary
498	LOCAL EXCISION & REMOVAL INT FIX DEVICES OF HIP & FEMUR W CC/MCC	No	
499	LOCAL EXCISION & REMOVAL INT FIX DEVICES OF HIP & FEMUR W/O CC/MCC	Yes	Tertiary
500	SOFT TISSUE PROCEDURES W MCC	No	
501	SOFT TISSUE PROCEDURES W CC	Yes	Tertiary
502	SOFT TISSUE PROCEDURES W/O CC/MCC	Yes	Primary_Secondary
503	FOOT PROCEDURES W MCC	No	

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504	FOOT PROCEDURES W CC	Yes	Primary_Secondary
505	FOOT PROCEDURES W/O CC/MCC	Yes	Primary_Secondary
506	MAJOR THUMB OR JOINT PROCEDURES	Yes	Primary_Secondary
507	MAJOR SHOULDER OR ELBOW JOINT PROCEDURES W CC/MCC	No	
508	MAJOR SHOULDER OR ELBOW JOINT PROCEDURES W/O CC/MCC	Yes	Tertiary
509	ARTHROSCOPY	Yes	Primary_Secondary
510	SHOULDER, ELBOW OR FOREARM PROC, EXC MAJOR JOINT PROC W MCC	No	
511	SHOULDER, ELBOW OR FOREARM PROC, EXC MAJOR JOINT PROC W CC	Yes	Primary_Secondary
512	SHOULDER, ELBOW OR FOREARM PROC, EXC MAJOR JOINT PROC W/O CC/MCC	Yes	Primary_Secondary
513	HAND OR WRIST PROC, EXCEPT MAJOR THUMB OR JOINT PROC W CC/MCC	Yes	Primary_Secondary
514	HAND OR WRIST PROC, EXCEPT MAJOR THUMB OR JOINT PROC W/O CC/MCC	Yes	Primary_Secondary
515	OTHER MUSCULOSKELET SYS & CONN TISS O.R. PROC W MCC	Yes	Tertiary
516	OTHER MUSCULOSKELET SYS & CONN TISS O.R. PROC W CC	Yes	Tertiary
517	OTHER MUSCULOSKELET SYS & CONN TISS O.R. PROC W/O CC/MCC	Yes	Tertiary
518	BACK & NECK PROC EXC SPINAL FUSION W MCC OR DISC DEVICE/NEUROSTIM	No	
519	BACK & NECK PROC EXC SPINAL FUSION W CC	No	
520	BACK & NECK PROC EXC SPINAL FUSION W/O CC/MCC	No	
533	FRACTURES OF FEMUR W MCC	Yes	Primary_Secondary
534	FRACTURES OF FEMUR W/O MCC	Yes	Primary_Secondary
535	FRACTURES OF HIP & PELVIS W MCC	Yes	Primary_Secondary
536	FRACTURES OF HIP & PELVIS W/O MCC	Yes	Primary_Secondary
537	SPRAINS, STRAINS, & DISLOCATIONS OF HIP, PELVIS & THIGH W CC/MCC	Yes	Primary_Secondary
538	SPRAINS, STRAINS, & DISLOCATIONS OF HIP, PELVIS & THIGH W/O CC/MCC	Yes	Primary_Secondary
539	OSTEOMYELITIS W MCC	Yes	Tertiary
540	OSTEOMYELITIS W CC	Yes	Tertiary
541	OSTEOMYELITIS W/O CC/MCC	Yes	Tertiary
542	PATHOLOGICAL FRACTURES & MUSCULOSKELET & CONN TISS MALIG W MCC	Yes	Tertiary
543	PATHOLOGICAL FRACTURES & MUSCULOSKELET & CONN TISS MALIG W CC	Yes	Tertiary
544	PATHOLOGICAL FRACTURES & MUSCULOSKELET & CONN TISS MALIG W/O CC/MCC	Yes	Tertiary
545	CONNECTIVE TISSUE DISORDERS W MCC	No	
546	CONNECTIVE TISSUE DISORDERS W CC	Yes	Primary_Secondary
547	CONNECTIVE TISSUE DISORDERS W/O CC/MCC	Yes	Primary_Secondary
548	SEPTIC ARTHRITIS W MCC	Yes	Primary_Secondary
549	SEPTIC ARTHRITIS W CC	Yes	Primary_Secondary
550	SEPTIC ARTHRITIS W/O CC/MCC	Yes	Primary_Secondary
551	MEDICAL BACK PROBLEMS W MCC	No	
552	MEDICAL BACK PROBLEMS W/O MCC	No	
553	BONE DISEASES & ARTHROPATHIES W MCC	Yes	Primary_Secondary
554	BONE DISEASES & ARTHROPATHIES W/O MCC	Yes	Primary_Secondary
555	SIGNS & SYMPTOMS OF MUSCULOSKELETAL SYSTEM & CONN TISSUE W MCC	Yes	Primary_Secondary
556	SIGNS & SYMPTOMS OF MUSCULOSKELETAL SYSTEM & CONN TISSUE W/O MCC	Yes	Primary_Secondary
557	TENDONITIS, MYOSITIS & BURSITIS W MCC	Yes	Primary_Secondary
558	TENDONITIS, MYOSITIS & BURSITIS W/O MCC	Yes	Primary_Secondary
559	AFTERCARE, MUSCULOSKELETAL SYSTEM & CONNECTIVE TISSUE W MCC	Yes	Primary_Secondary
560	AFTERCARE, MUSCULOSKELETAL SYSTEM & CONNECTIVE TISSUE W CC	Yes	Primary_Secondary
561	AFTERCARE, MUSCULOSKELETAL SYSTEM & CONNECTIVE TISSUE W/O CC/MCC	Yes	Primary_Secondary
562	FX, SPRN, STRN & DISL EXCEPT FEMUR, HIP, PELVIS & THIGH W MCC	Yes	Primary_Secondary
563	FX, SPRN, STRN & DISL EXCEPT FEMUR, HIP, PELVIS & THIGH W/O MCC	Yes	Primary_Secondary
564	OTHER MUSCULOSKELETAL SYS & CONNECTIVE TISSUE DIAGNOSES W MCC	Yes	Primary_Secondary
565	OTHER MUSCULOSKELETAL SYS & CONNECTIVE TISSUE DIAGNOSES W CC	Yes	Primary_Secondary
566	OTHER MUSCULOSKELETAL SYS & CONNECTIVE TISSUE DIAGNOSES W/O CC/MCC	Yes	Primary_Secondary
570	SKIN DEBRIDEMENT W MCC	No	
571	SKIN DEBRIDEMENT W CC	Yes	Tertiary
572	SKIN DEBRIDEMENT W/O CC/MCC	Yes	Primary_Secondary
573	SKIN GRAFT FOR SKIN ULCER OR CELLULITIS W MCC	No	
574	SKIN GRAFT FOR SKIN ULCER OR CELLULITIS W CC	No	
575	SKIN GRAFT FOR SKIN ULCER OR CELLULITIS W/O CC/MCC	Yes	Primary_Secondary
576	SKIN GRAFT EXC FOR SKIN ULCER OR CELLULITIS W MCC	No	

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577	SKIN GRAFT EXC FOR SKIN ULCER OR CELLULITIS W CC	No	
578	SKIN GRAFT EXC FOR SKIN ULCER OR CELLULITIS W/O CC/MCC	Yes	Primary_Secondary
579	OTHER SKIN, SUBCUT TISS & BREAST PROC W MCC	Yes	Primary_Secondary
580	OTHER SKIN, SUBCUT TISS & BREAST PROC W CC	Yes	Primary_Secondary
581	OTHER SKIN, SUBCUT TISS & BREAST PROC W/O CC/MCC	Yes	Primary_Secondary
582	MASTECTOMY FOR MALIGNANCY W CC/MCC	Yes	Primary_Secondary
583	MASTECTOMY FOR MALIGNANCY W/O CC/MCC	Yes	Primary_Secondary
584	BREAST BIOPSY, LOCAL EXCISION & OTHER BREAST PROCEDURES W CC/MCC	Yes	Primary_Secondary
585	BREAST BIOPSY, LOCAL EXCISION & OTHER BREAST PROCEDURES W/O CC/MCC	Yes	Primary_Secondary
592	SKIN ULCERS W MCC	Yes	Primary_Secondary
593	SKIN ULCERS W CC	Yes	Primary_Secondary
594	SKIN ULCERS W/O CC/MCC	Yes	Primary_Secondary
595	MAJOR SKIN DISORDERS W MCC	No	
596	MAJOR SKIN DISORDERS W/O MCC	Yes	Primary_Secondary
597	MALIGNANT BREAST DISORDERS W MCC	Yes	Primary_Secondary
598	MALIGNANT BREAST DISORDERS W CC	Yes	Primary_Secondary
599	MALIGNANT BREAST DISORDERS W/O CC/MCC	Yes	Primary_Secondary
600	NON-MALIGNANT BREAST DISORDERS W CC/MCC	Yes	Primary_Secondary
601	NON-MALIGNANT BREAST DISORDERS W/O CC/MCC	Yes	Primary_Secondary
602	CELLULITIS W MCC	Yes	Primary_Secondary
603	CELLULITIS W/O MCC	Yes	Primary_Secondary
604	TRAUMA TO THE SKIN, SUBCUT TISS & BREAST W MCC	Yes	Primary_Secondary
605	TRAUMA TO THE SKIN, SUBCUT TISS & BREAST W/O MCC	Yes	Primary_Secondary
606	MINOR SKIN DISORDERS W MCC	Yes	Primary_Secondary
607	MINOR SKIN DISORDERS W/O MCC	Yes	Primary_Secondary
614	ADRENAL & PITUITARY PROCEDURES W CC/MCC	No	
615	ADRENAL & PITUITARY PROCEDURES W/O CC/MCC	No	
616	AMPUTAT OF LOWER LIMB FOR ENDOCRINE, NUTRIT, & METABOL DIS W MCC	No	
617	AMPUTAT OF LOWER LIMB FOR ENDOCRINE, NUTRIT, & METABOL DIS W CC	No	
618	AMPUTAT OF LOWER LIMB FOR ENDOCRINE, NUTRIT, & METABOL DIS W/O CC/MCC	Yes	Tertiary
619	O.R. PROCEDURES FOR OBESITY W MCC	No	
620	O.R. PROCEDURES FOR OBESITY W CC	Yes	Tertiary
621	O.R. PROCEDURES FOR OBESITY W/O CC/MCC	Yes	Tertiary
622	SKIN GRAFTS & WOUND DEBRID FOR ENDOC, NUTRIT & METAB DIS W MCC	No	
623	SKIN GRAFTS & WOUND DEBRID FOR ENDOC, NUTRIT & METAB DIS W CC	Yes	Tertiary
624	SKIN GRAFTS & WOUND DEBRID FOR ENDOC, NUTRIT & METAB DIS W/O CC/MCC	Yes	Tertiary
625	THYROID, PARATHYROID & THYROGLOSSAL PROCEDURES W MCC	No	
626	THYROID, PARATHYROID & THYROGLOSSAL PROCEDURES W CC	Yes	Primary_Secondary
627	THYROID, PARATHYROID & THYROGLOSSAL PROCEDURES W/O CC/MCC	Yes	Primary_Secondary
628	OTHER ENDOCRINE, NUTRIT & METAB O.R. PROC W MCC	No	
629	OTHER ENDOCRINE, NUTRIT & METAB O.R. PROC W CC	No	
630	OTHER ENDOCRINE, NUTRIT & METAB O.R. PROC W/O CC/MCC	Yes	Primary_Secondary
637	DIABETES W MCC	Yes	Primary_Secondary
638	DIABETES W CC	Yes	Primary_Secondary
639	DIABETES W/O CC/MCC	Yes	Primary_Secondary
640	MISC DISORDERS OF NUTRITION, METABOLISM, FLUIDS/ELECTROLYTES W MCC	Yes	Primary_Secondary
641	MISC DISORDERS OF NUTRITION, METABOLISM, FLUIDS/ELECTROLYTES W/O MCC	Yes	Primary_Secondary
642	INBORN AND OTHER DISORDERS OF METABOLISM	Yes	Primary_Secondary
643	ENDOCRINE DISORDERS W MCC	Yes	Primary_Secondary
644	ENDOCRINE DISORDERS W CC	Yes	Primary_Secondary
645	ENDOCRINE DISORDERS W/O CC/MCC	Yes	Primary_Secondary
652	KIDNEY TRANSPLANT	No	
653	MAJOR BLADDER PROCEDURES W MCC	No	
654	MAJOR BLADDER PROCEDURES W CC	No	
655	MAJOR BLADDER PROCEDURES W/O CC/MCC	No	
656	KIDNEY & URETER PROCEDURES FOR NEOPLASM W MCC	No	
657	KIDNEY & URETER PROCEDURES FOR NEOPLASM W CC	Yes	Tertiary
658	KIDNEY & URETER PROCEDURES FOR NEOPLASM W/O CC/MCC	Yes	Tertiary

MS-DRG	MS-DRG Title	NHSCMC LAC DRG	Adult Acuity Designation
659	KIDNEY & URETER PROCEDURES FOR NON-NEOPLASM W MCC	Yes	Tertiary
660	KIDNEY & URETER PROCEDURES FOR NON-NEOPLASM W CC	Yes	Tertiary
661	KIDNEY & URETER PROCEDURES FOR NON-NEOPLASM W/O CC/MCC	Yes	Primary_Secondary
662	MINOR BLADDER PROCEDURES W MCC	No	
663	MINOR BLADDER PROCEDURES W CC	Yes	Primary_Secondary
664	MINOR BLADDER PROCEDURES W/O CC/MCC	Yes	Primary_Secondary
665	PROSTATECTOMY W MCC	No	
666	PROSTATECTOMY W CC	Yes	Primary_Secondary
667	PROSTATECTOMY W/O CC/MCC	Yes	Primary_Secondary
668	TRANSURETHRAL PROCEDURES W MCC	No	
669	TRANSURETHRAL PROCEDURES W CC	Yes	Primary_Secondary
670	TRANSURETHRAL PROCEDURES W/O CC/MCC	Yes	Primary_Secondary
671	URETHRAL PROCEDURES W CC/MCC	Yes	Primary_Secondary
672	URETHRAL PROCEDURES W/O CC/MCC	Yes	Primary_Secondary
673	OTHER KIDNEY & URINARY TRACT PROCEDURES W MCC	Yes	Tertiary
674	OTHER KIDNEY & URINARY TRACT PROCEDURES W CC	No	
675	OTHER KIDNEY & URINARY TRACT PROCEDURES W/O CC/MCC	Yes	Tertiary
682	RENAL FAILURE W MCC	Yes	Primary_Secondary
683	RENAL FAILURE W CC	Yes	Primary_Secondary
684	RENAL FAILURE W/O CC/MCC	Yes	Primary_Secondary
686	KIDNEY & URINARY TRACT NEOPLASMS W MCC	Yes	Primary_Secondary
687	KIDNEY & URINARY TRACT NEOPLASMS W CC	Yes	Primary_Secondary
688	KIDNEY & URINARY TRACT NEOPLASMS W/O CC/MCC	Yes	Primary_Secondary
689	KIDNEY & URINARY TRACT INFECTIONS W MCC	Yes	Primary_Secondary
690	KIDNEY & URINARY TRACT INFECTIONS W/O MCC	Yes	Primary_Secondary
693	URINARY STONES W MCC	Yes	Primary_Secondary
694	URINARY STONES W/O MCC	Yes	Primary_Secondary
695	KIDNEY & URINARY TRACT SIGNS & SYMPTOMS W MCC	Yes	Primary_Secondary
696	KIDNEY & URINARY TRACT SIGNS & SYMPTOMS W/O MCC	Yes	Primary_Secondary
697	URETHRAL STRICTURE	Yes	Primary_Secondary
698	OTHER KIDNEY & URINARY TRACT DIAGNOSES W MCC	Yes	Primary_Secondary
699	OTHER KIDNEY & URINARY TRACT DIAGNOSES W CC	Yes	Primary_Secondary
700	OTHER KIDNEY & URINARY TRACT DIAGNOSES W/O CC/MCC	Yes	Primary_Secondary
707	MAJOR MALE PELVIC PROCEDURES W CC/MCC	Yes	Primary_Secondary
708	MAJOR MALE PELVIC PROCEDURES W/O CC/MCC	Yes	Primary_Secondary
709	PENIS PROCEDURES W CC/MCC	Yes	Tertiary
710	PENIS PROCEDURES W/O CC/MCC	Yes	Tertiary
711	TESTES PROCEDURES W CC/MCC	No	
712	TESTES PROCEDURES W/O CC/MCC	Yes	Primary_Secondary
713	TRANSURETHRAL PROSTATECTOMY W CC/MCC	Yes	Primary_Secondary
714	TRANSURETHRAL PROSTATECTOMY W/O CC/MCC	Yes	Primary_Secondary
715	OTHER MALE REPRODUCTIVE SYSTEM O.R. PROC FOR MALIGNANCY W CC/MCC	No	
716	OTHER MALE REPRODUCTIVE SYSTEM O.R. PROC FOR MALIGNANCY W/O CC/MCC	Yes	Primary_Secondary
717	OTHER MALE REPRODUCTIVE SYSTEM O.R. PROC EXC MALIGNANCY W CC/MCC	Yes	Primary_Secondary
718	OTHER MALE REPRODUCTIVE SYSTEM O.R. PROC EXC MALIGNANCY W/O CC/MCC	Yes	Primary_Secondary
722	MALIGNANCY, MALE REPRODUCTIVE SYSTEM W MCC	Yes	Primary_Secondary
723	MALIGNANCY, MALE REPRODUCTIVE SYSTEM W CC	Yes	Primary_Secondary
724	MALIGNANCY, MALE REPRODUCTIVE SYSTEM W/O CC/MCC	Yes	Primary_Secondary
725	BENIGN PROSTATIC HYPERTROPHY W MCC	Yes	Primary_Secondary
726	BENIGN PROSTATIC HYPERTROPHY W/O MCC	Yes	Primary_Secondary
727	INFLAMMATION OF THE MALE REPRODUCTIVE SYSTEM W MCC	Yes	Primary_Secondary
728	INFLAMMATION OF THE MALE REPRODUCTIVE SYSTEM W/O MCC	Yes	Primary_Secondary
729	OTHER MALE REPRODUCTIVE SYSTEM DIAGNOSES W CC/MCC	Yes	Primary_Secondary
730	OTHER MALE REPRODUCTIVE SYSTEM DIAGNOSES W/O CC/MCC	Yes	Primary_Secondary
734	PELVIC EVISCERATION, RAD HYSTERECTOMY & RAD VULVECTOMY W CC/MCC	No	
735	PELVIC EVISCERATION, RAD HYSTERECTOMY & RAD VULVECTOMY W/O CC/MCC	Yes	Tertiary
736	UTERINE & ADNEXA PROC FOR OVARIAN OR ADNEXAL MALIGNANCY W MCC	No	
737	UTERINE & ADNEXA PROC FOR OVARIAN OR ADNEXAL MALIGNANCY W CC	Yes	Tertiary

