Southwest Michigan Behavioral Health Board Meeting
Air Zoo Aerospace & Science Museum
6151 Portage Rd, Portage, MI 49002
July 12, 2024
9:30 am to 11:30 am
(d) means document provided

1. **Welcome Guests/Public Comment**

2. **Agenda Review and Adoption (d) pg. 1**

3. **Financial Interest Disclosure Handling (M. Todd)**

   - None Scheduled

4. **Consent Agenda (2 minutes)**

   a. June 14, 2024 SWMBH Board Meeting Minutes (d) pg. 3
   b. June 5 2024 Operations Committee Meeting Minutes (d) pg. 7

5. **Required Approvals (10 minutes)**

   - None scheduled

6. **Ends Metrics Updates *(*Requires motion)***
   Proposed Motion: The Board accepts the interpretation of Ends Metrics as meeting the test of ANY reasonable interpretation and the data shows compliance with the interpretation.

   - None

7. **Board Actions to be Considered (10 minutes)**

   - Board Finance Committee

8. **Board Policy Review (5 minutes)**
   Proposed Motion: The Board accepts the interpretation of Policy _____ as meeting the test of ANY reasonable interpretation and the data shows compliance with the interpretation.

   - BG-002 Management Delegation (d) pg. 9

9. **Executive Limitations Review (10 minutes)**
   Proposed Motion: The Board accepts the interpretation of Policy _____ as meeting the test of ANY reasonable interpretation and the data shows compliance with the interpretation.

   - BEL-009 Global Executive Constraints (d) pg.0

10. Board Education (25 minutes)

a. Fiscal Year 2024 Year to Date Financial Statements (G. Guidry) (d) pg. 11
b. Fiscal Year 2024 Regional Population Health Report (A. Lacey; M. Kean) (d) pg. 19
c. Fiscal Year 2023 Health Services Advisory Group Report (M. Todd; A. Lacey) (d) pg. 100
d. Information Technology Update (N. Spivak) (d) pg. 143

11. Communication and Counsel to the Board

a. Revised Board Planning Timeline (d) pg. 158
b. Board Resolution on Conflict Free Access and Planning (d) pg. 159
c. Fiscal Year 2024 Substance Use Disorder Review Letters - Region 4 (d) pg. 161
d. Policy Governance Conference (d) pg. 164
e. August Board Policy Direct Inspection – BEL-004 Treatment of Staff (M. Doster); BEL-006 Investments (S. Sherban); BEL-007 Compensation and Benefits (T. Leary)

12. Public Comment

13. Adjournment

SWMBH adheres to all applicable laws, rules, and regulations in the operation of its public meetings, including the Michigan Open Meetings Act, MCL 15.261 – 15.275.

SWMBH does not limit or restrict the rights of the press or other news media.

Discussions and deliberations at an open meeting must be able to be heard by the general public participating in the meeting. Board members must avoid using email, texting, instant messaging, and other forms of electronic communication to make a decision or deliberate toward a decision and must avoid "round-the-horn" decision-making in a manner not accessible to the public at an open meeting.

Next Board Meeting
August 9, 2024
9:30 am - 11:30 am
Air Zoo Aerospace & Science Museum
6151 Portage Rd, Portage, MI 49002

Southwest Michigan
BEHAVIORAL HEALTH

Board Meeting Minutes
June 14, 2024
Air Zoo Aerospace & Science Museum, 6151 Portage Rd, Portage, MI 49002
9:30 am-11:30 am
Draft: 6/20/24

Members Present: Edward Meny, Tom Schmelzer, Louie Csokasy, Carol Naccarato, Sherii Sherban, Tina Leary, Mark Doster

Members Absent: Erik Krogh

Guests Present: Brad Casemore, Chief Executive Officer, SWMBH; Anne Wickham, Chief Administrative Officer, SWMBH; Garyl Guidry, Chief Financial Officer, SWMBH; Mila Todd, Chief Compliance Officer, SWMBH; Michelle Jacobs, Senior Operations Specialist & Rights Advisor, SWMBH; Ella Philander, Executive Project Manager, SWMBH; Alena Lacey, Director of Quality Management and Clinical Outcomes, SWMBH; Cameron Bullock, Pivotal; Cathi Abbs, Pivotal Board Alternate, Jeannie Goodrich, Summit Pointe, Ric Compton, Riverwood; John Ruddell, Woodlands; Sue Germann, Pines BH; Jon Houtz, Pines Board Alternate; Jeff Patton, ISK; Debbie Hess, Van Buren CMH; Richard Thiemkey, Barry County CMH; Susan Radwan, Leading Edge Mentoring, Christina Schaub, Roslund and Prestage; Morgan Osear, Intern, SWMBH

Welcome Guests
Sherii Sherban called the meeting to order at 9:30 am and introductions were made.

Public Comment
None

Agenda Review and Adoption

Motion	Edward Meny moved to approve the agenda as presented.
Second	Tom Schmelzer
Motion Carried	

Financial Interest Disclosure (FID) Handling
None

Consent Agenda

Motion	Tom Schmelzer moved to approve the May 10, 2024 Board minutes as presented.
Second	Carol Naccarato
Motion Carried	

April 24, May 8 and May 29 2024 Operations Committee Meeting Minutes
Minutes were included in the packet for the Board's information.

Fiscal Year 2023 External Audit

Christina Schaub, Roslund Prestage, reported as documented. Two Board members expressed desire to review audit materials prior to submission to the State and Sherii Sherban asked for a schedule for the Board to review audit findings before March. Management will calendar Fiscal Year 2024 Audit Presentation to March 2025 Board. Discussion followed.

Motion Mark Doster moved to accept the audit report as presented.
Second Tom Schmelzer
Motion Carried

Ends Metrics

None

Board Actions to be Considered

Operating Agreement and Operations Committee Self-Evaluation

Motion Mark Doster moved that both items will be deferred to the August Board meeting.
Second Edward Meny
Motion Carried

Community Mental Health Board inputs to SWMBH Ends

Susan Radwan reported as documented. Discussion followed.

Draft Ends

Susan Radwan reported as documented, reviewing history of SWMBH Board Ends, proposed SWMBH Global Ends, and proposed SWMBH secondary Ends. Susan Radwan reminded Board members that the Ends fit inside the SWMBH Bylaws and Operating Agreement. Susan Radwan will return to August Board meeting regarding Board Ends. Discussion followed.

Motion Sherii Sherban moved to release the proposed SWMBH Global Board Ends to Community Mental Health Boards for their approval and feedback to SWMBH.
Second Tom Schmelzer
Motion Carried

Board Resolution on Conflict Free Access and Planning

Brad Casemore reported as documented. Discussion followed.

Motion Edward Meny moved to have SWMBH submit a SWMBH Board Resolution in opposition to Conflict Free Access and Planning for release to proper authorities.
Second Carol Naccarato
Roll Call Vote

Sherii Sherban	yes
Tom Schmelzer	yes
Carol Naccarato	yes
Edward Meny	yes
Tina Leary	yes
Louie Csokasy	yes

Mark Doster no
Motion Carried

Board Policy Review

None

Executive Limitations Review

None

Board Education

Fiscal Year 2024 Year to Date Financial Statements

Garyl Guidry reported as documented noting actual financial statements from seven Community Mental Health Service Providers (CMHSP) and one estimate from Summit Pointe. Garyl Guidry reviewed revenue, expenses and projected deficits and noted that the Region is projected to use all of its Internal Service Funds and enter the State's risk corridor for 2.6 million dollars. All eight CMHSPs and SWMBH are implementing cost reductions. Brad Casemore added that this means on October 1, 2024 the Region will go into 2025 with no Internal Service Funds. Discussion followed.

Communication and Counsel to the Board

May 10 Board Planning Session Notes

Document was included in the packet for the Board's information.

Key Informant Interviews Update

Document was included in the packet for the Board's information.

Fiscal Year 2023 Customer Satisfaction Survey Results follow up

Document was included in the packet for the Board's information.

Highly Integrated Dual Eligible Special Needs Plans (HIDE-SNPs)

Document was included in the packet for the Board's information and Brad Casemore will keep the Board informed on this initiative.

2023 Michigan Mission Based Performance Indicator 3 Regional Details

Document was included in the packet for the Board's information.

Fiscal Year 2024 Administrative Services Contracts

Document was included in the packet for the Board's information.

Michigan Advocacy Organizations Letter to Center for Medicare and Medicaid Services

Document was included in the packet for the Board's information.

SWMBH 2024 State Opioid Response Site Review Letter

Document was included in the packet for the Board's information.

Michigan Opioids Task Force Appointment

Document was included in the packet for the Board's information.

Managed Care Information System Update
Document was included in the packet for the Board's information.

July Board Draft Agenda and Board Policy Direct Inspection – BEL-009 Global Executive Constraints
Document was included in the packet for the Board's information.

Public Comment

Cameron Bullock shared his views on Board Ends discussion, and Board Member's comments regarding a firewall between SWMBH as the Regional Entity and the CMHSPs as participate/contracted entities. Richard Thiemkey agreed with Cameron Bullock's views.

Adjournment

Motion Carol Naccarato moved to adjourn.
Second Tom Schmelzer
Motion Carried
Meeting adjourned at 11:47am

Operations Meeting Minutes

June 5th, 2024

Present: Jeannie Goodrich, Jeff Patton, Deb Hess, Ric Compton, John Ruddell, Cameron Bullock, Sue German, Rich Thiemkey, Brad Casemore, Mila Todd, Garyl Guidry

Previous Meeting Recap:

The minutes of the prior meeting were reviewed and approved without any changes. Mila introduced a potential template that aligns with regional committee standards, which will streamline our future minutes. This template will be implemented in the upcoming meeting, with Michelle responsible for adding agenda topics and distributing them for the next Ops Comm Meeting.

CFAP:

Amy Kanouse responded to CFAP concerning CCBHC's and requirements under CFAP. There are still concerns regarding clients with both HCBS and CCBHC services regarding the bifurcation of those treatment plans and the navigation of that bifurcation via our clients. Mila forwarded that email to all in Ops Comm.

Finance:

Milliman provided some responses to the 15 questions SWMBH finance had asked of the state. SWMBH is still hoping to meet with the state face-to-face to clarify further the answers that were not responded to in the original request.

SWMBH is projecting a 2.5 million deficit above and beyond the ISF reserves after the mid-year rate amendment. Enrollments are decreasing more than initially anticipated due to the higher-than-anticipated unenrollment in Medicaid eligibles.

Inpatient tiered modifiers go into effect on 7/1/24. All hospital contracts expire on 9/30/2024. Inpatient Rates will go into effect on 10/1/24 with rates and modifiers. SWMBH is looking to implement state rates similarly to how it was rolled out for Autism across the state—current concerns regarding LOS and issues with Conflict of increased rates and Dr. requirements for it.

FY 25 CCBHC

The rate approach will stay the same for FY 25 but potentially change for FY 26. The current approach is unknown. More information will come. Over the next year, there will be ongoing meetings with Milliman to discuss changes.

D-SNP

Brad shared that the HIDE-SNP PowerPoint would be presented to the board.

Environmental Scan

Brad presented the key informant interview that will be given to the board.

MCIS Update

Brad met with legal counsel and worked on a document that is currently in progress and has not yet been returned.

Future Meeting Planning:

August 14th, 9-11, Sue will not be able to attend.

August 28th , 9-11, Michelle to change the invite.

September 11th , 9a-11a

September 25th, 9a-11a Michelle to change the invite

October 9, 9a to 11a

October 30th , 9a to 11a Michelle to change the invite

November 13th, 9a to 11a

December 4th , 9a to 11a

December 18th, 9a-11a Michelle to change the invite

Next Meeting Agenda: Rich facilitating, Cameron will do minutes

CFAP

Milliman (tentative invited)

YTD Financials P8

CCBHC

Operating agreement Review

Ops Comm Self-evaluation

Southwest Michigan
BEHAVIORAL HEALTH

Section: Board- Policy Global Board	Policy Number: BG-002	Pages: 1
Subject: Management Delegation	**Required By**: Policy Governance	**Accountability:** SWMBH Board
Application: ☒ SWMBH Governance Board ☐ SWMBH EO		**Required Reviewer:** SWMBH Board

Effective Date:	Last Review Date:	Past Review Dates:
11.18.2013	07.14.23	8.08.14, 08.14.15. 8.12.16, 8.11.17, 8.10.18, 08.09.19,08.14.20, 9.10.21

I. **PURPOSE:**

To establish official connections with SWMBH Executive Officer and other SWMBH staff.

II. **POLICY:**

The Board's sole official connection to the operational organization, its achievements and conduct will be through its chief executive officer, titled Executive Officer. *The Fiscal Officer and Chief Compliance Officer shall have direct access to the Board.

III. **STANDARDS:**

*Verbatim from Bylaws: 7.1 Executive Officer. The Regional Entity shall have at a minimum an Executive Officer, and a Fiscal Officer. The Regional Entity Board shall hire the Executive Officer; and the Executive Officer shall hire and supervise the Fiscal Officer. Both positions shall have direct access to the Regional Entity Board

Southwest Michigan
BEHAVIORAL HEALTH

Section:	Policy Number:	Pages:
Board- Policy Executive Limitations	BEL-009	1
Subject: Global Executive Constraint	**Required By**: Policy Governance	**Accountability:** SWMBH Board
Application: ☐ SWMBH Governance Board ☒ SWMBH EO		**Required Reviewer:** SWMBH Board

Effective Date:	Last Review Date:	Past Review Dates:
11.18.2013	07.14.23	9.12.14, 9.11.15, 9.9.16, 8.11.17,9.14.18,9.13.19,09.11.20,09.10.21, 09.09.22

I. **POLICY:**

The Executive Officer (EO) shall not cause or allow any practice, activity, decision, or organizational circumstance which is either illegal, imprudent or in violation of commonly accepted business and professional ethics or in violation of contractual obligations.

III. **STANDARDS:**

1. The EO is accountable to the Board acting as a body. The Board will instruct the EO through written policies or directives consistent with Board policies, delegating to the EO the interpretation and implementation of those policies and Ends.

Southwest Michigan Behavioral Health

MEDICAID Summary Income Statement

For the Fiscal YTD Period Ended 5/31/2024

	Total Region	SWMBH Central	CMH Participants	Barry CMHA	Berrien CMHA	Pines Behavioral	Summit Pointe	Woodlands Behavioral	Integrated Services of Kalamazoo	Pivotal of St. Joseph	Van Buren MHA
Medicaid Specialty Services											
Contract Revenue	$ 168,695,359	$ 13,018,826	$ 155,676,533	$ 7,106,343	$ 29,921,700	$ 8,281,189	$ 28,689,096	$ 10,126,441	$ 44,628,351	$ 10,195,449	$ 16,727,964
Budget v Actual	$ 10,588,976	$ (5,033,095)	$ 15,622,071	$ 1,386,246	$ 2,526,999	$ 1,304,323	$ 3,614,897	$ 661,839	$ 3,886,723	$ 1,633,632	$ 607,412
% Variance - Fav / (Unfav)	6.7%	-27.9%	11.2%	24.2%	9.2%	18.7%	14.4%	7.0%	9.5%	19.1%	3.8%
Healthcare Cost	$ 164,302,616	$ 7,716,558	$ 156,586,058	$ 5,308,030	$ 29,159,398	$ 7,509,836	$ 26,916,720	$ 12,151,846	$ 46,483,533	$ 11,712,964	$ 17,343,730
Budget v Actual	$ (15,585,718)	$ (296,347)	$ (15,289,371)	$ (1,009,678)	$ (1,382,376)	$ (693,309)	$ (5,796,487)	$ (798,530)	$ (1,021,244)	$ (3,320,172)	$ (1,267,574)
% Variance - Fav / (Unfav)	-10.5%	-4.0%	-10.8%	-23.5%	-5.0%	-10.2%	-27.4%	-7.0%	-2.2%	-39.6%	-7.9%
MLR	97.4%	59.3%	100.6%	74.7%	97.5%	90.7%	93.8%	120.0%	104.2%	114.9%	103.7%
Managed Care Administration	$ 18,815,903	$ 4,142,972	$ 14,672,931	$ 589,027	$ 3,035,390	$ 524,849	$ 2,992,032	$ 962,456	$ 4,095,931	$ 1,016,510	$ 1,456,735
Budget v Actual	$ (863,614)	$ 362,134	$ (1,225,748)	$ 250,817	$ (760,543)	$ 255,086	$ 235,816	$ (49,034)	$ (991,892)	$ (409,468)	$ 243,471
% Variance - Fav / (Unfav)	-4.8%	8.0%	-9.1%	29.9%	-33.4%	32.7%	7.3%	-5.4%	-32.0%	-67.5%	14.3%
ACR	10.3%	2.3%	8.0%	10.0%	9.4%	6.5%	10.0%	7.3%	8.1%	8.0%	7.7%
Total Contract Cost	$ 183,118,519	$ 11,859,530	$ 171,258,989	$ 5,897,057	$ 32,194,788	$ 8,034,685	$ 29,908,752	$ 13,114,303	$ 50,579,464	$ 12,729,475	$ 18,800,466
Budget v Actual	$ (16,449,332)	$ 65,787	$ (16,515,119)	$ (758,861)	$ (2,142,919)	$ (438,223)	$ (5,560,671)	$ (847,564)	$ (2,013,136)	$ (3,729,641)	$ (1,024,104)
Variance - Favorable / (Unfavorable)	-9.9%	0.6%	-10.7%	-14.8%	-7.1%	-5.8%	-22.8%	-6.9%	-4.1%	-41.4%	-5.8%
Net before Settlement	$ (14,423,160)	$ 1,159,295	$ (15,582,456)	$ 1,209,286	$ (2,273,088)	$ 246,505	$ (1,219,656)	$ (2,987,862)	$ (5,951,113)	$ (2,534,026)	$ (2,072,501)
Budget v Actual	$ (5,860,356)	$ (4,967,308)	$ (893,048)	$ 627,385	$ 384,080	$ 866,100	$ (1,945,773)	$ (185,725)	$ 1,873,587	$ (2,096,009)	$ (416,692)
Variance - Favorable / (Unfavorable)	-68.4%	-81.1%	-6.1%	107.8%	14.5%	139.8%	-268.0%	-6.6%	23.9%	-478.5%	-25.2%

