

**Long-Term Behavioral Health Committee
Agency Report
Adjusted Need Petition for
Hospice Inpatient Bed Need Determinations
Proposed 2016 State Medical Facilities Plan**

Petitioner:

Hospice of Davidson County
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Request:

Hospice of Davidson County (HDC) requests an adjusted need determination for four hospice inpatient beds to be added in Davidson County to the *North Carolina 2016 State Medical Facilities Plan (SMFP)*.

Background Information:

In March 2015, the Association for Home & Hospice Care of North Carolina (AHHHC) and The Carolinas Center (TCC), (*formerly The Carolina Center for Hospice and End of Life Care*), petitioned the State Health Coordinating Council (SHCC) requesting “to modify Step 7 of the hospice inpatient bed need methodology to reflect the two-year trailing average statewide inpatient utilization rate, rather than the static 6 percent current in the methodology.”

When the spring petition was submitted, the current hospice inpatient bed methodology utilized projected hospice days of care, calculated by multiplying projected hospice admissions by the lower of the statewide median average length of stay or the actual average length of stay for each county. Projected hospice admissions were determined by the application of the two-year trailing average growth rate in the number of admissions served to current admissions. Inpatient days as a percent of total days of care were determined to be approximately 6 percent based on statewide inpatient days as a percent of total days of care.

The data in Table 1 below shows inpatient days of care from inpatient facilities only.

Table 1: North Carolina Hospice Inpatient Utilization

SMFP Year	GIP (General Inpatient) DOC (Days of Care)* from Inpatient Facilities	Statewide Hospice DOC*	GIP Percent of Total Days
2011	68,721	2,650,416	2.59
2012	84,168	2,874,121	2.93
2013	94,798	2,915,218	3.25
2014	104,046	2,978,152	3.49
2015	107,024	2,975,809	3.60

Source: FY2010 - FY2014 Hospice Annual Data Supplements to License Renewal Applications.

**Data was refreshed since the publication of the State Medical Facilities Plans (SMFP).*

The spring petition suggested modifying Step 7 of the hospice inpatient bed need methodology to reflect a two-year trailing average statewide inpatient utilization rate using statewide inpatient days of care. Step 7 of the standard hospice inpatient bed methodology (*at the time*) used a static 6 percent to project hospice days of care and inpatient days of care for each county.

The spring petition identified national and statewide trends in hospice inpatient utilization as reasons for modifying the hospice inpatient bed need methodology. Data provided in the spring petition stated, "...inpatient days of care represented approximately 3.98 percent of total hospice days in North Carolina." While the Agency was not able to match the figures presented in the spring petition, we were able to verify a statewide hospice inpatient utilization rate lower than 6 percent consistently for the last five years as depicted in Table 2 below.

Table 2: North Carolina Hospice Inpatient Utilization

SMFP Year	Statewide GIP (General Inpatient) DOC (Days of Care)* from all types of Facilities	Statewide Hospice DOC*	Statewide GIP Percent of Total Days
2011	91,262	2,650,416	3.44
2012	100,683	2,874,121	3.50
2013	102,699	2,915,218	3.52
2014	116,278	2,978,152	3.90
2015	123,792	2,975,809	4.16

Source: FY2010 - FY2014 Hospice Annual Data Supplements to License Renewal Applications.

**Data was refreshed since the publication of the State Medical Facilities Plans (SMFP).*

Furthermore, the spring petition stated a two-year trailing average more accurately reflects industry trends as they happen. At the time, 6 percent was the most appropriate figure to use, but it was no longer supported by the data.

In response to the spring petition submitted by the hospice industry, on June 2, 2015 based on the recommendation of the Long-Term and Behavioral Health Committee, the State Health Coordinating Council revised the hospice inpatient bed need methodology by modifying Step 7 to reflect a two-year trailing average statewide inpatient utilization rate.

The current hospice methodology uses projected hospice days of care, calculated by multiplying projected hospice admissions by the lower of the statewide median average length of stay or the actual average length of stay for each county. Projected hospice admissions are determined by the application of a two-year trailing average growth rate in the number of admissions served to current admissions. A two-year trailing average statewide inpatient utilization rate of the total estimated days of care in each county is used as a basis for estimating days of care in licensed inpatient hospice facility beds.

