Washington State Health Care Authority
Report to the Legislature

Behavioral and physical health integration

Integration savings

Engrossed Substitute House Bill 1109; Section 211(4); Chapter 415, Laws of 2019

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Executive summary

This report provides the savings resulting from behavioral and physical integration in regions which were integrated as of January 1, 2019, as well as the integration savings factors that were applied to the integrated managed care rates in the regions that were integrated effective January 1, 2020. The Washington State Health Care Authority (HCA) is submitting this report to the Legislature as required by Engrossed Substitute House Bill 1109 (2019):

> Annually, no later than November 1st, the authority shall report to the governor and appropriate committees of the legislature: (a) Savings attributed to behavioral and physical integration in areas that are scheduled to integrate in the following calendar year, and (b) savings attributed to behavioral and physical health integration and the level of savings achieved in areas that have integrated behavioral and physical health.

Integration savings

As of January 1, 2020, behavioral and physical health services have been integrated in all 10 regional service areas (RSA). Southwest Washington was integrated effective April 1, 2016. North Central was integrated effective January 1, 2108. Greater Columbia, King, Pierce, and Spokane were integrated effective January 1, 2019. North Sound was integrated effective July 1, 2019. The remaining three regions – Great Rivers, Salish, and Thurston/Mason – were integrated effective January 1, 2020.

A credible post-implementation dataset is not yet available for the North Sound RSA and the regions that integrated after January 1, 2019. However, the program-level integration savings factors applied to the calendar year 2020 rates are shown below. Integration savings factors were applied to both physical and behavioral health rate components. Using the savings factors shown below, the savings in CY2020 premiums totaled $19 million, total computable.

Table 1: Integration savings factors applied to calendar year 2020 rates

CY2020 integration savings factors	MC program*			
Region	**SCHIP**	**Family**	**AHAC**	**Blind/disabled**
Great Rivers	-0.14%	-0.31%	-0.46%	-0.46%
Greater Columbia	-0.19%	-0.23%	-0.42%	-0.42%
King	-0.18%	-0.17%	-0.48%	-0.48%
North Central	0.00%	0.00%	0.00%	0.00%
North Sound	-0.13%	-0.20%	-0.45%	-0.45%
Pierce	-0.16%	-0.21%	-0.42%	-0.42%
Salish	-0.14%	-0.22%	-0.41%	-0.41%
Spokane	-0.10%	-0.25%	-0.45%	-0.45%
Thurston/Mason	-0.14%	-0.20%	-0.37%	-0.37%

*MC Program: Apple Health Managed Care program. SCHIP: State Children's Health Insurance Program. Family: includes child and adult categories. AHAC: Apple Health Adult Coverage. Blind/Disabled: includes Community Options Program Entry System (COPES) and Developmental Disabilities Administration (DDA) as well as non-waiver categories

Analysis: Average attributed savings

HCA contracted with Milliman, an actuarial firm, for the analysis of integration savings detailed in this report. The analysis is intended to support the assumption that the base physical health data for the regions that had integrated as of January 1, 2019, reflects integration savings and is consistent with the assumption in the calendar year 2020 rate development.

The analysis contains a high-level summary of the per-member per-month (PMPM) relativities between the IMC population in the regions that had integrated by January 1, 2019, and the Apple Health Managed Care (AHMC) population in the regions that integrated after January 1, 2019. These PMPMs have been adjusted for differences in age-sex distributions and morbidity (using risk scores).

The integration savings factor applied during the rate development was applied to the physical and behavioral health services. This analysis only includes the savings achieved for physical health services.

Additional considerations

The analysis performed by Milliman was intended to attribute an approximate estimate of savings under an integrated delivery system for physical health benefits by calculating the PMPM cost difference for behavioral health (BH) utilizers under each delivery system. There are significant systematic differences between the two contract periods between 2018 and 2019 that influence the results of the comparison. They attempted to adjust for known differences that could be quantified to create a comparable basis. Normalization adjustments included:

- Population acuity changes
- Organ transplant prevalence
- Maternity delivery prevalence
- Policy and program changes
- Secular trends
- Known data issues between the contract periods
- High-cost outliers

Examples of other factors that were not addressed through adjustment included:

- Quality of behavioral health organization (BHO) versus managed care organization (MCO) encounter data
- Changes in inpatient facility capacity (e.g., opening and closing)
- Changes in provider reimbursement levels
- MCO provider contracting
- Data reporting
- Timing impacts to savings
- Member MCO migration
- Member regional migration
- Other unknown cost drivers

Conclusion

Regional savings were estimated by blending savings for behavioral health utilizers with the rest of the regional membership to account for treatment prevalence rates. For the purpose of this analysis, there is no integration savings assumed for members that did not utilize behavioral health services. The results of the analysis show savings of 1.07 percent in the Southwest Washington region and an overall savings of approximately 0.26 percent in the other regions that integrated by January 1, 2019.

