

# Recommendations from the MRI Methodology Workgroup, 2021-2022

Submitted to:

Technology and Equipment Committee

April 6, 2022

# Workgroup Charge

- Review the current MRI methodology and assess its appropriateness for determining need in all areas of the state. Activities should include:
  - Lessons learned from petitions for MRIs submitted to DHSR in the past 10 years.
  - Gather input from constituencies to understand how the current methodology is working and to identify potential problems.
  - Review each variable in the need methodology formula and consider whether changes are warranted.
  - Examine additional available data to consider whether to include other factors in a revision.
  - Consider both mobile and fixed scanners in the review and analysis.
  - Consider how or whether advancements in MRI technology may influence the methodology.
- If the workgroup finds that changes in the methodology are needed, prepare recommendations to the Technology and Equipment Committee of the SHCC for their deliberations in Spring, 2022, for possible inclusion in the 2023 SMFP.

# Workgroup Members

Member	Title	Affiliation
Issack Boru	Supervisor, MRI	WakeMed, then Duke Hospital
Kelli Collins	Chief Operating Officer	Greensboro Imaging
Allison Farmer	Chief Executive Officer	EmergeOrtho
Susan Hawkins	Senior Director of Operations	Cardinal Points Imaging
Tina Hinshaw	Regional Vice President, Southeast Operations	Alliance Healthcare Services
Dr. Satish Mathan	President & Managing Partner	Raleigh Radiology
Christopher Murphy	Vice President, Development	MedQuest Associates
Todd Smiley	Director, Imaging Services	UNC Health
Dr. Christopher Whitlow	Interim Chair, Department of Radiology	Atrium Health Wake Forest Baptist Health

Dr. Lyndon Jordan and Dr. Sandra Greene co-chaired the workgroup.

# General Information

- Staff used 2019 data as the basis for developing the revised methodology because
  - COVID had a substantial effect on utilization in 2020 and
  - the 2021 data is not yet available.
- The workgroup agreed that the methodology should include population growth. The current methodology does not.

# Recommendation 1. *Nomenclature Changes*

- “Outpatient - No contrast/sedation” becomes “**Base Outpatient.**”
  - A base outpatient scan is performed on an outpatient and does not use contrast or IV sedation.
- “Outpatient - with contrast/sedation” becomes “**Complex Outpatient.**”
  - A complex outpatient scan is performed on an outpatient and uses contrast or IV sedation.
- “Inpatient - No contrast/sedation” becomes “**Base Inpatient.**”
  - A base inpatient scan is performed on an inpatient of an acute care hospital and does not use contrast or IV sedation.
- “Inpatient - with contrast/sedation” becomes “**Complex Inpatient.**”
  - A complex inpatient scan is performed on an inpatient of an acute care hospital and uses contrast or IV sedation.

## Recommendation 2: *Change Procedure Times*

	Current Methodology		Proposed Methodology	
Type	Procedure Time	Weight	Procedure Time	Weight
Base Outpatient	30	1.0	33	1.0
Complex Outpatient	42	1.4	40	1.2
Base Inpatient	42	1.4	60	1.8
Complex Inpatient	54	1.8	70	2.1

Workgroup participants provided data on their procedure times and experiences

## Recommendation 3: *Adjust Annual Operational Capacity*

	Current	Proposed
Number of weeks per year	52	52
Number of hours per week	66	66
Scans per hour	2	1.8
Total annual capacity (number of weighted scans)	6,864	6,240

- The scans per hour reflect the new average procedure times from Recommendation 2.
- Similarly, the total annual capacity reflects the new average procedure times.

## Recommendation 4: *Projection of Need*

- The current methodology does not project need. Rather, it calculates utilization for the current reporting year, which is two years before the current SMFP is published.
- The workgroup recommends:
  - Project need three years beyond the reporting year.
  - For example, the 2023 SMFP uses data from 2021 (reporting year). The proposed methodology projects need for 2024 (projection year).

## Recommendation 5: *Use Three Prior Reporting Years*

- Use utilization data from the last three reporting years as a basis for projecting need (i.e., a three-year “look-back” period).
- Normally, 2019, 2020, and 2021 data would be used in the 2023 SMFP. However, the workgroup agrees with the staff recommendation to use 2018, 2019, and 2021 for the 2023 SMFP to eliminate the effects of COVID present in the 2020 data.
- The 2020 data would also be excluded from calculations for the 2024 SMFP. Beginning with the 2025 SMFP, the 2020 data is no longer in the “look-back” period.

## Recommendation 6: *Include Population Growth*

- Use service area projected population growth from the current reporting year to the projection year (three years beyond the reporting year). If the population has declined, consider the population to be stable (i.e., a population growth of zero).
- For example, the 2023 SMFP would use population figures from 2021 (the reporting year) and 2024 (the projection year).

# Recommendation 7: *Adjust Utilization Thresholds*

Current Methodology			Proposed Methodology		
Number of Fixed Scanners in Service Area	Planning Threshold (%)	Adjusted Threshold (number of adjusted scans)	Number of Fixed Scanners in Service Area	Planning Threshold (%)	Adjusted Threshold (number of adjusted scans)
4+	70%	4,805			
3	65%	4,462			
2	60%	4,118	2+	80%	4,992
1	55%	3,775	1	70%	4,368
0	25%	1,716	0	30%	1,872

# Results: Calculated Need Determinations, 2019 Data

Service Area	Current Methodology (2021 SMFP)	Proposed Methodology
Buncombe		1
Duplin*		1
Durham/Caswell		1
Forsyth		1
Mecklenburg	1	1
Moore		1
New Hanover	1	1
Orange	1	1
Pasquotank/Camden/ Currituck/Perquimans**	1	1
Randolph***		1
Stanly**	1	1
Wake		1
<b>TOTAL</b>	<b>5</b>	<b>12</b>

- \* Hospital qualifies for fixed scanner under Policy TE-3
- \*\* Petition from hospital resulted in removal of need determination in 2021 SMFP
- \*\*\* Need is based on mathematical anomaly: new facility opened in 2019, which artificially created large growth in utilization. Staff would recommend removal of need.