Thomas J. Pulliam, M.D.
Vice Chairman, North Carolina State Health Coordinating Council
c/o Medical Facilities Planning Branch
Division of Health Service Regulation
2714 Mail Service Center
Raleigh, NC 27699-2714

August 1, 2012

Re: HealthKeeperz Inc.'s Petition for an Adjustment Need Determination for a Medicare-certified Home Health Agency in Brunswick County

I. Petitioner

Mr. Tim Brooks
President
HealthKeeperz, Inc.
509 W. 3rd Street
Pembroke, NC 28372

II. Requested Adjustment

HealthKeeperz, Inc. requests an adjusted need determination for one Medicare-certified Home Health Agency in Brunswick County in the *Final 2013 State Medical Facilities Plan* (*Final 2013 SMFP*).

Chapter 12, Home Health Services, should be changed as follows:

Table 12C: 2014 Need Projections for Medicare-certified Home Health Agencies or Offices
Threshold of 325 – *2013 SMFP*
Need Projections

County	Placeholder Adjustments for Agencies Under Development	Adjusted Potential Total People Served	Projected Utilization in 2014	Surplus or Deficit ("-" = Deficit)	Need for New Agencies of Offices
Brunswick	0	3,601.75	3,926.69	**-325**	1

Table 12D: 2014 Need Projections for Medicare-certified Home Health Agency or Office Need Determinations

It is determined that the counties listed in the table below need additional Medicare-certified home health agency or office as specified.

County	HSA	Home Health Agencies/Office Need Determination*	Certificate of Need Application Due Date**	Certificate of Need Beginning Review Date
Forsyth	II	1	To be determined	To be determined
Brunswick***	V	1	To be determined	To be determined
It is determined that there is no need for additional Medicare-certified home health agencies or offices anywhere else in the state.				

* Need Determinations shown in this document may be increased or decreased during the year pursuant to Policy GEN-2 (see Chapter 4).
**Application due dates are absolute deadlines. The filing deadline is 5:30 p.m. on the application due date. The filing deadline is absolute (see Chapter 3).
***This need determination is based on an Adjusted Need Petition.

III. Reasons for Proposed Adjustment

A. Brunswick County has a Deficit of 324.94 Home Health Patients in the *Proposed 2013 SMFP*

In response to a petition, on May 30, 2012, based on the recommendation of the Long Term Behavioral Health Committee, the State Health Coordinating Council (SHCC) revised the Home Health Need Methodology to increase the deficit threshold for a need determination and the "placeholder" adjustment for a new agency from 275 patients to 325 patients for inclusion in the *Proposed 2013 SMFP*.

Table 12C of the *Proposed 2013 SMFP* contains 2014 need projections for Medicare-certified home health agencies or offices based on a threshold of 325 patients. Forsyth County is the only county with a need determination for a new Medicare-certified home health agency or office in the *Proposed 2013 SMFP*. Forsyth County has a 327.41 home health patient deficit.

Brunswick County has a deficit of 324.94 patients, as shown in the following table.

Proposed 2013 SMFP

Table 12C: 2014 Need Projections for Medicare-certified Home Health Agencies of Offices Threshold of 325

County	Placeholder Adjustments for Agencies Under Development	Adjusted Potential Total People Served	Projected Utilization in 2014	Surplus or Deficit ("-" = Deficit)	Need for New Agencies of Offices
Brunswick	0	3,601.75	3,926.69	**-324.94**	0

As shown in the previous table, Brunswick County is **0.06 home health patient** short of a need determination for a new Medicare-certified home health agency or office (325 – 324.94 = 0.06).

Of the 48 counties with a home health patient deficit in Table 12C of the *Proposed 2013 SMFP*, including Forsyth and Brunswick counties, there is no county -- other than Brunswick – with a home health patient deficit close to 325. Union County has the next largest home health patient deficit of 215.07.

The Home Health Need Methodology does not have a specific step stating that projected patient deficits should be rounded to the next whole number, which would have resulted in the Brunswick County home health patient deficit of 324.94 to be rounded to the nearest whole number -- 325.

