Received-Healthcare Planning
7/26/2017

North Carolina State Health Coordinating Council
c/o Healthcare Planning and Certificate of Need Section
Division of Health Service Regulation
2714 Mail Service Center
Raleigh, NC 27699-2714

Re: Petition for Adjusted Need Determination for 50 Additional Rehabilitation Beds in HSA III in the 2018 State Medical Facilities Plan

I. Petitioner

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II. Requested Change

Novant Health, Inc. ("Novant Health") and HealthSouth Corporation ("HealthSouth") request that 50 additional inpatient rehabilitation beds be identified as needed in the HSA III Service Area in Chapter 8 of the 2018 State Medical Facilities Plan ("SMFP").

This Petition is being submitted jointly by Novant Health and HealthSouth. As healthcare services move into the future concentrating on population health, leadership at Novant Health and

HealthSouth determined that partnering HealthSouth's inpatient rehabilitation expertise with Novant Health's integrated system of physician practices, hospitals, outpatient centers, and more - each element committed to delivering a remarkable healthcare experience for patients - is an ideal match for the future of inpatient rehabilitation services in HSA III. Novant and HealthSouth already have partnered in a replacement 68-bed inpatient rehabilitation hospital, Novant Health Rehabilitation Hospital of Winston-Salem, LLC, which is expected to open in 2019[1]. One system, Carolinas Healthcare System ("CHS"), controls 95% of the inpatient rehabilitation beds in HSA III. In addition to limited choice and competition, patients in the Novant Health system have experienced difficulty gaining admission to CHS inpatient rehabilitation facilities in HSA III. Patient admissions have been delayed, or denied. As a result, patients end up receiving care in other settings which do not provide the same level of intensive rehabilitation with an experienced rehabilitation team as discussed in letters of support for the Petition included in Attachment 1.

III. Reasons for Proposed Adjustment

In Chapter 8 of the annual State Medical Facilities Plan, North Carolina's six Health Service Areas are defined as the planning regions for inpatient rehabilitation services. The SMFP states, "[t]he Health Service Areas remain logical planning areas for inpatient rehabilitation beds even though many patients elect to enter rehabilitation facilities outside the region in which they reside," (p. 108 of the 2017 SMFP). Novant Health and HealthSouth reviewed utilization for all inpatient rehabilitation facilities in North Carolina. HSA III has many distinct characteristics which support the need for additional inpatient rehabilitation beds that do not exist in other HSAs.

Utilization of total inpatient rehabilitation beds in HSA III has been over 80% or extremely close to 80% for the last three federal fiscal years as reflected in the following table. The need methodology in the annual SMFP utilizes data from the Annual Hospital Licensure Renewal Applications (LRA) and triggers a need for additional inpatient rehabilitation beds when current beds have been utilized at 80% or greater for two years in a row. The current methodology does not take into consideration rounding for purposes of prompting the inpatient rehabilitation bed need methodology. If it did, the need methodology would have been triggered this year and new inpatient rehabilitation beds would be identified as needed in the Proposed 2018 SMFP for HSA III.

[1] Project I.D. No. G-011211-16, approved by the CON Section on October 17, 2016.

HSA III Inpatient Rehabilitation Hospital Utilization – Total LRA Patient Days

Facility	Total Licensed and CON Approved Inpatient Rehab Beds	2013	2014	2015	2016	3 Year Average Annual Growth Rate 2013-2016
Novant Health Rowan Medical Center	10	2,537	1,891	1,723	1,731	
Stanly Regional Medical Center	0	1,060	0	0	0	
Carolinas Rehabilitation Hospital	70	32,270	23,221	23,437	20,686	
CMC-Levine Children's Hospital	13	3,489	3,811	4,250	4,159	
Carolinas Rehabilitation Hospital Mount Holly	40	11,547	10,843	11,460	11,916	
Carolinas Rehabilitation Hospital NorthEast	40	1,270	10,280	10,355	11,195	
Carolinas Rehabilitation Hospital Pineville	29	0	8,537	9,295	9,123	
HSA III Total	202	52,173	58,583	60,520	58,810	4.3%
Inpatient Rehab Bed Utilization Rate		70.76%	79.46%	82.08%	79.76%	

Source: Attachment 2, Table 1

This problem is unique to HSA III. Utilization in the other five HSAs in North Carolina is not approaching the 80% threshold as reflected in the following table. The only HSA approaching the threshold is HSA III.

North Carolina Inpatient Rehabilitation Hospital Utilization – Total LRA Patient Days

Facility	Total Licensed and CON Approved Inpatient Rehab Beds	2013	2014	2015	2016	3 Year Average Annual Growth Rate 2013-2016
HSA I Total	129	20,487	21,276	21,033	21,280	1.3%
Inpatient Rehab Bed Utilization Rate		43.5%	45.2%	44.7%	45.2%	
Annual Growth Rate			3.9%	-1.1%	1.2%	
HSA II Total	184	33,511	32,946	36,443	35,984	2.6%
Inpatient Rehab Bed Utilization Rate		49.9%	49.1%	54.3%	53.6%	
Annual Growth Rate			-1.7%	10.6%	-1.3%	
HSA III Total	202	52,173	58,583	60,520	58,810	4.3%
Inpatient Rehab Bed Utilization Rate		70.8%	**79.5%**	**82.1%**	**79.8%**	
Annual Growth Rate			12.3%	3.3%	-2.8%	
HSA IV Total	189	46,201	47,716	47,333	46,044	-0.1%
Inpatient Rehab Bed Utilization Rate		67.0%	69.2%	68.6%	66.7%	
Annual Growth Rate			3.3%	-0.8%	-2.7%	
HSA V Total	160	32,366	33,463	35,841	36,754	4.3%
Inpatient Rehab Bed Utilization Rate		55.4%	57.3%	61.4%	62.9%	
Annual Growth Rate			3.4%	7.1%	2.5%	
HSA VI Total	151	32,124	31,557	31,170	28,863	-3.5%
Inpatient Rehab Bed Utilization Rate		58.3%	57.3%	56.6%	52.2%	
Annual Growth Rate			-1.8%	-1.2%	-7.4%	

Source: Attachment 2, Table 1

The previous table also reflects the three-year inpatient rehabilitation growth rate for all North Carolina HSAs. Both HSA III and HSA V have growth rates exceeding 4.0%. However, HSA V has sufficient inpatient beds to meet the growing demand, with an overall utilization rate of only 62.9% in FFY 2016. Only HSA III has high utilization and high growth. The counties that comprise HSA III also have the highest population of all the HSAs in North Carolina.

Novant Health and HealthSouth reviewed Truven utilization data for all North Carolina inpatient rehabilitation providers in each of the six HSAs. Truven data was analyzed by revenue code for patients admitted to a licensed inpatient rehabilitation bed. Inpatient rehabilitation services in HSA III also are unique for the following reasons, all of which support the need for additional inpatient rehabilitation beds in HSA III:

- Extremely high in-migration from out of state;
- One inpatient rehabilitation hospital is dedicated to children;
- Inpatient rehabilitation population to bed ratio is the highest in the state; and,
- Lack of competition and impact on continuity of care.

Extremely High In-migration from Out of State

North Carolina is a large state and borders four other states. Therefore, it is reasonable to expect some North Carolina residents to seek inpatient rehabilitation care in Virginia, Tennessee, Georgia or South Carolina. Likewise, it is reasonable to expect some in-migration to North Carolina for inpatient rehabilitation services. For planning purposes, out-migration routinely is assumed to be consistent with in-migration. A review of actual in-migration, however, shows that in-migration to HSA III for inpatient rehabilitation services is 11.5%, which is considerably higher than all other HSAs and overall in-migration to North Carolina, as shown in the following table.