Table 2: Overall savings/(loss) – regional distribution

Region	BH utilizers	Rest of region	Regional savings/(increase)
Greater Columbia	3.4%	0.0%	0.35%
King	3.7%	0.0%	0.38%
North Central	4.0%	0.0%	0.48%
Pierce	(1.1%)	0.0%	(0.15%)
Spokane	1.8%	0.0%	0.20%
Subtotal Mid-adopters	**2.3%**	**0.0%**	**0.26%**
Southwest Washington	3.6%	0.0%	1.07%

Table 3: Overall savings/(loss) – by managed care program

			MC program		
Region	**SCHIP**	**Family**	**AHAC**	**Blind/disabled**	**Composite**
Greater Columbia	(0.99%)	0.65%	(0.10%)	-0.54%	0.35%
King	1.09%	0.36%	0.07%	2.04%	0.38%
North Central	0.97%	0.43%	0.82%	(0.08%)	0.48%
Pierce	0.51%	0.22%	(0.38%)	(0.79%)	(0.15%)
Spokane	0.69%	-0.02%	0.29%	0.64%	0.20%
Southwest Washington	2.54%	2.56%	1.42%	(4.81%)	1.07%

Appendix

Integrated Managed Care CY 2019 experience and CY 2020 capitation adjustments

This is the report provided by Milliman on the impact of Integrated Managed Care.

Impact of Integrated Managed Care: CY 2019 Experience and CY 2020 Capitation Adjustments

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Milliman, Inc. (Milliman) has been retained by the Washington State Health Care Authority (HCA) to provide actuarial and consulting services related to the Apple Health Integrated Managed Care program, including comparison of experience before and after integration of physical and behavioral health services to approximate savings that may be attributable to benefit delivery integration in calendar year (CY) 2019. This memorandum outlines the results of our analysis.

Executive Summary

The integrated managed care program brings behavioral health and physical health together into a single program. One goal of integration includes creating efficiency and synergy savings as a result of a single MCO overseeing both components of member's health. Research suggests savings can be achieved for members who are utilizers of both behavioral and physical health benefits related to co-morbidities.[1]

The purpose of this analysis is to provide a comparison of experience under integrated managed care to pre-integration managed care experience to estimate the fiscal impact of the integration of physical and behavioral health into managed care for regions that were integrated as of January 1, 2019. The results of the analysis presented in this memo are limited to the physical health (PH) component managed care experience. Comparable behavioral health experience data is not available for estimating changes under integrated versus non-integrated delivery systems. As such, we are unable to estimate the total fiscal impact across all services. It should be noted that observed savings to physical health services may be offset by increases to behavioral health service utilization.

We compared average per member per month (PMPM) costs of physical health benefits for the cohort of members enrolled in the program who utilized behavioral health services when enrolled in either the Apple Health Managed Care (AHMC) (non-integrated experience) and Fully Integrated Managed Care (FIMC) (integrated experience). After limiting to services covered under the monthly PH capitation benefit and applying adjustments to normalize AHMC and FIMC PMPMs for comparability between contract periods, we calculated the percentage difference in PH experience by region and aid category for this BH utilizer cohort.

RESULTS

Table 1 illustrates the normalized physical health PMPM estimates and differences between the non-integrated and integrated experience for the cohort of the population we identified as behavioral health utilizers, as well as 2019 member months (MMs) for reference. Differences are based on pre-integration (AHMC 2018) and post-integration (FIMC 2019) average member costs for regions that were integrated as of January 2019, which we refer to as "Mid-Adopter Regions". The table also includes similar metrics for North Central and Southwest Washington regions, which we refer to as "Early Adopter Regions" as they were integrated prior to 2019. The comparison for the Early Adopter Regions compares region-specific FIMC costs in CY 2019 to normalized AHMC experience from non-integrated regions as of 2018.