B. The Home Health Need Methodology does not have a Rounding Rule

The following six of the Need Methodologies in the annual *SMFP* contain a Rounding Rule – a Step or Steps under which a fraction, sum or difference is rounded to the nearest whole number:

- Operating Room Need Methodology
- Lithotripter Need Methodology
- Fixed Cardiac Catheterization Equipment Need Methodology
- Nursing Care Bed Need Methodology
- Adult Care Bed Need Methodology
- Dialysis Station Need Methodology

A brief description of the Rounding Rule in each Need Methodology is instructive.

Operating Room Need Methodology

In May 2008, the SHCC adopted a recommendation from the Acute Care Services Committee in response to a petition, to include a Rounding Rule in the Operating Room Need Methodology. As a result, Step 5o. was added to the Operating Room Need Methodology beginning with the *Proposed 2009 SMFP*.

In the *2009 SMFP* through the *Proposed 2013 SMFP*, in Step 5o., fractions are rounded to the next highest whole number; the applicable fraction is determined by the number of operating rooms in a service area.

Step 5o. is the last step in the Operating Room Need Methodology, and is determinative of a projected deficit (or surplus) of operating rooms in an operating room service area.

Lithotripter Need Methodology

Step 3 of the Lithotripter Need Methodology contains a Rounding Rule, which reads as follows:

> Step 3: Divide the result of Step 2 [number of patients in the state who have a potential to be treated by lithotripsy in one year] by 1,000, which is the low range of the annual treatment capacity of a lithotripter, and round to the nearest whole number.

Fixed Cardiac Catheterization Equipment Need Methodology

Steps 4 and 5 of the Cardiac Catheterization Equipment Need Methodology contain a Rounding Rule, which reads in pertinent part:

> Step 4: For each facility, determine the number of units of fixed cardiac catheterization equipment required for the number of procedures performed by dividing the number of weighted (diagnostic-equivalent) cardiac catheterization procedures performed at each facility by 1,200 procedures (i.e., 80 percent of capacity, which is 1,500 procedures). (NOTE: Round the result to the nearest hundredth.)
>
> Step 5: Sum the number of units of fixed cardiac catheterization equipment required for all facilities in the same cardiac catheterization equipment service area as calculated in Step 4. (NOTE: The sum is rounded to the nearest whole number.)

The final Step in the Need Methodology is to subtract the number of units of fixed cardiac catheterization equipment (determined in Step 4) from the number of existing units of fixed cardiac catheterization equipment in the service areas (determined in Step 5). The difference is the number of units of fixed cardiac catheterization equipment needed.

Nursing Care Bed Need Methodology

Steps 4.b. and c. of the Nursing Care Bed Need Methodology contains a Rounding Rule, which read as follows:

> Step 4: b. For a county with a deficit of 91 or more beds, if the average occupancy of licensed beds in the county, excluding continuing care retirement communities, is 90 percent or greater based on utilization data reported on the [annual] Renewal Applications, the need determination is the amount of the deficit rounded* to 10.

c. If any other county's deficit is 10 percent of more of its total projected bed need, and the average occupancy of licensed beds in the county, excluding continuing care retirement communities, is 90 percent or greater based on utilization data reported on the [annual] Renewal Applications, the need determination is the amount of the deficit rounded* to 10.

*For purposes of rounding need determinations, numbers greater than 10 and ending in one to four would round to the next lower number divisible by 10, and numbers ending in five to nine would round to the next higher number divisible by 10.

Adult Care Bed Need Methodology

Step 5 of the Adult Care Bed Need Methodology contains a Rounding Rule, which reads in pertinent part:

> Step 5: [....] For purposes of rounding need determinations, numbers greater than 10 and ending in one to four would round to the next lower number divisible by 10, and numbers ending in five to nine would round to the next higher number divisible by 10.

Dialysis Station Need Methodology

The Need Methodology used to project new dialysis station needs contains the following Note:

> *[NOTE: "Rounding to the nearest whole number is allowed only in Step 1(C), Step 2(C), and Step 3(B)(v). In these instances, fractions of 0.5000 or greater shall be rounded to the next higher whole number.]*

Home Health Need Methodology

The Home Health Need Methodology does not have a Rounding Rule. There has been no need for a Rounding Rule until the *Proposed 2013 SMFP*.