In-Migration to North Carolina Inpatient Rehabilitation Hospitals from Other States
Percent of In-Patient Rehabilitation Days

HSA		2013	2014	2015	2016
I	Percent from North Carolina	97.4%	97.2%	97.9%	96.2%
	Percent In-migration	2.6%	2.8%	2.1%	3.8%
II	Percent from North Carolina	95.0%	95.7%	95.1%	95.4%
	Percent In-migration	5.0%	4.3%	4.9%	4.6%
III	**Percent from North Carolina**	**88.2%**	**89.0%**	**87.2%**	**88.5%**
	Percent In-migration	**11.8%**	**11.0%**	**12.8%**	**11.5%**
IV	Percent from North Carolina	98.2%	98.5%	98.8%	98.7%
	Percent In-migration	1.8%	1.5%	1.2%	1.3%
V	Percent from North Carolina	97.8%	97.0%	97.8%	98.3%
	Percent In-migration	2.2%	3.0%	2.3%	1.7%
VI	Percent from North Carolina	99.1%	98.4%	98.5%	99.1%
	Percent In-migration	0.9%	1.6%	1.5%	0.9%
North Carolina Total	Percent from North Carolina	95.4%	95.4%	94.9%	95.3%
	Percent In-migration	4.6%	4.6%	5.1%	4.7%

Source: Attachment 2, Table 9

As shown in the previous table, in-migration to HSA III from out of state is more than twice the state average as well as considerably greater than all other HSAs. The 11.5% in-migration rate to HSA III represents an average daily census from 2014 to 2016 of 18.7 patients per day, which represents 23 beds operated at 80% target utilization. These are beds that are not available for HSA III residents, or North Carolina residents. While in-migration to HSA III is understandable, due to the size of the Charlotte MSA, which includes several South Carolina counties, it is nevertheless concerning because it means that beds are not available for North Carolina residents. The impact of in-migration is far more significant in HSA III (23 inpatient rehabilitation beds being used by out of state residents) than it is in the other five North Carolina HSAs which have a range of 1 to 5 inpatient rehabilitation beds routinely being used for out of state residents.

Novant Health and HealthSouth believe that the high level of in-migration to HSA III is a compelling factor that supports the addition of 50 inpatient rehabilitation beds in HSA III.

One Inpatient Rehabilitation Facility in HSA III is Dedicated to Children

The inpatient rehabilitation beds included on the Carolinas Medical Center acute care hospital license represent a 13-bed distinct-part inpatient rehabilitation unit used exclusively for children which is part of the Levine Children's Hospital (CMC-Levine). Inpatient rehabilitation services at CMC-Levine are highly utilized and meet the needs of many North Carolina children as well as many children from other states. Other inpatient rehabilitation hospitals in HSA III serve less than 1% of the 0-17-year-old population in the region. While the inpatient rehabilitation beds at CMC-Levine provide an extremely important service, these beds are not available to the adult population. Considering the impact of in-migration discussed above, and the fact that the CMC-Levine beds are not available to adults, means that only 166 inpatient rehabilitation beds, out of total planning inventory of 202 inpatient rehabilitation beds, are truly available in HSA III to North Carolina adult patients in need of inpatient rehabilitation services. Novant Health and HealthSouth believe that this is another compelling reason to add 50 inpatient rehabilitation beds to HSA III.

Inpatient Rehabilitation Population to Bed Ratio Highest in the State

Another way to consider the need for additional inpatient rehabilitation beds in HSA III is to compare the population per inpatient bed in HSA III to other HSAs and the state. Review of population per beds ratio has long been considered one evaluation step in determining future bed need.

The following table shows that HSAs III and IV have the highest population to bed ratios in the state with more than 11,000 persons per bed. The HSA III ratio is 8.6% greater than the state ratio and 22.2% greater than the HSA V ratio, which is the lowest rate, as shown in the following table.

Population per Inpatient Rehabilitation Bed

HSA	2013	2014	2015	2016	2017	2018	2019
I	10,279	10,339	10,396	10,452	10,508	10,563	10,617
II	8,932	8,994	9,046	9,101	9,157	9,215	9,272
III	**10,115**	**10,285**	**10,480**	**10,659**	**10,846**	**11,031**	**11,215**
IV	10,155	10,329	10,519	10,708	10,898	11,089	11,279
V	8,811	8,864	8,929	8,983	9,046	9,112	9,179
VI	10,033	10,034	10,049	10,076	10,105	10,137	10,171
Total State	9,711	9,805	9,908	10,008	10,113	10,217	10,323

Source: Attachment 2, Table 4

As discussed previously, HSA III has the highest in-migration from other states, significantly greater than all other HSAs and the state in-migration rate. Adjusting the planning inventory to reflect the high in-migration in HSA III by removing 23 beds, the population per inpatient bed in HSA III increases to one bed per 12,656 persons. This is 22.6% greater than the state ratio and 37.9% greater than the HSA V ratio as shown in the following table.

Population per Inpatient Rehabilitation Bed – Inpatient Rehabilitation Planning Inventory Adjusted for Out of State In-Migration

HSA	Percent of Patient Days from Out of State Residents	2013	2014	2015	2016	2017	2018	2019
I	2.9%	10,279	10,339	10,396	10,452	10,508	10,563	10,617
II	4.6%	8,932	8,994	9,046	9,101	9,157	9,215	9,272
III	**11.7%**	**11,415**	**11,606**	**11,826**	**12,029**	**12,240**	**12,449**	**12,656**
IV	3.3%	10,155	10,329	10,519	10,708	10,898	11,089	11,279
V	2.3%	8,811	8,864	8,929	8,983	9,046	9,112	9,179
VI	1.4%	10,033	10,034	10,049	10,076	10,105	10,137	10,171
Total State	4.8%	9,711	9,805	9,908	10,008	10,113	10,217	10,323

Source: Attachment 2, Table 4; Reflects 23 less beds in HSA III for in-migration from out of state patients in HSA III.

Finally, taking into consideration the distinct population served by CMC-Levine also impacts the population to bed ratio. Adjusting the planning inventory in HSA III by removing CMC-Levine, and taking into consideration the high in-migration from out of state, the population per inpatient bed in HSA III increases to one bed per 13,647 persons. This is 32.2% greater than the state ratio and 48.7% greater than the HSA V ratio as shown in the following table.

Population per Inpatient Rehabilitation Bed – Inpatient Rehabilitation Planning Inventory Adjusted for Out of State In-Migration and Levine Children's Inpatient Rehabilitation Hospital

HSA	Percent of Patient Days from Out of State Residents	2013	2014	2015	2016	2017	2018	2019
I	2.9%	10,279	10,339	10,396	10,452	10,508	10,563	10,617
II	4.6%	8,932	8,994	9,046	9,101	9,157	9,215	9,272
III	**11.7%**	**12,308**	**12,515**	**12,753**	**12,971**	**13,198**	**13,424**	**13,647**
IV	3.3%	10,155	10,329	10,519	10,708	10,898	11,089	11,279
V	2.3%	8,811	8,864	8,929	8,983	9,046	9,112	9,179
VI	1.4%	10,033	10,034	10,049	10,076	10,105	10,137	10,171
Total State	4.8%	9,711	9,805	9,908	10,008	10,113	10,217	10,323

Source: Attachment 2, Table 5; Reflects 23 less beds for in-migration from out of state and 13 less beds due to CMC-Levine specialization in HSA III.

The comparison of population per inpatient rehabilitation bed in the previous three tables illustrates the disparity in access to inpatient rehabilitation services between inpatient rehabilitation services in HSA III and other HSAs and supports the need for additional inpatient rehabilitation beds requested in this Petition. In addition, real population growth in HSA III is greater than any other HSA. The following table shows percentage growth by HSA, with HSA III growing at the second fastest rate in the state.

Total HSA Population Historical and Projected

	2013	2014	2015	2016	2017	2018	2019	CAGR
HSA I	1,326,018	1,333,729	1,341,056	1,348,325	1,355,483	1,362,569	1,369,581	0.52%
HSA II	1,643,505	1,654,856	1,664,421	1,674,507	1,684,911	1,695,472	1,706,136	0.63%
HSA III	**2,043,203**	**2,077,533**	**2,116,930**	**2,153,206**	**2,190,950**	**2,228,307**	**2,265,481**	**1.71%**
HSA IV	1,919,272	1,952,199	1,988,133	2,023,807	2,059,800	2,095,747	2,131,748	1.75%
HSA V	1,409,712	1,418,173	1,428,702	1,437,200	1,447,401	1,457,892	1,468,599	0.72%
HSA VI	1,514,954	1,515,140	1,517,441	1,521,430	1,525,808	1,530,664	1,535,854	0.32%
Total State	9,856,664	9,951,630	10,056,683	10,158,475	10,264,353	10,370,651	10,477,399	1.04%

Source: NCOSBM

However, total population growth in HSA III is higher than HSA IV, with population increasing at a rate of 36,000 to 37,000 persons per year from 2016 to 2019 compared to a slightly lower rate of 35,000 to 36,000 persons per year in HSA IV. This means that the disparity between population per inpatient rehabilitation bed in HSA III and other HSAs is increasing annually at a substantial rate when compared to other HSAs in North Carolina.

