STATE OF MARYLAND
DHMH

Maryland Department of Health and Mental Hygiene
201 W. Preston Street • Baltimore, Maryland 21201
Martin O'Malley, Governor– Anthony G. Brown, Lt. Governor – Joshua M. Sharfstein, M.D., Secretary

December 11, 2014

T. Eloise Foster
Secretary, Department of Budget and Management
45 Calvert Street
Annapolis, MD 21401

Dear Secretary Foster:

Chapter 464, Acts of 2014 (Budget Reconciliation and Financing Act) requires the Department of Health and Mental Hygiene and the Health Services Cost Review Commission in consultation with the Maryland Hospital Association to calculate the general fund savings resulting from the implementation of Maryland's All-Payer Model Contract. The Act directs the Governor, beginning with the FY 2016 submission, to reduce the budgeted Medicaid Deficit Assessment by the full amount of the general fund savings.

The attached document reports the general fund savings amount and describes to methodology used to calculate the savings. If you have any questions, do not hesitate to contact either of us.

Sincerely,

Tricia Roddy
Director
Office of Planning, Health Care Financing
Department of Health and Mental Hygiene

David C. Romans
Director of Payment Reform and Innovation
Health Services Cost Review Commission

Medicaid Savings Calculation
CY 2014

Health Services Cost Review Commission
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December 2014

Background

The Budget Reconciliation and Financing Act of 2014 (Chapter 464 Acts of 2014) requires that the Health Services Cost Review Commission (HSCRC) and the Department of Health and Mental Hygiene (DHMH) in consultation with the Maryland Hospital Association (MHA) develop a methodology for calculating the general fund Medicaid savings, if any, generated by the new Maryland All-Payer Model Contract.

The law specifies that:

"The Commission and the Department of Health and Mental Hygiene shall model the methodology for calculating general fund savings in the Medicaid Program by comparing an average baseline of Maryland Medicaid total risk-adjusted hospital expenditures per beneficiary over a reasonable period of time before the implementation of the Maryland All-Payer Model Contract to the actual Maryland Medicaid total risk-adjusted hospital expenditures per beneficiary during the period under Maryland's All-Payer Model Contract."

DHMH, HSCRC, and Maryland Hospital Association staff met three times during the Fall to determine the appropriate approach to calculating savings. The group reviewed recent trends in HSCRC rate updates, Medicaid hospital spending at Maryland hospitals, Medicaid utilization of Maryland hospitals by eligibility category, and changes in the intensity of services provided to Medicaid patients served at Maryland hospitals.

Analysis

After extensive review of the data, different underlying growth rates may be appropriate for developing the expected trend for the current period (the analysis of savings for the period January to June 2014) and future periods. A modest growth rate of 1.88% was selected for the current period as Affordable Care Act implementation is generating significant enrollment growth by parents and children in non-expansion eligibility categories. Based on the experience from 2009 to 2013 when the number of less poor parent/child enrollees surged due to a State Medicaid expansion and the recession, the new non-expansion parents and children are expected to utilize fewer services than the typical parent/child enrollee. More robust expenditure growth appears likely in future periods as Medicaid enrollment stabilizes. However, other factors including implementation of new Medicaid presumptive eligibility policies, changes in State policy concerning various assessments, and declines in uncompensated care will also influence the magnitude and direction of the expected trend and require further analysis before an appropriate trend can be established. Selection of a specific trend for future periods will be developed during preparation of next year's Medicaid savings analysis.

The underlying growth rate for the current period captures volume, and case mix trends from the period FY 2010 to FY 2013 and price trends from the period FY 2009 to FY 2012 (FY 2013 was discarded as an outlier). A fuller discussion of the components of the growth rate are provided later in this document.

The calculation of Medicaid savings since the implementation of the new Model Contract was developed by determining expected spending for the first six months of CY 2014 and comparing this spending level to actual spending for the first six months of the year. Expected spending was calculated by inflating actual CY 2013 per member per month charges for the period January to June 2013 for each Medicaid eligibility category by the underlying growth rate and then multiplying this number by the actual CY 2014 enrollees in each eligibility category. The resulting total was then compared to the actual spending for this period (enrollees qualifying for Medicaid through the Affordable Care Act expansion in 2014 were excluded from the analysis as 100% of their costs are paid with federal funds). General fund savings were assumed to represent 50% of the total savings since the State pays roughly 50% of Medicaid costs. A step by step explanation of the calculation is provided in Appendix 1.

As shown in the table below, the methodology produces a Medicaid savings figure of $29 million for the first half of the calendar year. The general fund share of this savings is $14.5 million.