In years prior to the *Proposed 2013 SMFP*, each county's home health patient surplus or deficit was expressed as a whole number. For the first time, the *Proposed 2013 SMFP* projects each county's home health patient surplus or deficit as a whole number with two digits to the right of a decimal point, which is the hundredths place.

This Petition does not request a modification to the Home Health Need Methodology. If the SHCC wishes to modify the Home Health Need Methodology to include a simple Rounding Rule, which rounds home health patient deficit to the nearest whole number, it could do so.

However, the absence of a Rounding Rule in the Home Health Need Methodology adversely impacts Brunswick County residents as it is the only one county with a home health deficit in the *Proposed 2013 SMFP* where rounding could result in a need in the *Proposed 2013 SMFP*. Of the 48 counties with a home health patient deficit in Table 12C of the *Proposed 2013 SMFP*, including Forsyth and Brunswick counties, there is no county -- other than Brunswick – with a home health patient deficit close to 325. Union County has the next largest home health patient deficit of 215.07.

A simple rounding of Brunswick County's home health patient deficit of 324.94 to the nearest whole number -- 325, will trigger a need determination in Brunswick County in the *Final 2013 SMFP*.

C. Home Health Utilization in Brunswick County is Lower than State and Federal Averages

The home health patient deficit of 325 is determinative of a need for an additional Medicare-certified home health agency in Brunswick County.

The Third Basic Assumption of the Home Health Need Methodology states that "[c]urrent age-specific use rates are the most valid basis for projection of 'future' need."[1] Medicare is the largest single payor of home health care services. Therefore, a home health use rate analysis will focus on persons ages 65 and over.

Brunswick County's home health use rate per 1,000 population 65 and over is far lower than the North Carolina average use rate, as shown in the following table.

Home Health Use Rate 65 and Over Population, FY 2011

County	65+ Population	65+ Home Health Visits	Use Rate per 1,000 Population 65+
	A	B	B / A x 1,000
North Carolina	1,349,431	140,697	104.3
Brunswick	27,262	2,401	88.1

Source: NC OSBM; Proposed 2013 SMFP

As shown in the following table, in FY 2011, home health service per 1,000 Medicare beneficiaries in Brunswick County (88.1) was below the national average of 96 in 2010.

[1] *Proposed 2013 SMFP*, page 262 of the 454 page electronic version accessible on the Planning Branch website.

Medicare Home Health Use Rate, 2010

Metric	United States
Persons Served per 1,000 Enrollees	96

Source: Kaiser State Health Facts

The previous tables show that Brunswick County residents ages 65 and over have less access to home health services than a comparable population for the entirety of North Carolina and nationally.

Use rate per 1,000 population 65 and over supports a need for an additional Medicare-certified home health agency in Brunswick County.

D. Home Health Utilization in Brunswick County is Lower than North Carolina Counties with Comparable Population Ages 65 and Over

A review of historical home health utilization for the population 65 and over reflects lower than average use rate in Brunswick County when compared to the North Carolina average and counties with population 65 and over greater than 25,000 persons, shown in the following table.

North Carolina Counties with 25,000 Population 65 and Over
Home Health Use Rate 65 and Over Population, 2011

County	Home Health Agencies in County	65+ Population	Population 65+ Home Health Visits	Use Rate per 1,000 Population 65+
		A	B	B / A x 1,000
Gaston	5	29,360	4,027	137.2
Forsyth	8	48,945	6,393	130.6
Wake	13	88,066	9,998	113.5
Durham	5	28,762	3,208	111.5
Guilford	8	65,269	7,081	108.5
New Hanover	2	31,163	3,325	106.7
North Carolina		1,349,431	140,697	104.3
Mecklenburg	12	90,433	9,224	102.0
Davidson	5	25,243	2,567	101.7
Buncombe	2	41,780	3,987	95.4
Henderson	3	25,922	2,298	88.7
Brunswick	2	27,262	2,401	88.1
Cumberland	5	33,363	2,823	84.6

Source: NC OSBM; Proposed 2013 SMFP

Brunswick County has the 2nd lowest home health use rate among residents 65+, as shown in the previous table. Gaston and Forsyth counties with the highest home health use rate per 1,000 Population 65 and over in the above table have five and eight home health agencies located in the county respectively. While more local agencies does not necessarily result in higher utilization and better access, the home health service use rate per 1,000 Population 65 and over in eight of the twelve counties above are higher when there are more than two local agencies.

