

**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 d/b/a Atrium Health<sup>1</sup> hereby submits the following comments related to competing applications to develop additional acute care beds and operating rooms to meet needs identified in the *2019 State Medical Facilities Plan (SMFP)* for 76 additional acute care beds and six additional operating rooms in Mecklenburg County, respectively. Atrium Health'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.*" See N.C. GEN. STAT. § 131E-185(a1)(1)(c). Atrium Health's comments relate to the following applications:

Application for Additional Acute Care Beds

- **Novant Health Matthews Medical Center (NHMMC), Add 20 Acute Care Beds, Project ID # F-11808-19**

Application for An Additional Operating Room

- **NHMMC, Add 1 Operating Room, Project ID # F-11807-19**

Atrium Health's detailed comments include general comments on the Novant Health applications as well as a comparative analysis related to its applications:

Applications for Additional Acute Care Beds

- **Atrium Health University City, Add 16 Acute Care Beds, Project ID # F-11812-19**
- **Carolinas Medical Center (CMC), Add 18 Acute Care Beds, Project ID # F-11811-19**
- **Atrium Health Pineville, Add 12 Acute Care Beds, Project ID # F-11813-19**

Application for Additional Acute Care Beds and Operating Rooms

- **Atrium Health Lake Norman, Develop a Satellite Hospital with 30 Acute Care Beds and Two Operating Rooms, Project ID # F-11810-19**

Applications for Additional Operating Rooms

- **CMC, Add Two Operating Rooms, Project ID # F-11815-19**
- **Atrium Health Pineville, Add Two Operating Rooms, Project ID # F-11814-19**

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<sup>1</sup> Formerly known as Carolinas HealthCare System (CHS).

Based on the following comments, it is clear that both of Novant Health's applications should be denied.

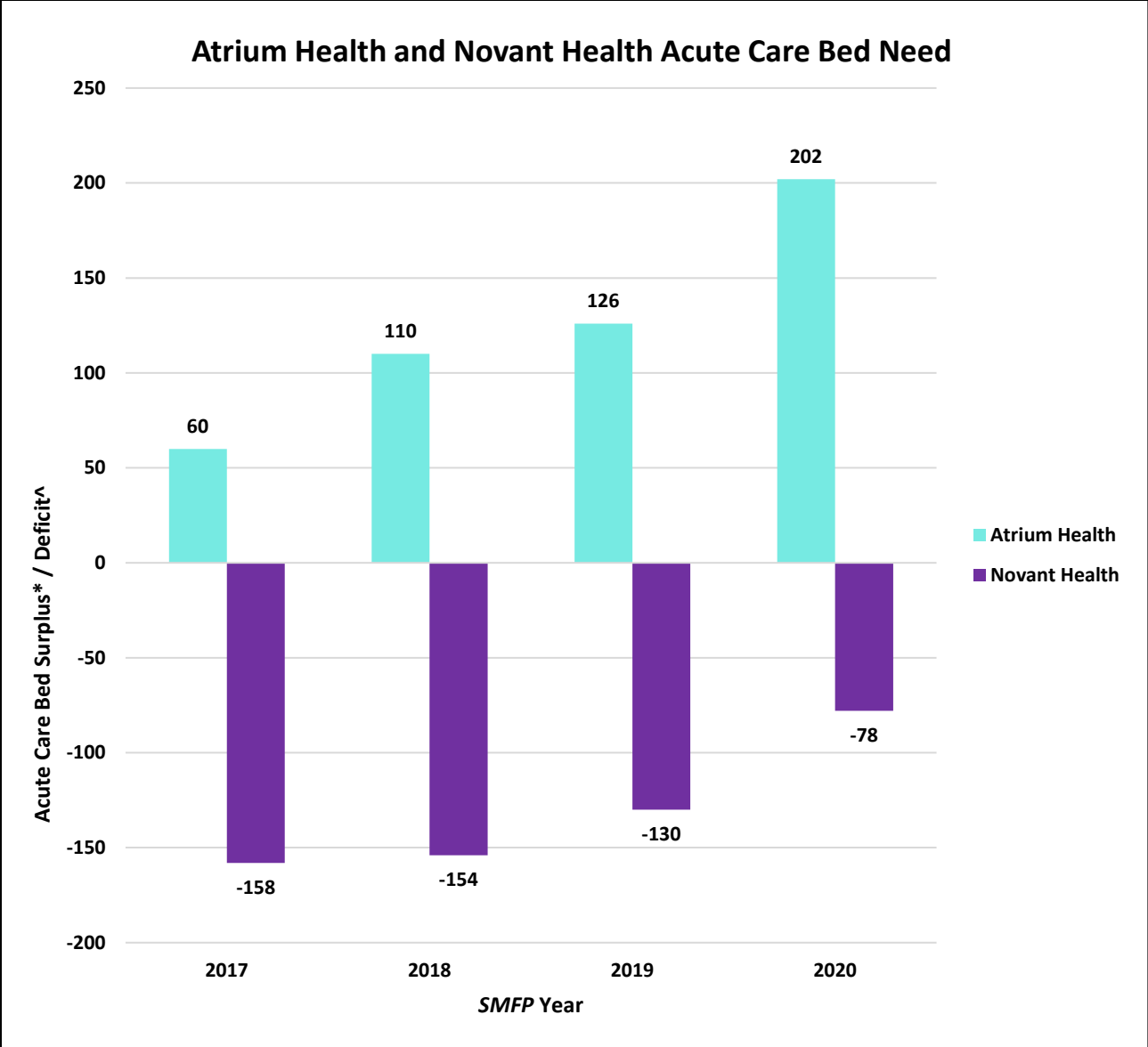
**GENERAL COMMENTS**

The *2019 SMFP* identifies a need for 76 additional acute care beds and six additional operating rooms in Mecklenburg County based on the utilization of Atrium Health facilities, as Novant Health and other facilities demonstrate a surplus of beds and operating rooms. The following sections outline general comments related to the applications for the additional acute care beds and operating rooms.

Acute Care Beds

Over the last decade, the *SMFP* has identified a need for additional acute care beds to be located in Mecklenburg County six times, including the need determination in the *2019 SMFP*. Among those six instances, the 2018 acute care bed need decision was the first and only time that the Agency awarded additional acute care beds to a Mecklenburg County provider that demonstrated a surplus of beds. Specifically, the *2018 SMFP* identified a need for 50 additional beds and the Agency awarded Atrium Health Pineville 38 beds and Novant Health Huntersville Medical Center 12 beds, even though Novant Health generated a surplus of 154 beds in the *2018 SMFP*.

In each of the four most recent *SMFPs* (*2017, 2018, 2019, and Proposed 2020*), Atrium Health hospitals in Mecklenburg County have generated the need for additional acute care beds based on the increasing number of patients that choose Atrium Health for their care. Moreover, these needs have increased over time, even as Atrium Health has developed additional capacity. Conversely, Novant Health has demonstrated a substantial surplus of acute care beds over this same time period. The chart below shows the surplus and deficits generated by Atrium Health and Novant Health from the *2017* to the *Proposed 2020 SMFP*, including the growth in Atrium Health's acute care bed deficit from 60 to 202 beds and Novant Health's consistent surpluses.



Source: 2017 – Proposed 2020 SMFP.

\*Shown as negative.

^Shown as positive

Today, each Atrium Health hospital in Mecklenburg County is in need of additional acute care beds based on high patient demand. According to the *Proposed 2020 SMFP*, Atrium Health hospitals have a need for the following number of additional beds: 163 beds at CMC, including Atrium Health Mercy; 15 beds at Atrium Health Pineville; and, 24 beds at Atrium Health University City. CMC, including Atrium Health Mercy, generated the single highest acute care bed deficit of all Mecklenburg County hospitals from the 2017 to *Proposed 2020 SMFP*. Further, the acute care bed need generated by CMC in the 2019 and *Proposed 2020 SMFP* is the highest in the state. Atrium Health University City demonstrated acute care bed deficits in each of the two most recent *SMFPs* (2019 and *Proposed 2020 SMFP*) and its deficit in the *Proposed 2020 SMFP* is the largest, on a percentage basis, of any hospital in North Carolina in the last decade, as shown in Exhibit C.4-5 of the Atrium Health University City application. Finally, Atrium Health Pineville has shown bed deficits in each of the last five *SMFPs* (2016 to *Proposed 2020 SMFP*) and has the

second largest deficit in Mecklenburg County, after CMC, in the 2019 SMFP. These deficits reflect the high (and increasing) utilization of Atrium Health’s acute care beds in the county. This significant patient demand has necessitated the submission of numerous requests for temporary expansion of CMC’s and Atrium Health Pineville’s licensed bed capacity. CMC has been on continuous temporary bed overflow for several years and Atrium Health Pineville has been since April 2018. Further, as demonstrated in its application, Atrium Health University City is operating at high utilization levels and will need to request temporary bed overflow in the future when the increasing patient demand for its services continues.

The inadequate supply of acute care beds at Atrium Health hospitals in Mecklenburg County to meet the needs of patients that choose Atrium Health for their care negatively impacts several aspects of hospital operations. Due to the lack of available capacity, Atrium Health hospitals regularly house patients overnight in emergency departments before a bed is available for admission. These patients occupy emergency department rooms, which greatly reduces the efficiency and capacity of that department. According to internal data, patients that accessed any of Atrium Health’s hospital-based emergency departments in Mecklenburg County in 2018 waited 30 minutes, on average, to see a provider, but waited almost six hours in the emergency department, on average, for admission to an acute care bed. Further, the lack of adequate acute care bed capacity at Atrium Health’s hospitals forces patients in post-anesthesia care units (PACUs) following surgery to wait longer than necessary for a bed to become available. This backlog results in patients recovering from anesthesia in the operating room because there are no available beds in the PACU. As a result, operating room cases are delayed because the rooms are being used for recovering the patient instead of being turned around for the next case. These delays in providing patients with the appropriate care to improve their health results in delays in their recovery and return to normal life. As such, the lack of sufficient capacity creates a domino effect that negatively impacts patient care beyond inpatient bed units.