Lack of Competition in HSA III and Impact on Continuity of Care

There are 29 inpatient rehabilitation providers with 1,005 inpatient rehabilitation beds in North Carolina. As previously discussed, in Chapter 8 of the annual State Medical Facilities Plan, North Carolina's six Health Service Areas are defined as the planning regions for inpatient rehabilitation services. In five of the six HSAs, there is choice and competition within the HSA. Ownership and control of the inpatient rehabilitation services in these HSAs are distributed across three or more health systems. As shown in the following table, this is not the case in HSA III.

Bed Inventory in North Carolina by HSA

HSA	Facility	Total Planning Inventory	Percent under Common Ownership/ Management
I	Catawba Valley Medical Center	20	15.5%
	Care Partners Rehabilitation Hospital	80	62.0%
	Frye Regional Medical Center	29	22.5%
	HSA I Total	129	
II	High Point Regional - UNC	16	8.7%
	Hugh Chatham Memorial Hospital	12	6.5%
	North Carolina Baptist Hospital	39	21.2%
	Novant Health Rehabilitation Center (Previously Whitaker Rehabilitation Center)	68	37.0%
	Moses Cone Memorial Hospital - CHS	49	26.6%
	HSA II Total	184	
III	**Novant Health Rowan Medical Center**	**10**	**5.0%**
	Stanly Regional Medical Center - CHS	**0**	
	Carolinas Rehabilitation Hospital - CHS	**70**	
	CMC-Levine Children's Hospital - CHS	**13**	
	Carolinas Rehabilitation Hospital Mount Holly - CHS	**40**	
	Carolinas Rehabilitation Hospital NorthEast - CHS	**40**	
	Carolinas Rehabilitation Hospital Pineville - CHS	**29**	**95.0%**
	HSA III Total	**202**	
IV	Duke Regional Hospital - Duke	30	
	Duke Raleigh - Duke	12	22.2%
	Maria Parham Hospital - Duke/LifePoint	11	5.8%
	UNC Hospitals	30	15.9%
	WakeMed	106	56.1%
	HSA IV Total	189	
V	FirstHealth Moore	15	9.4%
	New Hanover Regional Medical Center	60	37.5%
	Scotland Memorial Hospital - CHS	7	4.4%
	Southeastern Regional Rehabilitation Center	78	48.8%
	HSA V Total	160	
VI	Nash General Hospital - UNC	23	
	Lenoir Memorial Hospital - UNC	17	26.5%
	Vidant Edgecombe - Vidant	16	
	Rehabilitation Center at Vidant Medical Center – Vidant	75	60.3%
	CarolinaEast Medical Center	20	13.2%
	HSA VI Total	151	

Source: Proposed 2018 SMFP Table 8A

In HSA III, CHS controls 95% of all inpatient rehabilitation beds. CHS controls 100% of the inpatient rehabilitation beds in Mecklenburg County, the State's most populous county.[2] The second most populous county in North Carolina, Wake County, has two different providers, and its health service area, HSA IV, has four different providers of inpatient rehabilitation services. Novant Health has one 10-bed unit in Salisbury in Rowan County. Under ideal traffic conditions, Novant Health Rowan Medical Center (NHRMC) is about a 1-hour drive from Novant Health Presbyterian Medical Center (NHPMC) in Charlotte, and even further for other Novant Health patients and patients from other hospitals in HSA III. The lack of choice and competition in the market impacts continuity of care for Novant Health patients in Mecklenburg and surrounding counties.

As documented in Attachments 1 and 3, Novant Health patients often experience delayed admission or are denied admission to CHS inpatient rehabilitation facilities due to the high utilization of those facilities. Further, once admitted, Novant Health physicians and staff have had difficulty getting medical records and patient information once a patient is discharged. This makes it difficult for Novant Health physicians, nurse navigators, and rehabilitation professionals to provide continuing care for patients in the Novant Health system. This severely impacts the continuity of care for Novant Health patients. Disruptions in the continuity of care are frustrating for patients and expensive and inefficient for the health care system.

HSA III needs additional inpatient rehabilitation beds. If approved, this Petition will allow Novant Health and HealthSouth, as well as other providers, to apply for a new inpatient rehabilitation facility in HSA III. Based upon CHS's current monopoly on inpatient rehabilitation beds in Mecklenburg County and HSA III, it is probable that a new provider would be approved. This would allow residents of HSA III and Novant Health providers in HSA III more choice and improved access to services.

The above variables all reflect the unique nature of inpatient rehabilitation services in HSA III. Novant Health and HealthSouth are not requesting a change in the inpatient rehabilitation need methodology in Chapter 8 of the Proposed 2018 SMFP. Novant Health and HealthSouth are asking the SHCC to consider the unique nature of inpatient rehabilitation services in HSA III and are requesting an adjusted need determination for 50 additional inpatient rehabilitation beds in HSA III in Chapter 8 of the Proposed 2018 SMFP.

IV. Need for Additional Inpatient Rehabilitation Beds in HSA III

The need for additional inpatient rehabilitation beds in HSA III is necessary to provide a choice for patients and providers in Mecklenburg and surrounding counties. Currently one highly utilized inpatient rehabilitation provider controls 95% of the inpatient rehabilitation beds in HSA

[2] According to the US Census Bureau, the population of Mecklenburg County was 1,054,835 as of July 1, 2016. *See* https://www.census.gov/quickfacts/fact/table/mecklenburgcountynorthcarolina/PST045216 (visited July 14, 2017). Wake County's population is comparable at 1,046,791 as of July 1, 2016. *See* https://www.census.gov/quickfacts/fact/table/wakecountynorthcarolina/PST045216.

III, and 100% of the inpatient rehabilitation beds in North Carolina's most populous county, Mecklenburg County. With current beds utilized in excess of 80% of capacity, less than 40% of NHPMC's inpatient rehabilitation referrals were admitted in the first four months of 2017 as reflected in Attachment 3.

In addition, Novant Health patients are waiting for an inpatient rehabilitation bed as documented in Attachment 1. When Novant Health physicians are successful in getting patients admitted there are often delays experienced in admitting them. Clearing the process to admit a patient to the existing inpatient rehabilitation hospitals involves considerable time completing an admission process that should be seamless, but is not. Delaying admission to inpatient rehabilitation deters post stroke rehabilitation for patients. Longer hospital stays increase a patient's susceptibility to hospital-acquired infections; and results in disgruntled family members. One reason for delays experienced by Novant Health providers, in addition to high occupancy at the existing inpatient rehabilitation hospitals in HSA III, is the decision made by CHS Rehabilitation facilities to not accept patients from Novant Health hospitals over the weekend. Further, after the weekend, since a PT/OT evaluation is required in the past 24 hours, NHPMC staff must re-evaluate the patient.

When the patient is re-evaluated by PT/OT on Monday, a patient previously appropriate for inpatient rehabilitation, might now meet criteria for discharge home; when they should have been placed in an inpatient rehabilitation setting three days earlier. The patient therefore, does not receive the level of care needed to maximize full recovery. They are discharged home with home health or outpatient rehabilitation which is not the same level of care. The patient does not receive the aggressive inpatient rehabilitation needed for their optimal post stroke recovery. In addition, some patients don't have resources or family support to go home, therefore they end up in a skilled nursing facility due to the admission delay; again, lacking the resources for their full recovery.

An analysis of stroke patients at NHPMC for the months of January to April 2015 and 2016, included in Attachment 3, shows that while the number of stroke patients at NHPMC have increased, the percentage of NHPMC referrals to CHS inpatient rehabilitation hospitals actually admitted has decreased. In addition, other Novant Health hospitals in Mecklenburg County also are experiencing difficulty and delays admitting patient to CHS inpatient rehabilitation facilities as evidenced in Attachments 1 and 3. The delay in treatment can impact the FIM gain for some patients. Letters from physicians, case managers and hospital administrative personnel documenting these delays and expressing their support for the Petition are included in Attachment 1.