MS-DRG	MS-DRG Title	NHSCMC LAC DRG	Adult Acuity Designation
738	UTERINE & ADNEXA PROC FOR OVARIAN OR ADNEXAL MALIGNANCY W/O CC/MCC	Yes	Tertiary
739	UTERINE, ADNEXA PROC FOR NON-OVARIAN/ADNEXAL MALIG W MCC	No	
740	UTERINE, ADNEXA PROC FOR NON-OVARIAN/ADNEXAL MALIG W CC	Yes	Tertiary
741	UTERINE, ADNEXA PROC FOR NON-OVARIAN/ADNEXAL MALIG W/O CC/MCC	Yes	Primary_Secondary
742	UTERINE & ADNEXA PROC FOR NON-MALIGNANCY W CC/MCC	Yes	Primary_Secondary
743	UTERINE & ADNEXA PROC FOR NON-MALIGNANCY W/O CC/MCC	Yes	Primary_Secondary
744	D&C, CONIZATION, LAPAROSCOPY & TUBAL INTERRUPTION W CC/MCC	Yes	Primary_Secondary
745	D&C, CONIZATION, LAPAROSCOPY & TUBAL INTERRUPTION W/O CC/MCC	Yes	Primary_Secondary
746	VAGINA, CERVIX & VULVA PROCEDURES W CC/MCC	Yes	Primary_Secondary
747	VAGINA, CERVIX & VULVA PROCEDURES W/O CC/MCC	Yes	Primary_Secondary
748	FEMALE REPRODUCTIVE SYSTEM RECONSTRUCTIVE PROCEDURES	Yes	Primary_Secondary
749	OTHER FEMALE REPRODUCTIVE SYSTEM O.R. PROCEDURES W CC/MCC	No	
750	OTHER FEMALE REPRODUCTIVE SYSTEM O.R. PROCEDURES W/O CC/MCC	Yes	Tertiary
754	MALIGNANCY, FEMALE REPRODUCTIVE SYSTEM W MCC	Yes	Tertiary
755	MALIGNANCY, FEMALE REPRODUCTIVE SYSTEM W CC	Yes	Tertiary
756	MALIGNANCY, FEMALE REPRODUCTIVE SYSTEM W/O CC/MCC	Yes	Primary_Secondary
757	INFECTIONS, FEMALE REPRODUCTIVE SYSTEM W MCC	Yes	Primary_Secondary
758	INFECTIONS, FEMALE REPRODUCTIVE SYSTEM W CC	Yes	Primary_Secondary
759	INFECTIONS, FEMALE REPRODUCTIVE SYSTEM W/O CC/MCC	Yes	Primary_Secondary
760	MENSTRUAL & OTHER FEMALE REPRODUCTIVE SYSTEM DISORDERS W CC/MCC	Yes	Primary_Secondary
761	MENSTRUAL & OTHER FEMALE REPRODUCTIVE SYSTEM DISORDERS W/O CC/MCC	Yes	Primary_Secondary
768	VAGINAL DELIVERY W O.R. PROC EXCEPT STERIL &/OR D&C	Yes	Primary_Secondary
769	POSTPARTUM & POST ABORTION DIAGNOSES W O.R. PROCEDURE	Yes	Primary_Secondary
770	ABORTION W D&C, ASPIRATION CURETTAGE OR HYSTEROTOMY	Yes	Primary_Secondary
776	POSTPARTUM & POST ABORTION DIAGNOSES W/O O.R. PROCEDURE	Yes	Primary_Secondary
779	ABORTION W/O D&C	Yes	Primary_Secondary
783	CESAREAN SECTION W STERILIZATION W MCC	Yes	Primary_Secondary
784	CESAREAN SECTION W STERILIZATION W CC	Yes	Primary_Secondary
785	CESAREAN SECTION W STERILIZATION W/O CC/MCC	Yes	Primary_Secondary
786	CESAREAN SECTION W/O STERILIZATION W MCC	Yes	Primary_Secondary
787	CESAREAN SECTION W/O STERILIZATION W CC	Yes	Primary_Secondary
788	CESAREAN SECTION W/O STERILIZATION W/O CC/MCC	Yes	Primary_Secondary
789	NEONATES, DIED OR TRANSFERRED TO ANOTHER ACUTE CARE FACILITY	No	
790	EXTREME IMMATURITY OR RESPIRATORY DISTRESS SYNDROME, NEONATE	No	
791	PREMATURITY W MAJOR PROBLEMS	No	
792	PREMATURITY W/O MAJOR PROBLEMS	No	
793	FULL TERM NEONATE W MAJOR PROBLEMS	No	
794	NEONATE W OTHER SIGNIFICANT PROBLEMS	No	
795	NORMAL NEWBORN	No	
796	VAGINAL DELIVERY W STERILIZATION/D&C W MCC	Yes	Primary_Secondary
797	VAGINAL DELIVERY W STERILIZATION/D&C W CC	Yes	Primary_Secondary
798	VAGINAL DELIVERY W STERILIZATION/D&C W/O CC/MCC	Yes	Primary_Secondary
799	SPLENECTOMY W MCC	No	
800	SPLENECTOMY W CC	No	
801	SPLENECTOMY W/O CC/MCC	Yes	Tertiary
802	OTHER O.R. PROC OF THE BLOOD & BLOOD FORMING ORGANS W MCC	No	
803	OTHER O.R. PROC OF THE BLOOD & BLOOD FORMING ORGANS W CC	Yes	Tertiary
804	OTHER O.R. PROC OF THE BLOOD & BLOOD FORMING ORGANS W/O CC/MCC	Yes	Tertiary
805	VAGINAL DELIVERY W/O STERILIZATION/D&C W MCC	Yes	Primary_Secondary
806	VAGINAL DELIVERY W/O STERILIZATION/D&C W CC	Yes	Primary_Secondary
807	VAGINAL DELIVERY W/O STERILIZATION/D&C W/O CC/MCC	Yes	Primary_Secondary
808	MAJOR HEMATOL/IMMUN DIAG EXC SICKLE CELL CRISIS & COAGUL W MCC	Yes	Tertiary
809	MAJOR HEMATOL/IMMUN DIAG EXC SICKLE CELL CRISIS & COAGUL W CC	Yes	Tertiary
810	MAJOR HEMATOL/IMMUN DIAG EXC SICKLE CELL CRISIS & COAGUL W/O CC/MCC	Yes	Tertiary
811	RED BLOOD CELL DISORDERS W MCC	Yes	Primary_Secondary
812	RED BLOOD CELL DISORDERS W/O MCC	Yes	Primary_Secondary
813	COAGULATION DISORDERS	Yes	Primary_Secondary
814	RETICULOENDOTHELIAL & IMMUNITY DISORDERS W MCC	Yes	Tertiary

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815	RETICULOENDOTHELIAL & IMMUNITY DISORDERS W CC	Yes	Tertiary
816	RETICULOENDOTHELIAL & IMMUNITY DISORDERS W/O CC/MCC	Yes	Primary_Secondary
817	OTHER ANTEPARTUM DIAGNOSES W O.R. PROCEDURE W MCC	No	
818	OTHER ANTEPARTUM DIAGNOSES W O.R. PROCEDURE W CC	Yes	Primary_Secondary
819	OTHER ANTEPARTUM DIAGNOSES W O.R. PROCEDURE W/O CC/MCC	Yes	Primary_Secondary
820	LYMPHOMA & LEUKEMIA W MAJOR O.R. PROCEDURE W MCC	No	
821	LYMPHOMA & LEUKEMIA W MAJOR O.R. PROCEDURE W CC	No	
822	LYMPHOMA & LEUKEMIA W MAJOR O.R. PROCEDURE W/O CC/MCC	Yes	Tertiary
823	LYMPHOMA & NON-ACUTE LEUKEMIA W OTHER PROC W MCC	Yes	Tertiary
824	LYMPHOMA & NON-ACUTE LEUKEMIA W OTHER PROC W CC	No	
825	LYMPHOMA & NON-ACUTE LEUKEMIA W OTHER PROC W/O CC/MCC	Yes	Tertiary
826	MYELOPROLIF DISORD OR POORLY DIFF NEOPL W MAJ O.R. PROC W MCC	No	
827	MYELOPROLIF DISORD OR POORLY DIFF NEOPL W MAJ O.R. PROC W CC	No	
828	MYELOPROLIF DISORD OR POORLY DIFF NEOPL W MAJ O.R. PROC W/O CC/MCC	Yes	Tertiary
829	MYELOPROLIFERATIVE DISORDERS OR POORLY DIFFERENTIATED NEOPLASMS W OTHER PROCEDU	No	
830	MYELOPROLIFERATIVE DISORDERS OR POORLY DIFFERENTIATED NEOPLASMS W OTHER PROCEDU	Yes	Tertiary
831	OTHER ANTEPARTUM DIAGNOSES W/O O.R. PROCEDURE W MCC	Yes	Primary_Secondary
832	OTHER ANTEPARTUM DIAGNOSES W/O O.R. PROCEDURE W CC	Yes	Primary_Secondary
833	OTHER ANTEPARTUM DIAGNOSES W/O O.R. PROCEDURE W/O CC/MCC	Yes	Primary_Secondary
834	ACUTE LEUKEMIA W/O MAJOR O.R. PROCEDURE W MCC	No	
835	ACUTE LEUKEMIA W/O MAJOR O.R. PROCEDURE W CC	Yes	Tertiary
836	ACUTE LEUKEMIA W/O MAJOR O.R. PROCEDURE W/O CC/MCC	Yes	Tertiary
837	CHEMO W ACUTE LEUKEMIA AS SDX OR W HIGH DOSE CHEMO AGENT W MCC	No	
838	CHEMO W ACUTE LEUKEMIA AS SDX W CC OR HIGH DOSE CHEMO AGENT	No	
839	CHEMO W ACUTE LEUKEMIA AS SDX W/O CC/MCC	Yes	Tertiary
840	LYMPHOMA & NON-ACUTE LEUKEMIA W MCC	Yes	Tertiary
841	LYMPHOMA & NON-ACUTE LEUKEMIA W CC	Yes	Tertiary
842	LYMPHOMA & NON-ACUTE LEUKEMIA W/O CC/MCC	Yes	Tertiary
843	OTHER MYELOPROLIF DIS OR POORLY DIFF NEOPL DIAG W MCC	Yes	Tertiary
844	OTHER MYELOPROLIF DIS OR POORLY DIFF NEOPL DIAG W CC	Yes	Tertiary
845	OTHER MYELOPROLIF DIS OR POORLY DIFF NEOPL DIAG W/O CC/MCC	Yes	Tertiary
846	CHEMOTHERAPY W/O ACUTE LEUKEMIA AS SECONDARY DIAGNOSIS W MCC	No	
847	CHEMOTHERAPY W/O ACUTE LEUKEMIA AS SECONDARY DIAGNOSIS W CC	Yes	Tertiary
848	CHEMOTHERAPY W/O ACUTE LEUKEMIA AS SECONDARY DIAGNOSIS W/O CC/MCC	Yes	Tertiary
849	RADIOTHERAPY	No	
853	INFECTIOUS & PARASITIC DISEASES W O.R. PROCEDURE W MCC	Yes	Tertiary
854	INFECTIOUS & PARASITIC DISEASES W O.R. PROCEDURE W CC	Yes	Tertiary
855	INFECTIOUS & PARASITIC DISEASES W O.R. PROCEDURE W/O CC/MCC	Yes	Tertiary
856	POSTOPERATIVE OR POST-TRAUMATIC INFECTIONS W O.R. PROC W MCC	No	
857	POSTOPERATIVE OR POST-TRAUMATIC INFECTIONS W O.R. PROC W CC	No	
858	POSTOPERATIVE OR POST-TRAUMATIC INFECTIONS W O.R. PROC W/O CC/MCC	Yes	Tertiary
862	POSTOPERATIVE & POST-TRAUMATIC INFECTIONS W MCC	Yes	Primary_Secondary
863	POSTOPERATIVE & POST-TRAUMATIC INFECTIONS W/O MCC	Yes	Primary_Secondary
864	FEVER AND INFLAMMATORY CONDITIONS	Yes	Primary_Secondary
865	VIRAL ILLNESS W MCC	Yes	Primary_Secondary
866	VIRAL ILLNESS W/O MCC	Yes	Primary_Secondary
867	OTHER INFECTIOUS & PARASITIC DISEASES DIAGNOSES W MCC	No	
868	OTHER INFECTIOUS & PARASITIC DISEASES DIAGNOSES W CC	Yes	Primary_Secondary
869	OTHER INFECTIOUS & PARASITIC DISEASES DIAGNOSES W/O CC/MCC	Yes	Primary_Secondary
870	SEPTICEMIA OR SEVERE SEPSIS W MV >96 HOURS	No	
871	SEPTICEMIA OR SEVERE SEPSIS W/O MV >96 HOURS W MCC	Yes	Primary_Secondary
872	SEPTICEMIA OR SEVERE SEPSIS W/O MV >96 HOURS W/O MCC	Yes	Primary_Secondary
876	O.R. PROCEDURE W PRINCIPAL DIAGNOSES OF MENTAL ILLNESS	No	
880	ACUTE ADJUSTMENT REACTION & PSYCHOSOCIAL DYSFUNCTION	No	
881	DEPRESSIVE NEUROSES	No	
882	NEUROSES EXCEPT DEPRESSIVE	No	
883	DISORDERS OF PERSONALITY & IMPULSE CONTROL	No	
884	ORGANIC DISTURBANCES & INTELLECTUAL DISABILITY	No	

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885	PSYCHOSES	No	
886	BEHAVIORAL & DEVELOPMENTAL DISORDERS	No	
887	OTHER MENTAL DISORDER DIAGNOSES	No	
894	ALCOHOL/DRUG ABUSE OR DEPENDENCE, LEFT AMA	No	
895	ALCOHOL/DRUG ABUSE OR DEPENDENCE W REHABILITATION THERAPY	No	
896	ALCOHOL/DRUG ABUSE OR DEPENDENCE W/O REHABILITATION THERAPY W MCC	No	
897	ALCOHOL/DRUG ABUSE OR DEPENDENCE W/O REHABILITATION THERAPY W/O MCC	No	
901	WOUND DEBRIDEMENTS FOR INJURIES W MCC	No	
902	WOUND DEBRIDEMENTS FOR INJURIES W CC	Yes	Tertiary
903	WOUND DEBRIDEMENTS FOR INJURIES W/O CC/MCC	Yes	Tertiary
904	SKIN GRAFTS FOR INJURIES W CC/MCC	No	
905	SKIN GRAFTS FOR INJURIES W/O CC/MCC	Yes	Tertiary
906	HAND PROCEDURES FOR INJURIES	Yes	Primary_Secondary
907	OTHER O.R. PROCEDURES FOR INJURIES W MCC	Yes	Tertiary
908	OTHER O.R. PROCEDURES FOR INJURIES W CC	No	
909	OTHER O.R. PROCEDURES FOR INJURIES W/O CC/MCC	Yes	Primary_Secondary
913	TRAUMATIC INJURY W MCC	Yes	Primary_Secondary
914	TRAUMATIC INJURY W/O MCC	Yes	Primary_Secondary
915	ALLERGIC REACTIONS W MCC	Yes	Primary_Secondary
916	ALLERGIC REACTIONS W/O MCC	Yes	Primary_Secondary
917	POISONING & TOXIC EFFECTS OF DRUGS W MCC	No	
918	POISONING & TOXIC EFFECTS OF DRUGS W/O MCC	No	
919	COMPLICATIONS OF TREATMENT W MCC	Yes	Primary_Secondary
920	COMPLICATIONS OF TREATMENT W CC	Yes	Primary_Secondary
921	COMPLICATIONS OF TREATMENT W/O CC/MCC	Yes	Primary_Secondary
922	OTHER INJURY, POISONING & TOXIC EFFECT DIAG W MCC	Yes	Primary_Secondary
923	OTHER INJURY, POISONING & TOXIC EFFECT DIAG W/O MCC	Yes	Primary_Secondary
927	EXTENSIVE BURNS OR FULL THICKNESS BURNS W MV >96 HRS W SKIN GRAFT	No	
928	FULL THICKNESS BURN W SKIN GRAFT OR INHAL INJ W CC/MCC	No	
929	FULL THICKNESS BURN W SKIN GRAFT OR INHAL INJ W/O CC/MCC	No	
933	EXTENSIVE BURNS OR FULL THICKNESS BURNS W MV >96 HRS W/O SKIN GRAFT	No	
934	FULL THICKNESS BURN W/O SKIN GRAFT OR INHAL INJ	Yes	Primary_Secondary
935	NON-EXTENSIVE BURNS	Yes	Primary_Secondary
939	O.R. PROC W DIAGNOSES OF OTHER CONTACT W HEALTH SERVICES W MCC	No	
940	O.R. PROC W DIAGNOSES OF OTHER CONTACT W HEALTH SERVICES W CC	No	
941	O.R. PROC W DIAGNOSES OF OTHER CONTACT W HEALTH SERVICES W/O CC/MCC	Yes	Primary_Secondary
945	REHABILITATION W CC/MCC	No	
946	REHABILITATION W/O CC/MCC	No	
947	SIGNS & SYMPTOMS W MCC	Yes	Primary_Secondary
948	SIGNS & SYMPTOMS W/O MCC	Yes	Primary_Secondary
949	AFTERCARE W CC/MCC	Yes	Primary_Secondary
950	AFTERCARE W/O CC/MCC	Yes	Primary_Secondary
951	OTHER FACTORS INFLUENCING HEALTH STATUS	Yes	Primary_Secondary
955	CRANIOTOMY FOR MULTIPLE SIGNIFICANT TRAUMA	No	
956	LIMB REATTACHMENT, HIP & FEMUR PROC FOR MULTIPLE SIGNIFICANT TRAUMA	Yes	Tertiary
957	OTHER O.R. PROCEDURES FOR MULTIPLE SIGNIFICANT TRAUMA W MCC	No	
958	OTHER O.R. PROCEDURES FOR MULTIPLE SIGNIFICANT TRAUMA W CC	No	
959	OTHER O.R. PROCEDURES FOR MULTIPLE SIGNIFICANT TRAUMA W/O CC/MCC	No	
963	OTHER MULTIPLE SIGNIFICANT TRAUMA W MCC	No	
964	OTHER MULTIPLE SIGNIFICANT TRAUMA W CC	Yes	Tertiary
965	OTHER MULTIPLE SIGNIFICANT TRAUMA W/O CC/MCC	Yes	Tertiary
969	HIV W EXTENSIVE O.R. PROCEDURE W MCC	No	
970	HIV W EXTENSIVE O.R. PROCEDURE W/O MCC	No	
974	HIV W MAJOR RELATED CONDITION W MCC	No	
975	HIV W MAJOR RELATED CONDITION W CC	Yes	Primary_Secondary
976	HIV W MAJOR RELATED CONDITION W/O CC/MCC	Yes	Primary_Secondary
977	HIV W OR W/O OTHER RELATED CONDITION	Yes	Primary_Secondary
981	EXTENSIVE O.R. PROCEDURE UNRELATED TO PRINCIPAL DIAGNOSIS W MCC	No	

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982	EXTENSIVE O.R. PROCEDURE UNRELATED TO PRINCIPAL DIAGNOSIS W CC	No	
983	EXTENSIVE O.R. PROCEDURE UNRELATED TO PRINCIPAL DIAGNOSIS W/O CC/MCC	Yes	Tertiary
987	NON-EXTENSIVE O.R. PROC UNRELATED TO PRINCIPAL DIAGNOSIS W MCC	Yes	Tertiary
988	NON-EXTENSIVE O.R. PROC UNRELATED TO PRINCIPAL DIAGNOSIS W CC	Yes	Tertiary
989	NON-EXTENSIVE O.R. PROC UNRELATED TO PRINCIPAL DIAGNOSIS W/O CC/MCC	Yes	Tertiary
998	PRINCIPAL DIAGNOSIS INVALID AS DISCHARGE DIAGNOSIS	No	
999	UNGROUPABLE	No	

Hospital Destination for NHSCMC Regions C & M Service Area Residents within NHSCMC LAC MS-DRGs Classified as Tertiary (164 MS-DRGs)

Hospital Name	2019 Annualized Count	% of Total
Atrium Health's Carolinas Medical Center	773	42.1%
Presbyterian Hospital	376	20.5%
Atrium Health Pineville	258	14.0%
Atrium Health's Carolinas Medical Center - Mercy	219	11.9%
CaroMont Regional Medical Ctr	47	2.5%
Presbyterian - Matthews	29	1.6%
Presbyterian - Huntersville	24	1.3%
Atrium Health Cabarrus	20	1.1%
Atrium Health University City	19	1.0%
Duke University Medical Ctr	9	0.5%
UNC Hospitals	7	0.4%
Lake Norman Regional Medical Ctr	7	0.4%
Piedmont Medical Center	5	0.3%
NC Baptist Hospitals	5	0.3%
Grand Strand Regional Medical Ctr	4	0.2%
Frye Regional Medical Ctr	3	0.1%
Atrium Health Union	3	0.1%
Shriner's Hospital for Children	3	0.1%
Durham Regional Hospital	3	0.1%
Spartanburg Regional Medical Ctr	3	0.1%
WakeMed	3	0.1%
Rowan Regional Medical Ctr	1	0.1%
Haywood Regional Medical Center	1	0.1%
Children's Healthcare of Atlanta At Scottish Rite	1	0.1%
Onslow Memorial Hospital	1	0.1%
Forsyth Memorial Hospital	1	0.1%
Palmetto Health Richland	1	0.1%
CHS - Blue Ridge - Morganton	1	0.1%
Watauga Medical Ctr	1	0.1%
Emory University Hospital	1	0.1%
Atrium Health Lincoln	1	0.1%
Lexington Medical Center (NC)	1	0.1%
MUSC Medical Ctr	1	0.1%
Greenville Memorial Medical Ctr	1	0.1%
Columbus Regional Healthcare System	1	0.1%
Grand Total	**1,837**	**100.0%**

Source: IBM Watson 2019 annualized data for Tertiary LAC MS-DRGs in Regions C and M of NHSMC's service area.

