

**Acute Care Services Committee
Agency Report
Adjusted Need Petition for
One Operating Room in Catawba County in the
2017 State Medical Facilities Plan**

Petitioner:

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Request:

The petition requests one additional surgical operating room (OR) in the Catawba County service area in the *North Carolina 2017 State Medical Facilities Plan (SMFP)*.

Background Information:

The OR need methodology consists of several steps, which result in the number of ORs needed in each OR service area. The methodology uses a projected number of surgical hours, calculated by multiplying an estimate of surgery hours for inpatient and ambulatory cases for the previous year (data year) by the projected population change between the data year and the target year (four years beyond the data year). The number of operating rooms required by the target year is the result of dividing the projected number of surgical hours for the target year by 1,872 hours, which is the standard number of hours per OR per year based on assumptions used in SMFP. The final step calculates the number of additional ORs needed by subtracting the projected total number of required ORs from the current OR inventory, less excluded ORs, and adjusting any deficit based on the number of existing ORs in the current year's SMFP in the service area.

Chapter Two of the *North Carolina Proposed 2017 State Medical Facilities Plan (SMFP)* provides that “[a]nyone who finds that the North Carolina State Medical Facilities Plan policies or methodologies, or the results of their application, are inappropriate may petition for changes or revisions. Such petitions are of two general types: those requesting changes in basic policies and methodologies, and those requesting adjustments to the need projections.” The annual planning process and timeline allow for submission of petitions requesting adjustments to need

projections in the summer. It should be noted that any person might submit a certificate of need (CON) application for a need determination in the Plan. The CON review could be competitive and there is no guarantee that the petitioner would be the approved applicant.

In 2010, the SHCC approved a petition from Graystone Eye Surgery Center to add one OR in Catawba County. The rationale for approval was that three of the four providers in the service area had surgical utilization rates approaching or exceeding 80%. Greystone Eye was awarded the certificate of need and the application was noncompetitive.

The standard methodology yields a surplus of 2.08 ORs for the Catawba County service area in the *Proposed 2017 SMFP*.

Analysis/Implications:

The petition discusses several special circumstances in Catawba County to support an adjusted need determination for one OR, primarily:

- higher than average per capita use of ambulatory surgery;
- Catawba County serving as a regional hub for ambulatory surgery;
- an increasing and aging population; and
- an increased volume of surgical procedures in ambulatory surgical facilities along with a concomitant decrease in hospital-based procedures.

Per Capita Ambulatory Surgery Use in Catawba County

The petitioner points out that in 2015, 81% of surgeries performed in Catawba County were ambulatory, compared to 72.3% statewide. The 2015 per capita ambulatory surgery utilization rate for Catawba County was 120.72 per 1,000 population, compared the statewide rate of 64.9 per 1,000.

Additional analysis indicates that 23.8% of ambulatory surgeries statewide were performed in ambulatory surgery centers (ASCs) versus hospitals in 2015, compared to 47.6% in Catawba County. This difference is partially an artifact of the existence of an eye surgery center in a county with only three other providers. Because eye surgery centers often have much higher surgical volumes than other types of facilities, they tend to have a much larger share of total procedures in a county with only a few providers. Also, one of the providers (Frye Regional Medical Center) is an underutilized facility.

Catawba County as Regional Hub for Ambulatory Surgery

The petition also provides evidence that Catawba County is a hub for ambulatory surgical services for several contiguous counties (see Table 1). In two of these counties (Alexander and Caldwell), the largest proportion of residents go to Catawba for ambulatory surgery. The numbers do not distinguish between ambulatory surgical facilities and hospitals. Part of this draw may be related to the fact that Graystone has medical offices in Burke, Caldwell, Lincoln and Watauga Counties, but its only surgical facility is in Catawba County.

Table 1. Patient Residence for Counties Contiguous to Catawba County

Patient County of Residence	Percentage Receiving Ambulatory Surgical Services		
	in Catawba County	in Home County	Elsewhere
Catawba	74.51%	--	25.49%
Alexander	57.37%	0.00%*	42.63%
Burke	21.83%	55.85%	22.32%
Caldwell	41.01%	37.13%	21.86%
Cleveland	1.14%	63.56%	35.30%
Iredell	1.83%	68.21%	29.96%
Lincoln	25.77%	21.67%	52.56%

* Alexander County has no surgical facilities.