As Novant Health moves into the future concentrating on population health, Novant Health has developed an integrated system of physician practices, hospitals, outpatient centers, urgent care, and more to meet the needs of the patients that choose Novant Health providers. Patients and physicians have immediate access to a single medical record which allows cost effective continuity of care. However, Novant Health patients do not have a choice of inpatient rehabilitation care in Mecklenburg County, and as a result, a significant break in continuity of

care occurs. When a Novant Health patient is admitted to a CHS inpatient rehabilitation hospital, medical records and patient information have not been readily available for Novant Health staff regarding the patient's inpatient stay. In addition, Novant Health staff does not routinely receive notification that the patient has been discharged. This makes it extremely difficult for Novant Health physicians, nurse navigators, and rehabilitation professionals to provide follow up outpatient care and continuing care for patients in their system. This in turn severely impacts the continuity of care for Novant Health patients. Letters from physicians, case managers, and hospital administrative personnel expressing their concern regarding the break in continuity of care and support for the Petition are included in Attachment 1. Novant Health and CHS just announced, at the end of June, plans to start sharing medical records. While this should help alleviate delay in getting records, it will not notify Novant Health providers that a patient has been discharged or speed up delays in the admissions process.

Due to delays in admission to the CHS inpatient rehabilitation hospitals and determinations made by CHS staff that Novant Health patients are not appropriate for inpatient rehabilitation services provided at the CHS inpatient rehabilitation hospitals, many Novant Health patients who meet inpatient rehabilitation requirements are being discharged to home and referred to home health services in lieu of inpatient rehabilitation services. Inpatient rehabilitation services provide intensive rehabilitation daily with a team approach to care. This same level of care is not provided as a home health patient. Home health, skilled nursing and long-term acute care hospitals are not replacements for inpatient rehabilitation as discussed in articles included in Attachment 6.

To determine the number of additional inpatient rehabilitation beds needed by the population of HSA III, Novant Health and HealthSouth reviewed several ongoing changes in inpatient rehabilitation care as well as reviewing the data associated with historical utilization of inpatient rehabilitation services in HSA III including:

- Increased use of inpatient rehabilitation by stroke patients;
- Underutilization of inpatient rehabilitation services; and,
- Analyzing Truven data instead of LRA data to project future utilization.

Increased Use of Inpatient Rehabilitation by Stroke Patients

In June 2016, the AHA/ASA Guidelines for Adult Stroke Rehabilitation and Recovery, published in the periodical *Stroke*, provided a synopsis of best clinical practices in the rehabilitative care of adults recovering from stroke. This report is included in Attachment 4. Also included in Attachment 4 are two recent additional articles supporting inpatient rehabilitation for stroke patients.

According to the AHA/ASA:

> *"Stroke rehabilitation requires a sustained and coordinated effort from a large team, including the patient and his or her goals, family and friends, other caregivers (e.g. personal care attendants), physicians, nurses, physical and occupational therapists, speech-language pathologists, recreation therapists, psychologists, nutritionists, social workers, and others. Communication and coordination among these team members are paramount in maximizing the effectiveness and efficiency of rehabilitation and underlie this entire guideline. Without communication and coordination, isolated efforts to rehabilitate the stroke survivor are unlikely to achieve their full potential."*

As systems of care evolve in response to healthcare reform efforts, post-acute care and rehabilitation are often considered a costly area of care that needs to be trimmed. This position fails to recognize the clinical impact of post-acute care and its ability to reduce the downstream risk of medical morbidity resulting from immobility, depression, loss of autonomy, and reduced functional independence. The provision of comprehensive rehabilitation programs with adequate resources, dose, and duration is an essential aspect of stroke care and should be a priority.[3]

The guidelines were endorsed by the American Academy of Physical Medicine and Rehabilitation, the American Society of Neurorehabilitation, the American Academy of Neurology, and the American Congress of Rehabilitation Medicine. Per the Guidelines[4] it is recommended "that stroke patients be treated at an in-patient rehabilitation facility (IRF) rather than a skilled nursing facility (SNF)."

The AHA/ASA noted that nearly 800,000 individuals suffer a stroke each year. Therefore, the need for effective management is essential. According to guidelines:

- The highest level of evidence supports that stroke patients receive IRF care "in preference to a SNF"
- The highest level of evidence supports that a functional assessment by a clinician with expertise in rehabilitation is recommended for patients with an acute stroke with residual functional deficits.
- The highest level of evidence supports that stroke patients receive "organized, coordinated, inter-professional care."
- Assessment of Rehabilitation needs are "best performed by an interdisciplinary team that can include a physician with experience in rehabilitation, nurses, physical, occupational and speech therapists, psychologists and orthotists."[5]

[3] AHA/ASA Guidelines for Adult Stroke Rehabilitation and Recovery, June 2016, http://stroke.ahajournals.org/
[4] Ibid.
[5] In-patient rehab recommended over nursing homes for stroke rehab, American Heart Association/American Stroke Association Scientific Statement Press Release, May 4, 2016. Attachment 4.

In HSA III, in 2016, only 17.0% of Medicare stroke patients converted from an acute care setting to an inpatient rehabilitation setting. Included in Attachment 5 is an analysis of Medicare stroke patients from hospitals in HSA III. The conversion rate (percent of acute care patients discharged to inpatient rehabilitation) for HSA III is significantly lower than the conversion rate to inpatient rehabilitation hospitals for Medicare stroke patients in HealthSouth markets in nearby states, which range from 21.9% in Tennessee to 26.3% in Georgia.

In 2016, only 43.7% of total Medicare stroke patients from hospitals in HSA III were referred for rehabilitation services at either an inpatient rehabilitation hospital (17.0%) or a skilled nursing facility (26.7%). Based upon the recent guidelines issued for Adult Stroke Rehabilitation and Recovery, this is well under the recommended guideline "that stroke patients be treated at an in-patient rehabilitation facility rather than a skilled nursing facility." The comparatively low number of stroke patients converting to inpatient rehabilitation facilities indicates that there are many stroke patients in the service area who should be receiving care at an IRF but are not.

Total Medicare discharges for patients from HSA III with stroke diagnoses in DRGs 61-66 in 2016 totaled 1,817 patients. The following table illustrates the impact of the new guidelines, which recommend that stroke patients be treated at an inpatient rehabilitation facility. The table shows the additional inpatient rehabilitation bed needed in HSA III if 50%, 75%, and 100% of all stroke patients were referred to an inpatient rehabilitation facility.

Impact of New AHA/ASA Stroke Guidelines
Medicare Stroke Patients from HSA III

Metric	50%	75%	100%
2016 Medicare Stroke Patients from Hospitals Located in HSA III	1,817	1,817	1,817
2016 HSA III Conversion Rate to Rehabilitation	17.00%	17.00%	17.00%
2016 HSA III Stoke Patients Referred to Rehabilitation	309	309	309
Patients NOT Referred to IRF	1,508	1,508	1,508
Estimated IRF Conversion Rate	50%	75%	100%
2016 Volume not in IRF	600	1054	1508
ALOS for Stroke	15.21	15.21	15.21
Increase in IRF Patient Days	9,120	16,029	22,938
ADC	25.0	43.9	62.8
Utilization Rate	80%	80%	80%
Projected Additional Bed Need	31	55	79

Source: Stroke Guidelines Attachment 4; HS Stroke ALOS 2016; Medicare SAF (Standard Analytical File) Attachment 5; Truven Data (DRGs 61-66) Medicare Only; Attachment 2, Table 10

The impact of the new AHA/ASA Stroke Guidelines alone illustrates the need for 31 to 79 additional rehabilitation beds to meet the needs of residents of HSA III as shown in the previous table. This analysis reflects a point in time and does not factor in expected growth in the 65+ age category. When the impact of age is added, the need for additional inpatient rehabilitation beds increases to a range of 38 to 95 additional beds as shown in the following table.