A growing deficit of beds is clear evidence that demand for Atrium Health hospital services in Mecklenburg County is increasing, and that Atrium Health needs the additional capacity as proposed in its concurrent and complementary applications; otherwise, capacity constraints will continue to negatively impact patient care.

By comparison, Novant Health has shown declining utilization and has consistently operated with a surplus of acute care capacity. As shown in the table below, Novant Health’s total days declined from 2013 through 2016 and the system’s total number of acute care bed days declined at a compounded rate of 1.7 percent from 2013 to 2017, the time period used in the 2019 SMFP to determine the County Growth Rate Multiplier.

**Mecklenburg County Facilities’ Historical Acute Care Utilization**

	<b>2013 Days</b>	<b>2014 Days</b>	<b>2015 Days</b>	<b>2016 Days</b>	<b>2017 Days</b>	<b>CAGR</b>	<b>Average Annual Change</b>
Atrium Health Total Days	352,853	347,252	377,117	382,846	395,604	<b>2.9%</b>	
Novant Total Days	198,782	187,745	185,521	182,594	185,596	<b>-1.7%</b>	
County Total Days	<b>551,635</b>	<b>534,997</b>	<b>562,638</b>	<b>565,440</b>	<b>581,200</b>	<b>1.3%</b>	
<b>Annual Change</b>		<b>-3.0%</b>	<b>5.2%</b>	<b>0.5%</b>	<b>2.8%</b>		<b>1.36%</b>

Source: 2016 to 2019 SMFPs.

Notably, except for 2013 to 2014, the total volume of days in the county have increased each year; thus, Novant Health’s declines are the result of patients choosing other providers, rather than a decline in overall market volume.

Based on more recent data, Novant Health’s total days have declined 0.82 percent annually and it currently operates at 59.8 percent of its total existing and approved bed capacity in Mecklenburg County. By comparison, Atrium Health’s total days have increased 2.84 percent annually and its beds operate at 78.7 percent of its total bed capacity in the county.

#### Mecklenburg County Acute Care Bed Utilization

	2013	2014	2015	2016	2017	2018	13-18 CAGR
Novant Health Days	198,782	187,745	185,521	182,594	185,596	190,746	-0.82%
ADC	545	514	508	500	508	523	
Existing/Approved Beds	862	862	862	862	862	874	
<b>Occupancy</b>	<b>63.2%</b>	<b>59.7%</b>	<b>59.0%</b>	<b>58.0%</b>	<b>59.0%</b>	<b>59.8%</b>	
Atrium Health Days	352,853	347,252	377,117	382,846	395,604	405,977	2.84%
ADC	967	951	1,033	1,049	1,084	1,112	
Existing/Approved Beds	1,276	1,316	1,316	1,316	1,316	1,414	
<b>Occupancy</b>	<b>75.8%</b>	<b>72.3%</b>	<b>78.5%</b>	<b>79.7%</b>	<b>82.4%</b>	<b>78.7%</b>	

Source: 2016 to Proposed 2020 SMFPs.

Novant Health’s recent growth (an increase of 8,152 days from 2016 to 2018) has been far surpassed by Atrium Health (an increase of 23,131 from 2016 to 2018 or nearly three times Novant Health’s growth). Despite this growth, Novant Health’s total system operates below 60 percent of its acute care capacity. Of note, the lowest target occupancy rate assumed by the 2019 SMFP is 66.7 percent, assigned to facilities with an average daily census (ADC) of between one and 99 patients. Novant Health has consistently operated well below the target occupancy rate of facilities that are one-fifth its size. By comparison, Atrium Health operates at 78.7 percent of its existing and approved capacity (which includes some beds that were not operational during 2018), which exceeds the highest target occupancy rate assumed by the 2019 SMFP of 78 percent.

As noted in its applications, CMC, Atrium Health Pineville, and Atrium Health University City operate today at or above target occupancy rates, which demonstrate the need for the proposed additional acute care beds. Please note that Atrium Health Lake Norman, as stated in that application, will similarly address the need for additional acute care capacity for Atrium Health by decompressing Atrium Health’s existing Mecklenburg County hospitals and more conveniently serving Atrium Health’s Lake Norman area patients. By comparison, Novant Health’s historical utilization shows a substantial excess of capacity across its system. While NHMMC argues in its Bed application that it needs additional inpatient bed capacity, its most recent occupancy rate is below each of Atrium Health’s existing facilities. Specifically, according to data for the most recent time period reported in each application, NHMMC’s occupancy rate is the lowest among all of the existing facilities that applied for additional acute care beds.

#### Comparison of Occupancy Rates of Existing Hospitals Proposing Additional Beds During Most Recent Time Period

	<b>CMC CY 2019</b>	<b>Atrium Health Pineville CY 2019</b>	<b>Atrium Health University City CY 2019</b>	<b>NHMMC FFY 2019</b>
Acute Care Days	281,338	71,997	27,660	40,383
Existing Beds	859	221	100	154
Occupancy Rate	89.7%	89.3%	75.8%	71.8%

Sources: Federal Fiscal Year 2019 days based on Novant Health internal data for October 1, 2018 to June 30, 2019 annualized per NHMMC Bed Application, page 29. Calendar Year 2019 days based on Atrium Health internal data for January to July 2019 data annualized per Atrium Health's beds applications, Form C Assumptions and Methodology, page 3.

Of note, in its beds application, NHMMC projects to exceed Atrium Health University City's current occupancy rate (75.8 percent) for the first time in 2022, or after three years of assumed growth (see NHMMC Form C Utilization which shows 43,411 days or 77.2 percent occupancy in CY 2022). Thus, even the hospital within its system that Novant Health has itself identified as having the greatest need is not projected to achieve the current occupancy rate of Atrium Health University for three more years.

Despite its declining utilization and surplus of capacity across the system, Novant Health argues, unreasonably, that it needs additional capacity. In order to justify its project, Novant Health provides unsupported growth assumptions to project future utilization. The table below provides an overall comparison of the historical and projected utilization provided by Novant Health and Atrium Health. As the table demonstrates and as previously noted, while Novant Health's total days have declined 0.82 percent over the last four years, it projects utilization to grow 3.93 percent annually until the third project year of the NHMMC application (CY 2026). In total, Novant Health's occupancy rate is projected to increase by nearly 20 percentage points from 59.8 percent in 2018 to 79.5 percent in 2026.

#### Mecklenburg County Acute Care Bed Utilization

	<b>2013</b>	<b>2018</b>	<b>Actual 13-18 CAGR</b>	<b>Projected Days in Project Year 3*</b>	<b>Projected CAGR</b>
Novant Health Days	198,782	190,746	<b>-0.82%</b>	259,570	<b>3.93%</b>
ADC	545	523		711	
Existing/Approved Beds	862	874		894	
<b>Occupancy</b>	<b>63.2%</b>	<b>59.8%</b>		<b>79.5%</b>	
Atrium Health Days	352,853	405,977	<b>2.84%</b>	451,689	<b>1.54%</b>
ADC	967	1,112		1,238	
Existing/Approved Beds	1,276	1,374		1,490	
<b>Occupancy</b>	<b>75.8%</b>	<b>81.0%</b>		<b>83.1%</b>	

Source: 2016 to Proposed 2020 SMFPs. NHMMC Bed application page 29. Atrium Health beds applications Form C Assumptions and Methodology and Assumptions, page 15.

\*Novant Health's third project year is 2026. The latest third project year among the Atrium Health applications is 2025 for Atrium Health Lake Norman.

