

**Technology and Equipment Committee  
Agency Report  
Adjusted Need Petition to Remove Need Determination for  
One Fixed Magnetic Resonance Imaging Equipment (MRI) in  
Pasquotank/Camden/Currituck/Perquimans Service Area  
2018 State Medical Facilities Plan**

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***Petitioner:***

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***Request:***

Sentara Albemarle Medical Center (SAMC) requests the need for an additional fixed MRI scanner in the Pasquotank/Camden/Currituck/Perquimans (PCCP) service area be removed from the *Proposed 2018 State Medical Facilities Plan (SMFP)*.

***Background Information:***

Chapter Two of the *Proposed 2018 SMFP* allows for “[a]nyone who finds that the North Carolina State Medical Facilities Plan policies or methodologies, or the results of their application, are inappropriate may petition for changes or revisions. Such petitions are of two general types: those requesting changes in basic policies and methodologies, and those requesting adjustments to the need projections.” The *SMFP* annual planning process and timeline allow for submission of petitions for changes to policies and methodologies in the spring and petitions requesting adjustments to need projections in the summer. It should be noted that any person might submit a certificate of need (CON) application for a need determination in the Plan. The CON review could be competitive and there is no guarantee that the petitioner would be the approved applicant.

The methodology in the *Proposed 2018 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. Application of the methodology to utilization data in the Proposed 2018 SMFP generated a need determination for one additional fixed MRI in the PCCP service area.

SAMC has submitted a petition to adjust the need determination in the PCCP service area asserting the following reasons: 1) any applicant for an additional scanner would have difficulty in projecting the required minimum of weighted procedures, 2) trends in MRI volume and population growth suggest need is met by existing fixed and mobile scanners, and 3) according to SAMC's past experience, the service area is vulnerable to political and economic forces that suppress growth in demand for MRI services.

***Analysis/Implications:***

Sentara Albemarle Medical Center (SAMC) is the only provider that offered fixed MRI services in the PCCP service area as reported for the *Proposed 2018 SMFP* and has one fixed MRI machine. The need determination in the service area is driven by SAMC's MRI utilization of 3,776 MRI procedures reported for the *Proposed 2018 SMFP*. The threshold for a service area with one fixed machine is an average of 3,775 scans per machine. Therefore, the PCCP service area surpassed the threshold for a need by only one weighted scan.

Another consideration presented in this petition is the ability for an existing provider located in the PCCP service area to be approved for a second MRI scanner. 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 the service area 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 SAMC 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, SAMC would have to demonstrate that its existing and the proposed MRI scanners would perform an average of 3,775 weighted procedures per scanner during the third operating year of the proposed scanner. Thus, SAMC 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 [ $3,775 \times 2 = 7,550$ ]. The petition asserts the growth rate in MRI procedures would preclude any applicant from meeting this performance requirement. In the last five years, the PCCP service area has demonstrated an overall negative trend in the numbers of MRI procedures as seen in Table 1 below.

**Table 1: Service Area and Statewide Trends in MRI Procedures, Data Years 2012 - 2016**

	2014 SMFP	2015 SMFP	2016 SMFP	2017 SMFP	Proposed 2018 SMFP	Total Percent Change	CAGR
Pasquotank/Camden/Currituck/Perquimans Service Area	3,790	3,720	3,603	3,304	3,776	-0.37%	-0.09%
Annual Change in Service Area		-1.85%	-3.15%	-8.30%	14.29%		
Statewide	791,443	777,633	800,182	848,142	852,633	7.73%	1.88%

2013 – 2017 License Renewal Applications

The service area has a -0.09% Compound Annual Growth Rate (CAGR). If the -0.09% CAGR were used to project the number of procedures in the PCCP service area after three years, the total number of projected procedures would be 3,766 (Table 2). Thus, based on the data, a projection of 3,775 weighted MRI procedures by the end of year three would be questionable.

**Table 2: Anticipated Growth of MRI Procedures in Pasquotank/Camden/Currituck/Perquimans Service Area**

	Proposed 2018 SMFP	Year 1	Year 2	Year 3
SAMC MRI Procedures	3,776	3,773	3,769	3,766

Finally, the petitioners note that at the height of service volume in 2007, there had been a plan to develop an additional fixed MRI scanner. However, changes caused by the economic downturn and healthcare reform negatively impacted MRI volume, so the plan was abandoned, and SAMC relinquished the CON for the additional scanner. Indeed, since 2007, there has been a general downward trend in growth at rate of -2.39% (Table 3).

**Table 3: MRI Procedure Volume, Data Years, 2007 - 2014**

	SMFP 2009	SMFP 2010	SMFP 2011	SMFP 2012	SMFP 2013	SMFP 2014	SMFP 2015	SMFP 2016	Total Percent Change	CAGR
MRI volume	4877	4227	4253	3834	4001	3790	3720	3603	-26.12%	-2.39%
Annual Change in Service Area	n/a	-13.33%	0.62%	-9.85%	4.36%	-5.27%	-1.85%	-3.15%		

2008 – 2015 License Renewal Applications

Uncertainty in the healthcare industry persists. In the last 5 years in both the statewide and PCCP service area data, the number of procedures has great variation as evidenced by the annual change shown in Table 1. Thus, determining anticipated utilization of MRI equipment in this service area is complex.

***Agency Recommendation:***

The agency supports the standard methodology for fixed MRI equipment in the *Proposed 2018 SMFP*. However, in consideration of the above, the agency recognizes that the Pasquotank/Camden/Currituck Perquimans service area has unique attributes, including insufficient MRI procedure volume to support an additional MRI scanner. Given available information submitted by the August 10, 2017 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) for the Pasquotank/Camden/Currituck Perquimans service area in the final *2018 SMFP*.