

**Long Term & Behavioral Health Committee  
Agency Report  
Petition for an Adjusted Need Determination for 40  
Nursing Care Beds in Nash County  
Proposed 2016 State Medical Facilities Plan**

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***Petitioner:***

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***Contact:***

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***Request:***

LifeCare Hospitals of North Carolina (LifeCare) respectfully petitions the State Health Coordinating Council (SHCC) to create an adjusted need determination for 40 additional nursing care beds in Nash County in the *2016 State Medical Facilities Plan*. In order to ensure that the beds do not duplicate services already available in the area, while providing access to the target population, LifeCare suggests that the following language be added to the need determination, if approved:

*In response to a petition from LifeCare Hospitals of North Carolina, the State Health Coordinating Council approved an adjusted need determination for 40 nursing care beds in Nash County. Applicants must demonstrate that the beds will be available to patients in all of the following categories of conditions/needs: ventilator-dependency; tracheostomies; tracheostomies with bi-level positive airway pressure; bariatric status with tracheostomies; bariatric status over 300 pounds; IV antibiotics administered more than once daily; total parenteral nutrition; complex wounds; dialysis; ventilator dependency and/or tracheostomies combined with dialysis. Further, applicants shall not be required to demonstrate that the patient populations they propose to serve in these beds live within any particular distance of the facility.*

***Background Information:***

Chapter Two of the *State Medical Facilities Plan (SMFP)* describes the purpose and process for submitting petitions to amend the *SMFP* during its development. Petitions may be sent to Healthcare Planning twice during the course of plan development. Early in the planning year petitions related to basic *SMFP* policies and methodologies that have a statewide impact may be considered before publication of the *Proposed 2016 SMFP*.

Later in the planning cycle when need projections are complete, petitions can be submitted seeking adjustments to the projected need determination in any service area based on extenuating circumstances if the area believes its needs are not fully addressed by the standard methodology. These petitions are considered before publication of the 2016 SMFP. This petition is seeking an adjusted need determination for 40 nursing care beds in Nash County.

Need is determined by calculating the statewide five-year average use rate per 1,000 population for each of four age groups based on data from annual license renewal applications. The utilization per county is then calculated into a five-year average annual rate of change statewide utilization rate, establishing a trend line per Age Group, projected forward for 30 months, which is then applied to the projected population going forward three years, for each county. The amount of need per county is then established based on the size of the county’s projected surplus or deficit when the projected utilization is compared to the inventory of existing and approved beds.

Included in the basic assumptions (No. 6) of the nursing home bed methodology is the requirement that “when substantial blocks of nursing care beds have been converted to care for head injury or ventilator-dependent patients, the beds will be removed from the inventory” (2015 SMFP, p. 189). This policy was enacted when the current nursing care bed methodology was created in order to encourage nursing care providers to create ventilator beds in their facilities.

The petitioner’s request for 40 beds for medically complex patients is not limited to, but includes patients with both bariatric and/or ventilator needs. Table 1 provides a historical look at the number of beds and facilities willing to provide care for each.

**Table 1: Statewide Totals of Nursing Care Beds: Ventilator and Bariatric, 2011-2015**

License Renewal Application	Ventilator Beds	Bariatric Beds	Number of Facilities Capable of Treating Bariatric Patients
2011	120	3	N/A*
2012	120	N/A*	143
2013	100**	0	163
2014	100**	0	176
2015	90	0	204

Sources: 2011, 2012, 2013, 2104, 2015 License Renewal Applications (LRA)

\*2011 LRA did not ask about bariatric capabilities; 2012 LRA did not include field for bariatric bed category.

\*\*Avante at Charlotte was excluded. The facility had licensed ventilator beds, but were using them as general nursing care beds.

Table 1 demonstrates that the number of ventilator beds has decreased 25% over the five years. Conversely, the number of facilities that have capabilities to treat bariatric patients has steadily

increased from 143 to 204, a 42.7% increase. Of the approximately 413 licensed nursing homes, almost half state they have capability to treat bariatric patients. However, the Nursing Home License Renewal Application does not allow for a data breakdown of the bariatric patients that may need a higher level of care. Thus, a review of the data on patients requiring mechanical ventilation is important.

