



Carolinan Medical Center
Union

***Petition for an Adjusted Need Determination for 25 Acute Care Beds in Union County
In the 2010 State Medical Facilities Plan***

Submitted by:

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Carolinan Medical Center-Union (CMC-Union) is a not-for profit hospital located in Monroe, North Carolina. CMC-Union is currently licensed to operate 157 acute care beds and is the only hospital located in Union County.

Requested Adjustment

CMC-Union requests an adjusted need determination in the *2010 State Medical Facilities Plan (SMFP)* for 25 additional acute care beds in Union County.

Reasons for Proposed Adjustment

Union County is unique among North Carolina counties based on two primary factors:

- Between 2000 and 2008 Union County's population experienced the highest growth of all North Carolina counties and according to U.S. Census Bureau data was the 13th fastest growing county in the United States. This population growth is a major driver of the high growth in acute care days at CMC-Union. Union County was the fastest growing county in North Carolina from 2000 to 2008, growing by 52.2 percent, 12.7 percent more than the second fastest growing county (see Attachment A). Figure 1 below shows how this growth is expected to continue between 2008 and 2014 with the population in Union County projected to grow by an additional 29.7 percent and experience a compound annual growth of 4.4 percent per year.
- Figure 2 below shows CMC-Union's compound annual growth rate of acute care patient days from 2004 to 2008 was 7.2 percent, ***which is over three hundred and fifty times higher than the 0.2 percent statewide growth factor*** used in the statewide methodology in the *Proposed 2010 SMFP*.

Figure 1: Union County Population Growth 2000-2014

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	Total % Change 2000-2008	2000-2008 CAGR
Union County	125,558	131,661	138,264	143,769	150,637	159,726	170,167	181,652	191,142	52.2%	5.4%
Annual % Change	5.2%	4.9%	5.0%	4.0%	4.8%	6.0%	6.5%	6.7%	5.2%		

Year	2008	2009	2010	2011	2012	2013	2014	Total % Change 2008-2014	2008-2014 CAGR
Union County	191,142	200,606	210,069	219,530	228,991	238,454	247,916	29.7%	4.4%
Annual % Change	5.2%	5.0%	4.7%	4.5%	4.3%	4.1%	4.0%		

Source: North Carolina Office of State Budget and Management

Figure 2: CMC-Union Patient Day Growth

	2004	2005	2006	2007	2008	2004-2008 CAGR
CMC-Union Patient Days	30,584	31,000	33,398	36,629	40,362	7.2%
Annual % Change	-3.7%	1.4%	7.7%	9.7%	10.2%	

