

PETITION**North Carolina State Health Coordinating Council*****Submitted to:***

Dr. Christopher G. Ullrich, Chair
 Technology and Equipment Committee
 c/o Medical Facilities Planning Section
 Division of Health Service Regulation
 2714 Mail Service Center
 Raleigh, North Carolina 27699-2714

Submitted by:

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Requested Change

Carolinas HealthCare System (CHS) requests the need for an additional fixed MRI scanner in Lincoln County be removed from the Proposed 2015 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 2015 to allow additional time to determine if the current volume levels will remain above the target threshold.

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).

| Acute Care Bed Service Area Fixed Scanners | Inpatient and Contrast Adjusted Thresholds | Planning Threshold |
|---|---|---------------------------|
| 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. One aspect of the methodology that remains complicated is how the methodology incorporates mobile MRI scanners. In the 2006 SMFP, in order to include mobile MRI scans in the need determination calculations DHSR staff developed a “fixed equivalent” calculation to count mobile MRI host

sites in the inventory. The difficulty incorporating with mobile MRI scanners in any need methodology is their ability to move between service areas. When a mobile scanner relocates to a new host site in a different service area the inventory is reduced in the service area being vacated. The relocation can result in a need determination for a service area even if the total number of scans does not change from the previous year.

Reasons for the Requested Change

1. The removal of a mobile MRI host site contributed to the need determination.
2. The performance standards in the CON Rules could be challenging to reach based on recent utilization trends.
3. The uncertainty of future MRI utilization due to changes in insurance coverage and plan design.

Removal of Mobile MRI Host Site

Prior to FFY 2013 there were two MRI providers in Lincoln County. Blue Ridge Radiology operated a mobile MRI service at a freestanding imaging center until the imaging center ceased operation in FFY 2012. The table below shows the changes in scans and fixed equivalents. As a result of the closure, the fixed equivalent amount of 0.08 was removed from the inventory for FFY 2013. Between FFY 2012 and FFY 2013 the number of weighted scans in Lincoln County increased by only 25 scans. The removal of the fixed equivalent inventory increased the average scans per MRI scanner by 309 from 3,551 to 3,860 which exceeded the threshold of 3,775 required to generate need for an additional MRI scanner.

| | Weighted MRI Scans | | | | | |
|------------------------------|--------------------|--------------|--------------|--------------|--------------|-----------|
| | FFY 2009 | FFY 2010 | FFY 2011 | FFY 2012 | FFY 2013 | Threshold |
| CMC-Lincoln | 2,728 | 2,264 | 2,978 | 3,497 | 3,860 | |
| Blue Ridge Radiology | 725 | 758 | 851 | 338 | 0 | |
| Lincoln County Total | 3,453 | 3,022 | 3,829 | 3,835 | 3,860 | |
| Annual Change | | -431 | 807 | 6 | 25 | |
| <i>Fixed Equivalents</i> | <i>1.79</i> | <i>1.56</i> | <i>1.21</i> | <i>1.08</i> | <i>1.00</i> | |
| <i>Average Scans per MRI</i> | 1,929 | 1,937 | 3,164 | 3,551 | 3,860 | 3,775 |

Historical Growth Rate and Patient Origin Data

As the table below shows, the total number of weighted MRI scans in Lincoln County has increased each year since FFY2010. 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 CMC-Lincoln facility. The compound annual growth rate for weighted MRI scans performed in Lincoln County between FFY 2009 and FFY 2013 was 2.8 percent per year. However, growth over the last two years has been minimal with an annual percent change in FFY 2012 and FFY 2013 of 0.2% and 0.7% respectively.

| Weighted MRI Scans | | | | | | | |
|-----------------------------|--------------|--------------|--------------|--------------|--------------|----------------------|---------------|
| | FFY 2009 | FFY 2010 | FFY 2011 | FFY 2012 | FFY 2013 | % Change 11-13 | CAGR 09-13 |
| CMC-Lincoln | 2,728 | 2,264 | 2,978 | 3,497 | 3,860 | 29.6% | 9.1% |
| Blue Ridge Radiology | 725 | 758 | 851 | 338 | 0 | -100.0% | -100.0% |
| Lincoln County Total | 3,453 | 3,022 | 3,829 | 3,835 | 3,860 | 0.8% | 2.8% |
| Annual % Change | | -12.5% | 26.7% | 0.2% | 0.7% | | |

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 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. In order to achieve the required volume the number of MRI scans performed in the county would need to increase by 95.6 percent over the FFY 2013 volume. From FFY 2011 to FFY 2013 the number of MRI scans in Lincoln County increased by only 0.8 percent.

An additional indication of the challenge in meeting the CON performance standard volumes is demonstrated by MRI patient origin data. The table on page four 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 2013 was 5,814. Only 39.3 percent of these patients received their MRI scans in Lincoln County.

| County | Patients | % of Total |
|---------------|-----------------|-------------------|
| Lincoln | 2,287 | 39.3% |
| Mecklenburg | 1,553 | 26.7% |
| Catawba | 766 | 13.2% |
| Gaston | 715 | 12.3% |
| Iredell | 226 | 3.9% |
| Forsyth | 83 | 1.4% |
| Cabarrus | 64 | 1.1% |
| Cleveland | 42 | 0.7% |
| Burke | 23 | 0.4% |
| Durham | 22 | 0.4% |
| Orange | 7 | 0.1% |
| Rowan | 7 | 0.1% |
| Buncombe | 5 | 0.1% |
| Wake | 3 | 0.1% |
| Watauga | 2 | 0.0% |
| Davidson | 2 | 0.0% |
| Caldwell | 2 | 0.0% |
| Brunswick | 1 | 0.0% |
| Mitchell | 1 | 0.0% |
| Jackson | 1 | 0.0% |
| Richmond | 1 | 0.0% |
| Johnston | 1 | 0.0% |
| Total | 5,814 | 100.0% |

The Lincoln County average historical ratio of weighted scans to scans is 1.16. Applying this weighted ratio to the 5,814 patients would result in 6,744 weighted scans ($5,814 \times 1.16 = 6,744$). To achieve the CON performance standard volume targets 7,550 weighted scans must be performed on two fixed MRI scanners. In order for a new MRI scanner to be approved 100 percent of the Lincoln County MRI patients would need to stay in Lincoln County for their scans and the number of MRI patients would need to grow by 12.0 percent over three years ($6,744 \times 1.12 = 7,553$).

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 CMC-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 2015 SMFP, there are at least 16 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 CMC-Lincoln can easily meet the projected demand for MRI scans in the county through 2015.

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 2015 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.