

MILLIMAN REPORT

Senate Bill 419 Actuarial Analysis

State of West Virginia, Department of Human Services,
Bureau for Medical Services

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Introduction

On March 12, 2022, Governor Justice signed into law Senate Bill (SB) 419¹ which establishes a pilot program instructing the West Virginia Department of Human Services (DoHS) to enter into contracts with Medicaid managed care organizations (MCOs) that allow performance-based payments for substance use disorder (SUD) services.² The overarching goal of the program, as laid out in SB 419, is “evaluating the impact that post-discharge planning and the provision of wraparound services has on the outcomes of Substance Use Disorder (SUD) in three years post-substance use disorder residential treatment.”

The DoHS, through the Bureau for Medical Services (BMS), was also tasked in SB 419 to conduct an actuarial analysis of the pilot program on an annual basis and submit this report with a detailed report of the overall performance of the pilot program.³ Because the pilot program has not been officially launched as of the date of this report, this actuarial analysis outlines current SUD expenditures in West Virginia Medicaid, particularly for users of residential treatment services. This report is intended to address the actuarial analysis requirement of SB 419 and is to be used in conjunction with the detailed report of the overall performance of the pilot program. Milliman has been retained by BMS to draft the actuarial analysis required under SB 419.

Senate Bill 419 Overview

SB 419 directs the state DoHS to establish a pilot program to evaluate the impact of certain post-substance use disorder residential treatments in West Virginia. The bill requires the DoHS through the BMS to:

1. Enter into contracts with Managed Care Organizations (MCOs) where at least 15% of substance use disorder residential treatment program contracts are based on performance-based metrics;
2. Create an advisory committee with representatives of the Office of Drug Control Policy, the Bureau of Behavioral Health, the Bureau of Medical Services, and the MCO to develop the performance metrics payments will be based upon; and
3. Hire an employee to actively monitor the substance use disorder (SUD) residential treatment facility’s compliance with reporting and monitoring requirements.

The performance metrics developed by the advisory committee must include but not be limited to the following:⁴

1. Whether patient is drug free, whether a patient is employed, and whether a patient has housing 30 days post-discharge, six months post-discharge, one year post-discharge, two years post-discharge, and three years post-discharge;
2. Whether SUD residential treatment facility has arranged medical, substance use, psychological services, or other community-based supports for the patient and whether the patient attended during those same times;
3. Whether the patient has transportation 30 days post-discharge; and
4. Whether a patient has relapsed and needed any additional SUD treatment, 30 days post-discharge, six months post-discharge, one year post-discharge, two years post-discharge, and three years post-discharge.

The advisory committee will evaluate this pilot program annually for effectiveness, adjust metrics as indicated to improve quality outcomes, and assess the pilot for continuation.

Moreover SB 419, instructs the BMS to enter into contracts with the MCOs wherein, at a minimum, 15 percent of SUD residential treatment contracts for facilities providing SUD services are paid based upon performance-based measures. The bill, however, does not require SUD residential treatment facilities to participate in the pilot program.

¹ “Senate Bill 419,” West Virginia Legislature, 2022 Regular Session, Passed March 7, 2022, Retrieved from: [SB419 SUB1 ENR.pdf \(wvlegislature.gov\)](#).

² Ibid.

³ Ibid.

⁴ Ibid.

SUD residential treatment facilities that opt for performance-based contracting shall comply with the following:⁵

1. Programs must be evidence-based and research-based. There also must be promising practices in providing services to the patient population that include fidelity and quality assurance provisions.
2. The SUD residential treatment facility shall develop a robust post-treatment planning program, which includes:
 - a. Connecting the patient population to community-based supports, also known as wraparound services, to include designation of a patient navigator to assist each discharged patient with linkage to medical, substance use, and psychological treatment services;
 - b. Assistance with job placement;
 - c. Weekly communication regarding status for up to three years; and
 - d. Assistance with housing and transportation.

The bill further provides that the MCO may transfer risk for the provision of services to the SUD residential treatment facility during this pilot program, only to the limited extent of implementing a performance-based methodology.⁶ The MCO may also develop a shared saving methodology, which the SUD residential treatment facility shall receive a defined share of any savings that result from improved performance.

The pilot program will terminate in three years unless it is recommended for further evaluation.⁷ At the end of each year, the BMS is required to present an actuarial analysis to the Legislative Oversight Commission on Health and Human Resources Accountability.

Actuarial Analysis of SUD Use in West Virginia Medicaid

SB 419 requires that the department shall report the performance of the treatment facility pilot program annually throughout the term of the pilot program. However, as of this report date the pilot program has not been officially launched. To meet the reporting requirements, we have instead performed an actuarial analysis of SUD use in West Virginia's Medicaid managed care programs as agreed with BMS. To better understand the total cost of care and the potential for benefit to the individual and to the state of a focused investment in individuals with SUD needs, we are sharing the percentage of SUD utilizers, along with both SUD and non-SUD per member per month (PMPM) costs for members enrolled in Medicaid managed care in West Virginia and other related statistics.⁸

MANAGED CARE BACKGROUND

West Virginia operates its Medicaid programs for most non-elderly adults and children through two managed care programs. Since 1996, Mountain Health Trust (MHT) provides managed care services to approximately 85% of the state's Medicaid membership, including most non-elderly adults and children.⁹ Mountain Health Promise (MHP) began in March 2020 as a specialized managed care program designed to assist children in foster care, kinship care, and adoptive care.

MHT provides most services, excluding opioid treatment prevention (OTP) services and point-of-sale pharmacy, through three MCOs (Aetna Better Health of West Virginia, Health Plan of the Upper Ohio Valley, and UniCare). MHP provides most medical services (excluding OTP and point-of-sale pharmacy) and home- and community-based services for children with serious emotional disorder through one MCO (Aetna Better Health of West Virginia). The State continues to pay carved out services (such as OTP and point-of-sale pharmacy) through fee-for-service for MHT and MHP members and all services for non-managed care members.

⁵ Ibid.

⁶ Ibid.

⁷ Ibid.

⁸ SUD services are defined based on West Virginia Medicaid policy manuals and Milliman's *Health Cost Guidelines* using revenue codes, CPTs, and Diagnosis Related Groups for institutional and professional claims. All point-of-sale pharmacy claims are excluded from this analysis.