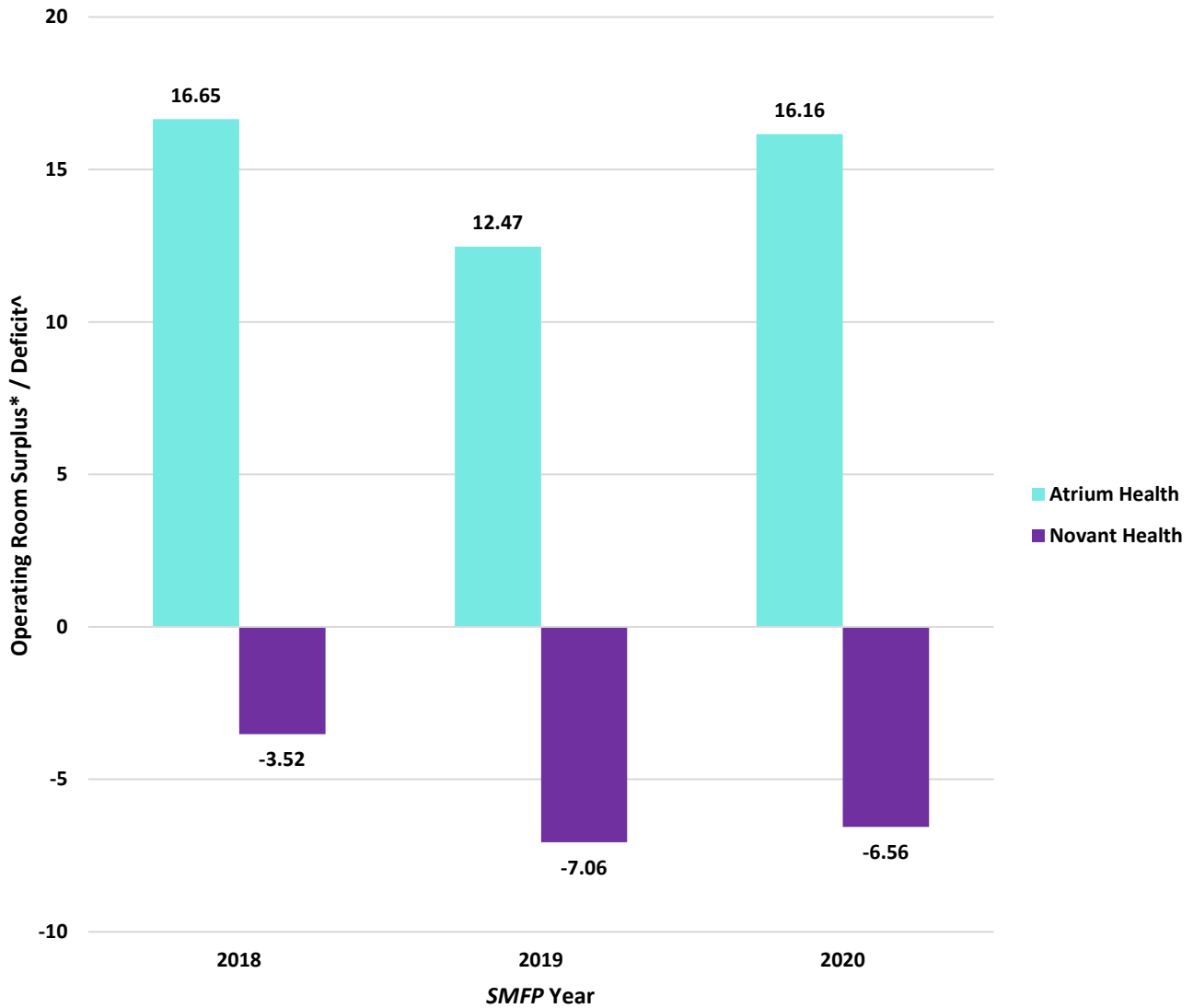
By contrast, Atrium Health's total days have increased 2.84 percent annually and are conservatively projected to grow only 1.54 percent annually through CY 2025, resulting in 83.2 percent occupancy. Simply put, whereas Atrium Health's utilization projections are reasonable and conservative relative to its historic experience, Novant Health's are unreasonable and unsupported.

Based on these issues, the NHMMC Bed application should be found non-conforming with Criterion 3 as well as Criterion 4, 5, 6, 18a, and the performance standards in the acute care bed rules (10A NCAC 14C .3803). Further, the NHMMC Bed application failed to reasonably demonstrate that the relocation of existing underutilized acute care bed capacity within the Novant Health system was not the more effective alternative to meeting its identified need which also supports a finding of non-conformity with Criterion 4.

#### Operating Rooms

The *2019 SMFP* is only the second allocation of additional operating rooms in Mecklenburg County, the *2018 SMFP* being the first, since the *2002 SMFP*—the first plan to include a methodology for operating rooms. In each of the three most recent *SMFPs* (*2018*, *2019*, and *Proposed 2020*) since the revision to the Operating Room Need Methodology that now identifies surplus and deficits by system, Atrium Health facilities in Mecklenburg County have generated a need for additional operating rooms based on the increasing number of patients that choose Atrium Health for their care. Moreover, these needs have remained significant over time. Conversely, Novant Health, the only other hospital system located in the county, has demonstrated a substantial surplus of operating rooms over this same time period. The chart below shows the surplus and deficits generated by all Atrium Health and Novant Health facilities (hospital-based and freestanding) from the *2018* to the *Proposed 2020 SMFP*, including Atrium Health's continuous operating room deficit and Novant Health's consistent surpluses.

### Atrium Health and Novant Health Operating Room Need For All Facilities



Source: 2018 – Proposed 2020 SMFP.

\*Shown as negative.

^Shown as positive.

Today, each Atrium Health hospital in Mecklenburg County is in need of additional operating room capacity based on high patient demand. As shown in the 2019 SMFP, the Atrium Health system has a total deficit of 12.47 operating rooms including deficits of 0.94 and 12.32 rooms at Atrium Health Pineville and CMC, respectively. By comparison, the Novant Health system has a total surplus of 7.06 operating rooms.



**Atrium Health and Novant Health  
Mecklenburg County Facilities' Operating Room Need/Surplus (2019 SMFP)**

	<i>Projected Surgical Hours for 2021</i>	<i>Projected Surgical ORs Required in 2021</i>	<i>Adjusted Planning Inventory</i>	<i>Projected OR Deficit/Surplus (Surplus shows as a "-")</i>
Atrium Health Huntersville Surgery*	0	0.00	1	-1.00
Carolina Center for Specialty Surgery	2,882	2.20	2	0.20
Atrium Health Pineville*	19,192	10.94	10	0.94
CMC/Atrium Health Mercy**	131,275	67.32	55	12.32
Atrium Health University City*	10,529	7.02	7	0.02
<b>Atrium Health System Total</b>		<b>87.47</b>	<b>75</b>	<b>12.47</b>
Presbyterian Hospital Mint Hill	0	0.00	4	-4.00
SouthPark Surgery Center	9,758	7.44	6	1.44
Novant Health Ballantyne Outpatient Surgery	1,332	1.01	2	-0.99
Novant Health Huntersville Outpatient Surgery	2,259	1.72	2	-0.28
Matthews Surgery Center	2,682	2.04	2	0.04
Novant Health Presbyterian Medical Center	62,329	31.96	36	-4.04
Novant Health Matthews Medical Center	9,871	6.58	6	0.58
Novant Health Huntersville Medical Center	9,270	6.18	6	0.18
<b>Novant Health Total</b>		<b>56.94</b>	<b>64</b>	<b>-7.06</b>

Source: 2019 SMFP.

\*Atrium Health Huntersville Surgery was previously known as Carolinas HealthCare System Huntersville Surgery Center. Atrium Health Pineville was previously known as Carolinas HealthCare System Pineville. Atrium Health University City was previously known as Carolinas HealthCare System University.

\*\*Atrium Health Mercy is licensed as part of CMC and its operating rooms are included as part of CMC in the 2019 SMFP.

These deficits reflect the high (and increasing) utilization of Atrium Health's operating rooms in the county. CMC, including Atrium Health Mercy, generated the single highest operating room deficit of all Mecklenburg County hospitals each year from the 2018 to the Proposed 2020 SMFP. Further, the operating room need generated by CMC in the 2019 and Proposed 2020 SMFP is the highest in the state. A growing deficit of operating rooms is clear evidence that demand for Atrium Health surgical services in Mecklenburg County is increasing, and that Atrium Health needs the additional capacity as proposed in its concurrent and complementary applications; otherwise, capacity constraints will continue to negatively impact patient care.

As noted in the Atrium Health applications, demand for surgery in Mecklenburg County has increased significantly in recent years, but before 2018, no additional operating rooms had been approved for more than a decade. During this time, inpatient surgical cases in Mecklenburg County in total have increased 2.9 percent annually since 2014. Between the two systems providing inpatient surgery, both have experienced increased volume as shown below.

**Mecklenburg County Inpatient Surgical Volume by System**

<i>Year</i>	<i>Atrium Health</i>	<i>Novant Health</i>	<i>Total Inpatient</i>
FFY 2014	22,889	9,496	32,385
FFY 2015	25,085	10,543	35,628
FFY 2016	25,068	10,440	35,508
FFY 2017	25,268	10,663	35,931
FFY 2018	25,428	10,935	36,363
<b>CAGR 2014-2018</b>	<b>2.7%</b>	<b>3.6%</b>	<b>2.9%</b>
<b>Numerical Growth</b>	<b>2,539</b>	<b>1,439</b>	<b>3,978</b>

Source: 2016-Proposed 2020 SMFPs.

Although Novant Health’s inpatient case growth rate over this time period is higher, Atrium Health performs nearly 2.5 times the number of inpatient cases performed by Novant based on the number of patients that choose Atrium Health for their care. Further, Atrium Health’s numerical growth is almost twice that of Novant Health. Additionally, as Novant has a surplus of operating room capacity, it has room to grow and can sustain a higher growth rate. Atrium Health operating rooms have higher utilization rates that cannot support such growth.

Operating room utilization is measured in terms of case hours in comparison to capacity to determine need. Overall, Atrium Health is the largest provider of surgical services in Mecklenburg County at nearly 165,000 surgical hours, nearly twice as many total hours as Novant Health.

**Mecklenburg County Total Surgical Hours by System**

<i>Year</i>	<i>Atrium Health</i>	<i>Novant Health</i>	<i>Other</i>	<i>Total</i>
FFY 2016	158,583	96,441	13,977	269,001
FFY 2017	159,159	90,975	12,665	262,799
FFY 2018	164,929	96,346	12,846	274,121
<b>Percent of Total (2018)</b>	<b>60.2%</b>	<b>35.1%</b>	<b>4.7%</b>	<b>100.0%</b>
<b>Percent of ORs per Adjusted Planning Inventory</b>	<b>49.7%</b>	<b>42.4%</b>	<b>7.9%</b>	<b>100.0%</b>
<b>Differential Between Hours and ORs</b>	<b>(10.5)</b>	<b>7.3</b>	<b>3.2</b>	

Source: 2018-Proposed 2020 SMFPs.

As shown in the table above, even though Atrium Health has the highest number of operating rooms in Mecklenburg County, its operating room inventory is proportionally lower compared to the total number of surgical hours. In other words, while Atrium Health accounts for 60 percent of total surgical hours, it accounts for less than 50 percent of the existing operating rooms. Even with the award of all six operating rooms in the 2019 review to Atrium Health, Atrium’s percent of operating rooms would still be lower than its percent of total surgical hours, based on the 2018 surgical hours.

