MRI Methodology—Ideas to Streamline and simplify.

How can the MRI Methodology encourage access to the citizens of NC in the most equitable way? (Access equity.)

Step 1.

Revise to be Inpatient and Outpatient rather than "with contrast" and "without contrast". This would place MRI into a calculation methodology consistent with PET scanners and OR procedures.

Assign average time for outpatient MRI procedures at 40 minutes.

Assign average time for inpatient MRI procedures at 60 minutes.

Step 2.

No suggested changes for 52 weeks and 66 hours per week.

Change scans per hours to 1.5 scans per hour (rather than 2) based on the assumption that the majority of MRI procedures can be performed in 40 minutes. This allows for sufficient time to clean between procedures.

This results in the annual capacity of an MRI scanner to be 5,148 instead of 6,864.

Step 3.

No suggested changes.

Step 4.

Change the thresholds so that service areas without a fixed MRI scanner have a threshold factor of 0.30, which would result in 1,544 annual procedures for the threshold (down from current of 1,716). This would provide counties such as Chatham, Duplin, and Pender to have a lower barrier to entry to provide MRI service full-time to its citizens.

All service areas that have existing fixed MRI scanners are assigned the threshold factor of .80 and 4,118 value. This change to lower the threshold in the high population urban service areas expands potential access and thereby encourages new locations/providers, which will benefit the citizens of those counties.

In summary of Step 4,

- a low threshold of 1,544 for services areas that have no fixed MRI and
- once a service area has a MRI fixed scanner (all other service areas) would have the same 4,118 threshold across the state for each future MRI scanner.

Step 1. Calculation of Adjusted Scans

Type	Procedure Time (minutes)	Weight	*Reference: Current Method- Weight (procedure time)*
Outpatient Without	40	1	*1 (30 min)*
Outpatient With	40	1	*1.4 (42 min)*
Inpatient Without	60	1.5	*1.4 (42 min)*
Inpatient With	60	1.5	*1.8 (54 min)*

Step 2. Annual Scanner Operational Capacity

		Reference: Current Method
number of weeks	52	*52*
hours per week	66	*66*
scans per hour	1.5	*2*
total capacity	5148	*6864*

Step 3. Projection Parameters

Projection	**Projection Type**	**Negative Population Growth**
0 = no projection; 1 = 3 year projection	enter **1** OR **3** (to reflect the number of data years)	1 = use negative growth; 0 = do not use if negative growth
0	1	0

Step 4. Planning Thresholds

Number of Fixed Scanners in Service Area	Planning Threshold	Adjusted Threshold	*Reference: Current Method - Planning Threshold*	*Reference: Current Method - Adjusted Threshold*	*Reference: Current Method - Scanners*
50	0.80	4118	*0.70*	*4805*	*4+*
5	0.80	4118	*0.65*	*4462*	*3*
2	0.80	4118	*0.60*	*4118*	*2*
1	0.80	4118	*0.55*	*3775*	*1*
0	0.30	1544	*0.25*	*1716*	*0*

Step 5. Need Determinations

Once changes are made above, then re-filter the 'Needs' column (Click on the funnel icon in cell I18, then click OK)

County	Reporting Year (RY) 2019	Reporting Year (RY) 2020	Needs
Buncombe	1	0	RY2019 only
Mecklenburg	1	1	both
Moore	1	1	both
New Hanover	1	0	RY2019 only
Orange	1	0	RY2019 only
Pasquotank	0	0	
Pitt	0	1	RY2020 only
Stanly	0	0	
Wake	1	0	RY2019 only
Total	6	4	both