

Crystal Coast  
**HOSPICE**  
HOUSE

**PETITION FOR AN ADJUSTED NEED DETERMINATION FOR SIX  
HOSPICE INPATIENT BEDS FOR CARTERET COUNTY**

**Petitioner:**

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DPS Health Planning  
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AUG 02 2010

Medical Facilities  
PLANNING SECTION

**Requested Adjustment**

Crystal Coast Hospice House (CCHH) seeks to provide comprehensive hospice care for terminally ill patients in Carteret County, and *petitions for an adjusted need determination for six hospice inpatient beds in Carteret County in the 2011 State Medical Facilities Plan (SMFP).*

**Reasons Supporting Requested Adjustment:**

The Proposed 2011 SMFP concludes there is no need determination for hospice inpatient beds for Carteret County. However, the methodology included in the SMFP projects a deficit of five hospice inpatient beds in Carteret County, as summarized in the table on the following page.

### Hospice Inpatient Bed Need Methodology Proposed 2011 SMFP

Carteret County	
Total Days of Care (2009 data)	21,582
Total 2014 Admissions	319
Projected Hospice Days of Care	26,384
Projected Inpatient Days	1,443
<b>Projected Inpatient Bed Deficit</b>	<b>5</b>

Source: Proposed 2011 SMFP

As described in the Proposed 2011 SMFP, the State's current hospice inpatient bed need determination methodology is based on a six-bed deficit threshold for single counties in order to trigger a need for inpatient hospice beds. However, a statement has been inserted at the end of the Standard Methodology to bring to the attention of Plan readers that petitions may be submitted for adjusted need determinations. The methodology reads:

*"The Long-Term and Behavioral Health Committee and the State Health Coordinating Council will consider petitions for adjusted need determinations that are filed in accordance with provisions outlined in Chapter 2 of the Plan."*

Approval of this petition will provide CCHH, and any other potential provider, the opportunity to submit a Certificate of Need (CON) application during 2011 to develop six hospice inpatient beds in Carteret County.

CCHH justifies the proposed hospice inpatient bed adjusted need determination based on several factors, including:

- Travel from Carteret County to existing eastern North Carolina hospice inpatient facilities is disruptive, expensive, and time-consuming for local residents. Carteret County is a remote county, with unique geography. Family members of local patients who are in need of hospice inpatient care would benefit from receiving care in a setting that is close to home.
- Carteret County's Hospice Days of Care and Deaths are increasing at considerably faster rates compared to the State as a whole.
- The population in Carteret County is continuing to both increase and age, with growing need for local hospice inpatient service.

- Capacity of eastern North Carolina hospice inpatient facilities is limited, and is often at or near capacity.
- Community support for hospice inpatient beds in Carteret County is extremely strong.

## **Background**

Crystal Coast Hospice House was founded in 2008 by a group of compassionate volunteers who recognized the critical need for a hospice inpatient facility in Carteret County. The Board of Directors is dedicated to begin fund raising efforts and continue to raise public awareness to build this much needed facility. Crystal Coast Hospice House has a mission to provide end-of-life care and emotional support for both patients and families residing in Carteret County. An inpatient hospice house will provide a serene homelike setting for hospice patients who do not have a caregiver, or whose family is not able to care for them at home. With a hospice inpatient facility, an experienced interdisciplinary team of professionals, CCHH envisions providing patient centered, family focused, compassionate, quality care to local residents facing any terminal illness. The Crystal Coast Hospice House mission is to give hospice patients in Carteret County a place of solace, comfort, pain management, quality care, and dignity with in a home like environment.

The detailed rationale for the requested adjustment to the need determination is described below.