⁹ <https://dhr.wv.gov/bms/Members/Managed%20Care/Pages/default.aspx>

Given the focus of SB 419 on value-based purchasing for substance use disorders services for managed care organizations, this analysis is limited to managed care members in the MHT and MHP programs. Encounter data is limited to those paid by the MCOs and OTP services paid FFS.

DATA OVERVIEW

To complete the analysis, we relied on eligibility, managed care encounters, and fee-for-service (FFS) claims data received from Myers and Stauffer, LC on November 9, 2023, with enrollment and paid claims through September 2023. The following adjustments were made to the data:

- The data was limited to members enrolled in the MHT and MHP managed care programs from July 2021 through June 2023 as this is the most recently available data for both the MHT and MHP programs.
- Enrollment with missing key demographic fields used in assigning rate cells, such as a region, age, or gender, were excluded.
- Managed care encounters and FFS claims that do not have an associated managed care enrollment record for the member and month of service were removed.
- For managed care encounters, we received a detailed claims-level reconciliation file that has the final adjudicated paid amounts as determined by Myers and Stauffer LC's (MSLC's) review of each plan's claims and financials. We used this file to adjust the final paid amount and utilization metrics as necessary.
- We summarized total managed care encounter spending and OTP claims paid FFS. We did not include any point-of-sale pharmacy or other FFS claims in our final summaries.
- The MCO encounters include most services paid through subcapitated arrangements. However, there are limited instances when the MCOs do not provide reliable encounters for costs incurred through subcapitated arrangements. Therefore, we may be missing a small amount of subcapitated costs from our analysis.

We have not adjusted for incurred but not paid amounts (IBNP). We have included claims paid through September 2023 which includes at least three months of run-out for the incurred period. While additional IBNP is expected, based on historical claim run-out patterns we do not believe the IBNP materially impacts the results of this analysis.

METHODOLOGY

We summarized FFS OTP claim costs and managed care encounter costs for members enrolled in managed care for state fiscal year (SFY) 2022 (July 2021 through June 2022) and SFY 2023 (July 2022 through June 2023). We identified SUD services in the managed care encounter data based on Milliman's *Health Cost Guidelines* and actuarial judgment using revenue codes, CPT codes, and Diagnosis Related Groups for institutional and professional claims. We also quantified the percent of members using SUD services and stratified members using SUD services into those who received at least one SUD service in a residential or hospital setting, and those who did not (but received at least one SUD service in any other setting). We then classified members by regions and type and into one of three populations: expansion adults (formerly known as West Virginia Health Bridge), other adults, and children. For simplicity, we have stratified adults and children based loosely on the rate cells used for managed care rate development. The following groups are considered children for this analysis (while all other groups are considered adults):

- Children with Special Health Care Needs (CSHCN);
- MHP members who are age 17 and younger and not enrolled in the Children with Serious Emotional Disorder (CSED) waiver;
- Temporary Aid for Needy Families (TANF) members age 19 and younger; and
- Social Security Income (SSI) members age 19 and younger.

KEY METRICS

Spending metrics for SUD services statewide are shown in Tables 1-4 below for SFY 2022 and SFY 2023. Each table includes the percentage of members receiving at least one SUD service in the year, along with the total costs for SUD services in millions of dollars (paid FFS or by the MCOs) and PMPM costs for SUD-receiving members. We have also included a comparison of PMPM non-SUD costs for both SUD utilizers and non-SUD utilizers.

Table 1: SUD Utilizers, Statewide – SFY 2022

Population	Res/Hosp SUD Members	Other SUD Members	% of Members Considered Res/Hosp SUD Utilizers	% of Members Considered Other SUD Utilizers
Expansion	6,876	19,455	2.6%	7.4%
Other Adults	2,073	8,829	1.6%	6.7%
All Children	98	222	0.0%	0.1%
Total	9,047	28,506	1.4%	4.3%

Table 2: SUD utilizers, Statewide – SFY 2023

Population	Res/Hosp SUD Members	Other SUD Members	% of Members Considered Res/Hosp SUD Utilizers	% of Members Considered Other SUD Utilizers
Expansion	7,784	19,860	2.7%	7.0%
Other Adults	2,295	8,428	1.7%	6.1%
All Children	96	282	0.0%	0.1%
Total	10,175	28,570	1.4%	4.1%

Table 3: SUD Spending, Statewide – SFY 2022

Population	MCO Costs						
	FFS SUD OTP Costs (\$mil)	MCO SUD Costs (\$mil)	SUD PMPM for Res/Hosp SUD Utilizers	SUD PMPM for Other SUD Utilizers	Non-SUD PMPM for Res/Hosp SUD Utilizers	Non-SUD PMPM for Other SUD Utilizers	Non-SUD PMPM for Non-SUD Utilizers
Expansion	\$ 10.3	\$ 88.5	\$ 897	\$ 178	\$728	\$524	\$231
Other Adults	\$ 4.8	\$ 20.9	\$ 775	\$ 118	\$931	\$631	\$353
All Children	\$ 0.0	\$ 0.6	\$ 732	\$ 42	\$1,782	\$1,233	\$168
Total	\$ 15.1	\$ 110.1	\$ 871	\$ 160	\$778	\$560	\$225

Table 4: SUD Spending, Statewide – SFY 2023

Population	MCO Costs						
	FFS SUD OTP Costs (\$mil)	MCO SUD Costs (\$mil)	SUD PMPM for Res/Hosp SUD Utilizers	SUD PMPM for Other SUD Utilizers	Non-SUD PMPM for Res/Hosp SUD Utilizers	Non-SUD PMPM for Other SUD Utilizers	Non-SUD PMPM for Non-SUD Utilizers
Expansion	\$ 11.6	\$ 91.0	\$ 925	\$ 158	\$688	\$509	\$221
Other Adults	\$ 4.9	\$ 21.1	\$ 752	\$ 117	\$876	\$639	\$352
All Children	\$ 0.0	\$ 0.7	\$ 856	\$ 47	\$1,221	\$1,450	\$169
Total	\$ 16.6	\$ 112.8	\$ 890	\$ 146	\$730	\$554	\$222

