Operating Room (OR) Methodology Workgroup

December 17, 2024

If you have a question at any time, click the button by your name on the list of participants to raise your hand.

Elizabeth will call on you.

Workgroup Charge

1. Reviewing Session Law 2023-7 passed by the North Carolina General Assembly and signed by Governor Roy Cooper on March 27, 2023.

2. Examining the impact of the CON exemption of QUASFs on the current SMFP OR need determination methodology.

3. Making a recommendation to the SHCC regarding whether to:

    a. retain the current OR methodology, with QUASFs removed from the need determination calculations; or

    b. propose a new OR methodology, with QUASFs removed from the need determination calculations; or

    c. eliminate the OR need determination methodology in its entirety.

New Certificate of Need Statutory Provisions

Effective November 21, 2025:

- The definition of "health service facility" in the CON Law will exclude "qualified urban ambulatory surgical facilities." See, § 131E-176 (9b).

- The definition of "new institutional health service" in the Certificate of Need (CON) Law will exclude "qualified urban ambulatory surgical facilities." See, § 131E-176 (16) b.

- The definition of "qualified urban ambulatory surgical facility" is:

  An ambulatory surgical facility that meets all of the following criteria:

  a. Is licensed by the Department to operate as an ambulatory surgical facility
  b. Has a single specialty or multispecialty surgical program
  c. Is located in a county with a population greater than 125,000 according to the 202 federal decennial census or any subsequent federal decennial census. See, § 131E-176 (21a).

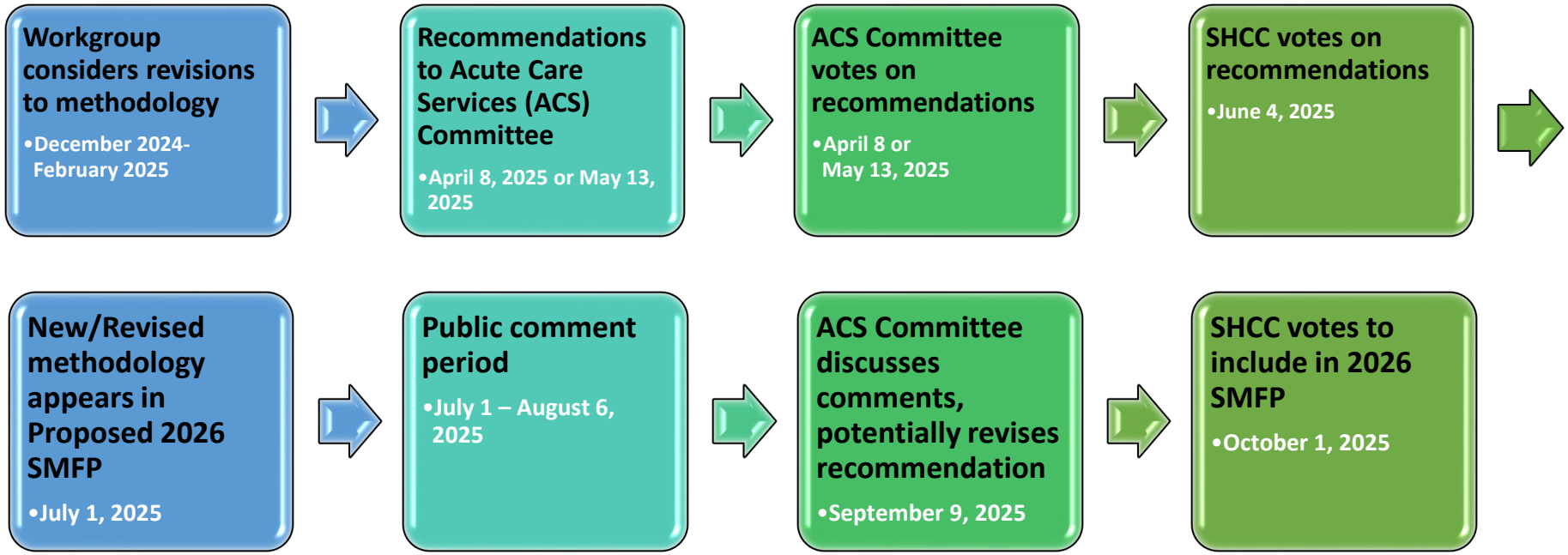
Counties with >125,000 Population

Alamance*	Harnett*
Brunswick	Iredell
Buncombe	Johnston*
Cabarrus	Mecklenburg
Catawba	New Hanover
Cumberland	Onslow*
Davidson*	Orange
Durham	Pitt
Forsyth	Randolph*
Gaston	Rowan*
Guilford	Union
	Wake

* County has no ASFs

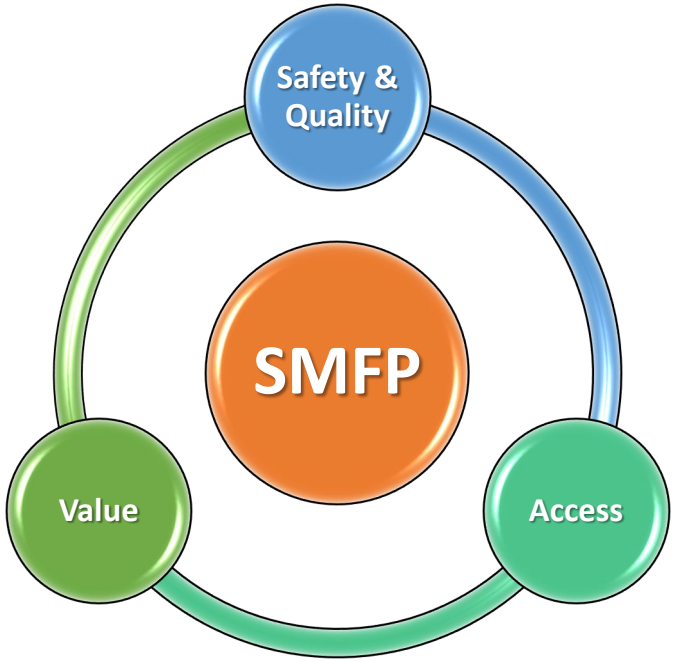
Source: United States Census Bureau, North Carolina: 2020 Census
https://www.census.gov/library/stories/state-by-state/north-carolina-population-change-between-census-decade.html