Note: HMP Savings can be applied to Medicaid cost savings or ISF

Date: 6/26/2024

within +/- 2%
>2% favorable
between -2&-4%
>4% unfavorable

Southwest Michigan Behavioral Health

HEALTHY MICHIGAN Summary Income Statement

For the Fiscal YTD Period Ended 5/31/2024

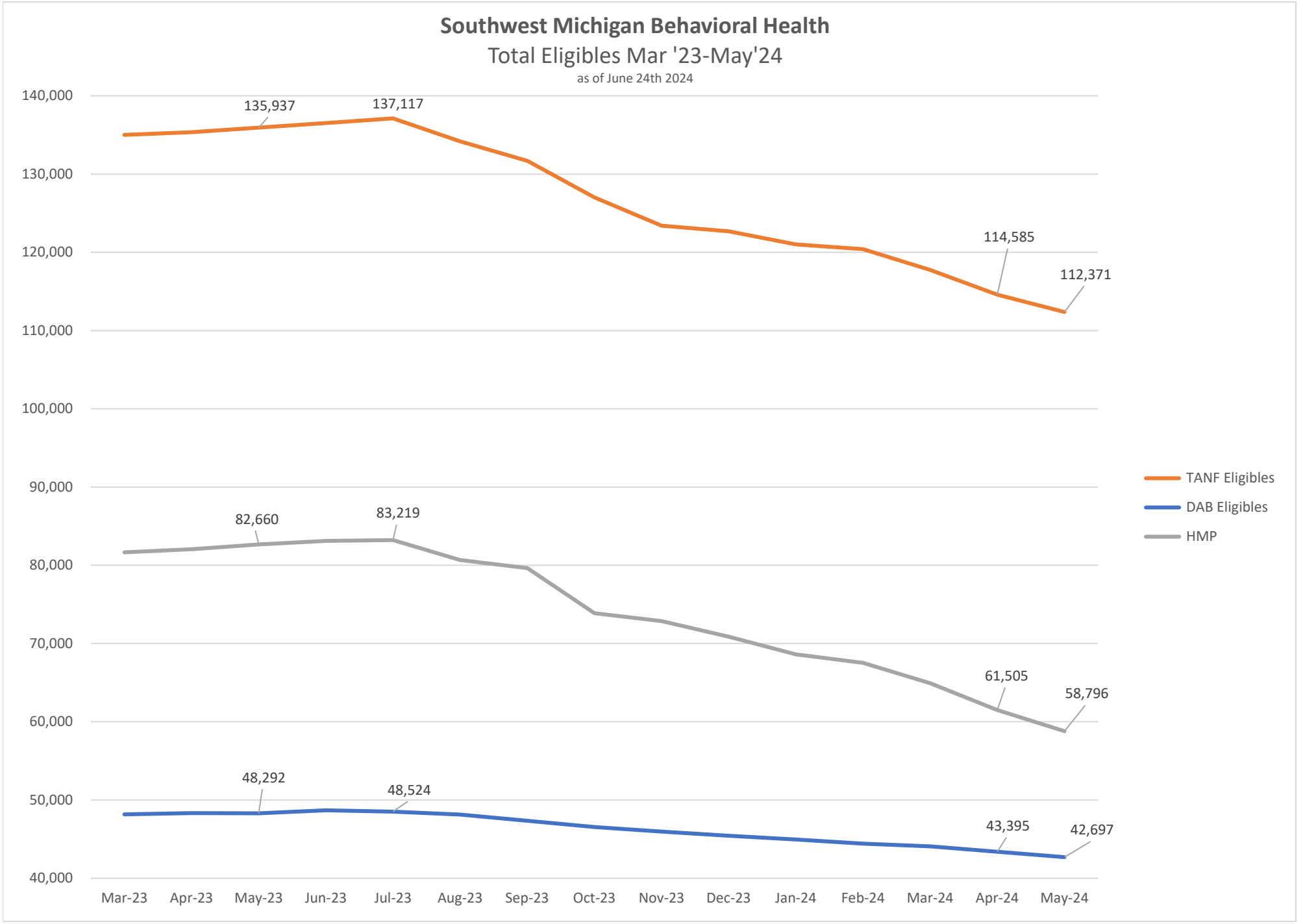
	Total Region	SWMBH Central	CMH Participants	Barry CMHA	Berrien CMHA	Pines Behavioral	Summit Pointe	Woodlands Behavioral	Integrated Services of Kalamazoo	Pivotal of St. Joseph	Van Buren MHA
	-	-	-	-	-	-	-	-	-	-	-
Healthy Michigan Plan (HMP)											
Contract Revenue	$ 23,210,097	$ 8,224,385	$ 14,985,712	$ 749,360	$ 2,782,802	$ 472,262	$ 3,127,940	$ 1,152,879	$ 3,674,734	$ 1,141,716	$ 1,884,018
Budget v Actual	$ (9,194,506)	$ 5,680,110	$ (14,874,616)	$ (659,306)	$ (3,319,179)	$ (742,123)	$ (2,444,957)	$ (1,032,187)	$ (4,846,902)	$ (803,039)	$ (1,026,923)
% Variance - Fav / (Unfav)	-28.4%	223.3%	-49.8%	-46.8%	-54.4%	-61.1%	-43.9%	-47.2%	-56.9%	-41.3%	-35.3%
Healthcare Cost	$ 22,465,240	$ 8,546,457	$ 13,918,783	$ 435,043	$ 2,152,242	$ 645,732	$ 3,677,381	$ 1,179,957	$ 3,135,393	$ 1,069,104	$ 1,623,930
Budget v Actual	$ 769,042	$ 665,496	$ 103,546	$ 250,839	$ (341,259)	$ (74,139)	$ 32,825	$ (476,143)	$ (467,487)	$ 773,924	$ 404,986
% Variance - Fav / (Unfav)	3.3%	7.2%	0.7%	36.6%	-18.8%	-13.0%	0.9%	-67.7%	-17.5%	42.0%	20.0%
MLR	96.8%	103.9%	92.9%	58.1%	77.3%	136.7%	117.6%	102.3%	85.3%	93.6%	86.2%
Managed Care Administration	$ 2,166,709	$ 500,507	$ 1,666,202	$ 48,276	$ 353,161	$ 81,971	$ 511,253	$ 103,761	$ 276,263	$ 140,517	$ 151,000
Budget v Actual	$ (13,169)	$ 147,403	$ (160,572)	$ 95,911	$ (250,100)	$ 42,558	$ 59	$ 3,550	$ (94,106)	$ (34,073)	$ 75,630
% Variance - Fav / (Unfav)	-0.6%	22.8%	-10.7%	66.5%	-242.7%	34.2%	0.0%	3.3%	-51.7%	-32.0%	33.4%
ACR	8.8%	2.0%	6.8%	10.0%	14.1%	11.3%	12.2%	8.1%	8.1%	11.6%	8.5%
Total Contract Cost	$ 24,631,949	$ 9,046,965	$ 15,584,985	$ 483,319	$ 2,505,403	$ 727,703	$ 4,188,634	$ 1,283,718	$ 3,411,656	$ 1,209,622	$ 1,774,931
Budget v Actual	$ 25,387,823	$ 9,859,864	$ 15,527,959	$ 830,069	$ 1,914,043	$ 696,121	$ 4,221,518	$ 811,124	$ 2,850,063	$ 1,949,473	$ 2,255,547
% Variance - Fav / (Unfav)	3.0%	8.2%	-0.4%	41.8%	-30.9%	-4.5%	0.8%	-58.3%	-19.7%	38.0%	21.3%
Net before Settlement	$ (1,421,853)	$ (822,580)	$ (599,273)	$ 266,041	$ 277,399	$ (255,441)	$ (1,060,693)	$ (130,838)	$ 263,078	$ (67,906)	$ 109,087
Budget v Actual	$ (8,438,633)	$ 6,493,009	$ (14,931,642)	$ (312,556)	$ (3,910,538)	$ (773,705)	$ (2,412,073)	$ (1,504,781)	$ (5,408,495)	$ (63,187)	$ (546,307)
% Variance - Fav / (Unfav)	-120.3%	88.8%	-104.2%	-54.0%	-93.4%	-149.3%	-178.5%	-109.5%	-95.4%	-1339.0%	-83.4%

Note: HMP Savings can be applied to Medicaid cost savings or ISF

Date: 6/26/2024

within +/- 2%
>2% favorable
between -2&-4%
>4% unfavorable

	E	F	I	J	K	L
1	***Southwest Michigan Behavioral Health***					
2	For the Fiscal YTD Period Ended 9/30/2024			**FY24 Projection Medicaid and Healthy Michigan**		
3	*(For Internal Management Purposes Only)*			***Revised - FY24 Rate Amendment***		
4			**FY24 Budget**	**FY24 Actual as P07**	**FY 24 Projection**	**Change FY24B v FY24P Fav/(Unfav)**
6	**REVENUE**					
7	**Contract Revenue**					
8	Medicaid Capitation		211,146,980	151,517,012	227,275,517	16,128,537
9	Healthy Michigan Plan Capitation		48,606,904	20,600,807	30,901,210	(17,705,694)
10	Autism Services Capitation		19,546,840	13,533,363	20,300,044	753,204
14	Medicaid Hospital Rate Adjustments		5,963,797	6,044,596	9,066,894	3,103,097
19	DHHS Incentive Payments		501,957	209,679	314,518	(187,440)
25						
26	**TOTAL REVENUE**		**285,766,479**	**191,905,456**	**287,858,183**	**2,091,705**
27						
28	**EXPENSE**					
29	**Healthcare Cost**					
30	Provider Claims Cost		15,193,598	7,991,599	11,987,398	(3,206,200)
31	CMHP Subcontracts, net of 1st & 3rd party		232,978,523	170,504,841	255,757,261	22,778,738
32	Insurance Provider Assessment Withhold (IPA		3,790,852	2,226,821	3,340,231	(450,621)
33	Medicaid Hospital Rate Adjustments		5,963,797	6,044,596	9,066,894	3,103,097
35						
36	**Total Healthcare Cost**		**257,926,770**	**186,767,856**	**280,151,784**	**22,225,014**
37	**Medical Loss Ratio (HCC % of Revenue)**		**90.4%**	**97.4%**	**97.4%**	
38						
39	**Administrative Cost**					
41	Administrative and Other Cost		11,033,143	6,020,379	9,030,568	(2,002,575)
46	Delegated Managed Care Admin		22,429,220	16,339,133	24,508,699	2,079,479
47	Apportioned Central Mgd Care Admin		(0)	-	-	0
48						
49	**Total Administrative Cost**		**33,462,363**	**22,359,512**	**33,539,267**	**76,904**
50	**Admin Cost Ratio (MCA % of Total Cost)**		**11.5%**	**10.7%**	**10.7%**	
54						
55	**TOTAL COST after apportionment**		**291,389,134**	**209,127,368**	**313,691,051**	**22,301,918**
56						
57	**NET SURPLUS before settlement**		**(5,622,655)**	**(17,221,912)**	**(25,832,868)**	**(20,210,213)**
58	**Net Surplus (Deficit) % of Revenue**		**-2.0%**	**-9.0%**	**-9.0%**	
59						
60	Prior Year Savings Utilization		9,769,410	3,552,313		(9,769,410)
63	ISF Risk Reserve Utilization		-	4,573,791	20,730,454	20,730,454
64	MDHHS Shared Risk Utilization		-	-	5,102,414	5,102,414
67	**NET SURPLUS (DEFICIT)**		**4,146,755**	**(9,095,808)**	**-**	**(4,146,755)**
68	*HMP & Autism is settled with Medicaid*					


Southwest Michigan Behavioral Health
Total Eligibles Mar '23-May'24
as of June 24th 2024
140,000
130,000
120,000
110,000
100,000
90,000
80,000
70,000
60,000
50,000
40,000
135,937
137,117
114,585
112,371
82,660
83,219
61,505
58,796
48,292
48,524
43,395
42,697
Mar-23
Apr-23
May-23
Jun-23
Jul-23
Aug-23
Sep-23
Oct-23
Nov-23
Dec-23
Jan-24
Feb-24
Mar-24
Apr-24
May-24
TANF Eligibles
DAB Eligibles
HMP

	E	F	H	J	K	M	N	P	Q	R	S
1	***Southwest Michigan Behavioral Health***			*Mos in Period*							
2	For the Fiscal YTD Period Ended 5/31/2024		**P08FYTD24**	**8**							
3	*(For Internal Management Purposes Only)*										
4	***INCOME STATEMENT***		**TOTAL**	**Medicaid Contract**	**Healthy Michigan Contract**	**Opioid Health Home Contract**	**CCBHC**	**MH Block Grant Contracts**	**SA Block Grant Contract**	**SA PA2 Funds Contract**	**SWMBH Central**
5											
18	Contract Revenue		242,815,386	168,485,681	23,210,097	1,073,394	42,932,408	485,696	5,220,824	1,407,287	-
19	DHHS Incentive Payments		209,679	209,679	-	-	-	-	-	-	-
21	Interest Income - Working Capital		696,356	-	-	-	-	-	-	-	696,356
22	Interest Income - ISF Risk Reserve		204,170	-	-	-	-	-	-	-	204,170
23	Local Funds Contributions		586,461	-	-	-	-	-	-	-	586,461
24	Other Local Income		-	-	-	-	-	-	-	-	-
25											
26	**TOTAL REVENUE**		**244,512,051**	**168,695,359**	**23,210,097**	**1,073,394**	**42,932,408**	**485,696**	**5,220,824**	**1,407,287**	**1,486,987**
27											
28	**EXPENSE**										
29	**Healthcare Cost**										
30	Provider Claims Cost		14,535,644	2,701,168	5,290,431	731,917	-	177,470	4,592,772	1,040,619	-
31	CMHP Subcontracts, net of 1st & 3rd party		214,497,420	156,586,058	13,918,783	-	43,578,915	-	413,665	-	-
32	Insurance Provider Assessment Withhold (IPA)		2,226,821	1,580,084	646,736	-	-	-	-	-	-
33	Medicaid Hospital Rate Adjustments		6,044,596	3,435,306	2,609,290	-	-	-	-	-	-
34	MHL Cost in Excess of Medicare FFS Cost		-	1,300	-	-	-		-	-	-
35											
36	**Total Healthcare Cost**		**237,304,481**	**164,303,917**	**22,465,240**	**731,917**	**43,578,915**	**177,470**	**5,006,437**	**1,040,619**	**-**
37	**Medical Loss Ratio (HCC % of Revenue)**		**97.6%**	**97.4%**	**96.8%**	**68.2%**	**101.5%**		**95.9%**	**73.9%**	
38											
40	Purchased Professional Services		203,129	-	-	-	-	-	-	-	203,129
41	Administrative and Other Cost		6,200,116	-	-	-	-	308,226	74,640	-	5,819,968
43	Depreciation		4,842	-	-	-	-	-	-	-	4,842
44	Functional Cost Reclassification		-	-	-	-	-	-	-	-	-
45	Allocated Indirect Pooled Cost		(0)	-	-	-	-	-	-	-	(2,718)
46	Delegated Managed Care Admin		16,339,133	14,672,931	1,666,202	-	-	-	-	-	-
47	Apportioned Central Mgd Care Admin		(0)	4,142,972	500,507	19,071	1,126,243	12,655	139,742	-	(5,941,222)
48											
49	**Total Administrative Cost**		**22,747,219**	**18,815,903**	**2,166,709**	**19,071**	**1,126,243**	**320,881**	**214,381.29**	**-**	**83,998**
50	**Admin Cost Ratio (MCA % of Total Cost)**		**8.7%**	**10.3%**	**8.8%**	**2.5%**	**2.5%**		**4.1%**	**0.0%**	**2.3%**
51											
52	Local Funds Contribution		586,461	-	-	-	-	-	-	-	586,461
54											
55	**TOTAL COST after apportionment**		**260,638,161**	**183,119,820**	**24,631,949**	**750,988**	**44,705,157**	**498,351**	**5,220,818**	**1,040,619**	**670,459**
56											
57	**NET SURPLUS before settlement**		**(16,126,110)**	**(14,424,461)**	**(1,421,853)**	**322,406**	**(1,772,749)**	**(12,655)**	**6**	**366,668**	**816,528**
58	**Net Surplus (Deficit) % of Revenue**		**-6.6%**	**-8.6%**	**-6.1%**	**30.0%**	**-4.1%**	**-2.6%**	**0.0%**	**26.1%**	**54.9%**
60	Prior Year Savings		-	-	-	-	-		-	-	-
61	Change in PA2 Fund Balance		(366,668)	-	-	-	-		-	(366,668)	-
62											
63	ISF Risk Reserve Abatement (Funding)		(204,170)	-	-	-	-		-	-	(204,170)
64	ISF Risk Reserve Deficit (Funding)		15,028,188	15,028,188	-	-	-		-	-	-
65	CCBHC Supplemental Reciveable (Payable)		6,050,787				6,050,787				
66	Settlement Receivable / (Payable)		818,120	3,996,716	1,421,853	(322,406)	(4,278,038)	-	(6)	-	-
67	**NET SURPLUS (DEFICIT)**		**5,200,146**	**4,600,444**	**-**	**-**	**-**	**(12,655)**	**-**	**-**	**612,358**
68	*HMP & Autism is settled with Medicaid*										
69											
70	**SUMMARY OF NET SURPLUS (DEFICIT)**										
71	Prior Year Unspent Savings		-	-	-	-	-		-	-	-
72	Current Year Savings		-	-	-	-	-		-	-	-
73	Current Year Public Act 2 Fund Balance		-	-	-	-	-		-	-	-
74	Local and Other Funds Surplus/(Deficit)		5,200,146	4,600,444	-	-	-	(12,655)	-	-	612,358
75											
76	**NET SURPLUS (DEFICIT)**		**5,200,146**	**4,600,444**	**-**	**-**	**-**	**(12,655)**	**-**	**-**	**612,358**

	F	G	H	I	J	K	L	M	N	O	P	Q	R
1	**Southwest Michigan Behavioral Health**			*Mos in Period*									
2	For the Fiscal YTD Period Ended 5/31/2024			8									
3	*(For Internal Management Purposes Only)*			ok									
4	**INCOME STATEMENT**		Total SWMBH	SWMBH Central	CMH Participants	Barry CMHA	Berrien CMHA	Pines Behavioral	Summit Pointe	Woodlands Behavioral	Integrated Services of Kalamazoo	St Joseph CMHA	Van Buren MHA
5													
6	***Medicaid Specialty Services***			*HCC%*		54.4%	73.4%	60.8%	64.6%	84.3%	86.6%	82.6%	84.8%
7	Subcontract Revenue		168,485,681	13,005,887	155,479,793	7,095,753	29,921,700	8,095,039	28,689,096	10,126,441	44,628,351	10,195,449	16,727,964
8	Incentive Payment Revenue		209,679	12,938	196,740	10,590	-	186,150	-	-	-	-	-
9	**Contract Revenue**		**168,695,359**	**13,018,826**	**155,676,533**	**7,106,343**	**29,921,700**	**8,281,189**	**28,689,096**	**10,126,441**	**44,628,351**	**10,195,449**	**16,727,964**
10													
11	External Provider Cost		143,274,111	2,701,168	140,572,943	3,997,029	27,379,852	7,155,638	24,902,260	8,718,879	45,231,979	11,169,189	12,018,117
12	Internal Program Cost		16,554,956	-	16,554,956	1,315,928	2,171,762	354,198	2,072,300	3,432,967	1,254,078	543,775	5,409,947
13	SSI Reimb, 1st/3rd Party Cost Offset		(541,840)	-	(541,840)	(4,927)	(392,216)	-	(57,840)	-	(2,524)	-	(84,333)
14	Insurance Provider Assessment Withhold (IPA)		5,015,390	5,015,390	-	-	-	-	-	-	-	-	-
16	**Total Healthcare Cost**		**164,302,616**	**7,716,558**	**156,586,058**	**5,308,030**	**29,159,398**	**7,509,836**	**26,916,720**	**12,151,846**	**46,483,533**	**11,712,964**	**17,343,730**
17	**Medical Loss Ratio (HCC % of Revenue)**		**97.4%**	**59.3%**	**100.6%**	**74.7%**	**97.5%**	**90.7%**	**93.8%**	**120.0%**	**104.2%**	**114.9%**	**103.7%**
18													
19	**Managed Care Administration**		**18,815,903**	**4,142,972**	**14,672,931**	**589,027**	**3,035,390**	**524,849**	**2,992,032**	**962,456**	**4,095,931**	**1,016,510**	**1,456,735**
20	**Admin Cost Ratio (MCA % of Total Cost)**		**10.3%**	**2.3%**	**8.0%**	**10.0%**	**9.4%**	**6.5%**	**10.0%**	**7.3%**	**8.1%**	**8.0%**	**7.7%**
21													
22	**Contract Cost**		**183,118,519**	**11,859,530**	**171,258,989**	**5,897,057**	**32,194,788**	**8,034,685**	**29,908,752**	**13,114,303**	**50,579,464**	**12,729,475**	**18,800,466**
23	**Net before Settlement**		**(14,423,160)**	**1,159,295**	**(15,582,456)**	**1,209,286**	**(2,273,088)**	**246,505**	**(1,219,656)**	**(2,987,862)**	**(5,951,113)**	**(2,534,026)**	**(2,072,501)**
24													
25	Prior Year Savings		-	-	-	-	-	-	-	-	-	-	-
26	Internal Service Fund Risk Reserve		-	-	-	-	-	-	-	-	-	-	-
27	Contract Settlement / Redistribution		3,996,716	(11,585,739)	15,582,456	(1,209,286)	2,273,088	(246,505)	1,219,656	2,987,862	5,951,113	2,534,026	2,072,501
28	**Net after Settlement**		**(10,426,444)**	**(10,426,444)**	**0**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
29													
30	**Eligibles and PMPM**												
31	Average Eligibles		164,593	164,593	164,593	8,978	30,977	9,714	32,082	9,574	43,468	13,366	16,434
32	Revenue PMPM		$ 128.12	$ 9.89	$ 118.23	$ 98.94	$ 120.74	$ 106.56	$ 111.78	$ 132.21	$ 128.34	$ 95.35	$ 127.24
33	Expense PMPM		$ 139.07	$ 9.01	$ 130.06	$ 82.10	$ 129.91	$ 103.39	$ 116.53	$ 171.22	$ 145.45	$ 119.05	$ 143.00
34	Margin PMPM		$ (10.95)	$ 0.88	$ (11.83)	$ 16.84	$ (9.17)	$ 3.17	$ (4.75)	$ (39.01)	$ (17.11)	$ (23.70)	$ (15.76)
35													
36	***Medicaid Specialty Services***												
37	**Budget v Actual**												
38													
39	**Eligible Lives (Average Eligibles)**												
40	Actual		164,593	164,593	164,593	8,978	30,977	9,714	32,082	9,574	43,468	13,366	16,434
41	Budget		182,355	182,355	182,355	10,091	34,298	10,758	35,395	10,670	47,729	15,030	18,384
42	Variance - Favorable / (Unfavorable)		(17,762)	(17,762)	(17,762)	(1,113)	(3,321)	(1,044)	(3,313)	(1,096)	(4,261)	(1,664)	(1,950)
43	% Variance - Fav / (Unfav)		-9.7%	-9.7%	-9.7%	-11.0%	-9.7%	-9.7%	-9.4%	-10.3%	-8.9%	-11.1%	-10.6%
44													
45	**Contract Revenue before settlement**												
46	Actual		168,695,359	13,018,826	155,676,533	7,106,343	29,921,700	8,281,189	28,689,096	10,126,441	44,628,351	10,195,449	16,727,964
47	Budget		158,106,383	18,051,920	140,054,463	5,720,097	27,394,701	6,976,867	25,074,198	9,464,602	40,741,629	8,561,817	16,120,552
48	Variance - Favorable / (Unfavorable)		10,588,976	(5,033,095)	15,622,071	1,386,246	2,526,999	1,304,323	3,614,897	661,839	3,886,723	1,633,632	607,412
49	% Variance - Fav / (Unfav)		6.7%	-27.9%	11.2%	24.2%	9.2%	18.7%	14.4%	7.0%	9.5%	19.1%	3.8%
50													
51	**Healthcare Cost**												
52	Actual		164,302,616	7,716,558	156,586,058	5,308,030	29,159,398	7,509,836	26,916,720	12,151,846	46,483,533	11,712,964	17,343,730
53	Budget		148,716,898	7,420,211	141,296,687	4,298,352	27,777,022	6,816,527	21,120,233	11,353,317	45,462,289	8,392,792	16,076,156
54	Variance - Favorable / (Unfavorable)		(15,585,718)	(296,347)	(15,289,371)	(1,009,678)	(1,382,376)	(693,309)	(5,796,487)	(798,530)	(1,021,244)	(3,320,172)	(1,267,574)
55	% Variance - Fav / (Unfav)		-10.5%	-4.0%	-10.8%	-23.5%	-5.0%	-10.2%	-27.4%	-7.0%	-2.2%	-39.6%	-7.9%
56													
57	**Managed Care Administration**												
58	Actual		18,815,903	4,142,972	14,672,931	589,027	3,035,390	524,849	2,992,032	962,456	4,095,931	1,016,510	1,456,735
59	Budget		17,952,289	4,505,106	13,447,183	839,844	2,274,847	779,935	3,227,848	913,422	3,104,039	607,042	1,700,206
60	Variance - Favorable / (Unfavorable)		(863,614)	362,134	(1,225,748)	250,817	(760,543)	255,086	235,816	(49,034)	(991,892)	(409,468)	243,471
61	% Variance - Fav / (Unfav)		-4.8%	8.0%	-9.1%	29.9%	-33.4%	32.7%	7.3%	-5.4%	-32.0%	-67.5%	14.3%
62													
63													
64	**Total Contract Cost**												
65	Actual		183,118,519	11,859,530	171,258,989	5,897,057	32,194,788	8,034,685	29,908,752	13,114,303	50,579,464	12,729,475	18,800,466
66	Budget		166,669,187	11,925,317	154,743,870	5,138,196	30,051,869	7,596,462	24,348,081	12,266,739	48,566,328	8,999,834	17,776,362
67	Variance - Favorable / (Unfavorable)		(16,449,332)	65,787	(16,515,119)	(758,861)	(2,142,919)	(438,223)	(5,560,671)	(847,564)	(2,013,136)	(3,729,641)	(1,024,104)
68	% Variance - Fav / (Unfav)		-9.9%	0.6%	-10.7%	-14.8%	-7.1%	-5.8%	-22.8%	-6.9%	-4.1%	-41.4%	-5.8%
69													
70	**Net before Settlement**												
71	Actual		(14,423,160)	1,159,295	(15,582,456)	1,209,286	(2,273,088)	246,505	(1,219,656)	(2,987,862)	(5,951,113)	(2,534,026)	(2,072,501)
72	Budget		(8,562,804)	6,126,603	(14,689,407)	581,901	(2,657,168)	(619,595)	726,118	(2,802,137)	(7,824,699)	(438,017)	(1,655,810)
73	Variance - Favorable / (Unfavorable)		(5,860,356)	(4,967,308)	(893,048)	627,385	384,080	866,100	(1,945,773)	(185,725)	1,873,587	(2,096,009)	(416,692)
74			-68.4%	-81.1%	-6.1%	107.8%	14.5%	139.8%	-268.0%	-6.6%	23.9%	-478.5%	-25.2%
75													

