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September 11, 2015

Jenni Bonk  
State of Nevada, DHCFP  
1100 East William Street, No. 116  
Carson City, NV 89701

Re: Development of Budget Neutrality Cost for Transformation Youth Behavioral Health Program

Dear Jenni:

This letter will describe the calculation performed to determine an appropriate cost for entry in CMS' budget neutrality template for DHCFP's upcoming Transforming Youth Behavioral Health (Youth BH) program. The calculation has been included in the budget neutrality workbook ("WW-CMS" and "Summary-CMS"). This letter explains the calculation in that exhibit; it may not be appropriate for other purposes. This letter replaces the analysis sent September 1<sup>st</sup>.

*The information contained in this letter, including the enclosures, has been prepared for the State of Nevada Department of Health Care Finance and Policy (DHCFP) and their consultants and advisors. It is our understanding that the information contained in this letter may be utilized in a public document. To the extent that the information contained in this letter is provided to third parties, the letter should be distributed in its entirety. Any user of the data must possess a certain level of expertise in actuarial science and healthcare modeling so as not to misinterpret the data presented.*

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## **Executive Summary**

As a part of discussions with CMS regarding budget neutrality requirements for DHCFP's upcoming Youth BH program, DHCFP is required to show that the program will be budget neutral in the long term. This document illustrates the development of projected savings for the first five program years, State Fiscal Year (SFY) 2017 to SFY 2021. Each section title below refers to a tab included in the "Youth BH Budget Neutrality.xlsx" file provided separately.

There were four main changes from the version of this analysis delivered September 1<sup>st</sup>, 2015:

1. Our assumption of MH claims eligible for savings was revised to reflect expectations that 87.5% of “Rising Risk” members will participate.
2. Implementation factors were adjusted to 20%, 40%, 60%, 80%, and 100% for years 1-5, respectively, reflecting feedback from DHCFP.
  - a. For the September 1<sup>st</sup> deliverable, we reduced the implementation factors recognizing that only 20% of members in the target age range will be screened in any year (based on school grade level). This means it will take five years for the entire cohort to receive screening.
  - b. In the September 1<sup>st</sup> deliverable, the factors were further reduced based on the expectation that savings would not be fully achieved in the first year after screening. However, after further review of the studies upon which the assumptions underlying this analysis are based, it was confirmed that the savings are first year savings. .
3. We assumed a membership growth of 5% per year based on research by DHCFP.
4. We adjusted the cost of the program to include DSHP funding needs in addition to the screening and treatment costs included previously.

## **Historic Medicaid Pops**

The first tab included in the budget neutrality workbook for CMS is called “Historic Medicaid Pops”. This tab summarizes the members eligible and their medical costs for 10 to 19 year olds from SFY 2010 to SFY2014. This tab was developed using the following steps:

- We used membership data provided by the State in May 2015 to identify all Nevada Medicaid members from SFY 2010 to SFY2014.
- We used claims data provided by the State for FFS claims incurred through April 2015 and Managed Care claims provided by Health Plan of Nevada (HPN) and Amerigroup from CY2015 rate setting. (This included claims paid through July 2014 for HPN and August 2015 for Amerigroup.)
- We limited all membership and claims to members 10 to 19 years old. This filter was applied by month based on the member’s age at the first day of the month.
- We summarized the eligible member months and paid claims by fiscal year. We separated these values into two population sub-groups. The first group, titled “Standard”, consists of children eligible under the eligibility criteria relevant for TANF, CheckUp, and the Medicaid Expansion population. The second group, referred to as “Medically Needy”, represent all other children, including those eligibility under Aged/Blind/Disabled (ABD) criteria. The results are shown in the “Eligible Member Months” and “Total Expenditures” rows of the exhibit.