## **Geographic Need**

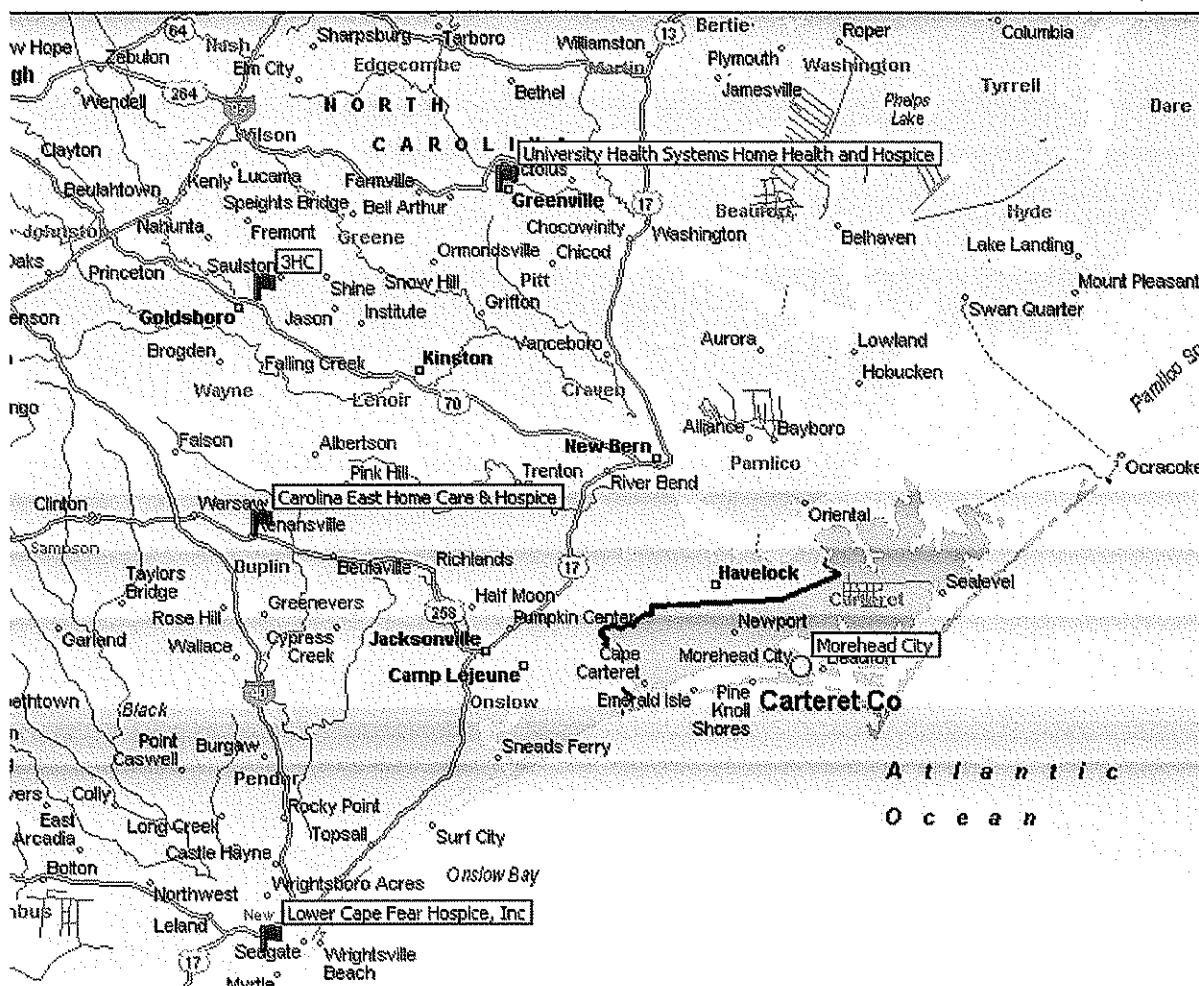
Carteret County, bordered on the north by the Pamlico Sound and east and south by the Atlantic Ocean, is defined by water. The county stretches over 526 square miles of land along the North Carolina coast. With many parts of the county separated by bodies of water, it is difficult for residents to travel easily and quickly throughout the county. There are no interstates that run through Carteret County and U.S. Highway 70 serves as the only main corridor which runs east to the Atlantic coast and west toward Raleigh. The closest interstate highway (I-40) is located 63 miles away, and the closest airport is located in New Bern, which is over 30 miles away<sup>1</sup>. With many areas of Carteret County being

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<sup>1</sup> Carteret County 2009 Community Health Assessment

geographically isolated, traveling long distances away from home can be challenging and time-consuming for local residents.