	F	G	H	I	J	K	L	M	N	O	P	Q	R
1	**Southwest Michigan Behavioral Health**			*Mos in Period*									
2	For the Fiscal YTD Period Ended 5/31/2024			8									
3	*(For Internal Management Purposes Only)*			ok									
4	**INCOME STATEMENT**		Total SWMBH	SWMBH Central	CMH Participants	Barry CMHA	Berrien CMHA	Pines Behavioral	Summit Pointe	Woodlands Behavioral	Integrated Services of Kalamazoo	St Joseph CMHA	Van Buren MHA
5													
76	**Healthy Michigan Plan**			*HCC%*		4.5%	5.3%	5.2%	8.8%	8.2%	9.9%	10.4%	7.9%
78													
79	External Provider Cost		16,451,561	5,290,431	11,161,130	395,173	1,786,824	606,552	3,240,396	328,374	3,076,855	1,024,246	702,710
80	Internal Program Cost		2,757,653	-	2,757,653	39,870	365,418	39,180	436,985	851,583	58,538	44,858	921,220
81	SSI Reimb, 1st/3rd Party Cost Offset		-	-	-	-	-	-	-	-	-	-	-
82	Insurance Provider Assessment Withhold (IPA)		3,256,026	3,256,026	-	-	-	-	-	-	-	-	-
83	**Total Healthcare Cost**		**22,465,240**	**8,546,457**	**13,918,783**	**435,043**	**2,152,242**	**645,732**	**3,677,381**	**1,179,957**	**3,135,393**	**1,069,104**	**1,623,930**
84	**Medical Loss Ratio (HCC % of Revenue)**		**96.8%**	**103.9%**	**92.9%**	**58.1%**	**77.3%**	**136.7%**	**117.6%**	**102.3%**	**85.3%**	**93.6%**	**86.2%**
85													
86	**Managed Care Administration**		**2,166,709**	**500,507**	**1,666,202**	**48,276**	**353,161**	**81,971**	**511,253**	**103,761**	**276,263**	**140,517**	**151,000**
87	**Admin Cost Ratio (MCA % of Total Cost)**		**8.8%**	**2.0%**	**6.8%**	**10.0%**	**14.1%**	**11.3%**	**12.2%**	**8.1%**	**8.1%**	**11.6%**	**8.5%**
88													
89	**Contract Cost**		**24,631,949**	**9,046,965**	**15,584,985**	**483,319**	**2,505,403**	**727,703**	**4,188,634**	**1,283,718**	**3,411,656**	**1,209,622**	**1,774,931**
90	**Net before Settlement**		**(1,421,853)**	**(822,580)**	**(599,273)**	**266,041**	**277,399**	**(255,441)**	**(1,060,693)**	**(130,838)**	**263,078**	**(67,906)**	**109,087**
91													
92	Prior Year Savings		-	-	-	-	-	-	-	-	-	-	-
93	Internal Service Fund Risk Reserve		-	-	-	-	-	-	-	-	-	-	-
94	Contract Settlement / Redistribution		1,421,853	822,580	599,273	(266,041)	(277,399)	255,441	1,060,693	130,838	(263,078)	67,906	(109,087)
95	**Net after Settlement**		**0**	**0**	**(0)**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
96													
97	**Eligibles and PMPM**												
98	Average Eligibles		67,368	67,368	67,368	3,499	13,425	3,261	12,406	3,926	19,339	5,126	6,387
99	Revenue PMPM		$ 43.07	$ 15.26	$ 27.81	$ 26.77	$ 25.91	$ 18.10	$ 31.52	$ 36.71	$ 23.75	$ 27.84	$ 36.87
100	Expense PMPM		45.70	16.79	28.92	17.27	23.33	27.89	42.20	40.87	22.05	29.50	34.74
101	Margin PMPM		$ (2.64)	$ (1.53)	$ (1.11)	$ 9.50	$ 2.58	$ (9.79)	$ (10.69)	$ (4.17)	$ 1.70	$ (1.66)	$ 2.14
102													
103	**Healthy Michigan Plan**												
104	**Budget v Actual**												
105													
106	**Eligible Lives (Average Eligibles)**												
107	Actual		67,368	67,368	67,368	3,499	13,425	3,261	12,406	3,926	19,339	5,126	6,387
108	Budget		80,899	80,899	80,899	4,135	15,777	3,853	14,800	4,923	23,446	6,225	7,740
109	Variance - Favorable / (Unfavorable)		(13,531)	(13,531)	(13,531)	(636)	(2,352)	(592)	(2,394)	(997)	(4,107)	(1,099)	(1,353)
110	% Variance - Fav / (Unfav)		-16.7%	-16.7%	-16.7%	-15.4%	-14.9%	-15.4%	-16.2%	-20.2%	-17.5%	-17.7%	-17.5%
111													
112	**Contract Revenue before settlement**												
113	Actual		23,210,097	8,224,385	14,985,712	749,360	2,782,802	472,262	3,127,940	1,152,879	3,674,734	1,141,716	1,884,018
114	Budget		32,404,603	2,544,275	29,860,328	1,408,666	6,101,981	1,214,385	5,572,898	2,185,067	8,521,637	1,944,754	2,910,940
115	Variance - Favorable / (Unfavorable)		(9,194,506)	5,680,110	(14,874,616)	(659,306)	(3,319,179)	(742,123)	(2,444,957)	(1,032,187)	(4,846,902)	(803,039)	(1,026,923)
116	% Variance - Fav / (Unfav)		-28.4%	223.3%	-49.8%	-46.8%	-54.4%	-61.1%	-43.9%	-47.2%	-56.9%	-41.3%	-35.3%
117													
118	**Healthcare Cost**												
119	Actual		22,465,240	8,546,457	13,918,783	435,043	2,152,242	645,732	3,677,381	1,179,957	3,135,393	1,069,104	1,623,930
120	Budget		23,234,282	9,211,953	14,022,329	685,882	1,810,983	571,593	3,710,207	703,813	2,667,906	1,843,029	2,028,917
121	Variance - Favorable / (Unfavorable)		769,042	665,496	103,546	250,839	(341,259)	(74,139)	32,825	(476,143)	(467,487)	773,924	404,986
122	% Variance - Fav / (Unfav)		3.3%	7.2%	0.7%	36.6%	-18.8%	-13.0%	0.9%	-67.7%	-17.5%	42.0%	20.0%
123													
124	**Managed Care Administration**												
125	Actual		2,166,709	500,507	1,666,202	48,276	353,161	81,971	511,253	103,761	276,263	140,517	151,000
126	Budget		2,153,541	647,910	1,505,630	144,187	103,061	124,529	511,311	107,311	182,157	106,445	226,630
127	Variance - Favorable / (Unfavorable)		(13,169)	147,403	(160,572)	95,911	(250,100)	42,558	59	3,550	(94,106)	(34,073)	75,630
128	% Variance - Fav / (Unfav)		-0.6%	22.8%	-10.7%	66.5%	-242.7%	34.2%	0.0%	3.3%	-51.7%	-32.0%	33.4%
129													
130	**Total Contract Cost**												
131	Actual		24,631,949	9,046,965	15,584,985	483,319	2,505,403	727,703	4,188,634	1,283,718	3,411,656	1,209,622	1,774,931
132	Budget		25,387,823	9,859,864	15,527,959	830,069	1,914,043	696,121	4,221,518	811,124	2,850,063	1,949,473	2,255,547
133	Variance - Favorable / (Unfavorable)		755,874	812,899	(57,026)	346,750	(591,360)	(31,581)	32,884	(472,594)	(561,593)	739,852	480,616
134	% Variance - Fav / (Unfav)		3.0%	8.2%	-0.4%	41.8%	-30.9%	-4.5%	0.8%	-58.3%	-19.7%	38.0%	21.3%
135													
136	**Net before Settlement**												
137	Actual		(1,421,853)	(822,580)	(599,273)	266,041	277,399	(255,441)	(1,060,693)	(130,838)	263,078	(67,906)	109,087
138	Budget		7,016,780	(7,315,589)	14,332,369	578,597	4,187,938	518,264	1,351,380	1,373,943	5,671,573	(4,719)	655,394
139	Variance - Favorable / (Unfavorable)		(8,438,633)	6,493,009	(14,931,642)	(312,556)	(3,910,538)	(773,705)	(2,412,073)	(1,504,781)	(5,408,495)	(63,187)	(546,307)
140			-120.3%	88.8%	-104.2%	-54.0%	-93.4%	-149.3%	-178.5%	-109.5%	-95.4%	-1339.0%	-83.4%

	F	G	H	I	J	K	L	M	N	O	P	Q	R
1	***Southwest Michigan Behavioral Health***			*Mos in Period*									
2	For the Fiscal YTD Period Ended 5/31/2024			8									
3	*(For Internal Management Purposes Only)*			*ok*									
4	***INCOME STATEMENT***		**Total SWMBH**	**SWMBH Central**	**CMH Participants**	**Barry CMHA**	**Berrien CMHA**	**Pines Behavioral**	**Summit Pointe**	**Woodlands Behavioral**	**Integrated Services of Kalamazoo**	**St Joseph CMHA**	**Van Buren MHA**
5													
160													
161	***Certified Community Behavioral Health Clin***			*HCC%*		0.0%	0.0%	0.0%	0.0%	0.0%	26.0%	21.6%	0.0%
162	**Contract Revenue**		**42,932,408**	**(1,042,206)**	**43,974,615**	**2,414,146**	**8,393,487**	**3,173,592**	**8,204,307**	**-**	**17,675,723**	**4,113,361**	**-**
163													
164	External Provider Cost		3,965,080	-	3,965,080	-	-	-	-	-	3,965,080	-	-
165	Internal Program Cost		39,755,800	-	39,755,800	3,192,930	6,803,793	3,358,152	8,207,950	-	14,327,674	3,865,301	-
166	SSI Reimb, 1st/3rd Party Cost Offset		(496,282)	-	(496,282)	-	-	(86,257)	-	-	(319,831)	(90,194)	-
168	**Total Healthcare Cost**		**43,578,915**	**-**	**43,578,915**	**3,547,247**	**6,803,793**	**3,271,895**	**8,207,950**	**-**	**17,972,923**	**3,775,107**	**-**
169	**Medical Loss Ratio (HCC % of Revenue)**		**101.5%**	**0.0%**	**99.1%**	**146.9%**	**81.1%**	**103.1%**	**100.0%**	**0.0%**	**101.7%**	**91.8%**	**0.0%**
170													
171	**Managed Care Administration**		**1,126,243**	**1,126,243**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
172	**Admin Cost Ratio (MCA % of Total Cost)**		**2.5%**	**2.5%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**
173													
174	**Contract Cost**		**44,705,157**	**1,126,243**	**43,578,915**	**3,547,247**	**6,803,793**	**3,271,895**	**8,207,950**	**-**	**17,972,923**	**3,775,107**	**-**
175	**Net before Settlement**		**(1,772,749)**	**(2,168,449)**	**395,700**	**(1,133,101)**	**1,589,694**	**(98,303)**	**(3,644)**	**-**	**(297,200)**	**338,254**	**-**
176	PPS-1 Supplemental Payment Difference		-	6,050,787	(6,050,787)	(1,369,203)	(1,103,738)	(825,179)	(1,408,247)	-	(210,367)	(1,134,053)	-
177	Contract Settlement / Redistribution		-	(6,446,487)	6,446,487	236,102	2,693,432	726,875	1,404,603	-	(86,833)	1,472,307	-
178	**Net after Settlement**		**-**	**(6,446,487)**	**6,446,487**	**236,102**	**2,693,432**	**726,875**	**1,404,603**	**-**	**(86,833)**	**1,472,307**	**-**
179													
180													
199	***SWMBH CMHP Subcontracts***												
200	Subcontract Revenue		234,628,185	20,188,066	214,440,120	10,259,259	41,097,989	11,740,893	40,021,343	11,279,320	65,978,809	15,450,525	18,611,982
201	Incentive Payment Revenue		209,679	12,938	196,740	10,590	-	186,150	-	-	-	-	-
202	**Contract Revenue**		**234,837,864**	**20,201,004**	**214,636,860**	**10,269,849**	**41,097,989**	**11,927,043**	**40,021,343**	**11,279,320**	**65,978,809**	**15,450,525**	**18,611,982**
203													
204	External Provider Cost		163,690,751	7,991,599	155,699,153	4,392,201	29,166,676	7,762,190	28,142,656	9,047,253	52,273,914	12,193,435	12,720,827
205	Internal Program Cost		59,068,408	-	59,068,408	4,548,728	9,340,973	3,751,530	10,717,236	4,284,550	15,640,290	4,453,934	6,331,167
206	SSI Reimb, 1st/3rd Party Cost Offset		(541,840)	-	(541,840)	(4,927)	(392,216)	(86,257)	(57,840)	-	(322,355)	(90,194)	(84,333)
207	Insurance Provider Assessment Withhold (IPA)		8,271,417	8,271,417	-	-	-	-	-	-	-	-	-
209	**Total Healthcare Cost**		**230,488,736**	**16,263,015**	**214,225,721**	**8,936,003**	**38,115,433**	**11,427,463**	**38,802,051**	**13,331,803**	**67,591,849**	**16,557,176**	**18,967,661**
210	**Medical Loss Ratio (HCC % of Revenue)**		**98.1%**	**80.5%**	**99.8%**	**87.0%**	**92.7%**	**95.8%**	**97.0%**	**118.2%**	**102.4%**	**107.2%**	**101.9%**
211													
212	**Managed Care Administration**		**22,108,855**	**5,769,722**	**16,339,133**	**637,304**	**3,388,551**	**606,819**	**3,503,284**	**1,066,217**	**4,372,194**	**1,157,028**	**1,607,736**
213	**Admin Cost Ratio (MCA % of Total Cost)**		**8.8%**	**2.3%**	**6.5%**	**6.7%**	**8.2%**	**5.0%**	**8.3%**	**7.4%**	**6.1%**	**6.5%**	**7.8%**
214													
215	**Contract Cost**		**252,597,591**	**22,032,738**	**230,564,854**	**9,573,307**	**41,503,984**	**12,034,283**	**42,305,336**	**14,398,020**	**71,964,043**	**17,714,203**	**20,575,396**
216	**Net before Settlement**		**(17,759,727)**	**(1,831,733)**	**(15,927,994)**	**696,542**	**(405,995)**	**(107,239)**	**(2,283,993)**	**(3,118,700)**	**(5,985,234)**	**(2,263,678)**	**(1,963,414)**
217													
218	Prior Year Savings		-	-	-	-	-	-	-	-	-	-	-
219	Internal Service Fund Risk Reserve		-	-	-	-	-	-	-	-	-	-	-
220	Contract Settlement		5,418,569	(16,813,946)	22,232,515	(106,123)	3,099,427	834,115	3,688,596	3,118,700	5,898,401	3,735,985	1,963,414
221	**Net after Settlement**		**(12,341,158)**	**(18,645,680)**	**6,304,522**	**590,419**	**2,693,432**	**726,875**	**1,404,603**	**-**	**(86,833)**	**1,472,307**	**-**
222													

Principal Office: 5250 Lovers Lane, Suite 200, Portage, MI 49002
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March 15, 2024

Dear Colleagues serving Medicaid beneficiaries in Southwest Michigan,

It is with pleasure that we share the Southwest Michigan Behavioral Health Regional Population Health Opportunity Analysis with you. This analysis of Medicaid beneficiaries in the Southwest Michigan region in 2022 provides a thorough picture of population health needs, with an emphasis on individuals with behavioral health conditions. The report sheds light on healthcare needs and complexities within local sub-populations such as racial and ethnic groups and the Medicaid-Medicare dual eligible population. Opportunities for supporting health and wellness are identified.

This report may be relevant and helpful for clinical and executive leadership at behavioral and medical healthcare providers and payers, as well as staff of other organizations serving the Medicaid population. The findings and analysis provide a snapshot of the needs of the local Medicaid population that can assist public officials and providers in developing population health strategies. The report can be used to guide strategic planning, policy development, resource allocation, or priority population identification.

We hope that you find the results as compelling as we do.

Sincerely,

Bradley P. Casemore, *MHSA, LMSW, FACHE*
Chief Executive Officer, SWMBH
Commissioner, Michigan Opioid Advisory Commission

Alena Lacey, MA, LPC
Director of Quality Management and Clinical Outcomes

REGIONAL POPULATION HEALTH OPPORTUNITY ANALYSIS

SOUTHWEST MICHIGAN BEHAVIORAL HEALTH

March 2024

Contents

Acknowledgements

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The expert contributions and thoughtful feedback from the Southwest Michigan Behavioral Health quality and IT team members listed above were instrumental in guiding this analysis.

Feedback on this report and its contents are welcome. Please send questions and comments to Moira.Kean@swmbh.org

I. INTRODUCTION

Southwest Michigan Behavioral Health (SWMBH) has prepared a Population Health Opportunity Analysis focused on Medicaid enrollees in the eight-county region of Barry, Berrien, Branch, Calhoun, Cass, Kalamazoo, St. Joseph, and Van Buren Counties in Michigan. This analysis assesses health-related factors such as demographics, rates of diagnosis for medical and behavioral health conditions, prescribing trends, and utilization of high-cost services in calendar year 2022. In the study we quantify aspects of our local Medicaid population's health status and suggest ways to prevent unwanted behavioral and physical health outcomes. This is an exploratory study that introduces an understanding of our local Medicaid population's health. Many opportunities for future analysis are identified.

The analysis utilized 2022 Medicaid encounters (behavioral, medical, and pharmacy) and Medicaid enrollment data for the 287,346 individuals enrolled in Medicaid in the region during that year. Encounter data were made available to SWMBH by the State of Michigan through the State's CareConnect360 data extracts. Encounter data documents diagnoses, treatments, and services provided by healthcare providers in standardized form and is the single most important analytical tool for health plans and health programs.

Nearly 14,000,000 Medicaid encounters were present in the 2022 dataset, encompassing 10,622,497 diagnosis records, 5,553,960 professional claims, 5,009,179 institutional claims, and 2,718,029 pharmacy claims. Services were grouped to identify individuals with behavioral health and chronic conditions, and inpatient hospital and emergency department (ED) use, and then stratified by factors including age, race, county of residence, and Medicare enrollment to identify population outliers and risk factors associated with increased utilization or condition prevalence.

Relias's Population Performance, an integrated healthcare data analytics platform utilized by SWMBH, provided analytics on healthcare quality metrics, prescription rates, and pharmacy alerts. Population Performance applies validated proprietary clinical rules and algorithms to generate analytics on adherence, pharmacy practice, gaps in care, disease management, and risk conditions that are associated with poorer outcomes and elevated healthcare costs. Relias Population Performance uses the same base Medicaid enrollment and CareConnect360 data sources used for the other components of this report.