The hospice inpatient methodology projects inpatient beds based on 85 percent occupancy and adjusts projected beds for occupancy rates of existing facilities that are not at 85 percent occupancy. The methodology makes single-county determinations when the county deficit is six or more beds based on the standard methodology.

Chapter Two of the *North Carolina Proposed 2016 SMFP* allows persons to petition in consideration of "...unique or special attributes or a particular geographic area or institution..." if they believe their needs are not appropriately addressed by the standard methodology. HDC is requesting four new hospice inpatient beds in addition to their existing licensed beds.

It should be noted that any person might submit a certificate of need (CON) application for a need determination in the *Plan*. Therefore, should there be additional need determinations in the *2016 SMFP*, the CON review could be competitive and there is no guarantee that the petitioner would be the approved applicant.

Analysis/Implications:

HDC requests an adjusted need determination for four hospice inpatient beds for Davidson County in the *2016 SMFP*. HDC has provided hospice services in Davidson County for 30 years. It operates the county's only inpatient hospice facility, Hinkle Hospice House that is comprised of eight hospice inpatient beds and four residential beds. Based on the Hospice 2015 Annual Data Supplement to the License Renewal Application information (FY2014), the inpatient facility occupancy rate for Hinkle Hospice House is 83.08 percent.

Table 3: Proposed 2016 SMFP Table 13C, Davidson County

Table 13C: Year 2019 Hospice Inpatient Bed Need Projections - Davidson County - Proposed 2016 SMFP														
Column A	Column B	Column C	Column D	Column E	Column F	Column G	Column H	Column I	Column J	Column K	Column L	Column M	Column N	Column O
County	Total Admissions (2014 Data)	Total Days of Care (2014 Data)	ALOS per Admission	Total 2019 Admissions	2019 Days of Care at County ALOS	2019 Days of Care at Statewide ALOS	Projected 2019 Days of Care for Inpatient Estimates	Projected Inpatient Days	Projected Total Inpatient Beds	Currently Licensed Beds	CON Approved / License Pending / Previous Need Determinations	Adjusted Projected Beds	Existing Facility Occupancy Rate	Deficit / Surplus for Facilities not at 85% Occupancy
Source or Formula	2015 License Data Supplement	2015 License Data Supplement	Col. C / Col. B	Col. B x 5 Years Growth (2.0 %) Annually	Col. D x Col. E	Col. E x Statewide Median ALOS per Admission (76.2)	Lower # of Days of Care between Col. F and Col. G	Col. H x 3.94%	(Col. I/365) /85%	License Inventory		Col. J - (Col. K + Col. L)	2015 Licensure Data Supplement	
Davidson	812	47,170	58.09	897	52,079	68,314	52,079	2,047	7	8	0	-1	83.08%	-1

Source: Proposed 2016 SMFP

Note: A negative number in Column O indicates a surplus of hospice inpatient beds.

By application of the standard methodology, the *Proposed 2016 SMFP* identified a surplus of one hospice inpatient bed in Davidson County and no need determinations for new hospice inpatient beds anywhere in the state.

Table 4 below is an overview of Table 13C that highlights the changes requested by the petitioner. Columns E, I and N represent the steps in the methodology where the changes take place. The three major changes to the methodology requested by the petitioner include changes to Step 5, Step 7, and Step 11.

Table 4: Petitioner's Requested Changes

Table 13C: Year 2019 Hospice Inpatient Bed Need Projections for Davidson County - Proposed 2016 SMFP Using County-based Two-Year Trailing Average Growth Rate for Hospice Admissions (5.1%) & County-based GIP Utilization Rate (6.4%)														
Column A	Column B	Column C	Column D	Column E	Column F	Column G	Column H	Column I	Column J	Column K	Column L	Column M	Column N	Column O
County	Total Admissions (2014 Data)	Total Days of Care (2014 Data)	ALOS per Admission	Total 2019 Admissions County-based Two-Year Trailing Average Growth Rate (5.1%) for Five Years	2019 Days of Care at County ALOS	2019 Days of Care at Statewide ALOS	Projected 2019 Days of Care for Inpatient Estimates	Projected Inpatient Days	Projected Total Inpatient Beds	Currently Licensed Beds	CON Approved / License Pending / Previous Need Determinations	Adjusted Projected Beds	Existing Facility Occupancy Rate	Deficit / Surplus for Facilities not at 85% Occupancy
Source or Formula	2015 License Data Supplement	2015 License Data Supplement	Col. C / Col. B	Col. B x 5 Years Growth at 5.1 %	Col. D x Col. E	Col. E x Statewide Median ALOS per Admission (76.2)	Lower # of Days of Care between Col. F and Col. G	Col. H x 6.4%	(Col. I/365) /85%	License Inventory		Col. J - (Col. K + Col. L)	2015 Licensure Data Supplement	
Davidson	812	47,170	58.09	1042	60,511	79,375	60,511	3,882	13	8	0	5	83.08%	5