Since CY 2014 expenditure data for the period beyond June 2014 is incomplete (as some Medicaid patients qualify for retroactive eligibility) and the law specifies the use of actual expenditures in the analysis, the savings calculation is limited to the six month period for which nearly complete data is available. There are a number of factors that could result in a different trend for the remainder of the calendar year including the hospital rate update in July 2014, a reduction to the uncompensated care built into hospital rates, retroactive eligibility determinations increasing the actual Medicaid spending in the January to June 2014 period by more than assumed in the analysis, the introduction of new Medicaid presumptive eligibility policies, and the impact on utilization of the ongoing implementation of the waiver.

Data Limitations Drive Approach to Trend Development

The approach to analyzing the historic growth in Medicaid charges on a risk-adjusted basis was driven in large part by data limitations. HSCRC claims Abstract data capture annual hospital spending on patients whose expected payer is Medicaid. However, for periods prior to CY 2012, these data cannot be disaggregated by eligibility category, and the expected payer designation is often incorrect. Data collected by Medicaid from MCOs capture utilization of Maryland hospitals by broad eligibility categories, but payment data linked to each visit/admission to a Maryland hospital are not available.

Given these limitations, analysis of the baseline trend used a variety of data sources but ultimately relied on three components:

- Medicaid provided utilization data by eligibility category;
- HSCRC rate update factors for inpatient and outpatient hospital charges; and

- HSCRC data on changes in the intensity of Medicaid hospital visits over time.

Detail on the analysis of the three components is provided below.

Price

The HSCRC's annual inpatient and outpatient rate update factors for the period FY 2006 – FY 2013 are presented in the chart below. The relatively low rates of growth for the period FY 2010 to FY 2013 reflect downward pressure to maintain compliance with the old waiver, generally low national inflation rates, and modest rates of growth in national Medicare hospital rates over the same period. Growth rates in prior years reflect both a period of more robust Medicare rate increases and the large cushion Maryland had under its Medicare test.

The fiscal 2013 update was discarded as an outlier since the negative trend reflected extraordinary actions taken by the HSCRC to ensure that Maryland remained in compliance with the previous All-Payer waiver, while development of the new waiver proceeded. The discussion then focused on the appropriate balance between the modest growth rates in the current period and the more robust growth in the earlier period. Greater weight was given to the period of low growth for development of the trend factor, since modest growth in national Medicare hospital rates is expected to continue over the next few years.

Two alternative approaches were considered:

(1) The average trend for FY 2010 to FY 2012 of 1.68% (for both inpatient & outpatient).
(2) The average trend for FY 2009 to FY 2012 of 2.31% (inpatient) and 2.38% outpatient).

The first option was deemed to weight a historically low period of hospital inflation too heavily. National estimates of per capita hospital expenditures produced by CMS's Office of the Actuary anticipate an uptick in growth in the coming years. Similarly CMS estimates of the Medicaid inpatient hospital market basket for 2015, 2016, and 2017 anticipate growth of 2.9% to 3% compared to the market basket factors of at or below 2.6% in the period 2010 to 2012.

Annual HSCRC Rate Updates
Fiscal Years 2006 -2013

	2006	2007	2008	2009	2010	2011	2012	2013
Inpatient	4.64%	3.56%	3.81%	4.20%	1.49%	2.00%	1.56%	-5.81%
Outpatient	3.98%	3.56%	4.00%	4.50%	1.49%	2.00%	1.56%	2.59%

Utilization

Medicaid provided utilization data for each category of eligibility for the period FY 2009 to FY 2013. During this period, Medicaid enrollment rose by more than 300,000 or 32% due to the State's 2008 Medicaid expansion and the effects of the economic downturn. While Medicaid covers a range of populations including poor elderly, the disabled, and low income children and parents, almost all of the enrollment growth was among children and parents. The disproportionate growth in children and parents impacts the overall utilization trend as these groups are lower utilizers of care than the disabled and elderly. To avoid the enrollment shifts from distorting the underlying growth rate, trends for the disabled and children and families were analyzed independently.

Further disaggregation was required as substantial shifts in utilization were observed within specific eligibility categories that experienced dramatic enrollment growth. For example, the largest Medicaid eligibility category for children and families (capturing less poor children and parents) experienced more than 100% enrollment growth from 2009 to 2013. The new enrollees produced a very different utilization pattern for the eligibility category - inpatient admissions per 1,000 enrollees declined at an average annual rate of 6.4% while outpatient visits declined at an average annual rate of 1.6%. Utilization by children and parents qualifying through other more stable enrollment categories was quite different with inpatient admissions per 1,000 declining at an average annual rate of 0.9% and outpatient visits rising by an annual rate of 1.6%.

To avoid the myriad of distortions produced by the enrollment instability, the utilization rates utilized for the underlying trend reflect the experience in the more stable enrollment categories including disabled individuals receiving SSI benefits and the eligibility categories capturing the poorest children and parents.