Methodology Revision Process



Basic Principles

- SMFP, Chapter 1
- Govern all methodologies
- Aspirational
  - Maximize the likelihood of adhering to these principles
- Methodologies should not reflect aspects of specific counties or providers



Source: 2025 SMFP, Chapter 1

OR Methodology

A Surgical Operating Room is defined as a room "used for the performance of surgical procedures requiring one or more incisions and that is required to comply with all applicable licensure codes and standards for an operating room" (G.S. §131E-146(1c)). These surgical operating rooms include rooms located in both Obstetrics and surgical suites.

- **Mathematical calculations based on certain assumptions**
  - At what point in the growth of a service area's population should the addition of ORs be considered?
- **Goals**
  - Assure that services are reasonably available throughout the state (access)
  - Avoid unnecessary duplication of services (value)
- **Applied to all service areas in the state**
  - Designed to work well in almost every service area
  - Where the methodology does not work well, a person can file a petition in July for an exception to the methodology

Key Factors in Current OR Methodology

- Service Area Composition
- Surgical Case Times
- Groupings of Facilities
- Number of ORs in Planning Inventory
- Service Area Population

OR Methodology

STEPS

- Prepare planning inventory and determine cases
- Determine Facility Adjusted Case Times
- Group Facilities
- Project ORs required
- Determine deficits and surpluses
- Determine Service Area Need

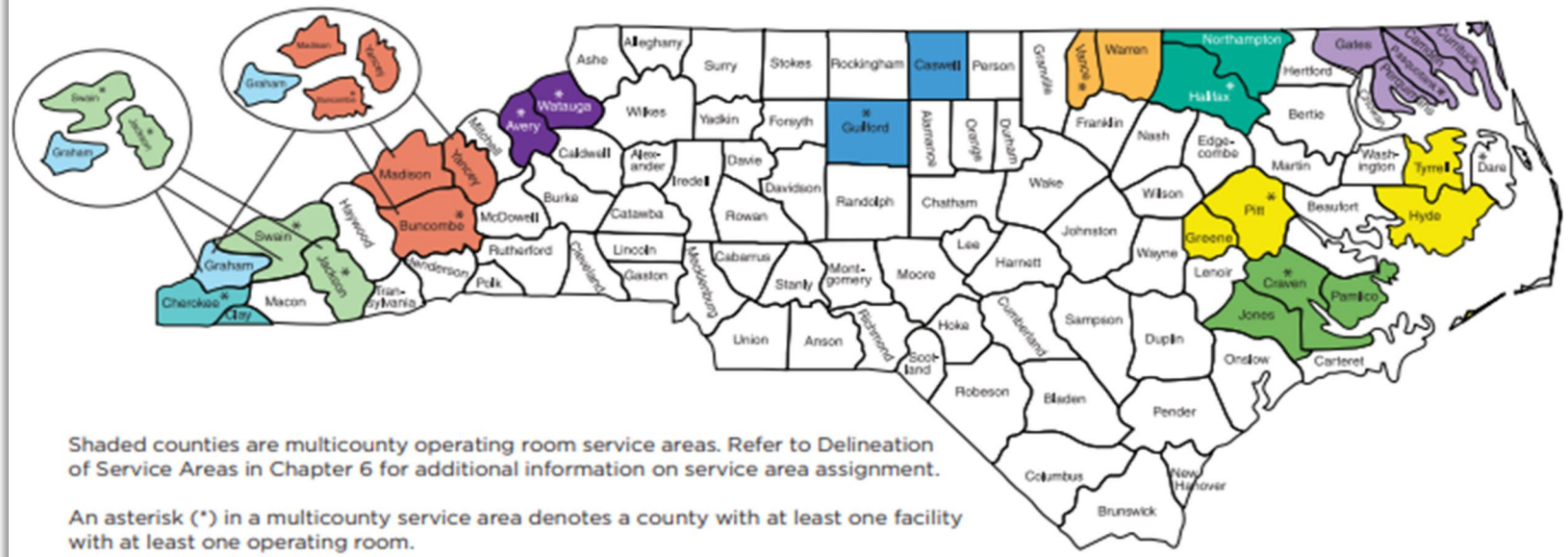
Source: 2025 SMFP, Chapter 6, Application of the Methodology

OR Methodology: Define Service Areas

(Table 6A and 6B, Column A)

Service Areas are single or multi-county

Operating Room Service Areas



Shaded counties are multicounty operating room service areas. Refer to Delineation of Service Areas in Chapter 6 for additional information on service area assignment.

An asterisk (*) in a multicounty service area denotes a county with at least one facility with at least one operating room.

Hospitals	Multicounty Service Area	Color Code
CarolinaEast Medical Center	Craven, Jones, Pamlico	
Cone Health, High Point Regional Health, and Kindred Hospital - Greensboro	Guilford, Caswell	
Erlanger Murphy Medical Center	Cherokee, Clay	
Halifax Regional Medical Center	Halifax, Northampton	
Harris Regional Hospital and Swain Community Hospital	Jackson, Graham, Swain	
Maria Parham Health	Vance, Warren	
Mission Hospital	Buncombe, Graham, Madison, Yancey	
Sentara Albemarle Medical Center	Pasquotank, Camden, Currituck, Gates, Perquimans	
Vidant Medical Center	Pitt, Greene, Hyde, Tyrrell	
Watauga Medical Center and Charles A. Cannon Jr. Memorial Hospital	Watauga, Avery	

OR Methodology: Prepare OR Inventory and Determine OR Cases

Step 1: Determine Inventory of ORs

OR Inventory

- Agency's Acute and Home Care Licensure and Certification Section
- Issued CONs

(Table 6A Columns D-H)

