Acute Care Services Committee
Agency Report for Petition Regarding
Inpatient Rehabilitation Beds
in the Proposed 2012 State Medical Facilities Plan

Petitioner:
Duke University Health System
2301 Erwin Road; Box 3708 DUMC
Durham NC 27710
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Request:
Duke University Health System ("Duke Hospital") requests that the need determination in the North Carolina 2012 State Medical Facilities Plan (SMFP or "Plan") for inpatient rehabilitation beds in Health Service Area (HSA) IV be increased from four to 20.

Background Information:
The field of rehabilitation took shape in 1918 in legislation and programs that responded to veterans of World War I with a team approach of care from a variety of disciplines. The North Carolina 1983 State Medical Facilities Plan and accompanying 1983 Rehabilitation Issues and Recommendations: A Component of the State Health Plan for the first time provided information about medical rehabilitation of people with physical disabilities in North Carolina. The 1983 Plan included bed capacity and occupancy rates for rehabilitation hospitals and units, listing five comprehensive rehabilitation hospitals across the state with a total of 329 inpatient rehabilitation beds, three rehabilitation units in acute care hospitals with a total of 53 inpatient rehabilitation beds, and two children's rehabilitation hospitals with a total of 82 inpatient rehabilitation beds. Need for additional inpatient rehabilitation beds was not expected until at least 1988, and the need methodology was encompassed within the acute care bed need methodology. The 1985 SMFP projected need for inpatient rehabilitation beds by calculations and projections based on the number of people with one or more of 11 different diagnoses served in rehabilitation centers.

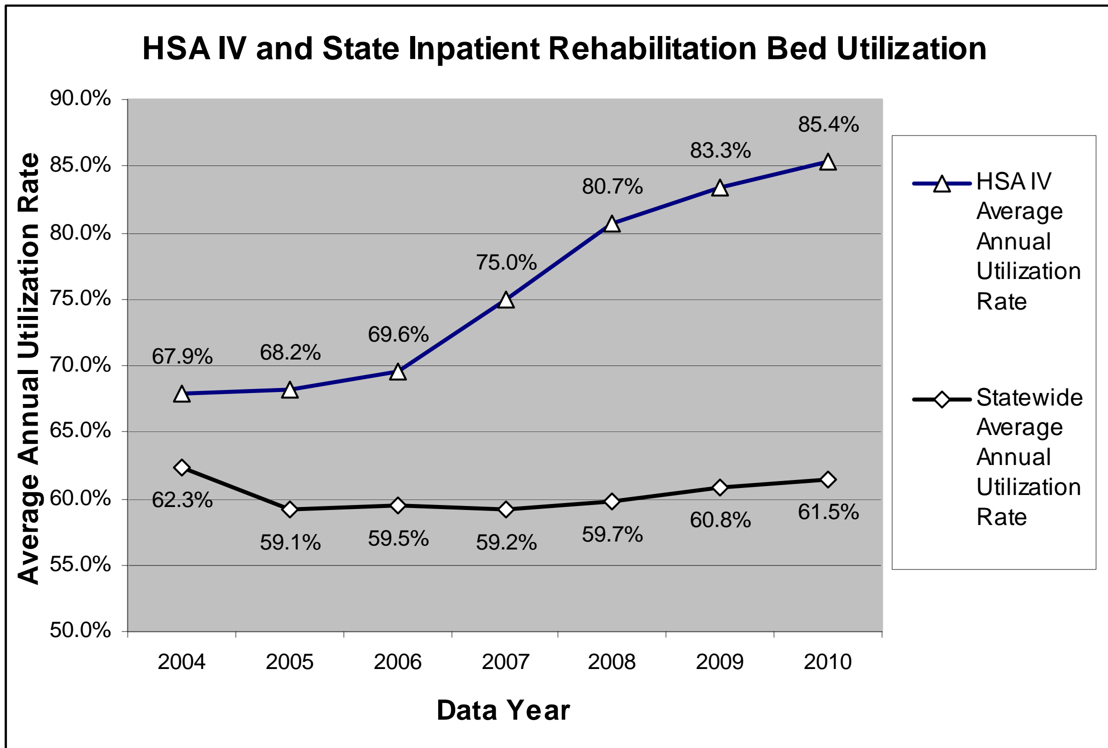
In 1989 and 1990, the State Health Coordinating Council (SHCC) developed an outline of work to be done regarding inpatient rehabilitation services as recommended by a state rehabilitation task force. Beginning with the 1991 SMFP, a new need methodology, based on the work of the task force, was used. Throughout the 1990s, inpatient rehabilitation services expanded. Year 2000 brought a change in the methodology to the one used today, where need for additional beds is determined when occupancy of existing and Certificate of Need (CON)-approved inpatient rehabilitation beds is at a minimum of 80% for two consecutive years within a Health Service Area (HSA). The methodology is based on historic utilization of beds over a two-year period. The 2011 SMFP included a concluding step for the number of beds needed when the criterion of two years at 80% occupancy was met. The HSA's three-year average annual growth rate for inpatient rehabilitation days of care is used to project the next year's days of care and beds needed at 80% utilization.