Annual growth rates for the period 2009 to 2013 were reviewed. The choice of years has a substantial impact on the results as shown in the tables below. The 2009 to 2012 trend (-1% inpatient and +1.9% outpatient) was viewed as a reasonable predictor of future growth if Medicaid enrollment stabilizes. Non-ACA expansion enrollment, however, is not stable with less poor parent and child enrollments continuing to increase. Based on the 2009 to 2013 experience with utilization rates for the rapidly growing eligibility groups, this enrollment growth can be expected to push Medicaid utilization rates down. To better capture the impact of the ongoing change in enrollment mix, the utilization trend for the period 2010 to 2013 (-2.9% inpatient and +0.22% outpatient) was incorporated into the underlying trend analysis for the current period.

Medicaid Utilization for Selected Eligibility Categories – Average Annual Growth 2009 - 2012

	Inpatient Admissions	Outpatient Visits
Stable Categories of Children and Family Enrollees	-1.1%	1.8%
Disabled – SSI Only	-1.5%	2.1%
Composite (weighted based on share of admissions/visits in 2013)	**-1.3%**	**1.9%**

Medicaid Utilization for Selected Eligibility Categories – Average Annual Growth 2010 - 2013

	Inpatient Admissions	Outpatient Visits
Stable Categories of Children and Family Enrollees	-2.7%	2.1%
Disabled – SSI Only	-3.1%	-0.9%
Composite (weighted based on share of admissions/visits in 2013)	**-2.9%**	**0.2%**

Case Mix

Using the HSCRC equivalent case mix adjusted discharge methodology, an analysis of the intensity of inpatient Medicaid admissions and outpatient visits from FY 2010 thru FY 2013 was performed. Over this period, inpatient intensity (as measured by change in the case mix index) rose by 0.6% per year, while the intensity of outpatient visits increased 2.5%.

Putting It All Together

The overall trend was calculated as shown below. Separate inpatient and outpatient rates were calculated. The inpatient and outpatient rates were then weighted based on their relative share of total Medicaid hospital charges included in HSCRC abstract data for FY 2013.

Underlying Trend = (1+ price growth rate) * (1+ utilization growth rate) * (1+ case mix intensity growth rate)

The underlying trend was then applied to the actual hospital charges for the first half of calendar 2013 for each category of Medicaid to estimate the charges per member month in each enrollment category for 2014. The expected 2014 charges were then compared to actual 2014 charges. Identification of the actual calendar 2013 and 2014 charges by eligibility category was performed by CRISP using its unique patient identifier to match

individuals from the Medicaid enrollment file with charges captured in the HSCRC's medical abstract and billing data.

Next Steps

Medicaid and HSCRC staff will work with CRISP to refine and improve the process for linking Medicaid eligibility files with hospital charge data collected by the HSCRC.

HSCRC, DHMH, and Maryland Hospital Association staff will meet quarterly to monitor trends in savings, evaluate whether the 4% completion factor is appropriate for future use, review the results of the enhancements to the CRISP process, and further refine the methodology. Selection of a trend factor for future periods will be made once the stability of Medicaid enrollment post-ACA implementation can be more fully assessed. Next year's savings report will include an analysis of the savings from January 2014 thru June 2015.

Appendix 1

Steps	**Calculation**
Step 1 - Develop "Expected Trend"	Expected trend = Underlying growth rate agreed to by DHMH and HSCRC after review of price, utilization, and case mix data for period from FY 2009 to FY 2013.
Step 2 - Calculate Projected Medicaid Charges for first six months of 2014.	
a. Calculate actual per member month hospital charges for each Medicaid eligibility category for the first six months of CY 2013.	CY 2013 Per Member Per Month (PMPM) Charges = Actual 2013 Charges/Actual 2013 Member Months
b. Calculate expected CY 2014 per member month charges for each Medicaid eligibility category by applying "Projected Trend" to the Per Member Month Calculation for each eligibility category .	Expected CY 2014 PMPM Charge = CY 2013 PMPM Charges * (1+ Expected Trend)
c. Multiply expected per member month spending for each eligibility category in CY 2014 by the number of actual CY 2014 member months in that eligibility category.	Expected CY 2014 Charges for Eligibility Category = Expected CY 2014 PMPM Charge * Actual CY 2014 Member Months
d. Sum the projected spending for each eligibility category to arrive at expected spending level for first half of CY 2014.	Expected Medicaid Charges CY 2014 = Sum of Expected Charges for Each Eligibility Category
Step 3 - Increse spending for CY 14 by 4% to capture delays in claims runout .	Expected Mediciad Charges for CY 2014 * 1.04
Step 4 - Calculate Total Medicaid Savings by Comparing Projected to Actual Charges and discounting charges by 6% as Medicaid pays only 94% of charges	Total Medicaid Savings = (Actual Medicaid Charges CY 2014*94%) - (Expected Medicaid Charges CY 2014 *94%)
Step 5 - General Fund Savings at 50% (rough share of Medicaid charges paid by State)	General Fund Savings = Total Medicaid Savings * 50%