Currently, Carteret County does not host a hospice inpatient facility. Hospice patients in need of inpatient services must be referred to out-of-county facilities. Travel time for family members visiting their loved ones in out-of-county hospice facilities can be very long, especially while driving through a geographically isolated county. The map below illustrates the location of Morehead City in Carteret County, and shows its relative distance from existing hospice inpatient facilities in eastern North Carolina.



The closest hospice inpatient facilities are located in Greenville (Pitt County) and Kenansville (Duplin County). These facilities are over an hour and a half away from Morehead City, the county seat, which is located centrally within Carteret County. In addition, each facility is 2 1/2 hours away from Cedar Island, a

coastal community located on the eastern tip of Carteret County. The other two facilities, located in Wilmington and Goldsboro, are located even further away. Furthermore, the Kenansville facility is typically not a viable option for Carteret County residents, as it only has three licensed hospice inpatient beds, which are used primarily by Duplin County residents. Please refer to the following table.

### Drive Times to Regional Hospice Inpatient Facilities

Facility	County	Drive Time	
		Morehead City	Cedar Island
University Health Systems Home Health & Hospice	Pitt	1.68 hrs	2.52 hrs
Carolina East Home Care and Hospice	Duplin	1.70 hrs	2.53 hrs
3HC/Kitty Askins Hospice Center	Wayne	1.72 hrs	2.55 hrs
Lower Cape Fear Hospice	New Hanover	1.92 hrs	2.75 hrs

Source: Google Maps

Geographic access to hospice inpatient services is particularly important for hospice patients. Family members and friends often visit patients on a daily basis because of the dire conditions of the inpatients during the final days of their lives. Travel is disruptive, expensive and time consuming for these families who must travel out of county long distances to visit their loved ones. Family stress is already high when dealing with a terminally ill family member, and the long travel distance from home simply increases this stress.

In summary, six hospice inpatient beds located in Carteret County would greatly improve geographic access to hospice services for local citizens. Residents of Carteret County will have reasonable access to much needed end-of-life services.

### Hospice Utilization

Residents of Carteret County and their physicians recognize the valuable benefits of hospice services. As a result, hospice services are well utilized in Carteret County. The 2011 SMFP shows Carteret County has a higher number of hospice care days per 1,000 population compared to many counties in the surrounding area. Please refer to the table on the following page.

**FY2009 Hospice Days of Care per 1,000 Population**

Area	2009 Pop	2009 Days of Care	Days of Care/1000
Carteret County	64,724	21,582	333.4
New Hanover	194,099	63,221	325.7
Pender	53,107	16,955	319.3
Pamlico	12,842	3,280	255.4
Onslow	179,447	18,878	105.2
<i>North Carolina</i>	<i>9,382,610</i>	<i>2,650,416</i>	<i>282.5</i>

Source: Proposed 2011 SMFP, NC Office of State Budget & Management

Carteret County residents utilize hospice services at a greater rate than neighboring coastal counties. In addition, Carteret County residents utilize hospice services much more than the North Carolina average. These are clear indications that hospice is an important and highly utilized service for residents of Carteret County.

Furthermore, in recent years, Carteret County has also experienced significant growth in days of hospice home care, deaths, and admissions as shown in the tables below.

**Historical Days of Care - Carteret County**

Year	Days of Care	Deaths	Admissions
2004	5,477	139	150
2005	8,846	144	171
2006	14,052	151	214
2007	18,736	187	246
2008	20,724	212	275
2009	21,582	214	261
<b>% Increase from 2004</b>	<b>294.0%</b>	<b>54.0%</b>	<b>74.0%</b>

**Historical Days of Care - North Carolina**

Year	Days of Care	Deaths	Admissions
2004	1,719,577	18,750	22,529
2005	2,007,422	21,005	25,805
2006	2,462,776	22,653	28,666
2007	2,691,536	24,897	30,838
2008	2,679,306	26,353	32,509
2009	2,650,416	27,533	33,460
<b>% Increase from 2004</b>	<b>54.1%</b>	<b>46.8%</b>	<b>48.5%</b>

Source: 2006-2010 SMFP, Proposed 2011 SMFP

The most recent growth rates for days of care in Carteret County were almost four times greater than the growth rates for days of care experienced by the State. Furthermore, in recent years the increase in hospice deaths and admissions for Carteret County is significantly higher than the state average. Based on projected population growth and aging, hospice utilization is likely to continue to increase in Carteret County.