E. Brunswick County's 65 and Over Population as a Percentage of Total Population is One of the Largest in North Carolina

During the past 10 years, growth in Brunswick County has outpaced the State and nation by a large margin.[2] Brunswick County population grew from 73,143 and 107,431 between 2000 and 2010, an increase of 46.9%.[3] Brunswick County is the 37th fastest growing county in the country.[4]

A large contributor to that growth is that Brunswick County is a very popular retirement destination. The area offers a luxurious lifestyle, where residents can enjoy beautiful weather, great beaches, endless events and activities, hospitable communities, and much more. As shown in the following table, residents ages 65 and over of Brunswick County account for 24.3% of the total county population.

North Carolina Counties
Population 65 and Over as Percentage of Total Population, 2011

County	65+	Total	Percent 65+
Transylvania	9,274	33,517	27.7%
Clay	2,747	10,550	26.0%
Polk	5,255	20,460	25.7%
Macon	8,847	34,990	25.3%
Cherokee	6,882	27,380	25.1%
Brunswick	27,262	112,210	24.3%
Pamlico	3,148	13,239	23.8%
Moore	21,460	90,387	23.7%
Henderson	25,922	110,199	23.5%
Perquimans	3,171	13,584	23.3%
Haywood	13,465	60,152	22.4%
Alleghany	2,445	10,978	22.3%
Mitchell	3,407	15,492	22.0%
Yancey	3,938	18,245	21.6%
Ashe	5,958	27,711	21.5%

[2] http://www.brunswickedc.com/demographics/population
[3] Id.
[4] http://en.wikipedia.org/wiki/Brunswick_County,_North_Carolina

Northampton	4,596	21,864	21.0%
Graham	1,883	9,036	20.8%
Chowan	3,088	14,831	20.8%
Warren	4,293	20,962	20.5%
Carteret	14,030	68,665	20.4%
Chatham	13,253	65,814	20.1%
Beaufort	9,608	48,211	19.9%
Washington	2,539	13,054	19.4%
Martin	4,532	23,893	19.0%
Madison	4,028	21,399	18.8%
Avery	3,346	17,830	18.8%
Rutherford	12,709	68,873	18.5%
Wilkes	12,726	69,861	18.2%
Jones	1,892	10,412	18.2%
Davie	7,454	41,843	17.8%
Bertie	3,687	20,726	17.8%
Tyrrell	762	4,340	17.6%
McDowell	8,026	45,715	17.6%
Surry	12,796	73,537	17.4%
Stokes	8,273	47,764	17.3%
Caswell	4,109	23,727	17.3%
Swain	2,480	14,424	17.2%
Rockingham	16,048	93,490	17.2%
Dare	5,890	34,418	17.1%
Yadkin	6,592	38,526	17.1%
Burke	15,525	90,769	17.1%
Halifax	9,264	54,223	17.1%
Montgomery	4,770	28,048	17.0%
Bladen	5,929	35,126	16.9%
Buncombe	41,780	247,633	16.9%
Lenoir	9,997	59,287	16.9%
Stanly	10,155	61,324	16.6%
Hertford	4,070	24,610	16.5%
Alexander	6,250	37,800	16.5%
Caldwell	13,718	83,292	16.5%
Gates	1,946	11,828	16.5%
Jackson	6,791	41,496	16.4%
Pender	8,856	54,395	16.3%
Person	6,528	40,247	16.2%
Columbus	9,341	57,736	16.2%
Hyde	936	5,815	16.1%
Craven	16,873	105,812	15.9%
Cleveland	15,630	98,391	15.9%
Edgecombe	8,632	56,089	15.4%
Davidson	25,243	164,601	15.3%
Alamance	23,454	153,498	15.3%