OR Cases and Case Times

- Hospital License Renewal Application
- Ambulatory Surgical Facility License Renewal Application

(Table 6B Columns D & F)

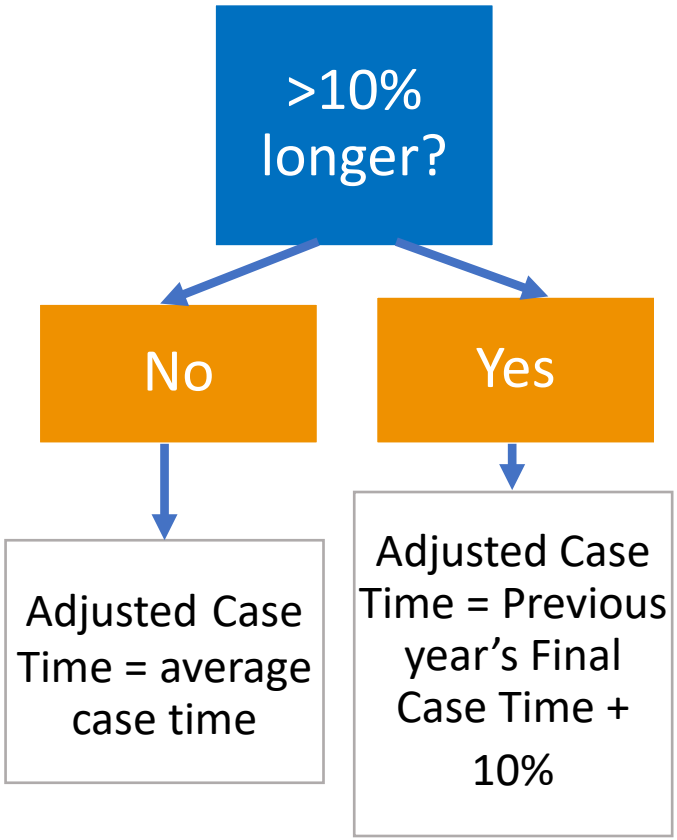
OR Types	Inclusion in Methodology	
	Rooms	Cases/Case Times
Inpatient ORs in Hospitals	✓	✓
Outpatient ORs in Hospitals	✓	✓
Shared ORs in Hospitals	✓	✓
ORs in ASFs	✓	✓
C-section ORs	×	×
One OR for each Level I Trauma Center	×	×
One OR for each Level II Trauma Center	×	×
One OR for each designated Burn ICU	×	×

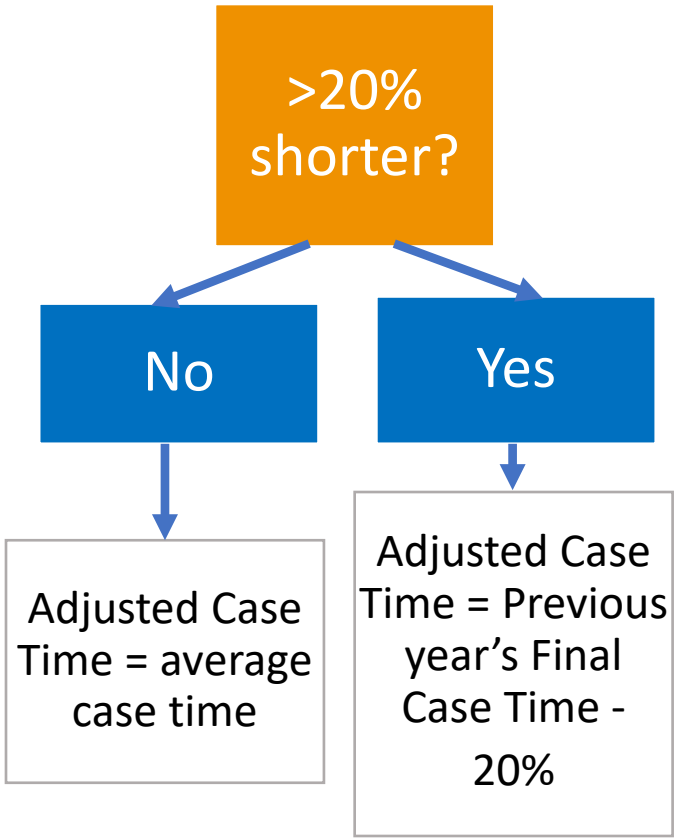
Source: 2025 SMFP, Chapter 6, Methodology Step 1

OR Methodology: Determine OR Availability

Step 2: Determine Facility Adjusted Case Times (in minutes)

Compare inpatient and ambulatory reported average case times to previous year's inpatient and ambulatory reported average case times.





Source: 2025 SMFP, Chapter 6, Methodology Step 2

OR Methodology: Determine OR Availability

Steps 3 a – c: Group Facilities

(Table 6A, Column K)

Hospitals' Surgical Hours =

(Each Hospital's Number of Inpatient Surgical Cases x Adjusted Case times) / 60

+

(Each Hospital's Number of Ambulatory Surgical Cases x Adjusted Case times) / 60

ASFs' Surgical Hours =

(Each ASF's Number of Ambulatory Surgical Cases x Adjusted Case times) / 60

Source: 2025 SMFP, Chapter 6, Methodology Step 3

OR Methodology: Determine OR Availability

Step 3d. Group Facilities According to Surgical Hours

(Table 6A, Column L)

Group	Facility Type
1	Academic Medical Center Teaching Hospitals
2	Hospitals reporting more than 40,000 surgical hours
3	Hospitals reporting 15,000 to 40,000 surgical hours
4	Hospitals reporting less than 15,000 surgical hours
5	Separately licensed ambulatory surgical facilities that perform at least 50% of their procedures in either ophthalmology or otolaryngology, or a combination of the two specialties.
6	All separately licensed ambulatory surgical facilities not in Group 5.