In deference to the standard methodology, Chapter Two of the North Carolina 2011 Proposed SMFP allows persons to petition for an adjusted need determination in consideration of "…unique or special attributes of a particular geographic area or institution…," if they believe their needs are not appropriately addressed by the standard methodology. Duke is requesting an adjusted need determination to increase the need for inpatient rehabilitation beds in HSA IV from four to 20. The

petitioner states that granting a need determination of 20 will provide sufficient capacity for HSA IV through 2013. "At the current rate of growth in HSA IV, adding 20 beds would result in 80% utilization within the service area in FY 2013" (Duke petition, page two).

Analysis/Implications:
The petitioner points out that the methodology projects one year forward from the year of the data. “The existing need determination for HSA IV for only 4 additional beds results from the methodology based on the projected days of care for the year following the latest year of data submitted by providers. Therefore, the draft 2012 Plan reflects the need for projected days of care in 2011, based on 2010 data.” In 2013 (projecting out three years), the methodology would project a need for 20 beds based on continued 4.44% average annual growth in days of care.

In the 2011 SMFP, the standard methodology resulted in a need determination of 14 inpatient rehabilitation beds. Three providers applied for the CON in February 2011; WakeMed received a conditional approval for its application for the 14 beds. Subsequently, this year, the methodology projected a need for four additional beds in HSA IV for review in 2012 because of utilization growth. As indicated by the chart below, inpatient rehabilitation bed utilization rates have increased in HSA IV, in comparison to statewide utilization rates, which declined from 2004 to 2007, then grew slightly from 2007 until 2010. Furthermore, the average annual three-year growth, used in the methodology, shows a steady four percent or greater growth rate in the days of care for each of the three most recent averaging periods.



HSA IV Average Annual Growth Rate in Days of Care (Growth Rates Averaged Over a Three-Year Period)				
2003 - 2006	2004 – 2007	2005 – 2008	2006 – 2009	2007 – 2010
1.44%	1.66%	4.12%	4.43%	4.44%

Inpatient rehabilitation beds are for patients who need comprehensive (general), spinal cord injury or brain injury rehabilitation services due to a variety of disabling medical conditions, one of which is stroke. According to the September issue of the Annals of Neurology, a new research study by the Centers for Disease Control and Prevention (CDC) found that "ischemic stroke hospitalization rates rose up to 37% in adolescents and young adults aged between 15 to 44 years, ... [and] a rise in the rates of hypertension, diabetes, obesity, lipid disorders and tobacco use among individuals in this age group during the 14-year investigation period" (http://www.medicalnewstoday.com/articles/233862.php). Therefore, inpatient rehabilitation services are likely to be needed by an increasing number of people who experience the effects of stroke. The three leading causes of spinal cord injury nationally are auto accidents, falls, and gunshot wounds ("2010 Annual Report for the Spinal Cord Injury Model Systems", National Spinal Cord Injury Statistical Center, Birmingham, Alabama). While there have been no incidence reports of spinal cord injury since the 1990's, the estimated incidence is 40 cases per million in the United States ("Spinal Cord Injury Facts and Figures at a Glance - February 2011", National Spinal Cord Injury Statistical Center, Birmingham, Alabama), and occurs primarily among young adults. Traumatic brain injury (TBI) also contributes to significant disability. According to the report "Traumatic Brain Injury in the United States", traumatic brain injury occurs most often to children age four and younger, adolescents age 15 to 19 and adults who are 65 and older (Centers for Disease Control and Prevention, National Center for Injury Prevention and Control, March 2010). In the report, males age 0 to 4 years old had "the highest rates for TBI-related emergency department visits, hospitalizations, and deaths combined" (page 7). Other key report findings were (as quoted from page 7):