Duplin	9,209	60,329	15.3%
Anson	4,058	26,738	15.2%
Rowan	20,942	138,271	15.1%
Vance	6,916	45,708	15.1%
Richmond	7,031	46,481	15.1%
Catawba	23,530	155,644	15.1%
Randolph	21,692	143,899	15.1%
Wilson	12,355	82,130	15.0%
Nash	14,435	96,585	14.9%
Sampson	9,545	63,977	14.9%
New Hanover	31,163	210,229	14.8%
Scotland	5,211	35,588	14.6%
Lincoln	11,568	79,726	14.5%
Lee	8,456	58,712	14.4%
Pasquotank	5,755	40,228	14.3%
Camden	1,401	9,837	14.2%
Currituck	3,351	23,637	14.2%
Gaston	29,360	209,411	14.0%
STATE	1,349,431	9,781,022	13.8%
Franklin	8,721	63,214	13.8%
Wayne	17,153	124,486	13.8%
Forsyth	48,945	358,101	13.7%
Iredell	22,258	163,282	13.6%
Granville	8,309	61,427	13.5%
Greene	2,882	21,572	13.4%
Watauga	7,004	52,864	13.2%
Guilford	65,269	501,003	13.0%
Robeson	16,138	134,829	12.0%
Cabarrus	21,819	183,933	11.9%
Johnston	19,506	175,467	11.1%
Harnett	13,424	121,493	11.0%
Orange	14,605	137,760	10.6%
Pitt	18,229	172,485	10.6%
Union	22,006	209,168	10.5%
Durham	28,762	275,946	10.4%
Cumberland	33,363	330,958	10.1%
Mecklenburg	90,433	957,938	9.4%
Wake	88,066	945,209	9.3%
Onslow	15,092	188,081	8.0%
Hoke	3,960	50,347	7.9%

Source: NC OSBM

As shown in the previous table, Brunswick County ranks 6th of 100 North Carolina counties for its percentage of population 65 and over.

Among the 27 North Carolina counties with a total population of 100,000+, Brunswick County has the highest percentage of residents 65+, as shown in the following table.

North Carolina Counties
Population 65 and Over as Percentage of Total Population 100,000+, 2011

County	65+	Total	Percent 65+
Brunswick	27,262	112,210	24.3%
Henderson	25,922	110,199	23.5%
Buncombe	41,780	247,633	16.9%
Craven	16,873	105,812	15.9%
Davidson	25,243	164,601	15.3%
Alamance	23,454	153,498	15.3%
Rowan	20,942	138,271	15.1%
Catawba	23,530	155,644	15.1%
Randolph	21,692	143,899	15.1%
New Hanover	31,163	210,229	14.8%
Gaston	29,360	209,411	14.0%
Wayne	17,153	124,486	13.8%
Forsyth	48,945	358,101	13.7%
Iredell	22,258	163,282	13.6%
Guilford	65,269	501,003	13.0%
Robeson	16,138	134,829	12.0%
Cabarrus	21,819	183,933	11.9%
Johnston	19,506	175,467	11.1%
Harnett	13,424	121,493	11.0%
Orange	14,605	137,760	10.6%
Pitt	18,229	172,485	10.6%
Union	22,006	209,168	10.5%
Durham	28,762	275,946	10.4%
Cumberland	33,363	330,958	10.1%
Mecklenburg	90,433	957,938	9.4%
Wake	88,066	945,209	9.3%
Onslow	15,092	188,081	8.0%

Source: NC OSBM

According to Table 12A of the *Proposed 2013 SMFP*, Brunswick County has two existing Medicare-certified home health agencies. For comparison purposes, according to Table 12A of the *Proposed 2013 SMFP*, Henderson County, which has a total population of like size and composition to Brunswick County, has three existing Medicare-certified home health agencies.

IV. Duplication of Health Resources

As documented in this Petition, Brunswick County has a deficit of 324.94 patients, which is **0.06 home health patient** short of a need determination for a new Medicare-certified home health agency or office (325 – 324.94 = 0.06).

If the Home Health Need Methodology included a Rounding Rule, Brunswick County's deficit of 324.94 would have been rounded upward to the nearest whole number -- 325, which would have triggered a need determination in the *Proposed 2013 SMFP.*

As documented in Section III., Brunswick County has a rapidly growing population, particularly among persons ages 65 and over. Brunswick County residents ages 65 and over have less access to home health services than a comparable population for the entirety of North Carolina and nationally. Brunswick County residents 65 and over also have the 2nd lowest home health use rate among North Carolina counties with population 65 and over of 25,000 and over. Lastly, Brunswick County has two existing home health agencies, one fewer than Henderson County, which is of like size and composition to Brunswick County.