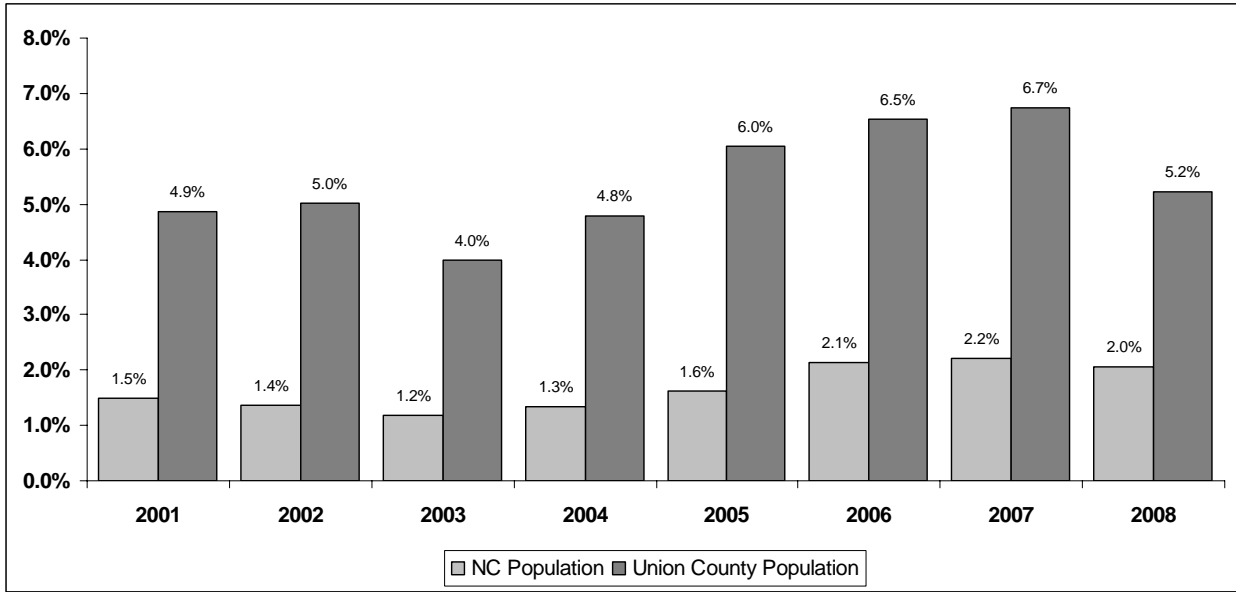
Source: State Medical Facilities Plans

The *SMFP* methodology for acute care beds utilizes a statewide growth rate in patient days to project the need for additional beds. A statewide growth rate is not an appropriate growth rate for all communities. In creating the *SMFP* the North Carolina State Health Coordinating Council (SHCC) specifically contemplates such circumstances in its provision for petitions for adjusted need determinations. Page 11 of the *Proposed 2010 SMFP* states, “People who believe that unique or special attributes of a particular geographic area or institution give rise to resource requirements that differ from those provided by application of the standard planning procedures and policies may submit a written petition requesting an adjustment be made to the need determination given in the Proposed *SMFP*.” *CMC-Union believes that no community in North Carolina illustrates this more than Union County.*

Union County has and is projected to continue to experience the highest population growth in North Carolina. According to the North Carolina Office of State Budget and Management (NC OSBM), Union County had an estimated 191,142 residents in 2008 – a 5.2 percent increase compared to 2007. This increase was unusually high compared to the population growth observed in most counties, and more than double the statewide percent increase of 2.0 percent during the same period.

Figure 3 shows North Carolina’s annual population growth rate which ranged from 1.2 to 2.2 percent between 2001 and 2008 as compared to Union County’s population growth rates which ranged from 4.0 to 6.7 percent.

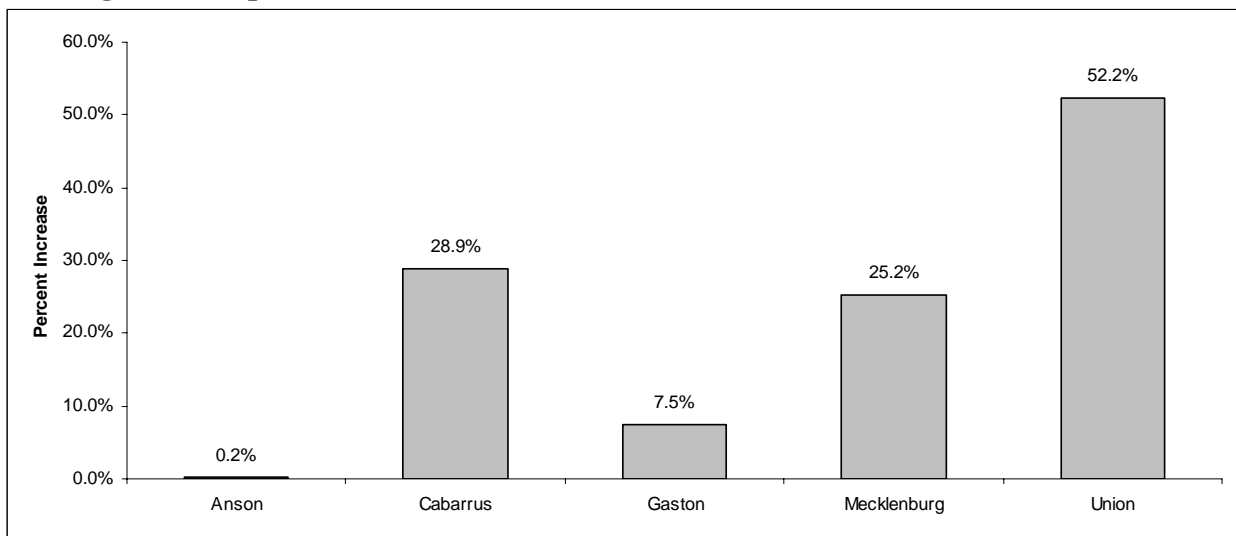
Figure 3: Annual Percent Change in Population