- There was an increase in TBI-related emergency department visits (14.4%) and hospitalizations (19.5%) from 2002 to 2006.
- There was a 62% increase in fall-related TBI seen in emergency departments among children aged 14 years and younger from 2002 to 2006.
- There was an increase in fall-related TBIs among adults aged 65 and older; 46% increase in emergency department visits, 34% increase in hospitalizations, and 27% increase in TBI-related deaths from 2002 to 2006.

As with people living with disability due to strokes and spinal cord injuries, people with traumatic brain injury and other medical conditions will continue to need adequate and effective rehabilitation services. The benefits of quality rehabilitation services for people with significant disabilities have been demonstrated throughout the years in the many positive outcomes achieved.

In October 2009, the Centers for Medicare and Medicaid Services (CMS) issued new requirements and regulations for providers to use in the inpatient rehabilitation admission process, referred to in the field as the 2010 IRF Rule. In the Winter 2010 issue of "Focus on Rehabilitation" (Kessler Institute for Rehabilitation), Dr. Bruce M. Gans, Chief Medical Officer for the Kessler Institute for Rehabilitation and Editor in Chief of the publication, discusses the 2010 IRF Rule and retroactive denials of coverage by Medicare auditors over medical necessity prior to the new rules. The 2010 regulations, among other things, detail expanded duties and responsibilities for the rehabilitation physician in determining medical necessity for rehabilitation services and developing a plan of care within four days of admission. Dr. Gans described a 2009 research study about significant differences of opinion among expert physiatrists and Medicare reviewers about medical necessity and denial of Medicare claims (PM&R, Vol 1, Issue 9, Supplement, Page S104, September 2009). He concludes his editorial with,

"Whether these problems with medical necessity and denials of coverage will continue to the same extent under the 2010 rules remains to be seen" ("Focus on Rehabilitation", Winter 2010, Vol. 8, Issue 4, page 2). Perhaps the impact of the new rules on admissions is somewhat premature to fully assess at this time, especially given that one of the major disagreements intended to be remedied by the rules, that of determining medical necessity for services, appears to have been occurring for some time.

As discussed above, the petitioner has requested an adjusted need determination for 20 additional inpatient rehabilitation beds in HSA IV. The standard methodology indicated a need for four new beds in the service area and no new beds anywhere else in the state. The request is for an adjusted need determination for additional beds, and is not a request to change the methodology. As discussed in the petition and this report, growth in days of care is occurring in HSA IV, but is not indicated in sufficient amounts in other service areas for a need for additional beds. Therefore, the methodology is working adequately for other parts of the state. This is a situation where an adjustment is needed and warranted for only one area of the state, and changing the methodology is not indicated at this time.

Agency Recommendation:
In summary, days of care in inpatient rehabilitation beds has grown in HSA IV over recent years, the number of people with medical conditions that require inpatient rehabilitation services is expected to be the same or grow, and the effect of the 2010 federal regulations about inpatient rehabilitation admissions criteria have not yet been fully evaluated. Although the Agency supports the standard methodology, the petitioner has demonstrated "…unique or special attributes" in the service area, which "are not appropriately addressed by the standard methodology." The Agency recommendation is to accept the petition for the adjusted need determination for 20 beds in HSA IV.