

**PETITION**

**Petition to the North Carolina State Health Coordinating Council to Remove Need Determination for One Fixed MRI Scanner in Lincoln County from the 2016 Proposed State Medical Facilities Plan**

***Submitted by:***

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***Requested Change***

The Charlotte-Mecklenburg Hospital Authority d/b/a Carolinas HealthCare System (CHS) requests the need for an additional fixed MRI scanner in Lincoln County be removed from the Proposed 2016 State Medical Facilities Plan (SMFP). CHS is supportive of the current need methodology for fixed MRI scanners in the SMFP and we are not proposing any changes to the methodology. We are requesting the need determination for Lincoln County be removed for 2016.

***Review of MRI Methodology***

The current MRI methodology was included in the 2005 SMFP after extensive effort by an MRI work group and Division of Health Service Regulation (DHSR) staff. The major change from the prior methodology was to create a tiered approach to determine need for fixed MRI scanners. A very low threshold of 1,716 scans was established for a service area with no fixed scanner with the intent of increasing access to MRI services for small, rural counties. The methodology created tiered thresholds based on the number of scanners present in the service area. (Please see table below).

<b>Acute Care Bed Service Area Fixed Scanners</b>	<b>Inpatient and Contrast Adjusted Thresholds</b>	<b>Planning Threshold</b>
4 and over	4,805	70.0%
3	4,462	65.0%
2	4,118	60.0%
1	3,775	55.0%
0	1,716	25.0%

The methodology has worked well to expand access to MRI services. At the same time, however, MRI utilization across North Carolina continues to slow from its rapid growth more than a decade ago. As the chart below illustrates, while the change from year to year has fluctuated,

overall the number of MRI procedures statewide has declined by 4.9 percent over the last five years.

Historical Total MRI Scans								
	FFY 2009	FFY 2010	FFY 2011	FFY 2012	FFY 2013	FFY 2014	% Change 09-14	CAGR 09-14
<b>North Carolina</b>	828,805	777,609	776,852	791,443	777,633	788,584	-4.9%	-1.0%
Annual % Change		-6.2%	-0.1%	1.9%	-1.7%	1.4%		

***Reasons for the Requested Change***

1. Recent history suggests it is unlikely that a CON application for a second scanner would be approved, as the performance standards in the CON Rules could be challenging to reach based on recent utilization trends. As a result, the unnecessary need determination could result in unnecessary expense by applicants and time by CON staff.
2. The uncertainty of future MRI utilization due to changes in insurance coverage and plan design.

***Historical Growth Rate and Patient Origin Data***

In contrast to the statewide volume decline, the total number of weighted MRI scans in Lincoln County has increased each year since FFY 2010 as the table below shows. The compound annual growth rate for weighted MRI scans performed in Lincoln County between FFY 2009 and FFY 2014 was 6.2 percent per year. There was a significant increase of 26.7 percent in FFY 2011 which was the first full year of operation of the fixed MRI scanner at the newly constructed Carolinas HealthCare System Lincoln facility. Growth between FFY 2011 and FFY 2013 was minimal with an annual percent change in FFY 2012 and FFY 2013 of 0.2 and 0.7 percent respectively. There was significant growth in FFY 2014 of 20.9 percent, but this was primarily due to an increase in the number of inpatients and the use of contrast which contributed to the growth in weighted scans. The total number of scans grew at a slower pace of 14.7 percent.

Historical Weighted MRI Scans								
	FFY 2009	FFY 2010	FFY 2011	FFY 2012	FFY 2013	FFY 2014	% Change 09-14	CAGR 09-14
Carolinas HealthCare System Lincoln	2,728	2,264	2,978	3,497	3,860	4,667	71.1%	11.3%
Blue Ridge Radiology	725	758	851	338	0	0	-100.0%	-100.0%
<b>Lincoln County Total</b>	<b>3,453</b>	<b>3,022</b>	<b>3,829</b>	<b>3,835</b>	<b>3,860</b>	<b>4,667</b>	<b>35.2%</b>	<b>6.2%</b>
Annual % Change		-12.5%	26.7%	0.2%	0.7%	20.9%		

Despite the historical growth in volume, which is significantly more than the statewide rate, it is unlikely that an applicant for a second MRI scanner in Lincoln County could be approved based upon reasonable utilization assumptions. The CON performance standards for MRI scanners included in 10A NCAC 14C .2703 (b)(3)(B) require an applicant in a service area with one MRI scanner to demonstrate the total number of projected scans will exceed of 3,775 weighted scans

per existing, approved, or proposed scanner in the third year of operation of the new MRI scanner. In Lincoln County that would require a total of 7,550 weighted scans be performed on the two fixed MRI scanners<sup>1</sup>. In order to achieve the required volume the number of MRI scans performed in the county would need to increase by 61.8 percent over the FFY 2014 volume. From FFY 2011 to FFY 2014—the most recent three-year period—the number of MRI scans in Lincoln County increased by only 21.9 percent.

Neither would increased in-county retention of MRI procedures be sufficient to reasonably support a second scanner. The table below shows the number of Lincoln County patients who received MRI scans and the county where they received their MRI scan, based on data reported by hospitals and freestanding MRI providers to DHSR. The total number of Lincoln County residents receiving MRI scans in FFY 2014 was 6,285. Only 40.5 percent of these patients received their MRI scans in Lincoln County.