Source: North Carolina Office of State Budget and Management

Although the Charlotte-Concord-Gastonia metropolitan statistical area is experiencing significant growth, the increase in Union County outpaces all other counties in the entire region. Between 2000 and 2008, the population in Union County grew by 52.2 percent, which was almost twice the rate of Mecklenburg and Cabarrus counties (see Figure 4).

Figure 4: Population Growth in Charlotte-Gastonia-Concord MSA (2000 to 2008)



Source: North Carolina Office of State Budget and Management

In fact, since 2000, Union County’s population growth has been the highest among all counties in North Carolina. NC OSBM population estimates confirm a population boom in Union County that has long been an outlier compared to other North Carolina counties and the statewide average. More importantly, projections from NC OSBM indicate Union County will continue to be the fastest growing county in North Carolina through 2018 (see Figure 5).

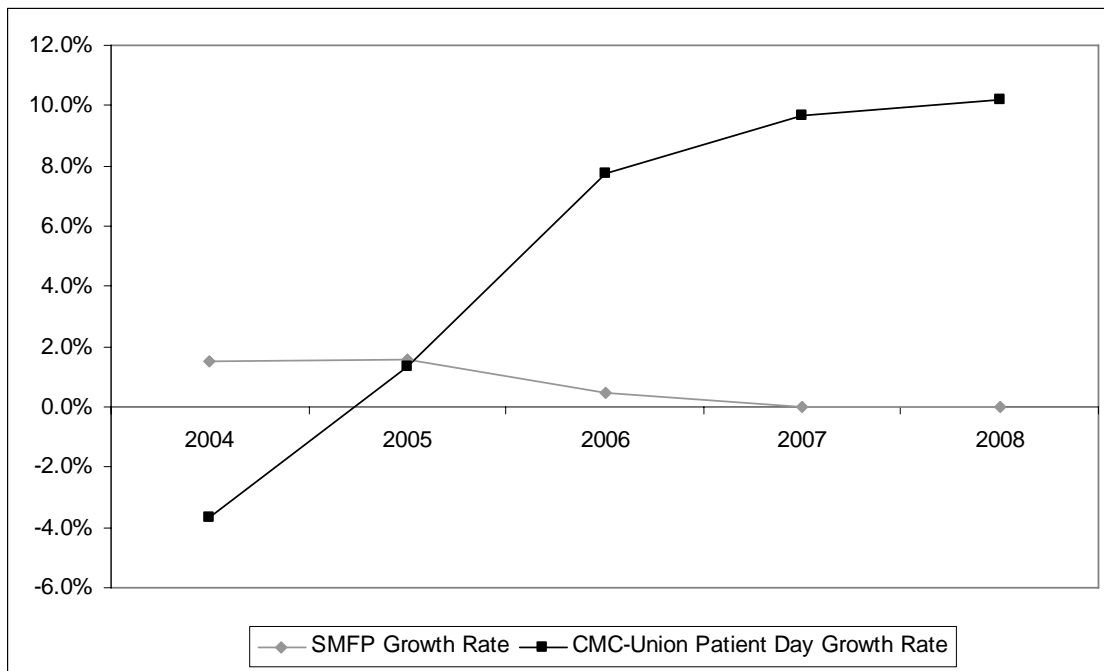
Figure 5: North Carolina Top 5 Growth Counties