TABLE 1–PH PMPM COST DIFFERENCES FOR BH UTILIZERS

REGION	2019 MMS	AHMC	FIMC	% DIFF
Greater Columbia	256,578	$209.72	$202.50	(3.4%)
King County	399,641	$213.65	$205.77	(3.7%)
Pierce	294,827	$190.28	$192.40	1.1%
Spokane	212,796	$215.77	$211.87	(1.8%)
Mid-Adopters	**1,163,842**	**$207.25**	**$202.78**	**(2.2%)**
North Central	110,524	$188.13	$180.66	(4.0%)
Southwest WA	384,244	$197.78	$190.72	(3.6%)

CONSIDERATIONS

This analysis is intended to estimate an approximation of savings under an integrated delivery system for physical health benefits by calculating the PMPM cost difference for BH utilizers under each delivery system. However, it should be noted that the percentage difference in observed cost before and after integration cannot be directly attributed to savings from integrating managed care as there are significant systemic differences between the two contract periods that influence the results of this comparison. We have attempted to adjust for known quantifiable differences to create a comparable basis. Normalization adjustments include: population acuity changes, organ transplant prevalence, maternity delivery prevalence, policy and program changes, secular trends, known data issues between the contract periods, and high-cost outliers.

Examples of other factors that influence cost differences between contract periods that we did not address through adjustment include: quality of encounter data submitted by Behavioral Health Organizations (BHOs – entities administering benefit prior to integration) versus Managed Care Organizations (MCOs – health

[1] Melek, et. al, Potential economic impact of integrated medical-behavioral healthcare, updated projections for 2017; January 2018
https://us.milliman.com/-/media/milliman/importedfiles/uploadedfiles/insight/2018/potential-economic-impact-integrated-healthcare.ashx

plans administering integrated benefits), changes in inpatient facility capacity (e.g., opening and closing), changes in provider reimbursement, MCO provider contracting, data reporting, timing to generating savings, member MCO migration, member regional migration (including members who may have moved to or from an integrated region), and other unknown drivers of cost difference between the comparison periods. It should be noted that the costs associated with these other variables could be greater than the cost impacts presented in Table 1.

AHMC & FIMC Methodology

This analysis compares physical health costs for two cohorts of members who utilized behavioral health services through AHMC and FIMC delivery models. The analysis was developed using CY 2019 FIMC and 2018 AHMC experience data. For regions that integrated in January 2019 (Greater Columbia, King, Pierce, Spokane), we compared regional physical health costs between the two periods. For early adopter regions (North Central and Southwest) we compared each region's FIMC physical health costs to mix-adjusted 2018 AHMC experience for non-integrated.

We compared the estimated physical health costs between the AHMC and FIMC cohorts for each region. We stratified costs by member region, though we did not account for member regional migration during the contract periods. These resulting PMPM comparisons are shown in Table 1.

Apple Health Managed Care (AHMC) Cohort

- We limited our analysis to member months for AHMC members over age 1 who utilized at least two behavioral health benefit package services within CY 2018.
- To identify members enrolled in managed care for physical health benefits, we relied on Client by Month membership from HCA's ProviderOne data warehouse, reported through June 2020.
- To identify behavioral health utilizers, we relied on CY 2018 incurred services, reported through February 2021, Behavioral Health Organization (BHO) and Fee-for-Service (FFS) data to isolate behavioral health experience
- We summarized 2018 physical health experience for the AHMC cohort, which reflect estimated PH costs for BH utilizers pre-integration (AHMC 2018).
- We relied on CY 2018 incurred (reported through February 2021), physical health managed care encounters, proxy priced shadow encounters, and select Fee-for-Service (FFS) carve-out data (i.e., professional component of BH inpatient hospital costs, Certified Public Expenditure (CPE) Benchmark inpatient claims) to quantify physical health costs for our selected cohort.
- We adjusted 2018 physical health experience for program/billing changes, risk scores, and trend to create a more comparable basis to 2019 experience.
- We used mix-adjusted AHMC experience for regions not yet integrated as of 2018 in order to estimate AHMC costs for early adopter regions (North Central & Southwest).