NHSCMC Regions C & M Discharges by MS-DRG, Annualized 2019

Acuity Definition	MS DRG	DRG Description	2019 Annualized Count	% of Total
Tertiary	**54**	NS neoplasm w MCC	21	0.1%
Tertiary	**55**	NS neoplasm w/o MCC	11	0.1%
Tertiary	**57**	Degen NS disord w/o MCC	3	0.0%
Tertiary	**60**	MS/cerebel atax w/o CC/MCC	3	0.0%
Tertiary	**63**	IS/PO/TI w thrombo w/o CC/MCC	5	0.0%
Tertiary	**65**	ICH/CI w CC/tPA in 24hrs	1	0.0%
Tertiary	**74**	CN & PN disorder w/o MCC	1	0.0%
Tertiary	**76**	Vir meningitis w/o CC/MCC	4	0.0%
Tertiary	**83**	Traum coma >1 hr w CC	9	0.1%
Tertiary	**84**	T-coma >1 hr w/o CC/MCC	12	0.1%
Tertiary	**87**	T-coma <1 hr w/o CC/MCC	3	0.0%
Tertiary	**92**	Other NS disorders w CC	1	0.0%
Tertiary	**93**	Oth NS disord w/o CC/MCC	1	0.0%
Tertiary	**95**	Bact/TB INF NS w CC	7	0.0%
Tertiary	**98**	Nonbac INF NS X VM w CC	5	0.0%
Tertiary	**99**	NBI NS X VM w/o CC/MCC	11	0.1%
Tertiary	**100**	Seizures w MCC	12	0.1%
Tertiary	**101**	Seizures w/o MCC	36	0.2%
Tertiary	**103**	Headaches w/o MCC	3	0.0%
Tertiary	**117**	Intraocular px w/o CC/MCC	1	0.0%
Tertiary	**130**	Major HN px w/o CC/MCC	3	0.0%
Tertiary	**132**	Cran/facial px w/o CC/MCC	1	0.0%
Tertiary	**134**	Oth ENT OR px w/o CC/MCC	4	0.0%
Tertiary	**137**	Mouth px w CC/MCC	1	0.0%
Tertiary	**138**	Mouth px w/o CC/MCC	1	0.0%
Tertiary	**147**	ENT malignancy w CC	4	0.0%
Tertiary	**158**	Dent/oral disease w CC	1	0.0%
Tertiary	**166**	Other RS OR px w MCC	24	0.1%
Tertiary	**167**	Other RS OR px w CC	11	0.1%
Tertiary	**183**	Major chest trauma w MCC	7	0.0%
Tertiary	**184**	Major chest trauma w CC	9	0.1%
Tertiary	**189**	Pulm edema/resp failure	16	0.1%
Tertiary	**196**	ILD w MCC	11	0.1%
Tertiary	**197**	ILD w CC	5	0.0%
Tertiary	**201**	Pneumothorax w/o CC/MCC	5	0.0%
Tertiary	**204**	Respiratory signs & Sx	1	0.0%
Tertiary	**205**	Other RS dx w MCC	1	0.0%
Tertiary	**208**	RS dx w vent support <96	88	0.5%
Tertiary	**256**	UL/toe amp CS dx w CC	7	0.0%
Tertiary	**308**	Arrhyth/conduct dx w MCC	3	0.0%
Tertiary	**312**	Syncope & collapse	3	0.0%
Tertiary	**326**	Upper GI px w MCC	16	0.1%
Tertiary	**327**	Upper GI px w CC	15	0.1%
Tertiary	**328**	Upper GI px w/o CC/MCC	17	0.1%
Tertiary	**329**	Major bowel px w MCC	48	0.3%
Tertiary	**330**	Major bowel px w CC	79	0.5%
Tertiary	**331**	Maj bowel px w/o CC/MCC	7	0.0%
Tertiary	**335**	Peritoneal ADHESIO w MCC	11	0.1%
Tertiary	**336**	Peritoneal ADHESIO w CC	15	0.1%
Tertiary	**349**	Anal & stoma px w/o CC/MCC	1	0.0%
Tertiary	**369**	Major esoph disord w CC	1	0.0%
Tertiary	**372**	MGI & periton INF w CC	3	0.0%

Acuity Definition	MS DRG	DRG Description	2019 Annualized Count	% of Total
Tertiary	**373**	MGI & perit INF w/o CC/MCC	7	0.0%
Tertiary	**374**	Digestive CA w MCC	23	0.1%
Tertiary	**375**	Digestive CA w CC	21	0.1%
Tertiary	**389**	GI obstruction w CC	4	0.0%
Tertiary	**418**	Lapscp CHOLE w/o CDE w CC	1	0.0%
Tertiary	**419**	L-CHOLE s CDE w/o CC/MCC	1	0.0%
Tertiary	**422**	HB dxtic px w/o CC/MCC	1	0.0%
Tertiary	**440**	Panc dis X mal s CC/MCC	3	0.0%
Tertiary	**442**	Liver X CA/cirr/AH w CC	1	0.0%
Tertiary	**443**	LivX CA/cirr/AH w/o CC/MCC	1	0.0%
Tertiary	**463**	Debr/SG X hnd MS dx w/MCC	5	0.0%
Tertiary	**465**	Debr/SG MS dx w/o CC/MCC	7	0.0%
Tertiary	**468**	Rev hip/kn repl w/o CC/MCC	32	0.2%
Tertiary	**470**	LE maj jt repl/reattach w/o MCC	1	0.0%
Tertiary	**476**	Amp for MS dis w/o CC/MCC	3	0.0%
Tertiary	**479**	Bx MS/conn tiss w/o CC/MCC	3	0.0%
Tertiary	**480**	Hip/FEM px X maj w MCC	16	0.1%
Tertiary	**481**	Hip/FEM px X maj w CC	74	0.5%
Tertiary	**482**	Hip/FEM X maj w/o CC/MCC	28	0.2%
Tertiary	**483**	Maj joint/limb reattachment proc upper extremities	75	0.5%
Tertiary	**488**	Kn px s PDX INF w CC/MCC	5	0.0%
Tertiary	**489**	Kn px s PDX INF w/o CC/MCC	7	0.0%
Tertiary	**492**	LE & humerus px w MCC	4	0.0%
Tertiary	**493**	LE & humerus px w CC	43	0.3%
Tertiary	**499**	Rmvl IF hip/FEM w/o CC/MCC	1	0.0%
Tertiary	**501**	Soft tissue px w CC	5	0.0%
Tertiary	**515**	Oth MS OR px w MCC	7	0.0%
Tertiary	**516**	Oth MS OR px w CC	29	0.2%
Tertiary	**517**	Oth MS OR px w/o CC/MCC	16	0.1%
Tertiary	**533**	Femur fx w MCC	1	0.0%
Tertiary	**534**	Femur fx w/o MCC	1	0.0%
Tertiary	**536**	Hip & pelvic fx w/o MCC	1	0.0%
Tertiary	**539**	Osteomyelitis w MCC	1	0.0%
Tertiary	**540**	Osteomyelitis w CC	7	0.0%
Tertiary	**542**	Path fx & MS mal w MCC	8	0.0%
Tertiary	**543**	Path fx & MS mal w CC	28	0.2%
Tertiary	**544**	Path fx/MS mal w/o CC/MCC	4	0.0%
Tertiary	**546**	Conn tissue disord w CC	3	0.0%
Tertiary	**547**	Conn tiss dis w/o CC/MCC	3	0.0%
Tertiary	**550**	Septic arthrit w/o CC/MCC	3	0.0%
Tertiary	**556**	MS sign & Sx w/o MCC	1	0.0%
Tertiary	**560**	MS aftercare w CC	1	0.0%
Tertiary	**564**	Other MS dx w MCC	1	0.0%
Tertiary	**565**	Other MS dx w CC	1	0.0%
Tertiary	**571**	Skin debridement w CC	4	0.0%
Tertiary	**572**	Skin debride w/o CC/MCC	1	0.0%
Tertiary	**580**	Oth skin/breast px w CC	3	0.0%
Tertiary	**581**	Oth skn/brst px w/o CC/MCC	8	0.0%
Tertiary	**605**	Skin/breast trauma w/o MCC	3	0.0%
Tertiary	**620**	OR px for obesity w CC	16	0.1%
Tertiary	**621**	OR for obesity w/o CC/MCC	111	0.7%
Tertiary	**623**	Graft/debr ENM dis w CC	12	0.1%

Acuity Definition	MS DRG	DRG Description	2019 Annualized Count	% of Total
Tertiary	**638**	Diabetes w CC	4	0.0%
Tertiary	**639**	Diabetes w/o CC/MCC	23	0.1%
Tertiary	**640**	Nutr/metab/fl dis w MCC	11	0.1%
Tertiary	**642**	Inborn & oth dis metabol	3	0.0%
Tertiary	**644**	Endocrine disorders w CC	1	0.0%
Tertiary	**657**	KU px for neopl w CC	13	0.1%
Tertiary	**658**	KU px for neopl w/o CC/MCC	11	0.1%
Tertiary	**659**	KU px non-neopl w MCC	20	0.1%
Tertiary	**660**	KU px non-neopl w CC	27	0.2%
Tertiary	**673**	Other KUB px w MCC	25	0.2%
Tertiary	**683**	Renal failure w CC	1	0.0%
Tertiary	**710**	Penis px w/o CC/MCC	1	0.0%
Tertiary	**737**	Uter px ov/adn mal w CC	9	0.1%
Tertiary	**738**	Uter px ov/adn mal w/o CC/M	4	0.0%
Tertiary	**740**	Uter px X ov/adn mal w CC	5	0.0%
Tertiary	**754**	Female reprod mal w MCC	4	0.0%
Tertiary	**755**	Female reprod mal w CC	7	0.0%
Tertiary	**803**	Oth OR blood organ w CC	1	0.0%
Tertiary	**804**	Oth OR blood w/o CC/MCC	1	0.0%
Tertiary	**808**	MHI X SCC/coag w MCC	5	0.0%
Tertiary	**809**	MHI X SCC/coag w CC	24	0.1%
Tertiary	**810**	MHI X SCC/coag w/o CC/MCC	5	0.0%
Tertiary	**813**	Coagulation disorders	3	0.0%
Tertiary	**814**	RE & immun dx w MCC	1	0.0%
Tertiary	**815**	RE & immun dx w CC	5	0.0%
Tertiary	**816**	RE & immun dx w/o CC/MCC	8	0.0%
Tertiary	**822**	Lymph/leuk w MOR w/o CC/MCC	4	0.0%
Tertiary	**823**	Lymph/leuk w oth Proc w MCC	4	0.0%
Tertiary	**825**	Lymph/leuk w oth Proc w/o CC/M	3	0.0%
Tertiary	**828**	MPD/PDN maj OR w/o CC/MCC	4	0.0%
Tertiary	**835**	Ac leuk w/o maj OR w CC	4	0.0%
Tertiary	**836**	AL w/o maj OR w/o CC/MCC	1	0.0%
Tertiary	**839**	Chemo w AL w/o CC/MCC	9	0.1%
Tertiary	**840**	Lymphoma/non-AL w MCC	16	0.1%
Tertiary	**841**	Lymphoma/non-AL w CC	13	0.1%
Tertiary	**842**	Lymphoma/non-AL w/o CC/MCC	12	0.1%
Tertiary	**843**	Oth MPD/PDN w MCC	1	0.0%
Tertiary	**844**	Oth MPD/PDN w CC	7	0.0%
Tertiary	**847**	Chemo w/o SDX AL w CC	29	0.2%
Tertiary	**853**	INF/parasit w OR w MCC	82	0.5%
Tertiary	**854**	INF/parasit w OR w CC	45	0.3%
Tertiary	**855**	INF/parasit w OR w/o CC/MCC	1	0.0%
Tertiary	**858**	PO/traum INFw OR w/o CC/MCC	5	0.0%
Tertiary	**871**	SEPT/seps s MV 96+ w MCC	7	0.0%
Tertiary	**872**	SEPT/seps s MV 96+ w/o MCC	4	0.0%
Tertiary	**902**	WND debr for inj w CC	5	0.0%
Tertiary	**903**	WND debr injury w/o CC/MCC	1	0.0%
Tertiary	**905**	Grft for injury s CC/MCC	1	0.0%
Tertiary	**907**	Oth OR for inj w MCC	21	0.1%
Tertiary	**922**	Oth injury/poison w MCC	4	0.0%
Tertiary	**923**	Oth injury/poison w/o MCC	8	0.0%
Tertiary	**935**	Non-extensive burns	4	0.0%

Acuity Definition	MS DRG	DRG Description	2019 Annualized Count	% of Total
Tertiary	**949**	Aftercare w CC/MCC	3	0.0%
Tertiary	**950**	Aftercare w/o CC/MCC	1	0.0%
Tertiary	**956**	Limb reattach/hip px MST	17	0.1%
Tertiary	**964**	Other MST w CC	11	0.1%
Tertiary	**983**	Exten OR unrel PDX sCC/MCC	9	0.1%
Tertiary	**987**	NE OR unrel PDX w MCC	27	0.2%
Tertiary	**988**	NE OR unrel PDX w CC	21	0.1%
Tertiary	**989**	NE OR unrel PDX w/o CC/MCC	5	0.0%
Tertiary Total			**1,837**	**11.3%**
Primary_Secondary	**56**	Degen NS disorder w MCC	16	0.1%
Primary_Secondary	**57**	Degen NS disord w/o MCC	94	0.6%
Primary_Secondary	**58**	MS/cerebel ataxia w MCC	3	0.0%
Primary_Secondary	**59**	MS/cerebel ataxia w CC	12	0.1%
Primary_Secondary	**60**	MS/cerebel atax w/o CC/MCC	20	0.1%
Primary_Secondary	**64**	ICH/cereb infarct w MCC	120	0.7%
Primary_Secondary	**65**	ICH/CI w CC/tPA in 24hrs	225	1.4%
Primary_Secondary	**66**	ICH/CI w/o CC/MCC	57	0.4%
Primary_Secondary	**67**	CVA/PCO s infarct w MCC	3	0.0%
Primary_Secondary	**68**	CVA/PCO s infarct w/o MCC	8	0.0%
Primary_Secondary	**69**	Transient ischemia	39	0.2%
Primary_Secondary	**70**	Nonspecific CVD w MCC	21	0.1%
Primary_Secondary	**71**	Nonspecific CVD w CC	31	0.2%
Primary_Secondary	**72**	Nonspecific CVD w/o CC/MCC	5	0.0%
Primary_Secondary	**73**	CN & PN disorders w MCC	7	0.0%
Primary_Secondary	**74**	CN & PN disorder w/o MCC	49	0.3%
Primary_Secondary	**75**	Vir meningitis w CC/MCC	9	0.1%
Primary_Secondary	**76**	Vir meningitis w/o CC/MCC	8	0.0%
Primary_Secondary	**77**	HTN encephalopathy w MCC	3	0.0%
Primary_Secondary	**78**	HTN encephalopathy w CC	4	0.0%
Primary_Secondary	**80**	Nontr stupor&coma w MCC	3	0.0%
Primary_Secondary	**81**	Nontr stupor&coma w/o MCC	4	0.0%
Primary_Secondary	**86**	Traum coma <1 hr w CC	12	0.1%
Primary_Secondary	**87**	T-coma <1 hr w/o CC/MCC	5	0.0%
Primary_Secondary	**89**	Concussion w CC	3	0.0%
Primary_Secondary	**90**	Concussion w/o CC/MCC	1	0.0%
Primary_Secondary	**91**	Other NS disorders w MCC	16	0.1%
Primary_Secondary	**92**	Other NS disorders w CC	35	0.2%
Primary_Secondary	**93**	Oth NS disord w/o CC/MCC	15	0.1%
Primary_Secondary	**100**	Seizures w MCC	47	0.3%
Primary_Secondary	**101**	Seizures w/o MCC	104	0.6%
Primary_Secondary	**102**	Headaches w MCC	4	0.0%
Primary_Secondary	**103**	Headaches w/o MCC	48	0.3%
Primary_Secondary	**121**	Ac maj eye INF w CC/MCC	1	0.0%
Primary_Secondary	**123**	Neurological eye disord	3	0.0%
Primary_Secondary	**124**	Other eye disorder w MCC	1	0.0%
Primary_Secondary	**125**	Oth eye disorder w/o MCC	8	0.0%
Primary_Secondary	**132**	Cran/facial px w/o CC/MCC	3	0.0%
Primary_Secondary	**134**	Oth ENT OR px w/o CC/MCC	3	0.0%
Primary_Secondary	**138**	Mouth px w/o CC/MCC	3	0.0%
Primary_Secondary	**149**	Dysequilibrium	27	0.2%
Primary_Secondary	**150**	Epistaxis w MCC	1	0.0%
Primary_Secondary	**151**	Epistaxis w/o MCC	3	0.0%

Acuity Definition	MS DRG	DRG Description	2019 Annualized Count	% of Total
Primary_Secondary	**152**	Otitis media & URI w MCC	7	0.0%
Primary_Secondary	**153**	Otitis media & URI w/o MCC	67	0.4%
Primary_Secondary	**155**	Other ENT dx w CC	12	0.1%
Primary_Secondary	**156**	Other ENT dx w/o CC/MCC	8	0.0%
Primary_Secondary	**157**	Dent/oral disease w MCC	5	0.0%
Primary_Secondary	**158**	Dent/oral disease w CC	13	0.1%
Primary_Secondary	**159**	Dent/oral dis w/o CC/MCC	4	0.0%
Primary_Secondary	**175**	Pulmonary embolism w MCC	43	0.3%
Primary_Secondary	**176**	Pulmonary embolism w/o MCC	122	0.7%
Primary_Secondary	**177**	Resp INF & inflam w MCC	88	0.5%
Primary_Secondary	**178**	Resp INF & inflam w CC	62	0.4%
Primary_Secondary	**179**	Resp INF/inflam w/o CC/MCC	13	0.1%
Primary_Secondary	**180**	Resp neoplasm w MCC	25	0.2%
Primary_Secondary	**181**	Resp neoplasm w CC	19	0.1%
Primary_Secondary	**182**	Resp neoplasm w/o CC/MCC	3	0.0%
Primary_Secondary	**185**	Maj chest trauma w/o CC/MCC	3	0.0%
Primary_Secondary	**186**	Pleural effusion w MCC	20	0.1%
Primary_Secondary	**187**	Pleural effusion w CC	12	0.1%
Primary_Secondary	**189**	Pulm edema/resp failure	144	0.9%
Primary_Secondary	**190**	COPD w MCC	185	1.1%
Primary_Secondary	**191**	COPD w CC	126	0.8%
Primary_Secondary	**192**	COPD w/o CC/MCC	37	0.2%
Primary_Secondary	**193**	Pneum & pleurisy w MCC	202	1.2%
Primary_Secondary	**194**	Pneum & pleurisy w CC	210	1.3%
Primary_Secondary	**195**	Pneum/pleurisy w/o CC/MCC	127	0.8%
Primary_Secondary	**198**	ILD w/o CC/MCC	4	0.0%
Primary_Secondary	**199**	Pneumothorax w MCC	8	0.0%
Primary_Secondary	**200**	Pneumothorax w CC	23	0.1%
Primary_Secondary	**201**	Pneumothorax w/o CC/MCC	4	0.0%
Primary_Secondary	**202**	Bronch/asthma w CC/MCC	207	1.3%
Primary_Secondary	**203**	Bronch/asthma w/o CC/MCC	179	1.1%
Primary_Secondary	**204**	Respiratory signs & Sx	16	0.1%
Primary_Secondary	**205**	Other RS dx w MCC	20	0.1%
Primary_Secondary	**206**	Other RS dx w/o MCC	16	0.1%
Primary_Secondary	**280**	AMI disch alive w MCC	36	0.2%
Primary_Secondary	**281**	AMI disch alive w CC	35	0.2%
Primary_Secondary	**282**	AMI disch alive w/o CC/MCC	15	0.1%
Primary_Secondary	**283**	AMI expired w MCC	1	0.0%
Primary_Secondary	**291**	HF & shock w MCC	465	2.9%
Primary_Secondary	**292**	HF & shock w CC	131	0.8%
Primary_Secondary	**293**	HF & shock w/o CC/MCC	36	0.2%
Primary_Secondary	**296**	UCA w MCC	3	0.0%
Primary_Secondary	**304**	Hypertension w MCC	64	0.4%
Primary_Secondary	**305**	Hypertension w/o MCC	114	0.7%
Primary_Secondary	**308**	Arrhyth/conduct dx w MCC	103	0.6%
Primary_Secondary	**309**	Arrhyth/conduct dx w CC	104	0.6%
Primary_Secondary	**310**	Arrhyth/cond dx w/o CC/MCC	41	0.3%
Primary_Secondary	**311**	Angina pectoris	5	0.0%
Primary_Secondary	**312**	Syncope & collapse	74	0.5%
Primary_Secondary	**313**	Chest pain	49	0.3%
Primary_Secondary	**331**	Maj bowel px w/o CC/MCC	51	0.3%
Primary_Secondary	**337**	Perit ADHESIO w/o CC/MCC	16	0.1%