2000-2008		2008-2013		2013-2018	
County	% Growth	County	% Growth	County	% Growth
Union	52.2%	Union	24.8%	Union	19.8%
Brunswick	39.5%	Wake	20.6%	Wake	17.1%
Camden	39.5%	Cabarrus	19.2%	Cabarrus	16.1%
Wake	36.5%	Johnston	18.6%	Johnston	15.7%
Johnston	32.0%	Brunswick	18.0%	Brunswick	15.3%
State	8.3%	State	9.3%	State	8.4%

Source: North Carolina Office of State Budget and Management.

Concurrent with the growth in population, CMC-Union has observed an increase in utilization that mirrors the same outlier position when compared to the statewide annual percent increase in acute care patient days. Figure 6 illustrates the wide disparity between North Carolina patient day growth rates compared to Union County growth rates.

Figure 6: Comparison of Annual Growth Rates



Source: State Medical Facilities Plans

Since 2004, CMC-Union’s growth in patient days has outpaced the growth in Union County population, the North Carolina population and the *SMFP* growth factor used to project acute care patient days across the state. As a result of the standard methodology’s application of the low statewide growth rate the methodology fails to reliably estimate the need for acute care beds in Union County.

CMC-Union's acute care utilization in 2008 of 40,362 patient days is 10.1 percent higher than the 2009 *SMFP* projection for 2013. In fact, the 2008 utilization almost exceeds the 40,410 patient days the *Proposed 2010 SMFP* projects for CMC-Union in 2014.

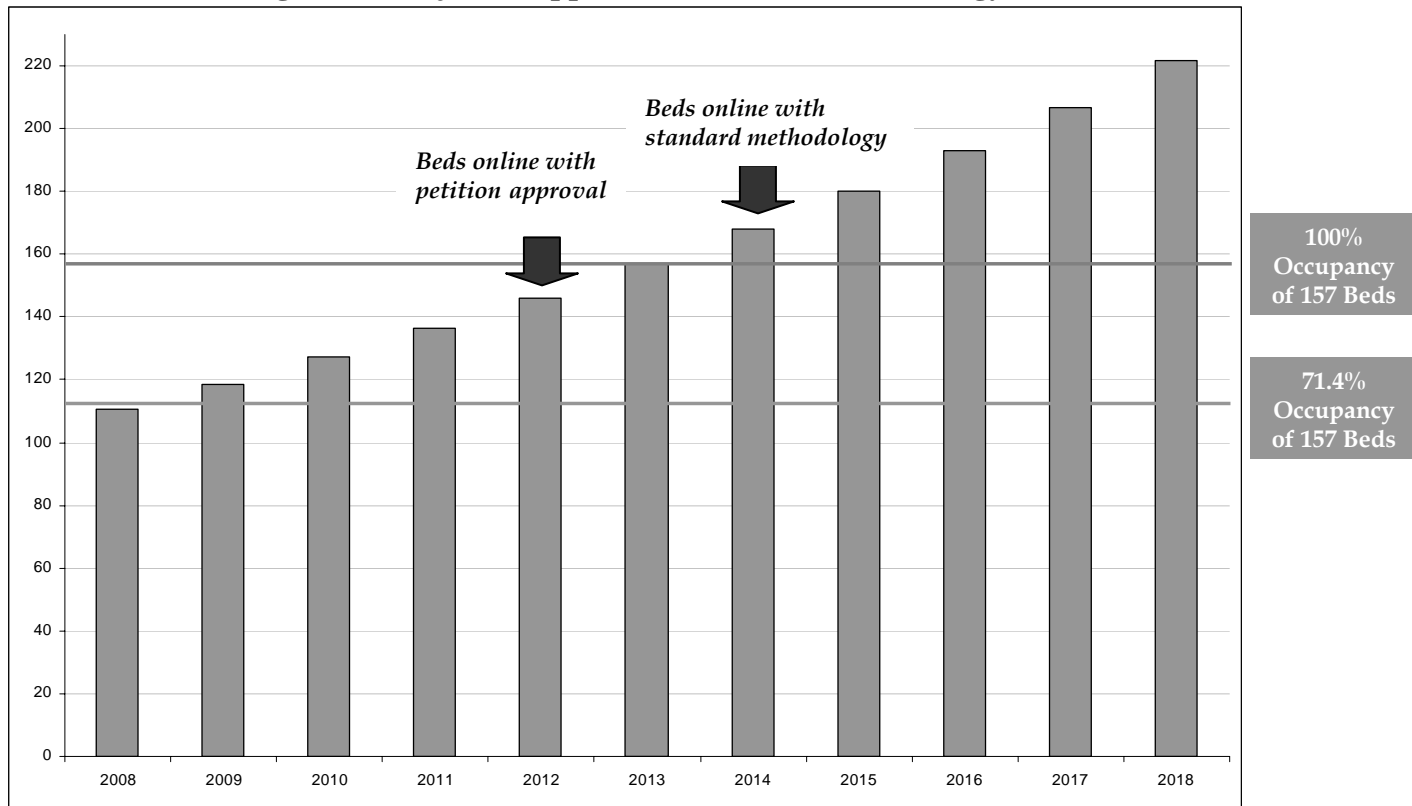
Although the *Proposed 2010 SMFP* methodology incorporates the increase of more than 3,000 patient days at CMC-Union from 2007 to 2008 (a ten percent increase in one year), it projects an increase of **only 48 days from 2008 to 2014** at CMC-Union. It will take many years before the current *SMFP* methodology eventually allocates additional acute care beds to Union County. However, CMC-Union believes it has a unique need that is not captured in the *SMFP* methodology for two reasons.