Impact of New AHA/ASA Stroke Guidelines
HSA III Medicare Patients All Hospitals

Metric	2016	CAGR 65+ HSA III Population 2016-2021	Projected 2021		
2016 Medicare Stroke Patients from Hospitals Located in HSA III	1,817	4.1%	2,189	2,189	2,189
2016 HSA III Conversion Rate to Rehabilitation			17.00%	17.00%	17.00%
2016 HSA III Stoke Patients Referred to Rehabilitation			372	372	372
Patients NOT Referred to IRF			1,817	1,817	1,817
Estimated IRF Conversion Rate			50%	75%	100%
2016 Volume not in IRF			723	1270	1817
ALOS for Stroke			15.21	15.21	15.21
Increase in IRF Patient Days			10,990	19,315	27,641
ADC			30.1	52.9	75.7
Utilization Rate			80%	80%	80%
Projected Additional Bed Need			38	66	95

Source: Stroke Study Attachment 4; Stroke Data Attachment 5; HS Stroke ALOS 2016; Attachment 2, Table 10

Note that the above two calculations are for Medicare patients only. In HSA III in 2016, an additional 1,887 patients from HSA III were admitted with a stroke diagnosis (DRGs 61-66) that were not included in the above analysis. This means that the need for inpatient rehabilitation beds is even greater than that shown in the previous analysis.

The analysis of stroke patients included in Attachment 5 shows that the hospital readmission rate from skilled nursing facilities in the service area for Medicare stroke patients reached 14.2% in 2016 compared to a readmission rate of only 12.2% from inpatient rehabilitation hospitals. Readmissions are not preferable for the patient and are very costly to the healthcare system. Inpatient rehabilitation hospitals play an important role in reducing readmission rates for stroke patients and other patients who are appropriate candidates for inpatient rehabilitation hospitals. Additional comparisons between inpatient rehabilitation and skilled nursing facilities are included in Attachment 6.

Further, NHPMC received Joint Commission certification as an Advanced Comprehensive Stroke Center in in June of this year, documentation of which is included in Attachment 7. The Joint Commission has developed an Advanced Certification for Comprehensive Stroke Centers for hospitals that have specific abilities to receive and treat the most complex stroke cases. This new level of certification recognizes the significant differences in resources, staff and training that are necessary for the treatment of complex stroke cases. NHPMC is the only provider in HSA III with this designation. As a result, NHPMC expects increased referrals and emergency department visits for complex stroke cases, as well as non-complex cases, as EMS protocols should change as a result of the NHPMC designation.

In preparation for designation as a Comprehensive Stroke Center, NHPMC added neurology trained hospitalists and intensivists. This provides 24/7 coverage for both hospital inpatient units and emergency services at NHPMC. The availability of 24/7 coverage for the emergency department has now been in place for over three months, and inpatient admissions and patient days at NHPMC have increased as a result. Inpatient stroke admissions are up 23.2% for the first six months of 2017 compared to the same timeframe in 2016. Utilization of all services associated with the Novant Health Neuroscience Services is up 17.0% in the first three months of 2017 and This includes inpatient and outpatient services at all Novant Health facilities in the Greater Charlotte Market (GCM) and includes care for patients with strokes, neurosurgical needs, medical neurology, seizures, as well as other neurological admissions.

NHPMC also has initiated a systemwide tele-stroke network in the GCM, a pilot program for Novant Health. Software and hardware are in place at NHPMC, Novant Health Matthews Medical Center (NHMMC), Novant Health Huntersville Medical Center (NHRMC), and Novant Health Rowan Medical Center (NHRMC) to allow 24/7 emergency coverage for stroke patients in the emergency departments at these hospitals. NHPMC Tele-neurologists provide coverage remotely to allow rapid treatment for patients presenting with stroke symptoms. The top priority for this program is to keep patients in their home community while providing specialty services using technology. Patients in need of complex stroke care will be quickly identified and transported to NHPMC via Critical Care Transport (CCT) as needed. This model, which will result in improved outcomes for patients, has the potential to be utilized not only by other Novant Health facilities in the future, but also by non-Novant Health facilities. In addition, this will increase the number of complex stroke patients treated at NHPMC in need of inpatient rehabilitation.

This designation, combined with the AHA/ASA Guidelines for Adult Stroke Rehabilitation and Recovery, will increase the number of stroke patients at NHPMC in need of inpatient rehabilitation services. Novant Health and HealthSouth believe that the addition of 50 inpatient rehabilitation beds in HSA III will be a great start to meeting the future needs of stroke patients in HSA III.

More Patients Could Benefit from Inpatient Rehabilitation Services in HSA III

HealthSouth is one of the nation's largest providers of post-acute healthcare services. HealthSouth's priority is to deliver high-quality patient care and the team of experts at HealthSouth's rehabilitation hospitals have extensive experience in today's most advanced therapeutic methods and technologies. HealthSouth leads the way, consistently exceeding national quality benchmarks and utilizing proprietary processes and systems, including a rehabilitation-specific electronic medical record (EMR) to offer the highest quality of care available. HealthSouth continually strives for excellence in all that it does, partnering with every patient to find a treatment plan that works for them.

Novant Health Rehabilitation Hospital of Winston-Salem, LLC, a joint venture between Novant Health and HealthSouth, has been approved to develop a 68-bed inpatient rehabilitation hospital

which will replace and relocate the existing inpatient rehabilitation hospital currently located on the campus of Novant Health Forsyth Medical Center. In addition, HealthSouth operates and manages 123 inpatient rehabilitation hospitals across the country and in Puerto Rico. Thirty-seven of these hospitals are joint ventures with acute care hospitals. Thirty-four of these joint ventures are with not-for-profit partners. The average size of HealthSouth's joint venture rehabilitation hospitals is 66 beds, with 110 beds being the largest and 25 beds the smallest. The average age of a HealthSouth joint venture exceeds 15 years.

A general overview and additional details about HealthSouth's deep expertise in providing inpatient rehabilitation services are included in Attachment 8. Based upon HealthSouth's experience and knowledge of inpatient rehabilitation, Novant Health and HealthSouth analyzed HSA III utilization of inpatient rehabilitation services and the number of acute care patients discharged to inpatient rehabilitation. This volume was then compared to the expected HealthSouth conversion rate of appropriate patients to inpatient rehabilitation to determine how many additional patients should be receiving inpatient rehabilitation services in HSA III.

The metric used in this analysis is the Acute Care Conversion Rate to Inpatient Rehabilitation which can be used to evaluate the need for additional inpatient rehabilitation beds in HSA III. The Acute Care Conversion Rate to Inpatient Rehabilitation is the percentage of total acute care discharges for a subset of patients, identified by DRGs, diagnoses and procedures, that are typically appropriate patients that are discharged from an acute care setting to an inpatient rehabilitation hospital.

HealthSouth has extensive experience working with joint venture partners across the United States. A review of discharge data from HealthSouth markets in the US showed that 13.6% of the DRG acute care discharge subset were discharged to inpatient rehabilitation hospitals. This compares to the HSA III Acute Care Conversion Rate to Inpatient Rehabilitation of only 10.5% in 2016.

The following table estimates the number of additional HSA III patients that potentially could have benefited from inpatient rehabilitation services assuming a 13.6% Acute Care Conversion Rate to Inpatient Rehabilitation.

Potential Increase in Discharges to Inpatient Rehabilitation in HSA III

	2016	CAGR HSA III Population 17+ 2016-2021	2021
DRG Subset* of Acute Care Discharges for HSA III Patients - All Hospitals	11,226	1.70%	12,180
2016 HSA III Actual Conversion Rate to IRF	10.5%		10.5%
HSA III Acute Care Discharges in DRG Subset Admitted to IRF	1,184		1,285
2015 Average Acute Care Conversion Rate to IRF - HS Facilities	13.6%		13.6%
Potential IRF Admissions Based upon HS Average	1,527		1,657
Patients NOT Referred to IRF	343		372
HS ALOS	12.5		12.5
Potential Increase in IRF Patient Days	4,277		4,641
ADC	11.7		12.7
Utilization Rate	80%		80%
Projected Additional Bed Need	15		16

Source: Truven Data; HS Data; NCOSBM; Attachment 2, Table 11

*Note: Includes a subset of patients defined by DRG, Diagnosis and Procedures that historically have resulted in referrals to Inpatient Rehabilitation based upon HS experience.

The impact of adjusting the HSA III Acute Care Conversion Rate to Inpatient Rehabilitation alone illustrates the need for 16 additional rehabilitation beds to meet the needs of residents of patients in HSA III as shown in the previous table. Note that this methodology does not take into consideration any increase in utilization by the stroke patient population discussed in the previous section. Therefore, this methodology supports the need for additional inpatient rehabilitation beds in HSA III and, when combined with the stroke methodology presented above, support more than 50 additional inpatient rehabilitation beds.

