

**Technology and Equipment Committee  
Agency Report  
Two Petitions for an Adjusted Need Determination for  
Mobile Magnetic Resonance Imaging (MRI) Scanners  
in the 2023 State Medical Facilities Plan**

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**Petitioners:**

Novant Health, Inc.  
2085 Frontis Plaza Boulevard  
Winston-Salem, NC 27103

MedQuest Associates, Inc.  
3480 Preston Ridge Road, Suite 600  
Alpharetta, GA 30005

Carolina Neurosurgery & Spine Associates  
225 Baldwin Avenue  
Charlotte, NC 28204

**Contacts:**

Andrea M. Gymer  
VP Operational Planning and Innovation  
(336) 341-0408  
[amgymer@novanthealth.org](mailto:amgymer@novanthealth.org)

Christopher L. Murphy  
VP Development  
(336) 254-9944  
[cmurphy@medquestmail.com](mailto:cmurphy@medquestmail.com)

Mary Cloninger  
Chief Executive Officer  
(704) 831-3100  
[mary.cloninger@CNSA.com](mailto:mary.cloninger@CNSA.com)

**Request:**

Two petitioners requested need determinations for mobile MRI scanners in the 2023 State Medical Facilities Plan (*SMFP* or “*Plan*”). Novant Health, Inc. (*Novant*) and MedQuest Associates, Inc (*MedQuest*) submitted a Petition to request two mobile MRI scanners statewide. Additionally, Carolina Neurosurgery and Spine Associates (*CNSA*) submitted a Petition to request one mobile MRI scanner in Health Service Area (HSA) III. This agency report combines the discussion and analysis of both petitions and includes a single recommendation for consideration by the Committee. In this report, these entities are collectively referred to as the “Petitioners,” unless one petitioner is identified by name.

**Background Information:**

Chapter Two of the SMFP provides, in relevant part, that “[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.” Petitions requesting adjustments to need projections are reviewed in the summer. Any person may 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 standard MRI methodology 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. The methodology also considers MRI utilization for the past three reporting years and projected population growth two years beyond the current reporting year. A need determination for additional fixed MRI scanners occurs when the average adjusted procedures per scanner for the service area exceeds the threshold established for the service area.

There is no methodology for mobile MRI scanners in the SMFP. A summer petition is required to place a need in the upcoming SMFP. If approved, a CON will be required to acquire a new mobile MRI. The service area for mobile MRIs is statewide.

Novant and MedQuest submitted a joint petition for a special need determination for two new mobile MRI scanners for the following reasons: 1) to ensure maximum flexibility to meet patient needs; 2) to increase access to mobile MRI services statewide; and 3) to minimize adverse effects on the provider and consumers of health services.

CSNA submitted a petition to request an adjusted need determination for one mobile MRI scanner to serve HSA III for the following reasons: 1) the MRI methodology only addresses fixed MRI need determinations; 2) currently available services are unable to supply all sites due to capacity restraints; and 3) in response to the increase in MRI procedure growth in Mecklenburg County.

#### **Analysis/Implications:**

Mobile MRI scanners operate within a statewide service area allowing them to cross county lines to provide better access to patients. The Petitioners represent a range of medical service providers including venders, hospitals, and outpatient facilities located throughout North Carolina. The Petitioners operate both fixed and mobile MRI scanners. Due to high demand in MRI services, the Petitioners are requesting additional mobile MRI scanners to meet increasing utilization. The Petitioners note that mobile MRI scanners are flexible and able to serve more than one facility which allows providers to meet the needs of patients.

Mobile MRI scanners were first included in the 1999 SMFP but were not considered in the methodology. At that time, a provider could obtain a mobile MRI scanner by applying for a CON. In 2010, a change in the MRI methodology required a summer petition to place a need determination for a mobile scanner in the SMFP. The Agency received no petitions for mobile MRI scanners since 2010.

Several mobile MRI scanners were operational before the CON law was enacted. At that time, the Agency did not record the number of these legacy scanners. Currently, the Agency relies on the MRI providers to identify legacy scanners.

Mobile MRI procedures are included in the methodology to determine whether a need exists for a fixed MRI scanner. The Agency has received petitions relating to the policy around mobile MRI scanners, but no petition for an adjustment to the need determination for a mobile MRI scanner.