First, as discussed above, CMC-Union has an extraordinary growth rate that significantly outpaces the growth factor used in the *SMFP* methodology. Even though the *SMFP* methodology is adjusted each year for CMC-Union's actual patient days, the data are two years old by the time the *SMFP* becomes effective, and the methodology still projects growth at a statewide rate, not Union County's actual rate, which is much higher than the statewide average. Thus, by the time the data are updated, CMC-Union's patient days have already grown beyond the four-year projection horizon in that year's *SMFP*.

Second, the statewide growth factors reflect a decrease from 1.58 percent in the 2007 *SMFP* to 0.47 percent in the 2008 *SMFP* to 0.01 percent in the 2009 *SMFP* and a very slight increase to 0.02 percent in the *Proposed 2010 SMFP*. This downward trend is directly opposite the rapid growth of CMC-Union's acute care days and Union County's population. Without intervention from the SHCC, the divergence will continue to grossly underestimate the actual need in Union County.

To further demonstrate the immediate need for these beds, CMC-Union compared its growth in patient days for the next several years based on its actual compound annual growth rate from 2004 to 2008 (7.2 percent) to the projection in the applicable *SMFP* using the statewide growth rate from the *Proposed 2010 SMFP* (0.02 percent). The results of the analysis in Figure 7 show that although the standard methodology would eventually result in an allocation of additional acute care beds in Union County, the allocation would not occur until the 2012 *SMFP* (three years from now). Assuming that the new beds would take a minimum of two years to obtain CON approval and become operational, CMC-Union's demand would reach 100 percent occupancy of its existing bed complement before 2014. With the approval of this petition and additional beds coming online in 2012, CMC-Union will still be operating well above target occupancy before the new beds are available.

Figure 7: Projected Application of SMFP Methodology



Since occupancy levels are based on midnight census and the average occupancy for the year, CMC-Union would clearly be operating well-above its capacity, particularly during times of higher than average census. If CMC-Union were to simply wait for the *SMFP* acute care bed need projections to “catch up” with its utilization, the hospital would not have sufficient time to develop the beds it needs to serve its patient population.

