# Exhibit 10 <br> Nursing Care Beds Utilization Rate Worksheet Formulae(s) Description 

- Annual Rates are established for a bed to population ratio use rate, per 1,000 population. Then, an annual rate of change is calculated for the five years combined and applied to the most current year use rate, which is then projected forward 30 months to determine the current utilization rate for planning 3 years forward.
- For current SMFP 2011 in development, years are 2005-2009. For the 2012 SMFP, if Methodology does not change, years will be 2006-2010.
- Since primary information is based on License Renewal Applications data reported, we currently operate one year behind. Thus, 2010 License Renewal Applications comprise of 2009 data reported within Exhibit 9, which is the last year available.
- For each year, per each Age Group, the number of long term care (Nursing Facility) patients is reported by Providers within their annual License Renewal Applications. Then, estimated population for each Age Group is via certified population estimates by the North Carolina Office of State Budget Management.
- Age 85 + Age Group Data Areas are highlighted in Exhibit 9, to display how formulae’s apply to each step in determining statewide utilization rate for entire Age Group.
- Same formulae’s in Age 85 + Age Group are applied to each Age Group of Under 65, 6574 \& 75-84. Below is example of largest Age Group 85 +, historical to present, utilizing this service.

Step 1. 2005 Use Rate: $=\operatorname{sum}(15,723 /(123,717 / 1000))=\underline{\mathbf{1 2 7 . 0 9}}$
Step 2. 2006 Use Rate: $=\operatorname{sum}(16,137 /(128,823 / 1000))=\underline{\mathbf{1 2 5 . 2 6}}$
Step 3. 2007 Use Rate: $=\operatorname{sum}(16,083 /(134,186 / 1000))=\underline{\mathbf{1 1 9 . 8 6}}$
Step 4. 2008 Use Rate: $=\operatorname{sum}(16,123 /(138,935 / 1000))=\underline{\mathbf{1 1 6 . 0 5}}$
Step 5. 2009 Use Rate: $=\operatorname{sum}(15,535 /(150,670 / 1000))=\underline{\mathbf{1 0 3 . 1 1}}$
Step 6. " 5 Year Average Annual Rate of Change in Use Rates Per 1,000":
$=\operatorname{sum}(((125.26-127.09) / 127.09) / 127.09)+((119.86-125.26) / 125.26)+$ $((116.05-119.86) / 119.86)+((103.11-116.05) / 116.05)) / 4=\underline{\mathbf{5 . 0 2}}$

Step 7. "Annual Change:" $=\operatorname{sum}(-5.02 \times 103.11)=\underline{\mathbf{- 5 . 1 7 6 4 9 6 7}}$
Step 8. "30 Month Change:" $=\operatorname{sum}(-5.1764967 \times 2.5)=\underline{\mathbf{- 1 2 . 9 4}}$
Step 9. "Use Rates Advanced 30 Months:" $=\operatorname{sum}(-12.94+103.11)=\underline{\mathbf{9 0 . 1 6 4 9}}$