Acuity Definition	MS DRG	DRG Description	2019 Annualized Count	% of Total
Primary_Secondary	**339**	APPY w comp PDX w CC	11	0.1%
Primary_Secondary	**340**	APPY w comp PDX w/o CC/MCC	21	0.1%
Primary_Secondary	**341**	APPY w/o comp PDX w MCC	3	0.0%
Primary_Secondary	**342**	APPY w/o comp PDX w CC	8	0.0%
Primary_Secondary	**343**	APPY s comp PDX w/o CC/MCC	21	0.1%
Primary_Secondary	**345**	Minor bowel px w CC	5	0.0%
Primary_Secondary	**346**	Minor bowel px s CC/MCC	4	0.0%
Primary_Secondary	**348**	Anal & stomal px w CC	3	0.0%
Primary_Secondary	**350**	IH & FH px w MCC	1	0.0%
Primary_Secondary	**351**	IH & FH px w CC	8	0.0%
Primary_Secondary	**352**	IH & FH px w/o CC/MCC	4	0.0%
Primary_Secondary	**354**	Hernia px X IH/FH w CC	11	0.1%
Primary_Secondary	**355**	Hern px X IH/FH w/o CC/MCC	20	0.1%
Primary_Secondary	**358**	Oth digest OR w/o CC/MCC	5	0.0%
Primary_Secondary	**368**	Major esoph disord w MCC	5	0.0%
Primary_Secondary	**369**	Major esoph disord w CC	7	0.0%
Primary_Secondary	**371**	MGI & periton INF w MCC	21	0.1%
Primary_Secondary	**372**	MGI & periton INF w CC	45	0.3%
Primary_Secondary	**373**	MGI & perit INF w/o CC/MCC	15	0.1%
Primary_Secondary	**376**	Digestive CA w/o CC/MCC	1	0.0%
Primary_Secondary	**377**	GI hemorrhage w MCC	70	0.4%
Primary_Secondary	**378**	GI hemorrhage w CC	222	1.4%
Primary_Secondary	**379**	GI hemorrhage w/o CC/MCC	25	0.2%
Primary_Secondary	**380**	Comp peptic ulcer w MCC	7	0.0%
Primary_Secondary	**381**	Comp peptic ulcer w CC	13	0.1%
Primary_Secondary	**382**	Comp PU w/o CC/MCC	7	0.0%
Primary_Secondary	**383**	Uncomp PU w MCC	1	0.0%
Primary_Secondary	**384**	Uncomp PU w/o MCC	7	0.0%
Primary_Secondary	**385**	IBD w MCC	3	0.0%
Primary_Secondary	**386**	IBD w CC	31	0.2%
Primary_Secondary	**387**	IBD w/o CC/MCC	29	0.2%
Primary_Secondary	**388**	GI obstruction w MCC	16	0.1%
Primary_Secondary	**389**	GI obstruction w CC	66	0.4%
Primary_Secondary	**390**	GI obstruction w/o CC/MCC	37	0.2%
Primary_Secondary	**391**	Misc digest disord w MCC	56	0.3%
Primary_Secondary	**392**	Misc digest disord w/o MCC	314	1.9%
Primary_Secondary	**393**	Oth digestive dx w MCC	32	0.2%
Primary_Secondary	**394**	Oth digestive dx w CC	62	0.4%
Primary_Secondary	**395**	Oth digest dx w/o CC/MCC	20	0.1%
Primary_Secondary	**416**	CHOLE w/o CDE w/o CC/MCC	4	0.0%
Primary_Secondary	**417**	Lapscp CHOLE w/o CDE w MCC	20	0.1%
Primary_Secondary	**418**	Lapscp CHOLE w/o CDE w CC	59	0.4%
Primary_Secondary	**419**	L-CHOLE s CDE w/o CC/MCC	66	0.4%
Primary_Secondary	**432**	Cirr & ALC hepat w MCC	33	0.2%
Primary_Secondary	**433**	Cirr & ALC hepat w CC	31	0.2%
Primary_Secondary	**434**	Cirr&ALC hepat w/o CC/MCC	4	0.0%
Primary_Secondary	**435**	HB or panc CA w MCC	21	0.1%
Primary_Secondary	**436**	HB or panc CA w CC	12	0.1%
Primary_Secondary	**438**	Panc disord X mal w MCC	35	0.2%
Primary_Secondary	**439**	Panc disord X mal w CC	84	0.5%
Primary_Secondary	**440**	Panc dis X mal s CC/MCC	55	0.3%
Primary_Secondary	**441**	Liver X CA/cirr/AH w MCC	36	0.2%

Acuity Definition	MS DRG	DRG Description	2019 Annualized Count	% of Total
Primary_Secondary	**442**	Liver X CA/cirr/AH w CC	17	0.1%
Primary_Secondary	**443**	LivX CA/cirr/AH w/o CC/MCC	8	0.0%
Primary_Secondary	**444**	Biliary disorders w MCC	16	0.1%
Primary_Secondary	**445**	Biliary disorders w CC	31	0.2%
Primary_Secondary	**446**	Biliary disord w/o CC/MCC	9	0.1%
Primary_Secondary	**469**	LE maj jt repl/reattach w MCC or Tot Ankle	20	0.1%
Primary_Secondary	**470**	LE maj jt repl/reattach w/o MCC	626	3.8%
Primary_Secondary	**487**	Kn px w PDX INF w/o CC/MCC	1	0.0%
Primary_Secondary	**493**	LE & humerus px w CC	1	0.0%
Primary_Secondary	**494**	LE & humerus px w/o CC/MCC	28	0.2%
Primary_Secondary	**502**	Soft tissue px w/o CC/MCC	8	0.0%
Primary_Secondary	**504**	Foot px w CC	1	0.0%
Primary_Secondary	**505**	Foot px w/o CC/MCC	3	0.0%
Primary_Secondary	**506**	Major thumb or joint px	4	0.0%
Primary_Secondary	**511**	UE px X maj joint w CC	8	0.0%
Primary_Secondary	**512**	UE px X maj jt w/o CC/MCC	4	0.0%
Primary_Secondary	**513**	Oth hand/WR px w CC/MCC	4	0.0%
Primary_Secondary	**533**	Femur fx w MCC	1	0.0%
Primary_Secondary	**534**	Femur fx w/o MCC	3	0.0%
Primary_Secondary	**535**	Hip & pelvic fx w MCC	7	0.0%
Primary_Secondary	**536**	Hip & pelvic fx w/o MCC	16	0.1%
Primary_Secondary	**537**	Spr/DIS hip/pelv wCC/MCC	3	0.0%
Primary_Secondary	**546**	Conn tissue disord w CC	15	0.1%
Primary_Secondary	**547**	Conn tiss dis w/o CC/MCC	9	0.1%
Primary_Secondary	**548**	Septic arthritis w MCC	1	0.0%
Primary_Secondary	**549**	Septic arthritis w CC	1	0.0%
Primary_Secondary	**550**	Septic arthrit w/o CC/MCC	4	0.0%
Primary_Secondary	**554**	Bone dis/arthrop w/o MCC	16	0.1%
Primary_Secondary	**555**	MS sign & Sx w MCC	3	0.0%
Primary_Secondary	**556**	MS sign & Sx w/o MCC	5	0.0%
Primary_Secondary	**557**	Tend/myo/bursitis w MCC	1	0.0%
Primary_Secondary	**558**	Tend/myo/bursitis w/o MCC	16	0.1%
Primary_Secondary	**559**	MS aftercare w MCC	5	0.0%
Primary_Secondary	**560**	MS aftercare w CC	15	0.1%
Primary_Secondary	**561**	MS aftercare w/o CC/MCC	5	0.0%
Primary_Secondary	**562**	Fx/spr/DIS X hip w MCC	4	0.0%
Primary_Secondary	**563**	Fx/spr/DIS X hip w/o MCC	35	0.2%
Primary_Secondary	**564**	Other MS dx w MCC	7	0.0%
Primary_Secondary	**565**	Other MS dx w CC	16	0.1%
Primary_Secondary	**566**	Other MS dx w/o CC/MCC	4	0.0%
Primary_Secondary	**572**	Skin debride w/o CC/MCC	5	0.0%
Primary_Secondary	**578**	SG X ulcer/cell w/o CC/MCC	5	0.0%
Primary_Secondary	**579**	Oth skin/breast px w MCC	13	0.1%
Primary_Secondary	**580**	Oth skin/breast px w CC	23	0.1%
Primary_Secondary	**581**	Oth skn/brst px w/o CC/MCC	21	0.1%
Primary_Secondary	**582**	MAST for mal w CC/MCC	3	0.0%
Primary_Secondary	**583**	MAST for mal w/o CC/MCC	1	0.0%
Primary_Secondary	**584**	Bx/exc/brst px w CC/MCC	1	0.0%
Primary_Secondary	**585**	Bx/exc/brst px w/o CC/MCC	7	0.0%
Primary_Secondary	**592**	Skin ulcers w MCC	7	0.0%
Primary_Secondary	**593**	Skin ulcers w CC	1	0.0%
Primary_Secondary	**596**	Maj skin disord w/o MCC	5	0.0%

Acuity Definition	MS DRG	DRG Description	2019 Annualized Count	% of Total
Primary_Secondary	**597**	Mal breast disord w MCC	3	0.0%
Primary_Secondary	**598**	Mal breast disord w CC	3	0.0%
Primary_Secondary	**600**	Non-mal breast w CC/MCC	1	0.0%
Primary_Secondary	**601**	Non-mal breast w/o CC/MCC	1	0.0%
Primary_Secondary	**602**	Cellulitis w MCC	25	0.2%
Primary_Secondary	**603**	Cellulitis w/o MCC	198	1.2%
Primary_Secondary	**604**	Skin/breast trauma w MCC	4	0.0%
Primary_Secondary	**605**	Skin/breast trauma w/o MCC	17	0.1%
Primary_Secondary	**606**	Minor skin disord w MCC	8	0.0%
Primary_Secondary	**607**	Minor skin disord w/o MCC	7	0.0%
Primary_Secondary	**626**	Thy/parathy/TG px w CC	7	0.0%
Primary_Secondary	**627**	Thy/parathy/TG px w/o CC/M	4	0.0%
Primary_Secondary	**637**	Diabetes w MCC	57	0.4%
Primary_Secondary	**638**	Diabetes w CC	187	1.2%
Primary_Secondary	**639**	Diabetes w/o CC/MCC	62	0.4%
Primary_Secondary	**640**	Nutr/metab/fl dis w MCC	83	0.5%
Primary_Secondary	**641**	Nutr/metab/fl dis w/o MCC	146	0.9%
Primary_Secondary	**642**	Inborn & oth dis metabol	7	0.0%
Primary_Secondary	**643**	Endocrine disorder w MCC	20	0.1%
Primary_Secondary	**644**	Endocrine disorders w CC	24	0.1%
Primary_Secondary	**645**	Endocrine dis w/o CC/MCC	17	0.1%
Primary_Secondary	**661**	KU px non-neopl w/o CC/MCC	31	0.2%
Primary_Secondary	**664**	Minor blad px w/o CC/MCC	1	0.0%
Primary_Secondary	**666**	Prostatectomy w CC	1	0.0%
Primary_Secondary	**667**	Prostatectomy w/o CC/MCC	1	0.0%
Primary_Secondary	**669**	Transurethral px w CC	1	0.0%
Primary_Secondary	**670**	TU px w/o CC/MCC	4	0.0%
Primary_Secondary	**671**	Urethral px w CC/MCC	1	0.0%
Primary_Secondary	**672**	Urethral px w/o CC/MCC	1	0.0%
Primary_Secondary	**682**	Renal failure w MCC	92	0.6%
Primary_Secondary	**683**	Renal failure w CC	164	1.0%
Primary_Secondary	**684**	Renal failure w/o CC/MCC	20	0.1%
Primary_Secondary	**687**	KUB neoplasm w CC	8	0.0%
Primary_Secondary	**689**	KUB infection w MCC	74	0.5%
Primary_Secondary	**690**	KUB infection w/o MCC	211	1.3%
Primary_Secondary	**693**	Urin CAL w/o ESWL w MCC	1	0.0%
Primary_Secondary	**694**	Urin CAL w/o ESWL w/o MCC	15	0.1%
Primary_Secondary	**695**	Urinary signs & Sx w MCC	3	0.0%
Primary_Secondary	**696**	Urin signs & Sx w/o MCC	3	0.0%
Primary_Secondary	**698**	Other KUB dx w MCC	51	0.3%
Primary_Secondary	**699**	Other KUB dx w CC	51	0.3%
Primary_Secondary	**700**	Other KUB dx w/o CC/MCC	7	0.0%
Primary_Secondary	**707**	MPX male pelvic w CC/MCC	7	0.0%
Primary_Secondary	**708**	MPX male pelvic w/o CC/MCC	25	0.2%
Primary_Secondary	**713**	TURP w CC/MCC	8	0.0%
Primary_Secondary	**714**	TURP w/o CC/MCC	1	0.0%
Primary_Secondary	**717**	Oth male OR X CA wCC/MCC	4	0.0%
Primary_Secondary	**718**	Oth male OR X CA sCC/MCC	1	0.0%
Primary_Secondary	**723**	Male reprod mal w CC	4	0.0%
Primary_Secondary	**726**	BPH w/o MCC	1	0.0%
Primary_Secondary	**727**	Male reprod inflam w MCC	4	0.0%
Primary_Secondary	**728**	Male reprod inflam w/o MCC	9	0.1%

Acuity Definition	MS DRG	DRG Description	2019 Annualized Count	% of Total
Primary_Secondary	**742**	Uter px X mal w CC/MCC	39	0.2%
Primary_Secondary	**743**	Uter px X mal w/o CC/MCC	79	0.5%
Primary_Secondary	**744**	D&C/cone/lapscp w CC/MCC	1	0.0%
Primary_Secondary	**745**	D&C/cone/lapscp w/o CC/MCC	3	0.0%
Primary_Secondary	**746**	Vag/Cx/vulva px w CC/MCC	5	0.0%
Primary_Secondary	**747**	Vag/Cx/vulva px w/o CC/MCC	5	0.0%
Primary_Secondary	**757**	Female reprod INF w MCC	3	0.0%
Primary_Secondary	**758**	Female reprod INF w CC	9	0.1%
Primary_Secondary	**759**	Fe reprod INF w/o CC/MCC	7	0.0%
Primary_Secondary	**760**	Fe reprod dis NEC w CC/M	11	0.1%
Primary_Secondary	**761**	Fe reprod dis NEC w/o CC/M	4	0.0%
Primary_Secondary	**768**	Vag del w OR X ster/D&C	148	0.9%
Primary_Secondary	**769**	PP/postAB dx w OR px	9	0.1%
Primary_Secondary	**770**	Abortion w D&C/asp/inc	11	0.1%
Primary_Secondary	**776**	PP/postAB dx w/o OR	84	0.5%
Primary_Secondary	**779**	Abortion w/o D&C	8	0.0%
Primary_Secondary	**783**	C-section w sterilization w MCC	21	0.1%
Primary_Secondary	**784**	C-section w sterilization w CC	60	0.4%
Primary_Secondary	**785**	C-section w sterilization w/o CC/MCC	120	0.7%
Primary_Secondary	**786**	C-section w/o sterilization w MCC	112	0.7%
Primary_Secondary	**787**	C-section w/o sterilization w CC	223	1.4%
Primary_Secondary	**788**	C-section w/o sterilization w/o CC/MCC	484	3.0%
Primary_Secondary	**796**	Vag delivery w sterilization w MCC	5	0.0%
Primary_Secondary	**797**	Vag delivery w sterilization w CC	9	0.1%
Primary_Secondary	**798**	Vag delivery w sterilization w/o CC/MCC	17	0.1%
Primary_Secondary	**805**	Vag delivery w/o sterilization/d&c w MCC	139	0.9%
Primary_Secondary	**806**	Vag delivery w/o sterilization/d&c w CC	440	2.7%
Primary_Secondary	**807**	Vag delivery w/o sterilization/d&c w/o CC/MCC	1,780	10.9%
Primary_Secondary	**811**	RBC disorders w MCC	71	0.4%
Primary_Secondary	**812**	RBC disorders w/o MCC	254	1.6%
Primary_Secondary	**813**	Coagulation disorders	19	0.1%
Primary_Secondary	**818**	Oth anteptm dx w OR proc w CC	8	0.0%
Primary_Secondary	**819**	Oth anteptm dx w OR proc w/o CC/MCC	4	0.0%
Primary_Secondary	**831**	Oth anteptm dx w/o OR proc w MCC	29	0.2%
Primary_Secondary	**832**	Oth anteptm dx w/o OR proc w CC	87	0.5%
Primary_Secondary	**833**	Oth anteptm dx w/o OR proc w/o CC/MCC	147	0.9%
Primary_Secondary	**862**	Postop/traum INF w MCC	12	0.1%
Primary_Secondary	**863**	Postop/traum INF w/o MCC	19	0.1%
Primary_Secondary	**864**	Fever	24	0.1%
Primary_Secondary	**865**	Viral illness w MCC	7	0.0%
Primary_Secondary	**866**	Viral illness w/o MCC	33	0.2%
Primary_Secondary	**868**	Oth INF/parasit dx w CC	4	0.0%
Primary_Secondary	**871**	SEPT/seps s MV 96+ w MCC	507	3.1%
Primary_Secondary	**872**	SEPT/seps s MV 96+ w/o MCC	143	0.9%
Primary_Secondary	**906**	Hand px for injuries	1	0.0%
Primary_Secondary	**909**	Oth OR injury w/o CC/MCC	8	0.0%
Primary_Secondary	**913**	Traumatic injury w MCC	1	0.0%
Primary_Secondary	**914**	Traumatic injury w/o MCC	4	0.0%
Primary_Secondary	**915**	Allergic reactions w MCC	3	0.0%
Primary_Secondary	**916**	Allergic reactions w/o MCC	17	0.1%
Primary_Secondary	**919**	Comps of Tx w MCC	27	0.2%
Primary_Secondary	**920**	Comps of Tx w CC	15	0.1%

Acuity Definition	MS DRG	DRG Description	2019 Annualized Count	% of Total
Primary_Secondary	**921**	Comps of Tx w/o CC/MCC	5	0.0%
Primary_Secondary	**922**	Oth injury/poison w MCC	3	0.0%
Primary_Secondary	**923**	Oth injury/poison w/o MCC	5	0.0%
Primary_Secondary	**934**	FTB w/o graft/inhal inj	1	0.0%
Primary_Secondary	**935**	Non-extensive burns	3	0.0%
Primary_Secondary	**941**	OR w health svc dx sCC/M	1	0.0%
Primary_Secondary	**947**	Signs & symptoms w MCC	17	0.1%
Primary_Secondary	**948**	Signs & symptoms w/o MCC	57	0.4%
Primary_Secondary	**949**	Aftercare w CC/MCC	15	0.1%
Primary_Secondary	**950**	Aftercare w/o CC/MCC	4	0.0%
Primary_Secondary	**951**	Oth factor affect health	78	0.5%
Primary_Secondary	**975**	HIV w MRC w CC	17	0.1%
Primary_Secondary	**976**	HIV w MRC w/o CC/MCC	5	0.0%
Primary_Secondary	**977**	HIV w or w/o related dx	9	0.1%
Primary_Secondary Total			**14,428**	**88.7%**
Grand Total			**16,265**	**100.0%**

Source: IBM Watson 2019 annualized data for LAC MS-DRGs in Regions C and M of NHSMC's service area.