Sources:

2016 Patient Origin Reports
Appendix C, *Proposed 2017 SMFP*

Graystone Ophthalmology Associates is scheduled to open a new center in Boone in August 2016 to replace its current facilities in Boone and Linville. It is not known whether this initiative will increase overall service capacity. The petition also notes that the practice will add four new physicians to the staff by 2017. In 2015, Graystone reported that it employed 11 surgeons and performed 6,069 surgical procedures, for an average of 552 procedures per physician. The addition of four ophthalmologists may increase surgical capacity by approximately 2,000 procedures annually, provided that they all perform surgery at current rates. Under the current methodology, which allows 1.5 hours per ambulatory procedure, this number of procedures would require approximately 1.6 ORs. Thus, the petition represents a proactive approach to meeting future needs.

Growth and Aging of Population in Catawba County

One rationale for the need for an additional OR discussed in the petition concerns the projected growth of the Catawba County population, particularly the segment aged 65 and older. However, the State Office of Budget and Management (OSBM) projects that Catawba’s population will grow 0.7% from 2016 to 2019, compared to a projected 4% growth rate statewide. Similarly, OSBM projects the 65 and older population in Catawba County to grow by 7.3%, compared to 10.5% statewide. Although the 2016 population aged 65 years and older in Catawba County is 19% of the total population, compared to 15% statewide, the growth rate is slower than the statewide rate.

Increase in Ambulatory Surgery Utilization

The petitioner notes that Graystone’s utilization continues to increase, reaching 243.1% in 2015, using the standard OR methodology. The OR methodology bases utilization on 3 hours per case for inpatient surgery and 1.5 hours per case for ambulatory surgery. It assumes that facilities are open 9 hours per day for 260 days per year (for a total availability of 2,340 hours per year). Full utilization is 80% of the maximum available hours (1,872 hours), and is calculated as:

$$\frac{(total\ inpatient\ surgical\ cases \times 3) + (total\ ambulatory\ surgical\ cases \times 1.5)}{(number\ of\ ORs) \times (9\ hours\ per\ day) \times (260\ days\ per\ year) \times 0.8}$$

Comparing overall OR utilization of Catawba County facilities in 2008-2009 (the data year that the 2010 petition was approved) to 2014-2015 yields the results presented in Table 2.

Table 2. Operating Room Utilization Rates, 2009 and 2015

Facility	2009 Utilization Rates (First Graystone Petition)	2015 Utilization Rates (2016 Graystone Petition)
Catawba Valley Medical Center	86.2%	63.3%
Frye Regional Medical Center*	48.8%	34.3%
Graystone Eye Surgery Center	333.8%**	243.15%
Viewmont Surgery Center (opened 9/20/2007)	51.5%	77.6%

* Underutilized facility. Procedures are excluded from need determination calculations.

** 1 OR

Sources:

2010 SMFP

Proposed 2017 SMFP

Clearly, OR utilization in the hospitals decreased, while utilization at Viewmont Surgery Center increased. (Data for Graystone is not comparable over this period because of the difference in the number of licensed ORs in 2009 and 2015.) Frye Regional Medical Center is an underutilized facility, and as such, is excluded from need determination calculations. The underutilization is primarily a function of the unusually large number of ORs (21) for a 209-bed acute care hospital. Generally, other hospitals of similar size in North Carolina have about 10 to 12 ORs.

It is not possible to calculate ambulatory surgery utilization rates for hospitals because these procedures may be performed in shared ORs, where both inpatient and /ambulatory procedures may be performed. (The LRA data identifies the procedure as “ambulatory,” but does not identify whether the procedure was performed in a shared OR or an ambulatory OR.) However, it is possible to compare the number of procedures because both facilities maintained the same number and configuration of ORs. The number of ambulatory surgery procedures at Frye Regional decreased from 6,424 in 2009 to 4,564 in 2015 (29% decrease). The number at Catawba Valley decreased from 6,700 in 2009 to 5,316 in 2015 (21% decrease).

Agency Recommendation:

The agency supports the standard methodology for ORs. The SHCC has historically been reluctant to approve adjusted need petitions based on a rationale specific to one type of surgical service (in this case, ophthalmology) when adequate surgical availability exists in the service area. Even though this petitioner represents a single specialty ambulatory surgical facility, the agency’s analysis considers the overall characteristics of surgical services in Catawba County per the standard methodology for ORs. The petitioner presents evidence of continued relatively high utilization, based on the parameters used in the methodology. In addition, new staff may result in procedures sufficient to require 1.6 ORs.

In sum, the petition demonstrates that Catawba County’s OR utilization patterns may be sufficiently different from the state as a whole to warrant an adjusted need determination. Given available information and comments submitted by the August 12, 2016 deadline date for comments on petitions and comments, and in consideration of factors discussed above, the agency recommends approval of the petition.