This report includes:

- Key Demographics
- Behavioral Health and Chronic Medical Conditions
- Comorbidities and Ambulatory Care Sensitive Conditions
- Hospital and Emergency Department Utilization
- Care Gap Analysis
- Pharmacy Analysis

A. How to Use This Report

Access to better data is a frequently cited challenge by leaders in healthcare. This report may be useful for clinical and executive leadership at Community Mental Health programs, Medicaid Health Plans, Medicare Advantage Plans, health departments, Federally Qualified Health Centers (FQHCs), the Michigan Department of Health and Human Services (MDHHS), and behavioral and physical healthcare provider organizations (including hospital systems). Employees of other social service organizations serving the Medicaid population, such as schools, charitable organizations, and other community-based organizations, may also find value in the report. The report's findings and analysis provide a snapshot of the needs of the local Medicaid population that can assist public officials in expanding their awareness of gaps and strengths of the local healthcare systems.

The report can be used to guide strategic planning, policy development, resource allocation, or priority population identification. For example, inpatient and emergency department (ED) utilization findings could be used to identify priority populations for population health management. Healthcare quality metric data can be used to focus public health campaigns or provider trainings. Data on chronic condition prevalences by race and ethnicity could be used to guide interventions for equitable access to preventative care. All these uses can assist with increasing cost-effectiveness and value for payers and improving overall quality of life for individuals.

B. Integrated Care at SWMBH

Integrated care is a person-centered approach to coordinated care that addresses all aspects of a person's health. Care coordination initiatives are designed to enhance the quality and coordination of healthcare services. Such initiatives recognize the importance of delivering comprehensive and integrated care and include a variety of strategies to address the complex care needs of the population served while striving to achieve positive health outcomes and cost-effective care.

SWMBH has a robust Integrated Care department aimed at improving the health of members served while reducing utilization of high-cost treatment interventions and readmissions. To support joint care agreements with Medicaid Health Plans (MHPs) in our region, SWMBH employs an Integrated Healthcare Specialist who works in collaboration with the MHPs to identify mutually shared enrollees with frequent inpatient admissions and emergency room utilization. Joint care plans are created during Integrated Care Team meetings addressing a member's social determinant of health factors and providing plan-to-plan coordination of services. SWMBH and MHPs collaborate on Joint Performance Bonus Incentive metrics through State Medicaid contracts to improve outcomes for individuals. Transition Navigators are staffed to support members not previously engaged with CMHSPs or other behavioral health providers identified in the Follow-up After Hospitalization (FUH) metric. Through care coordination and outreach efforts, Transition Navigators monitor engagement in aftercare following psychiatric admissions and/or SUD residential treatment. A Health Equity Project Coordinator is employed to decrease racial disparities in access to behavioral health treatment.

This population health report outlines deficits in the wellness of populations and maps risk factors throughout the region. There is opportunity to partner, through shared values and vision, to identify targeted interventions and create more resilient communities for enrollees. Concerted care management support can help educate and activate enrollees, natural supports, and providers to better understand and manage all facets of an enrollee's health and wellbeing.

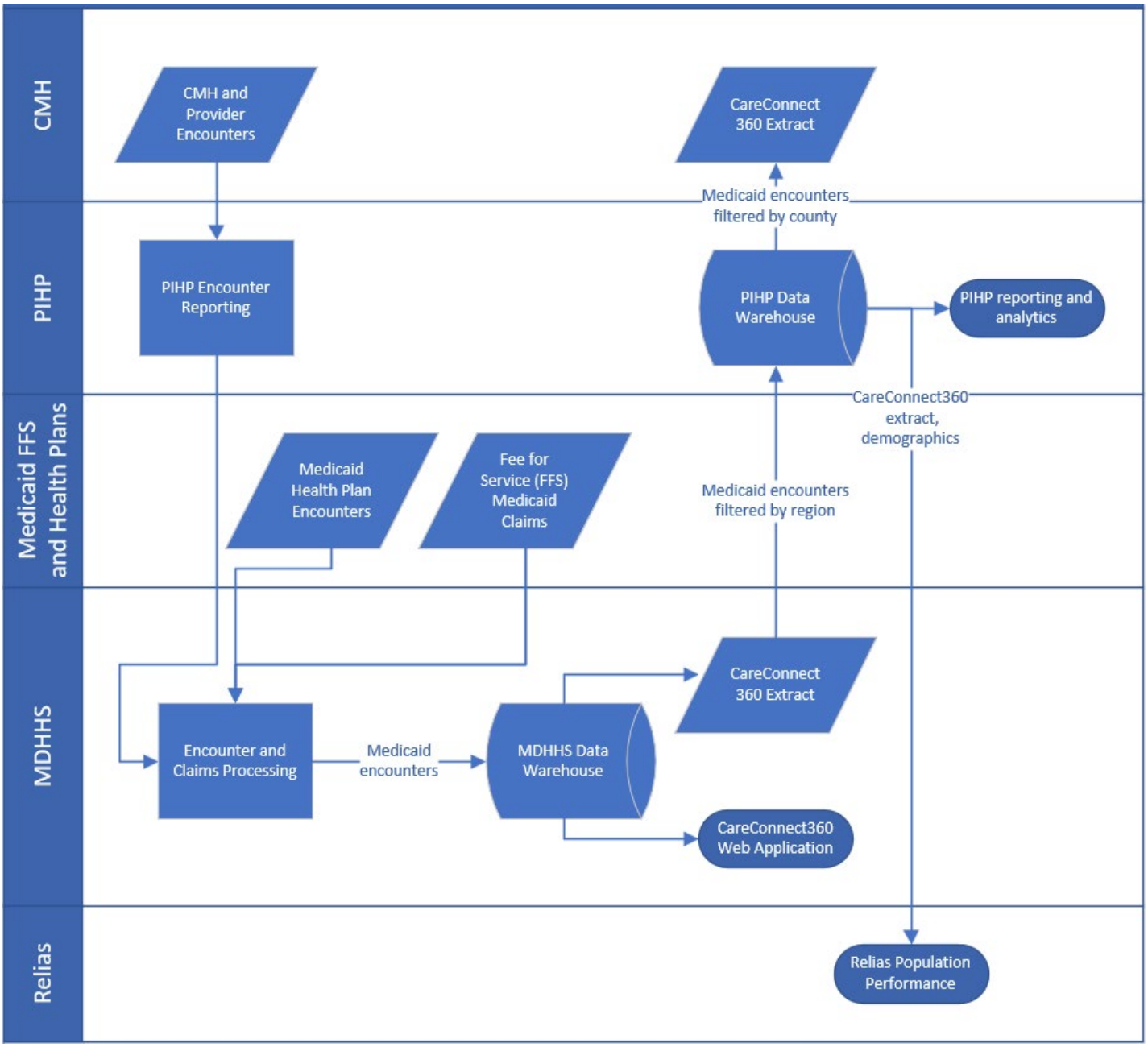
C. CareConnect360 Overview

The primary source for this report was CareConnect360 data extracts, an integrated set of Medicaid encounters that MDHHS makes available to PIHPs. The extracts include all Medicaid-paid claims for behavioral health and medical services including ambulatory/outpatient and inpatient care, laboratory services, and prescriptions for Medicaid enrollees residing in the SWMBH coverage area. Information contained in encounters includes diagnoses, services and procedures, prescription types, and provider information. CareConnect360 also refers to MDHHS's web-based application using the same data source, which facilitates care coordination by providing access to cross-system patient information and healthcare metrics.

SWMBH was an early advocate for and participant in the development of CareConnect360. MDHHS understood over ten years ago that a whole-person approach to healthcare is vital for population health and care integration. The State hired their analytics subcontractor Optum to build and maintain the CareConnect360 web application and data warehouse, and CareConnect360 was first made available to PIHPs and Medicaid Health Plans in 2014. The web-based

application has since evolved through continuous improvements with PIHP and Medicaid Health Plan input. Analytics using data extracts are growing more sophisticated for a range of purposes including risk identification, healthcare metric monitoring, and statistical analyses. A CareConnect360 data flow diagram is shown below for the interested reader.

Figure 1: CareConnect360 Data Flow Diagram



Medicaid services funded by the PIHP/CMH system, Medicaid Health Plans, and Medicaid Fee-for-Service are reported to MDHHS, who compiles complete behavioral, medical, and pharmacy Medicaid encounter sets into CareConnect360 data extracts, which are shared with the PIHP, integrated into the CareConnect360 and Relias Population Performance web applications, and stored and queried for reporting and analytics.

D. Key Findings

This study quantifies the 2022 prevalence of chronic conditions among Medicaid service recipients, and their intersection with behavioral health needs. A by-product of this analysis was identifying opportunities for improving care and decreasing utilization of high-cost services such as preventable emergency room visits for the aggregate population and specific county, behavioral health, and racial/ethnic subpopulations. Several opportunities for care improvements were identified. Key findings from the study are listed below.

Behavioral Health Conditions

- Overall, 30.4% of the regional Medicaid population had a behavioral health diagnosis in 2022. Prevalence of behavioral health diagnosis was highest in the 18–64-year age group, at 34.7%. 23.0% of minors under the age of 18 had a behavioral health diagnosis, and 29.8% of adults 65 and older did.
- 32.5% of females and 27.3% of males in the study had a behavioral health diagnosis in 2022. However, a greater percentage of male children and adolescents (25.4%) were diagnosed with a behavioral health condition compared to female adolescents (20.4%). In adults, there was a 10 percentage-point difference in female behavioral health condition diagnosis rates (38.6%) and male diagnosis rates (28.6%).
- Rates of behavioral health diagnosis in 2022 varied significantly according to race or ethnicity, with individuals identifying as Asian having a behavioral health diagnosis 14.3% of the time, compared to 36.6% for American Indian or Alaskan Natives and 34.1% for White-identifying individuals.

Chronic Conditions

- Medicaid-Medicare dual eligible adults had the highest risk profile for all chronic conditions studied. Hypertension (38.3%), hyperlipidemia (25.9%), and diabetes (20.7%) each occurred in at least 20% of the dual population. Serious conditions of chronic obstructive pulmonary disease (COPD, 14.7%), coronary artery disease (10.6%), and chronic kidney disease (10.0%) each occurred in at least 10% of the dual-eligible population.
- Individuals with behavioral health diagnoses were more than twice as likely (2.6 times) to have one or more chronic health conditions compared to individuals without behavioral health diagnoses. For most of the conditions studied, the behavioral health population was at least 3 times as likely to have had specific chronic health conditions, compared to the population without behavioral health diagnoses.
- Individuals with behavioral health diagnoses were seven times as likely to have issues with housing or income as compared to individuals without a behavioral health diagnosis, five times as likely to have epilepsy or migraines, and three times as likely to have obesity, heart conditions, hyperlipidemia, asthma, hypertension, tobacco use, or chronic obstructive pulmonary disease (COPD) among other conditions.
- 8.8% of the SMI/SED population and 4.9% of the SUD population had five or more chronic health conditions reported, compared to 1.8% of individuals with no behavioral health diagnosis.
- Statistically significant differences exist in the rates of chronic condition diagnosis by race/ethnicity, with the White population having statistically higher rates of diagnosis for most of the conditions studied, and the Asian, Hispanic/Latino, “unknown,” and “other” race/ethnicities having statistically lower rates reported.

Acute Inpatient and Emergency Department (ED) Utilization

- 7.1% of the study population had one or more acute inpatient claims in 2022. 0.7% of the study population had behavioral health inpatient admissions, and 6.5% had acute medical inpatient admissions. For those with inpatient admissions, the average number of behavioral health inpatient days was 17.4 (this includes state psychiatric inpatient) and the average number of acute medical inpatient days was 7.4.

- 29.8% of the study population had one or more ED claims in 2022. 1.7% of the study population had behavioral health ED claims, and 29.5% had medical ED claims. For those with ED visits, the average number of behavioral health visits was 1.7 and the average number of medical visits was 2.1.
- There was a higher rate of ED visits and inpatient days for medical reasons if a person had a behavioral health diagnosis. Individuals with primary SMI/SED and SUD diagnoses had the highest rates of medical ED visits and inpatient days. After age 20, medical inpatient utilization for persons with SUD, SMI/SED, and mild/moderate mental illness was three to seven times higher than medical inpatient utilization for persons with no behavioral health diagnosis.
- Those with high-risk multimorbidity patterns, as identified by the Centers for Healthcare Strategies (CHCS) had more than 10 times the risk for hospitalizations compared to those without high-risk multimorbidity patterns.

Pharmacy Analytics

- Compared to a similar analysis conducted in 2014, the 2022 prescription rates for opioids and benzodiazepines for adult Medicaid beneficiaries in the region have decreased, from 21.1% of the regional adult Medicaid-only population being prescribed opioids over the course of 2014 to 5.0% in 2022, and from 10.6% being prescribed benzodiazepines in 2014 to 3.7% in 2022.
- The data shows that adult enrollees who triggered any behavioral pharmacy metric have a higher risk (2.5 relative risk) of hospitalization than those who did not trigger any behavioral pharmacy metrics. For children, the relative risk was 2.3.
- Failure to refill a mood stabilizer was the most frequently triggered behavioral pharmacy metric in adults, with 49.3% of adult Medicaid-only enrollees who were prescribed a mood stabilizer over the year failing to remain on it for at least 80% of their treatment period. Triggering this metric was associated with a 4.6-time relative risk of inpatient hospitalization compared to individuals who did not trigger a behavioral pharmacy metric.
- The behavioral pharmacy quality indicator with the highest risk of hospitalization in adults (6.7 times relative risk) was *Delay in or failure to refill an antipsychotic medication for persons with a schizophrenia diagnosis*. This metric was triggered in 37% of adults with schizophrenia taking antipsychotic medications.
- *Percentage of members under the age of 18 taking antipsychotics who are diagnosed with attention deficit hyperactivity disorder (ADHD)* was the most frequently triggered child and adolescent behavioral pharmacy metric, at 51.3%, and was associated with a 3.4-time relative risk of inpatient hospitalization.

E. Limitations

Substance use data-sharing limitations. Substance use diagnostic and treatment information is limited by privacy protections in 42 CFR Part 2. Substance use statistics in this report were sourced primarily from PIHP-funded services. Services funded by Medicaid health plans or Medicaid fee-for-service with principal substance use diagnoses are not shared with SWMBH and will not be reflected in the report. Because of this, substance use statistics are likely under-represented in this report, except when limited to the PIHP/CMH-served population.

Medicare services for dual-eligibles. Only Medicaid claims were used for this analysis, as no Medicare claims were available. Medicaid-Medicare dual-eligibles whose services were reported only to Medicare will not be counted in condition prevalence estimates, which may be the case for persons who received only office-based, pharmacy, or laboratory services. As a result, condition prevalence rates for Medicaid-Medicare dual eligibles may be underrepresented. Dual-eligibles were excluded from healthcare quality and pharmacy measures in this report; these measures rely primarily on pharmacy and laboratory claims which are typically paid by Medicare.

Under-served community representation. A limitation of using healthcare claims to identify subpopulations with chronic conditions is that to be counted in prevalence rates and healthcare quality metrics, individuals must have had a medical diagnosis and services reported with the diagnosis. Individuals who do not seek treatment for their conditions, or whose medical staff do not identify their conditions or report all diagnoses on claims, will not be reflected in prevalence rates or quality metrics. Populations who have difficulty accessing healthcare services, such as persons with limited English proficiency, or otherwise disadvantaged and disenfranchised populations, may be under-represented in incidence counts and healthcare quality metrics.

Healthcare service recipient voice. This study consisted solely of analyses of administrative Medicaid encounter, demographic, and enrollment data, which capture standardized codes that may not provide a full picture of individuals' experience of their health status and medical treatment. For a more comprehensive understanding of local population health, input from regional Medicaid enrollees should be considered in future studies, through methods such as surveys, self-reported health status and outcome measures, and/or direct participation in study design and analysis.

F. Future Directions

This is an initial exploratory study that provided the framework and foundation to enable deeper explorations. Future reports could examine trends over time to develop historical pictures of individual and population health, expand on the types of services assessed beyond ED and inpatient services, and incorporate more specific reasons for inpatient and ED utilization beyond "behavioral" and "medical". Comparison data with other Medicaid populations may also be useful in future analyses.

It would be beneficial to analyze additional Social Determinants of Health (SDoH) factors in future reports, such as issues related to education, literacy, legal involvement, and employment. As more information becomes available, this could be used for understanding the whole person health status of our communities, and to identify individuals and populations who are at risk for poor health outcomes. It may also be beneficial to include limited English proficiency as a factor in future analyses.

This report is primarily a descriptive report of the SWMBH enrollee population in 2022. Future work will incorporate greater use of methods like machine learning to identify predictors of desirable outcomes (e.g., lack of inpatient services for individuals with severe mental illness or ambulatory care sensitive conditions (ACSCs)) and undesirable outcomes (e.g., pre-mature mortality, readmissions, or high ED use) so resources can be allocated where they are most needed.

II. WHO IS IN THE STUDY

A. SWMBH Population

The total SWMBH Medicaid population in 2022 (N=287,346) was identified by looking at Medicaid enrollment data over the one-year report period and identifying the number of unique enrollees with full Medicaid or Healthy Michigan Plan benefits. Individuals enrolled in Medicaid for maternal services only or emergency services only (e.g., whose immigration status or incarceration prohibit full Medicaid benefits) were not included in the study or the above count. Individuals were included in the study regardless of duration of Medicaid coverage during the year. 78.9% of the enrolled population had one or more Medicaid services reported to the State of Michigan, and 9.1% of the study population had at least one PIHP/CMH-funded service reported during the study period. On average, enrollees were covered with Medicaid in the SWMBH region for 10.8 months during the report period. 98.2% of the study population were reported as primarily English speakers, and 1.6% primarily Spanish speakers.

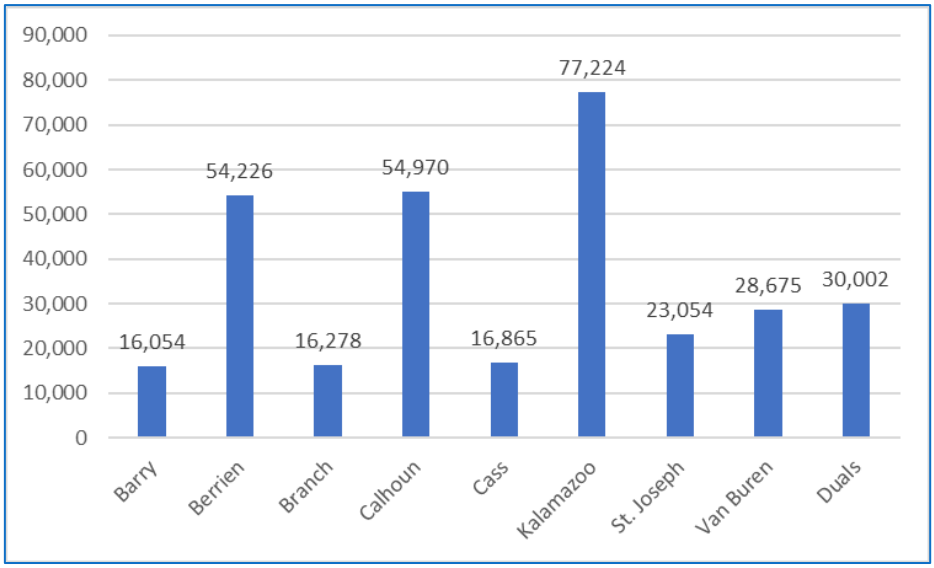
B. County Populations

The eight counties in the SWMBH region are compared to one another throughout the analysis. In the table and figure below, the counties are shown with population counts and their associated Community Mental Health entities.