Attachment 7

Table 5A: Acute Care Bed Need Projections

2019 Utilization Data from IBM Watson Health compiled by the Cecil B. Sheps Center for Health Services Research
Target Occupancy Rates: ADC 1-99: 66.7%, ADC 100-200: 71.4%, ADC > 200 and <=400: 75.2%, ADC>400: 78%
Target Occupancy Factors: ADC 1-99: 1.50, ADC 100-200: 1.40, ADC > 200 and <=400: 1.33, ADC >400: 1.28

A	B	C	D	E	F	G	H	I	J	K	L
Service Area	**License Number**	**Facility Name**	**Licensed Acute Care Beds**	**Adjustments for CONs/ Previous Need**	**Inpatient Days of Care**	**County Growth Rate Multiplier**	**Projected Days of Care**	**2023 Projected Average Daily Census (ADC)**	**2023 Beds Adjusted for Target Occupancy**	**Projected 2023 Deficit or Surplus (surplus shows as a "-")**	**2023 Need Determination**
Alamance	H0272	Alamance Regional Medical Center**	182	0	38,418	-1.0104	38,418	105	147	-35	
Alamance Total			**182**	**0**							**0**
Alexander	H0274	Alexander Hospital (closed)*	25	-25		0.0000	0	0	0	0	
Alexander Total			**25**	**-25**							**0**
Alleghany	H0108	Alleghany Memorial Hospital	41	0	720	-1.1922	720	2	3	-38	
Alleghany Total			**41**	**0**							**0**
Anson	H0082	Atrium Health Anson	15	0	1,065	1.2993	3,035	8	12	-3	
Anson Total			**15**	**0**							**0**
Ashe	H0099	Ashe Memorial Hospital	76	0	4,396	1.0014	4,421	12	18	-58	
Ashe Total			**76**	**0**							**0**
Avery	H0037	Charles A. Cannon, Jr. Memorial Hospital**/†	30	0	1,767	-1.1491	1,767	5	7	-23	
Avery Total			**30**	**0**							**0**
Beaufort	H0188	Vidant Beaufort Hospital	120	0	13,431	1.0652	17,293	47	71	-49	
Beaufort Total			**120**	**0**							**0**
Bertie	H0268	Vidant Bertie Hospital	6	0	1,428	-1.0032	1,428	4	6	0	
Bertie Total			**6**	**0**							**0**
Bladen	H0154	Cape Fear Valley-Bladen County Hospital**	48	0	3,084	-1.0066	3,084	8	13	-35	
Bladen Total			**48**	**0**							**0**
Brunswick	H0150	J. Arthur Dosher Memorial Hospital	25	0	1,845	-1.0307	1,845	5	8	-17	
Brunswick	H0250	Novant Health Brunswick Medical Center	74	0	14,005	-1.0307	14,005	38	58	-16	
Brunswick Total			**99**	**0**							**0**
Buncombe	H0036	Mission Hospital	721	12	195,732	1.0157	208,344	570	730	-3	
Buncombe/Graham/Madison/Yancey Total			**721**	**12**							**0**
Burke	H0062	Carolinas HealthCare System Blue Ridge	293	0	21,520	-1.0345	21,520	59	88	-205	
Burke Total			**293**	**0**							**0**
Cabarrus	H0031	Atrium Health Cabarrus	447	0	112,429	1.0343	128,666	352	469	22	
Cabarrus Total			**447**	**0**							**22**

Projections based on four-year average county-specific growth rates, compounded annually over the next four years. Acute Care Days data from 2015, 2016, 2017, 2018 and 2019 were used to generate four-year growth rate.

(ADC= Average Daily Census)

Table 5A: Acute Care Bed Need Projections

2019 Utilization Data from IBM Watson Health compiled by the Cecil B. Sheps Center for Health Services Research
Target Occupancy Rates: ADC 1-99: 66.7%, ADC 100-200: 71.4%, ADC > 200 and <=400: 75.2%, ADC>400: 78%
Target Occupancy Factors: ADC 1-99: 1.50, ADC 100-200: 1.40, ADC > 200 and <=400: 1.33, ADC >400: 1.28

A	B	C	D	E	F	G	H	I	J	K	L
Service Area	License Number	Facility Name	Licensed Acute Care Beds	Adjustments for CONs/ Previous Need	Inpatient Days of Care	County Growth Rate Multiplier	Projected Days of Care	2023 Projected Average Daily Census (ADC)	2023 Beds Adjusted for Target Occupancy	Projected 2023 Deficit or Surplus (surplus shows as a "-")	2023 Need Determination
Caldwell	H0061	Caldwell Memorial Hospital	110	0	19,448	1.0287	21,776	60	89	-21	
Caldwell Total			**110**	**0**							**0**
Carteret	H0222	Carteret General Hospital**	135	0	22,186	-1.0113	22,186	61	91	-44	
Carteret Total			**135**	**0**							**0**
Catawba	H0223	Catawba Valley Medical Center	200	0	41,114	1.0113	42,997	118	165	-35	
Catawba	H0053	Frye Regional Medical Center**	209	0	28,932	1.0113	30,257	83	124	-85	
Catawba Total			**409**	**0**							**0**
Chatham	H0007	Chatham Hospital	25	0	2,127	-1.0075	2,127	6	9	-16	
Chatham Total			**25**	**0**							**0**
Cherokee	H0239	Erlanger Murphy Medical Center	57	0	5,867	-1.0321	5,867	16	24	-33	
Cherokee/Clay Total			**57**	**0**							**0**
Chowan	H0063	Vidant Chowan Hospital	49	0	5,249	1.0085	5,430	15	22	-27	
Chowan Total			**49**	**0**							**0**
Cleveland	H0024	Atrium Health Cleveland†††	288	0	44,130	1.0633	56,408	154	216	-72	
Cleveland Total			**288**	**0**							**0**
Columbus	H0045	Columbus Regional Healthcare System**	154	0	11,175	-1.1178	11,175	31	46	-108	
Columbus Total			**154**	**0**							**0**
Craven	H0201	CarolinaEast Medical Center**	307	0	65,431	1.0716	86,273	236	314	7	
Craven/Jones/Pamlico Total			**307**	**0**							**0**
Cumberland	H0213	Cape Fear Valley Medical Center	524	65	171,903	1.0162	183,322	502	642	53	
Cumberland Total			**524**	**65**							**53**
Dare	H0273	The Outer Banks Hospital	21	0	2,575	-1.0324	2,575	7	11	-10	
Dare Total			**21**	**0**							**0**
Davidson	H0027	Lexington Medical Center	94	0	12,230	1.0534	15,061	41	62	-32	
Davidson	H0112	Novant Health Thomasville Medical Center	101	0	12,552	1.0534	15,457	42	63	-38	
Davidson Total			**195**	**0**							**0**
Davie	H0171	Davie Medical Center	50	0	3,899	1.1932	7,903	22	32	-18	
Davie Total			**50**	**0**							**0**

Projections based on four-year average county-specific growth rates, compounded annually over the next four years. Acute Care Days data from 2015, 2016, 2017, 2018 and 2019 were used to generate four-year growth rate.

(ADC= Average Daily Census)

Table 5A: Acute Care Bed Need Projections

2019 Utilization Data from IBM Watson Health compiled by the Cecil B. Sheps Center for Health Services Research
Target Occupancy Rates: ADC 1-99: 66.7%, ADC 100-200: 71.4%, ADC > 200 and <=400: 75.2%, ADC>400: 78%
Target Occupancy Factors: ADC 1-99: 1.50, ADC 100-200: 1.40, ADC > 200 and <=400: 1.33, ADC >400: 1.28

A	B	C	D	E	F	G	H	I	J	K	L
Service Area	License Number	Facility Name	Licensed Acute Care Beds	Adjustments for CONs/ Previous Need	Inpatient Days of Care	County Growth Rate Multiplier	Projected Days of Care	2023 Projected Average Daily Census (ADC)	2023 Beds Adjusted for Target Occupancy	Projected 2023 Deficit or Surplus (surplus shows as a "-")	2023 Need Determination
Duplin	H0166	Vidant Duplin Hospital	56	0	10,170	1.0713	13,398	37	55	-1	
Duplin Total			**56**	**0**							**0**
Durham	H0233	Duke Regional Hospital	316	0	69,947	1.0216	76,190	209	277	-39	
Durham	H0015	Duke University Hospital***	946	102	295,221	1.0216	321,571	880	1,127	79	
		Duke University Health System Total	1,262	102	365,168		397,761	1,089	1,404	40	
Durham	H0075	North Carolina Specialty Hospital	18	6	3,144	1.0216	3,425	9	14	-10	
Durham/Caswell Total			**1,280**	**108**							**40**
Edgecombe	H0258	Vidant Edgecombe Hospital	101	0	13,766	-1.0134	13,766	38	57	-44	
Edgecombe Total			**101**	**0**							**0**
Forsyth		2020 Acute Care Bed Need Determination	0	68		1.0127	0	0	0	-68	
Forsyth	H0209	Novant Health Forsyth Medical Center	865	0	225,544	1.0127	237,193	649	831	-34	
Forsyth	H0229	Novant Health Medical Park Hospital	22	0	2,567	1.0127	2,700	7	11	-11	
		Novant Health Total	887	0	228,111		239,893	657	842	-45	
Forsyth	H0011	North Carolina Baptist Hospital	802	4	229,112	1.0127	240,945	660	844	38	
Forsyth Total			**1,689**	**72**							**0**
Franklin	H0267-B	Maria Parham Franklin††	70	0		0.0000	0	0	0	-70	
Franklin Total			**70**	**0**							**0**
Gaston		2020 Acute Care Bed Need Determination	0	64		1.0587	0	0	0	-64	
Gaston	H0105	CaroMont Regional Medical Center	372	-21	101,657	1.0587	127,710	350	465	114	
Gaston		CaroMont Regional Medical Center - Belmont	0	54		1.0587	0	0	0	-54	
		CaroMont Health Total	372	33	101,657		127,710	350	465	60	
Gaston Total			**372**	**97**							**0**
Granville	H0098	Granville Health System**	62	0	5,988	-1.0600	5,988	16	25	-37	
Granville Total			**62**	**0**							**0**
Guilford	H0159	Cone Health**	754	0	183,443	1.0107	191,433	524	671	-83	
Guilford	H0052	High Point Regional Health	307	0	59,272	1.0107	61,854	169	237	-70	

Projections based on four-year average county-specific growth rates, compounded annually over the next four years. Acute Care Days data from 2015, 2016, 2017, 2018 and 2019 were used to generate four-year growth rate.

(ADC= Average Daily Census)

Table 5A: Acute Care Bed Need Projections

2019 Utilization Data from IBM Watson Health compiled by the Cecil B. Sheps Center for Health Services Research
Target Occupancy Rates: ADC 1-99: 66.7%, ADC 100-200: 71.4%, ADC > 200 and <=400: 75.2%, ADC>400: 78%
Target Occupancy Factors: ADC 1-99: 1.50, ADC 100-200: 1.40, ADC > 200 and <=400: 1.33, ADC >400: 1.28

A	B	C	D	E	F	G	H	I	J	K	L
Service Area	License Number	Facility Name	Licensed Acute Care Beds	Adjustments for CONs/ Previous Need	Inpatient Days of Care	County Growth Rate Multiplier	Projected Days of Care	2023 Projected Average Daily Census (ADC)	2023 Beds Adjusted for Target Occupancy	Projected 2023 Deficit or Surplus (surplus shows as a "-")	2023 Need Determination
Guilford Total			**1,061**	**0**							**0**
Halifax	H0230	Vidant North Hospital	184	0	19,343	-1.0089	19,343	53	79	-105	
Halifax/Northampton Total			**184**	**0**							**0**
Harnett	H0224	Betsy Johnson Hospital**	131	0	17,449	-1.0242	17,449	48	72	-59	
Harnett Total			**131**	**0**							**0**
Haywood	H0025	Haywood Regional Medical Center	121	0	17,279	1.0533	21,269	58	87	-34	
Haywood Total			**121**	**0**							**0**
Henderson	H0019	AdventHealth Hendersonville	62	0	10,501	1.0204	11,386	31	47	-15	
Henderson	H0161	Margaret R. Pardee Memorial Hospital	201	0	24,396	1.0204	26,452	72	109	-92	
Henderson Total			**263**	**0**							**0**
Hertford	H0001	Vidant Roanoke-Chowan Hospital	86	0	13,050	1.0085	13,500	37	55	-31	
Hertford/Gates Total			**86**	**0**							**0**
Hoke	H0288	Cape Fear Valley Hoke Hospital	41	0	4,209	1.4045	16,376	45	67	26	
Hoke	H0287	FirstHealth Moore Regional Hospital - Hoke Campus	8	28	1,724	1.4045	6,708	18	28	-8	
Hoke Total**			**49**	**28**							**26**
Iredell	H0248	Davis Regional Medical Center	102	0	6,636	-1.0097	6,636	18	27	-75	
Iredell	H0259	Lake Norman Regional Medical Center	123	0	14,563	-1.0097	14,563	40	60	-63	
		Community Health Systems Total	225	0	21,199		21,199	58	87	-138	
Iredell	H0164	Iredell Memorial Hospital**	199	0	35,662	-1.0097	35,662	98	146	-53	
Iredell Total			**424**	**0**							**0**
Jackson	H0087	Harris Regional Hospital	86	0	13,731	1.0119	14,397	39	59	-27	
Jackson Total			**86**	**0**							**0**
Johnston	H0151	Johnston Health	179	0	34,620	1.0062	35,483	97	146	-33	
Johnston Total			**179**	**0**							**0**
Lee	H0243	Central Carolina Hospital**	127	0	13,354	-1.0503	13,354	37	55	-72	
Lee Total			**127**	**0**							**0**
Lenoir	H0043	UNC Lenoir Health Care	218	0	23,743	-1.0130	23,743	65	98	-120	

Projections based on four-year average county-specific growth rates, compounded annually over the next four years. Acute Care Days data from 2015, 2016, 2017, 2018 and 2019 were used to generate four-year growth rate.

(ADC= Average Daily Census)

Table 5A: Acute Care Bed Need Projections

2019 Utilization Data from IBM Watson Health compiled by the Cecil B. Sheps Center for Health Services Research
Target Occupancy Rates: ADC 1-99: 66.7%, ADC 100-200: 71.4%, ADC > 200 and <=400: 75.2%, ADC>400: 78%
Target Occupancy Factors: ADC 1-99: 1.50, ADC 100-200: 1.40, ADC > 200 and <=400: 1.33, ADC >400: 1.28

A	B	C	D	E	F	G	H	I	J	K	L
Service Area	License Number	Facility Name	Licensed Acute Care Beds	Adjustments for CONs/ Previous Need	Inpatient Days of Care	County Growth Rate Multiplier	Projected Days of Care	2023 Projected Average Daily Census (ADC)	2023 Beds Adjusted for Target Occupancy	Projected 2023 Deficit or Surplus (surplus shows as a "-")	2023 Need Determination
Lenoir Total			**218**	**0**							**0**
Lincoln	H0225	Atrium Health Lincoln	101	0	19,972	1.0245	22,007	60	90	-11	
Lincoln Total			**101**	**0**							**0**
Macon	H0034	Angel Medical Center	59	-29	5,701	1.0715	7,516	21	31	1	
Macon	H0193	Highlands-Cashiers Hospital**	24	0	2,763	1.0715	3,643	10	15	-9	
Macon Total			**83**	**-29**							**0**
Martin	H0078	Martin General Hospital	49	0	4,458	1.0218	4,860	13	20	-29	
Martin Total			**49**	**0**							**0**
McDowell	H0097	Mission Hospital McDowell	65	0	7,742	1.0241	8,515	23	35	-30	
McDowell Total			**65**	**0**							**0**
Mecklenburg		2019 Acute Care Bed Need Determination	0	30		1.0298	0	0	0	-30	
Mecklenburg		2020 Acute Care Bed Need Determination	0	126		1.0298	0	0	0	-126	
Mecklenburg	H0042	Atrium Health Pineville	221	50	71,985	1.0298	80,943	222	295	24	
Mecklenburg	H0255	Atrium Health University City	100	16	27,856	1.0298	31,323	86	129	13	
Mecklenburg	H0071	Carolinas Medical Center/Center for Mental Health	1,055	18	321,862	1.0298	361,916	991	1,268	195	
		Atrium Health Total	1,376	84	421,703		474,182	1,298	1,692	232	
Mecklenburg		Novant Health Ballantyne Medical Center	0	36		1.0298	0	0	0	-36	
Mecklenburg	H0282	Novant Health Huntersville Medical Center	139	12	26,792	1.0298	30,126	82	124	-27	
Mecklenburg	H0270	Novant Health Matthews Medical Center	154	0	41,285	1.0298	46,423	127	178	24	
Mecklenburg	H0290	Novant Health Mint Hill Medical Center	36	14		1.0298	0	0	0	-50	
Mecklenburg	H0010	Novant Health Presbyterian Medical Center	519	-36	142,468	1.0298	160,197	439	561	78	
		Novant Health Total	848	26	210,545		236,746	648	863	-11	
Mecklenburg Total			**2,224**	**266**							**76**
Mitchell	H0169	Blue Ridge Regional Hospital	46	0	4,382	1.1439	7,504	21	31	-15	
Mitchell Total			**46**	**0**							**0**
Montgomery	H0003	FirstHealth Montgomery Memorial Hospital**	37	0	765	1.0207	830	2	3	-34	

Projections based on four-year average county-specific growth rates, compounded annually over the next four years. Acute Care Days data from 2015, 2016, 2017, 2018 and 2019 were used to generate four-year growth rate.