Truven Data Shows Higher Inpatient Rehabilitation Volumes in HSA III

The annual SMFP utilizes the Truven Inpatient Database for projecting future acute care inpatient beds. Staff for the Health Planning Section also compares data from the Annual Hospital Licensure Renewal Applications (LRAs) and Truven, and facilities with a 5% difference are asked to reconcile the data. However, for inpatient rehabilitation beds, data from the Annual Hospital Licensure Renewal Applications are utilized and not compared to the Truven database. Inpatient rehabilitation beds are a separately licensed category of beds and the Truven database includes a specific revenue code for inpatient rehabilitation.

Novant Health and HealthSouth reviewed Truven data and compared it to the annual LRA data for HSA III inpatient rehabilitation hospitals. The following chart shows that data was consistently reported from 2013 to 2016, based upon the 5% comparison rate. From 2013 to 2015 total utilization reported in the LRAs was greater than total utilization reported in the Truven data.

However, in 2016, reported Truven data shifted and is greater than LRA reported data for the first time in four years.

Comparison of Truven Data to LRAs – Inpatient Rehabilitation Patient Days

	2013	2014	2015	2016
Carolinas HealthCare System Carolinas Medical Center - Levine Children's				
Truven Data	3,602	3,779	4,366	3,941
LRA Data	3,489	3,811	4,250	4,159
Truven % of LRA	103.2%	99.2%	102.7%	94.8%
Carolinas HealthCare System Charlotte Institute of Rehab				
Truven Data - Includes all CHS Rehabilitation Facilities except Levine	44,960	42,974	44,600	44,479
LRA Data Mount Holly	11,547	10,843	11,460	11,916
LRA Data NorthEast	1,270	10,280	10,355	11,195
LRA Data Charlotte Rehab	32,270	23,221	23,437	20,686
LRA Data Combined	45,087	44,344	45,252	43,797
Truven % of LRA	99.7%	96.9%	98.6%	101.6%
CMC - Pineville				
Truven Data		6,271	9,075	9,145
LRA Data		8,537	9,295	9,123
Truven % of LRA		73.5%	97.6%	100.2%
Novant Health Rowan Medical Center				
Truven Data	344	1,891	1,670	1,731
LRA Data	2,537	1,891	1,723	1,731
Truven % of LRA	13.6%	100.0%	96.9%	100.0%
Stanly Regional Medical Center				
Truven Data	1,083			
LRA Data	1,060			
Truven % of LRA	102.2%			
HSA III				
Truven Data	49,989	54,915	59,711	59,296
LRA Data	52,173	58,583	60,520	58,810
Truven % of LRA	**95.8%**	**93.7%**	**98.7%**	**100.8%**

Source: Attachment 2, Table 8

Since LRA data is utilized in the methodology the inpatient rehabilitation need methodology was not triggered as discussed above. However, if Truven data had been utilized in the SMFP methodology, utilization of inpatient rehabilitation beds in HSA III would have exceeded 80% two years in a row and the inpatient rehabilitation bed need methodology would have been triggered as shown in the following table.

HSA III Inpatient Rehabilitation Bed Utilization – Inpatient Rehabilitation Patient Days

	2013	2014	2015	2016
Truven Data	49,989	54,915	59,711	59,296
Utilization of 202 Inpatient Rehabilitation Beds	67.8%	74.5%	81.0%	80.4%
LRA Data	52,173	58,583	60,520	58,810
Utilization of 202 Inpatient Rehabilitation Beds	70.8%	79.5%	82.1%	79.8%

Source: Attachment 2, Table 8

As shown in the previous table, utilization of the 202 inpatient rehabilitation beds in HSA III exceeded 80% in 2015 and 2016 when Truven data is utilized instead of LRA data. This would trigger the inpatient rehabilitation need methodology in Chapter 8 of the Proposed 2018 SMFP resulting in the need for additional inpatient rehabilitation beds in HSA III.

Novant Health and HealthSouth utilized the Truven data included in the previous table to project future inpatient rehabilitation bed need. Based upon the Inpatient Rehabilitation Bed Need Methodology included in Chapter 8 of the Proposed 2018 SMFP, Novant Health and HealthSouth calculated HSA III's three-year average annual growth rate for inpatient rehabilitation days of care using the four most recent years of Health Service Area data as shown in the following table. Note that in 2013 NHRMC Truven data was significantly understated, therefore NHRMC LRA data is substituted for NHRMC in 2013 in the following table to calculate the growth rate, resulting in a more conservative growth rate.

Historical HSA III Inpatient Rehabilitation Utilization Growth – Inpatient Days

	2013*	2014	2015	2016
HSA III Truven Data*	52,182	54,915	59,711	59,296
Annual Growth Rate		5%	9%	-1%
Three Year Average Growth Rate				4.4%

Source: Attachment 2, Table 8
*NHRMC LRA data utilized

The Rehabilitation Bed Need Methodology included in Chapter 8 of the Proposed 2018 SMFP does not provide any direction regarding how many years out in the future bed need should be projected. Because of the special circumstances in HSA III discussed previously, it is evident that a new inpatient rehabilitation provider is needed to provide improved access for Novant Health patients and another choice for patients in HSA III. In addition, it is necessary to account for the time lag involved in completing the annual planning process in 2017 and completing the Certificate of Need process in 2018. Therefore, projections for only one year out, for 2017, are already out dated prior to publishing the 2018 SMFP. Furthermore, there is a time component to be considered in the development and construction of a new 50-bed inpatient rehabilitation hospital in HSA III. Based upon HealthSouth's experience, the following projections utilize a three-year development and construction timeframe.

Using the three-year growth rate and the five-year timeframe, two years for planning and CON processes, and three years for development and construction, Novant Health and HealthSouth calculated future inpatient rehabilitation beds needed for HSA III using Truven data.

Projected Inpatient Rehabilitation Bed Need HSA III – Truven Data

Facility	2013*	2014	2015	2016	3 Yr Avg Annual Growth Rate	2017	2018	2019	2020	2021 - 5 Yr Timeframe	Beds Needed @ 80% Utilization
Novant Health Rowan Medical Center	2,537	1,891	1,670	1,731							
Stanly Regional Medical Center	1,083	0	0	0							
CMC-Levine Children's Hospital	3,602	3,779	4,366	3,941							
Carolinas Rehabilitation Hospital**	44,960	42,974	44,600	44,479							
Carolinas Rehabilitation Hospital Pineville	0	6,271	9,075	9,145							
HSA III Total	52,182	54,915	59,711	59,296		61,920	64,660	67,522	70,510	73,630	50
Annual Growth Rate		5.2%	8.7%	-0.7%	4.4%						

Source: Attachment 2, Table 3
*2013 NHRMC Truven data was significantly understated; LRA data is utilized in the above table
**Includes Carolina Rehabilitation Hospital; Carolina Rehabilitation Hospital Mount Holly; Carolina Rehabilitation Hospital NorthEast

Using the LRA data included in the Proposed 2018 SMFP, the resulting three-year growth rate and the five-year timeframe discussed above, Novant Health and HealthSouth also calculated future inpatient rehabilitation beds needed for HSA III using LRA data.

Projected Inpatient Rehabilitation Bed Need HSA III – LRA Data

Facility	2013	2014	2015	2016	3 Yr Avg Annual Growth Rate	2017	2018	2019	2020	2021 5 Yr Timeframe	Beds Needed @ 80% Utilization
Novant Health Rowan Medical Center	2,537	1,891	1,723	1,731							
Stanly Regional Medical Center	1,060	0	0	0							
CMC-Levine Children's Hospital	3,489	3,811	4,250	4,159							
Carolinas Rehabilitation Hospital	32,270	23,221	23,437	20,686							
Carolinas Rehabilitation Hospital Mount Holly	11,547	10,843	11,460	11,916							
Carolinas Rehabilitation Hospital NorthEast	1,270	10,280	10,355	11,195							
Carolinas Rehabilitation Hospital Pineville	0	8,537	9,295	9,123							
HSA III Total	52,173	58,583	60,520	58,810		61,313	63,922	66,642	69,478	72,435	46
Annual Growth Rate		12.3%	3.3%	-2.8%	4.3%						

Source: Attachment 2, Table 2

As shown in the previous tables, current utilization and the methodology in Chapter 8 of the Proposed 2018 SMFP support the need for 50 additional inpatient rehabilitation beds when a reasonable timeframe is taken into consideration.