Table 1: SWMBH Counties

County	CMH Name
Barry	Barry CMH
Berrien	Riverwood Center
Branch	Pines Behavioral Health
Calhoun	Summit Pointe CMH
Cass	Woodlands
Kalamazoo	Integrated Services of Kalamazoo
St. Joseph	Pivotal
Van Buren	Van Buren CMH

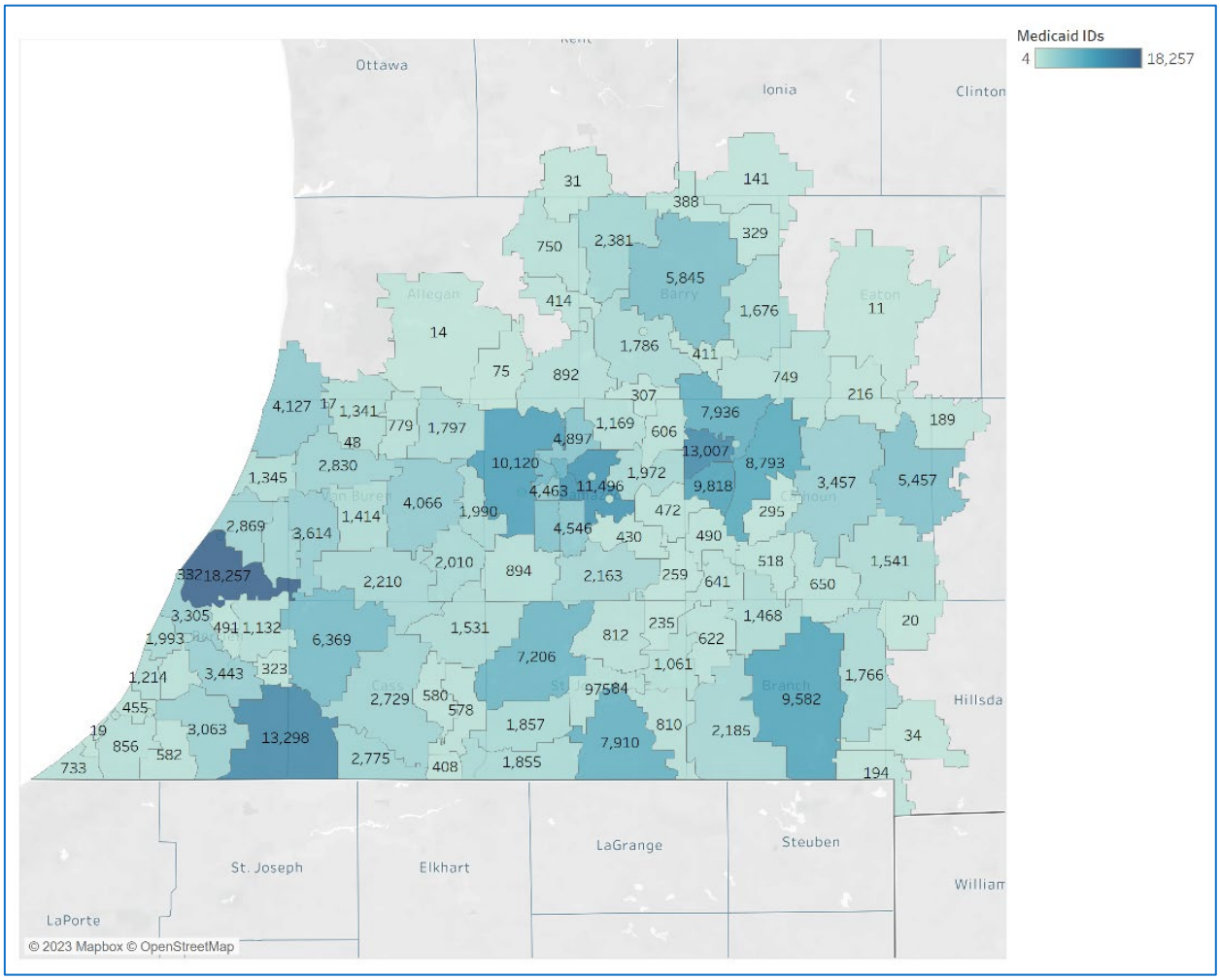
Figure 2: Distribution of SWMBH Enrollees by County



C. Distribution of SWMBH Enrollees by Zip Code

The figure below presents a heatmap of the geographic distribution of the SWMBH cohort based on zip code of residence. It should be noted that occasionally the zip code of residence is outside of the SWMBH region, even though the county of eligibility is within it. Enrollee counts shown in zip code regions that extend outside the SWMBH region county boundaries include only enrollees whose specific addresses lie within the county boundaries.

Figure 3: Count of CY 2022 Medicaid Enrollees in Region 4 by Zip Code of Address

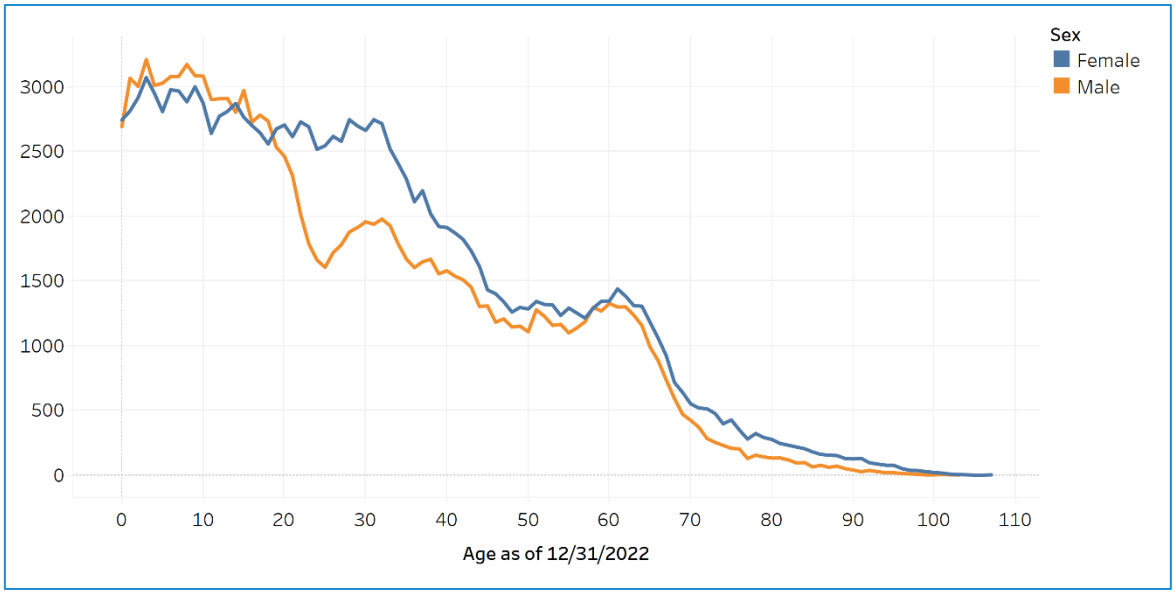


III. POPULATION HEALTH PROFILE

A. Age and Gender of Medicaid Enrollees

The figure below illustrates the age and gender distribution of SWMBH enrollees (the available enrollment data contains two genders: male and female). The SWMBH population is composed of unequal numbers of males (46.6%) and females (53.4%). The higher enrollment for females may be driven by increased enrollment for pregnant mothers and mothers with young children and increased average life span for females. 36.3% were 17 years or younger at the end of the reporting period; 57.1% were adults 18 to 64 years, and 6.6% were 65-years-old and over. The overall average age was 29.2 years.

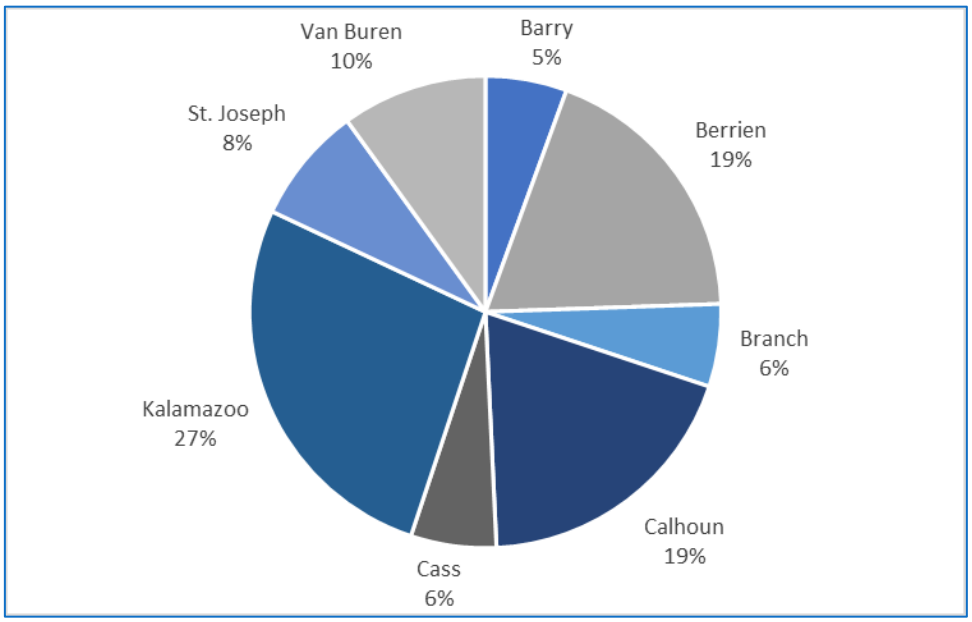
Figure 4: SWMBH CY 2022 Medicaid Enrollees by Gender and Age as of 12/31/2022



B. Medicaid Enrollees by SWMBH County

The SWMBH county with the largest volume of Medicaid enrollees is Kalamazoo by a wide margin, which had 77,224 enrollees in 2022; more than 1 in 4 of the Medicaid enrollees included in this report have Kalamazoo as their county of Medicaid responsibility. Berrien and Calhoun Counties are the next largest in volume, together comprising over a third of the report's Medicaid enrollees.

Figure 5: Percentage of Regional Medicaid Enrollees by County of Medicaid Responsibility



Medicaid penetration rates (table 2) were calculated by dividing total 2022 Medicaid enrollment per county by estimates of each county's population in July 2022. Individuals who moved counties were assigned to their latest County of Medicaid responsibility in 2022. Throughout the region, about one-third (34.1%) of the population was enrolled in Medicaid at any point in 2022. This ranged from 25.3% in Barry County to 41.2% in Calhoun County. Note

that this methodology results in slightly higher penetration percentages than methods using one month of enrollment data.

Table 1: 2022 Medicaid Penetration Rates by County

County	Number of Medicaid Enrollees in 2022	County Population Estimate*	Medicaid Penetration Rate for 2022
Barry	16,054	63,554	25.3%
Berrien	54,226	152,900	35.5%
Branch	16,278	44,531	36.6%
Calhoun	54,970	133,289	41.2%
Cass	16,865	51,403	32.8%
Kalamazoo	77,224	261,173	29.6%
St. Joseph	23,054	60,874	37.9%
Van Buren	28,675	75,692	37.9%
SWMBH Region	**287,346**	**843,416**	**34.1%**

**Source: Census Bureau (As of July 1, 2022)*

C. Racial/Ethnic Demographic Make Up of Enrollees

Across the SWMBH region, Cass County has the highest proportion of enrollees of American Indian or Alaskan Native descent, Kalamazoo and Berrien Counties have the highest proportion of enrollees of Black or African American descent, Van Buren County has the highest proportion of enrollees of Hispanic or Latino descent, and Barry and Branch Counties have the highest proportion of enrollees of White or Caucasian descent.

Table 2: Percentage of Medicaid Population by County and Race/Ethnicity

Race/Ethnicity	Overall	Barry County	Berrien County	Branch County	Calhoun County	Cass County	Kalama-zoo County	St. Joseph County	Van Buren County
American Indian or Alaskan Native	1.3%	1.1%	1.3%	0.8%	1.3%	2.6%	1.1%	1.0%	1.9%
Asian	0.9%	0.3%	0.8%	0.5%	1.7%	0.4%	1.2%	0.5%	0.3%
Black/African American	20.0%	2.0%	29.9%	2.0%	21.7%	9.8%	30.8%	5.6%	6.7%
Hispanic or Latino	7.2%	3.2%	6.5%	7.0%	5.0%	5.3%	6.1%	10.8%	16.5%
Native Hawaiian or Other Pacific Islander	0.1%	0.0%	0.3%	0.1%	0.1%	0.1%	0.1%	0.0%	0.1%
Other Race	5.3%	5.1%	5.1%	3.0%	6.3%	5.5%	5.8%	5.5%	3.7%
Unknown or Not Reported	0.8%	1.3%	0.6%	0.6%	0.9%	0.5%	0.8%	0.7%	0.7%
White	64.4%	87.1%	55.6%	86.0%	63.0%	75.8%	54.2%	76.0%	70.1%

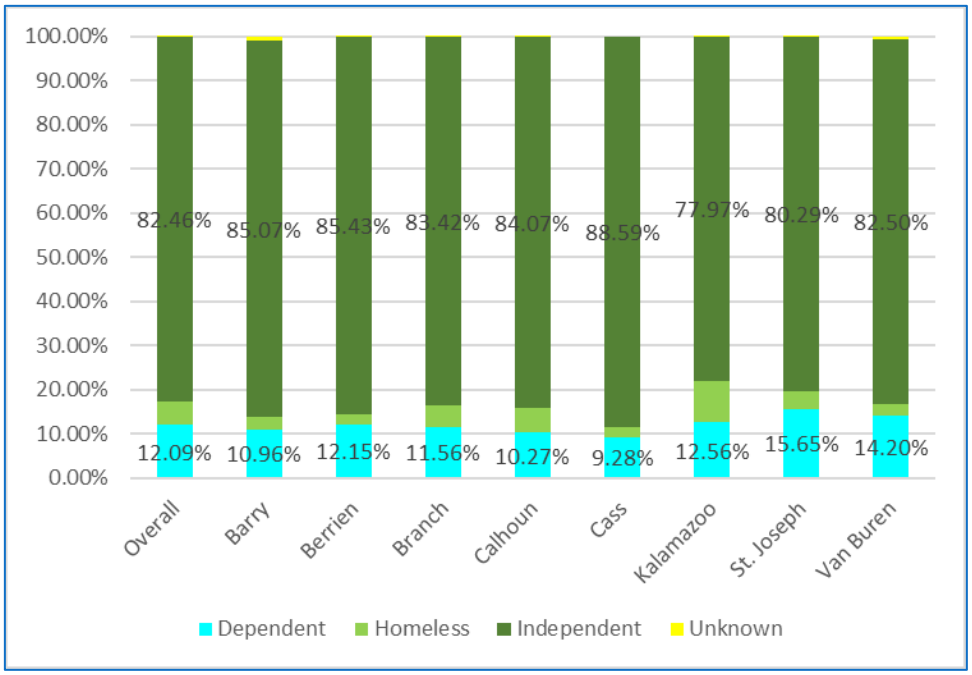
D. Living Arrangements of Enrollees Served by the PIHP/CMH System

Living arrangement statuses were gathered from PIHP-served enrollees' latest recorded events in the Behavioral Health Treatment Episode Data Set (BH-TEDS). BH-TEDS are a form of demographic and outcome tracking based on multiple points of time: admission into an episode of care, annual updates, and discharge. BH-TEDS living arrangements were categorized into four groups: dependent, unhoused (homeless in BH-TEDS), independent, and unknown. (Consult the Glossary for details on how classifications were made.) Among the PIHP/CMH-served enrollees analyzed, the county with the greatest proportion of dependent living arrangements was St. Joseph County, followed by Van Buren County. The greatest proportion of unhoused enrollees was in Kalamazoo County by some distance: 9.4% of PIHP-served enrollees within that county were unhoused, compared with 5.5% in Calhoun County, the county with the next highest proportion unhoused PIHP/CMH-served enrollees.

Table 3: Living Arrangements of PIHP/CMH-Served Medicaid Population by County

Living Arrangement Type	Overall	Barry County	Berrien County	Branch County	Calhoun County	Cass County	Kalama-zoo County	St. Joseph County	Van Buren County
Dependent	12.1%	11.0%	12.2%	11.6%	10.3%	9.3%	12.6%	15.7%	14.2%
Unhoused ("Homeless")	5.2%	2.8%	2.3%	4.9%	5.5%	2.1%	9.4%	3.9%	2.5%
Independent	82.5%	85.1%	85.4%	83.4%	84.1%	88.6%	78.0%	80.3%	82.5%
Unknown	0.2%	1.1%	0.1%	0.2%	0.1%	0.0%	0.1%	0.1%	0.8%

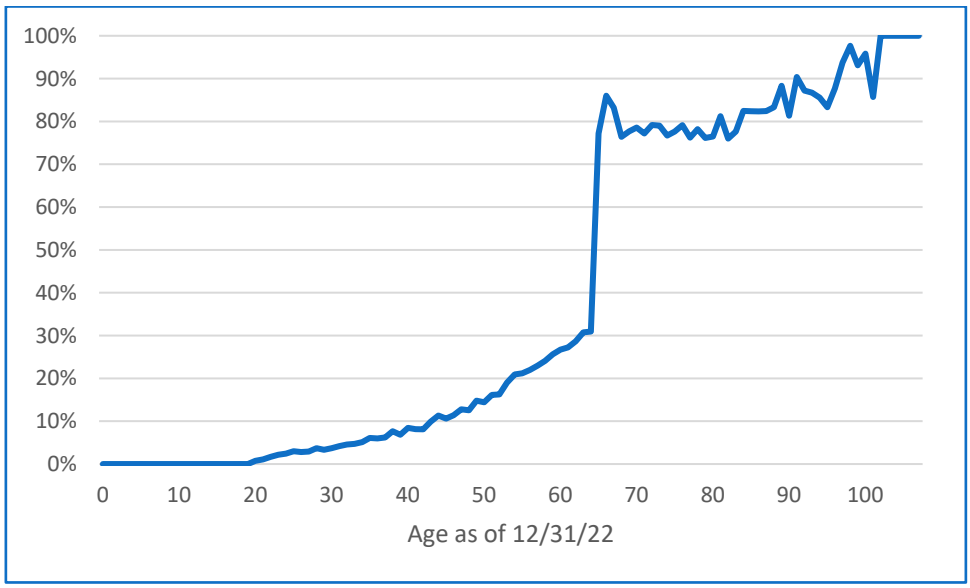
Figure 6: Living Arrangements of PIHP/CMH-Served Medicaid Population by County



E. Medicaid-Medicare Dual Eligibility

About 10% of the total regional Medicaid population was also enrolled in Medicare in 2022. In this report, certain comparisons are made between adults with Medicaid coverage only and adults with Medicaid-Medicare dual eligibility. It is important to note that after age 64, the great majority (80%) of Medicaid enrollees in the region were also enrolled in Medicare. Nine percent (9%) of individuals aged 18 to 64 were enrolled in Medicare, and 0% of those under 18 were enrolled in Medicare. In breakouts for the dually eligible Medicare/Medicaid population, the report divides most comparisons into the 18-64 age group and the 65 and older age group, to account for age-related complexities and the higher representation of dual-eligibles in the 65 and older group.

Figure 7: Percentage of Medicaid Enrollees Dually Enrolled in Medicare, by Age



IV. BEHAVIORAL HEALTH CONDITIONS

A. Method and Definitions

For this study, ICD-10 diagnosis codes on 2022 Medicaid service encounters were analyzed to assess the 2022 incidence of various behavioral health and chronic physical conditions in the SWMBH Medicaid population. PIHP/CMH-funded behavioral health services, as well as services funded by Medicaid Health Plans or Medicaid Fee-For-Service, were included in diagnostic assignments. Any behavioral health diagnosis was included in the analysis, regardless of Medicaid funding source, service type, diagnosis position on the claim, or number of times a diagnosis was reported.

Services were grouped into overarching “primary behavioral health groups” (e.g., intellectual/developmental disabilities, substance use disorders) and more specific “behavioral health conditions” (e.g., depressive disorders, schizophrenia, autism spectrum disorder) for which enrollees were treated during the year. For “behavioral health conditions” both primary condition (for which an individual had the most diagnoses over the year) and any additional diagnosed conditions were identified. ICD-10 codes included in each of the categories were defined and validated by two behavioral health clinicians, an RN, and a public health analyst from SWMBH. SWMBH’s diagnostic groupings were validated against similar population health diagnostic groupings where detailed ICD-10 definitions were available (MDHHS’s CareConnect360 and Relias’s Population Performance). These definitions can be provided upon request.

Primary Behavioral Health Group Definitions

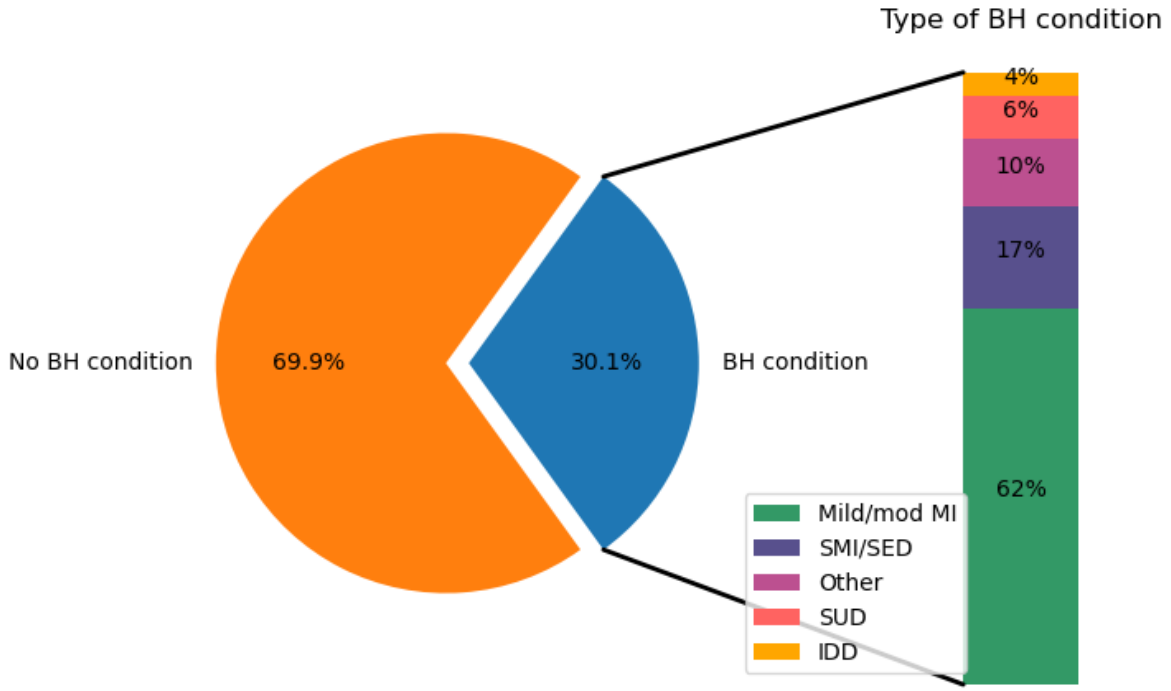
Assignment to primary behavioral health groups was based on individuals' most frequently occurring behavioral health diagnoses in 2022. There is no overlap between the populations assigned to each of these groups. The primary behavioral health groups used include:

- **Intellectual/developmental disabilities (IDD)**: Intellectual disabilities and pervasive developmental disorders such as autistic disorder are included.
- **Mild/moderate mental illness**: This group is primarily comprised of anxiety disorders, ADHD, and mild to moderate forms of depressive and bipolar disorders.
- **Serious mental illness (SMI) / Serious emotional disturbance (SED)**: This group is primarily comprised of schizophrenia and severe forms of depressive and bipolar disorders.
- **Substance use disorders (SUD):** Includes addictive and substance use-related disorders associated with any substance, as well as gambling disorder.
- **Other**: this group includes behavioral health conditions not included in the other groups, such as conditions with known physiological causes (e.g., dementia), specific learning disorders, communication disorders, and unspecified mental health conditions. This group's statistics are not specifically identified after the following graphic, because the group includes a highly variable group of conditions. When later comparisons are made between individuals with no behavioral health diagnosis and the primary behavioral health groups, this group is excluded from the analyses.