Fully Integrated Managed Care (FIMC) Cohort

- We limited our analysis to member months for FIMC members over age 1 who utilized at least two behavioral health benefit package services within CY 2019.
- To identify members enrolled in integrated managed care for both physical and behavioral health benefits, we relied on Client by Month membership from HCA's ProviderOne data warehouse, reported through June 2020.
- To identify behavioral health utilizers, we relied on CY 2019 incurred services, reported through February 2021, managed care encounters and shadow encounters to isolate behavioral health utilization.
- We summarized 2019 physical health experience for the FIMC cohort, which reflect estimated PH costs for BH utilizers post integration (FIMC 2019).
- We relied on CY 2019 incurred (reported through February 2021), physical health managed care encounters, proxy priced shadow encounters, and select FFS carve-out data (i.e., CPE Benchmark inpatient hospital claims) to quantify average physical health costs for our selected cohort.
- We adjusted 2019 physical health experience to normalize to a 1.00 risk score for comparability across contract periods.

Regional Savings Calculation Methodology

TREATMENT PENETRATION

Regional savings were estimated by blending estimated savings for behavioral health utilizers (presented in Table 1) into the rest of the population base for each aid category and region based on treatment prevalence rates within each cell. We assumed 0% integration savings for members in each cell of our study who were not identified as behavioral health utilizers.

Table 2 illustrates average population savings percentages across all aid categories by region. To calculate the Regional Savings estimate (Column D), we weight BH Utilizer Savings (Column A) with BH Utilizer Experience Weight (Column C) and 0.0% savings with the rest of the population (i.e., 1 – BH Utilizer Experience Weight).

TABLE 2: REGIONAL (SAVINGS)/LOSS CALCULATION [D = A * C + B * (1 – C)]

REGION	A: BH UTILIZER SAVINGS	B: REST OF REGION SAVINGS	C: BH UTILIZER EXPERIENCE WEIGHT	D: REGIONAL SAVINGS
Greater Columbia	(3.4%)	0.0%	10.2%	(0.35%)
King County	(3.7%)	0.0%	10.3%	(0.38%)
Pierce	1.1%	0.0%	13.2%	0.15%
Spokane	(1.8%)	0.0%	11.0%	(0.20%)
Subtotal Mid-Adopters	**(2.2%)**	**0.0%**	**11.0%**	**(0.24%)**
North Central	(4.0%)	0.0%	12.1%	(0.48%)
Southwest WA	(3.6%)	0.0%	29.8%	(1.07%)

Table 3 includes estimated population savings percentages by region and aid category, where the calculations are consistent with those in Table 2 above but results are presented at a more granular level. The information in this table is intended to illustrate the variability in savings estimates by region and population type for the following aid categories:

- **SCHIP**: includes children under Washington's Title XXI State Child Health Insurance Program (SCHIP), covering children in households with income levels between the Medicaid qualifying threshold of 215% and 317% of the federal poverty level (FPL).
- **FAMILY**: includes Washington's legacy Title XIX low-income children and caretaker adults who were eligible for Medicaid prior to the ACA expansion effective January 1, 2014. Household income qualifying levels, as a percentage of FPL are:
  - Up to 215% FPL for children under 18.
  - Up to 198% FPL for pregnant women
  - Up to 71% FPL for other caretaker adults.
- **AHAC**: Apple Health Adult Coverage includes the newly covered (as of 2014) VII Group adults with household income up to 138% FPL, excluding those members who would have been eligible for Medicaid prior to January 1, 2014.
- **AHBD**: Apple Health Blind or Disabled includes all managed care-enrolled seniors and persons with disabilities with household income through 74% FPL, including the aged, blind and disabled (ABD) non-waiver group, as well as 1915(c) waiver populations for both aging/physical disability supports and intellectual/developmental disability supports.

TABLE 3: REGIONAL (SAVINGS)/LOSS BY AID CATEGORY

REGION	SCHIP	FAMILY	AHAC	AHBD	COMPOSITE
Greater Columbia	0.99%	(0.65%)	0.10%	(0.54%)	(0.35%)
King County	(1.09%)	(0.36%)	(0.07%)	(2.04%)	(0.38%)
Pierce	(0.51%)	(0.22%)	0.38%	0.79%	0.15%
Spokane	(0.69%)	0.02%	(0.29%)	(0.64%)	(0.20%)
North Central	(0.97%)	(0.43%)	(0.82%)	0.08%	(0.48%)
Southwest WA	(2.54%)	(2.56%)	(1.42%)	4.81%	(1.07%)

CY 2020 CAPITATION RATE ADJUSTMENTS

While the analysis described in this memorandum is intended to quantify an estimated fiscal impact of on physical health benefit cost based on retrospective review of experience before and after integration, this section provides information on the prospective

adjustments applied to CY 2020 capitation rates for additional reference. Integration of physical and behavioral healthcare services is expected to produce continued savings and quality improvement over time, whereas these capitation rate adjustments resulted in immediate and measurable cost savings to the state.