For those reasons, the request for an adjusted need determination for one Medicare-certified home health agency in Brunswick County in the *Final 2013 SMFP* will not result in a duplication of resources.

V. Consistency with *SMFP* Basic Principles

The petition is consistent with the provisions of the Basic Principles of the S*tate Medical Facilities Plan.*

1. Safety and Quality Basic Principle

The State of North Carolina recognizes the importance of systematic and ongoing improvement in the quality of health services. Emerging measures of quality address both favorable clinical outcomes and patient satisfaction, while safety measures focus on the elimination of practices that contribute to avoidable injury or death and the adoption of practices that promote and ensure safety. Providing appropriate care in the appropriate setting works to assure quality care.

In a study published in the April 2011 issue of Health Affairs, researchers conducted a systematic review of the research literature and summarized twenty-one randomized clinical trials of transitional care interventions targeting chronically ill adults. They identified nine interventions that demonstrated positive effects on measures related to hospital readmissions—a key focus of health reform. Most of the interventions led to reductions in readmissions through at least thirty days after discharge. Many of the successful interventions shared similar features, such as assigning a nurse as

the clinical manager or leader of care and including in-person home visits to discharged patients.[5] The first of these two interventions demonstrated statistically significant reductions in re-hospitalizations among patients hospitalized for common medical or surgical conditions through six months.[6] The other reduced all-cause readmissions among hospitalized heart failure patients through twelve months.[7]

A recent study by Genworth Financial showed that 80% of respondents preferred to receive treatment in the home instead of outside surroundings. [8] The following are responses and reasons cited for persons' preference for care delivered at home:

1. "When we are not feeling well, most of us ask to be at home. We enjoy the sanctity of our residences and the joy of being with our loved ones. When our loved ones are ill we try to get them home and out of the hospital as soon as possible."

2. Home care keeps families together. That is particularly important in times of illness. The ties of responsibility and caring can be severed by hospitalization.

3. Home care prevents or postpones institutionalization.

4. Home care promotes healing.

There is scientific evidence that many patients heal faster at home. For example, in a study published in the May 2000 issue of the journal Stroke, researchers found that stroke patients who rehabilitated at home after only 10 days in the hospital had a faster recovery, and after three months, were farther advanced in assimilating back into their familiar surroundings than those who were not sent home.[9] Lead researcher Nancy E. Mayo, PhD said that patients largely rehabilitated at home were able to perform activities of daily living at higher levels than those who received more traditional rehab.

> *"Patients who received traditional care felt more isolated, more dependent, and showed less [control over their muscles]. We also found home care can cost less," Mayo says.*

One neurologist not surprised by the findings is Tim Lachman, MD, a neurologist in Philadelphia.

> *"Most patients are happier and have better morale when they're in their home rather than in a hospital or a rehab center," Dr. Lachman said. "A goal of stroke treatment*

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[5] Mary D. Naylor, Linda H. Aiken, Ellen T. Kurtzman, Danielle M. Olds, and Karen B. Hirschman. The Importance Of Transitional Care In Achieving Health Reform. Health Aff April 2011 vol. 30 no. 4 746-754.
[6] Naylor MD, Brooten D, Campbell R, Jacobsen BS, Mezey MD, Pauly MV, et al. Comprehensive discharge planning and home follow-up of hospitalized elders: a randomized clinical trial. JAMA. 1999;281(7):613–20.
[7] Id.
[8] www.genworth.com/content/etc/medialib/genworth_v2/pdf/industry_expertise/life.Par.25387.File.dat/coc_11.pdf
[9] www.webmd.com/stroke/news/20000505/stroke-home-healing

is to get patients back into their own environment with the best amount of restored functioning."

Focusing a patient's recovery around his or her home could translate into improving patient morale and getting more patients back to their normal lives.

5. Home care is safe. Many risks, such as infection, are eliminated or minimized when care is given at home.

6. Home care allows for the maximum amount of freedom for the individual. Patients at home remain as engaged with their usual daily activities as their health permits.

7. Home care promotes continuity. The patient's own physician continues to oversee his or her care.

8. Home care is personalized and tailored to the needs of each individual. Patients receive one-on-one care and attention.