Rehabilitation services in HSA III are unique as discussed above. Novant Health and HealthSouth are not requesting a change in the inpatient rehabilitation need methodology in Chapter 8 of the Proposed 2018 SMFP. Novant Health and HealthSouth are asking the SHCC to consider the unique nature of inpatient rehabilitation services in HSA III and are requesting an adjusted need determination for 50 additional inpatient rehabilitation beds in HSA III in Chapter 8 of the Proposed 2018 SMFP.

V. Statement of Adverse Effects on the Population if the Adjustment is Not Made

Patients in the Novant Health system currently experience difficulty gaining admission to the only inpatient rehabilitation provider in Mecklenburg, Gaston and Cabarrus counties in HSA III as documented in Attachments 1 and 3. In addition, patients often experience delayed admission or are denied admission to CHS inpatient rehabilitation facilities due to the high utilization of those facilities as discussed in Attachment 1. Patient admissions are often delayed, or denied,

and many patients end up receiving care in other settings which do not provide the same level of intensive rehabilitation with an experienced rehabilitation team.

Further, once admitted, even though Novant Health physicians and staff are given assurances otherwise, medical records and patient information are not readily available for Novant Health staff once a patient is discharged. This makes it extremely difficult for Novant Health physicians, nurse navigators, and rehabilitation professionals to provide continuing care for patients in their system. This severely impacts the continuity of care for Novant Health patients. Disruptions in continuity of care are frustrating for patients and costly and inefficient for the health care system.

HSA III needs additional inpatient rehabilitation beds. If approved, this Petition will allow Novant Health and HealthSouth, as well as other providers, to apply for a new inpatient rehabilitation facility in HSA III. Based upon the current monopoly on beds held by CHS in Mecklenburg County and HSA III, it is reasonable that a new provider should be approved. This would allow residents of HSA III and Novant Health providers in HSA III more choice and improved access to services. The need for choice and competition is highlighted by the fact that one provider controls 95% of the inpatient rehabilitation beds in a highly-populated HSA, and 100% of the inpatient rehabilitation beds in the State's most populous county.

The proposed adjustment will allow the potential development of a new inpatient rehabilitation hospital with which Novant Health will have an established relationship allowing ease of access for Novant Health patients and seamless sharing of patient data and information in HSA III.

VI. Statement of Alternatives to the Proposed Adjustment that Were Considered and Found Not Feasible

A. Maintain the Status Quo

Existing CHS facilities in Mecklenburg, Cabarrus, and Gaston counties in HSA III have been operating at more than the 80% SMFP planning target for inpatient rehabilitation beds in North Carolina for the last three years. The Stanback Rehabilitation Center at Novant Health Rowan Medical Center (Stanback Center) is the only other provider of inpatient rehabilitation services in HSA III. The Stanback Center is a small unit with only 10 beds. It provides high quality services to its patients, over 80% of whom are from Rowan County. Outcome data and functional independence measure (FIM) scores are above average for patients treated at the Stanback Center. However, the Stanback Center does not have all the resources and tools available in a 50-bed inpatient rehabilitation hospital to meet the needs of all types of rehabilitation patients. The Stanback Center is over an hour away for most residents of HSA III in Mecklenburg, Cabarrus, Union, Gaston and Iredell Counties; therefore, it is not the most effective alternative to meeting the needs of HSA III residents identified in this Petition.

Therefore, maintaining the status quo is not a reasonable alternative.

B. Wait for SMFP to show need

But for the fact that SMFP does not round up, there would be a need in the 2018 SMFP. As discussed above, inpatient rehabilitation services in HSA III are unique. One provider has a total monopoly on inpatient rehabilitation beds in Mecklenburg County and an almost total monopoly on inpatient rehabilitation beds in HSA III. As demonstrated throughout this Petition, the need for more inpatient rehabilitation beds is real and immediate, especially when one considers the new Stroke Guidelines and the fact that patients are not receiving timely access to the services they need. See Attachment 4. Therefore, it is not reasonable to wait for future SMFP beds to be identified in HSA III.

C. Request fewer beds

Novant Health and HealthSouth have provided three methodologies which support the addition of as many as 97 new inpatient rehabilitation beds. Using the SMFP Inpatient Rehabilitation Bed Need Methodology in Chapter 8 of the Proposed 2018 SMFP, including a development and construction timeframe, results in a need for 46 to 50 beds.

HealthSouth has extensive experience in the operation of inpatient rehabilitation hospitals and believes that a 50-bed hospital will allow a new provider to develop a cost-effective alternative in HSA III. If approved, this Petition will allow for the development of a new inpatient rehabilitation provider in HSA III improving access and choice for HSA III residents. Therefore, Novant Health and HealthSouth believe that 50 beds is the correct number of additional inpatient rehabilitation beds needed in HSA III.

VII. Duplication of Health Resources

The addition of 50 new inpatient rehabilitation beds in HSA III will not result in a duplication of health resources in the HSA. Existing CHS facilities in Mecklenburg, Cabarrus, and Gaston counties in HSA III have been operating at more than the 80% SMFP planning target for inpatient rehabilitation beds in North Carolina for the last three years.

The Stanback Rehabilitation Center at Novant Health Rowan Medical Center (Stanback Center) is the only other provider of inpatient rehabilitation services in HSA III. The Stanback Center is a small unit with only 10 beds. It provides high quality services to its patients, over 80% of whom are from Rowan County. Outcome data and FIM scores are above average for patients treated at the Stanback Center. However, the Stanback Center does not have all the resources and tools available in a 50-bed inpatient rehabilitation hospital to meet the needs of all types of rehabilitation patients. The Stanback Center is over an hour away, in good traffic, for most residents of HSA III in Mecklenburg, Cabarrus, Union, Gaston and Iredell Counties so it is not the most effective alternative to meeting the needs of HSA III residents. Please see Attachment 1 for a letter of support for the Petition from NHRMC.

The need for additional rehabilitation beds is justified to meet the demand discussed above. Therefore, the proposed adjustment would not result in a duplication of existing services.

VIII. Consistency with SMFP Basic Principles

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

A. Safety and Quality Basic Principle

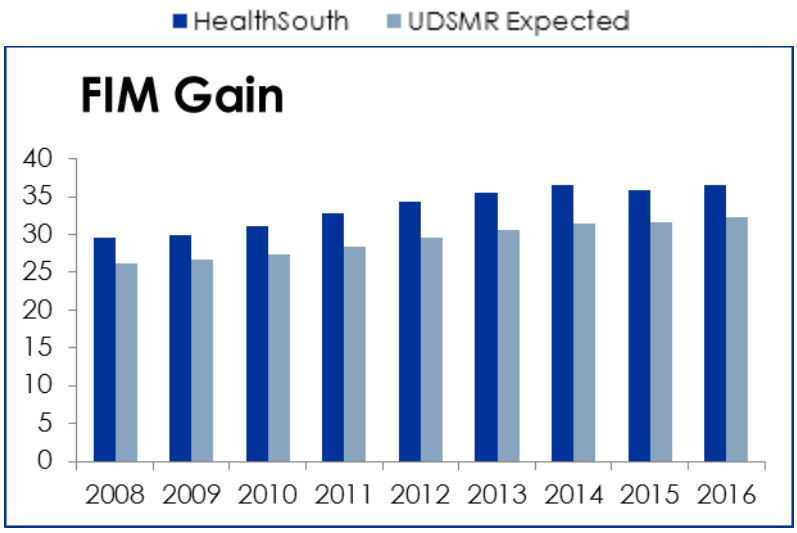
The State of North Carolina recognizes the importance of systematic and ongoing improvement in the quality of health services. Emerging measures of quality address both favorable clinical outcomes and patient satisfaction, while safety measures focus on the elimination of practices that contribute to 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 for patients. As a result of the Affordable Care Act, quality, transparency and accountability in community hospitals is more important than ever. In the future payment will be based upon quality measures and community hospitals are moving rapidly to assure high quality, cost effective care.

Novant Health and HealthSouth have a long and impressive record on providing high quality care for acute inpatient care and inpatient rehabilitation patients. Perhaps the most important characteristic of successful healthcare is the ability to demonstrate superior levels of care and quality.