## WOW – CMS

The next tab in the workbook is the “Without Waiver” projected cost for 10 to 19 year olds from SFY2017 to SFY2021. The projected eligibles in each year are the SFY 2014 eligible member months (from the “Historic Medicaid Pops” tab) trended at 5% per year. The total expenditures are the SFY 2014 total expenditures (from the “Historic Medicaid Pops” tab) trended at 5% per year and adjusted for the Medicaid fee schedule changes effective in July 2015. For future years we have assumed a 0% PMPM cost trend. According to CMS’ instructions regarding the budget neutrality template, claims trend should be the lesser of historical trend or the President’s budget trend. However, based on previous dealings with CMS, it is our understanding that 0% trend may be used in cases where historical trend is negative.

## WW – CMS

The next tab in the workbook is the “With Waiver” projected cost for 10 to 19 year olds from SFY2017 to SFY2021. The projected eligibles in each year are the same eligibles shown in the “Without Waiver” tab. The projected costs with the waiver are based on the projected savings shown in Exhibit 1. This exhibit illustrates the starting (without waiver) cost, with adjustments as described below.

- We have assumed each of the projected savings amounts described below represent savings for the population engaged in a management program. Therefore, to calculate savings for the Medicaid population, it is necessary to estimate the percentage of behavioral health costs that would be generated by program participants. Based on a study published in the Journal of Child Psychology and Psychiatry, we have estimated that the 15% of the child population expected to participate in the program would generate approximately 39% of behavioral health costs in the population.
- We have assumed that 87.5% of members identified as “Rising Risk” will enroll in treatment.
- For each of these savings categories, the PMPM savings shown in Exhibit 1 is calculated as

*Overall PMPM x Relevant Costs as a % of Total x % of Behavioral Health Costs  
Generated by Target Population x Participation Adjustment x Savings % x Implementation  
factor*

- “Overall PMPM” is the total PMPM shown in the Without Waiver tab
- “Relevant Costs as a % of Total” and “Savings %” are different for each savings category, and are listed with the category descriptions below
- “% of Behavioral Health Costs Generated by Target Population” is the 39% described above.
- “Participation Adjustment” is the 87.5% described above.
- “Implementation factor” differs by program year, and is shown in Exhibit 1

- The categories of assumed savings include:
  - Emergency Room Savings: Based on research provided by the State, it is expected that 57% of all psychiatric ER visits can be eliminated by early intervention. To project total ER psychiatric costs, we looked at all ER claims with a psychiatric diagnosis from SFY 2010 to SFY 2014 as a percent of total SFY 2010 to SFY 2014 costs (or approximately 0.3%).
    - Relevant Costs as % of total = 0.3%
    - Savings % = 57%
  - Residential Treatment Center (RTC) Savings: A similar approach was taken for the RTC savings. Based on historical data we found that approximately 15.0% of costs for 10 to 19 year olds in the Medicaid population come from RTCs. Research found by the State showed projected savings of 29% of RTC costs could result from early intervention.
    - Relevant Costs as % of total = 15.0%
    - Savings % = 29%
  - Inpatient Behavioral Health Savings: We found that 2.7% of 10 to 19 year old costs from SFY 2010 to SFY 2014 were from inpatient claims with Mental Health or Substance Abuse diagnoses. State research showed that early intervention could reduce these costs by 42%.
    - Relevant Costs as % of total = 2.7%
    - Savings % = 42%
- Final Costs of Screenings and Treatment: The State projected costs of screening and treatment based on projected engagement. We added the necessary DSHP funding as costs to this estimate to arrive at a total five year cost of \$21,241,781. This was based on the total projected membership of the program, so we divided this cost by total member months to arrive at a PMPM cost of \$2.85. We assumed the same PMPM cost per year for future program years.

The Net PMPM is the Without Waiver cost less ER savings, RTC savings, and Inpatient Behavioral Health savings, plus the cost of screening and treatment. The Net PMPM from Exhibit 1 is the With Waiver cost PMPM shown in the With Waiver tab of the budget neutrality workbook.

## **Limitations**

In performing our analysis, we relied on data and other information provided to us by DHCFP and its data vendors. We have not audited or verified this data and other information. If the underlying data or information is inaccurate or incomplete, the results of our analysis may likewise be inaccurate or incomplete.