B. Prevalence of Behavioral Health Conditions

As seen below in Figure 8, our analysis found that 30.1% of the SWMBH Medicaid population received a behavioral health diagnosis at some point in 2022. Of those with behavioral health conditions, the majority (62%) had primarily mild to moderate behavioral health needs, followed by SMI/SED, "other" types of diagnoses, then SUD, and IDD.

Figure 8: Percentage of Population with a Behavioral Health (BH) Diagnosis, and Types of Conditions by Primary BH Group



C. Behavioral Health Conditions by SWMBH County

Table 5 contains rates of behavioral health diagnoses in 2022 for the SWMBH region overall and each of the eight counties in the region. Individuals were assigned to their last SWMBH Medicaid county of responsibility in 2022. Percentages in a column may add up to more than 100%, as enrollees may have been diagnosed with more than one behavioral health condition. Percentages in Table 5 that are statistically significant are bolded and color-coded (red – high, and green – low) depending on whether a higher or lower rate exists compared to the remaining population. Darker shading indicates a greater difference in rates. Chi-square tests were used to determine statistical significance throughout the report, using $p < 0.05$ with Bonferroni correction for repeated analyses.

Some variation exists in the rates of behavioral health conditions across counties. Barry County had the highest percentage of individuals with any behavioral health diagnosis at 32.8%, and Branch County had the lowest at 27.8%. In Barry and Calhoun Counties there were high rates in some diagnostic categories and low rates in others. Kalamazoo County shows relatively higher rates of diagnosis across several categories, while Berrien, Branch, and Cass Counties show relatively lower rates across several categories.

Table 5: Percentage of Medicaid Population with Behavioral Health Conditions by County

Behavioral Health Condition	Overall	Barry County	Berrien County	Branch County	Calhoun County	Cass County	Kalama-zoo County	St. Joseph County	Van Buren County
1+ behavioral health diagnosis	30.1%	**32.8%**	**27.9%**	**27.8%**	**30.6%**	**28.4%**	**31.5%**	30.4%	30.1%
Anxiety disorders	14.3%	**17.6%**	**12.4%**	**12.0%**	**13.8%**	**13.0%**	**15.3%**	**16.1%**	14.5%
Depressive disorders	11.7%	**14.3%**	**10.2%**	**10.6%**	**12.2%**	**10.7%**	**12.4%**	11.8%	11.4%
Adjustment disorders	5.3%	**6.4%**	**5.1%**	**5.1%**	**5.1%**	**5.9%**	**5.3%**	**6.1%**	**4.9%**
Attention deficit hyperactivity disorder	5.3%	**4.4%**	4.6%	2.5%	**4.9%**	**3.3%**	7.4%	5.3%	**4.9%**
Trauma-related disorders	3.9%	3.9%	**2.4%**	4.1%	**4.2%**	**2.5%**	**4.7%**	**4.7%**	3.9%
Substance use disorders	3.7%	**3.1%**	**3.5%**	3.6%	**4.5%**	**2.8%**	**4.0%**	3.7%	**2.9%**
Bipolar disorders	3.3%	3.4%	**2.6%**	**4.1%**	**4.0%**	**2.6%**	**3.6%**	3.0%	**2.7%**
Schizophrenia and related	2.0%	**1.4%**	2.0%	**1.7%**	1.9%	**1.4%**	**2.6%**	1.7%	**1.8%**
Impulse control and conduct disorders	1.5%	1.6%	**1.2%**	1.6%	**1.7%**	**1.0%**	1.5%	**1.7%**	**1.2%**
Autism Spectrum Disorder	1.5%	1.5%	1.6%	1.6%	1.5%	1.2%	1.4%	1.4%	1.4%
Intellectual disabilities	1.2%	**0.8%**	1.3%	1.0%	**1.0%**	1.0%	**1.4%**	1.1%	1.3%
Personality disorders	1.1%	**0.7%**	1.1%	1.1%	**1.4%**	1.1%	1.2%	1.0%	**0.7%**
Dementia	0.8%	**1.2%**	0.8%	**1.1%**	0.9%	0.8%	**0.7%**	0.7%	0.8%
Obsessive-compulsive disorder	0.5%	0.5%	0.4%	0.4%	**0.4%**	0.3%	**0.6%**	0.5%	0.4%

Bold font with red or green shading indicates that a rate is significantly higher (red) or lower (green) than the remaining population. Darker shading indicates a greater proportional difference in rates.

D. Behavioral Health Conditions by Age Group and Gender

Behavioral Health Conditions by Age Group

Table 6 contains behavioral health condition diagnosis rates by adult and child/adolescent age groupings, highlighted from lowest rates overall (green) to highest rates overall (red) and sorted by the most common conditions in the 18-to-64-year age group. Diagnosis patterns for children and adolescents varied from those of adults, with lower rates of diagnosis seen in children and adolescents. Still, a full 23% of children and adolescents in the study had a behavioral health diagnosis during the study period of 2022. Children were much more likely to have diagnoses of ADHD and impulse control/conduct disorders than adults, while adults were more likely to have diagnoses of substance use disorders, bipolar disorders, and schizophrenia. Anxiety disorders and depressive disorders were the top diagnoses for adults, and the second and fourth most common diagnosis for children and adolescents.

These data suggest an increase in incidence of mental illness and other behavioral health conditions from childhood to adulthood, and with a decrease after age 64 for all conditions except schizophrenia, intellectual disabilities, and dementia. Prevention, early identification, and treatment of behavioral health conditions in childhood may help alleviate later exacerbation of behavioral health needs. It is possible that under-diagnosis is occurring in the 65 and older population. Annual screening for behavioral health conditions such as depression and substance use disorders is a best practice that is recommended for all age groups.

Table 6: Percentage of Medicaid Population with Behavioral Health (BH) Conditions by Children/Adolescent and Adult Age Groups

Behavioral Health Condition	Under 18 years	18 to 64 years	65 years and older
1+ behavioral health diagnosis	**23.0%**	**34.7%**	**29.8%**
Anxiety disorders	6.0%	19.6%	13.1%
Depressive disorders	3.6%	16.5%	14.7%
Substance use disorders	0.2%	6.2%	1.5%
Adjustment disorders	5.3%	5.6%	2.3%
Bipolar disorders	0.3%	5.3%	2.5%
Trauma-related disorders	2.2%	5.2%	1.2%
Attention deficit hyperactivity disorder	8.1%	4.1%	0.3%
Schizophrenia and related	0.1%	3.0%	4.1%
Personality disorders	0.1%	1.8%	0.7%
Intellectual disabilities	0.4%	1.6%	1.8%
Autism Spectrum Disorder	2.5%	0.9%	0.2%
Impulse control and conduct disorders	2.7%	0.8%	0.4%
Obsessive-compulsive disorder	0.2%	0.6%	0.5%
Dementia	0.0%	0.2%	10.8%

Behavioral health condition diagnosis rates by adult and child/adolescent age groupings, highlighted from lowest rates overall (green) to highest rates overall (red).

Behavioral Health Conditions by Gender for Adults and Children/Adolescents

The Medicaid enrollment data available for the study reports two genders, male and female. Table 7 shows the frequencies of behavioral health diagnoses by gender for adults and minors, shaded from highest (red) to lowest

(green) by adult and child/adolescent age groups. Overall, 32.5% of females and 27.3% of males in the study had a behavioral health diagnosis in 2022. However, differences emerge when adults and minors are compared.

A greater percentage of male children and adolescents (25.4%) were diagnosed with a behavioral health condition compared to females (20.4%). The difference in diagnostic rates of ADHD for male children and adolescents was particularly striking, with 10.6% of male children being diagnosed with ADHD compared to 5.5% of female children.

In adults, there was a ten percentage-point difference in the female behavioral health condition diagnosis rate (38.6%) and the male rate (28.6%). Adult females were diagnosed with anxiety and depressive disorders at almost twice the rate of males, although these were the most frequent diagnoses for adults of both sexes. Due to stigma regarding behavioral health diagnosis and treatment, adult male diagnosis may be under-represented for these conditions. Males were much more likely to be diagnosed with intellectual disabilities and autism spectrum disorder in both adults and minors. Adult males were 2.4 times as likely to be diagnosed with schizophrenia than females, and 1.9 times as likely to be diagnosed with substance use disorders.

Screening for behavioral health conditions and stigma-reduction initiatives may assist with alleviating certain inequities in rates of diagnosis. Behavioral support, mental health prevention, and other social programs may assist with exacerbated rates of behavioral health conditions diagnosed in male children and adolescents.

Table 7: Percentage of Medicaid Population with Behavioral Health (BH) Conditions by Gender for Children/Adolescents and Adults

	Children and Adolescents		Adults	
Behavioral Health Condition	**Females**	**Males**	**Females**	**Males**
1+ behavioral health diagnosis	**20.4%**	**25.4%**	**38.6%**	**28.6%**
Anxiety disorders	7.3%	4.8%	23.9%	12.7%
Depressive disorders	4.9%	2.4%	20.2%	11.4%
Adjustment disorders	5.5%	5.2%	6.2%	4.0%
Attention deficit hyperactivity disorder	5.5%	10.6%	3.9%	3.5%
Trauma-related disorders	2.5%	2.0%	6.1%	3.2%
Substance use disorders	0.2%	0.2%	4.2%	7.7%
Bipolar disorders	0.3%	0.3%	5.6%	4.3%
Schizophrenia and related	0.1%	0.1%	2.3%	4.1%
Impulse control and conduct disorders	1.8%	3.6%	0.5%	1.1%
Autism spectrum disorder	1.2%	3.8%	0.4%	1.4%
Intellectual disabilities	0.3%	0.6%	1.3%	2.1%
Personality disorders	0.1%	0.1%	2.1%	1.3%
Dementia	0.0%	0.0%	1.5%	1.0%
Obsessive-compulsive disorder	0.2%	0.2%	0.7%	0.6%

Behavioral health condition diagnosis rates by adult and child/adolescent age groupings and gender, highlighted from lowest rates (green) to highest rates (red) by age group.

E. Behavioral Health Conditions by Medicare-Medicaid Dual Eligibility

Table 8 contains behavioral health condition diagnosis rates by Medicare-Medicaid dual enrollment status for the 18-64 and 65+ age groups, highlighted from lowest rates (green) to highest rates (red) by condition, and sorted by the most common conditions in the 18 to 64 Medicaid only group. Overall, the dual eligible population has 1.3 times greater risk for having a behavioral health condition compared to the Medicaid-only population, with only ADHD and adjustment disorders being more prevalent in the Medicaid only population. For Medicaid only and dual eligible populations, anxiety disorders and depressive disorders were the most common. The 65 and older Medicaid-only group had the lowest diagnosis rates on all measures except dementia.

Dual eligibles in the 18-64 age group had the highest rates of diagnosis for all but three of the conditions studied (adjustment disorders, ADHD, and dementia). The 18-64 dual eligible population was diagnosed with intellectual/developmental disabilities and schizophrenia at particularity high rates compared to other cohorts. Dual eligibles often have complicated medical needs in addition to increased likelihood of severe behavioral health needs. Care coordination for multiple complex needs can be an essential component of treatment for individuals with Medicaid-Medicare dual eligibility.

Table 8: Percentage of Population with Behavioral Health (BH) Conditions by Medicaid/Medicare Enrollment and 18-64 and 65 and Over Age Groups

Behavioral Health Condition	18 to 64		65 and up	
	Medicaid Only	Dual Eligibles	Medicaid Only	Dual Eligibles
1+ behavioral health diagnosis	**33.3%**	**48.2%**	**9.2%**	**35.0%**
Anxiety disorders	19.5%	21.3%	3.5%	15.5%
Depressive disorders	16.2%	19.7%	4.3%	17.4%
Substance use disorders	6.1%	7.6%	1.0%	1.6%
Adjustment disorders	5.7%	4.5%	0.6%	2.8%
Trauma-related disorders	5.0%	7.5%	0.3%	1.5%
Bipolar disorders	4.7%	10.9%	1.0%	2.9%
Attention deficit hyperactivity disorder	4.2%	3.6%	0.2%	0.3%
Schizophrenia and related	2.2%	10.7%	1.4%	4.8%
Personality disorders	1.6%	4.1%	0.3%	0.8%
Intellectual disabilities	0.9%	8.9%	0.2%	2.2%
Autism Spectrum Disorder	0.7%	2.7%	0.0%	0.2%
Impulse control and conduct disorders	0.6%	2.3%	0.0%	0.5%
Obsessive-compulsive disorder	0.6%	1.4%	0.1%	0.6%
Dementia	0.1%	1.2%	2.0%	13.0%

Behavioral health condition diagnosis rates by Medicare-Medicaid dual enrollment status for the 18-64 and 65+ age groups, highlighted from lowest rates (green) to highest rates (red) by condition.

F. Behavioral Health Conditions by Race or Ethnicity

Table 9 contains frequencies of diagnosis of behavioral health conditions by race or ethnicity, sorted in descending order by the most common conditions in the region. Percentages in a column may add up to more than 100%, as enrollees may receive more than one behavioral health diagnosis. Percentages that are statistically significant are

bolded and color-coded (red – high, and green – low) depending on whether a higher or lower rate exists compared to the remaining population. Chi-square tests were used to determine statistical significance, using $p < 0.05$.

In Table 9, numerous significant differences in diagnosis rates across races and ethnicities are observed. In our study, individuals in the Asian group were less than half as likely as the overall population to have had one or more behavioral health condition diagnosed during the study period of 2022, and less than half as likely to have had diagnoses for any one of these conditions: anxiety, depressive, or adjustment disorders; ADHD, PTSD, substance use disorders, bipolar disorders, impulse control or conduct disorders, and personality disorders.

Individuals identifying as Hispanic or Latino were significantly less likely to have been diagnosed with one or more of the behavioral health conditions studied and were less than half as likely as the overall population to have been diagnosed with substance use disorders, intellectual disabilities, personality disorders, schizophrenia, dementia, or obsessive-compulsive disorder.

The Black or African American population was also less likely to have had a behavioral health condition diagnosed during the study period compared to the rest of the population, with significantly lower diagnosis rates on 9 of the 13 conditions studied. However, the Black or African American population had a 50% higher rate of schizophrenia diagnosis than the population overall.

The American Indian or Alaskan Native population and White populations were more likely than other all groups to have had a behavioral health condition diagnosed during 2022. American Indian and Alaskan Natives had particularity high rates of diagnosis for depression, adjustment disorders and trauma-related disorders compared to the rest of the population but were half as likely to have had a dementia diagnosis. The White population had significantly higher rates of diagnosis for all but one of the conditions studied, schizophrenia.

These results must be interpreted cautiously. The rates of diagnosis do not necessarily reflect true population prevalence. For a diagnosis to be present in our source data (Medicaid claims), individuals must have been diagnosed by a Medicaid provider, which requires that the individual be comfortable speaking to a healthcare provider about their problem and logistically able to seek and obtain treatment. It also requires that the healthcare provider be able to provide unbiased diagnosis and treatment, without the interference of cultural or language barriers. These data could be used by stakeholders to discuss and reflect upon whether the reported rates reflect actual experience in clinical practice and if not, then to explore how barriers to treatment can be addressed.

Table 9: Percentage of Medicaid Population with Behavioral Health (BH) Conditions by Race/Ethnicity

Behavioral Health Condition	Overall	American Indian or Alaskan Native	Asian	Black or African American	Hispanic or Latino	Native Hawaiian or Pacific Islander	Other Race	Unknown Race	White
1+ behavioral health diagnosis	30.1%	**36.6%**	**14.3%**	**24.2%**	**19.3%**	**22.1%**	**21.5%**	**18.9%**	**34.1%**
Anxiety disorders	14.3%	**18.9%**	**5.8%**	**8.5%**	**8.2%**	11.7%	**8.6%**	**8.2%**	**17.3%**
Depressive disorders	11.7%	**15.7%**	**5.1%**	**7.9%**	**6.5%**	**5.2%**	**6.6%**	**7.8%**	**13.9%**
Adjustment disorders	5.3%	**7.5%**	**1.2%**	3.3%	**2.7%**	2.8%	**4.6%**	**3.3%**	**6.3%**
Attention deficit hyperactivity disorder	5.3%	**6.4%**	**2.2%**	5.5%	**3.9%**	2.8%	**3.5%**	**2.6%**	**5.6%**
Trauma-related disorders	3.9%	**5.9%**	**1.3%**	**2.9%**	**2.1%**	3.7%	**2.6%**	3.6%	**4.5%**
Substance use disorders	3.7%	**4.9%**	**0.8%**	**3.3%**	**1.6%**	0.9%	**1.8%**	**2.4%**	**4.3%**
Bipolar disorders	3.3%	**4.2%**	**0.9%**	**2.2%**	**1.2%**	3.4%	**1.6%**	2.7%	**4.1%**
Schizophrenia and related	2.0%	2.5%	**0.9%**	**2.6%**	**0.6%**	0.6%	**1.1%**	2.0%	**2.1%**
Impulse control and conduct disorders	1.5%	2.0%	**0.4%**	1.3%	**0.8%**	0.9%	1.3%	1.1%	**1.6%**
Autism Spectrum Disorder	1.5%	1.8%	**0.8%**	**1.2%**	**0.6%**	1.8%	1.7%	0.8%	**1.6%**
Intellectual disabilities	1.2%	1.1%	1.0%	**1.0%**	**0.3%**	2.1%	1.2%	0.6%	**1.3%**
Personality disorders	1.1%	1.5%	**0.3%**	**0.7%**	**0.4%**	1.8%	**0.5%**	0.9%	**1.4%**
Dementia	0.8%	**0.4%**	0.4%	**0.5%**	**0.2%**	0.6%	0.9%	**2.2%**	**1.0%**
Obsessive-compulsive disorder	0.5%	0.5%	0.3%	**0.2%**	**0.2%**	0.0%	0.4%	0.3%	**0.6%**

Bold font with red or green shading indicates that a rate is significantly higher (red) or lower (green) than the remaining population. Darker shading indicates a greater proportional difference in rates.

V. SUBSTANCE USE AND GAMBLING DISORDERS

A. Overview and Method

In this section, the types of substance use and gambling disorders diagnosed in Medicaid enrollees in Southwest Michigan in 2022 are described in more detail. Gambling disorder statistics are included here as there are similarities between the symptoms of gambling disorder and substance use disorders (e.g., the need for increasing amounts of the substance or activity and unsuccessful efforts to stop). Common treatment methods are also similar, such as self-help support groups. Gambling disorder frequently co-occurs with substance use disorders such as alcohol use disorder.

Substance use diagnostic and treatment data for individuals who did not receive SWMBH-funded services were largely unavailable due to federal restrictions preventing sharing of this information. The percentage of the SWMBH/CMH-served population with substance use diagnoses in the study data set was 36.6%, compared to 0.44% in the enrollee population without SWMBH/CMH services. The estimated general population prevalence for substance use disorders is 16-17%. The following analyses only includes individuals with SWMBH/CMH-funded services due to the data limitations in the not-SWMBH/CMH-served population. For this portion of the study, ICD-10 diagnosis codes for *Mental and behavioral disorders due to psychoactive substance use* were grouped according to the ICD-10 diagnostic categories for specific substances. The data source was SWMBH's state-accepted encounters. Any diagnosis of one of the targeted conditions was included in the analysis.

B. Substance Use and Gambling Disorders by SWMBH County

The table below displays rates of substance use and gambling disorder diagnoses in 2022 for the SWMBH/CMH-served Medicaid population overall and by each of the eight counties in the region. Individuals were assigned to their last SWMBH Medicaid county of responsibility in 2022. Percentages in a column may add up to more than 100%, as enrollees may have been diagnosed with more than one condition. Percentages that are statistically significant are bolded and color-coded (red – high, and green – low) depending on whether a higher or lower rate exists compared to the remaining population. Darker shading indicates a greater difference in rates. Chi-square tests were used to determine statistical significance throughout the report, using $p < 0.05$ with Bonferroni correction for repeated analyses.

Overall, Kalamazoo County had the highest rates of substance use or gambling disorder diagnosis, with 40.1% of the SWMBH/CMH-served population in the county having at least one diagnosis in 2022, compared to the regional average of 36.6%. Kalamazoo County had significantly higher rates of diagnosis in seven of the categories studied. Branch and Van Buren Counties had significantly lower than average rates of any diagnosis, at 32.5% and 31.0% respectively. Other stimulant related (typically amphetamine) disorders were significantly higher than average in three counties, Barry, Branch, and Cass. Increases in methamphetamine use have been observed in the region in recent years and this category was diagnosed more frequently than opioid use disorder in 2022. Four counties had significantly lower rates of opioid use disorder (Barry, Branch, St. Joseph, and Van Buren Counties) compared to the rest of the region, with Calhoun and Kalamazoo Counties having significantly higher rates at 10.7% and 10.1% respectively.