The proposed adjusted need determination will promote the provision of home health care in a timely manner, and will be a key component of assuring safety and quality care to the residents of Brunswick County.

2. Access Basic Principle

Equitable access to timely, clinically appropriate and high quality health care for all the people of North Carolina is a foundation principle for the formulation and application of the *North Carolina State Medical Facilities Plan.* The formulation and implementation of the *North Carolina State Medical Facilities Plan* seeks to reduce all of those types of barriers to timely and appropriate access. The first priority is to ameliorate economic barriers and the second priority is to mitigate time and distance barriers. The *SMFP* is developed annually as a mechanism to assure the availability of necessary health care services to a population.

As documented in Section III., Brunswick County has a rapidly growing population, particularly among persons ages 65 and over. Brunswick County residents ages 65 and over have less access to home health services than a comparable population for the entirety of North Carolina and nationally. Brunswick County residents 65 and over also have the 2nd lowest home health use rate among North Carolina counties with population 65 and over of 25,000 and over. Lastly, Brunswick County has two existing home health agencies, one fewer than Henderson County, which is of comparable size and composition to Brunswick County.

The proposed adjustment need determination will promote increased access to Medicare-certified home health services to residents of Brunswick County, particularly among residents who are ages 65 and over.

3. Value Basic Principle

The SHCC defines health care value as maximum health care benefit per dollar expended. Disparity between demand growth and funding constraints for health care services increases the need for affordability and value in health services. Measurement of the cost component of the value equation is often easier than measurement of benefit. Cost per unit of service is an appropriate metric when comparing providers of like services for like populations.

Home health provides the maximum health benefit per dollar expended. With today's shorter hospital stays, many of patients benefit from home health services, which may include intermittent skilled nursing services, rehabilitation services, and/or social work. In collaboration with a patient's physician, an individualized plan of care is developed for each patient allowing him/her to remain at home and maintain his/her independence while attending to his/her medical conditions. Multiple studies have explored the importance of effective discharge planning as patients move to the next level of care, and have highlighted the very real benefits in improved patient outcomes and lower re-hospitalization rates.

An in-depth study by Avalere Health published in May 2009 concluded that Medicare patients with diabetes, chronic obstructive pulmonary disease or congestive heart failure who used home health care within 3 months of being discharged from a hospital cost the Medicare program $1.71 billion less, and had 24,000 fewer re-hospitalizations than similar patients that used other forms of post-acute care over a two-year period. [10]

Avalere Health's model was designed to control for clinical and demographic differences across patient populations; the post-hospitalization period of care costs are statistically significantly lower in every severity of illness category.[11] Odds of hospital readmission also were significantly lower for beneficiaries with any of these three conditions who used early home health services. [12]

Additionally, Avalere Health estimated that if all chronic care patients in the study used home health services early in their period of care rather than other post-acute care, Medicare could have spent an additional $1.77 billion less over the 2005 and 2006 period. [13]

> *"One of the cornerstones of achieving payment reform is to ensure patients receive appropriate care in the most cost-efficient setting," said Alexis Ahlstrom, a director at Avalere Health. "Our analysis shows that home healthcare can be a prudent way to deliver post-acute care to certain Medicare beneficiaries."*[14]

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[10] "Medicare Spending and Rehospitalization for Chronically Ill Medicare Beneficiaries: Home Health Use Compared to Other Post-Acute Care Settings," prepared by Christine Aguiar, Alexis Ahlstrom, Zeynal Karaca, Kevin Dietz, and Ellen Lukens, all of Avalere Health. http://www.avalerehealth.net/wm/show.php?c=1&id=815
[11] Id.
[12] Id.
[13] Id.
[14] Id.

Approximately 86 percent of the Medicare population has one chronic condition, 66 percent have two or more chronic conditions, and 40 percent have three or more chronic conditions.[15]

The proposed adjusted Medicare-certified home health need determination in Brunswick County will help to maximize health care benefit per dollar expended.

VI. Summary

In summary, based on the information set forth above, HealthKeeperz, Inc. requests that the SHCC approve an adjusted need determination for one Medicare-certified home health agency in Brunswick County in the *Final 2013 SMFP*.

[15] Id.