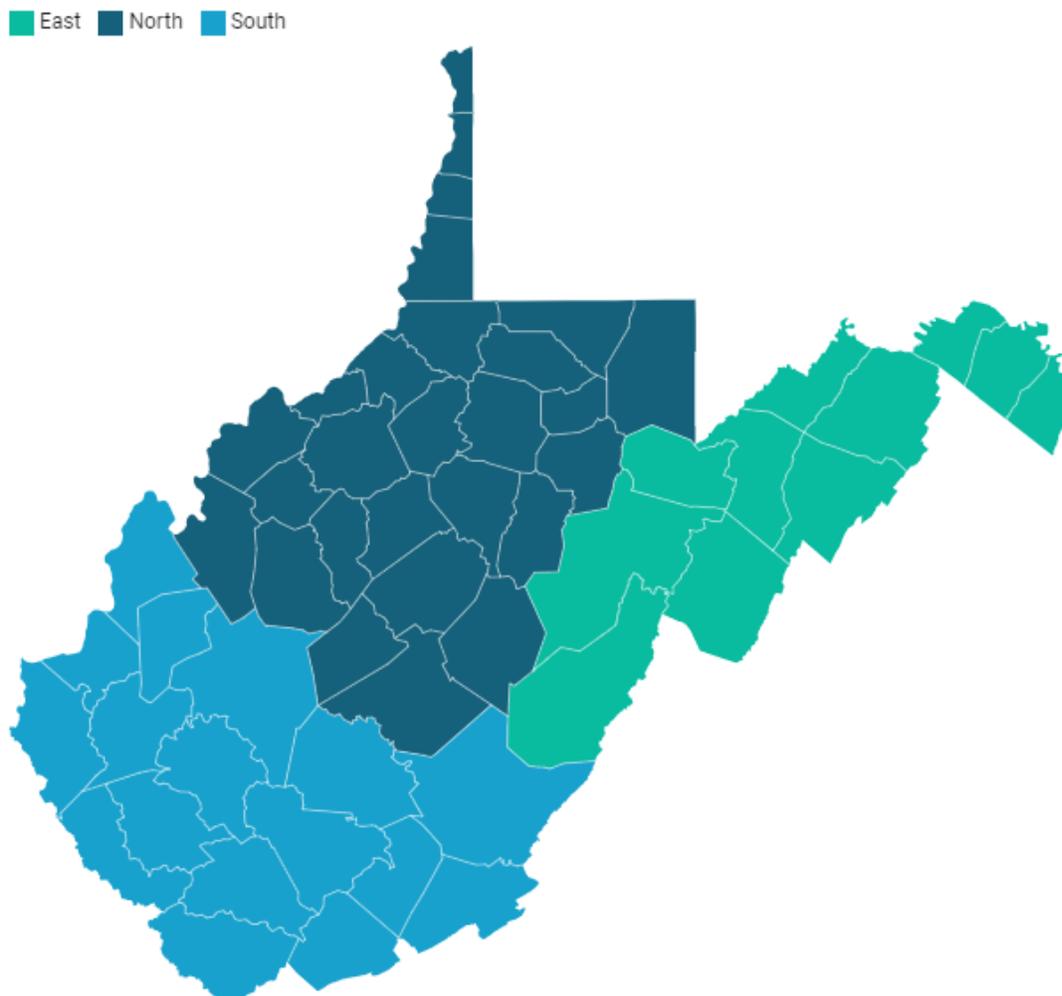
In SFY 2022 and SFY 2023, over 9% of managed care adults received at least one SUD service in each year. As Tables 1 and 2 show, the percentage of members by population category using SUD services remained relatively stable. Similarly, MCO SUD and FFS OTP costs did not change significantly from SFY 2022 to 2023, both increasing slightly from SFY 2022 to SFY 2023.

Tables 3 and 4 illustrate that the non-SUD PMPM for SUD utilizers is significantly higher than for non-SUD utilizers. Appendix A contains cost models based on SFY 2022 and SFY 2023 managed care encounter and membership data, shown separately for residential or hospital SUD utilizers, other SUD utilizers, and SUD non-utilizers. The cost models in Appendix A further illustrate how residential/hospital, other, and non-SUD utilizers compare across all managed care costs. Both residential/hospital and other SUD utilizers have higher inpatient medical (non-behavioral health) costs, psychiatric costs, emergency room costs, and ambulance costs than non-SUD utilizers.

REGIONAL RESULTS

In addition to providing statewide SUD cost metrics, we have also included regional summaries consistent with the MHT rating regions. Figure 1 provides a map of the MHT rating regions by county.

Figure 1: Regions



Tables 5 through 7 detail key spending metrics for SUD services for the North, East, and South regions, respectively, in SFY 2023. As illustrated in the tables, the Southern Region experiences the highest SUD utilization, with nearly 11% of adults receiving SUD care.

Table 5: SUD Spending, North Region – SFY 2023

Population	SUD Members	% of Members Receiving SUD Services	FFS SUD Costs (\$mil)	MCO SUD Costs (\$mil)	MCO Costs		
					SUD PMPM for SUD utilizers	Non-SUD PMPM for SUD utilizers	Non-SUD PMPM for Non-SUD Utilizers
Expansion	8,528	8.2%	\$ 2.8	\$ 30.6	\$ 409	\$ 572	\$ 236
All Other Adults	3,208	6.5%	\$ 1.0	\$ 7.1	\$ 283	\$ 719	\$ 368
All Children	133	0.1%	\$ 0.0	\$ 0.4	\$ 361	\$ 1,519	\$ 177
Total	11,869	4.7%	\$ 3.8	\$ 38.1	\$ 377	\$ 618	\$ 235

Table 6: SUD Spending, East Region – SFY 2023

Population	SUD Members	% of Members Receiving SUD Services	FFS SUD Costs (\$mil)	MCO SUD Costs (\$mil)	MCO Costs		
					SUD PMPM for SUD utilizers	Non-SUD PMPM for SUD utilizers	Non-SUD PMPM for Non-SUD Utilizers
Expansion	3,088	7.5%	\$ 1.2	\$ 8.1	\$ 294	\$ 472	\$ 213
All Other Adults	1,364	7.1%	\$ 0.8	\$ 2.1	\$ 196	\$ 526	\$ 303
All Children	82	0.2%	\$ 0.0	\$ 0.1	\$ 82	\$ 2,361	\$ 145
Total	4,534	4.3%	\$ 2.0	\$ 10.3	\$ 263	\$ 522	\$ 196