The percentage of county deaths served by hospice serves as an indicator of utilization of hospice services by county residents. During the past six years, the percentage of total Carteret County deaths served by hospice has risen at a compound annual growth rate of 16.2%. Please refer to the following table.

**2003-2008 Percent of Deaths Served by Hospice Carteret County**

	2003	2004	2005	2006	2007	2008	03-08 CAGR
Population	60,581	61,644	62,545	63,570	63,373	63,927	1.08%
Total Deaths	757	679	691	677	638	728	-0.78%
Hospice Patient Deaths	104	139	144	151	187	212	15.31%
<b>% of Total Deaths Served by Hospice</b>	<b>13.7%</b>	<b>20.5%</b>	<b>20.8%</b>	<b>22.3%</b>	<b>29.3%</b>	<b>29.1%</b>	<b>16.21%</b>

Source: The Carolinas Center for Hospice and End of Life Care

The high and increasing percentage of deaths served by hospice in Carteret County is further evidence of the growing local demand for hospice inpatient services.

## Demographics

### *Population Growth*

The increase in hospice days of care and deaths served by hospice in Carteret County can be attributed to the county's rapidly aging population. As shown in the table below, Carteret County has a significantly older population compared to the State. This demographic factor is projected to increase significantly in the next four years.

### Projected Population Age 65+ 2010-2015

	2010	% of Total	2015	% of Total
Carteret County	14,354	22.0%	17,061	24.8%
North Carolina	1,218,525	12.8%	1,431,555	14.0%

Source: NC Office of State Budget & Management

The population age 65 and older makes up a very significant portion of Carteret County's total population as compared to the State overall. The Carteret County population age 65 and older is projected to increase 18.9% during the next five years. This is more than three times faster than the overall growth of the county, which is projected to increase by 5.1% during the next five years. Notably, the growth in population age 65 and older represents more than 80% of the absolute population increase in Carteret County during the next five years. Please refer to the following table.

### Carteret County 2010-2015 Projected Population

	2010	2011	2012	2013	2014	2015	10-15 Growth	Absolute Growth
Total Population	65,388	66,055	66,717	67,384	68,049	68,714	5.1%	3,326
Population Age 65+	14,354	14,813	15,430	16,031	16,552	17,061	18.9%	2,707

Source: NC Office of State Budget & Management

The growth of aged residents in Carteret County is important to note because according to the National Hospice and Palliative Care Organization (NHPCO), over



80% of hospice patients are age 65 and older<sup>2</sup>. Additionally, NHPCO expects the number of hospice patients within this age cohort to increase in the future.

*Disease Incidence*

Hospice use is higher for diseases that impose a high burden on caregivers. According to the NHPCO, cancer diagnoses account for 38.3% of all US hospice admissions. As documented in the table below, between 2003 and 2007 Carteret County had a significantly higher cancer incidence rate for the population age 65 and older, compared to North Carolina.

**2003-2007 Age Adjusted and Age Specific Cancer Incidence in Carteret County**

	All Age Groups	65+
	Age Adjusted Rates per 100,000	Age Specific Rates per 100,000
Carteret County	538.0	2,415.1
North Carolina	487.0	2,139.7

Source: North Carolina State Center for Health Statistics

Given that cancer is the most common diagnosis for hospice patients, Carteret County will continue to demonstrate a great need for hospice inpatient services.

In summary, as the Carteret County population continues to increase and age, the need for hospice inpatient services will continue to increase. Locating a hospice inpatient facility in Carteret County will clearly help meet current and future demand for residents of Carteret County, since these patients currently have no convenient access to hospice inpatient services in their local communities.