Atrium Health also examined the utilization for inpatient facilities by system in Mecklenburg County. As shown below, Atrium Health facilities have greatly exceeded the utilization standards in the past three years, while Novant Health facilities in total have operated at or below 85 percent utilization.

**Mecklenburg County Hospital Operating Room Utilization  
by Facility and System**

<i>Year</i>	<i>Total Surgical Hours</i>	<i>Standard OR Hours Total</i>	<i>Percent Utilization</i>
Atrium Health Pineville	16,154	17,550	92%
Atrium Health University City	11,064	16,500	67%
CMC/Atrium Health Mercy	128,799	111,150	116%
<b>Atrium Health-2016</b>	<b>156,017</b>	<b>145,200</b>	<b>107%</b>
Atrium Health Pineville	17,738	17,550	101%
Atrium Health University City	9,731	16,500	59%
CMC/Atrium Health Mercy	129,027	111,150	116%
<b>Atrium Health-2017</b>	<b>156,496</b>	<b>145,200</b>	<b>108%</b>
Atrium Health Pineville	18,991	17,550	108%
Atrium Health University City	10,865	16,500	66%
CMC/Atrium Health Mercy	133,090	111,150	120%
<b>Atrium Health-2018</b>	<b>162,946</b>	<b>145,200</b>	<b>112%</b>
Novant Health Huntersville Medical Center	8,913	7,500	119%
Novant Health Matthews Medical Center	8,324	9,000	92%
Novant Health Presbyterian Medical Center	61,821	81,900	75%
<b>Novant Health-2016</b>	<b>79,058</b>	<b>98,400</b>	<b>80%</b>
Novant Health Huntersville Medical Center	9,385	7,500	125%
Novant Health Matthews Medical Center	9,317	9,000	104%
Novant Health Presbyterian Medical Center	57,606	81,900	70%
<b>Novant Health-2017</b>	<b>76,308</b>	<b>98,400</b>	<b>78%</b>
Novant Health Huntersville Medical Center	9,595	9,000	107%
Novant Health Matthews Medical Center	10,112	9,000	112%
Novant Health Presbyterian Medical Center	60,582	72,150	84%
Novant Health Mint Hill Medical Center	0	4,500	0%
<b>Novant Health-2018</b>	<b>80,289</b>	<b>94,650</b>	<b>85%</b>

Source: 2018- Proposed 2020 SMFPs.

As shown, not only has Atrium Health in total operated above 100 percent of the utilization thresholds for the past three years, but both CMC and Atrium Health Pineville exceeded 100 percent utilization in the last two years. Given the overall hospital-based utilization in the system and the tertiary level of care (and quaternary at CMC) provided at these two facilities, it is critical that they both have sufficient capacity to serve their distinct patient populations.

Atrium Health examined utilization rates across all surgical facilities in Mecklenburg County for FFY 2018:

**FFY 2018 Mecklenburg County Surgical Facilities' Utilization Rates**

<i>Facility*</i>	<i>Total Cases</i>	<i>Total Surgical Hours</i>	<i>Standard OR Hours Total</i>	<i>Percent Utilization</i>
CMC/Atrium Health Mercy	43,331	133,090	111,150	120%
SouthPark Surgery Center	11,056	8,845	7,872	112%
Novant Health Matthews Medical Center	5,628	10,112	9,000	112%
Atrium Health Pineville	8,407	18,991	17,550	108%
Novant Health Huntersville Medical Center	5,262	9,595	9,000	107%
Novant Health Huntersville Outpatient Surgery	2,968	2,622	2,624	100%
Novant Health Matthews Surgery Center	1,903	2,474	2,624	94%
Charlotte Surgery Center	7,337	8,560	9,184	93%
Novant Health Presbyterian Medical Center	31,029	60,582	72,150	84%
Novant Health Ballantyne Outpatient Surgery	901	2,117	2,624	81%
Carolina Center for Specialty Surgery	1,983	1,983	2,624	76%
Atrium Health University City	7,829	10,865	16,500	66%

\*Excludes demonstration projects and facilities not yet operational.  
 Source: *Proposed 2020 SMFP.*

While the table above does help to demonstrate the high surgical utilization among various facilities in Mecklenburg County, it does not include the impact of planned shifts of surgical cases among those facilities. In particular, the approved development of Randolph Surgery Center includes the projected shift of cases from Charlotte Surgery Center, which will help alleviate capacity constraints at that facility. With the shifting of cases from Charlotte Surgery Center to create more capacity at that facility, some cases from SouthPark Surgery Center are projected to shift to Charlotte Surgery Center, addressing capacity constraints at SouthPark Surgery Center. Additionally, the table above does not reflect the relocation of three operating rooms from Atrium Health University City to Randolph Surgery Center, which will result in higher utilization of Atrium Health University City's existing capacity. The recent opening of Novant Health Mint Hill Medical Center may address any needs at NHMMC, as some Novant Health patients were projected to shift from Matthews to Mint Hill.

As demonstrated by the preceding analyses, CMC performs more surgical cases than any other facility in Mecklenburg County, and utilizes more than twice the number of surgical hours of the next highest provider. Atrium Health Pineville also is operating above 100 percent capacity, and with its projected growth in surgical utilization, it also needs additional capacity. Given the overall utilization of the Atrium Health system shown above and on Form C Methodology and Assumptions in the Atrium Health applications, the system has no available operating room capacity to meet the needs for patients of CMC and Atrium Health Pineville, which has constrained surgical volume growth. Further, as noted above, the lack of adequate acute care bed capacity at Atrium Health's hospitals has disrupted surgical services by creating a backlog of patients recovering from anesthesia in the operating room and delays in operating room cases because the rooms are being used for recovering the patient instead of being turned around for the next case. These delays in providing patients with the appropriate care to improve their health results in delays in their recovery and return to normal life. As such, the lack of sufficient capacity creates a domino effect that negatively impacts patient care. The need for the patients of these facilities will be met partially through the projects proposed in the concurrent and complementary applications.

By contrast, Novant Health has a surplus of capacity across the system and argues, unreasonably, that it needs additional capacity. Based on these issues, the NHMMC OR application should be found non-conforming with Criterion 3 as well as Criterion 4, 5, 6, 18a, and the performance standards in the operating room rules (10A NCAC 14C .2103). Further, the NHMMC OR application failed to even consider the relocation of existing underutilized operating room capacity within the Novant Health system as an alternative. Therefore, the NHMMC OR application failed to demonstrate its project is the most effective alternative to meeting its identified need which also supports a finding of non-conformity with Criterion 4.

Access to Underserved

Atrium Health has long-promoted economic access to its services as Atrium Health historically has provided services to all persons in need of medical care, regardless of race, sex, creed, age, national origin, handicap, or ability to pay. Atrium Health will continue to serve this population as dictated by its mission, which is the foundation for every action taken. The mission is simple, but unique: *To improve health, elevate hope, and advance healing – for all.* This includes the medically underserved. Atrium Health’s commitment to this mission is borne out not just in words, but in service to patients. To demonstrate Atrium Health’s level of commitment to the underserved populations of Mecklenburg County, Atrium Health analyzed acute care discharge data from Truven by payor and system for the first nine months of 2018, January through September.

**2018 Acute Care Discharges Originating from Mecklenburg County by Provider**

<i>Provider</i>	<i>Total Discharges</i>	<i>Percent of Total</i>
Atrium Health	37,498	58.2%
Novant Health	24,361	37.8%
All Others*	2,527	3.9%
<b>Total</b>	<b>64,386</b>	<b>100.0%</b>

Source: Truven.

\*All Others includes all non-Mecklenburg County acute care service providers.

As shown above, Atrium Health’s hospitals provided 58.2 percent of all acute care discharges originating from Mecklenburg County in 2018. The table below provides the percent of total discharges by payor for each provider.

**2018 Percent of Total Acute Care Discharges Originating from Mecklenburg County by Provider and Payor**

<i>Provider</i>	<i>Percent of Total Commercial</i>	<i>Percent of Total Medicaid</i>	<i>Percent of Total Medicare</i>	<i>Percent of Total Self-Pay/Other</i>
Atrium Health	50.0%	66.8%	58.6%	69.5%
Novant Health	45.3%	30.9%	37.5%	25.1%
All Others*	4.7%	2.3%	3.9%	5.5%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

Source: Truven.

\*All Others includes all non-Mecklenburg County acute care service providers.

As shown above, in 2018, 66.8 percent of all Medicaid inpatients from Mecklenburg County were treated at an Atrium Health facility, compared with Atrium Health's 58.2 percent share of all patients. In addition, 58.6 percent of Medicare and 69.5 percent of Self-Pay Mecklenburg County acute care discharges were treated at an Atrium Health facility. Atrium Health served more than twice as many Medicaid patients and nearly three times as many Self-Pay patients as Novant Health. This means while Atrium Health facilities served the majority of acute care discharges originating from Mecklenburg County in 2018, it served a disproportionately higher share of these underserved patients compared to Novant Health. Based on Atrium Health's demonstrated experience serving the underserved, it is clear that the projects proposed in its concurrent and complementary applications are the most effective alternatives to enhance access to these patients.

## **COMPARATIVE ANALYSIS – ACUTE CARE BEDS**

The NHMMC, Atrium Health University City, CMC, and Atrium Health Pineville bed applications, as well as the Atrium Health Lake Norman application, each propose to develop acute care beds in response to the 2019 SMFP need determination for Mecklenburg County. Atrium Health acknowledges that each review is different and, therefore, that the comparative review factors employed by the Project Analyst in any given review may be different depending upon the relevant factors at issue. Given the nature of the review, the Analyst must decide which comparative factors are most appropriate in assessing the applications.