<b>Service Location</b>	<b>Patients</b>	<b>% of Total</b>
Lincoln	2,548	40.5%
Mecklenburg	1,695	27.0%
Gaston	742	11.8%
Catawba	725	11.5%
Iredell	260	4.1%
Forsyth	70	1.1%
Burke	65	1.0%
Cleveland	62	1.0%
Cabarrus	60	1.0%
Durham	27	0.4%
Buncombe	7	0.1%
Rowan	5	0.1%
Orange	4	0.1%
Wake	3	0.0%
Davidson	2	0.0%
Jackson	2	0.0%
Union	2	0.0%
Brunswick	1	0.0%
Caldwell	1	0.0%
Cumberland	1	0.0%
Davie	1	0.0%
McDowell	1	0.0%
New Hanover	1	0.0%
<b>Total</b>	<b>6,285</b>	<b>100.0%</b>

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<sup>1</sup> Although the CON performance standards would require a new provider to demonstrate projected volume for only their proposed MRI scanner, it is unlikely that an applicant could do so based on reasonable assumptions, without simply shifting volume from an existing provider and thereby generating the same result of underutilized scanners in Lincoln County.

The Lincoln County average historical ratio of weighted scans to scans is 1.20. Applying this weighted ratio to the 6,285 patients results in 7,542 weighted scans ( $6,285 \times 1.20 = 7,542$ ). Thus, 100 percent retention of Lincoln County MRI patients is still not sufficient to achieve the CON performance standard target of 7,550 weighted scans for two fixed MRI scanners,

As each of the two measures above demonstrates, the assumptions required to meet the CON performance standard volume threshold do not match recent experience in Lincoln County. There have been similar examples in other counties where a need for an additional MRI scanner was included in the SMFP but applicants could not demonstrate the performance standards could be achieved with reasonable assumptions. The most similar example was in Wilkes County in 2008. There were two applicants for the MRI scanner need determination in the 2008 SMFP for Wilkes County but neither was approved. The volume of MRI scans in the county declined the following year and the need determination was subsequently removed from future plans.

#### *Uncertainty of Future Growth Rates*

The healthcare industry is undergoing significant change. The insurance coverage expansion included in the Affordable Care Act is increasing access to medical care for many North Carolina residents. Concurrently, changes in insurance plan design with high-deductible health plans (HDHPs) are becoming much more common. These HDHPs are also changing utilization patterns for many elective procedures and diagnostic testing. These two factors make it very difficult to predict future utilization with any degree of accuracy. It would be prudent to allow some additional time to evaluate the impact of these trends on utilization before adding an additional MRI scanner to Lincoln County.

#### ***Impact of Request/Implications if Petition is Not Approved***

As outlined above, approval of this petition as proposed will result in an adjusted need for zero MRI scanners in Lincoln County.

If this petition is not approved, the development of an additional fixed MRI scanner in Lincoln County could result in unnecessary duplication of services and potentially underutilized scanners. It is also possible that interested parties could undergo the expense to prepare and file CON applications only to have their applications denied because the utilization projections were not deemed reasonable when compared to historical growth rates.

#### Adverse Effects on Population

The approval of this petition would not have any adverse effect on the population of Lincoln County. The only current provider of fixed MRI services is Carolinas HealthCare System Lincoln. The MRI scanner is in operation from 7am to 7pm Monday through Friday and on an as-needed basis during the weekend for inpatients and emergency department patients. There is no current backlog for patients to receive MRI scans and the service could expand service hours to meet future demand. According to the Proposed 2016 SMFP, there are at least 22 fixed MRI scanners in the state that provide over 5,000 weighted MRI scans per year. It is reasonable to

assume the fixed MRI scanner at Carolinas HealthCare System Lincoln can easily meet the projected demand for MRI scans in the county through 2016.

If the petition is not approved the citizens of Lincoln County could be adversely impacted by the premature installation of second fixed MRI scanner that may be underutilized and therefore contributing to higher healthcare costs.

#### Alternatives Considered

The only realistic alternative to the proposed request is to maintain the status quo. As stated previously, including a need determination for an additional fixed MRI scanner for Lincoln County will most likely result in no CON applicant being approved to add an MRI scanner.

#### ***Impact of Proposed Changes on Unnecessary Duplication***

The proposed changes will prevent unnecessary duplication of services by avoiding the addition of a fixed MRI scanner to the service area.

#### ***Proposal's Consistency with the Basic Principles of the SMFP***

The proposed removal of an MRI need determination will ensure greater safety, quality, access and value. By ensuring sufficient utilization of MRI scanners, safety and quality will be enhanced through more appropriate utilization of the existing scanner. Access will not be negatively impacted by the proposed change. Finally, healthcare value will be maximized through the avoidance of underutilized fixed MRI scanners.

#### ***Summary***

Based on the evidence presented above, CHS believes that the removal of need for an additional fixed MRI scanner in the Proposed 2016 SMFP is in the best interest of the citizens of Lincoln County. Utilization trends may generate a need for an additional fixed MRI scanner in the near future. It would be prudent to delay adding a second fixed MRI scanner in the county until utilization trends demonstrate growth over multiple years.