(ADC= Average Daily Census)

Table 5A: Acute Care Bed Need Projections

2019 Utilization Data from IBM Watson Health compiled by the Cecil B. Sheps Center for Health Services Research
Target Occupancy Rates: ADC 1-99: 66.7%, ADC 100-200: 71.4%, ADC > 200 and <=400: 75.2%, ADC>400: 78%
Target Occupancy Factors: ADC 1-99: 1.50, ADC 100-200: 1.40, ADC > 200 and <=400: 1.33, ADC >400: 1.28

A	B	C	D	E	F	G	H	I	J	K	L
Service Area	License Number	Facility Name	Licensed Acute Care Beds	Adjustments for CONs/ Previous Need	Inpatient Days of Care	County Growth Rate Multiplier	Projected Days of Care	2023 Projected Average Daily Census (ADC)	2023 Beds Adjusted for Target Occupancy	Projected 2023 Deficit or Surplus (surplus shows as a "-")	2023 Need Determination
Montgomery Total			**37**	**0**							**0**
Moore		2020 Acute Care Bed Need Determination	0	25		1.0230	0	0	0	-25	
Moore	H0100	FirstHealth Moore Regional Hospital and Pinehurst Treatment Center**	337	22	96,433	1.0230	105,619	289	385	26	
Moore Total			**337**	**47**							**0**
Nash	H0228	Nash General Hospital	262	0	44,566	-1.0133	44,566	122	171	-91	
Nash Total			**262**	**0**							**0**
New Hanover		2020 Acute Care Bed Need Determination	0	36		1.0260	0	0	0	-36	
New Hanover	H0221	New Hanover Regional Medical Center	647	31	192,960	1.0260	213,798	585	749	71	
New Hanover Total			**647**	**67**							**35**
Onslow	H0048	Onslow Memorial Hospital	162	0	28,969	-1.0068	28,969	79	119	-43	
Onslow Total			**162**	**0**							**0**
Orange	H0157	University of North Carolina Hospitals	817	114	249,002	1.0202	269,767	739	945	14	
Orange Total			**817**	**114**							**0**
Pasquotank	H0054	Sentara Albemarle Medical Center**	182	0	20,110	-1.0046	20,110	55	83	-99	
Pasquotank/Camden/Currituck/Perquimans Total			**182**	**0**							**0**
Pender	H0115	Pender Memorial Hospital	43	0	1,276	-1.0945	1,276	3	5	-38	
Pender Total			**43**	**0**							**0**
Person	H0066	Person Memorial Hospital	38	0	3,455	-1.0417	3,455	9	14	-24	
Person Total			**38**	**0**							**0**
Pitt	H0104	Vidant Medical Center	847	85	251,042	1.0305	283,125	775	992	60	
Pitt/Greene/Hyde/Tyrrell Total			**847**	**85**							**60**
Polk	H0079	St. Luke's Hospital	25	0	4,323	1.0339	4,939	14	20	-5	
Polk Total			**25**	**0**							**0**
Randolph	H0013	Randolph Hospital	145	0	14,635	-1.0596	14,635	40	60	-85	
Randolph Total			**145**	**0**							**0**
Richmond	H0158	FirstHealth Moore Regional Hospital - Richmond	99	0	9,123	-1.0805	9,123	25	37	-62	

Projections based on four-year average county-specific growth rates, compounded annually over the next four years. Acute Care Days data from 2015, 2016, 2017, 2018 and 2019 were used to generate four-year growth rate.

(ADC= Average Daily Census)

Table 5A: Acute Care Bed Need Projections

2019 Utilization Data from IBM Watson Health compiled by the Cecil B. Sheps Center for Health Services Research
Target Occupancy Rates: ADC 1-99: 66.7%, ADC 100-200: 71.4%, ADC > 200 and <=400: 75.2%, ADC>400: 78%
Target Occupancy Factors: ADC 1-99: 1.50, ADC 100-200: 1.40, ADC > 200 and <=400: 1.33, ADC >400: 1.28

A	B	C	D	E	F	G	H	I	J	K	L
Service Area	License Number	Facility Name	Licensed Acute Care Beds	Adjustments for CONs/ Previous Need	Inpatient Days of Care	County Growth Rate Multiplier	Projected Days of Care	2023 Projected Average Daily Census (ADC)	2023 Beds Adjusted for Target Occupancy	Projected 2023 Deficit or Surplus (surplus shows as a "-")	2023 Need Determination
Richmond Total			**99**	**0**							**0**
Robeson	H0064	Southeastern Regional Medical Center	292	0	48,894	-1.0482	48,894	134	187	-105	
Robeson Total			**292**	**0**							**0**
Rockingham	H0023	Annie Penn Hospital	110	0	12,349	-1.0006	12,349	34	51	-59	
Rockingham	H0072	UNC Rockingham Hospital	108	0	9,827	-1.0006	9,827	27	40	-68	
Rockingham Total			**218**	**0**							**0**
Rowan	H0040	Novant Health Rowan Medical Center	203	0	35,038	-1.0071	35,038	96	144	-59	
Rowan Total			**203**	**0**							**0**
Rutherford	H0039	Rutherford Regional Medical Center	129	0	12,145	-1.0538	12,145	33	50	-79	
Rutherford Total			**129**	**0**							**0**
Sampson	H0067	Sampson Regional Medical Center**	116	0	9,783	-1.0141	9,783	27	40	-76	
Sampson Total			**116**	**0**							**0**
Scotland	H0107	Scotland Memorial Hospital**	97	0	19,968	1.0232	21,883	60	90	-7	
Scotland Total			**97**	**0**							**0**
Stanly	H0008	Atrium Health Stanly	97	0	12,842	1.0361	14,799	41	61	-36	
Stanly Total			**97**	**0**							**0**
Stokes	H0165	LifeBrite Community Hospital of Stokes	53	0	712	-1.1623	712	2	3	-50	
Stokes Total			**53**	**0**							**0**
Surry	H0049	Hugh Chatham Memorial Hospital	81	0	12,319	-1.0164	12,319	34	51	-30	
Surry	H0184	Northern Regional Hospital*	100	-17	14,127	-1.0164	14,127	39	58	-25	
Surry Total			**181**	**-17**							**0**
Swain	H0069	Swain Community Hospital	48	0	504	-1.1331	504	1	2	-46	
Swain Total			**48**	**0**							**0**
Transylvania	H0111	Transylvania Regional Hospital**	42	0	5,445	-1.0018	5,445	15	22	-20	
Transylvania Total			**42**	**0**							**0**
Union	H0050	Atrium Health Union	182	0	37,518	1.0432	44,425	122	170	-12	
Union Total			**182**	**0**							**0**
Vance	H0267-A	Maria Parham Health	91	11		-1.0521	0	0	0	-102	

Projections based on four-year average county-specific growth rates, compounded annually over the next four years. Acute Care Days data from 2015, 2016, 2017, 2018 and 2019 were used to generate four-year growth rate.

(ADC= Average Daily Census)

Table 5A: Acute Care Bed Need Projections

2019 Utilization Data from IBM Watson Health compiled by the Cecil B. Sheps Center for Health Services Research
Target Occupancy Rates: ADC 1-99: 66.7%, ADC 100-200: 71.4%, ADC > 200 and <=400: 75.2%, ADC>400: 78%
Target Occupancy Factors: ADC 1-99: 1.50, ADC 100-200: 1.40, ADC > 200 and <=400: 1.33, ADC >400: 1.28

A	B	C	D	E	F	G	H	I	J	K	L
Service Area	License Number	Facility Name	Licensed Acute Care Beds	Adjustments for CONs/ Previous Need	Inpatient Days of Care	County Growth Rate Multiplier	Projected Days of Care	2023 Projected Average Daily Census (ADC)	2023 Beds Adjusted for Target Occupancy	Projected 2023 Deficit or Surplus (surplus shows as a "-")	2023 Need Determination
Vance/Warren Total			**91**	**11**							**0**
Wake	H0065	Rex Hospital	439	0	118,708	1.0119	124,469	341	453	14	
Wake		Rex Hospital Holly Springs	0	50		1.0119	0	0	0	-50	
		UNC Health Care Total	439	50	118,708		124,469	341	453	-36	
Wake	H0199	WakeMed	628	36	165,273	1.0119	173,294	474	607	-57	
Wake	H0276	WakeMed Cary Hospital	178	30	48,593	1.0119	50,951	139	195	-13	
		WakeMed Total	806	66	213,866		224,245	614	803	-69	
Wake	H0238	Duke Raleigh Hospital	186	0	49,334	1.0119	51,728	142	198	12	
Wake Total			**1,431**	**116**							**0**
Washington	H0006	Washington Regional Medical Center**	49	-37	183	-1.2469	183	1	1	-11	
Washington Total			**49**	**-37**							**0**
Watauga	H0077	Watauga Medical Center	117	0	15,086	1.0174	16,165	44	66	-51	
Watauga Total			**117**	**0**							**0**
Wayne	H0257	Wayne UNC Health Care	255	0	44,597	1.0044	45,382	124	174	-81	
Wayne Total			**255**	**0**							**0**
Wilkes	H0153	Wilkes Medical Center	120	0	11,778	-1.0592	11,778	32	48	-72	
Wilkes Total			**120**	**0**							**0**
Wilson	H0210	Wilson Medical Center	270	0	24,696	-1.0454	24,696	68	101	-169	
Wilson Total			**270**	**0**							**0**
Yadkin	H0155	Yadkin Valley Community Hospital (closed)^	22	0		0.0000	0	0	0	-22	
Yadkin Total			**22**	**0**							**0**

Projections based on four-year average county-specific growth rates, compounded annually over the next four years. Acute Care Days data from 2015, 2016, 2017, 2018 and 2019 were used to generate four-year growth rate.

(ADC= Average Daily Census)

Table 5A: Acute Care Bed Need Projections

2019 Utilization Data from IBM Watson Health compiled by the Cecil B. Sheps Center for Health Services Research
Target Occupancy Rates: ADC 1-99: 66.7%, ADC 100-200: 71.4%, ADC > 200 and <=400: 75.2%, ADC>400: 78%
Target Occupancy Factors: ADC 1-99: 1.50, ADC 100-200: 1.40, ADC > 200 and <=400: 1.33, ADC >400: 1.28

A	B	C	D	E	F	G	H	I	J	K	L
Service Area	License Number	Facility Name	Licensed Acute Care Beds	Adjustments for CONs/ Previous Need	Inpatient Days of Care	County Growth Rate Multiplier	Projected Days of Care	2023 Projected Average Daily Census (ADC)	2023 Beds Adjusted for Target Occupancy	Projected 2023 Deficit or Surplus (surplus shows as a "-")	2023 Need Determination
		Grand Total All Hospitals	**21,208**	**980**	**4,612,393**		**5,031,936**				**312**

* Acute care beds in the "Adjustments for CONs/Previous Need" column are to be converted to inpatient psychiatric beds. This conversion is exempt from certificate of need review, pursuant to G.S. 131E-184(c).

** IBM Watson Health acute inpatient days of care data and the Division of Health Service Regulation Hospital License Renewal Application days of care data have a greater than ± 5% discrepancy between the two data sources.

*** Duke University Hospital is licensed for 14 acute care beds under Policy AC-3. The 14 beds are not counted when determining acute care bed need.

**** The State Health Coordinating Council voted to remove the need for 26 beds in Hoke County.

^ Yadkin Valley Community Hospital has requested to extend its designation as a legacy medical care facility by an additional 36 months. The facility has until January 18, 2022 to reopen the hospital.

† Charles A. Cannon, Jr. Memorial Hospital received a grant from the Dorothea Dix Hospital Property Fund to convert 27 acute care beds to adult psychiatric beds. This project is exempt from certificate of need review and the beds are not yet accounted for in Table 5A.

†† Maria Parham Health received a grant from the Dorothea Dix Hospital Property Fund to renovate and convert 13 acute care beds to adult psychiatric beds at Maria Parham Franklin. This project is exempt from certificate of need review and the beds are not yet accounted for in Table 5A.

††† Atrium Health Cleveland and Atrium Health Kings Mountain are consolidated under the Atrium Health Cleveland license, effective August 1, 2019.

Note: The decimal part of a number resulting from a calculation is not displayed, but it is used in subsequent calculations. Therefore, calculated totals may not be identical to displayed totals.

Projections based on four-year average county-specific growth rates, compounded annually over the next four years. Acute Care Days data from 2015, 2016, 2017, 2018 and 2019 were used to generate four-year growth rate.

(ADC= Average Daily Census)

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Table 5A: Acute Care Bed Need Projections

2019 Utilization Data from IBM Watson Health compiled by the Cecil B. Sheps Center for Health Services Research

Target Occupancy Rates: ADC 1-99: 66.7%, ADC 100-200: 71.4%, ADC > 200 and <=400: 75.2%, ADC>400: 78%

Target Occupancy Factors: ADC 1-99: 1.50, ADC 100-200: 1.40, ADC > 200 and <=400: 1.33, ADC >400: 1.28

A	B	C	D	E	F	G	H	I	J	K	L
Service Area	**License Number**	**Facility Name**	**Licensed Acute Care Beds**	**Adjustments for CONs/ Previous Need**	**Inpatient Days of Care**	**County Growth Rate Multiplier**	**Projected Days of Care**	**2023 Projected Average Daily Census (ADC)**	**2023 Beds Adjusted for Target Occupancy**	**Projected 2023 Deficit or Surplus (surplus shows as a "-")**	**2023 Need Determination**
Alamance	H0272	Alamance Regional Medical Center**	182	0	38,418	-1.0104	38,418	105	147	-35	
Alamance Total			**182**	**0**							**0**
Alexander	H0274	Alexander Hospital (closed)*	25	-25		0.0000	0	0	0	0	
Alexander Total			**25**	**-25**							**0**
Alleghany	H0108	Alleghany Memorial Hospital	41	0	720	-1.1922	720	2	3	-38	
Alleghany Total			**41**	**0**							**0**
Anson	H0082	Atrium Health Anson	15	0	1,065	1.2993	3,035	8	12	-3	
Anson Total			**15**	**0**							**0**
Ashe	H0099	Ashe Memorial Hospital	76	0	4,396	1.0014	4,421	12	18	-58	
Ashe Total			**76**	**0**							**0**
Avery	H0037	Charles A. Cannon, Jr. Memorial Hospital**/†	30	0	1,767	-1.1491	1,767	5	7	-23	
Avery Total			**30**	**0**							**0**
Beaufort	H0188	Vidant Beaufort Hospital	120	0	13,458	1.0658	17,365	48	71	-49	
Beaufort Total			**120**	**0**							**0**
Bertie	H0268	Vidant Bertie Hospital	6	0	1,438	-1.0014	1,438	4	6	0	
Bertie Total			**6**	**0**							**0**
Bladen	H0154	Cape Fear Valley-Bladen County Hospital**	48	0	3,084	-1.0066	3,084	8	13	-35	
Bladen Total			**48**	**0**							**0**
Brunswick	H0150	J. Arthur Dosher Memorial Hospital	25	0	1,845	-1.0307	1,845	5	8	-17	
Brunswick	H0250	Novant Health Brunswick Medical Center	74	0	14,005	-1.0307	14,005	38	58	-16	
Brunswick Total			**99**	**0**							**0**
Buncombe	H0036	Mission Hospital	721	12	195,732	1.0157	208,344	570	730	-3	
Buncombe/Graham/Madison/Yancey Total			**721**	**12**							**0**
Burke	H0062	Carolinas HealthCare System Blue Ridge	293	0	21,520	-1.0345	21,520	59	88	-205	
Burke Total			**293**	**0**							**0**
Cabarrus	H0031	Atrium Health Cabarrus	447	0	112,429	1.0343	128,666	352	469	22	
Cabarrus Total			**447**	**0**							**22**

Projections based on four-year average county-specific growth rates, compounded annually over the next four years. Acute Care Days data from 2015, 2016, 2017, 2018 and 2019 were used to generate four-year growth rate.

(ADC= Average Daily Census)

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Table 5A: Acute Care Bed Need Projections

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Target Occupancy Rates: ADC 1-99: 66.7%, ADC 100-200: 71.4%, ADC > 200 and <=400: 75.2%, ADC>400: 78%
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A	B	C	D	E	F	G	H	I	J	K	L
Service Area	License Number	Facility Name	Licensed Acute Care Beds	Adjustments for CONs/ Previous Need	Inpatient Days of Care	County Growth Rate Multiplier	Projected Days of Care	2023 Projected Average Daily Census (ADC)	2023 Beds Adjusted for Target Occupancy	Projected 2023 Deficit or Surplus (surplus shows as a "-")	2023 Need Determination
Caldwell	H0061	Caldwell Memorial Hospital	110	0	19,448	1.0287	21,776	60	89	-21	
Caldwell Total			**110**	**0**							**0**
Carteret	H0222	Carteret General Hospital	135	0	23,234	-1.0007	23,234	64	95	-40	
Carteret Total			**135**	**0**							**0**
Catawba	H0223	Catawba Valley Medical Center	200	0	41,114	1.0113	42,997	118	165	-35	
Catawba	H0053	Frye Regional Medical Center**	209	0	28,932	1.0113	30,257	83	124	-85	
Catawba Total			**409**	**0**							**0**
Chatham	H0007	Chatham Hospital	25	0	2,127	-1.0075	2,127	6	9	-16	
Chatham Total			**25**	**0**							**0**
Cherokee	H0239	Erlanger Murphy Medical Center	57	0	5,867	-1.0321	5,867	16	24	-33	
Cherokee/Clay Total			**57**	**0**							**0**
Chowan	H0063	Vidant Chowan Hospital	49	0	5,254	1.0088	5,441	15	22	-27	
Chowan Total			**49**	**0**							**0**
Cleveland	H0024	Atrium Health Cleveland†††	288	0	44,130	1.0633	56,408	154	216	-72	
Cleveland Total			**288**	**0**							**0**
Columbus	H0045	Columbus Regional Healthcare System**	154	0	11,175	-1.1178	11,175	31	46	-108	
Columbus Total			**154**	**0**							**0**
Craven	H0201	CarolinaEast Medical Center**	307	0	65,466	1.0717	86,367	236	314	7	
Craven/Jones/Pamlico Total			**307**	**0**							**0**
Cumberland	H0213	Cape Fear Valley Medical Center	524	65	171,903	1.0162	183,322	502	642	53	
Cumberland Total			**524**	**65**							**53**
Dare	H0273	The Outer Banks Hospital	21	0	2,575	-1.0324	2,575	7	11	-10	
Dare Total			**21**	**0**							**0**
Davidson	H0027	Lexington Medical Center	94	0	12,230	1.0534	15,061	41	62	-32	
Davidson	H0112	Novant Health Thomasville Medical Center	101	0	12,552	1.0534	15,457	42	63	-38	
Davidson Total			**195**	**0**							**0**
Davie	H0171	Davie Medical Center	50	0	3,899	1.1932	7,903	22	32	-18	
Davie Total			**50**	**0**							**0**

Projections based on four-year average county-specific growth rates, compounded annually over the next four years. Acute Care Days data from 2015, 2016, 2017, 2018 and 2019 were used to generate four-year growth rate.

(ADC= Average Daily Census)

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Table 5A: Acute Care Bed Need Projections

2019 Utilization Data from IBM Watson Health compiled by the Cecil B. Sheps Center for Health Services Research
Target Occupancy Rates: ADC 1-99: 66.7%, ADC 100-200: 71.4%, ADC > 200 and <=400: 75.2%, ADC>400: 78%
Target Occupancy Factors: ADC 1-99: 1.50, ADC 100-200: 1.40, ADC > 200 and <=400: 1.33, ADC >400: 1.28

A	B	C	D	E	F	G	H	I	J	K	L
Service Area	**License Number**	**Facility Name**	**Licensed Acute Care Beds**	**Adjustments for CONs/ Previous Need**	**Inpatient Days of Care**	**County Growth Rate Multiplier**	**Projected Days of Care**	**2023 Projected Average Daily Census (ADC)**	**2023 Beds Adjusted for Target Occupancy**	**Projected 2023 Deficit or Surplus (surplus shows as a "-")**	**2023 Need Determination**
Duplin	H0166	Vidant Duplin Hospital	56	0	10,267	1.0737	13,646	37	56	0	
Duplin Total			**56**	**0**							**0**
Durham	H0233	Duke Regional Hospital	316	0	69,947	1.0216	76,190	209	277	-39	
Durham	H0015	Duke University Hospital***	946	102	295,221	1.0216	321,571	880	1,127	79	
		Duke University Health System Total	1,262	102	365,168		397,761	1,089	1,404	40	
Durham	H0075	North Carolina Specialty Hospital	18	6	3,144	1.0216	3,425	9	14	-10	
Durham/Caswell Total			**1,280**	**108**							**40**
Edgecombe	H0258	Vidant Edgecombe Hospital	101	0	13,767	-1.0134	13,767	38	57	-44	
Edgecombe Total			**101**	**0**							**0**
Forsyth		2020 Acute Care Bed Need Determination	0	68		1.0127	0	0	0	-68	
Forsyth	H0209	Novant Health Forsyth Medical Center	865	0	225,544	1.0127	237,193	649	831	-34	
Forsyth	H0229	Novant Health Medical Park Hospital	22	0	2,567	1.0127	2,700	7	11	-11	
		Novant Health Total	887	0	228,111		239,893	657	842	-45	
Forsyth	H0011	North Carolina Baptist Hospital	802	4	229,112	1.0127	240,945	660	844	38	
Forsyth Total			**1,689**	**72**							**0**
Franklin	H0267-B	Maria Parham Franklin††	70	0		0.0000	0	0	0	-70	
Franklin Total			**70**	**0**							**0**
Gaston	H0105	CaroMont Regional Medical Center	372	43	101,657	1.0587	127,710	350	465	50	
Gaston		CaroMont Regional Medical Center - Belmont	0	54		1.0587	0	0	0	-54	
		CaroMont Health Total	372	97	101,657		127,710	350	465	-4	
Gaston Total			**372**	**97**							**0**
Granville	H0098	Granville Health System	62	0	6,058	-1.0575	6,058	17	25	-37	
Granville Total			**62**	**0**							**0**
Guilford	H0159	Cone Health**	754	0	183,443	1.0107	191,433	524	671	-83	
Guilford	H0052	High Point Regional Health	307	0	59,272	1.0107	61,854	169	237	-70	
Guilford Total			**1,061**	**0**							**0**

Projections based on four-year average county-specific growth rates, compounded annually over the next four years. Acute Care Days data from 2015, 2016, 2017, 2018 and 2019 were used to generate four-year growth rate.