We performed a limited review of the data used directly in our analysis for reasonableness and consistency and have not found material defects in the data. If there are material defects in the data, it is possible that they would be uncovered by a detailed, systematic review and comparison

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of the data to search for data values that are questionable or for relationships that are materially inconsistent. Such a review was beyond the scope of our assignment.

Actual results will vary from our projections for many reasons, including differences from assumptions regarding provider fee schedules, the effectiveness of health care management and other cost savings programs such as fraud detection, as well as other random and non-random factors. Experience should continue to be monitored on a regular basis, with modifications to rates or to the program as necessary.

Guidelines issued by the American Academy of Actuaries require actuaries to include their professional qualifications in all actuarial communications. We are members of the American Academy of Actuaries, and meet the qualification standards for performing the analysis in this letter.

Please contact us if you have any questions regarding this analysis.

Sincerely,



Robert Bachler, FSA, FCAS, MAAA  
Principal and Consulting Actuary



Annie Hallum, FSA, MAAA  
Actuary

cc: Betsy Aiello (DHCFP)  
Colleen Lawrence (DHCFP)

Attachment

MILLIMAN, INC.

**Exhibit 1**  
**Budget Neutrality Evaluation**  
**Projected Savings Development**

Standard Population

	SFY 2017	SFY 2018	SFY 2019	SFY 2020	SFY 2021	Notes
Without Waiver PMPM	\$77.77	\$77.77	\$77.77	\$77.77	\$77.77	(1)
Emergency Room Savings PMPM	(\$0.09)	(\$0.09)	(\$0.09)	(\$0.09)	(\$0.09)	(2)
Residential Treatment Center Savings	(\$0.18)	(\$0.18)	(\$0.18)	(\$0.18)	(\$0.18)	(3)
Inpatient Behavioral Health Savings	(\$0.05)	(\$0.05)	(\$0.05)	(\$0.05)	(\$0.05)	(4)
Implementation Factor	20%	40%	60%	80%	100%	(5)
Cost of Program/Required Savings	\$2.85	2.85	2.85	2.85	2.85	(6)
Net PMPM	\$80.57	\$80.50	\$80.44	\$80.38	\$80.31	(7)

Medically Needy Population

	SFY 2017	SFY 2018	SFY 2019	SFY 2020	SFY 2021	Notes
Without Waiver PMPM	\$677.96	\$677.96	\$677.96	\$677.96	\$677.96	(1)
Emergency Room Savings PMPM	(\$0.33)	(\$0.33)	(\$0.33)	(\$0.33)	(\$0.33)	(2)
Residential Treatment Center Savings	(\$12.56)	(\$12.56)	(\$12.56)	(\$12.56)	(\$12.56)	(3)
Inpatient Behavioral Health Savings	(\$3.27)	(\$3.27)	(\$3.27)	(\$3.27)	(\$3.27)	(4)
Implementation Factor	20%	40%	60%	80%	100%	(5)
Cost of Program/Required Savings	\$2.85	2.85	2.85	2.85	2.85	(6)
Net PMPM	\$677.59	\$674.35	\$671.12	\$667.89	\$664.66	(7)

- (1) Projected FFS costs from Without Waiver Calculation
- (2) Assumes savings of 57% on all ER psych visits and participation of 87.5% of identified rising risk members
- (3) Assumes savings of 29% on all RTC related costs and participation of 87.5% of identified rising risk members
- (4) Assumes savings of 42% on all Inpatient Psych and Mental Health stays and participation of 87.5% of identified rising risk members
- (5) Savings are expected to increase as the population being served grows and due to costs being greater in future years.
- (6) Cost of screening and treatment includes both the cost of screening and treatment and the DSHP estimate.

The five year total expected cost is \$21,241,781. This gets divided by the five year member months for a total cost of \$2.85 PMPM.

(7) = (1) + [ (2) + (3) + (4) ] \* (5) + (6)

Represents the "with waiver" cost to be put into the Budget Neutrality calculation