CMC-Union filed a petition for additional acute care beds in 2008. However, the SHCC denied the petition to allow time for the Acute Care Bed Need Methodology Work Group to review the methodology and propose changes to address local variation in utilization growth rates. The work group met in February of 2009 but deferred action until the *2011 SMFP*. While we agree the work group’s decision was reasonable based on the information available at the time, CMC-Union believes delaying a bed need for another year could be detrimental to the citizens of Union County. ***As Figure 7 demonstrates, delaying a bed need determination for Union County another year will result in CMC-Union exceeding its licensed bed capacity before additional beds could be placed in service.***

In addition to the growth in population and inpatient utilization CMC-Union has experienced an increase in demand for emergency care. CMC-Union received CON approval in 2008 to increase emergency department beds from 19 to 34 (Project ID# F-7866-07). This project is scheduled for completion in the second quarter of 2010 and will have a significant impact on the demand for acute care beds at CMC-Union. Using the ED visit projections for 2012 included in the CON

application, and applying the current ED admission percent and average length of stay CMC-Union expects to need an additional 10 beds based solely on the incremental ED patient volumes (see Figure 8). In addition, CMC-Union is developing a freestanding emergency department in Waxhaw (Project ID# F-7706-06) that will also contribute to the need for additional acute care beds.

Figure 8: Emergency Department Growth Impact on Bed Need

A	B	C	D	E	F	G
Incremental ED Patients 2009-2012	ED Admission Rate	Incremental 2012 Admissions from ED Patients	2009 ALOS	Incremental 2012 Patient Days from ED Patients	Incremental 2012 ADC from ED Patients	Incremental 2012 Beds Needed from ED Patients
		A*B		C*D	E/365	
6,858	13.5%	926	4.0	3,703	10.1	10

Figure 9 calculates bed need using three different growth rates: the statewide average used in the standard methodology, one half of the projected growth rate of the Union County population and one half of the growth rate in historical patient days at CMC-Union. The standard methodology projects a bed surplus of two beds in 2014, while the population growth rate projects a deficit of 20 beds and the patient day growth rate projects a deficit of 34 beds. Even growing at half of the historical annual rates CMC-Union still demonstrates a need for additional beds.

Figure 9: Application of Growth Factor Alternatives

Growth Factor Methodology	Annual Growth Factor	Licensed AC Beds	2008 Acute Care Days	6 Years' Growth	2014 Projected ADC	2014 Beds Adjusted for Target Occupancy	Projected 2014 Deficit or Surplus (-)
2010 SMFP	0.02%	157	40,362	40,410	111	155	-2
Union Population CAGR 08-14 / 2	2.21%	157	40,362	46,032	126	177	20
CMC-Union Patient Days CAGR 00-08 / 2	3.59%	157	40,362	49,877	137	191	34

CMC-Union chose to take a conservative approach and reduce the growth rates in population and patient days by half to account for the changes in the economy over the last year. CMC-Union elected to request 25 additional beds as a reasonable middle ground between the two alternatives included in the table above.

Impact of Request

As other infrastructure within the Union County is being expanded to accommodate the population growth, it is critical that health care resources, particularly acute care bed capacity, keep pace. As shown above, the existing acute care capacity is not sufficient to handle the projected growth in Union County. As such, CMC-Union is proposing that additional acute care beds be allocated to Union County under the *Proposed 2010 SMFP* versus waiting to see if a revised methodology in the *2011 SMFP* will result in a need determination. The impact of

granting this petition will result in acute care beds being available for the residents of Union County.

Summary

It is abundantly clear that the proposed special need adjustment sought by the petition merits approval in order for Union County residents to have sufficient access to acute care inpatient beds. CMC-Union has experienced

We appreciate your careful consideration of this petition. Thank you.

ATTACHMENT A
North Carolina County Population Growth Percent
2000-2008