(ADC= Average Daily Census)

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Table 5A: Acute Care Bed Need Projections

2019 Utilization Data from IBM Watson Health compiled by the Cecil B. Sheps Center for Health Services Research
Target Occupancy Rates: ADC 1-99: 66.7%, ADC 100-200: 71.4%, ADC > 200 and <=400: 75.2%, ADC>400: 78%
Target Occupancy Factors: ADC 1-99: 1.50, ADC 100-200: 1.40, ADC > 200 and <=400: 1.33, ADC >400: 1.28

A	B	C	D	E	F	G	H	I	J	K	L
Service Area	License Number	Facility Name	Licensed Acute Care Beds	Adjustments for CONs/ Previous Need	Inpatient Days of Care	County Growth Rate Multiplier	Projected Days of Care	2023 Projected Average Daily Census (ADC)	2023 Beds Adjusted for Target Occupancy	Projected 2023 Deficit or Surplus (surplus shows as a "-")	2023 Need Determination
Halifax	H0230	Vidant North Hospital	184	0	19,343	-1.0089	19,343	53	79	-105	
Halifax/Northampton Total			**184**	**0**							**0**
Harnett	H0224	Betsy Johnson Hospital**	131	0	14,352	-1.0804	14,352	39	59	-72	
Harnett Total			**131**	**0**							**0**
Haywood	H0025	Haywood Regional Medical Center	121	0	17,279	1.0533	21,269	58	87	-34	
Haywood Total			**121**	**0**							**0**
Henderson	H0019	AdventHealth Hendersonville	62	0	10,501	1.0204	11,386	31	47	-15	
Henderson	H0161	Margaret R. Pardee Memorial Hospital	201	0	24,396	1.0204	26,452	72	109	-92	
Henderson Total			**263**	**0**							**0**
Hertford	H0001	Vidant Roanoke-Chowan Hospital	86	0	13,050	1.0085	13,500	37	55	-31	
Hertford/Gates Total			**86**	**0**							**0**
Hoke	H0288	Cape Fear Valley Hoke Hospital	41	0	4,209	1.4045	16,376	45	67	26	
Hoke	H0287	FirstHealth Moore Regional Hospital - Hoke Campus	8	28	1,724	1.4045	6,708	18	28	-8	
Hoke Total**			**49**	**28**							**26**
Iredell	H0248	Davis Regional Medical Center	102	0	6,636	-1.0223	6,636	18	27	-75	
Iredell	H0259	Lake Norman Regional Medical Center	123	0	14,563	-1.0223	14,563	40	60	-63	
		Community Health Systems Total	225	0	21,199		21,199	58	87	-138	
Iredell	H0164	Iredell Memorial Hospital	199	0	32,698	-1.0223	32,698	90	134	-65	
Iredell Total			**424**	**0**							**0**
Jackson	H0087	Harris Regional Hospital	86	0	13,731	1.0119	14,397	39	59	-27	
Jackson Total			**86**	**0**							**0**
Johnston	H0151	Johnston Health	179	0	34,620	1.0062	35,483	97	146	-33	
Johnston Total			**179**	**0**							**0**
Lee	H0243	Central Carolina Hospital**	127	0	13,354	-1.0503	13,354	37	55	-72	
Lee Total			**127**	**0**							**0**
Lenoir	H0043	UNC Lenoir Health Care	218	0	23,743	-1.0130	23,743	65	98	-120	
Lenoir Total			**218**	**0**							**0**

Projections based on four-year average county-specific growth rates, compounded annually over the next four years. Acute Care Days data from 2015, 2016, 2017, 2018 and 2019 were used to generate four-year growth rate.

(ADC= Average Daily Census)

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Table 5A: Acute Care Bed Need Projections

2019 Utilization Data from IBM Watson Health compiled by the Cecil B. Sheps Center for Health Services Research
Target Occupancy Rates: ADC 1-99: 66.7%, ADC 100-200: 71.4%, ADC > 200 and <=400: 75.2%, ADC>400: 78%
Target Occupancy Factors: ADC 1-99: 1.50, ADC 100-200: 1.40, ADC > 200 and <=400: 1.33, ADC >400: 1.28

A	B	C	D	E	F	G	H	I	J	K	L
Service Area	License Number	Facility Name	Licensed Acute Care Beds	Adjustments for CONs/ Previous Need	Inpatient Days of Care	County Growth Rate Multiplier	Projected Days of Care	2023 Projected Average Daily Census (ADC)	2023 Beds Adjusted for Target Occupancy	Projected 2023 Deficit or Surplus (surplus shows as a "-")	2023 Need Determination
Lincoln	H0225	Atrium Health Lincoln	101	0	19,972	1.0245	22,007	60	90	-11	
Lincoln Total			**101**	**0**							**0**
Macon	H0034	Angel Medical Center	59	-29	5,701	1.0715	7,516	21	31	1	
Macon	H0193	Highlands-Cashiers Hospital**	24	0	2,763	1.0715	3,643	10	15	-9	
Macon Total			**83**	**-29**							**0**
Martin	H0078	Martin General Hospital	49	0	4,458	1.0218	4,860	13	20	-29	
Martin Total			**49**	**0**							**0**
McDowell	H0097	Mission Hospital McDowell	65	0	7,742	1.0241	8,515	23	35	-30	
McDowell Total			**65**	**0**							**0**
Mecklenburg		2019 Acute Care Bed Need Determination	0	30		1.0298	0	0	0	-30	
Mecklenburg		2020 Acute Care Bed Need Determination	0	126		1.0298	0	0	0	-126	
Mecklenburg	H0042	Atrium Health Pineville	221	50	71,985	1.0298	80,943	222	295	24	
Mecklenburg	H0255	Atrium Health University City	100	16	27,856	1.0298	31,323	86	129	13	
Mecklenburg	H0071	Carolinas Medical Center/Center for Mental Health	1,055	18	321,862	1.0298	361,916	991	1,268	195	
		Atrium Health Total	1,376	84	421,703		474,182	1,298	1,692	232	
Mecklenburg		Novant Health Ballantyne Medical Center	0	36		1.0298	0	0	0	-36	
Mecklenburg	H0282	Novant Health Huntersville Medical Center	139	12	26,792	1.0298	30,126	82	124	-27	
Mecklenburg	H0270	Novant Health Matthews Medical Center	154	0	41,285	1.0298	46,423	127	178	24	
Mecklenburg	H0290	Novant Health Mint Hill Medical Center	36	14		1.0298	0	0	0	-50	
Mecklenburg	H0010	Novant Health Presbyterian Medical Center	519	-36	142,468	1.0298	160,197	439	561	78	
		Novant Health Total	848	26	210,545		236,746	648	863	-11	
Mecklenburg Total			**2,224**	**266**							**76**
Mitchell	H0169	Blue Ridge Regional Hospital	46	0	4,382	1.1439	7,504	21	31	-15	
Mitchell Total			**46**	**0**							**0**
Montgomery	H0003	FirstHealth Montgomery Memorial Hospital**	37	0	765	1.0207	830	2	3	-34	
Montgomery Total			**37**	**0**							**0**

Projections based on four-year average county-specific growth rates, compounded annually over the next four years. Acute Care Days data from 2015, 2016, 2017, 2018 and 2019 were used to generate four-year growth rate.

(ADC= Average Daily Census)

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Table 5A: Acute Care Bed Need Projections

2019 Utilization Data from IBM Watson Health compiled by the Cecil B. Sheps Center for Health Services Research
Target Occupancy Rates: ADC 1-99: 66.7%, ADC 100-200: 71.4%, ADC > 200 and <=400: 75.2%, ADC>400: 78%
Target Occupancy Factors: ADC 1-99: 1.50, ADC 100-200: 1.40, ADC > 200 and <=400: 1.33, ADC >400: 1.28

A	B	C	D	E	F	G	H	I	J	K	L
Service Area	**License Number**	**Facility Name**	**Licensed Acute Care Beds**	**Adjustments for CONs/ Previous Need**	**Inpatient Days of Care**	**County Growth Rate Multiplier**	**Projected Days of Care**	**2023 Projected Average Daily Census (ADC)**	**2023 Beds Adjusted for Target Occupancy**	**Projected 2023 Deficit or Surplus (surplus shows as a "-")**	**2023 Need Determination**
Moore		2020 Acute Care Bed Need Determination	0	25		1.0230	0	0	0	-25	
Moore	H0100	FirstHealth Moore Regional Hospital and Pinehurst Treatment Ctr**	337	22	96,433	1.0230	105,619	289	385	26	
Moore Total			**337**	**47**							**0**
Nash	H0228	Nash General Hospital	262	0	44,566	-1.0133	44,566	122	171	-91	
Nash Total			**262**	**0**							**0**
New Hanover		2020 Acute Care Bed Need Determination	0	36		1.0260	0	0	0	-36	
New Hanover	H0221	New Hanover Regional Medical Center	647	31	192,960	1.0260	213,798	585	749	71	
New Hanover Total			**647**	**67**							**35**
Onslow	H0048	Onslow Memorial Hospital	162	0	28,969	-1.0068	28,969	79	119	-43	
Onslow Total			**162**	**0**							**0**
Orange	H0157	University of North Carolina Hospitals	817	114	249,002	1.0202	269,767	739	945	14	
Orange Total			**817**	**114**							**0**
Pasquotank	H0054	Sentara Albemarle Medical Center	182	0	19,257	-1.0147	19,257	53	79	-103	
Pasquotank/Camden/Currituck/Perquimans Total			**182**	**0**							**0**
Pender	H0115	Pender Memorial Hospital	43	0	1,276	-1.0945	1,276	3	5	-38	
Pender Total			**43**	**0**							**0**
Person	H0066	Person Memorial Hospital	38	0	3,455	-1.0417	3,455	9	14	-24	
Person Total			**38**	**0**							**0**
Pitt	H0104	Vidant Medical Center	847	85	251,394	1.0309	283,938	777	995	63	
Pitt/Greene/Hyde/Tyrrell Total			**847**	**85**							**63**
Polk	H0079	St. Luke's Hospital	25	0	4,323	1.0339	4,939	14	20	-5	
Polk Total			**25**	**0**							**0**
Randolph	H0013	Randolph Hospital	145	0	14,635	-1.0596	14,635	40	60	-85	
Randolph Total			**145**	**0**							**0**
Richmond	H0158	FirstHealth Moore Regional Hospital - Richmond	99	0	9,123	-1.0805	9,123	25	37	-62	
Richmond Total			**99**	**0**							**0**

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(ADC= Average Daily Census)

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Table 5A: Acute Care Bed Need Projections

2019 Utilization Data from IBM Watson Health compiled by the Cecil B. Sheps Center for Health Services Research
Target Occupancy Rates: ADC 1-99: 66.7%, ADC 100-200: 71.4%, ADC > 200 and <=400: 75.2%, ADC>400: 78%
Target Occupancy Factors: ADC 1-99: 1.50, ADC 100-200: 1.40, ADC > 200 and <=400: 1.33, ADC >400: 1.28

A	B	C	D	E	F	G	H	I	J	K	L
Service Area	**License Number**	**Facility Name**	**Licensed Acute Care Beds**	**Adjustments for CONs/ Previous Need**	**Inpatient Days of Care**	**County Growth Rate Multiplier**	**Projected Days of Care**	**2023 Projected Average Daily Census (ADC)**	**2023 Beds Adjusted for Target Occupancy**	**Projected 2023 Deficit or Surplus (surplus shows as a "-")**	**2023 Need Determination**
Robeson	H0064	Southeastern Regional Medical Center	292	0	49,849	-1.0439	49,849	136	191	-101	
Robeson Total			**292**	**0**							**0**
Rockingham	H0023	Annie Penn Hospital	110	0	12,349	-1.0006	12,349	34	51	-59	
Rockingham	H0072	UNC Rockingham Hospital	108	0	9,827	-1.0006	9,827	27	40	-68	
Rockingham Total			**218**	**0**							**0**
Rowan	H0040	Novant Health Rowan Medical Center	203	0	35,038	-1.0071	35,038	96	144	-59	
Rowan Total			**203**	**0**							**0**
Rutherford	H0039	Rutherford Regional Medical Center	129	0	12,145	-1.0538	12,145	33	50	-79	
Rutherford Total			**129**	**0**							**0**
Sampson	H0067	Sampson Regional Medical Center	116	0	9,147	-1.0292	9,147	25	38	-78	
Sampson Total			**116**	**0**							**0**
Scotland	H0107	Scotland Memorial Hospital	97	0	20,325	1.0278	22,679	62	93	-4	
Scotland Total			**97**	**0**							**0**
Stanly	H0008	Atrium Health Stanly	97	0	12,842	1.0361	14,799	41	61	-36	
Stanly Total			**97**	**0**							**0**
Stokes	H0165	LifeBrite Community Hospital of Stokes	53	0	712	-1.1623	712	2	3	-50	
Stokes Total			**53**	**0**							**0**
Surry	H0049	Hugh Chatham Memorial Hospital	81	0	12,319	-1.0164	12,319	34	51	-30	
Surry	H0184	Northern Regional Hospital*	100	-17	14,127	-1.0164	14,127	39	58	-25	
Surry Total			**181**	**-17**							**0**
Swain	H0069	Swain Community Hospital	48	0	504	-1.1331	504	1	2	-46	
Swain Total			**48**	**0**							**0**
Transylvania	H0111	Transylvania Regional Hospital	42	0	5,445	-1.0018	5,445	15	22	-20	
Transylvania Total			**42**	**0**							**0**
Union	H0050	Atrium Health Union	182	0	37,518	1.0432	44,425	122	170	-12	
Union Total			**182**	**0**							**0**
Vance	H0267-A	Maria Parham Health	91	11		-1.0521	0	0	0	-102	
Vance/Warren Total			**91**	**11**							**0**

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(ADC= Average Daily Census)

Table 5A: Acute Care Bed Need Projections

2019 Utilization Data from IBM Watson Health compiled by the Cecil B. Sheps Center for Health Services Research
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Target Occupancy Factors: ADC 1-99: 1.50, ADC 100-200: 1.40, ADC > 200 and <=400: 1.33, ADC >400: 1.28

A	B	C	D	E	F	G	H	I	J	K	L
Service Area	**License Number**	**Facility Name**	**Licensed Acute Care Beds**	**Adjustments for CONs/ Previous Need**	**Inpatient Days of Care**	**County Growth Rate Multiplier**	**Projected Days of Care**	**2023 Projected Average Daily Census (ADC)**	**2023 Beds Adjusted for Target Occupancy**	**Projected 2023 Deficit or Surplus (surplus shows as a "-")**	**2023 Need Determination**
Wake	H0065	Rex Hospital††††	439	50	118,708	1.0119	124,469	341	453	-36	
Wake	H0199	WakeMed	628	36	165,273	1.0119	173,294	474	607	-57	
Wake	H0276	WakeMed Cary Hospital	178	30	48,593	1.0119	50,951	139	195	-13	
		WakeMed Total	806	66	213,866		224,245	614	803	-69	
Wake	H0238	Duke Raleigh Hospital	186	0	49,334	1.0119	51,728	142	198	12	
Wake Total			**1,431**	**116**							**0**
Washington	H0006	Washington Regional Medical Center**	49	-37	183	-1.2469	183	1	1	-11	
Washington Total			**49**	**-37**							**0**
Watauga	H0077	Watauga Medical Center	117	0	15,086	1.0174	16,165	44	66	-51	
Watauga Total			**117**	**0**							**0**
Wayne	H0257	Wayne UNC Health Care	255	0	44,597	1.0044	45,382	124	174	-81	
Wayne Total			**255**	**0**							**0**
Wilkes	H0153	Wilkes Medical Center	120	0	11,778	-1.0592	11,778	32	48	-72	
Wilkes Total			**120**	**0**							**0**
Wilson	H0210	Wilson Medical Center	270	0	24,696	-1.0454	24,696	68	101	-169	
Wilson Total			**270**	**0**							**0**
Yadkin	H0155	Yadkin Valley Community Hospital (closed)^	22	0		0.0000	0	0	0	-22	
Yadkin Total			**22**	**0**							**0**

Projections based on four-year average county-specific growth rates, compounded annually over the next four years. Acute Care Days data from 2015, 2016, 2017, 2018 and 2019 were used to generate four-year growth rate.

(ADC= Average Daily Census)

Table 5A: Acute Care Bed Need Projections

2019 Utilization Data from IBM Watson Health compiled by the Cecil B. Sheps Center for Health Services Research
Target Occupancy Rates: ADC 1-99: 66.7%, ADC 100-200: 71.4%, ADC > 200 and <=400: 75.2%, ADC>400: 78%
Target Occupancy Factors: ADC 1-99: 1.50, ADC 100-200: 1.40, ADC > 200 and <=400: 1.33, ADC >400: 1.28

A	B	C	D	E	F	G	H	I	J	K	L
Service Area	License Number	Facility Name	Licensed Acute Care Beds	Adjustments for CONs/ Previous Need	Inpatient Days of Care	County Growth Rate Multiplier	Projected Days of Care	2023 Projected Average Daily Census (ADC)	2023 Beds Adjusted for Target Occupancy	Projected 2023 Deficit or Surplus (surplus shows as a "-")	2023 Need Determination
		Grand Total All Hospitals	**21,208**	**980**	**4,607,800**		**5,028,502**				**315**

* Acute care beds in the "Adjustments for CONs/Previous Need" column are to be converted to inpatient psychiatric beds. This conversion is exempt from certificate of need review, pursuant to G.S. 131E-184(c).

** IBM Watson Health acute inpatient days of care data and the Division of Health Service Regulation Hospital License Renewal Application days of care data have a greater than ± 5% discrepancy between the two data sources.

*** Duke University Hospital is licensed for 14 acute care beds under Policy AC-3. The 14 beds are not counted when determining acute care bed need.

**** The State Health Coordinating Council voted to remove the need for 26 beds in Hoke County.

^ Yadkin Valley Community Hospital has requested to extend its designation as a legacy medical care facility by an additional 36 months. The facility has until January 18, 2022 to reopen the hospital.

† Charles A. Cannon, Jr. Memorial Hospital received a grant from the Dorothea Dix Hospital Property Fund to convert 27 acute care beds to adult psychiatric beds. This project is exempt from certificate of need review and the beds are not yet accounted for in Table 5A.

†† Maria Parham Health received a grant from the Dorothea Dix Hospital Property Fund to renovate and convert 13 acute care beds to adult psychiatric beds at Maria Parham Franklin. This project is exempt from certificate of need review and the beds are not yet accounted for in Table 5A.

††† Atrium Health Cleveland and Atrium Health Kings Mountain are consolidated under the Atrium Health Cleveland license, effective August 1, 2019.

†††† Rex Hospital and Rex Hospital Holly Springs are consolidated under the Rex Hospital license, effective January 11, 2019.

Note: The decimal part of a number resulting from a calculation is not displayed, but it is used in subsequent calculations. Therefore, calculated totals may not be identical to displayed totals.