Table 7: SUD Spending, South Region – SFY 2023

Population	SUD Members	% of Members Receiving SUD Services	FFS SUD Costs (\$mil)	MCO SUD Costs (\$mil)	MCO Costs		
					SUD PMPM for SUD utilizers	Non-SUD PMPM for SUD utilizers	Non-SUD PMPM for Non-SUD Utilizers
Expansion	16,028	11.5%	\$ 7.6	\$ 52.3	\$ 349	\$ 563	\$ 212
All Other Adults	6,151	9.0%	\$ 3.2	\$ 11.8	\$ 223	\$ 700	\$ 353
All Children	163	0.1%	\$ 0.0	\$ 0.3	\$ 205	\$ 804	\$ 172
Total	22,342	6.5%	\$ 10.8	\$ 64.4	\$ 315	\$ 600	\$ 220

CONCLUSION

Over 9% of Medicaid managed care adults statewide are receiving SUD services (5.5% of all managed care members including children). Total spending by the MCOs on SUD services in State Fiscal Year (SFY) 2023 was \$112.8 million. Additionally, \$16.6 million in Opioid Treatment Services was paid FFS by the state for managed care members in SFY 2023.

The per member per month (PMPM) SUD costs for those members receiving SUD services are over \$300 PMPM. The non-SUD costs for these members are nearly three times those of members not receiving SUD services, at almost \$600 PMPM. The impact of a successful SUD program may affect the entire scope of services for individuals. Therefore, it is important to understand the current SUD and non-SUD spend for those with SUD needs to better

assess the full potential fiscal impact of a value-based approach to SUD payments. Assuming SUD support will positively affect comorbidities, there is substantial opportunity for statewide benefits related to non-SUD services for those with SUD needs.¹¹

¹¹ <https://www.ncbi.nlm.nih.gov/books/NBK424848/#:~:text=Because%20substance%20use%20complicates%20many,and%20reduce%20health%20care%20costs>.

Data Reliance and Caveats

This report is intended for the use of the State of West Virginia, Bureau for Medical Services (BMS) in support of the Medicaid managed care programs. We understand that this information may be shared with third parties. To the extent that the information contained in this report is provided to third parties, the document should be distributed in its entirety.

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 BMS 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.

This analysis has relied extensively on data provided by BMS 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. Identified data deficiencies (such as limited run-out) are noted throughout the report. 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.

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).

Guidelines issued by the American Academy of Actuaries require actuaries to include their professional qualifications in all actuarial communications. Annie Hallum, Justin Birrell, Daniel Gerber, and Lu Miao are members of the American Academy of Actuaries and meet the qualification standards for performing the analysis presented herein.



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Appendix A-1
West Virginia Bureau for Medical Services
SB419 Actuarial Report
Cost Model for Res/Hosp SUD Utilizers
Adults Only