Source: 2025 SMFP, Chapter 6, Methodology Step 3

OR Methodology: Determine OR Availability

Step 3e. Calculate ORs' Hours of Availability

(Table 6A, Column M)

Average OR is anticipated to be staffed based on group membership and utilized at least 75% of the available time.

Group	Hours per Day		Days per Year				Standard Hours per OR per Year
1	10	✖	260	✖	.75	=	1,950
2	10		260				1,950
3	9		260				1,755
4	8		250				1,500
5	7		250				1,312
6	7		250				1,312

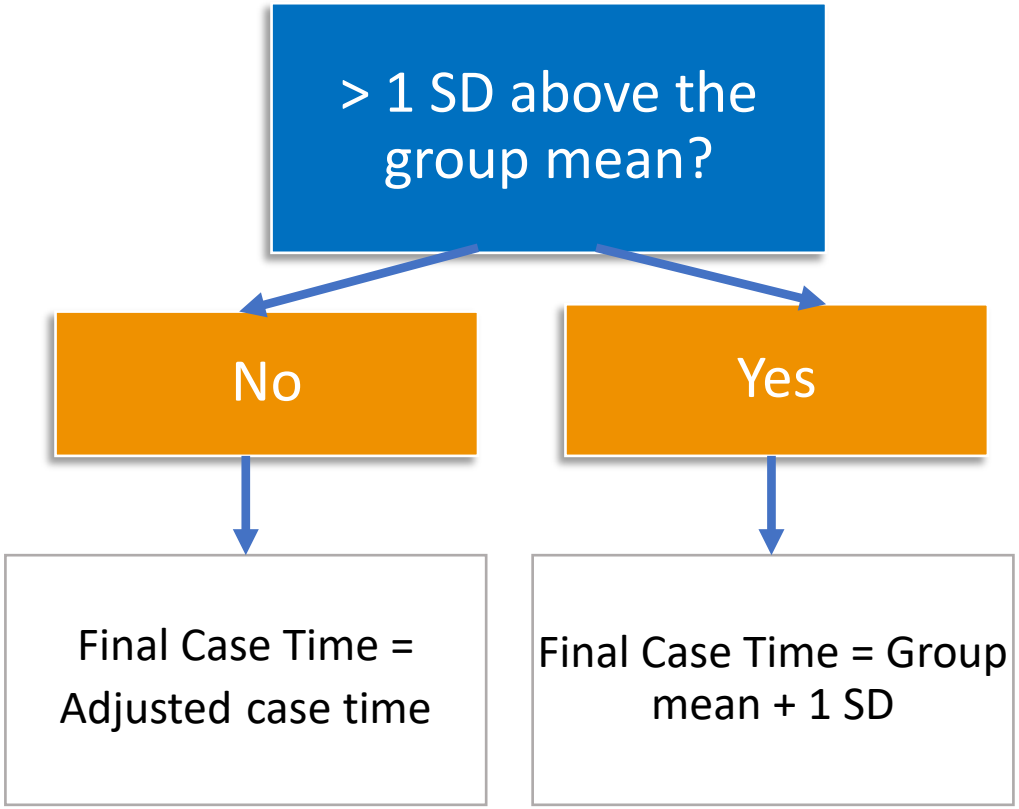
Source: 2025 SMFP, Chapter 6, Methodology Step 3

OR Methodology: Project ORs Required

Step 4a. Calculate Facility and Group Final Case Times (Groups 1 – 6)

(Table 6B, Columns E & G)

Calculate average (mean) inpatient and ambulatory case times for each group. Compare each facility's Adjusted Case Time to its group's average.



Source: 2025 SMFP, Chapter 6, Methodology Step 4

OR Methodology: Project ORs Required

Step 4a. Calculate Facility and Group Final Case Times (Groups 1 – 6)

(Table 6B, Columns E & G)

Example with Outpatient Cases

							Column G, Table 6B
	Standard Hours per OR per Year, Group 4	Outpatient Adjusted Case Time	Mean Outpatient Case Time for Group 4	Standard Deviation for Outpatient, Group 4	Outpatient Mean Plus StDv, Grp 4	Need Adjusting for Final Outpatient Case Time?	Final Ambulatory Case time
Facility A, Group 4	1500	99.022	71.585	21.3607	92.9457	yes	92.9457
Facility B, Group 4	1500	58.4	71.585	21.3607	92.9457	no	58.4

Source: 2025 SMFP, Chapter 6, Methodology Step 4

OR Methodology: Project ORs Required

Step 4b: Calculate Total Adjusted Estimated Surgical Hours

(Table 6B, Column H)

Hospitals' Surgical Hours =

(Each Hospital's Number of Inpatient Surgical Cases x Final Inpatient Case Times) / 60

+

(Each Hospital's Number of Ambulatory Surgical Cases x Final Ambulatory Case Times) / 60

