

**Technology and Equipment Committee
Agency Report
Adjusted Need Petition to Remove Need Determination of
One Fixed Magnetic Resonance Imaging Equipment (MRI) in Lincoln County
Proposed 2016 State Medical Facilities Plan**

Petitioner:

Carolinas HealthCare System
1000 Blythe Boulevard
Charlotte, North Carolina 28203

Contact:

F. Del Murphy, Jr.
Senior Vice President
(704) 355-6060
Del.Murphy@carolinashealthcare.org

Request:

Carolinas HealthCare System (CHS) requests the need for an additional fixed MRI scanner in Lincoln County be removed from the *North Carolina Proposed 2016 State Medical Facilities Plan* (SMFP).

Background Information:

The methodology in the *Proposed 2016 SMFP* for MRI scanners uses the total number of adjusted procedures in an MRI service area, equivalent values for fixed and mobile MRI scanners and graduated need determination thresholds based on the number of fixed scanners in a service area. Procedures are weighted according to complexity and then combined to determine a total number of weighted procedures. The fixed equivalent value is 1.00 for approved and existing fixed MRI scanners, including need determinations from previous SMFPs for MRI scanners. For mobile sites, the fixed equivalent is the number of MRI adjusted procedures performed at the site divided by the threshold for the MRI service area. The fixed equivalent for a mobile site can be no greater than 1.00. The sum of the weighted MRI procedures is divided by the number of fixed equivalent scanners to get the average adjusted procedures per scanner for each service area. A need determination for additional MRI scanners occurs when the average adjusted procedures per scanner for the service area exceeds the threshold established for the service area. Similar to last year, the application of the methodology in the *Proposed 2016 SMFP* generated a need determination for one additional fixed MRI in Lincoln County.

Chapter Two of the *Proposed 2016 SMFP* allows persons to petition for an adjusted need determination in consideration of “unique or special attributes of a particular geographic area or institution...,” if they believe their needs are not addressed by the standard methodology. CHS has submitted a petition to adjust the need determination in Lincoln County for several reasons including: 1) The performance standards in the CON Rules could be challenging to reach based

on recent utilization trends; 2) The uncertainty of future MRI utilization due to changes in insurance coverage and plan design.

Analysis/Implications:

CMC-Lincoln, a Carolinas Healthcare System (CHS) affiliated facility, is the only provider that offered fixed MRI services in Lincoln County as reported for the *Proposed 2016 SMFP*. There is only one fixed MRI machine in the service area. The need determination in Lincoln County is driven by CMC-Lincoln’s MRI utilization of 4,667 MRI procedures reported for the *Proposed 2016 SMFP*. The threshold for a service area with one fixed machine is an average of 3,775 scans per machine. Therefore, the service area surpassed the threshold for a need determination by 892 weighted scans.

In order to determine the fixed MRI equivalency required in the standard need determination methodology, a weighting system is used. Table 1 details the base weight, which is an outpatient procedure with no contrast or sedation, calculated as 30 minutes. All other categories of MRI procedures require a calculated weight added to the base time. The composition of the scans performed can have a significant impact once the weighting has been applied.

Table 1: MRI Weighting System

Procedure Type	Base Weight	Inpatient Weight	Contrast Weight	Procedure Time in Minutes
Outpatient/No Contrast/Sedation	1.0	0.0	0.0	30
Outpatient/With Contrast/Sedation	1.0	0.0	.4 (Add 12 minutes)	42
Inpatient/No Contrast/Sedation	1.0	.4 (Add 12 minutes)	0.0	42
Inpatient/With Contrast/Sedation	1.0	.4 (Add 12 minutes)	.4 (Add 12 minutes)	54

There has been growth in the number of MRI procedures performed at CMC-Lincoln. Table 2 demonstrates the greatest growth of 302.4% in the procedures that are inpatient and with contrast, but there has only been an overall percentage change of 46.7%. The weighting is highest in the categories where Lincoln County has seen the most growth in procedures. The data indicates the majority of the increase from 3,860 weighted procedures last year to 4,667 weighted procedures can be attributed to the weighting.