HealthSouth's quality scores exceed industry benchmarks demonstrating a superior level of quality care. HealthSouth utilizes Uniform Data System for Medical Rehabilitation (UDSMR®), the rehabilitation industry's most widely recognized outcomes measurement tool, to monitor overall patient outcomes. UDSMR® also allows HealthSouth to benchmark its rehabilitation hospitals against regional and national performance data. As demonstrated in the following graphs, HealthSouth hospitals achieve superior results when compared to other rehabilitation providers:

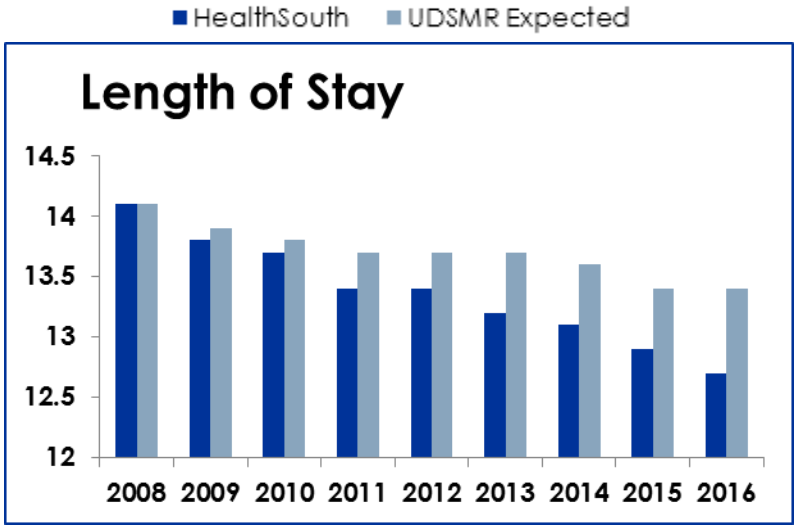
FIM® Gain

FIM® Gain is a measure of functional improvement from admission to discharge and indicates the degree of practical improvement toward the patient's rehabilitation goals. This tool includes 18 cognitive and functional measures including walking, climbing stairs, transfers, bowel and bladder function and dressing. As indicated by the chart on the following page, HealthSouth's FIM® Gain exceeded the UDSMR® expected FIM® Gain for each of the last nine years.



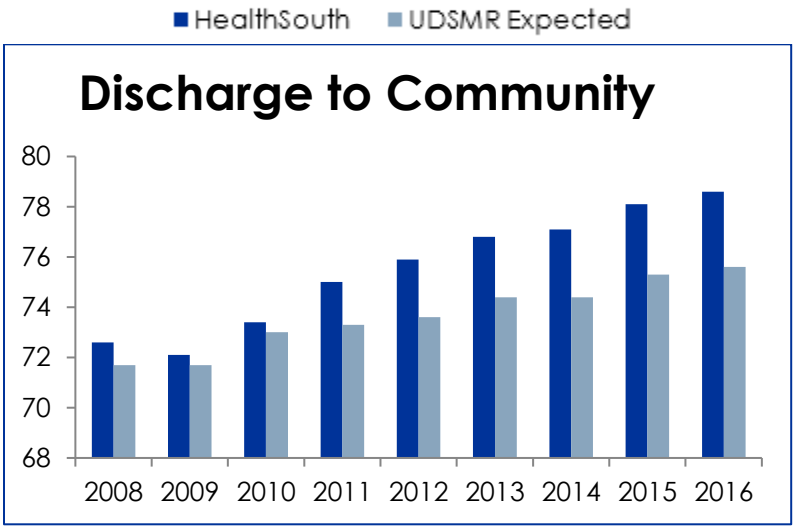
Length of Stay

Length of stay is the number of days a patient resides in a hospital from admission to discharge. As the following chart demonstrates, HealthSouth's patients on average have a length of stay that is shorter than the UDSMR® expected length of stay, meaning that patients return home or to a less intensive care setting faster than the UDSMR® expected.



Percent of Patients Discharged to the Community

As the following chart demonstrates, HealthSouth also discharges a greater percentage of its patients to the community than the UDSMR® expected.



Novant Health has a system wide quality program called "First Do No Harm: Leadership Methods in a Safe Culture" that improves patient safety using proven management techniques. The program educates leaders on basic human performance factors and relates how they affect patient safety. The program also provides leadership strategies which encourage employees to identify, question and correct behaviors to improve patient care. Employees are encouraged to practice with a questioning attitude; to communicate clearly when sharing information; to know Red Rules and practice Red Rules with 100% compliance (Red Rules are rules defined within Novant Health to address any act that has the highest level of risk or consequence to patient or employee safety if not performed exactly, each and every time[6]); to self-check and focus on tasks at hand; and to support each other.

Novant Health also has implemented evidenced-based best practice methods (Safety F.I.R.S.T. Methods for Leaders) that will reduce errors resulting in patient harm by helping build accountability while finding and fixing system problems. There are several national organizations that define the best ways to measure quality. These organizations use research and expert calculations to decide what data to gather, how to analyze it, and how to display the information. They set standards to ensure that any hospital that participates has reliable and accurate data. This information will help patients determine what level of care they are receiving and will help us identify areas where we can grow and improve. Novant Health's quality measures were chosen because they meet these goals:

[6]An example of a red rule is: An employee will always verify patient identity using 2 identifiers prior to any treatment, therapy, transport, or procedure.

- Transparency - we want measures to be up-front and easy to understand.
- Public methodology - the methods of collecting and analyzing data are available for study.
- Validity - we want measures to be validated by reputable research or expertise.
- Comparisons - we want measures that can be compared to a national average so you can compare us with the high standards set for hospitals across the nation.
- Expertise - we choose measures that have been developed and tested by the most well-respected, independent national experts.
- Relevance - we choose measures that are relevant to our patients to help you understand, select and plan for high quality healthcare.

Novant Health displays information in a way that is understandable and useful to patients because that is what is most valuable. Results are shared consistently over time. Novant Health believes patients and families need the facts to make an informed decision about their healthcare as reflected on the Novant Health web site at: https://www.novanthealth.org/home/quality--safety.aspx .

The current monopolistic inpatient rehabilitation environment in HSA III impedes continuity of care for Novant Health patients which is a basic component of providing high quality safe patient care. Both Novant Health and HealthSouth have a demonstrated commitment to providing patient centric high-quality care. This Petition will provide the opportunity for the development of a new 50-bed inpatient rehabilitation hospital in Mecklenburg County or elsewhere in HSA III that has seamless connections to Novant Health, allowing improved patient care for HSA III residents.

B. 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 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 previously discussed and documented in Attachments 1 and 3, Novant Health patients are experiencing delays in admission to the existing CHS inpatient rehabilitation facilities in HSA III due to high utilization. This Petition will provide the opportunity for the development of a new 50-bed inpatient rehabilitation hospital in Mecklenburg County or elsewhere in HSA III that will expand access to inpatient rehabilitation for HSA III residents.

C. 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. The development of a new 50-bed inpatient rehabilitation hospital in HSA III will result in a cost-effective alternative which will improve access and provide value to residents of HSA III.

IX. Conclusion

The proposed Adjusted Need Determination for 50 additional inpatient rehabilitation beds in HSA III in the 2018 SMFP will allow the development of needed services and the potential addition of competition in an HSA in which one provider controls 95% of the inpatient rehabilitation beds.

This Petition for 50 additional inpatient rehabilitation beds in HSA III will allow an opportunity for a Novant Health and HealthSouth joint venture company to apply for a Certificate of Need in HSA III. As healthcare services move into the future concentrating on population health, leadership at HealthSouth determined that partnering HealthSouth's inpatient rehabilitation expertise with Novant Health 's integrated system of physician practices, hospitals, outpatient centers, and more - each element committed to delivering a remarkable healthcare experience for patients – is an ideal match for the future of inpatient rehabilitation services for HSA III. Currently, patients in the Novant Health system have difficulty gaining admission to the current inpatient rehabilitation provider in Mecklenburg, Gaston and Cabarrus counties in HSA III. Patient admissions are often delayed, or denied, and many patients end up receiving care in other settings which do not provide the same level of intensive rehabilitation with an experienced rehabilitation team. The adjustment requested in this Petition is needed to improve the health of the citizens of HSA III.

Novant Health and HealthSouth
Petition for Adjusted Need Determination
50 Additional Rehabilitation Beds in HSA III in the 2018 SMFP
Attachment List