ASFs' Surgical Hours =

(Each ASF's Ambulatory Surgical Cases x Final Ambulatory Case Times) / 60

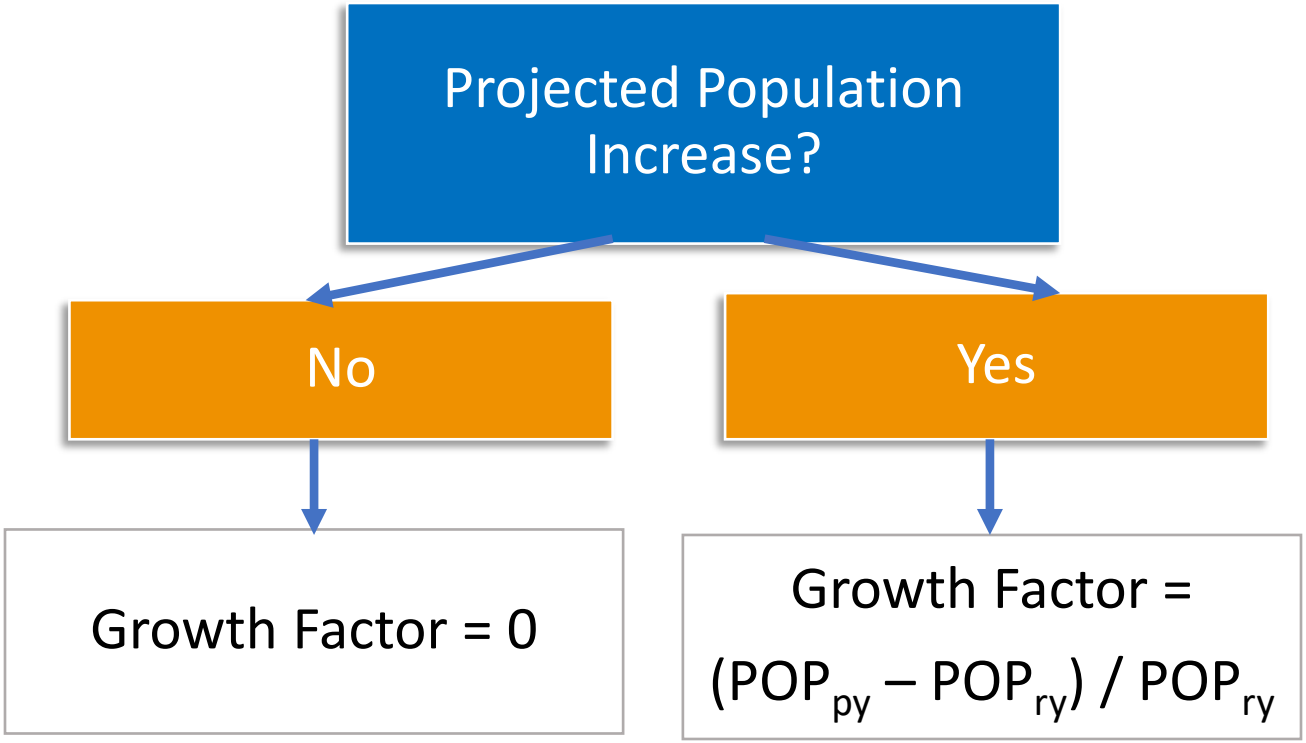
Source: 2025 SMFP, Chapter 6, Methodology Step 4

OR Methodology: Project ORs Required

Step 4c: Calculate the Service Area Growth Factor

(Table 6B, Column I)

Compare the projection year service population to the reporting year service area population.



Source: 2025 SMFP, Chapter 6, Methodology Step 4

OR Methodology: Project ORs Required

Step 4d: Determine Surgical Hours for the Projection Year

(Table 6B, Column J)

Projected Surgical Hours for Each Facility =

(Facility's Total Adjusted Estimated Surgical Hours × Service Area Growth Factor)

+

Facility's Total Adjusted Estimated Surgical Hours

Source: 2025 SMFP, Chapter 6, Methodology Step 4

OR Methodology: Project ORs Required

Step 4e: Determine Surgical ORs Required in the Projection Year

(Table 6B, Column K)

Projected Surgical ORs Required =

Facility Projected Surgical Hours ÷ Group's Standard Hours per OR per Year

Source: 2025 SMFP, Chapter 6, Methodology Step 4

OR Methodology: Determine Deficits and Surpluses

Step 5a: Calculate the Adjusted Planning Inventory

(Table 6A, Columns D – J)

Adjusted Planning Inventory =

- \+ Inpatient ORs
- \+ Ambulatory ORs
- \+ Shared ORs
- − C-section ORs
- − One OR each for Level I and Level II Trauma Centers
- − One OR for each designated Burn ICU
- \+ − CON Adjustments (approvals, relocations)
- − CONs for C-Section ORs

OR Methodology: Determine Deficits and Surpluses

Step 5a: Calculate the Adjusted Planning Inventory

(Table 6A, Columns D – J)

Service Area	License	Facility	Inpatient ORs	Ambulatory ORs	Shared ORs	Excluded C-Section ORs	Excluded Trauma/ Burn ORs	CON Adjustments	CONs for Excluded C-Section ORs
Mecklenburg	H0071	Carolinas Medical Center/Center for Mental Health	9	11	44	-4	-1	10	0

Total = 69 ORs

Source: 2025 SMFP, Table 6A: Operating Room Inventory and Grouping (Combined Data for Hospitals and Ambulatory Surgical Facilities)

OR Methodology: Determine Deficits and Surpluses

Step 5b: Calculate Facility and Health System Deficits and Surpluses

(Table 6B, Columns M)