Source: Petition for Adjusted Need Determination, Davidson County Hospice Inpatient Beds

Note: A negative number in Column O indicates a surplus of hospice inpatient beds.

Step 5: Hospice Admissions

Column E is representative of Step 5 in the methodology. This is one area where the requested change has the greatest impact. The difference in Column E between Table 3 and Table 4 is 145 patient admissions projected for 2019.

A review of the data for Davidson County is important in order to see the overall change in admissions over time.

Table 5: Change Rate of Davidson County Admissions

Davidson County		
SMFP	Admissions	Annual Change Rate
2010	491	
2011	567	15.48%
2012	618	8.99%
2013	685	10.84%
2014	735	7.30%
2015	734	-0.14%
Proposed 2016	812	10.63%

Source: 2010 – 2015 SMFPs; Proposed 2016 SMFP

Table 5 above demonstrates the change in admissions in Davidson County over the last seven years, ranging from 15.48 percent to -0.14 percent. In order to calculate the two-year trailing average for admissions, each annual change is included the calculation. A summary of the two-year trailing averages for Davidson County is outlined in Table 6 below.

Table 6: Two-Year Trailing Average for Admissions – Davidson County

	2010-2012 SMFP	2011-2013 SMFP	2011-2013 SMFP	2013-2015 SMFP	2015-Proposed 2016 SMFP
Year 1	15.48%	8.99%	10.84%	7.30%	-0.14%
Year 2	8.99%	10.84%	7.30%	-0.14%	10.63%
Two-Year Trailing Average	12.24%	9.92%	9.07%	3.58%	5.25%

Source: 2010 – 2015 SMFPs; Proposed 2016 SMFP

As seen in Table 6, above, the two-year trailing average of admissions for Davidson County, similar to the annual changes from Table 5, shows variability. The data shows a general declining trend with a significant drop from the 2012-2014 two-year trailing average to the 2013-2015; from over 9 percent to approximately 3.5 percent.

A comparison of Davidson County's change to the statewide change is presented in Table 7. In all but one year, Davidson County's data is greater than the statewide numbers. Conversely, the statewide data shows less variability. Furthermore, in general both are trending downward.

Table 7: Historical Change in Two-Year Trailing Average for Admissions*

	2010-2012 SMFP	2011-2013 SMFP	2012-2014 SMFP	2013-2015 SMFP	2015-Proposed 2016 SMFP
Davidson County	12.24%	9.92%	9.07%	3.58%	5.25%
Statewide	4.40%	7.60%	5.30%	3.00%	2.00%

Source: 2010 – 2015 SMFPs; Proposed 2016 SMFP

**Note: The petition calculates the two-year trailing average using a compound annual growth rate. The methodology calculates the two-year trailing growth rate by averaging the two annual change rates. Thus, there exists slight differences in the calculations between the report and the petition.*

The summer petition states using the county two-year trailing admission as compared to the statewide rate is preferable, because it more accurately reflects what is happening in the county. However, county level data is more susceptible to data fluctuations.

Step 7: Hospice Inpatient Utilization

The second major change requested in the petition is in Step 7, or Column I in Table 4. The summer petition calculates Step 7 using a county-based two-year trailing average inpatient utilization rate rather than the statewide utilization rate. As discussed in the background portion of this report, the industry workgroup and the SHCC both agreed to change the rate used in Step 7. The prior rate was a flat 6 percent and with the modification to the methodology will be calculated using a more flexible two-year trailing average. Again the summer petition considers the county rate as preferable to the state calculation. The prior petition in the spring discussed a downward trend in inpatient days of care both statewide and nationally. Using the GIP days of care data shows that Davidson County has a compound annual growth rate of 1.11% percent as shown in Table 8 below:

Table 8: Davidson County GIP and Compound Growth Rate

2012 SMFP	2013 SMFP	2014 SMFP	2015 SMFP	Proposed 2016 SMFP	Compound Annual Growth Rate
2,397	2,509	2,406	2,314	2,505	1.11%

Source: 2012 – 2015 SMFPs; Proposed 2016 SMFP

As evidenced by the historical data, the number of days of care has not significantly changed over the last five years. The current methodology calculates a statewide two-year trailing average inpatient utilization rate of 3.94 percent. Table 9 below shows the same calculation in Davidson County and calculates a 4.63 percent two-year trailing average. This calculation is based only on the patients being served in Davidson County, which is a computation that is aligned with the current methodology. Conversely, the summer petition calculates a two-year trailing inpatient utilization rate of 6.4 percent using all of the inpatient days for all Davidson County patients being served both within and outside of Davidson County, a change from the current methodology.

Table 9: Two-Year Trailing Average Inpatient Utilization, Davidson County

	GIP Days	Total Days of Care
2015 SMFP	2,314	51,799
Proposed 2016	2,505	52,375
Totals	4,819	104,174
Two-Year Trailing Average	4.63%	

Source: 2015 SMFP; Proposed 2016 SMFP

Using the county two-year trailing utilization average from Table 9 above (4.63%) results in 2,411 projected inpatient bed days, eight projected total inpatient beds and zero deficit/surplus, instead of a deficit of 5 as shown in Table 10 below. The zero deficit/surplus is indicative of no need for inpatient beds in Davidson County.

Table 10: Petitioner's Recommended Two-Year Trailing Average Rate for Admissions

Table 13C: Year 2019 Hospice Inpatient Bed Need Projections - Davidson County - Proposed 2016 SMFP														
Column A	Column B	Column C	Column D	Column E	Column F	Column G	Column H	Column I	Column J	Column K	Column L	Column M	Column N	Column O
County	Total Admissions (2014 Data)	Total Days of Care (2014 Data)	ALOS per Admission	Total 2019 Admissions	2019 Days of Care at County ALOS	2019 Days of Care at Statewide ALOS	Projected 2019 Days of Care for Inpatient Estimates	Projected Inpatient Days	Projected Total Inpatient Beds	Currently Licensed Beds	CON Approved / License Pending / Previous Need Determinations	Adjusted Projected Beds	Existing Facility Occupancy Rate	Deficit / Surplus for Facilities not at 85% Occupancy
Source or Formula	2015 License Data Supplement	2015 License Data Supplement	Col. C / Col. B	Col. B x 5 Years Growth (2.0 %) Annually	Col. D x Col. E	Col. E x Statewide Median ALOS per Admission (76.2)	Lower # of Days of Care between Col. F and Col. G	Col. H x 4.63%	(Col. I/365) /85%	License Inventory		Col. J - (Col. K + Col. L)	2015 Licensure Data Supplement	
Davidson	812	47,170	58.09	897	52,079	68,314	52,079	2,411	8	8	0	0	83.08%	0

Source: Proposed 2016 SMFP

Note: A negative number in Column O indicates a surplus of hospice inpatient beds

Step 11: 85 Percent Occupancy Rate

Once the petitioner's proposed changes are applied, a 5-bed deficit is calculated, as opposed to the 1-bed surplus originally calculated by the current methodology. Please note that a 5-bed deficit is not enough to generate a bed need. According to the next steps in the methodology, the need is not triggered unless there is a deficit and an 85 percent occupancy. It is in this last step, where the summer petition proposes another alteration.

The summer petition proposes a different occupancy calculation for Step 11, or Column N of Table 4. The methodology currently calculates the occupancy based on the days of care in the inpatient beds in the facility as reported on the hospice data supplement. The summer petition is requesting the occupancy rate be calculated using all days of care in all settings as reported on the hospice data supplement, including days of care not normally included in the methodology, such as respite days.

Agency Recommendation:

The agency supports the standard methodology for hospice inpatient beds as presented in the *North Carolina Proposed 2016 SMFP*. Davidson County does have a few unique attributes as discussed above, but the request includes numerous and substantial modifications to the standard methodology. Given that the industry stakeholders petitioned the SHCC and were approved for a methodology change in the spring of 2015, the Agency suggests allowing time to see the effects of the new methodology. The Agency considered the available information and comments submitted by the August 14, 2015 deadline date for comments on petitions and comments and recommends denial of the summer petition.