It is important to note that rates of diagnosis will differ from actual population prevalence since many people experiencing substance use disorders do not receive formal diagnosis or treatment, sometimes even when receiving behavioral health treatment for other needs. Models such as Screening, Brief Intervention, and Referral to Treatment (SBIRT), which encourages substance use screenings as a routine preventive service in healthcare, can be used to identify and reduce or prevent problematic substance use. In behavioral health settings, there are several substance use disorder screening tools that can help identify co-occurring disorders; techniques like motivational interviewing can be used to assist individuals with identifying and preparing to address their problematic substance use.

Table 10: Percentage of SWMBH-Served Population with Substance Use and Gambling Disorder Diagnoses by County

Substance Use or Gambling Disorder Diagnosis	All SWMBH Served	Barry County	Berrien County	Branch County	Calhoun County	Cass County	Kalama-zoo County	St. Joseph County	Van Buren County
Any diagnosis	36.6%	34.9%	35.1%	**32.5%**	37.1%	39.0%	**40.1%**	35.6%	**31.0%**
Alcohol related disorders	15.4%	12.8%	14.2%	14.4%	**16.9%**	15.8%	**16.8%**	13.4%	13.5%
Cannabis related disorders	13.8%	**17.9%**	13.1%	11.6%	12.8%	14.3%	**15.8%**	14.9%	**9.6%**
Other stimulant related disorders	10.6%	**11.3%**	**7.1%**	**13.4%**	**7.8%**	**14.2%**	11.6%	17.5%	11.1%
Opioid related disorders	9.3%	**6.1%**	10.1%	**6.3%**	**10.7%**	9.7%	**10.1%**	**7.1%**	**7.2%**
Cocaine related disorders	3.4%	**1.7%**	3.5%	**2.1%**	**4.0%**	2.3%	**4.5%**	**1.9%**	**2.0%**
Other psychoactive related disorders	1.6%	1.5%	1.9%	1.0%	**1.0%**	0.7%	**2.3%**	1.5%	1.3%
Nicotine dependence	1.9%	1.5%	1.9%	**3.2%**	**0.7%**	1.2%	**3.5%**	**1.0%**	**0.9%**
Sedative, hypnotic, or anxiolytic related disorders	0.9%	1.2%	1.0%	0.7%	0.7%	0.7%	0.8%	0.8%	0.9%
Hallucinogen related disorders	0.2%	0.1%	0.2%	0.1%	0.1%	0.0%	**0.4%**	0.3%	0.0%
Gambling disorder	0.1%	0.0%	0.0%	0.2%	0.1%	0.0%	0.1%	0.1%	0.0%
Inhalant related disorders	0.1%	0.0%	0.0%	0.1%	0.0%	0.0%	0.1%	**0.2%**	0.0%

Bold font with red or green shading indicates that a rate is significantly higher (red) or lower (green) than the remaining population. Darker shading indicates a greater proportional difference in rates.

C. Substance Use and Gambling Disorders by Age Groups and Dual-Eligible Status

46.2% of adults 18 and up, and 8.2% of teens 13 to 17 (ages as of 12/31/22) served by the SWMBH PIHP/CMH provider network in 2022 had at least one substance use or gambling disorder diagnosis reported in the available encounter data. The following graphs display rates of diagnoses for specific substance use disorders and gambling disorder for adults and teens. Individuals may be included in more than one category. In adults, the most frequently diagnosed substance use disorders were alcohol-related disorders (19.8%), followed closely by cannabis (16.8%), other stimulants (amphetamines, 13.6%), and opioid-use disorders (12.0%).

For teens 13 to 17-years-old, cannabis-related disorders were the top diagnoses by far at 7.5%, followed by alcohol use disorders at 0.8%. For comparison, the 2022 Monitoring the Future survey conducted by the University of Michigan and funded by the National Institute on Drug Abuse (NIDA) surveyed 8th, 10th, and 12th graders nationally and found that 3.2% reported daily marijuana use and 0.7% reported daily alcohol use. 6.7% of the Monitoring the Future survey respondents reported drinking five or more drinks in a row in the past two weeks. 0.8% reported using hallucinogens in the past 30 days and 0.4% reported using cocaine in the past 30 days. The populations from the survey and this study differ (general middle and high school student populations and PIHP-served teens), and the survey did not measure diagnosed substance use disorders, as our study did. However, the survey results may help providers serving teens to be aware of trends in substance misuse. SWMBH's provider network has a robust substance use prevention program, which serves youth in schools and other community-based settings with early substance abuse signs and risk factors. Data from these programs are not reflected in this report, due to a separate data collection process, but may be useful to include in future analyses.

Figure 9: Substance Use and Gambling Disorder Diagnoses in Adults 18 and Over with SWMBH Services

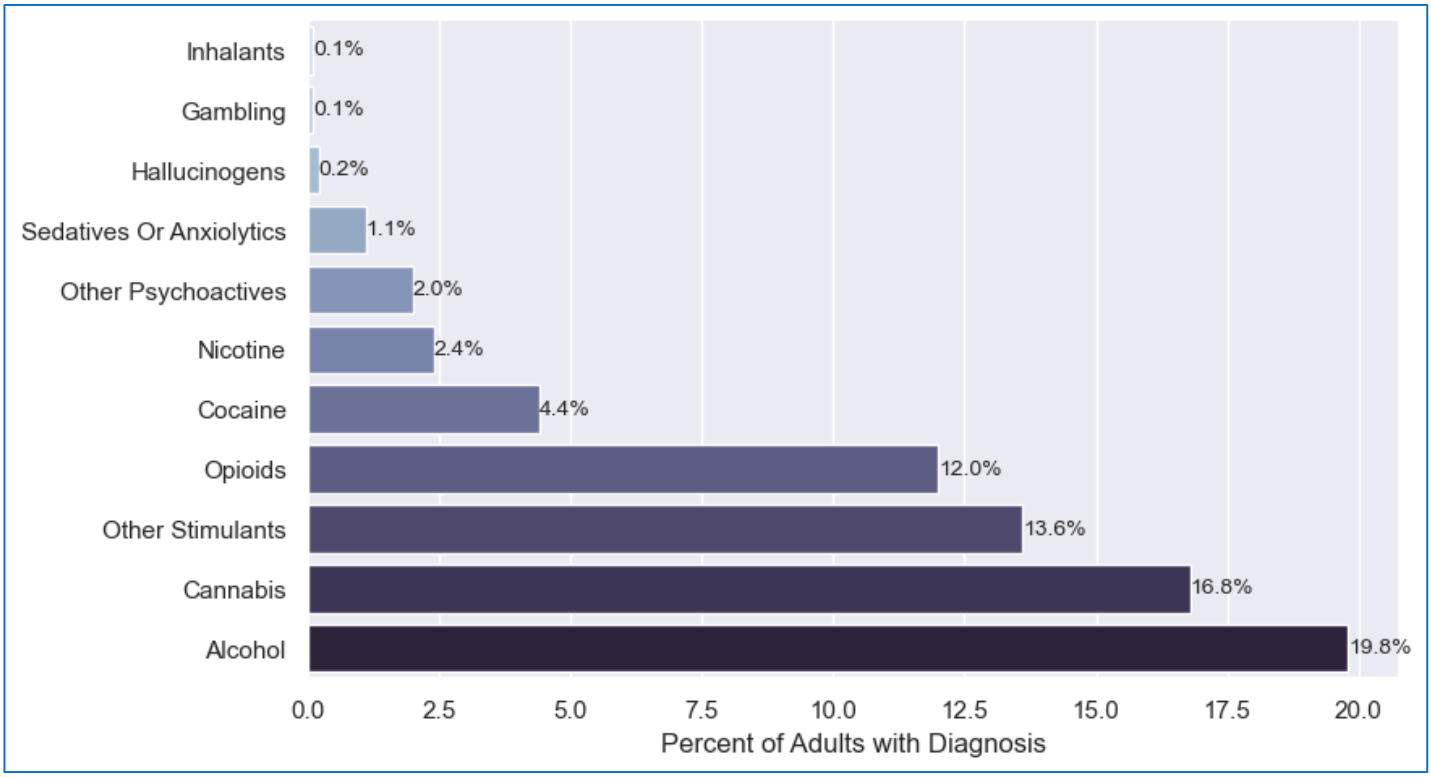
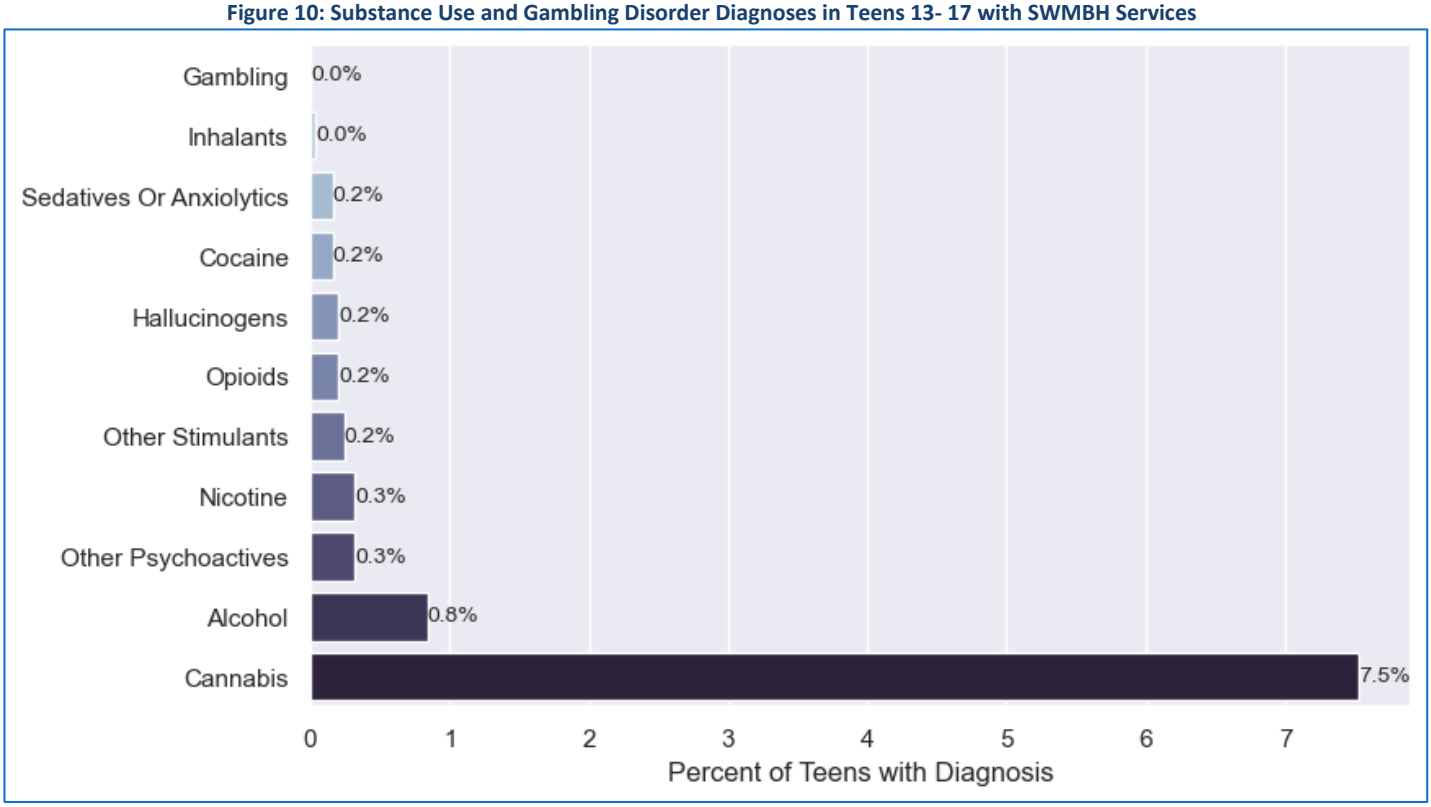


Figure 10: Substance Use and Gambling Disorder Diagnoses in Teens 13- 17 with SWMBH Services



The table below displays rates of substance use or gambling disorder diagnoses for the 13 to 17, 18 to 64, and 65 and over age groups. Diagnosis was most frequent in the 18–64-year age group, with 47.8% of individuals in this age group who received SWMBH-funded services in 2022 having at least one substance use or gambling disorder diagnosis reported, compared to 18.8% of those 65 and older and 8.2% of teens 13 to 17.

Table 11: Percentage of SWMBH-Served Population with Substance Use and Gambling Disorder Diagnoses by Child/Adolescent and Adult Age Groups

Substance Use or Gambling Disorder Diagnosis	13 to 17	18 to 64	65 and over
Any diagnosis	**8.2%**	**47.8%**	**18.8%**
Alcohol related disorders	0.8%	20.3%	10.7%
Cannabis related disorders	7.5%	17.6%	3.9%
Other stimulant related disorders	0.2%	14.3%	1.4%
Opioid related disorders	0.2%	12.4%	4.6%
Cocaine related disorders	0.2%	4.5%	2.5%
Other psychoactive related disorders	0.3%	2.1%	0.6%
Nicotine dependence	0.3%	2.5%	2.3%
Sedative, hypnotic, or anxiolytic related	0.2%	1.1%	0.4%
Hallucinogen related disorders	0.2%	0.2%	0.0%
Gambling disorder	0.0%	0.1%	0.1%
Inhalant related disorders	0.0%	0.1%	0.0%

Substance use disorder diagnosis rates for the 13-17, 18-64, and 65 and over age groups, highlighted from lowest rates overall (green) to highest rates overall (red).

Table 12 displays rates of substance use or gambling disorder diagnoses by female and male gender for teens 13 to 17 and adults 18 and up. Males were more likely to have a substance use disorder diagnosis compared to females in both age groups. However, alcohol and cocaine related disorders were more commonly diagnosed in female teens than in male teens. In adults, diagnoses of sedative, hypnotic, or anxiolytic related disorders were slightly more common in females.

Table 13 shows rates of substance use or gambling disorder diagnoses for the adult 18 to 64 and 65 and older age groups, comparing individuals enrolled in Medicaid only and individuals dually enrolled in Medicaid and Medicare. Individuals enrolled in Medicaid only had higher rates of substance use or gambling disorder diagnoses than dual-eligibles, even in the 65 and older age group, where mental health and chronic conditions were less likely to be reported than any other group (see sections IV.E and VI.C.). Substance use and gambling disorders were the one category of health conditions where the Medicaid-only population was more likely to be diagnosed than the dual-eligible population.

Table 12: Percentage of SWMBH-Served Population with Substance Use and Gambling Disorder Diagnoses by Gender for Children/Adolescents and Adults

Substance Use or Gambling Disorder Diagnosis	13 to 17		18 and up	
	Females	Males	Females	Males
Any diagnosis	**7.2%**	**9.3%**	**38.4%**	**53.5%**
Alcohol related disorders	1.2%	0.5%	14.4%	24.8%
Cannabis related disorders	6.4%	8.6%	13.1%	20.4%
Other stimulant related disorders	0.2%	0.2%	11.4%	15.7%
Opioid related disorders	0.2%	0.2%	10.9%	12.9%
Cocaine related disorders	0.2%	0.1%	3.9%	4.8%
Other psychoactive related disorders	0.2%	0.4%	1.8%	2.2%
Nicotine dependence	0.2%	0.5%	2.2%	2.6%
Sedative, hypnotic, or anxiolytic related	0.1%	0.2%	1.2%	1.0%
Hallucinogen related disorders	0.2%	0.2%	0.1%	0.3%
Gambling disorder	0.0%	0.0%	0.1%	0.1%
Inhalant related disorders	0.1%	0.0%	0.1%	0.1%

Substance use disorder diagnosis rates by adult and teen age groupings and gender, highlighted from lowest rates (green) to highest rates (red) by age group.

Table 13: Percentage of SWMBH-Served Population with Substance Use and Gambling Disorder Diagnoses for Adults with Medicaid/Medicare Compared to Medicaid-Only Enrollees

Substance Use or Gambling Disorder Diagnosis	18 to 64		65 and over	
	Medicaid only	Dual-eligible	Medicaid only	Dual-eligible
Any diagnosis	**53.4%**	**26.6%**	**26.1%**	**18.1%**
Alcohol related disorders	22.3%	12.9%	17.1%	10.0%
Cannabis related disorders	19.2%	11.7%	5.4%	3.8%
Other stimulant related disorders	16.5%	6.3%	2.7%	1.3%
Opioid related disorders	14.6%	4.1%	3.6%	4.7%
Cocaine related disorders	4.6%	4.1%	1.8%	2.6%
Other psychoactive related disorders	2.3%	1.1%	0.9%	0.6%
Nicotine dependence	2.2%	3.4%	0.0%	2.6%
Sedative, hypnotic, or anxiolytic related	1.3%	0.5%	0.9%	0.3%
Hallucinogen related disorders	0.3%	0.2%	0.0%	0.0%
Gambling disorder	0.1%	0.1%	0.9%	0.0%
Inhalant related disorders	0.1%	0.1%	0.0%	0.0%

Substance use and gambling disorder diagnosis rates for the 18-64 and 65 and over age groups for individuals with Medicaid only and dual eligibles. Rates are highlighted from lowest rates (green) to highest rates (red) by age group.

D. Substance Use and Gambling Disorders by Primary Behavioral Health Diagnosis Type

The table below shows rates of comorbid substance use and gambling disorder diagnoses in the 2022 SWMBH/CMH-served population, based on each individual's primary (most frequently reported) behavioral health diagnosis type. Individuals may have been diagnosed with more than one of the substance use or gambling disorders shown. Rows are highlighted from most to least common comorbid diagnosis (red to green).

In the primary substance use disorder treatment group 100% of individuals had at least one substance use diagnosis, with alcohol, opioid, and other stimulant (typically amphetamine) related disorders being the most common diagnoses. The next highest group was bipolar disorders, with a 37.1% comorbid diagnosis rate for any substance use or gambling disorder. Individuals with schizophrenia, personality, depressive, and trauma-related disorders all had at least 25% comorbid diagnosis rates. For most behavioral health diagnosis groups outside of substance use primary, cannabis related disorders were the most common, followed by alcohol related disorders.

Table 14: Rates of Comorbid Substance Use and Gambling Disorder Diagnoses in SWMBH-Served Population by Primary Behavioral Health Diagnosis Type

Primary Behavioral Health Diagnosis Type	Any substance use or gambling disorder diagnosis	Alcohol related disorders	Cannabis related disorders	Other stimulant related disorders	Opioid related disorders	Cocaine related disorders	Other psychoactive related disorders	Nicotine dependence	Sedative, hypnotic, or anxiolytic related disorders	Hallucinogen related disorders	Gambling disorder	Inhalant related disorders
Substance use disorders	100.0%	43.0%	24.9%	33.4%	38.8%	9.9%	3.9%	3.0%	2.5%	0.4%	0.1%	0.2%
Bipolar disorders	37.1%	16.0%	20.5%	9.8%	3.7%	4.0%	1.6%	3.6%	1.1%	0.1%	0.2%	0.1%
Schizophrenia	32.9%	14.9%	18.4%	9.4%	2.2%	4.5%	1.8%	5.7%	0.3%	0.6%	0.1%	0.0%
Personality disorders	32.3%	14.4%	18.9%	9.5%	0.0%	3.5%	3.0%	2.0%	1.5%	0.0%	0.0%	0.0%
Depressive disorders	27.5%	11.9%	13.7%	6.1%	2.0%	2.1%	1.2%	1.2%	0.4%	0.2%	0.1%	0.1%
Trauma-related disorders	26.3%	9.3%	14.5%	4.9%	2.3%	2.3%	0.9%	1.1%	0.5%	0.3%	0.0%	0.0%
Anxiety disorders	24.1%	9.5%	11.7%	5.3%	3.1%	0.9%	1.0%	0.7%	1.1%	0.0%	0.0%	0.0%
Dementia	18.5%	12.3%	4.6%	1.5%	0.0%	1.5%	3.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Adjustment disorders	10.4%	4.6%	5.5%	2.4%	0.8%	1.3%	0.6%	0.5%	0.2%	0.3%	0.1%	0.0%
Impulse control and conduct disorders	8.1%	2.3%	6.7%	0.7%	0.2%	0.4%	0.0%	0.9%	0.0%	0.2%	0.0%	0.0%
Attention deficit hyperactivity disorder	7.9%	2.2%	5.1%	1.9%	0.6%	0.3%	0.3%	0.3%	0.1%	0.1%	0.0%	0.0%
Obsessive-compulsive disorder	3.0%	0.0%	0.0%	0.0%	1.5%	1.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Intellectual disabilities	1.7%	0.5%	1.0%	0.1%	0.0%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Autism spectrum disorder	0.4%	0.1%	0.2%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%

Substance use and gambling disorder diagnosis rates by primary behavioral health diagnosis type. Rates are highlighted from lowest rates (green) to highest rates (red) by primary behavioral health diagnosis.

E. Substance Use and Gambling Disorders by Race or Ethnicity

The following table contains rates of substance use or gambling disorder diagnoses by race or ethnicity, sorted in descending order by the most common conditions in the region. Percentages in a column may add up to more than 100%, as enrollees may receive more than one behavioral health diagnosis. Percentages that are statistically significant are bolded and color-coded (red – high, and green – low) depending on whether a higher or lower rate exists compared to the remaining population. Chi-square tests were used to determine statistical significance, using $p < 0.05$.