In order to determine the most effective alternative to meet the identified need for 76 additional acute care beds in Mecklenburg County, Atrium Health reviewed and compared the following factors in each application:

- Conformity with Review Criteria
- New Location
- Meeting the Need for Additional Acute Care Bed Capacity
- 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
- Physician 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.

### Conformity with Review Criteria

Atrium Health University City, CMC, Atrium Health Pineville, and Atrium Health Lake Norman adequately demonstrate that their acute care bed proposals are conforming to all applicable statutory and regulatory review criteria. By contrast, the NHMMC Bed application does not adequately demonstrate that its proposal is conforming to all applicable statutory and regulatory review criteria as discussed previously. Therefore, the Atrium Health University City, CMC Bed, Atrium Health Pineville Bed, and Atrium Health Lake Norman applications are the most effective with regard to conformity with review criteria.

New Location

The following table documents the location of acute care beds within Mecklenburg County according to the 2019 SMFP.

**Mecklenburg County Acute Care Bed Need/Surplus**

	<i>Location</i>	<i>Existing/ Approved Beds</i>
Atrium Health Pineville	10628 Park Road, Charlotte	259
Atrium Health University City	8800 North Tryon Street, Charlotte	100
CMC/Atrium Health Mercy	1000 Blythe Boulevard, Charlotte 2001 Vail Avenue, Charlotte (Atrium Health Mercy campus)	1,055
<b>Atrium Health Total</b>		<b>1,414</b>
NH Huntersville	10030 Gilead Road, Huntersville	151
NHMMC	1500 Matthews Township Parkway, Matthews	154
NH Presbyterian Medical Center	200 Hawthorne Lane, Charlotte	483
NH Mint Hill	8201 Healthcare Loop, Mint Hill	50
NH Ballantyne	10713 Providence Rd, Charlotte	36
<b>Novant Health Total</b>		<b>874</b>

Source: 2019 SMFP.

Four of the five applications propose to add acute care beds to an existing facility. Only one application proposes to develop acute care beds at a new facility, Atrium Health Lake Norman. Therefore, with regard to new location, the Atrium Health Lake Norman application is comparatively superior because it proposes to develop acute care beds at a new facility in Mecklenburg County.



Meeting the Need for Additional Acute Care Bed Capacity

As shown in the 2019 SMFP, the Atrium Health system has a total deficit of 126 acute care beds including deficits of five, 40, and 81 beds at Atrium Health University City, Atrium Health Pineville, and CMC/Atrium Health Mercy, respectively. By comparison, the Novant Health system has a total surplus of 130 acute care beds and a surplus of nine beds at NHMMC.

**Mecklenburg County Facilities’ Acute Care Bed Need/Surplus**

	<b>2021 Projected ADC</b>	<b>2021 Beds Adjusted for Target Occupancy</b>	<b>Current Bed Inventory</b>	<b>Projected 2021 Deficit/ (Surplus)</b>
Atrium Health Pineville	186	261	221	40
Atrium Health University City	70	105	100	5
CMC/Atrium Health Mercy	888	1,136	1,055	81
<b>Atrium Health Total</b>	<b>1,144</b>	<b>1,502</b>	<b>1,376</b>	<b>126</b>
NH Huntersville	65	98	139	(41)
NHMMC	103	145	154	(9)
NH Presbyterian Medical Center	368	489	519	(30)
NH Mint Hill	0	0	50	(50)
<b>Novant Health Total</b>	<b>536</b>	<b>732</b>	<b>862</b>	<b>(130)</b>

Source: 2019 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 University City, Atrium Health Pineville Bed, CMC Bed, and Atrium Health Lake Norman 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.

Please note that Atrium Health’s analysis under this comparative factor is consistent with prior Agency findings. 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.4-2 of the Atrium Health bed applications).

Please also note that previous Agency reviews have included a “Competition” comparative factor which found any applicant with fewer acute care beds more effective than applicants with a greater number of beds. However, in these reviews the Agency did not include an evaluation of the degree to which the capacity of the applicants with existing facilities represented a surplus or deficit, as compared to need based on patient demand. Such an 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 CON 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 § 131E-175. Findings of Fact

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. Under the Agency's application of that "Competition" comparative factor for example, 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. As noted in its Atrium Health University City, Atrium Health Pineville Bed, CMC Bed, and Atrium Health Lake Norman applications, Atrium Health believes the "Competition" comparative factor as applied in 2018 is contrary to the purpose of the CON statute and should not be applied in this review.

Moreover, if acute care beds are awarded to systems that repeatedly demonstrate surpluses of acute care bed capacity, instead of those with a deficit, additional acute care beds will continue to be generated in Mecklenburg County. This dynamic was made apparent during the development of the *2020 SMFP*. In the first draft of Table 5A: Acute Care Bed Need Projections, published on May 7, 2019, Mecklenburg County showed an overall need for 114 additional acute care beds. At that time, Table 5A did not yet account for the acute care beds awarded from the *2018 SMFP*. On April 5, 2019, the Agency concluded its review of the 2018 acute care bed applications and awarded 12 acute care beds to Novant Health Huntersville Medical Center and 38 acute care beds to Atrium Health Pineville. Following this decision, the Agency revised Table 5A which showed an increased need of 12 acute care beds, totaling 126 additional acute care beds needed in Mecklenburg County. Because the Agency awarded 12 acute care beds to a system with a surplus of acute care bed capacity (Novant Health), the acute care bed need in Mecklenburg County increased by 12 from the draft need. Said another way, each acute care bed awarded to Novant Health, or another provider with a surplus, increases the future number of beds calculated as needed in Mecklenburg County by the standard methodology. As such, decisions that award beds to providers with ongoing surpluses in Mecklenburg County will fail to meet the need for additional acute care capacity in Mecklenburg County as identified by the *SMFP* and will continue to create additional acute care bed need determinations for the foreseeable future in an attempt to resolve the need generated by Atrium Health.

Atrium Health acknowledges that a provider that generates the need for additional capacity is not 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, Atrium Health 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, not only will a need for acute care beds in Mecklenburg County be triggered every year in the foreseeable future, but also one of the foundational principles of the *SMFP* and CON process will be disregarded as beds 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, with regard to meeting the need for additional acute care bed capacity, the Atrium Health University City, Atrium Health Pineville Bed, CMC Bed, and Atrium Health Lake Norman applications are the more effective alternatives.

Geographic Reach

According to patient origin data submitted on license renewal applications (LRAs), less than 60 percent 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 13.1 percent 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**

<i>NC County/State of Origin</i>	<i>Percent of Total</i>
Mecklenburg	57.6%
South Carolina	13.1%
Union	8.0%
All Others	4.4%
Gaston	1.0%
Cabarrus	2.9%
Iredell	1.8%
Lincoln	1.9%
Other States	2.0%
Cleveland	0.9%
Rowan	6.4%
<b>Total</b>	<b>100.0%</b>

Source: 2019 LRAs and Exhibit C.4-3 of Atrium Health Bed applications.

As noted in Atrium Health’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 Atrium Health demonstrates in its bed applications, Mecklenburg County would have a surplus of 1,019 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, Atrium Health 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.

<b>NC County/State of Origin</b>	<b>NHMMC Bed</b>	<b>CMC Bed</b>	<b>Atrium Health Pineville Bed</b>	<b>Atrium Health University City</b>	<b>Atrium Health Lake Norman Bed</b>
Mecklenburg	51.8%	45.3%	47.2%	72.4%	91.8%
South Carolina	Not Provided	10.0%	36.9%	0.6%	0.0%
Union	35.8%	3.4%	3.2%	0.9%	0.0%
Gaston	Not Provided	6.3%	2.5%	2.4%	0.0%
Cabarrus	1.5%	3.7%	0.1%	11.6%	0.0%
Iredell	Not Provided	2.0%	Not Provided	2.4%	8.2%
Lincoln	Not Provided	3.3%	Not Provided	1.9%	0.0%
Cleveland	Not Provided	4.9%	Not Provided	Not Provided	0.0%

Source: Section C.3.(a).

As shown in the table above, Atrium Health Lake Norman projects to serve the highest percentage of Mecklenburg and Iredell County residents, the Atrium Health Pineville Bed application projects to serve the highest percentage of South Carolina residents, the CMC Bed application projects to serve the highest percentage of Gaston, Lincoln, and Cleveland County residents, and Atrium Health University City projects to serve the highest percentage of Cabarrus County residents. Combined, Atrium Health applicants project to serve the highest percentage of Mecklenburg, South Carolina, Gaston, Cabarrus, Iredell, Lincoln, and Cleveland County residents in comparison to NHMMC. Therefore, with regard to geographic reach, the CMC Bed, Atrium Health Pineville Bed, Atrium Health University City Bed, and Atrium Health Lake Norman 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. 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 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, Atrium Health 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.

#### 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 the NHMMC Bed application

failed to provide the estimated percentage of total acute care bed patients for each group during the third full fiscal year of the project as requested in Section C.11. Rather NHMMC’s response references the percentage of patients served by its entire facility, not its acute care beds, as identified in Section L.1. The Atrium Health applications provided the requested information for C.11 in its application, as shown below.

**Underserved Groups Served by Acute Care Beds**

	<b>Women</b>	<b>65+</b>	<b>Racial Minorities</b>
Atrium Health Pineville Bed	52.7%	57.0%	32.0%
CMC Bed	44.6%	36.9%	45.3%
Atrium Health University City Bed	55.3%	38.3%	66.3%
Atrium Health Lake Norman Bed*	64.6%	32.6%	70.9%
NHMMC Bed			

Source: Section C.11.