SFY 2022 MMs: 77,347 SFY 2023 MMs: 83,356

Service Category	SFY 2022 Data					SFY 2023 Data				
	Admits Per 1,000	Avg Length of Stay	Utilization Per 1,000	Cost Per Service	PMPM	Admits Per 1,000	Avg Length of Stay	Utilization Per 1,000	Cost Per Service	PMPM
Hospital Inpatient										
IP Medical	154.7	6.1	937.1	\$ 1,127.20	\$ 88.02	154.6	5.7	886.4	\$ 1,223.67	\$ 90.39
IP Surgical	41.0	11.4	465.4	\$ 1,787.34	\$ 69.32	42.3	12.8	541.1	\$ 1,535.47	\$ 69.24
IP Psych Hospital	138.5	8.6	1,190.3	\$ 756.73	\$ 75.06	116.6	8.6	1,007.3	\$ 839.59	\$ 70.48
IP Psych Residential	-	-	-	\$ 0.00	\$ 0.00	1.4	6.2	8.9	\$ 140.67	\$ 0.10
IP SUD Hospital	239.1	6.4	1,522.9	\$ 876.82	\$ 111.28	210.3	6.6	1,396.9	\$ 832.16	\$ 96.87
IP SUD Residential	2,437.0	12.8	31,087.2	\$ 237.33	\$ 614.83	2,549.4	13.0	33,259.1	\$ 237.77	\$ 659.00
IP Normal Delivery	14.9	2.1	31.6	\$ 1,362.04	\$ 3.59	13.0	2.3	30.1	\$ 1,246.78	\$ 3.13
IP C-Section Delivery	8.7	3.4	29.5	\$ 1,415.86	\$ 3.48	7.6	4.0	30.4	\$ 1,306.49	\$ 3.31
IP Well Newborn	-	-	-	\$ 0.00	\$ 0.00	-	-	-	\$ 0.00	\$ 0.00
IP Other Newborn	-	-	-	\$ 0.00	\$ 0.00	-	-	-	\$ 0.00	\$ 0.00
IP SNF	1.1	8.1	8.8	\$ 282.64	\$ 0.21	0.6	1.3	0.7	\$ 2,304.00	\$ 0.14
Subtotal	3,034.9	11.6	35,272.8	\$ 328.57	\$ 965.79	3,095.9	12.0	37,160.9	\$ 320.55	\$ 992.65
Hospital Outpatient										
OP Observation			171.4	\$ 1,294.69	\$ 18.50			129.7	\$ 1,389.08	\$ 15.01
OP Emergency Department			2,964.0	\$ 375.81	\$ 92.83			2,838.5	\$ 370.20	\$ 87.57
OP Surgery			112.8	\$ 952.34	\$ 8.95			112.9	\$ 743.48	\$ 6.99
OP Radiology			328.4	\$ 89.63	\$ 2.45			339.9	\$ 75.09	\$ 2.13
OP Lab/Pathology			2,618.4	\$ 65.79	\$ 14.36			2,501.5	\$ 64.17	\$ 13.38
OP Pharmacy			216.9	\$ 121.15	\$ 2.19			205.6	\$ 82.54	\$ 1.41
OP Chemotherapy			6.7	\$ 1,543.22	\$ 0.86			4.0	\$ 4,009.13	\$ 1.35
OP Cardiovascular			296.5	\$ 21.39	\$ 0.53			307.6	\$ 19.58	\$ 0.50
OP PT/OT/ST			53.7	\$ 72.12	\$ 0.32			35.0	\$ 75.65	\$ 0.22
OP Psych PHP & IOP			66.2	\$ 43.97	\$ 0.24			29.5	\$ 51.96	\$ 0.13
OP SUD PHP & IOP			79.0	\$ 90.26	\$ 0.59			104.4	\$ 94.31	\$ 0.82
OP Preventive			680.0	\$ 74.71	\$ 4.23			682.1	\$ 83.24	\$ 4.73
OP Other			2,123.2	\$ 48.70	\$ 8.62			2,182.3	\$ 48.97	\$ 8.91
OP Clinic			4,817.9	\$ 98.77	\$ 39.65			4,692.1	\$ 108.64	\$ 42.48
OP Dialysis			16.8	\$ 257.75	\$ 0.36			6.6	\$ 344.86	\$ 0.19
Subtotal			14,551.8	\$ 160.54	\$ 194.68			14,171.6	\$ 157.34	\$ 185.82
Physician										
PROF IP Surgery			303.5	\$ 214.27	\$ 5.42			307.9	\$ 210.77	\$ 5.41
PROF OP Surgery			390.7	\$ 126.01	\$ 4.10			341.2	\$ 124.74	\$ 3.55
PROF Maternity - Normal Deliveries			14.3	\$ 757.39	\$ 0.90			13.2	\$ 743.36	\$ 0.82
PROF Maternity - Cesarean Deliveries			10.5	\$ 796.22	\$ 0.70			7.9	\$ 796.65	\$ 0.53
PROF Maternity - Other			32.4	\$ 65.02	\$ 0.18			34.3	\$ 71.27	\$ 0.20
PROF Maternity - Anesthesia			26.1	\$ 210.60	\$ 0.46			22.7	\$ 207.21	\$ 0.39
PROF IP Medical			2,369.5	\$ 70.14	\$ 13.85			2,226.8	\$ 71.84	\$ 13.33
PROF IP Psych/SUD			3,035.7	\$ 51.29	\$ 12.97			2,209.9	\$ 55.16	\$ 10.16
PROF PCP			1,089.1	\$ 66.51	\$ 6.04			989.2	\$ 72.87	\$ 6.01
PROF Specialist			4,492.7	\$ 72.18	\$ 27.02			4,977.2	\$ 73.33	\$ 30.42
PROF Pharmacy			194.6	\$ 34.13	\$ 0.55			247.3	\$ 14.67	\$ 0.30
PROF Chemotherapy			1.2	\$ 73.48	\$ 0.01			3.9	\$ 63.62	\$ 0.02
PROF Dialysis			3.4	\$ 60.09	\$ 0.02			2.9	\$ 77.52	\$ 0.02
PROF Immunizations			40.0	\$ 53.11	\$ 0.18			36.3	\$ 58.89	\$ 0.18
PROF Well Baby Exams			0.5	\$ 77.76	\$ 0.00			0.3	\$ 70.22	\$ 0.00
PROF Preventive Exams			163.2	\$ 51.40	\$ 0.70			120.4	\$ 74.35	\$ 0.75
PROF Vision Exams			16.4	\$ 88.52	\$ 0.12			15.8	\$ 88.86	\$ 0.12
PROF Other			7,123.6	\$ 71.36	\$ 42.36			6,911.7	\$ 74.53	\$ 42.93
PROF PT			375.9	\$ 27.19	\$ 0.85			452.3	\$ 27.83	\$ 1.05
PROF Radiology			3,411.6	\$ 23.21	\$ 6.60			3,345.6	\$ 23.93	\$ 6.67
PROF Pathology/Lab			10,197.5	\$ 42.46	\$ 36.08			9,351.6	\$ 45.00	\$ 35.07
PROF OP Psych			4,734.7	\$ 320.52	\$ 126.46			4,284.0	\$ 257.80	\$ 92.04
PROF OP SUD			13,465.8	\$ 122.98	\$ 138.00			13,642.4	\$ 112.18	\$ 127.54
PROF Case Management			166.6	\$ 40.17	\$ 0.56			179.4	\$ 46.90	\$ 0.70
Subtotal			51,659.7	\$ 98.52	\$ 424.14			49,724.2	\$ 91.27	\$ 378.19
Ancillary										
OTH Home Health			59.9	\$ 142.10	\$ 0.71			34.7	\$ 195.74	\$ 0.57
OTH Hospice			55.5	\$ 180.70	\$ 0.84			1.3	\$ 591.77	\$ 0.06
OTH Ambulance			2,098.6	\$ 202.99	\$ 35.50			1,926.8	\$ 238.26	\$ 38.26
OTH DME/Prosthetics			368.9	\$ 144.24	\$ 4.43			341.8	\$ 127.38	\$ 3.63
OTH Glasses/Contacts			2.6	\$ 40.68	\$ 0.01			6.9	\$ 37.47	\$ 0.02
OTH Other Services			51.4	\$ 117.37	\$ 0.50			47.4	\$ 98.81	\$ 0.39
OTH Dental			1,632.0	\$ 102.90	\$ 13.99			1,900.6	\$ 101.86	\$ 16.13
COVID Testing			-	\$ 0.00	\$ 0.00			-	\$ 0.00	\$ 0.00
COVID Vaccines			36.9	\$ 39.22	\$ 0.12			8.2	\$ 38.59	\$ 0.03
Subtotal			4,305.9	\$ 156.36	\$ 56.11			4,267.6	\$ 166.14	\$ 59.09
MCO Medical Encounter Subtotal			105,790.3	\$ 186.11	\$ 1,640.72			105,324.3	\$ 184.09	\$ 1,615.74
FFS OTP Subtotal			1,333.9	\$ 105.00	\$ 11.67			1,827.2	\$ 105.00	\$ 15.99

Notes:

- Limited to members with Residential or Hospital SUD utilization in the fiscal year.
- FFS OTP claims identified using HCPCS code H0020. No other FFS claims are included.