Projections based on four-year average county-specific growth rates, compounded annually over the next four years. Acute Care Days data from 2015, 2016, 2017, 2018 and 2019 were used to generate four-year growth rate.
(ADC= Average Daily Census)

Attachment 8

NC DEPARTMENT OF
HEALTH AND HUMAN SERVICES

ROY COOPER • Governor
MANDY COHEN, MD, MPH • Secretary
MARK PAYNE • Director, Division of Health Service Regulation

VIA EMAIL ONLY

October 22, 2020

Lisa L. Griffin
llgriffin@novanthealth.org

No Review

Record #:	**3383**
Facility Name:	Novant Health Matthews Medical Center
FID #:	945076
Business Name:	Novant Health, Inc.
Business #:	1341
Project Description:	Acquire a CT scanner
County:	Mecklenburg

Dear Ms. Griffin:

The Healthcare Planning and Certificate of Need Section, Division of Health Service Regulation (Agency) received your correspondence regarding the above referenced proposal. Based on the CON law **in effect on the date of this response to your request,** the proposal described in that correspondence is not governed by, and therefore, does not currently require a certificate of need. If the CON law is subsequently amended such that the above referenced proposal would require a certificate of need, this determination does not authorize you to proceed to develop the above referenced proposal when the new law becomes effective.

You may need to contact the Agency's Radiation Protection, Construction, and Acute and Home Care Licensure and Certification Sections to determine if they have any requirements for development of the proposed project.

This determination is binding only for the facts represented in your correspondence. If changes are made in the project or in the facts provided in the correspondence referenced above, a new determination as to whether a certificate of need is required would need to be made by this office.

Please do not hesitate to contact this office if you have any questions.

Sincerely,

Julie M. Faenza
Project Analyst

Martha J. Frisone
Chief

cc: Radiation Protection Section, DHSR
Construction Section, DHSR
Acute and Home Care Licensure and Certification Section, DHSR

NOVANT HEALTH

2085 Frontis Plaza Boulevard
Winston-Salem, NC 27103

October 13, 2020

Via Email

Julie Faenza, Project Analyst, Certificate of Need
N.C. Department of Health Service Regulation
809 Ruggles Drive
Raleigh, North Carolina 27603

Re: Novant Health Matthews Medical Center
Request for "No Review" Determination to Acquire a 3rd CT Scanner
Charlotte, North Carolina (FID # 945076; Mecklenburg County)

Dear Ms. Faenza:

Novant Health Matthews Medical Center ("NHMMC") intends to acquire a CT scanner at its facility in Charlotte, North Carolina. This new scanner will be Siemens Definition AS with a 128-slice configuration. This CT scanner will be located in existing space in the Radiology Department.

See **Attachment A** for the equipment quote of the Siemens Definition AS. The proposed equipment and related construction costs will not exceed the cost threshold of $750,000 for Major Medical Equipment acquisitions as definited in N.C.G.S. §131E-176(14o). See **Attachment B** for the Projected Capital Costs Summary.

NHMMC is requesting a determination from the Certificate of Need Section that this proposed project with total costs,including equipment and all related capital costs of $736,200 is not considered Major Medical Equipment and, as such, is not subject to CON review.

If you need additional information, please do not hesitate to contact me.

Sincerely,

Lisa Griffin

Lisa Griffin
Manager, Operational Planning
Novant Health, Inc.

Enclosures

ATTACHMENT A

Siemens Medical Solutions USA, Inc.
40 Liberty Boulevard, Malvern, PA 19355
Fax: (866) 309-6967

SIEMENS REPRESENTATIVE
Stuart Waddey - (919) 605-9227

PRELIMINARY PROPOSAL

Customer Number: 0000012492

Date: 9/30/2020

PRESBYTERIAN HOSPITAL MATTHEWS
1500 MATTHEW TOWNSHIP PKWY
MATTHEWS, NC 28105-4656

Multi-unit / multi-modality purchase required.

Quote Nr: **1-RAOKMK Rev. 0**

SOMATOM Definition AS eco (AS+ Configuration)

All items listed below are included for this system: *(See Detailed Technical Specifications at end of Proposal.)*

Qty	Part No.	Item Description
1	14430105	**RS SOMATOM Definition AS (AS+)** The SOMATOM Definition AS (AS+, 128-slice configuration) is Siemens' state-of-the-art single source CT that provides the possibility to maximize clinical outcome and to minimize radiation dose. Using Siemens' z-Sharp technology the system can provide high spatial resolution. The fast rotation time of 0.33 seconds (0.30 s optional) delivers excellent temporal resolution. With this, the SOMATOM Definition AS is set to raise the standard of patient-centric productivity with FAST CARE Technology. With Siemens' FAST - Fully Assisting Scanner Technologies - the SOMATOM Definition AS can simplify typically time consuming and complex procedures during a CT examination: the scanning process gets more intuitive and the results become more reproducible. The CARE technology includes many unique features like CARE kV that sets the ideal voltage for every examination and adjusts the respective scan parameters or industry's first Adaptive Dose Shield that prevents clinically irrelevant over radiation in spiral scanning. Additionally, its large bore of 78 cm and a table load capacity of up to 307 kg (optional) opens CT to all patients, meaning that virtually no patient is excluded. And even for CT-guided interventional procedures 2D Basic Intervention and HandCARE(tm) is already included. A 3D intervention suite is optional available. Optionally the system can be equipped with iterative reconstruction, the new TwinBeam Dual Energy scan mode and iMAR for iterative metal artifact reduction.
1	14442795	**RS ecoline CT System Delivery** With ecoline, Siemens Healthineers offers a portfolio of systems with certified performance at exceptional value. ecoline systems contain components, which have been in use and are refurbished to a quality level as good as new. All ecoline systems are manufactured following externally certified processes according to the relevant standards for medical devices[1], including the global refurbishment standard[2] where applicable. Thus, every ecoline system receives our Proven Excellence Label. Siemens Healthineers´ ecoline systems provide exceptional value performing and looking like new, configurable to individual customer needs and offered at affordable prices. [1] ISO 13485:2016 Medical devices - Quality management systems - Requirements for regulatory purposes [2] IEC PAS 63077:2016 Good refurbishment practices for medical imaging equipment

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Qty	Part No.	Item Description
1	14429968	**RS High-speed 0.30 s rotation** Fast rotation time of 300 milliseconds for unprecedented image quality and highest scan speed. Fast gantry rotation times are the prerequisite for highest temporal resolution and are therefore essential for brilliant, motion free cardiovascular imaging.
1	14429973	**RS 100 kW Power** The 100 kW power allows the X-ray generator the use of maximum power of 100kW in fine adjustable steps.
1	14442484	**RS FAST Planning #AWP** Immediate, organ-based setting of scan and recon ranges aiming for a faster and more standardized workflow at the scanner
1	14457416	**RS FAST Adjust** FAST Adjust: assists the user to handle system settings in a fast and easy way by automatically solving of conflicts within user defined limits by one single click on the FAST Adjust button. The limits for scan time and tube current per scan are defined via the Scan Protocol Assistant. FAST Adjust offers an undo functionality to return to previously set values.
1	14445839	**RS FAST 3D Align #AWP** FAST 3D Align enables automated alignment of FOV, adjustments and reconstructions of standard views.
1	14457419	**RS CARE kV** CARE kV automatically proposes the best tube voltage based on the patient's size, the system capabilities, and the type of examination. Once the kV setting has been chosen, CARE kV also automatically adjusts other scan parameters, including the tube current. This reduces dose, maintains a constant image quality, and simplifies processes for technicians.
1	14426921	**RS CARE Child** Dedicated pediatric CT imaging, including 70 kV scan modes and specific CARE Dose4D curves and protocols.
1	14457418	**RS CARE Dashboard** Visualization of activated dose reduction features and technologies for each scan range of an examination to analyze and manage the dose to be applied in the scan.
1	14457417	**RS CARE Profile** CARE Profile: Visualization of the dose distribution of the scan range along the topogram prior to the scan.
1	14426919	**RS SAFIRE #AWP** The Sinogram Affirmed Iterative Reconstruction (SAFIRE) enhances spatial resolution, reduces image noise and increases sharpness by introducing multiple iteration steps in the reconstruction process. The resulting improved image quality enables to reduce dose by up to 60%*. *In clinical practice, the use of SAFIRE may reduce CT patient dose depending on the clinical task, patient size, anatomical location, and clinical practice. A consultation with a radiologist and a physicist should be made to determine the appropriate dose to obtain diagnostic image quality for the particular clinical task. The following test method was used to determine a 54 to 60% dose reduction when using the SAFIRE reconstruction software. Noise, CT numbers, homogeneity, low-contrast resolution and high contrast resolution were assessed in a Gammex 438 phantom. Low dose data reconstructed with SAFIRE showed the same image quality compared to full dose data based on this test. Data on file.
1	14445840	**RS iMAR #AWP** The iMAR metal artifact reduction algorithm combines three successful approaches (beam hardening correction, normalized sinogram inpainting and frequency split). This allows to reduce metal artifacts caused by metal implants such as coils, metal screws and plates, dental fillings or implants. iMAR is compatible with extended FoV, the extended CT scale as well as dose reduction features. Along with the algorithm comes the simple user interface of iMAR enabling easy reconstruction of clinical images with reduced metal artifacts.

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Qty	Part No.	Item Description
1	14417696	**RS Extended Field of View #AWP** Software program with special reconstruction algorithms that allow for visualization of objects using a FOV up to 78 cm (non-diagnostic image quality). License to use software on a single unit.
1	14429957	**RS Standard IRS** Reconstruction computer for the preprocessing and reconstruction of the CT raw data. The reconstruction computer contains of a cluster of 3 high-performance GPU boards performing the preprocessing and reconstruction of the CT data. The raw data memory is 1.5 Tbyte. The peak reconstruction performance is up to 40 frames/sec.
1	14426774	**RS UHR** UHR mode delivers Ultra High resolution in plane of up to 24lp/cm for high defined imaging of small structures such as inner ear, joints or fractures of the bone
1	14429826	**RS Workstream 4D #AWP** WorkStream 4D further enhances the already superb workflow of the SOMATOM CT system by offering direct generation of sagittal, coronal, oblique or double-oblique reconstructed images directly from CT raw data as part of the CT protocol.
1	14429827	**RS syngo 3D BoneRemoval #AWP** Simple, automated bone removal functionality for the syngo 3D application. Preconfigured algorithms for angiography and hip/pelvis fracture scenarios are included to facilitate fast removal of bone structure for three dimensional presentation and analysis of CT data.
1	14417669	**RS Rear cover incl. gantry panels** Rear Cover including gantry control panels with control functionality from the backside.
1	14426923	**RS Multi Purpose Table** Patient table to support up to 200 cm scan range. Motor-driven table height adjustment from min. 55 cm to max. 92 cm, longitudinal movement of the tabletop 200 cm in increments of 0.5 mm, positioning accuracy (horizontal) is +/- 0.5 mm. The accuracy of the repositioning (horizontal) is specified as +/- 0.25 mm. Table height can be controlled alternatively by means of foot switch (2 each on both sides of the patient table). In the case of emergency stop or power failure, the tabletop can also be moved manually in horizontal direction. Max. table load: 227 kg/500 lbs (with bariatric table top up to 307 kg/676 lbs); table feed speed: 1-200 mm/s; distance between gantry front and table base 40 cm. Positioning aids: Mattress protector, head-arm support (inclusive cushion), and non-tiltable head holders with positioning cushion set, patient restraining system for head fixation, restraining-strap set with body fixation strap that can be directly connected to the patient table top, headrest, table extension, knee-leg support.
1	14426842	**RS Mattress for MPT Standard TableTop** Replacement for the positioning mattress for Standard Multi-purpose tabletop.
1	14426812	**RS High Cap. Patient & Trauma Acc Kit** The High capacity and Trauma accessory kit contains additional Patient restraint set with a width of 400mm and additional table extensions for feet and head.
1	14426725	**RS Cooling System Air** Air cooling for the dissipation of heat generated in the gantry.
1	14417772	**RS Computer Desk** New CT desk to accommodate the control components and color monitor. Width: 1200 mm, Depth: 800 mm, Height: 720 mm.
1	14417773	**RS Computer Cabinet** New cabinet to accommodate the computer system and UPS. Matched to the design of the control console table. Width: 800 mm, Depth: 800 mm, Height: 720 mm

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Qty	Part No.	Item Description
1	SURE_VIEW	**SureView** Provides exceptional image quality at any pitch setting, enabling you to scan faster because you can scan at any pitch without degrading image quality
1	FAST_SCAN_ASSIST	**FAST Scan Assistant** FAST Scan Assistant: An intuitive user interface for solving conflicts by changing the scan time, resp. the pitch and/or the maximum tube current manually.
1	ADAPT_DOSE_SHIELD	**Adaptive Dose Shield** Adaptive Dose Shield for spiral acquisition to eliminate pre- and post-spiral over-radiation.
1	CARE_DOSE4D	**CARE Dose4D** CARE Dose4D delivers the highest possible image quality at the lowest possible dose for patients - maximum detail, minimum dose. Adaptive dose modulation for up to 60% dose reduction
1	CT_LUNGIMAGASPL	**Lung Imaging** For well over a decade, CT has been recognized and used as the standard of care for lung nodule detection and sizing. This is due to CT's spatial resolution, geometric accuracy, and ability to create various reconstructions and 3D views. The high contrast environment in the chest between the lungs and the nodules makes for a relatively easy detection task for clinicians using CT images. Recent advances in CT technology have allowed these scans to be effectively performed at lower doses, higher resolutions, and faster scan times. The SOMATOM Definition AS+ CT is indicated for use in low dose lung cancer screening for high risk populations*. The AS+ is delivered with two specific scan protocols to provide low dose lung cancer screening exams at approximately 1.3 mGy CTDI for a standard size adult. These default protocols utilize Siemens proprietary dose reducing features such as CARE Dose4D(tm), automatic exposure control technology that modulates and adapts dose for every patient, for high image quality at low dose. *As defined by professional medical societies.
1	CT_TILTED_SPIRAL	**Gantry tilt incl. tilted spiral** Allows for sequential scanning with a tilted gantry between +/- 30°, depending on the vertical position of the table. Using the gantry tilt sensitive organs (like eye lenses) can be moved out of the scan range or it eases access during interventional procedures. The tilted spiral allows to utilize the gantry tilt for spiral scan modes.
1	ACCESS_PROTECT	**Access Protection** Scan Protocols are password protected allowing only authorized staff members to access and permanently change protocols
1	NEMA_XR-29	**NEMA_XR-29 Standard** This system is in compliance with NEMA XR-29 Standard Attributes on CT Equipment Related to Dose Optimization and Management, also known as Smart Dose.
1	CT_UPS_DEF_EDGE	**Standard UPS for Definition Edge** The standard partial system uninterruptible power system (UPS) is built directly into the power distribution cabinet (PDC) and supports the critical circuits for table and gantry electronics, console computer, image reconstruction system, and the internal Ethernet switch (to ensure connectivity). This enables safe removal of patient if outage occurs during scanning. The UPS allows for a safe shutdown of the CT scanner in the event of power interruption. The UPS provides 5-7 minutes of power, during which the user is prompted and guided through the process to perform a safe shutdown of the system. This safe shutdown ensures that no data is lost.
1	CT_PM	**CT Project Management** A Siemens Project Manager (PM) will be the single point of contact for the implementation of your Siemen's equipment. The assigned PM will work with the customer's facilities management, architect or building contractor to assist you in ensuring that your site is ready for installation. Your PM will provide initial and final drawings and will coordinate the scheduling of the equipment, installation, and rigging, as well as the initiation of on-site clinical education.
1	CT_BUDG_ADDL_RIG	**Budgetary Add'l/Out of Scope Rigging @ $6,700**

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Qty	Part No.	Item Description
1	CT_BTL_INSTALL	**CT Standard Rigging and Installation**
1	4SPAS014	**Low Contrast CT Phantom & Holder**
1	PSPD250480Y3K	**Surge Protective Device (SPD)**
1	CTSP4002	**CT Slicker** Thermoseal seams and flaps deflect fluids, reducing contaminant penetration into the cushion and table. Contaminants are retained on the tabletop or shunted to the floor. Cleanup is faster, more thorough, and contaminant build-up is reduced. Built using heavy, clear, micro matte vinyl, and top grade hook and loop fastening strips (Velcro) to better fit the specified table. Custom vinyl resists tears and minimizes radiologic interference. Latex free. Set includes CT Skirts. Includes warranty from RADSCAN Medical.
1	SY_PR_TEAMPLAY	**teamplay Welcome & Registration Package** teamplay is a cloud-based network that brings together your imaging modality users, the systems' dose and utilization data, and the users' expertise to help you improve the delivery of care to your patients. Basic features are provided free of charge. Premium features (benchmarking, non-Siemens devices) are provided on a trial basis for three months at no charge, and may be used thereafter on a subscription fee basis. To register: http://teamplay.siemens.com/#/institutionRegistration/1

System Total: **$462,000**

FINANCING: The equipment listed above may be financed through Siemens. Ask us about our full range of financial products that can be tailored to meet your business and cash flow requirements. For further information, please contact your local Sales Representative.

Siemens Healthcare is pleased to submit this Preliminary Pricing Proposal. A Preliminary Pricing Proposal is provided for planning purposes only; it is not contractually binding. To receive a contractually binding proposal for the Products listed above, inclusive of Terms, Conditions, and Warranty coverage, please contact your Siemens Healthcare Sales Representative.

Siemens Healthcare

Stuart Waddey
(919) 605-9227
stuart.waddey@siemens-healthineers.com

ATTACHMENT B

NH Matthews Acquire 3rd CT

Projected Capital Cost Form

Building Purchase Price	NA	
Purchase Price of Land	NA	
Closing Costs	NA	
Site Preparation	NA	
Construction/Renovation Contract(s)	$225,100	
Landscaping	NA	
Architect / Engineering Fees	$39,100	
Medical Equipment (CT Scanner)	$462,000	
Non-Medical Equipment	Included in Construction Capital	
Furniture	NA	
Consultant Fees	NA	
Financing Costs	NA	
Interest during Construction	NA	
Other (Construction Contingency/ Architect Site Visits)	$10,000	
Total Capital Cost	**$736,200**	

CERTIFICATION BY A LICENSED ARCHITECT OR ENGINEER

I certify that, to the best of my knowledge, the projected capital cost for the proposed project is complete and correct.

Daniel A. Kinken Date Signed: 10-5-2020

Signature of Licensed Architect or Engineer

DANIEL A KINKEN REGISTERED ARCHITECT 11465 NORTH CAROLINA CHARLOTTE, N.C.

CERTIFICATION BY AN OFFICER OR AGENT FOR THE PROPONENT

I certify that, to the best of my knowledge, the projected total capital cost for the proposed project is complete and correct and that it is our intent to carry out the proposed project as described.

DocuSigned by:
Matthew Stiene
9BCFAC8B3516450...

Date Signed: 10/09/2020 | 3:35:54 EDT

Signature of Officer/Agent

Chief Executive Officer

Vice President, Construction & Engineering, Novant Health

Title of Officer/Agent

Date of Last Revision: 5.17.19

From: Flores, Disraeliza
To: Waller, Martha K
Subject: FW: [External] No Review Letter for NH Matthews Medical Center Acquisition of a 3rd CT Scanner
Date: Tuesday, October 13, 2020 11:38:51 AM
Attachments: MMC CT3 NoReview to Agency 10.13.20.pdf

Disraeliza Flores
Adminstrative Assistantant
Division of Health Service Regulation
North Carolina Department of Health and Human Services

919-855-3872 office
disraeliza.flores@dhhs.nc.gov

809 Ruggles Drive
Raleigh NC, 27603

2704 Mail Service Center
Raleigh, NC 27699-2704

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From: Griffin, Lisa L <llgriffin@novanthealth.org>
Sent: Tuesday, October 13, 2020 11:34 AM
To: Faenza, Julie M <Julie.Faenza@dhhs.nc.gov>
Cc: Flores, Disraeliza <Disraeliza.Flores@dhhs.nc.gov>
Subject: [External] No Review Letter for NH Matthews Medical Center Acquisition of a 3rd CT Scanner

Good morning,

Attached is a letter requesting a No Review determination for the acquisition of a third CT scanner at Novant Health Matthews Medical Center. Please confirm receipt of this email and also let me know if you have any questions upon review.

Thank you in advance,

Lisa Griffin
Manager, Operational Planning
Novant Health, Inc.
(704) 351 - 1132