To develop the prospective capitation rate integration savings adjustments, we identified utilizers of both the physical and behavioral health systems in historical base data experience and applied a cost reduction factor to the physical health benefit cost for this cohort of the population. We relied on research identified in a literature review to select estimated prospective savings assumptions for BH utilizers,[2] and final adjustment factors were developed by blending 0% savings for the majority of enrollees (non-BH utilizers), a 2.5% reduction for enrollees with physical healthcare conditions and ***either*** psychiatric or SUD treatment, and a 3.0% reduction for enrollees with physical healthcare conditions and ***both*** psychiatric and SUD treatment. The physical health savings factor adjustments were dampened to reflect 0% assumed savings to behavioral health benefits, and the final factors were applied across the fully integrated physical and behavioral healthcare rate.

Table 4 summarizes the savings factors applied to CY 2020 integrated capitation rates, including both the physical and behavioral health components, by region and aid category for all regions that were not yet integrated prior to January 1, 2019. Note that adjustments were not applied to capitation rates for Early Adopter regions (Southwest and North Central) in 2020 as the base experience used in setting capitation rates was assumed to include the initial impact of integration. The savings factors resulted in a $19M reduction in MCO premiums for the HCA in CY 2020.[3]

TABLE 4: CY 2020 INTEGRATION SAVINGS FACTORS

REGION	INTEGRATION DATE	SCHIP	FAMILY	AHAC	AHBD
Greater Columbia	Jan 1, 2019	(0.19%)	(0.23%)	(0.42%)	(0.54%)
King County	Jan 1, 2019	(0.18%)	(0.17%)	(0.48%)	(0.60%)
Pierce	Jan 1, 2019	(0.16%)	(0.21%)	(0.42%)	(0.44%)
Spokane	Jan 1, 2019	(0.10%)	(0.25%)	(0.45%)	(0.52%)
North Sound	Jul 1, 2019	(0.13%)	(0.20%)	(0.45%)	(0.45%)
Great Rivers	Jan 1, 2020	(0.14%)	(0.31%)	(0.46%)	(0.48%)
Thurston Mason	Jan 1, 2020	(0.14%)	(0.20%)	(0.37%)	(0.36%)
Salish	Jan 1, 2020	(0.14%)	(0.22%)	(0.41%)	(0.41%)

[2] Melek, et. al, Potential economic impact of integrated medical-behavioral healthcare, updated projections for 2017; January 2018 https://us.milliman.com/-/media/milliman/importedfiles/uploadedfiles/insight/2018/potential-economic-impact-integrated-healthcare.ashx

[3] More details describing the development of these factors is documented in our October 17, 2019 Apple Health Integrated Managed Care CY 2020 Rate Certification and the December 20, 2019 Apple Health Integrated Managed Care CY 2020 Capitation Rate Amendment.

Experience Adjustment Assumptions

ADJUSTMENTS MADE FOR COMPARISON OF COHORTS

Table 5 outlines adjustments that were accounted for in our modeling with the intent to create as comparable of a basis as possible.

