

**Technology and Equipment Committee Agency Report  
Adjusted Need Petition for a Linear Accelerator in Service Area 17  
in the 2024 State Medical Facilities Plan**

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***Petitioners:***

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***Request:***

FirstHealth of the Carolinas (“FirstHealth”) requests a need determination for one additional linear accelerator (LINAC) in Service Area 17 in the *2024 State Medical Facilities Plan (SMFP)* or “Plan”).

***Background Information:***

Chapter Two of the SMFP notes that during the summer, the Agency accepts Petitions that “involve requests for adjustments to need determinations in the *Proposed SMFP*. Petitioners may submit a written Petition requesting an adjustment to the need determination in the *Proposed SMFP* if they believe that special attributes of a service area or institution give rise to resource requirements that differ from those provided by the standard methodologies and policies.” It should be noted that 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.

According to the LINAC need determination methodology, a need determination for a new LINAC exists when two of the following three criteria are met within a service area: 1) the service area population is greater than or equal to 120,000 per LINAC; 2) more than 45% of the total patients served on LINACs in the service area reside outside of the service area; 3) the difference is at least 0.25 when the ratio of the average number of Equivalent Simple Treatment Visit (ESTV) procedures across the total number of LINACs in the service area to 6,750 procedures is subtracted from the number of LINACs in the service area.

FirstHealth is part of Service Area 17. Hoke, Lee, Montgomery, Moore, Richmond and Scotland Counties comprise this service area. There are three LINACs in Service Area 17; two are operated by FirstHealth and the third machine is operated by Scotland Memorial Hospital. Based on 2022

reporting year data, the service area has a population of 110,055 per accelerator, and only 21.88% of their patients are from counties outside the service area. Therefore, it does not demonstrate a need for another LINAC in the *Proposed 2024 SMFP*.

***Analysis/Implications:***

The Petitioner requests a need determination for a LINAC that would operate on the campus of the FirstHealth Cancer Center (FHC). This center’s 38-40 daily patients per LINAC greatly exceeds the national average of 25-30.<sup>1</sup> In its Petition, FirstHealth highlights increases in the radiation oncology patients it has seen since 2021.

The Petitioner contends that underutilization of the LINAC at Scotland Memorial Hospital is suppressing a need determination for a LINAC in Service Area 17. Agency staff reviewed the most recent five years of utilization data for Service Area 17’s LINACs. Since the publication of the *Proposed 2024 SMFP*, FirstHealth submitted revised LINAC data to the Agency for the 2021 and 2022 data reporting years. In 2022, FirstHealth reports performing 8,682 ESTVs per LINAC while Scotland Memorial Hospital performed 2,991 ESTVs on their single machine. This means that although Scotland Memorial Hospital’s LINAC comprises one-third of the capacity for Service Area 17, it accounted for only 15% of the LINAC volume within the service area. This mirrors differences in utilization over the previous five years. As shown in Table 1, between 2018 and 2022, on average, FirstHealth Moore’s LINACs have performed over 80% of the procedures in the service area.

**Table 1: LINAC Utilization (Total ESTV Procedures) Service Area 17**

<b>Data Year</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>Average Number of ESTV Procedures</b>	<b>Percent of Total</b>
Scotland Memorial	3,015	4,087	3,599	3,780	2,991	3,494	17.6%
FirstHealth Moore*/**	16,461	16,437	15,885	15,905	17,364	16,410	82.4%
<b>Total</b>	<b>19,476</b>	<b>20,524</b>	<b>19,484</b>	<b>19,685</b>	<b>20,355</b>	<b>19,904</b>	

\* Source: *2020-2022 SMFPs*

\*\*Source: ESTV procedures calculated based on data revisions submitted to NCDHHS June 2023 for 2021 and 2022 data reporting year.

As noted in the Petition, even if the revised data were used, Service Area 17’s surplus capacity would only be reduced rather than reach a deficit level that indicates a need for an additional LINAC in the Service Area. FirstHealth contends that if they were to be considered on their own, without Scotland Memorial Hospital, they would demonstrate a need. Nonetheless, the Agency notes the need determination methodology is based on the population and LINAC utilization for all LINACs the service area; it does not determine need by singling out the data of individual facilities.

<sup>1</sup> <https://www.oncologysystems.com/blog/what-is-the-useful-life-of-a-linear-accelerator>

Notwithstanding, in 2022, the State Health Coordinating Council (SHCC) approved another Petition to add a determination for a LINAC at a cancer center in the *2023 SMFP*. The SHCC further established that LINACs are the standard of care at cancer centers. Given that FHC is a cancer center that performs large majority of the total ESTV procedures for Service Area 17, the Agency supports this Petition.

***Agency Recommendation:***

The Agency supports the standard methodology for LINAC equipment in the *Proposed 2024 SMFP*. Given the available information and comments submitted by the August 9, 2023 deadline, and in consideration of factors discussed above, the Agency recommends approval of the Petition to add a need determination for one LINAC in Service Area 17 with the stipulation that it can only be approved for the service area's cancer center.