Facility Deficit/Surplus =

Project Surgical ORs Required − Adjusted Planning Inventory

Health System Deficit/Surplus = Sum of all Facility Deficits/Surpluses

Source: 2025 SMFP, Chapter 6, Methodology Step 5

OR Methodology: Determine Deficits and Surpluses

Step 5b: Calculate Facility and Health System Deficits and Surpluses

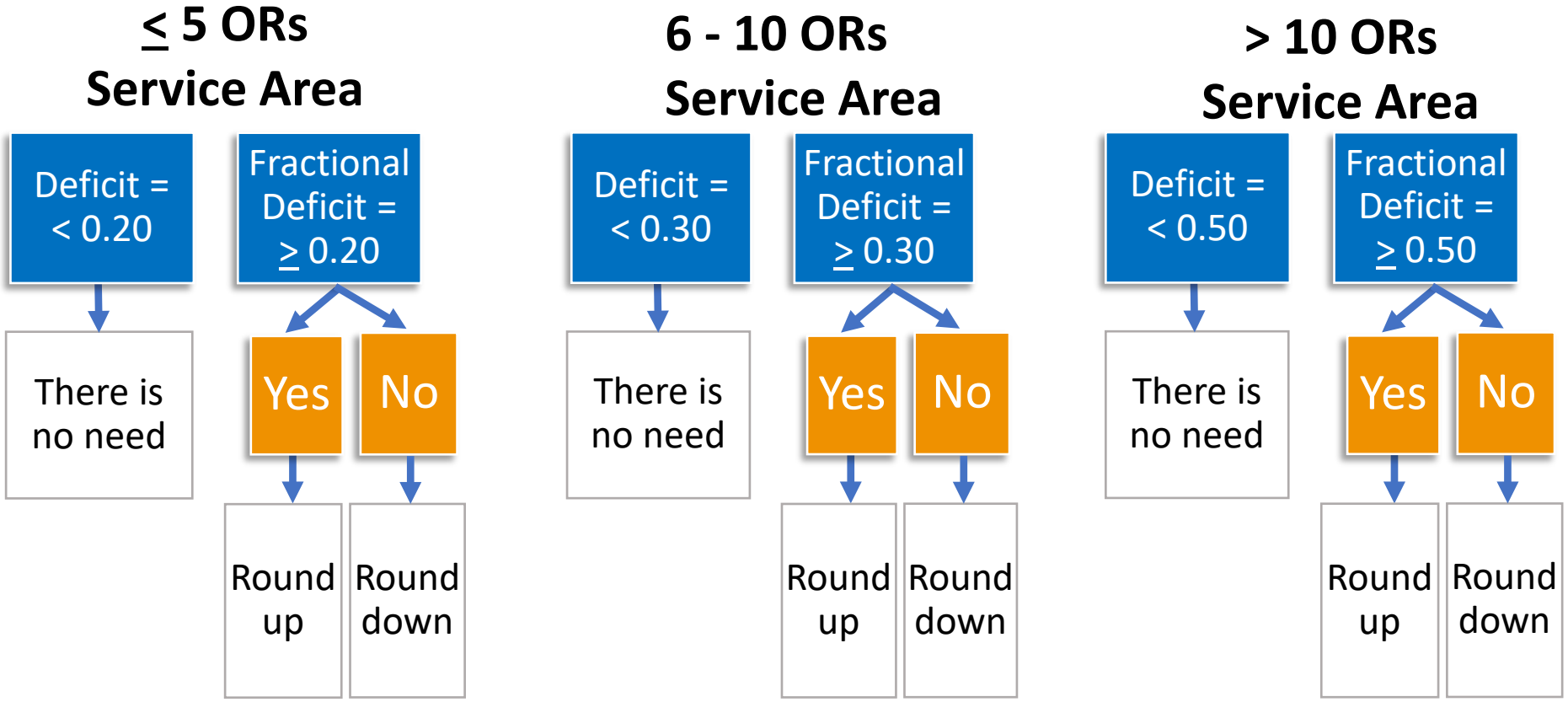
(Table 6B, Column M)

Service Area	License	Facility	Projected Surgical ORs Required in 2027	Adjusted Planning Inventory	Projected OR Deficit/ Surplus (Surplus shows as a "-")	Service Area Need
Pitt	AS0012	ECU Health SurgiCenter	13.13	10	3.13	
Pitt	H0104	ECU Health Medical Center	33.00	31	2.00	
ECU Health Total			***46.13***	***41***	***5.13***	
Pitt		Eastern Nephrology Associates ASC	0.00	1	-1.00	
Pitt/Greene/Hyde/Tyrrell Total					**5.13**	**5**

Source: 2025 SMFP, Table 6B: Projected Operating Need for 2027

OR Methodology: Determine Service Area Need

Step 6a: Round Health System Deficits



Source: 2025 SMFP, Chapter 6, Methodology Step 6

OR Methodology: Determine Service Area Need

Step 6a: Round Health System Deficits

Example of health service area with >10 ORs

Rule: Round up if fractional deficit is ≥ 0.50
Round down if fractional deficit is < 0.50

Service Area	License	Facility	Adjusted Planning Inventory	Projected OR Deficit/ Surplus (Surplus shows as a "-")	Service Area Need
Pitt	AS0012	ECU Health SurgiCenter	10	3.13	
Pitt	H0104	ECU Health Medical Center	31	2.00	
ECU Health Total			***41***	***5.13***	5
Pitt		Eastern Nephrology Associates ASC	1	-1.00	
Pitt/Greene/Hyde/Tyrrell Total				**5.13**	**5**

Source: 2025 SMFP, Table 6B: Projected Operating Need for 2027

OR Methodology: Determine Service Area Need

Step 6b: Calculate the Service Area Need by adding all rounded health system deficits and adjusting for placeholders for need determinations