**Table2: Statewide Locations and Bed Totals for Ventilator Beds, 2015**

Facility	County	Total Ventilator Beds	Total Licensed Beds
Valley Nursing Center	Alexander	49	183
Oak Forest Health and Rehabilitation	Forsyth	18	170
Kindred East	Guilford	23	23
Totals		90	376

Currently, there are a total of 90 ventilator beds in nursing homes statewide. The geographical distribution of these beds is limited to the western region of NC. The last remaining facility with ventilator beds in the east, Vidant Pungo Hospital, closed in 2014. Nash County is located in the eastern region of NC.

**Analysis/Implications:**

Carson, et al. (2006) in the article entitled, *The Changing Epidemiology of Mechanical Ventilation: A Population-Based Study*, utilized hospital discharge data from all NC hospitals, excluding federal and psychiatric, from 1996 to 2002 to determine how the rates of ventilator patients has changed over time. The research shows an 11% increase in the incidence of mechanical ventilation during the 7 years studied.<sup>1</sup> The most current incidence calculated for 2002 data, is 314 patients per 100,000 (18 and older population).<sup>2</sup> Assuming a continued minimum of 11% growth from 2003 to present, an estimated rate of 349 patients per 100,000 population is derived. This rate can be used to estimate the current number of ventilator patients in NC. Table 1 below provides a summary of this calculation.

**Table 1: Projected Number of Patients Requiring Ventilator Beds, 2015**

Projected Population July 2015	Number of Ventilator Patients based on 349 per 100,000 Rate
7,753,766	27,061

Source: Office of State Budget and Management

Furthermore, the research performed by Carson, et al. (2006) found the median length of stay (LOS) for ventilator patients was 9 days, and the percentage of patients discharged from the acute care hospital to nursing homes and another other type hospitals (rehabilitation and long term care hospitals), to be 10.7% and 8% respectively. Applying these data assumptions to the number of ventilator patients calculated from Table 2 provides the opportunity to determine the estimated number of beds needed.

**Table 3: Projected Number of Beds for Ventilator Patients**

	<b>Total Estimated Patients Discharges, 2002</b>	<b>NC Discharge Percentages, 2002</b>	<b>Estimated Number of Patients Per Discharge Category</b>	<b>Estimated Patient Days (LOS 9)</b>	<b>Estimated Number of Beds</b>
Skilled Nursing Facility	27,601	10.70%	2,953	26,580	73
Another Type of Hospital*	27,601	8%	2,208	19,873	54
Totals			5,161	46,452	127

Table 3 above applies the median, 9 LOS, days to the number of patient for each category. The estimated patient days is then divided by 365 to obtain the number of beds. A total of 127 beds is calculated given the assumptions in the available data. If the 90 existing beds are subtracted from 127, the result is 37 beds, just three beds lower than requested in the petition.

***Agency Recommendation:***

The petitioner requests an adjusted need determination for 40 nursing care beds exclusive for medically complex patients. As discussed above, the eastern region of NC does not currently have beds licensed specifically for patients requiring special care such as mechanical ventilation. Nash County, due to its geographical location, would provide greater access to these specialized beds for patients from the eastern region. The Agency weighed all available information submitted by the August 14, 2015 deadline date for comments on petitions and comments. In consideration of the factors discussed above, the Agency recommends that the petition for an adjusted need determination be approved with the following qualifying language for *Table 10C: Nursing Care Bed Need Determinations*:

*In response to a petition, the State Health Coordinating Council approved the adjusted need determination for 40 additional nursing care beds for Nash County. Applicants must demonstrate these beds will be limited to patients who, upon admission, have the following conditions/needs: ventilator-dependency; tracheostomies; tracheostomies with bi-level positive airway pressure; bariatric status with tracheostomies; bariatric status over 300 pounds; IV antibiotics administered more than once daily; total parenteral nutrition; complex wounds; dialysis; ventilator dependency and/or tracheostomies combined with dialysis.*

<sup>1,2</sup>Carson, S. S., Cox, C. E., Holmes, G. M., Howard, A., & Carey, T. S. (2006). The Changing Epidemiology of Mechanical Ventilation: A Population-Based Study. *Journal of Intensive Care Medicine*, 21, 173-182.