TABLE 5: ADJUSTMENTS MADE TO COHORTS

ADJUSTMENT	DESCRIPTION
Credibility adjustments	We accounted for small samples sizes by applying a classical credibility methodology to regional PMPMs at the region, aid category, and age group (child/adult) level. We assumed 40,000 member months reflects full credibility, which is consistent with the threshold used in our capitation rate development for AHMC/FIMC. Actual experience for BH utilizers was blended with a manual rate in each period as follows: § Partial credibility weight for actual experience was calculated as: (# BH Utilizers MMs / 40,000) ^ 0.5 § Manual rate PMPMs were calculated for each aid category and age group cell by combining the following regions: – AHMC (2018): Great Rivers, Greater Columbia, King, Pierce, Spokane, and Thurston Mason – FIMC (2019): all regions listed above plus North Central (note that Southwest was excluded from the manual PMPM calculation as it has been integrated since 2016, whereas North Central integrated in 2018) § Credibility-adjusted PMPMs were calculated for each regional cell as: Actual PMPM * Partial credibility weight + Manual PMPM * (1 – Partial credibility weight)
Member mix	We accounted for differences in member demographics (i.e., age/gender groups and member aid category) between time periods by weighting 2018 composite PMPMs using a CY 2019 member month distribution. The intent of this adjustment is to normalize for changes in average cost between periods due to changes in the demographic distribution of the population.
Member acuity	We accounted for differences in average member acuity between the two cohorts by calculating individual member risk scores using version 6.4 CDPS+Rx concurrent MH carve-out weights and dividing PMPM cost by risk score for each cell. The intent of this adjustment is to normalize for changes in average acuity that could influence average costs regardless of integration.
Program changes[4]	We accounted for several known program changes between the two contract periods based on adjustment factors that were developed as part of the CY 2020 capitation rate development, which used CY 2018 experience as the basis of projected medical costs. Adjustments were specific to program changes that are inherently reflected in 2019 experience but not 2018 experience, including: § Pediatric primary care physician fee schedule enhancement § Medication assisted treatment (MAT) fee increase (non-methadone treatment administered through physical health benefit) § Quality incentive payment reimbursement changes based on changes to qualifying hospitals § Adult hearing aid benefit expansion § Collaborative care benefit implementation § Health Home program expansion into King and Snohomish counties
Trend[5]	We accounted for secular trend changes between 2018 and 2019 by applying annualized trend factors to 2018 experience consistent with our trend analysis completed for CY 2021 capitation rate development. The trend analysis relies on normalized time series data from 2016 to 2019 to isolate unit cost and utilization trends that are observed outside of known changes in the program.
Known data issues between contract periods	There were several known data issues between the two contract periods. One notable data issue includes the adjudication of professional claims associated with a behavioral health hospital visit. Prior to integration, behavioral health services were paid by Behavioral Health Organizations (BHOs) and the professional component of inpatient behavioral health visits were paid fee-for-service (FFS). Under integration, MCOs pay for both components of the stay, and the professional component is included in the physical health benefit package. As such, we included the applicable fee-for-service experience for the 2018 AMHC cohort in the PMPMs for comparability. Other data issues tend to be region-specific, such as changes in MCO provider contracting as the state's value-based purchasing initiatives expand over time.
CPE hospital data	Inpatient hospital stays for AHBD managed care enrollees are covered outside the standard monthly capitation rates paid to MCOs and covered separately through a CPE Benchmark Rate. The hospitals bill HCA directly and are paid FFS, but HCA charges the expenses against the MCOs' CPE Benchmark. We included these CPE inpatient hospital stays in our medical PMPMs to ensure comparability between contract periods regardless of the mix of CPE / non-CPE hospitals utilized by members.

EXCLUSIONS MADE TO COHORT

Table 6 lists all exclusions that were made to our comparison cohorts when modeling PMPMs before and after integration, with the intent of avoiding unintentional bias from subsets of the population or certain services that can disproportionately impact average PMPM costs without expected changes under integration. Note, members may fall into multiple exclusion categories.

[4] More information on each of these program changes is presented in the October 17, 2019 *Apple Health Integrated Managed Care CY 2020 Rate Certification* and the December 20, 2019 *Apple Health Integrated Managed Care CY 2020 Capitation Rate Amendment*

[5] More information on annual trend rates by aid category and service category presented in the December 21, 2020 *Apple Health Integrated Managed Care CY 2021 Rate Certification.*

TABLE 6: MEMBER MONTH EXCLUSIONS MADE TO COHORTS

ADJUSTMENT CATEGORY	DESCRIPTION	2018 MMS	2019 MMS
Starting Total (before exclusions)	AHMC and FIMC cohorts prior to exclusions	1,235,226	1,214,129
Transplants	Members with transplants were excluded due to high and unavoidable costs associated w/the procedure	319	210
Outliers	Excludes members with $250,000+ physical health expenditures in the year	655	506
Third Party Liability (TPL)	Excludes members with comprehensive medical TPL coverage	42,509	49,585
Final adjusted study cohort		**1,191,901**	**1,163,842**

In addition to the population exclusions, where all experience was excluded for certain members, we excluded the following service categories from the experience PMPMs:

- Maternity delivery – changes in prevalence of deliveries between periods was material but expected to be the result of external factors other than behavioral health integration
- Applied behavioral analysis (ABA) therapy services – significant expansion of services has occurred over time, but this is expected to be the result of increasing workforce availability and not behavioral health integration

UNADDRESSED CONCERNS THAT AFFECT COMPARABILITY

There are significant differences between the two contract periods which impact this comparison. Table 7 outlines a summary of factors that we were unable to adjust for explicitly because of the lack of sufficient information available to inform adjustments.