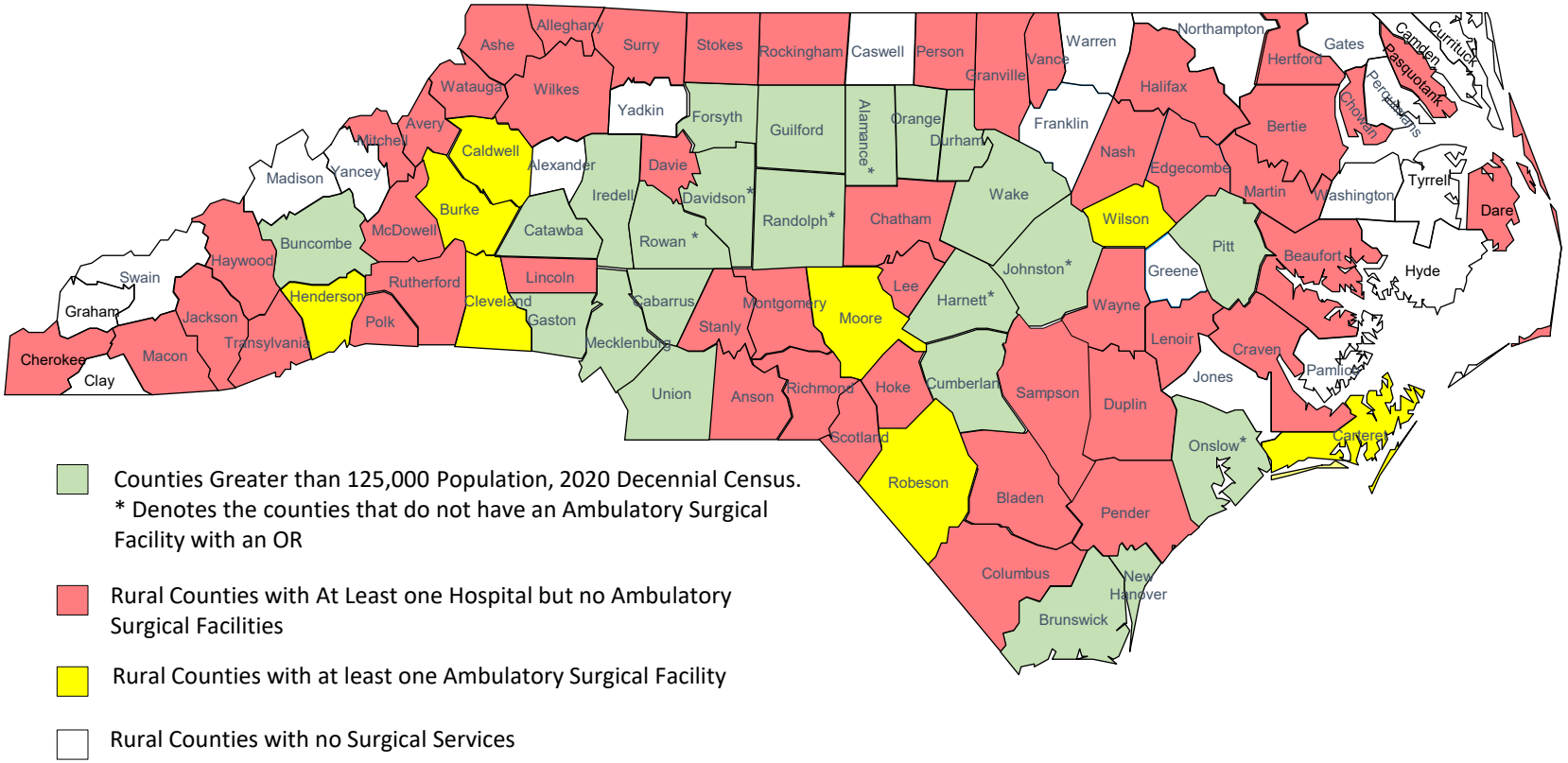
(Table 6B, Column N)

Service Area	License	Facility	Adjusted Planning Inventory	Projected OR Deficit/ Surplus (Surplus shows as a "-")	Service Area Need
Duke University Health System Total			*17*	*-3.18*	
UNC Health Total			*40*	*0.20*	0
WakeMed Health & Hospitals Total			*43*	*4.13*	4
Wake	AS0179	OrthoNC ASC	1	-0.53	
Wake	AS0174	RAC Surgery Center LLC	1	-0.88	
Wake	AS0178	Raleigh Neurosurgical and Spine Surgery Center^^/†††	1	0.26	0
Wake	AS0162	Surgical Center for Dental Professionals of NC LLC	2	-0.28	
Wake	AS0029	Blue Ridge Surgery Center	6	-0.94	
Wake	AS0034	Raleigh Plastic Surgery Center^^/†††	1	-0.02	
Wake		Valleygate Surgery Center	1	-1.00	
Wake	AS0142	Triangle Surgery Center	3	-0.01	
Wake	AS0155	Holly Springs Surgery Center†††	3	-0.28	
Wake		2024 Need Determination	4	-4.00	-4
Wake Total					**0**

Source: 2025 SMFP, Table 6B: Projected Operating Need for 2027

A North Carolina without ORs in QUASFs

Ambulatory Surgery by County, Based on 2020 Decennial Census Population



Counties Greater than 125,000 Population, 2020 Decennial Census.
* Denotes the counties that do not have an Ambulatory Surgical Facility with an OR

Rural Counties with At Least one Hospital but no Ambulatory Surgical Facilities

Rural Counties with at least one Ambulatory Surgical Facility

Rural Counties with no Surgical Services

Sources: 2025 State Medical Facilities Plan

United States Census Bureau, North Carolina: 2020 Census https://www.census.gov/library/stories/state-by-state/north-carolina-population-change-between-census-decade.html

ORs in QUASFs Removed from CON Law

Service Area	Total ORs in 2025 SMFP*	Number of ORs Removed	ORs Remaining	% of Service Area ORs Removed
Brunswick	9	3	6	33%
Buncombe	51	7	44	14%
Cabarrus	25	8	17	32%
Catawba	40	7	33	18%
Cumberland	33	13	20	39%
Durham	98	13	85	13%
Forsyth	105	13	92	12%
Gaston	24	5	19	21%
Guilford	87	36	51	41%
Iredell	29	7	22	24%
Mecklenburg	179	33	146	18%
New Hanover	51	13	38	25%
Orange	56	4	52	7%
Pitt	42	11	31	26%
Union	10	3	7	30%
Wake	123	42	81	34%
TOTALS	**1025**	**218**	**807**	