In the last five reporting years, the number of mobile MRI procedures has consistently increased statewide (see Table 1). The state has a 4.11% compound annual growth rate (CAGR) in total unweighted procedures. Exclusive of base inpatient scans, mobile utilization has increased, but the number of mobile MRI scanners has remained the same. The Petitioners argue that the static number of scanners has caused a strain on existing facilities and scanners. The decrease in base inpatient scans is likely due to the increase in the number of fixed scanners at hospitals.

**Table 1: Statewide Mobile MRI Procedures, Unweighted, Data Years 2017-2021**

|                                    | 2017    | 2018    | 2019    | 2020    | 2021    | CAGR   |
|------------------------------------|---------|---------|---------|---------|---------|--------|
| <b>Base Inpatient</b>              | 822     | 408     | 521     | 928     | 659     | -5.38% |
| <b>Complex Inpatient</b>           | 526     | 963     | 768     | 3,046   | 1,086   | 19.87% |
| <b>Base Outpatient</b>             | 113,049 | 118,202 | 120,373 | 116,330 | 131,397 | 3.83%  |
| <b>Complex Outpatient</b>          | 32,176  | 34,693  | 33,779  | 35,264  | 39,047  | 4.96%  |
| <b>Total Unweighted Procedures</b> | 146,573 | 154,266 | 155,441 | 155,568 | 172,189 | 4.11%  |
| <b>Total % of Change</b>           |         | 5.25%   | 0.76%   | 0.08%   | 10.68%  |        |

*Source: 2018 – 2022 License Renewal Applications and Registration and Inventory Forms  
NC Department of Health & Human Services, Healthcare Planning Database*

According to CON regulation 10A NCAC 14C .2700, a mobile MRI unit must be moved to two or more host sites a week. The Petitioners state that requests for additional mobile MRI services have been difficult to fulfill due to lack of availability of current mobile MRI scanners. The Proposed 2023 SMFP indicates that there were 47 mobile MRI scanners in operation in the state during the 2020-2021 reporting period. Those scanners currently average 3,877.20 weighted procedures (see Table 2) which exceeds the 3,328 threshold for a single mobile MRI scanner by 549.2 weighted procedures.

**Table 2: Statewide MRI Mobile Procedures, Weighted, Data Years 2017-2021**

|                                                   | 2017       | 2018       | 2019       | 2020       | 2021       |
|---------------------------------------------------|------------|------------|------------|------------|------------|
| <b>Base Inpatient</b>                             | 1,495      | 742        | 947        | 1,687      | 1,198      |
| <b>Complex Inpatient</b>                          | 1,115.76   | 2,042.73   | 1,629.09   | 6,461.21   | 2,303.64   |
| <b>Base Outpatient</b>                            | 113,049.00 | 118,202.00 | 120,373.00 | 116,330.00 | 131,397.00 |
| <b>Complex Outpatient</b>                         | 39,001.21  | 42,052.12  | 40,944.24  | 42,744.24  | 47,329.70  |
| <b>Total Weighted Procedures</b>                  | 154,660.52 | 163,038.67 | 163,893.61 | 167,222.73 | 182,228.52 |
| <b>Average Weighted Procedures per Mobile MRI</b> |            |            |            |            |            |
|                                                   | 3,290.65   | 3,468.91   | 3,487.10   | 3,557.93   | 3,877.20   |

*Source: 2018 – 2022 License Renewal Applications  
NC Department of Health & Human Services, Healthcare Planning Database*

Since 2010, there have been 41 fixed MRI and no mobile MRI units added to the state’s inventory. The Petitioners report that upon issuance of a CON, the one to two-year timeline to develop a mobile MRI scanner is quicker than that of a fixed MRI scanner. Illustratively, since the 2019 SMFP, only two of the 16 need determinations for fixed MRI scanners are operational. Others have yet to be approved, are in development or are in litigation.

**Agency Recommendation:**

The Agency supports the standard methodology for the acquisition of fixed MRI equipment. There is no methodology to determine the need for mobile MRI equipment. Upon review of all available information submitted by the August 10, 2022 deadline, and in consideration of factors discussed above, the Agency recommends the following:

- denial of Novant’s petition for two mobile MRI scanners
- denial of CNSA’s petition for one mobile MRI scanner in HSA III
- Approval of a need determination for three additional mobile MRI scanners for the statewide service area in the 2023 SMFP.