**Hospice Inpatient Bed Need**

As previously described, both the aging population and the rates at which Carteret residents utilize hospice services are growing at faster rates compared to the State. Not surprisingly, Carteret County has experienced a trending need for hospice inpatient beds, as documented in recent SMFPs. Over the past three

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<sup>2</sup> National Hospice and Palliative Care Organization Facts and Figures: Hospice Care in America. October 2008.

years, Carteret County has seen the deficit of inpatient hospice beds (as calculated in the annual hospice inpatient bed need methodology) steadily increase, indicating a growing local need for inpatient beds. Please refer to the table below.

**Deficit of Hospice Inpatient Beds in Carteret County**

SMFP	Projected Inpatient Bed Deficit
2007	2
2008	4
2009	5
2010	5
2011	5

Source: 2007-2010 SMFP, Proposed 2011 SMFP

Clearly, special circumstances exist in Carteret County with regard to utilization of hospice services that necessitate the need for six hospice inpatient beds. The projected inpatient bed deficit in Carteret County has been 5 for three years, and will soon increase to 6 and beyond.

For several reasons, CCHH is petitioning for an adjusted need determination of six beds. First, the SMFP standard methodology discounts the actual need for beds in Carteret County. In the standard methodology, the State projects 2014 days of care based on using the ALOS from either the county or the State, whichever is lower. In the case of Carteret County, the historical ALOS of 82.7 days is higher than the State average of 75.4 days. Therefore, the standard methodology only projects 24,052 days of care, which is significantly lower than the more likely projected 26,384 days of care. This larger total is based on Carteret County's historical ALOS, which is more relevant and appropriate than the broader State-wide ALOS. If the Carteret County ALOS is used, as CCHH recommends, the resulting total projected inpatient bed need would exceed 5 ( $26,384 * 6\% = 1,583 / 365 / .85 = 5.1$ ).

Another reason for petitioning for six beds is economics. An inpatient facility with six beds operates with greater economies of scale. In today's healthcare environment, which features great emphasis on minimizing the cost of care, this will be a tremendous benefit. All factors discussed in this petition demonstrate that six beds will be well-utilized by Carteret residents.

### **Existing Hospice Providers**

Carteret County residents do not have local access to hospice inpatient services. As stated previously, Carteret County residents have very limited access to hospice inpatient facilities in other eastern North Carolina counties. Two of these hospice inpatient facilities are operating near or above practical capacity. Please refer to the table below.

**Eastern North Carolina Hospice Inpatient Facility Occupancy Rates  
FY2008**

Provider	County	Occupancy Rate
Lower Cape Fear Hospice House	New Hanover	96.12%
3HC/ Kitty Askins Hospice Center	Wayne	102.65%

Source: Proposed 2011 SMFP

Clearly, there is only limited access for Carteret County residents at these regional hospice inpatient facilities. When hospice inpatient services are not available to Carteret County residents, patients are often admitted to local hospitals or nursing homes. However, while these providers strive to offer the best for their patients, neither hospitals nor nursing facilities are appropriate settings for hospice patients who have opted to forego acute, curative treatments. Rather, these facilities are structured primarily to provide acute or restorative health care. This is not hospice care. Also, the cost of providing such care in a hospital setting is also more expensive and less cost effective compared to care administered in a smaller, single-purpose hospice inpatient facility. An adjusted need determination for six additional hospice inpatient beds will ensure Carteret County residents local access to end-of-life care that is both cost effective and designed specifically for these patients.

### **Community Support**

Community support for hospice inpatient beds in Carteret County is extremely positive. For example, CCHH has already contacted regional hospice agencies

that also provide hospice services to residents of Carteret County to notify them of this petition. CCHH received letters of support from Hospice of Carteret County, Liberty Hospice Services, and Community Home Care & Hospice. These hospice providers know of the great need for local access to hospice inpatient services for residents of Carteret County.