Appendix A-2
West Virginia Bureau for Medical Services
SB419 Actuarial Report
Cost Model for Other SUD Utilizers
Adults Only

SFY 2022 MMs: 261,422 SFY 2023 MMs: 258,197

Service Category	SFY 2022 Data					SFY 2023 Data				
	Admits Per 1,000	Avg Length of Stay	Utilization Per 1,000	Cost Per Service	PMPM	Admits Per 1,000	Avg Length of Stay	Utilization Per 1,000	Cost Per Service	PMPM
Hospital Inpatient										
IP Medical	100.7	7.0	708.5	\$ 1,111.48	\$ 65.62	107.3	6.7	719.0	\$ 1,177.29	\$ 70.54
IP Surgical	36.6	13.6	497.2	\$ 1,655.52	\$ 68.59	38.2	12.9	494.7	\$ 1,678.10	\$ 69.18
IP Psych Hospital	25.9	8.7	226.3	\$ 763.41	\$ 14.40	24.2	8.8	212.3	\$ 759.14	\$ 13.43
IP Psych Residential	0.6	9.5	6.1	\$ 898.48	\$ 0.46	0.2	103.8	19.3	\$ 188.80	\$ 0.30
IP SUD Hospital	-	-	-	\$ 0.00	\$ 0.00	-	-	-	\$ 0.00	\$ 0.00
IP SUD Residential	-	-	-	\$ 0.00	\$ 0.00	-	-	-	\$ 0.00	\$ 0.00
IP Normal Delivery	13.3	2.7	36.4	\$ 1,085.64	\$ 3.29	10.5	2.9	30.1	\$ 983.25	\$ 2.47
IP C-Section Delivery	6.5	3.4	22.3	\$ 1,291.73	\$ 2.40	6.7	3.2	21.2	\$ 1,390.05	\$ 2.45
IP Well Newborn	-	-	-	\$ 0.00	\$ 0.00	-	-	-	\$ 0.00	\$ 0.00
IP Other Newborn	-	-	-	\$ 0.00	\$ 0.00	-	-	-	\$ 0.00	\$ 0.00
IP SNF	0.3	17.0	4.7	\$ 314.66	\$ 0.12	0.1	29.0	2.7	\$ 690.00	\$ 0.15
Subtotal	183.9	8.2	1,501.3	\$ 1,237.87	\$ 154.87	187.2	8.0	1,499.3	\$ 1,268.85	\$ 158.53
Hospital Outpatient										
OP Observation			71.2	\$ 1,342.99	\$ 7.97			61.3	\$ 1,540.83	\$ 7.87
OP Emergency Department			1,079.7	\$ 386.80	\$ 34.80			1,028.9	\$ 405.60	\$ 34.78
OP Surgery			146.7	\$ 904.35	\$ 11.06			157.4	\$ 816.72	\$ 10.71
OP Radiology			404.2	\$ 100.05	\$ 3.37			408.8	\$ 107.45	\$ 3.66
OP Lab/Pathology			2,710.2	\$ 61.53	\$ 13.90			2,605.9	\$ 60.70	\$ 13.18
OP Pharmacy			222.8	\$ 321.41	\$ 5.97			235.2	\$ 221.35	\$ 4.34
OP Chemotherapy			13.6	\$ 2,542.88	\$ 2.89			14.4	\$ 4,167.59	\$ 4.99
OP Cardiovascular			184.0	\$ 39.39	\$ 0.60			186.9	\$ 35.73	\$ 0.56
OP PT/OT/ST			83.5	\$ 78.60	\$ 0.55			75.8	\$ 106.05	\$ 0.67
OP Psych PHP & IOP			71.5	\$ 19.85	\$ 0.12			83.3	\$ 11.31	\$ 0.08
OP SUD PHP & IOP			68.7	\$ 47.17	\$ 0.27			75.5	\$ 42.58	\$ 0.27
OP Preventive			631.5	\$ 61.10	\$ 3.22			524.8	\$ 77.38	\$ 3.38
OP Other			2,414.6	\$ 54.77	\$ 11.02			1,876.1	\$ 49.02	\$ 7.66
OP Clinic			6,585.9	\$ 113.60	\$ 62.35			6,437.9	\$ 122.96	\$ 65.97
OP Dialysis			57.8	\$ 209.57	\$ 1.01			61.4	\$ 273.57	\$ 1.40
Subtotal			14,745.9	\$ 129.46	\$ 159.09			13,833.4	\$ 138.37	\$ 159.51
Physician										
PROF IP Surgery			277.5	\$ 211.88	\$ 4.90			298.7	\$ 218.25	\$ 5.43
PROF OP Surgery			492.0	\$ 127.66	\$ 5.23			485.8	\$ 128.19	\$ 5.19
PROF Maternity - Normal Deliveries			12.6	\$ 769.71	\$ 0.81			9.9	\$ 781.42	\$ 0.64
PROF Maternity - Cesarean Deliveries			7.1	\$ 834.19	\$ 0.49			6.3	\$ 844.13	\$ 0.44
PROF Maternity - Other			31.1	\$ 76.39	\$ 0.20			29.9	\$ 73.18	\$ 0.18
PROF Maternity - Anesthesia			21.0	\$ 216.38	\$ 0.38			19.1	\$ 204.31	\$ 0.32
PROF IP Medical			1,872.5	\$ 68.75	\$ 10.73			1,897.4	\$ 71.62	\$ 11.32
PROF IP Psych/SUD			359.4	\$ 56.75	\$ 1.70			351.5	\$ 59.52	\$ 1.74
PROF PCP			3,116.4	\$ 65.43	\$ 16.99			2,118.3	\$ 70.58	\$ 12.46
PROF Specialist			7,409.2	\$ 68.57	\$ 42.34			7,967.5	\$ 69.64	\$ 46.24
PROF Pharmacy			237.9	\$ 99.73	\$ 1.98			284.9	\$ 46.77	\$ 1.11
PROF Chemotherapy			7.8	\$ 70.23	\$ 0.05			8.2	\$ 690.39	\$ 0.47
PROF Dialysis			14.4	\$ 102.67	\$ 0.12			21.1	\$ 97.40	\$ 0.17
PROF Immunizations			47.3	\$ 49.30	\$ 0.19			42.2	\$ 62.06	\$ 0.22
PROF Well Baby Exams			-	\$ 0.00	\$ 0.00			0.1	\$ 57.69	\$ 0.00
PROF Preventive Exams			615.6	\$ 34.19	\$ 1.75			133.9	\$ 57.05	\$ 0.64
PROF Vision Exams			17.3	\$ 83.98	\$ 0.12			16.6	\$ 86.60	\$ 0.12
PROF Other			4,769.9	\$ 66.73	\$ 26.52			4,162.1	\$ 73.75	\$ 25.58
PROF PT			456.5	\$ 26.62	\$ 1.01			503.6	\$ 26.35	\$ 1.11
PROF Radiology			2,370.3	\$ 26.18	\$ 5.17			2,399.7	\$ 26.67	\$ 5.33
PROF Pathology/Lab			13,404.4	\$ 44.05	\$ 49.21			10,571.4	\$ 46.23	\$ 40.72
PROF OP Psych			3,960.8	\$ 104.38	\$ 34.45			3,153.9	\$ 107.28	\$ 28.20
PROF OP SUD			17,556.8	\$ 108.88	\$ 159.30			16,797.9	\$ 104.01	\$ 145.59
PROF Case Management			168.4	\$ 35.59	\$ 0.50			166.7	\$ 35.64	\$ 0.50
Subtotal			57,226.1	\$ 76.36	\$ 364.15			51,446.7	\$ 77.85	\$ 333.74
Ancillary										
OTH Home Health			57.3	\$ 180.77	\$ 0.86			64.2	\$ 164.55	\$ 0.88
OTH Hospice			45.8	\$ 258.07	\$ 0.99			29.8	\$ 286.85	\$ 0.71
OTH Ambulance			626.3	\$ 230.49	\$ 12.03			591.6	\$ 265.53	\$ 13.09
OTH DME/Prosthetics			707.5	\$ 123.71	\$ 7.29			749.1	\$ 124.33	\$ 7.76
OTH Glasses/Contacts			1.4	\$ 47.09	\$ 0.01			2.4	\$ 37.46	\$ 0.01
OTH Other Services			113.6	\$ 148.88	\$ 1.41			103.9	\$ 120.74	\$ 1.05
OTH Dental			1,615.3	\$ 109.53	\$ 14.74			1,795.9	\$ 111.23	\$ 16.65
COVID Testing			-	\$ 0.00	\$ 0.00			-	\$ 0.00	\$ 0.00
COVID Vaccines			28.9	\$ 36.75	\$ 0.09			6.3	\$ 38.36	\$ 0.02
Subtotal			3,196.3	\$ 140.49	\$ 37.42			3,343.1	\$ 144.16	\$ 40.16
MCO Medical Encounter Subtotal			76,669.6	\$ 111.99	\$ 715.53			70,122.5	\$ 118.41	\$ 691.95
FFS OTP Subtotal			6,235.3	\$ 104.82	\$ 54.47			6,743.9	\$ 104.95	\$ 58.98