\*Includes Med/Surg and ICU beds for comparison purposes.

Atrium Health Lake Norman projects to serve the highest percentage of women and racial minorities in its acute care beds. The Atrium Health Pineville Beds application projects to serve the highest percentage of patients age 65 and older. The NHMMC Bed application failed to provide the requested information.

*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.

	<b>% of Medicare</b>	<b>% of Medicaid</b>	<b>Total</b>
Atrium Health Pineville Bed	64.5%	6.8%	<b>71.3%</b>
CMC Bed	47.2%	17.0%	<b>64.2%</b>
Atrium Health University Bed	50.0%	15.9%	<b>65.9%</b>
Atrium Health Lake Norman Bed*	52.7%	17.9%	<b>70.6%</b>
NHMMC Bed	53.8%	7.4%	<b>61.1%</b>

Source: Section L.3.

\*Based on medical/surgical beds for comparison purposes.

As shown in the table above, the Atrium Health Pineville Bed application projects to serve the highest percentage of Medicare patients and the Atrium Health Lake Norman application projects to serve the highest percentage of Medicaid patients. The NHMMC Bed application projects to serve the lowest combined percentage of Medicare and Medicaid patients among the applications.

*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.

	<b>Charity Care</b>	<b>Net Revenue</b>	<b>Charity Care as a % of Net Revenue</b>
Atrium Health Pineville Bed	\$10,199,060	\$52,051,647	19.6%
CMC Bed	\$21,733,594	\$86,754,486	25.1%
Atrium Health University Bed	\$7,309,504	\$20,162,903	36.3%
Atrium Health Lake Norman Bed*	\$1,230,777	\$4,283,628	28.7%
NHMMC Bed	\$19,810,814	\$159,965,572	12.4%

Source: Form F.2.

\*Based on medical/surgical beds for comparison purposes.

As shown in the table above, Atrium Health University City proposes to provide the highest percentage of charity care in Project Year 3. The NHMMC Bed application projects the lowest charity care as a percentage of net revenue.

With regard to access to the underserved, the Atrium Health University City, CMC Bed, Atrium Health Pineville Bed, and Atrium Health Lake Norman applications are the more effective alternatives. Further, as noted in the General Comments section above, Atrium Health has a history of committed service to the underserved which demonstrates that the projects proposed in its concurrent and complementary applications are the most effective alternatives to enhance access to these patients.

#### Average Net Revenue per Day

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

	<b>Net Revenue</b>	<b># of Days</b>	<b>Net Revenue per Day</b>
Atrium Health Pineville Bed	\$52,051,647	57,270	\$909
CMC Bed	\$86,754,486	110,605	\$784
Atrium Health University Bed	\$20,162,903	21,476	\$939
Atrium Health Lake Norman Bed*	\$4,283,628	5,563	\$770
NHMMC Bed	\$159,965,572	45,594	\$3,508

Source: Form C Utilization and Form F.2.

\*Based on medical/surgical beds for comparison purposes.

As shown in the table above, Atrium Health Lake Norman projects the lowest net revenue per patient day. The NHMMC Bed application projects the highest net revenue per patient day. Therefore, with regard to net revenue per patient day, the Atrium Health University City, CMC Bed, Atrium Health Pineville Bed, and Atrium Health Lake Norman applications are the more effective alternatives.

#### Average Expense per Day

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

	<b>Operating Expense</b>	<b># of Days</b>	<b>Expense per Day</b>
Atrium Health Pineville Bed	\$40,940,934	57,270	\$715
CMC Bed	\$73,950,484	110,605	\$669
Atrium Health University Bed	\$17,311,276	21,476	\$806
Atrium Health Lake Norman Bed*	\$7,440,402	5,563	\$1,337
NHMMC Bed	\$127,801,796	45,594	\$2,803

Source: Form C Utilization and Form F.2.

\*Based on medical/surgical beds for comparison purposes.

As shown in the table above, the CMC Bed application projects the lowest operating expense per patient day. The NHMMC Bed application projects the highest operating expense per patient day. Therefore, with regard to operating expense per patient day, the Atrium Health University City, CMC Bed, Atrium Health Pineville Bed, and Atrium Health Lake Norman applications are the more effective alternatives.

### Physician Support

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

	<b>Surgeons/Other Physicians/Providers</b>	<b>Community</b>
Atrium Health Pineville Bed	80	42
CMC Bed	105	9
Atrium Health University City Bed	30	18
Atrium Health Lake Norman Bed	120	60
NHMMC Bed*	26	10

Source: Support letter exhibits.

\*Excludes letters of support from NHMMC administrative staff.

As shown above, the Atrium Health Lake Norman application included the most letters of support from physicians and community members. The NHMMC application provided the lowest number of letters of support from physicians and the lowest number of letters combined. Therefore, with regard to physician support, the Atrium Health University City, CMC Bed, Atrium Health Pineville Bed, and Atrium Health Lake Norman applications are the more effective alternatives.

Summary of Comparative Analysis-Acute Care Beds

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

<b>Comparative Factor</b>	<b>Atrium Health Pineville Bed</b>	<b>CMC Bed</b>	<b>Atrium Health University City</b>	<b>Atrium Health Lake Norman</b>	<b>NHMMC Bed</b>
<b>Conformity with Review Criteria</b>	More Effective	More Effective	More Effective	More Effective	Less Effective
<b>New Location</b>	Less Effective	Less Effective	Less Effective	Most Effective	Less Effective
<b>Meeting the Need for Additional Acute Care Bed Capacity</b>	More Effective	More Effective	More Effective	More Effective	Less Effective
<b>Geographic Reach</b>	More Effective	More Effective	More Effective	More Effective	Less Effective
<b>Access by Women</b>	More Effective	More Effective	More Effective	Most Effective	Less Effective
<b>Access by 65+</b>	Most Effective	More Effective	More Effective	More Effective	Less Effective
<b>Access by Racial Minorities</b>	More Effective	More Effective	More Effective	Most Effective	Less Effective
<b>Projected Medicare</b>	Most Effective	Less Effective	Less Effective	Less Effective	Less Effective
<b>Projected Medicaid</b>	Less Effective	Less Effective	Less Effective	Most Effective	Less Effective
<b>Projected Charity Care</b>	Less Effective	Less Effective	Most Effective	Less Effective	Less Effective
<b>Average Net Revenue per Day</b>	More Effective	More Effective	More Effective	Most Effective	Less Effective
<b>Average Expense per Day</b>	More Effective	Most Effective	More Effective	More Effective	Less Effective
<b>Physician Support</b>	More Effective	More Effective	More Effective	Most Effective	Less Effective



## **COMPARATIVE ANALYSIS – OPERATING ROOMS**

The NHMMC, CMC, and Atrium Health Pineville operating room applications, as well as the Atrium Health Lake Norman application each propose to develop operating rooms in response to the 2019 SMFP need determination for Mecklenburg County. Atrium Health acknowledges that each review is different and, therefore, that the comparative review factors employed by the Project Analyst in any given review may be different depending upon the relevant factors at issue. Given the nature of the review, the Analyst must decide which comparative factors are most appropriate in assessing the applications.

In order to determine the most effective alternative to meet the identified need for six additional operating rooms in Mecklenburg County, Atrium Health reviewed and compared the following factors in each application:

- Conformity with Review Criteria
- New Location
- Meeting the Need for Additional OR Capacity
- Geographic Reach
- Patient Access to Multiple Surgical Services
- 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
- Physician 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.

### Conformity with Review Criteria

CMC, Atrium Health Pineville, and Atrium Health Lake Norman adequately demonstrate that their operating room proposals are conforming to all applicable statutory and regulatory review criteria. By contrast, the NHMMC application does not adequately demonstrate that its proposal is conforming to all applicable statutory and regulatory review criteria as discussed previously. Therefore, the CMC OR, Atrium Health Pineville OR, and Atrium Health Lake Norman applications are the most effective with regard to conformity with review criteria.

New Location

The following table documents the location of operating rooms within Mecklenburg County according to the 2019 SMFP.

**Operating Room Inventory and Grouping**

<i>Facility</i>	<i>IP OR</i>	<i>OP OR</i>	<i>Shared OR</i>	<i>Excluded C-Section / Trauma</i>	<i>CON Adjustments</i>	<i>Total ORs</i>
Atrium Health Huntersville Surgery	0	0	0	0	1	1
Carolina Center for Specialty Surgery	0	2	0	0	0	2
Atrium Health Pineville	3	0	9	-2	0	10
CMC/Atrium Health Mercy	10	11	41	-4	-2	56
Atrium Health University City	1	2	9	-1	-4	7
<b>Atrium Health Total</b>	<b>14</b>	<b>15</b>	<b>59</b>	<b>-7</b>	<b>-5</b>	<b>76</b>
Randolph Surgery Center	0	0	0	0	6	6
Charlotte Surgery Center	0	7	0	0	-1	6
<b>Charlotte Surgery Center</b>	<b>0</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>12</b>
NH Mint Hill	0	0	0	0	4	4
SouthPark Surgery Center	0	6	0	0	0	6
NH Ballantyne Outpatient Surgery	0	2	0	0	0	2
NH Huntersville Outpatient Surgery	0	2	0	0	0	2
Matthews Surgery Center	0	2	0	0	0	2
NH Presbyterian Medical Center	6	6	33	-3	-6	36
NHMMC	2	0	6	-2	0	6
NH Huntersville	1	0	5	-1	1	6
<b>Novant Health Total</b>	<b>9</b>	<b>18</b>	<b>44</b>	<b>-6</b>	<b>-1</b>	<b>64</b>
Carolinas Center for Ambulatory Dentistry	0	0	0	0	2	2
Mallard Creek Surgery Center	0	2	0	0	0	2

Source: 2019 SMFP.