*ORs in planning inventory

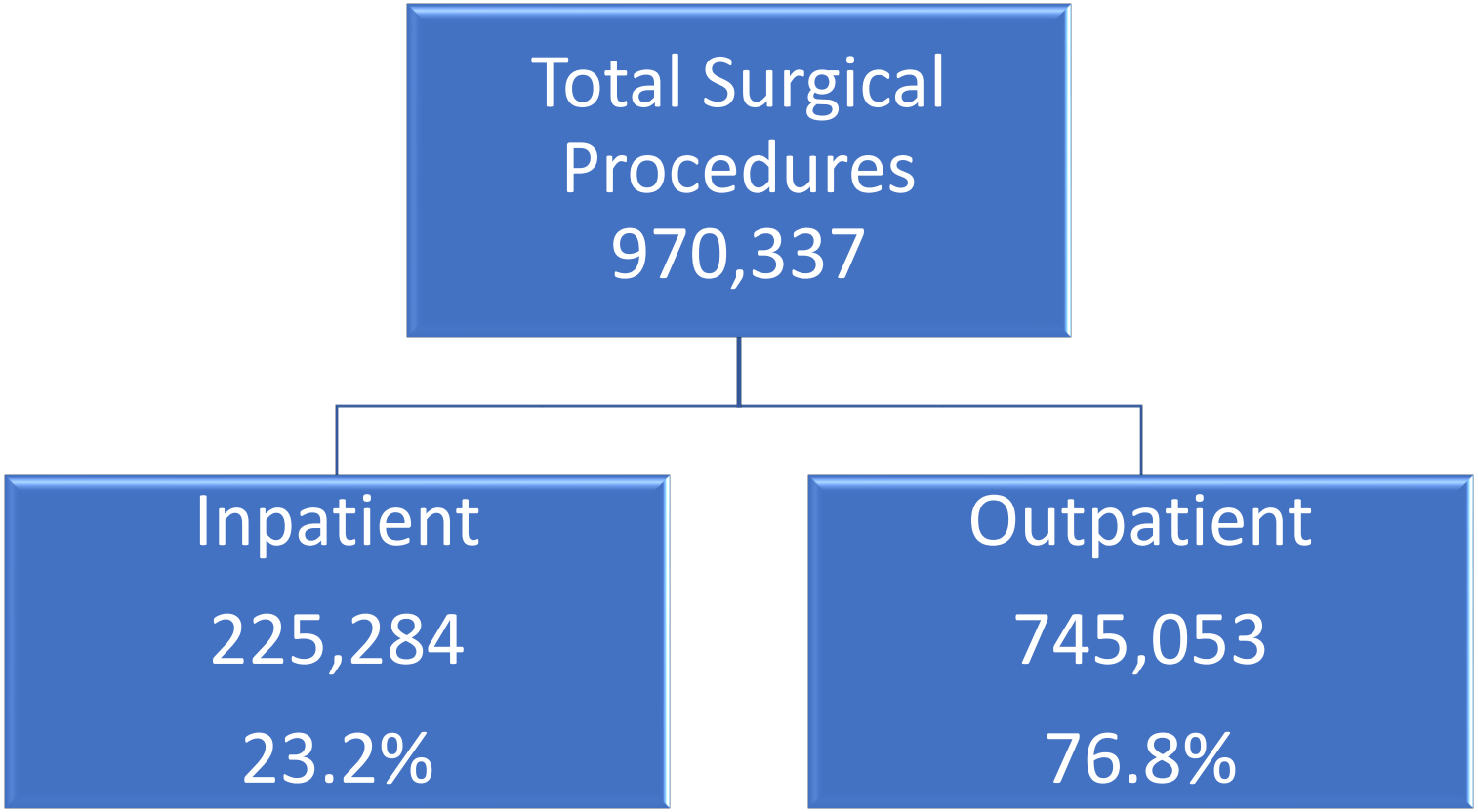
Source: 2025 State Medical Facilities Plan

Operating Rooms Not Subject to SL 2023-7

Type of OR	Number ORs in Planning Inventory	% of Planning Inventory
Hospital – Inpatient	44	3.8%
Hospital – Shared	940	81.5%
Hospital – Outpatient	92	8.0%
CON-Approved	37	3.2%
Total Hospital	**1,113**	**96.5%**
ASF	33	2.9%
CON-Approved	8	0.7%
Total ASF	**41**	**3.6%**
TOTAL	**1,154**	

Source: 2025 State Medical Facilities Plan

Surgical Procedures, 2023



Source: 2025 State Medical Facilities Plan, Table 6B: Projected Operating Room Need for 2027

Outpatient Surgical Procedures by Facility Type, 2023

	All Facilities		QUASFs Removed	
Facility Type	**Number**	**%**	**Number**	**%**
Hospital	518,936	66.9%	518,936	95.4%
ASF	226,117	29.1%	25,027	4.6%

Statewide, 29.1% of all outpatient surgery is performed in ASFs.

Source: 2025 State Medical Facilities Plan

Need Determinations Comparisons

Service Area	2025 SMFP Tables		QUASFs Removed Tables		ORs Removed
	Total ORs*	Need Determination	Remaining ORs	Need Determination	Number of Service Area ORs
Mecklenburg	**179**	**5**	**146**	**4**	**33**
Pitt	**42**	**5**	**31**	**2**	**11**
Wake	**123**	**0**	**81**	**6**	**42**
Brunswick	**9**	**0**	**6**	**2**	**3**
Cabarrus	**25**	**0**	**17**	**2**	**8**
Buncombe	51	0	44	0	7
Catawba	40	0	33	0	7
Cumberland	33	0	20	0	13
Durham	98	0	85	0	13
Forsyth	105	0	92	0	13
Gaston	24	0	19	0	5
Guilford	87	0	51	0	36
Iredell	29	0	22	0	7
New Hanover	51	0	38	0	13
Orange	56	0	52	0	4
Union	10	0	7	0	3

* OR planning inventory

** County has no ASFs

Source: 2025 State Medical Facilities Plan

Discussion / Next Steps

Current Methodology Factors	What We Know
Service Area Composition	Change to single-county service areas only
Number of ORs in Planning Inventory	eliminating of QUASFs
Surgical Case Times	eliminating of surgical procedures in QUASFs
Groupings of Facilities	??
Service Area Population	??
Additional factors to consider	??

Discussion / Next Steps

Data Collected by the Agency through LRAs

- Number of surgical ORs by type
- Surgical cases by specialty area
- Average hours per day each OR is routinely scheduled for use
- Average number of days per year each OR is routinely scheduled for use
- Average case time in minutes for inpatient and ambulatory cases
- Whether facilities are a part of the same health system
- 20 most common outpatient surgical cases (by CPT code)
- Patient origin of individuals that received inpatient surgical services
- Patient origins of individuals that received ambulatory surgical services