Notes:

- 1) Limited to members with SUD utilization, but no Residential or Hospital SUD utilization in the fiscal year.
- 2) FFS OTP claims identified using HCPCS code H0020. No other FFS claims are included.

Appendix A-3
West Virginia Bureau for Medical Services
SB419 Actuarial Report
Cost Model for SUD Non-Utilizers
Adults Only

SFY 2022 MMs: 3,234,898 SFY 2023 MMs: 3,452,638

Service Category	SFY 2022 Data					SFY 2023 Data				
	Admits Per 1,000	Avg Length of Stay	Utilization Per 1,000	Cost Per Service	PMPM	Admits Per 1,000	Avg Length of Stay	Utilization Per 1,000	Cost Per Service	PMPM
Hospital Inpatient										
IP Medical	42.9	5.8	249.0	\$ 1,370.10	\$ 28.42	37.7	5.3	198.7	\$ 1,370.47	\$ 22.69
IP Surgical	17.7	7.9	140.4	\$ 2,337.35	\$ 27.34	17.1	7.1	121.6	\$ 2,569.50	\$ 26.03
IP Psych Hospital	8.3	9.3	77.5	\$ 740.17	\$ 4.78	8.2	9.1	74.7	\$ 823.47	\$ 5.13
IP Psych Residential	3.4	15.0	51.5	\$ 258.33	\$ 1.11	7.8	21.6	167.7	\$ 244.95	\$ 3.42
IP SUD Hospital	-	-	-	\$ 0.00	\$ 0.00	-	-	-	\$ 0.00	\$ 0.00
IP SUD Residential	-	-	-	\$ 0.00	\$ 0.00	-	-	-	\$ 0.00	\$ 0.00
IP Normal Delivery	16.5	2.3	37.6	\$ 1,154.35	\$ 3.62	14.7	2.3	33.5	\$ 1,154.58	\$ 3.22
IP C-Section Delivery	8.0	2.9	23.2	\$ 1,406.55	\$ 2.72	7.6	3.0	23.2	\$ 1,338.28	\$ 2.59
IP Well Newborn	0.0	1.5	0.0	\$ 547.37	\$ 0.00	0.0	0.5	0.0	\$ 1,408.09	\$ 0.00
IP Other Newborn	0.0	2.0	0.0	\$ 285.60	\$ 0.00	0.0	2.3	0.0	\$ 682.82	\$ 0.00
IP SNF	0.1	13.7	1.4	\$ 316.88	\$ 0.04	0.0	23.0	0.2	\$ 704.76	\$ 0.01
Subtotal	97.0	6.0	580.5	\$ 1,406.22	\$ 68.03	93.1	6.7	619.6	\$ 1,222.01	\$ 63.10
Hospital Outpatient										
OP Observation			43.5	\$ 1,371.09	\$ 4.97			36.7	\$ 1,461.92	\$ 4.47
OP Emergency Department			727.2	\$ 397.31	\$ 24.08			719.4	\$ 407.30	\$ 24.42
OP Surgery			182.2	\$ 1,002.79	\$ 15.23			182.6	\$ 930.98	\$ 14.16
OP Radiology			529.0	\$ 122.56	\$ 5.40			518.3	\$ 126.27	\$ 5.45
OP Lab/Pathology			1,041.8	\$ 73.49	\$ 6.38			930.5	\$ 74.01	\$ 5.74
OP Pharmacy			196.8	\$ 586.74	\$ 9.62			180.0	\$ 583.38	\$ 8.75
OP Chemotherapy			26.1	\$ 3,145.94	\$ 6.85			23.4	\$ 3,471.01	\$ 6.76
OP Cardiovascular			178.2	\$ 52.15	\$ 0.77			182.1	\$ 51.25	\$ 0.78
OP PT/OT/ST			153.4	\$ 81.61	\$ 1.04			145.6	\$ 84.55	\$ 1.03
OP Psych PHP & IOP			19.7	\$ 82.01	\$ 0.13			19.0	\$ 88.63	\$ 0.14
OP SUD PHP & IOP			-	\$ 0.00	\$ 0.00			-	\$ 0.00	\$ 0.00
OP Preventive			312.7	\$ 88.10	\$ 2.30			342.1	\$ 92.20	\$ 2.63
OP Other			473.7	\$ 75.61	\$ 2.98			455.5	\$ 76.30	\$ 2.90
OP Clinic			2,199.9	\$ 124.09	\$ 22.75			2,205.0	\$ 133.50	\$ 24.53
OP Dialysis			41.0	\$ 229.44	\$ 0.78			40.9	\$ 239.38	\$ 0.82
Subtotal			6,125.2	\$ 202.36	\$ 103.29			5,981.1	\$ 205.80	\$ 102.58
Physician										