Three of the four applications propose to add operating rooms to an existing facility. Only one application proposes to develop operating rooms at a new facility, Atrium Health Lake Norman. Therefore, with regard to new location, the Atrium Health Lake Norman application is comparatively superior because it proposes to develop operating rooms at a new facility in Mecklenburg County.

Meeting the Need for Additional OR Capacity

As shown in the 2019 SMFP, the Atrium Health system has a total deficit of 12.47 operating rooms including deficits of 0.94 and 12.32 rooms at Atrium Health Pineville and CMC, respectively. By comparison, the Novant Health system has a total surplus of 7.06 operating rooms and a deficit of 0.58 rooms at NHMMC.

**Atrium Health and Novant Health  
Mecklenburg County Facilities' Operating Room Need/Surplus (2019 SMFP)**

	<i>Projected Surgical Hours for 2021</i>	<i>Projected Surgical ORs Required in 2021</i>	<i>Adjusted Planning Inventory</i>	<i>Projected OR Deficit/Surplus (Surplus shows as a "-")</i>
Atrium Health Huntersville Surgery	0	0.00	1	-1.00
Carolina Center for Specialty Surgery	2,882	2.20	2	0.20
Atrium Health Pineville	19,192	10.94	10	0.94
CMC/Atrium Health Mercy	131,275	67.32	55	12.32
Atrium Health University City	10,529	7.02	7	0.02
<b>Atrium Health System Total</b>		<b>87.47</b>	<b>75</b>	<b>12.47</b>
NH Mint Hill	0	0.00	4	-4.00
SouthPark Surgery Center	9,758	7.44	6	1.44
NH Ballantyne Outpatient Surgery	1,332	1.01	2	-0.99
NH Huntersville Outpatient Surgery	2,259	1.72	2	-0.28
Matthews Surgery Center	2,682	2.04	2	0.04
NH Presbyterian Medical Center	62,329	31.96	36	-4.04
NHMMC	9,871	6.58	6	0.58
NH Huntersville	9,270	6.18	6	0.18
<b>Novant Health Total</b>		<b>56.94</b>	<b>64</b>	<b>-7.06</b>

Source: 2019 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 OR, Atrium Health Pineville OR, and Atrium Health Lake Norman applications are the more effective alternatives.

Please note that Atrium Health's analysis under this comparative factor is consistent with the prior Agency findings. 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 Atrium Health OR applications).

Please also note that previous Agency reviews have included a "Competition" comparative factor which found any applicant with fewer operating rooms more effective than applicants with a greater number of operating rooms. However, in these reviews the Agency did not include an evaluation of the degree to which the capacity of the applicants with existing facilities represented a surplus or deficit, as compared to need based on patient demand. Such an 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 CON 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 § 131E-175. Findings of Fact

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. Under the Agency's application of that "Competition" comparative factor for example, an existing provider with one operating room that served zero patients would be found to be more effective than another provider with two operating rooms that served thousands of patients and demonstrated a deficit of capacity. As noted in its CMC OR, Atrium Health Pineville OR, and Atrium Health Lake Norman applications, Atrium Health believes the "Competition" comparative factor as applied in 2018 is contrary to the purpose of the CON statute and should not be applied in this review.

Moreover, if operating rooms are awarded to systems that repeatedly demonstrate surpluses of operating room capacity, instead of those with a deficit, additional operating rooms will continue to be generated in Mecklenburg County. This dynamic was made apparent during the development of the 2020 SMFP. In the first draft of Table 6B: Projected Operating Room Need for 2022, published on May 7, 2019, Mecklenburg County showed an overall need for eight operating rooms. At that time, Table 6B did not yet account for the operating rooms awarded from the 2018 SMFP. On April 30, 2019, the Agency concluded its review of the 2018 operating room applications and awarded one operating room to Novant Health Huntersville Medical Center, one operating room to Metrolina Vascular Access Care, and four operating rooms to Atrium Health facilities. Following this decision, the Agency revised Table 6B which showed an increased need of two operating rooms, totaling 10 operating rooms needed in Mecklenburg County. Because the Agency awarded one operating room to a system with a surplus of operating room capacity, Novant Health (as well as one operating room to a new provider), the operating room need in Mecklenburg County increased from the draft need. Said another way, each operating room awarded to Novant Health (or any applicant that is an existing entity showing a surplus), increases the number of operating rooms calculated as needed in Mecklenburg County by the standard methodology. As such, decisions that award operating rooms to providers with surpluses in Mecklenburg County will fail to meet the need for additional operating room capacity in Mecklenburg County as identified by the SMFP and will continue to create additional operating room need determinations for the foreseeable future in an attempt to resolve the need generated by Atrium Health.

Atrium Health acknowledges that a provider that generates the need for additional capacity is not 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, Atrium Health 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 CON 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, with regard to meeting the need for additional operating room capacity, the CMC OR, Atrium Health Pineville OR, and Atrium Health Lake Norman applications are the more effective alternatives.

Geographic Reach

According to patient origin data submitted on license renewal applications (LRAs), less than 52 percent of patients served by Mecklenburg County operating room providers originate from within the county. As shown in the table below, South Carolina patients comprise over 13 percent 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**

<i>NC County/State of Origin</i>	<i>Percent of Total</i>
Mecklenburg	51.1%
South Carolina	13.7%
Union	9.2%
All Others	7.5%
Gaston	5.4%
Cabarrus	3.5%
Iredell	3.2%
Lincoln	2.5%
Other States	0.8%
Cleveland	1.7%
Rowan	1.4%
<b>Total</b>	<b>100.0%</b>

Source: 2019 LRAs and Exhibit C.4-3 of Atrium Health OR applications.

As noted in Atrium Health’s operating room applications, 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 Atrium Health demonstrates in its operating room applications, Mecklenburg County would have a surplus of 73 operating rooms, if not for the demand for surgical services originating from outside of the county. Under these circumstances, Atrium Health 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.

<b>NC County/State of Origin</b>	<b>NHMMC OR</b>	<b>CMC OR</b>	<b>Atrium Health Pineville OR</b>	<b>Atrium Health Lake Norman OR</b>
Mecklenburg	48.1%	43.4%	38.5%	85.5%
South Carolina	Not Provided	11.8%	47.9%	0.0%
Union	35.7%	4.5%	5.6%	0.0%
Gaston	Not Provided	7.0%	2.2%	0.0%
Cabarrus	Not Provided	4.4%	Not Provided	0.0%
Iredell	Not Provided	2.3%	0.1%	14.5%
Lincoln	Not Provided	2.9%	Not Provided	0.0%
Cleveland	Not Provided	4.0%	Not Provided	0.0%

Source: Section C.3.(a).

As shown in the table above, Atrium Health Lake Norman projects to serve the highest percentage of Mecklenburg and Iredell County residents, the Atrium Health Pineville OR application projects to serve the highest percentage of South Carolina residents, and the CMC OR application projects to serve the highest percentage of Gaston, Cabarrus, Lincoln, and Cleveland County residents. Combined, Atrium Health applicants project to serve the highest percentage of Mecklenburg, South Carolina, Gaston, Cabarrus, Iredell, Lincoln, and Cleveland County residents in comparison to NHMMC. Therefore, with regard to geographic reach, the CMC OR, Atrium Health Pineville OR, and Atrium Health Lake Norman 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. 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. (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, Atrium Health 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.

#### 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 NHMMC failed to include a list of surgical specialties as requested in Section C.1. Therefore, its proposed surgical specialties in the table are based on its 2019 License Renewal Application, consistent with the practice of the Agency in past reviews.

	<i>NHMMC OR</i>	<i>CMC OR</i>	<i>Pineville OR</i>	<i>Atrium Health Lake Norman</i>
Cardiothoracic, excl. open heart	x	x	x	
Open Heart		x	x	
General Surgery	x	x	x	x
Neurosurgery (incl. spine)		x	x	
OB GYN (excl. C-Section)	x	x	x	x
Ophthalmology		x	x	x
Oral Surgery/Dental	x	x	x	
Orthopedic (incl. spine)	x	x	x	x
ENT	x	x	x	x
Plastic Surgery	x	x	x	
Podiatry	x			
Urology	x	x	x	x
Vascular	x	x	x	
Other	x	x	x	
<b>Total # of Surgical Specialties</b>	<b>11</b>	<b>13</b>	<b>13</b>	<b>6</b>

Source: 2019 NHMMC License Renewal Application and Section C.1 of the Atrium Health applications.

As the above table illustrates, CMC and Atrium Health Pineville, as acute care tertiary and quaternary hospitals, offer a full continuum of surgical services. NHMMC does not offer tertiary services such as open heart or neurosurgery. Atrium Health Lake Norman will offer a smaller range of surgical specialties consistent with its community hospital services. As such, CMC and Atrium Health Pineville offer access to a broader range of specialties and are therefore more effective alternatives 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 Atrium Health Lake Norman). Please note that the NHMMC OR application failed to provide the estimated percentage of total operating room patients for each group during the third full fiscal year of the project as requested in Section C.8. Rather NHMMC’s response references the percentage of patients served by its entire facility, not its operating rooms, as identified in Section L.1. The Atrium Health applications provided the requested information for C.8 in its application, as shown below.

**Underserved Groups Served by Operating Rooms**

	<b>Women</b>	<b>65+</b>	<b>Racial Minorities</b>
Atrium Health Pineville OR	57.0%	39.6%	26.3%
CMC OR	41.8%	26.7%	41.8%
Atrium Health Lake Norman OR	61.1%	29.5%	53.7%
NHMMC OR	Not provided	Not provided	Not provided

Source: Section C.8. Section C.11 for Atrium Health Lake Norman.

