

**Technology and Equipment Committee  
Agency Report  
Adjusted Need Petition for  
One Fixed Magnetic Resonance Imaging Scanner in Bladen County  
Proposed 2014 State Medical Facilities Plan**

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***Petitioner:***

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***Request:***

Cape Fear Valley Health System requests an adjusted need determination for one fixed Magnetic Resonance Imaging (MRI) scanner in Bladen County in the 2014 State Medical Facilities Plan (SMFP).

***Background Information:***

The methodology in the Proposed 2014 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.

Chapter Two of the North Carolina Proposed 2014 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. Cape Fear Valley Health System has submitted a petition to adjust the need

determination in order to improve access and bring MRI services closer to Bladen County residents.

***Analysis/Implications:***

The standard methodology for determining need includes a component addressing MRI service areas that have no fixed MRIs, but have mobile MRI scanners serving the area. Need is determined based on procedures performed with fixed MRI scanners and procedures performed on mobile MRI scanners at mobile sites in the service areas. Need thresholds are arranged in tiers based on the number of scanners in the service area. For service areas without a fixed MRI scanner, the utilization threshold is 1,716 weighted MRI procedures.

Bladen County Hospital has provided mobile MRI services for almost a decade. The total number of MRI procedures reported for the Proposed 2014 SMFP is 386. The petition states that patient origin data show that 80% of Bladen County residents travel out of the county for MRI services. The petition calculates an average volume of MRI procedures for Bladen County residents to be 1,878. The Proposed 2014 SMFP calculated the current Bladen County average weight per scan to be 1.067 by dividing the Bladen County weighted MRI scan volume (412) by the total number of scans performed for the reporting period (386). Utilization of the petition's average volume for Bladen County residents of 1,878 and the average weight per scan of 1.067, the average weighted volume of MRI procedures would be 2,004 weighted procedures. The need threshold for a county with no fixed MRI is 1,716 weighted procedures. Dividing the 2,004 weighted volume by the threshold of 1,716 weighted procedures, the resulting fixed MRI need determination would be 1.2 MRI scanners.

The petition's calculation above assumes 100% of Bladen County residents would stay within the county. As demonstrated in Section F of the petition, comparing counties with one fixed MRI scanner, the average out-migration in counties with one fixed MRI scanner is 51.4%. This indicates that the average percentage of residents obtaining services within the county is 48.6% (100%-51.4%). Utilizing the petition's total MRI procedures for Bladen County residents (1,878), an average percentage of volume expected to stay within the county of 48.6%, the average weighted volume would be 913 (1878 x 48.6%). This would generate an average weighted volume of 974 MRI procedures. The resulting fixed MRI need utilizing a threshold of 1,716 would be 0.57 fixed MRI scanners.

The petition cited a precedent set by the approved Ashe County petition in 2007 for an adjusted need determination for one fixed MRI scanner in the service area. The petition for Bladen County includes distinct differences from the Ashe County petition. The Ashe County adjusted need petition demonstrated that current mobile MRI services provided two days per week had reached 85% (1,450) of the threshold capacity of 1,716 required to generate a need determination. Utilizing the weighted MRI mobile scan volume of 412, Bladen County is at 24% of the threshold capacity or 1,304 weighted procedures from triggering a need. In addition, the mountainous terrain and extreme weather conditions in Ashe County were a primary contributing factor for approval of this petition. There are no significant geographic barriers to access in Bladen County. Bladen County residents are currently able to obtain MRI services within 30 minutes to one hour.

***Agency Recommendation:***

The agency supports the standard MRI methodology and concludes that there are not sufficiently unique circumstances in Bladen County at this time to warrant an adjusted need determination for a fixed MRI scanner. Given available information submitted by the August 16, 2013 deadline date for comments on petitions and comments, and in consideration of factors discussed above, the Agency recommends that the petition for an adjusted need determination for one unit of fixed MRI equipment in Bladen County be denied.