PROF IP Surgery			113.5	\$ 226.55	\$ 2.14			98.5	\$ 238.88	\$ 1.96
PROF OP Surgery			615.6	\$ 128.36	\$ 6.58			582.5	\$ 129.97	\$ 6.31
PROF Maternity - Normal Deliveries			15.3	\$ 760.84	\$ 0.97			13.6	\$ 783.91	\$ 0.89
PROF Maternity - Cesarean Deliveries			8.4	\$ 815.54	\$ 0.57			7.4	\$ 843.96	\$ 0.52
PROF Maternity - Other			45.0	\$ 85.35	\$ 0.32			41.2	\$ 86.42	\$ 0.30
PROF Maternity - Anesthesia			25.5	\$ 206.76	\$ 0.44			24.2	\$ 206.52	\$ 0.42
PROF IP Medical			625.7	\$ 70.79	\$ 3.69			518.9	\$ 73.07	\$ 3.16
PROF IP Psych/SUD			69.5	\$ 50.41	\$ 0.29			64.5	\$ 51.76	\$ 0.28
PROF PCP			538.5	\$ 71.72	\$ 3.22			486.0	\$ 74.94	\$ 3.03
PROF Specialist			1,916.8	\$ 73.88	\$ 11.80			1,813.1	\$ 76.21	\$ 11.51
PROF Pharmacy			246.4	\$ 143.70	\$ 2.95			229.2	\$ 148.10	\$ 2.83
PROF Chemotherapy			20.0	\$ 652.81	\$ 1.09			15.8	\$ 693.23	\$ 0.91
PROF Dialysis			9.1	\$ 112.43	\$ 0.09			7.0	\$ 129.66	\$ 0.08
PROF Immunizations			44.3	\$ 44.48	\$ 0.16			48.8	\$ 57.23	\$ 0.23
PROF Well Baby Exams			0.4	\$ 64.71	\$ 0.00			0.3	\$ 62.37	\$ 0.00
PROF Preventive Exams			129.2	\$ 66.75	\$ 0.72			132.1	\$ 68.53	\$ 0.75
PROF Vision Exams			42.4	\$ 82.20	\$ 0.29			42.6	\$ 82.88	\$ 0.29
PROF Other			2,717.2	\$ 62.74	\$ 14.21			2,581.8	\$ 63.56	\$ 13.67
PROF PT			1,084.2	\$ 26.47	\$ 2.39			1,113.0	\$ 26.88	\$ 2.49
PROF Radiology			1,874.4	\$ 30.31	\$ 4.74			1,774.3	\$ 30.91	\$ 4.57
PROF Pathology/Lab			2,543.1	\$ 25.23	\$ 5.35			2,202.1	\$ 23.13	\$ 4.24
PROF OP Psych			1,011.7	\$ 124.08	\$ 10.46			1,093.7	\$ 122.78	\$ 11.19
PROF OP SUD			-	\$ 0.00	\$ 0.00			-	\$ 0.00	\$ 0.00
PROF Case Management			57.4	\$ 66.84	\$ 0.32			86.8	\$ 61.96	\$ 0.45
Subtotal			13,753.5	\$ 63.51	\$ 72.79			12,977.6	\$ 64.82	\$ 70.10
Ancillary										
OTH Home Health			59.2	\$ 162.72	\$ 0.80			65.8	\$ 146.37	\$ 0.80
OTH Hospice			43.7	\$ 281.03	\$ 1.02			30.9	\$ 264.96	\$ 0.68
OTH Ambulance			276.6	\$ 228.22	\$ 5.26			255.1	\$ 256.96	\$ 5.46
OTH DME/Prosthetics			900.7	\$ 97.90	\$ 7.35			862.8	\$ 101.46	\$ 7.30
OTH Glasses/Contacts			19.6	\$ 42.85	\$ 0.07			27.7	\$ 37.90	\$ 0.09
OTH Other Services			98.0	\$ 147.15	\$ 1.20			78.9	\$ 118.81	\$ 0.78
OTH Dental			1,122.5	\$ 98.79	\$ 9.24			1,233.0	\$ 97.35	\$ 10.00
COVID Testing			-	\$ 0.00	\$ 0.00			-	\$ 0.00	\$ 0.00
COVID Vaccines			30.5	\$ 37.63	\$ 0.10			6.6	\$ 37.15	\$ 0.02
Subtotal			2,550.8	\$ 117.82	\$ 25.04			2,560.7	\$ 117.79	\$ 25.13
MCO Medical Encounter Subtotal			23,010.0	\$ 140.37	\$ 269.15			22,139.1	\$ 141.42	\$ 260.91
FFS OTP Subtotal			-	\$ 0.00	\$ 0.00			-	\$ 0.00	\$ 0.00

Notes:

- Limited to members with no SUD utilization in the fiscal year.
- FFS OTP claims identified using HCPCS code H0020. No other FFS claims are included.