In addition, CCHH has received numerous letters from the hospital, local physicians, government agencies, community leaders, and local churches. All express their strong support for the proposed project in Carteret County. These organizations and individuals understand the great local demand for end-of-life services, and recognize the need for improved access to hospice inpatient services in Carteret County. The following have expressed support of CCHH (the letters are attached to this petition):

- Carteret General Hospital
- Carteret Internal Medicine & Cardiology Center, Inc.
- RAAB Oncology Clinic
- Carteret Medical Specialists
- Carteret Surgical Associates
- Carteret Geriatrics
- Harborview Health Care Center
- Carteret County Board of Commissioners
- Carteret County Health Department
- Carteret County Chamber of Commerce
- Morehead City Mayor Gerald A. Jones, Jr.
- Representatives of the North Carolina General Assembly
- Carteret County Veterans Services
- Carteret County Economic Development Council
- Crystal Coast Tourism Development Authority
- Open Door Baptist Church
- Allsaints Anglican Church
- First United Methodist Church
- First Baptist Church
- Clancy & Theys Construction Company
- Parker Marine Enterprises, Inc.
- Carolina Ocean Lines
- Big Rock Sports

### **Historical SHCC Need Determinations**

The State Health Coordinating Council has a long and consistent history of granting adjusted need determinations for hospice inpatient beds when improvements to local access, quality, and costs are apparent. The following table summarizes recently approved SHCC adjusted need determinations.

**Recently Approved Adjusted Hospice Bed Need Determinations**

<i>SMFP</i>	<i>County</i>	<i>Need Determination</i>
2010	Alexander	3
2010	Buncombe	5
2009	Scotland	2
2008	Cleveland	4
2008	Johnston	4
2007	Caldwell	3
2007	Scotland	4
2007	Alamance	2
2006	Macon	3
2006	Davidson	4

As the table above shows, the SHCC has established a precedent for including need determinations when expanded capacity of hospice inpatient services is necessary and offers the benefits of access, quality, and value to local residents. As described below, CCHH is confident the proposed adjusted need determination for Carteret County is consistent with the Basic Principles of the State health planning process.

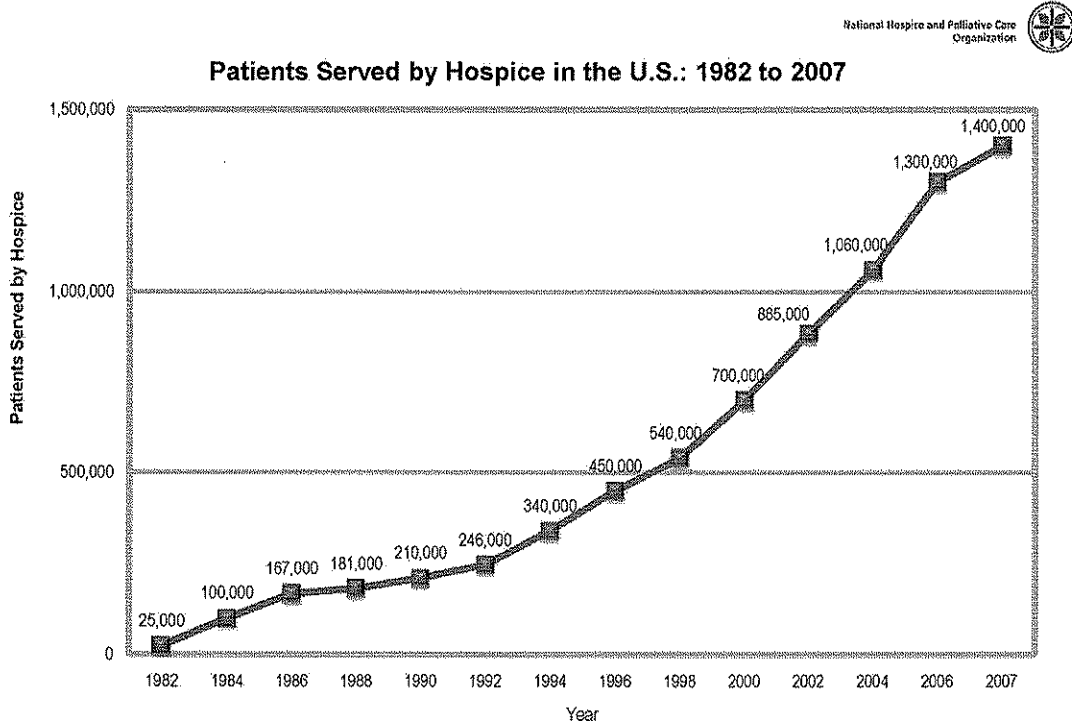
**Quality, Access & Value**

The requested adjustment is consistent with the three Basic Principles Governing the Development of the SMFP: Safety and Quality, Access and Value.