Table 2: CMC-Lincoln MRI Procedures* in NC SMFP, 2012- Proposed 2016 SMFP

SMFP	Inpatient		Outpatient		Overall Totals
	With Contrast	Without Contrast	With Contrast	Without Contrast	
2013	124	298	613	1,479	2,514
2014	127	337	682	1,842	2,988
2015	241	411	718	1,846	3,216
Proposed 2016	499	338	1,108	1,744	3,689
Percentage Change	302.4%	13.4%	80.7%	17.9%	46.7%

Sources: 2012, 2013, 2014, and 2015 Hospital License Renewal Applications.

*Procedures are unweighted.

Another consideration presented in this petition is the ability for an existing provider located in Lincoln County to be approved for a second MRI scanner. The petition asserts the growth rate in MRI procedures would preclude any applicant from meeting the performance requirements. However, pursuant to 10A NCAC 14C .2703(b)(3)(B), an applicant (including any related entities) that does not currently own or operate a fixed MRI scanner located in Lincoln County would have to adequately demonstrate in its CON application that the proposed fixed MRI scanner would perform 3,775 weighted MRI scans during the third operating year of the proposed scanner. That applicant does not have to demonstrate that the existing MRI scanner at CMC-Lincoln would perform 3,775 weighted MRI scans. However, that applicant does have to demonstrate that its projected utilization is reasonable and adequately supported. Furthermore, that applicant would have to adequately demonstrate that its proposed fixed MRI scanner would not result in an unnecessary duplication of the existing fixed MRI scanner. On the other hand, CMC-Lincoln would have to demonstrate that its existing and proposed MRI scanners would perform an average of 3,775 weighted procedures per scanner during the third operating year of the proposed scanner. Thus, CMC-Lincoln would have to demonstrate that the two scanners would perform at least 7,550 weighted MRI scans during the third operating year of the proposed scanner [3,775 x 2 = 7,550].

In the last six years, Lincoln County demonstrates a relatively quick growth rate as compared to the growth statewide, as seen in Table 3. The county had a 6.21% Compound Annual Growth Rate (CAGR). If the 6.21% CAGR were used to project the number of procedures one would expect in Lincoln County after three years, the total number of projected procedures would be 5,592 (Table 4). Thus, based on the data, meeting a projection of 7,550 weighted MRI procedures by the end of year three would be questionable.

Table 3: Statewide and Lincoln County Trends in MRI Procedures* in NC SMFP, 2011-2016

	2011 SMFP	2012 SMFP	2013 SMFP	2014 SMFP	2015 SMFP	Proposed 2016	CAGR
Lincoln County	3,453	3,022	3,829	3,835	3,860	4,667	6.21%
Annual Change		-12.48%	26.70%	0.16%	0.65%	20.91%	
Statewide	828,805	777,609	776,852	791,443	775,159	788,584	-0.99%
Annual Change		-6.18%	-0.10%	1.88%	-2.06%	1.73%	

Sources: 2011, 2012, 2013, 2014, and 2015 Hospital License Renewal Applications.

*Procedures are weighted.

Table 4: Anticipated Growth in MRI Procedures in Lincoln County

	Proposed 2016	Year 1	Year 2	Year 3
Lincoln County	4,667	4,957	5,265	5,592

Finally, the petition asserts the changes in healthcare make predicting the utilization of MRI in any given service area difficult. The healthcare industry, particularly insurance, has made and will continue to make significant modifications in the coming years. In the last 6 years in both the statewide and Lincoln County data, the number of procedures has great variation as

evidenced by the annual changes shown in Table 3. Furthermore, the weighting required by the methodology can have a significant impact on the overall weighted total year from year, based on the number and composition of the types of procedures. Thus, determining anticipated utilization of MRI equipment in Lincoln County is complex.

Agency Recommendation:

The agency supports the standard methodology for fixed MRI equipment in the *Proposed 2016 SMFP*. However, in consideration of the above, the agency recognizes that CMC-Lincoln and Lincoln County have unique attributes such as the potential changes in MRI procedure volume. Given available information submitted by the August 14, 2015 deadline date for comments on petitions and comments, and in consideration of factors discussed above, the agency recommends approval of the petition to adjust the projected need determination for an additional unit of fixed MRI equipment to zero (0) in Lincoln County in the *2016 SMFP*.