Atrium Health Lake Norman projects to serve the highest percentage of women and racial minorities in its operating rooms. The Atrium Health Pineville OR application projects to serve the highest percentage of patients age 65 and older. The NHMMC OR 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.

	<b>% Medicare</b>	<b>% Medicaid</b>	<b>Total</b>
Atrium Health Pineville OR	41.0%	4.8%	<b>45.8%</b>
CMC OR	28.2%	18.9%	<b>47.1%</b>
Atrium Health Lake Norman OR	38.2%	17.9%	<b>56.1%</b>
NHMMC OR	39.1%	5.0%	<b>44.1%</b>

Source: Section L.3.

As shown in the table above, the Atrium Health Pineville OR application projects to serve the highest percentage of Medicare patients and the CMC OR application projects to serve the highest percentage of Medicaid patients. Atrium Health Lake Norman projects to serve the highest combined percentage of Medicare and Medicaid patients. The NHMMC OR application projects to serve the lowest combined percentage of Medicare and Medicaid patients among the applications.



*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.

	<i>Charity Care</i>	<i>Net Revenue</i>	<i>Charity Care as a % of Net Revenue</i>
Atrium Health Pineville OR	\$18,535,573	\$163,411,038	11.3%
CMC OR	\$107,095,526	\$508,809,369	21.0%
Atrium Health Lake Norman OR	\$2,216,832	\$13,701,278	16.2%
NHMMC OR	\$6,918,022	\$111,610,945	6.2%

Source: Form F.2.

As shown in the table above, the CMC OR application proposes the highest charity care as a percentage of net revenue. The NHMMC OR application projects the lowest charity care as a percentage of net revenue.

With regard to access to the underserved, the CMC OR, Atrium Health Pineville OR, and Atrium Health Lake Norman applications are the more effective alternatives. Further, as noted in the General Comments section above, Atrium Health has a history of committed service to the underserved which demonstrates that the projects proposed in its concurrent and complementary applications are the most effective alternatives to enhance access to these patients.

Projected Average Net Revenue per Case

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

	<i>Net Revenue</i>	<i># of Cases</i>	<i>Net Revenue per Case</i>
Atrium Health Pineville OR	\$163,411,038	9,527	\$17,152
CMC OR	\$508,809,369	30,411	\$16,731
Atrium Health Lake Norman OR	\$13,701,278	1,687	\$8,122
NHMMC OR	\$111,610,945	6,238	\$17,893

Source: Form C Utilization and Form F.2.

As shown in the table above, Atrium Health Lake Norman projects the lowest net revenue per surgical case. The NHMMC OR application projects the highest net revenue per case. Therefore, with regard to net revenue per surgical case, the CMC OR, Atrium Health Pineville OR, and Atrium Health Lake Norman applications are the more effective alternatives.

Projected Average Operating Expense per Case

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

	<i>Operating Expense</i>	<i># of Cases</i>	<i>Expense per Day</i>
Atrium Health Pineville OR	\$65,526,948	9,527	\$6,878
CMC OR	\$220,990,221	30,411	\$7,267
Atrium Health Lake Norman OR	\$8,711,604	1,687	\$5,164
NHMMC OR	\$52,353,182	6,238	\$8,393

Source: Form C Utilization and Form F.3.

As shown in the table above, Atrium Health Lake Norman projects the lowest operating expense per surgical case. The NHMMC OR application projects the highest operating expense per case. Therefore, with regard to operating expense per surgical case, the CMC OR, Atrium Health Pineville OR, and Atrium Health Lake Norman applications are the more effective alternatives.

Physician Support

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

	<i>Surgeons</i>	<i>Other Physicians/Providers</i>	<i>Community</i>
Atrium Health Pineville OR	17	63	42
CMC OR	90	15	9
Atrium Health Lake Norman	24	96	60
NHMMC OR*	13	11	3

Source: Support letter exhibits.  
Excludes letters of support from NHMMC administrative staff.

As shown above, the CMC OR application included the most letters of support from surgeons and the Atrium Health Lake Norman application included the most letters of support from other physicians/providers and community members. The NHMMC application provided the fewest letters of support for each of the three groups and the fewest letters combined. Therefore, with regard to physician support, the CMC OR, Atrium Health Pineville OR, and Atrium Health Lake Norman applications are the more effective alternatives.

Summary of Comparative Analysis-Operating Rooms

The following table summarizes the comparative analysis for operating rooms.

<b>Comparative Factor</b>	<b>Atrium Health Pineville OR</b>	<b>CMC OR</b>	<b>Atrium Health Lake Norman</b>	<b>NHMMC OR</b>
<b>Conformity with Review Criteria</b>	More Effective	More Effective	More Effective	Less Effective
<b>New Location</b>	Less Effective	Less Effective	Most Effective	Less Effective
<b>Meeting the Need for Additional OR Capacity</b>	More Effective	More Effective	More Effective	Less Effective
<b>Geographic Reach</b>	More Effective	More Effective	More Effective	Less Effective
<b>Patient Access to Multiple Surgical Services</b>	More Effective	More Effective	Less Effective	Less Effective
<b>Access by Women</b>	More Effective	More Effective	Most Effective	Less Effective
<b>Access by 65+</b>	Most Effective	More Effective	More Effective	Less Effective
<b>Access by Racial Minorities</b>	More Effective	More Effective	Most Effective	Less Effective
<b>Projected Medicare</b>	Most Effective	Less Effective	Less Effective	Less Effective
<b>Projected Medicaid</b>	Less Effective	Most Effective	Less Effective	Less Effective
<b>Projected Charity Care</b>	Less Effective	Most Effective	Less Effective	Less Effective
<b>Average Net Revenue per Day</b>	More Effective	More Effective	Most Effective	Less Effective
<b>Average Expense per Day</b>	More Effective	More Effective	Most Effective	Less Effective
<b>Physician Support</b>	More Effective	More Effective	More Effective	Less Effective

**SUMMARY**

Based on both its comparative analysis and the comments on competing applications, Atrium Health believes that its applications represent the most effective alternatives for meeting the needs identified in the 2019 SMFP for 76 additional acute care beds and six operating rooms in Mecklenburg County, respectively.

**Summary of Comparative Analysis-Acute Care Beds**

<i>Comparative Factor</i>	<i>Atrium Health Pineville Bed</i>	<i>CMC Bed</i>	<i>Atrium Health University City</i>	<i>Atrium Health Lake Norman</i>	<i>NHMMC Bed</i>
<b>Conformity with Review Criteria</b>	More Effective	More Effective	More Effective	More Effective	Less Effective
<b>New Location</b>	Less Effective	Less Effective	Less Effective	Most Effective	Less Effective
<b>Meeting the Need for Additional Acute Care Bed Capacity</b>	More Effective	More Effective	More Effective	More Effective	Less Effective
<b>Geographic Reach</b>	More Effective	More Effective	More Effective	More Effective	Less Effective
<b>Access by Women</b>	More Effective	More Effective	More Effective	Most Effective	Less Effective
<b>Access by 65+</b>	Most Effective	More Effective	More Effective	More Effective	Less Effective
<b>Access by Racial Minorities</b>	More Effective	More Effective	More Effective	Most Effective	Less Effective
<b>Projected Medicare</b>	Most Effective	Less Effective	Less Effective	Less Effective	Less Effective
<b>Projected Medicaid</b>	Less Effective	Less Effective	Less Effective	Most Effective	Less Effective
<b>Projected Charity Care</b>	Less Effective	Less Effective	Most Effective	Less Effective	Less Effective
<b>Average Net Revenue per Day</b>	More Effective	More Effective	More Effective	Most Effective	Less Effective
<b>Average Expense per Day</b>	More Effective	Most Effective	More Effective	More Effective	Less Effective
<b>Physician Support</b>	More Effective	More Effective	More Effective	Most Effective	Less Effective

**Summary of Comparative Analysis-Operating Rooms**

<i>Comparative Factor</i>	<i>Atrium Health Pineville OR</i>	<i>CMC OR</i>	<i>Atrium Health Lake Norman</i>	<i>NHMMC OR</i>
<b>Conformity with Review Criteria</b>	More Effective	More Effective	More Effective	Less Effective
<b>New Location</b>	Less Effective	Less Effective	Most Effective	Less Effective
<b>Meeting the Need for Additional OR Capacity</b>	More Effective	More Effective	More Effective	Less Effective
<b>Geographic Reach</b>	More Effective	More Effective	More Effective	Less Effective
<b>Patient Access to Multiple Surgical Services</b>	More Effective	More Effective	Less Effective	Less Effective
<b>Access by Women</b>	More Effective	More Effective	Most Effective	Less Effective
<b>Access by 65+</b>	Most Effective	More Effective	More Effective	Less Effective
<b>Access by Racial Minorities</b>	More Effective	More Effective	Most Effective	Less Effective
<b>Projected Medicare</b>	Most Effective	Less Effective	Less Effective	Less Effective
<b>Projected Medicaid</b>	Less Effective	Most Effective	Less Effective	Less Effective
<b>Projected Charity Care</b>	Less Effective	Most Effective	Less Effective	Less Effective
<b>Average Net Revenue per Day</b>	More Effective	More Effective	Most Effective	Less Effective
<b>Average Expense per Day</b>	More Effective	More Effective	Most Effective	Less Effective
<b>Physician Support</b>	More Effective	More Effective	More Effective	Less Effective

As such, the CON Section can and should approve the Atrium Health applications.

***Please note that in no way does Atrium Health intend for these comments to change or amend its applications as filed on October 15, 2019. If the Agency considers any statements to be amending Atrium Health's applications, those comments should not be considered.***