If this petition is approved, access will be greatly improved as new, centrally-located hospice inpatient services will be available to residents of Carteret County. Patients and family members will no longer have to travel long distances out of the county for hospice inpatient services.

Approval of this petition will also enhance the quality of hospice services available to Carteret County patients. Patients will have access to hospice inpatient services structured to provide the quality end-of-life services hospice patients require. According to the National Hospice and Palliative Care Organization, hospice is considered to be the model for quality, compassionate

care at the end-of-life. This is evident in the rapid increase in the number of patients each year who receive hospice services in the U.S., with the number doubling since 2000. Please refer to the following graph.



Source: National Hospice and Palliative Care Organization.  
For additional information, please download NHPCO's Facts & Figures on Hospice from our Web site: [www.nhpco.org/research](http://www.nhpco.org/research).

The NHPCO estimates that over 520 hospice inpatient facilities opened through 2008.<sup>3</sup> If this petition is successful in obtaining SHCC approval to develop the proposed hospice inpatient beds, local patients will greatly benefit from the highest growing and most viable option for quality end-of-life care. Thus, Carteret County hospice patients will not be admitted to a nursing facility or hospital because a dedicated hospice inpatient facility will be available.

The rising cost of healthcare services continues to cause concern among many constituencies in North Carolina. Hospice patients requiring hospice inpatient care are admitted to a local hospital when local hospice inpatient services are unavailable. This often results in incurred costs far greater than those incurred if admitted to a more appropriate and less expensive hospice facility setting. Findings of a major study demonstrate that hospice services save money for

<sup>3</sup> National Hospice and Palliative Care Organization Facts and Figures: Hospice Care in America. October 2009.

Medicare<sup>4</sup>. Researchers at Duke University found that hospice reduced Medicare costs by an average of \$2,309 per hospice patient. Medicare costs would also be reduced if hospice was used for a longer period of time. To know hospice services will indefinitely provide cost savings to Medicare is an additional benefit as the aging generation of baby boomers face the hardships of end-of-life situations. Approval of this petition will greatly benefit patients in terms of healthcare costs and value.

### **Adverse Effects of No Adjustment to the Need Determination**

If this petition is not approved, the need for hospice inpatient beds in Carteret County will continue to be unmet. Patients will continue to be forced to travel outside the county for inpatient hospice services. In addition, patients will continue to receive hospice inpatient care in either an acute care facility or in a nursing care facility, neither of which is designed for palliative care. Either option is a compromise solution for hospice patients and their families.

The six hospice inpatient beds would enable CCHH to pursue its mission of providing high quality care to hospice patients in Carteret County, and in accommodating the rapidly aging population and increasing demand for hospice services within Carteret County.

### **Conclusion**

In summary, Crystal Coast Hospice House seeks an adjusted need determination to include six additional hospice inpatient beds in the 2011 SMFP because:

- Travel from Carteret County to the regional inpatient hospice facilities is disruptive, expensive, and time-consuming because of Carteret County's unique geography. Patients in need of inpatient hospice care would rather receive care in a setting that is close to home.
- Carteret County's Hospice Days of Care and Deaths are increasing at considerably faster rates compared to the State as a whole.

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<sup>4</sup> Taylor DH Jr, Ostermann J, Van Houtven CH, Tulsy JA, Steinhauser K. What length of hospice use maximizes reduction in medical expenditures near death in the US Medicare program? Soc Sci Med. 2007 Oct;65(7):1466-78.

- The population in Carteret County is continuing to both increase and age, with growing need for local hospice inpatient service.
- Capacity of eastern North Carolina hospice inpatient facilities is limited and often at or near capacity.
- Community support for hospice inpatient beds in Carteret County is extremely positive.