TABLE 7: ADJUSTMENTS NOT MADE TO COHORTS

KNOWN ISSUES WITHOUT ADJUSTMENT	DESCRIPTION
Quality of BHO and MCO behavioral health encounter data	Encounter data submitted by Behavioral Health Organizations (BHOs) prior to integration have material data quality concerns, such as missing member ID, incomplete encounter reporting for some services and providers, and non-standard coding of services. Behavioral health encounter data submitted by MCOs during the initial phase of integration have been observed to be significantly incomplete for certain services or providers (not consistent services/providers with the MCO data reporting issues).
Changes in hospital capacity (e.g., opening and closing)	Some hospitals closed and others expanded in 2019, causing shifts in average unit cost. We did not explicitly adjust to consistent pricing between periods for hospital utilization, but we expect this has contributed to increasing unit cost over time that may not be fully reflected in the trend rates used in the analysis.
Provider reimbursement, MCO contracting, and data reporting	Upon implementation of integrated care contracts, most regions had a change in which MCOs were operating in the region before and after integration. We did not explicitly adjust for changes in average unit cost differences related to provider reimbursement mix changes between contract periods. We observed changes to unit cost over time as significant changes in market share upon implementation of integrated care contracts that may not be fully reflected in the trend rates used in the analysis. The direction and magnitude of these changes varies by region.
Timing necessary to generate savings post-implementation	We compared physical health experience for the two contract periods, but this does not necessarily allow sufficient time for savings to result from integration initiatives.
Average enrollment duration in managed care	HCA conducted significant redetermination activities over the course of 2018 and 2019, which reduced average enrollee duration between the contract periods. We observed increasing average PMPM cost in the general population as enrollment decreased, but we did not explicitly measure or adjust the potential impact of this activity on BH utilizers.

Caveats and Limitations

The terms of Milliman's contract with the Washington Health Care Authority signed on December 15, 2017 apply to this report and its use.

This memorandum, including attached exhibits, is intended for the use of the State of Washington, Health Care Authority (HCA) in support of the Medicaid managed care programs and may not be distributed to any third parties without the prior written consent of Milliman. It is our understanding that this document will be included as an attachment to a report prepared by HCA for the Washington State Legislature and may be released publicly. To the extent that the information contained in this report is provided to third parties, the document, including all appendices, should be distributed in its entirety. Any user of the data must possess a certain level of expertise in actuarial science and health care modeling so as not to misinterpret the data presented.

Milliman makes no representations or warranties regarding the contents of this report to third parties. Similarly, third parties are instructed that they are to place no reliance upon this report prepared for HCA by Milliman that would result in the creation of any duty or liability under any theory of law by Milliman or its employees to third parties.

Actual savings for the program will vary from our estimates for many reasons. Differences between the estimated savings and actual savings resulting from an integrated delivery system depend on the extent to which actual experience conforms to the assumptions made in our analysis. It is certain that actual experience will not conform exactly to the assumptions used.

We relied on certain models in the preparation of these exhibits. We have reviewed the models, including their inputs, calculations, and outputs for consistency, reasonableness, and appropriateness to the intended purpose and in compliance with generally accepted actuarial practice and relevant actuarial standards of practice (ASOPs).

This analysis has relied extensively on data provided by HCA and its 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 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.

Guidelines issued by the American Academy of Actuaries require actuaries to include their professional qualifications in all actuarial communications. The actuary responsible for this report, Jennifer Gerstorff, is a member of the American Academy of Actuaries and meets the qualification standards for performing the analysis presented herein.

Milliman is among the world's largest providers of actuarial and related products and services. The firm has consulting practices in life insurance and financial services, property & casualty insurance, healthcare, and employee benefits. Founded in 1947, Milliman is an independent firm with offices in major cities around the globe.

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