There were relatively few statistically significant findings in substance use or gambling disorder diagnosis rates by race or ethnicity. Of note, the Asian and "Other Race" groups were significantly less likely to have a diagnosis compared to other groups. Alcohol, cannabis, and cocaine-related disorders were significantly more common in the Black or African American population and significantly less common in the White population. And conversely, other stimulant related disorders, opioid, and sedative, hypnotic, or anxiolytic disorders were significantly more common in the White population and significantly less common in the Black or African American population.

Table 15: Percentage of SWMBH-Served Population with Substance Use and Gambling Disorder Diagnoses by Race or Ethnicity

Substance Use or Gambling Disorder Diagnosis	All SWMBH Served	American Indian or Alaska Native	Asian	Black or African American	Hispanic or Latino	Native Hawaiian or Other Pacific Islander	Other Race	Unknown or Not Reported	White
Any diagnosis	36.6%	39.5%	**20.5%**	36.8%	36.5%	12.5%	**26.3%**	43.9%	37.0%
Alcohol related disorders	15.4%	15.8%	9.6%	**18.3%**	17.7%	8.3%	11.9%	23.5%	**14.8%**
Cannabis related disorders	13.8%	14.8%	7.2%	**16.8%**	16.0%	4.2%	**9.4%**	13.3%	**13.2%**
Other stimulant related disorders	10.6%	13.6%	1.2%	**4.3%**	10.0%	0.0%	**6.4%**	11.2%	**12.3%**
Opioid related disorders	9.3%	10.9%	3.6%	**4.7%**	7.7%	0.0%	**6.2%**	6.1%	**10.6%**
Cocaine related disorders	3.4%	2.2%	2.4%	**7.9%**	4.6%	0.0%	2.1%	7.1%	**2.4%**
Other psychoactive related disorders	1.6%	2.0%	0.0%	1.5%	1.6%	0.0%	1.2%	3.1%	1.6%
Nicotine dependence	1.9%	3.2%	1.2%	2.0%	1.5%	4.2%	1.0%	0.0%	1.9%
Sedative, hypnotic, or anxiolytic related	0.9%	0.3%	0.0%	**0.4%**	0.6%	0.0%	1.5%	0.0%	**1.0%**
Hallucinogen related disorders	0.2%	0.3%	0.0%	0.1%	0.6%	0.0%	0.2%	0.0%	0.2%
Gambling disorder	0.1%	0.0%	0.0%	0.0%	0.1%	0.0%	0.1%	0.0%	0.1%
Inhalant related disorders	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%

Bold font with red or green shading indicates that a rate is significantly higher (red) or lower (green) than the remaining population. Darker shading indicates a greater proportional difference in rates.

VI. CHRONIC HEALTH CONDITIONS

A. Overview and Method

Chronic conditions have become one of the most important challenges facing health systems in the United States. More and more people are living with 2 or more chronic conditions. According to the Centers for Disease Control and Prevention (CDC), 6 in 10 adults in the United States have at least 1 chronic disease with 4 in 10 adults living with 2 or more chronic conditions.

For this study, ICD-10 diagnosis codes on 2022 Medicaid service encounters were analyzed to assess the incidence of chronic conditions of interest in the SWMBH Medicaid population. Services funded by Medicaid Health Plans or Medicaid Fee-For-Service were included, as well as any PIHP/CMH-funded service that included one of the diagnoses in question. Any diagnosis of one of the targeted chronic health conditions was included in the analysis, regardless of Medicaid funding source, service type, diagnostic position on the claim, or number of times a diagnosis was reported. ICD-10 diagnostic codes included in each of the condition groups were validated against similar population health diagnostic groupings (MDHHS's CareConnect360 and Relias's Population Performance).

For the sake of this report, please note that "economic or housing issues" is included as a chronic condition in the following tables due to its detrimental effects on physical and behavioral health, resulting in ongoing need for professional attention and resources. Economic and housing issues are in the top five social determinants of health (SDoH). SDoHs refer to non-medical factors influencing health outcomes and health quality. The National Alliance of Mental Illness (NAMI) identifies an overrepresentation of people with mental illness in the unhoused population as one in five people experiencing homelessness have a serious mental health condition. Housing and economic issues are multifaceted and encompass many other SDoH factors such as food access, safety, social and support systems.

B. Chronic Health Conditions by SWMBH County

The following table displays the percentages of enrollees with chronic health conditions reported in 2022 Medicaid encounters by latest SWMBH Medicaid county of responsibility in 2022, sorted in descending order by the most common conditions in the region. Frequencies in a column may add up to more than 100%, as enrollees may receive more than one chronic condition diagnosis. Percentages that are statistically significant are bolded and color-coded (red – high, and green – low) depending on whether a higher or lower rate exists compared to the remaining population. Chi-square tests were used to determine statistical significance, using $p < 0.05$ with Bonferroni correction.

Our analysis found that 29.8% of Medicaid enrollees in the region had one or more of the targeted chronic health conditions reported, ranging from 27.5% in Cass County to 32.6% in Barry County. Some variation in rates across counties exists, with counties generally having some conditions that are diagnosed at relatively higher rates and other conditions being diagnosed at relatively lower rates. Hypertension, obesity, and hyperlipidemia were the most common conditions, at 12.1%, 12.3%, and 8.1% respectively.

Table 16: Percentage of Medicaid Population with Chronic Conditions by SWMBH County

Chronic Health Condition	Overall	Barry County	Berrien County	Branch County	Calhoun County	Cass County	Kalama-zoo County	St. Joseph County	Van Buren County
1+ chronic condition	29.8%	**32.6%**	29.7%	**28.7%**	**32.0%**	**27.5%**	**29.1%**	**28.7%**	29.4%
Hypertension	12.1%	12.2%	**13.7%**	11.8%	**12.5%**	12.2%	**11.3%**	**11.4%**	**11.5%**
Obesity (inclusive of morbid obesity)	11.6%	12.3%	**10.2%**	**12.5%**	**15.1%**	**9.5%**	11.4%	**10.2%**	**9.9%**
Hyperlipidemia	8.1%	8.4%	**8.9%**	8.0%	**7.8%**	**8.7%**	**7.3%**	8.6%	**8.8%**
Nicotine use	6.8%	**10.8%**	**7.3%**	**5.5%**	**8.9%**	**6.2%**	**5.2%**	**5.5%**	**5.7%**
Asthma	6.0%	**6.9%**	6.0%	**5.2%**	**6.3%**	**5.1%**	6.2%	6.1%	**5.6%**
Diabetes	6.0%	**5.3%**	6.3%	6.3%	6.2%	5.9%	**5.7%**	**6.9%**	6.0%
Morbid obesity	5.1%	5.3%	5.3%	**4.6%**	**5.7%**	4.7%	**4.8%**	**4.5%**	4.8%
COPD	3.4%	3.7%	**3.1%**	**4.2%**	**4.1%**	3.5%	**2.8%**	3.6%	3.4%
Migraine	2.6%	**3.0%**	**2.3%**	2.6%	2.6%	2.5%	2.6%	2.6%	2.7%
Coronary artery disease	2.4%	2.6%	2.5%	2.7%	2.4%	2.5%	**2.1%**	**2.8%**	2.4%
Heart failure	1.8%	1.6%	1.8%	1.9%	**2.0%**	1.8%	**1.6%**	1.9%	1.6%
Chronic kidney disease	1.8%	1.7%	**2.2%**	1.7%	1.9%	1.8%	**1.7%**	**1.4%**	1.7%
Cerebral vascular disease	1.5%	1.5%	**1.9%**	1.3%	1.6%	1.4%	**1.4%**	**1.2%**	1.5%
Epilepsy	1.5%	1.4%	1.6%	1.6%	1.4%	1.4%	1.5%	1.5%	1.5%
Peripheral vascular disease	1.1%	**0.8%**	**1.3%**	1.1%	**1.3%**	1.1%	**0.9%**	**0.8%**	1.2%
Prediabetes	1.1%	0.9%	**0.9%**	**0.7%**	1.2%	**0.8%**	**1.5%**	**0.8%**	**1.3%**
Atherosclerosis	0.8%	**1.1%**	0.8%	0.7%	0.9%	0.7%	**0.7%**	0.6%	0.7%
Traumatic brain injury	0.8%	1.0%	**0.7%**	0.7%	0.9%	**0.6%**	**0.9%**	0.8%	0.9%
Housing or economic issues	0.7%	1.0%	0.7%	**0.5%**	0.7%	**0.5%**	**0.9%**	**0.4%**	**0.6%**
Stroke	0.6%	0.5%	**0.8%**	0.7%	0.6%	0.7%	0.6%	**0.5%**	0.6%
Valvular heart disease	0.5%	**0.4%**	**0.7%**	**1.0%**	**0.4%**	0.7%	**0.5%**	0.5%	0.4%
Post-COVID 19 condition	0.3%	0.3%	0.3%	0.4%	0.4%	0.3%	0.3%	0.3%	0.3%
Metabolic syndrome	0.3%	**0.1%**	**0.5%**	0.2%	**0.2%**	0.2%	0.2%	0.2%	0.2%
Transient ischemic attacks	0.2%	0.2%	0.3%	0.2%	0.2%	0.3%	0.2%	0.2%	0.2%
Sickle cell anemia	0.1%	0.0%	**0.2%**	**0.0%**	0.2%	0.1%	**0.2%**	**0.0%**	**0.1%**

Bold font with red or green shading indicates that a rate is significantly higher (red) or lower (green) than the remaining population. Darker shading indicates a greater proportional difference in rates.

** Morbid obesity is also known as class III obesity and is a complex chronic disease in which a person has a body mass index (BMI) of 40 or higher or a BMI of 35 or higher and is experiencing obesity-related health conditions. Obesity increases a person's risk of developing various metabolic diseases, cardiovascular disease, osteoarthritis, Alzheimer disease, depression, and certain types of cancer. Depending on the degree of obesity and the presence of comorbid disorders, obesity is associated with an estimated 2- to 20-year shorter life expectancy.*

*** Metabolic Syndrome is a group of five risk factors that can lead to heart disease, diabetes, stroke and other health problems. Metabolic syndrome is diagnosed when someone has three or more of these conditions:*

- *High blood glucose (sugar)*
- *Low levels of HDL ("good") cholesterol in the blood*
- *High levels of triglycerides in the blood*
- *Large waist circumference or "apple-shaped" body*
- *High blood pressure*

Although each of these is a risk factor for cardiovascular disease, when a person has three or more and is diagnosed with metabolic syndrome, it increases the chance of developing a serious cardiovascular condition.

C. Chronic Health Conditions by Age Groups and Dual-Eligible Status

Different patterns arise when rates of chronic conditions are divided into child/adolescent and adult age groups. The table below contains chronic health condition rates for the under 18, 18-64, and 65 and over age groups, highlighted from lowest rates overall (green) to highest rates overall (red), and sorted by the most common conditions in the 18 to 64 age group. Not surprisingly, the 65 and over age group tends to have the highest rates of chronic conditions reported, while the under 18 group tends to have the lowest rates.

Table 17: Percentage of Medicaid Population with Chronic Health Conditions by Children/Adolescent and Adult Age Groups

Chronic Health Condition	Under 18 Years	18 to 64 Years	65 Years and Over
1+ chronic condition	**10.5%**	**39.5%**	**53.0%**
Obesity (inclusive of morbid obesity)	2.3%	17.3%	13.8%
Hypertension	0.3%	16.5%	39.8%
Hyperlipidemia	0.4%	11.0%	26.5%
Nicotine use	0.1%	10.6%	10.1%
Diabetes	0.4%	8.0%	20.7%
Morbid obesity alone	0.5%	7.8%	6.4%
Asthma	5.7%	6.5%	3.8%
Chronic obstructive pulmonary disease	0.0%	4.2%	15.2%
Migraine	0.6%	4.0%	1.0%
Coronary artery disease	0.0%	2.8%	12.5%
Epilepsy	0.7%	1.9%	2.3%
Heart Failure	0.1%	1.8%	10.8%
Chronic kidney disease	0.1%	1.8%	11.5%
Prediabetes	0.1%	1.7%	2.0%
Cerebral vascular disease	0.1%	1.6%	9.0%
Peripheral vascular disease	0.0%	1.1%	6.4%
Housing or economic issues	0.2%	1.0%	1.2%
Traumatic brain injury	0.7%	0.9%	0.8%
Atherosclerosis	0.0%	0.8%	4.8%
Valvular heart disease	0.0%	0.7%	1.8%

Chronic Health Condition	Under 18 Years	18 to 64 Years	65 Years and Over
Stroke	0.0%	0.7%	3.6%
Post-COVID 19 condition	0.1%	0.5%	0.6%
Metabolic Syndrome	0.1%	0.4%	0.2%
Transient ischemic attacks	0.0%	0.3%	0.9%
Sickle cell anemia	0.2%	0.2%	0.1%

Chronic health condition diagnosis frequencies for the under 18, 18-64, and 65 and over age groups, highlighted from lowest rates overall (green) to highest rates overall (red).

Figure 11 displays the most frequently reported chronic condition diagnoses in children and adolescents under 18. Children and adolescents were less likely than adults to have a chronic condition reported, with 10.5% of those under 18 having a diagnosis for one or more of the conditions studied, compared to 39.5% of those aged 18-64 and 53.0% of those 65 years old and older. For children and adolescents, asthma was the most common condition, at 5.7%, with the next most common condition, obesity, at 2.3%.

Figure 12 shows the most frequently reported chronic conditions for adults 18 and over with Medicaid only, and Figure 13 shows the most frequent conditions for Medicaid-Medicare dually eligible adults. In adults with Medicaid who were not enrolled in Medicare, obesity (16.6%) and hypertension (15.1%) were the most reported chronic conditions. These conditions are precursors to heart disease and diabetes and are important to monitor and control to the extent possible. Dual eligible chronic condition rates consistently exceeded rates of the Medicaid-only population. Hypertension (38.3%), hyperlipidemia (25.9%), and diabetes (20.7%) each occurred in at least 20% of the dual population. Serious conditions of COPD (14.7%), coronary artery disease (10.6%), and chronic kidney disease (10.0%) each occurred in at least 10% of the dual-eligible population.

Figure 11: Most Frequent Conditions in Children and Adolescents Under 18

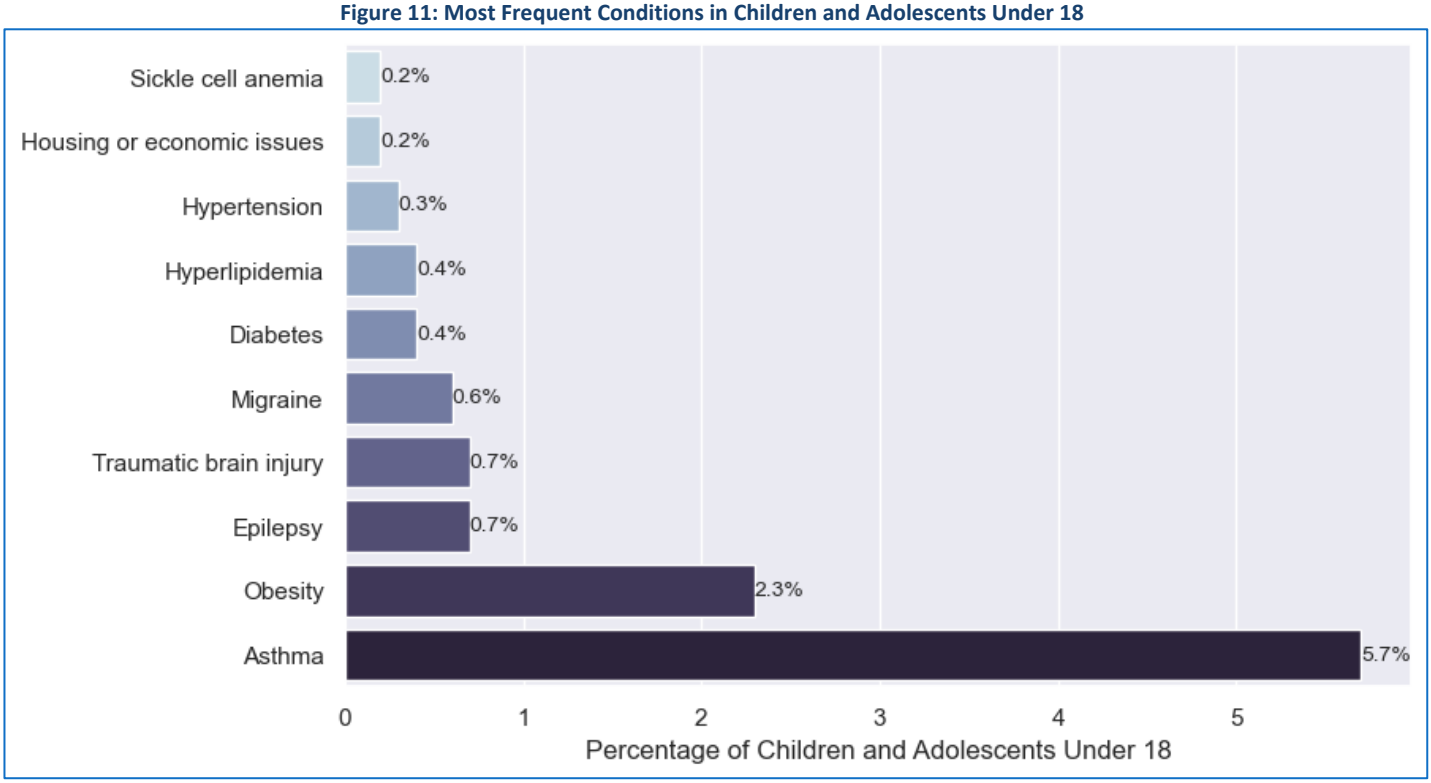


Figure 12: Most Frequent Conditions in Adult Medicaid-only Population

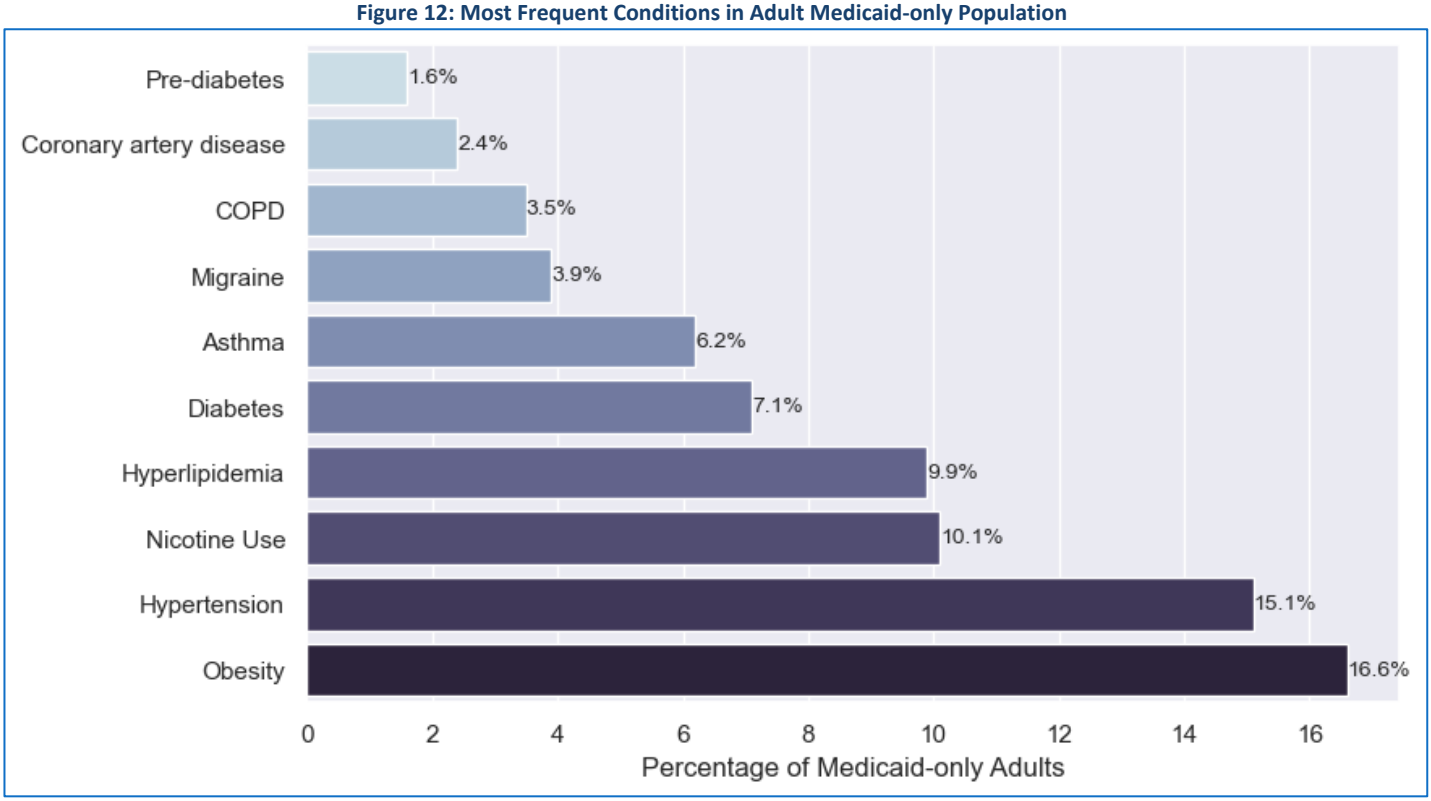
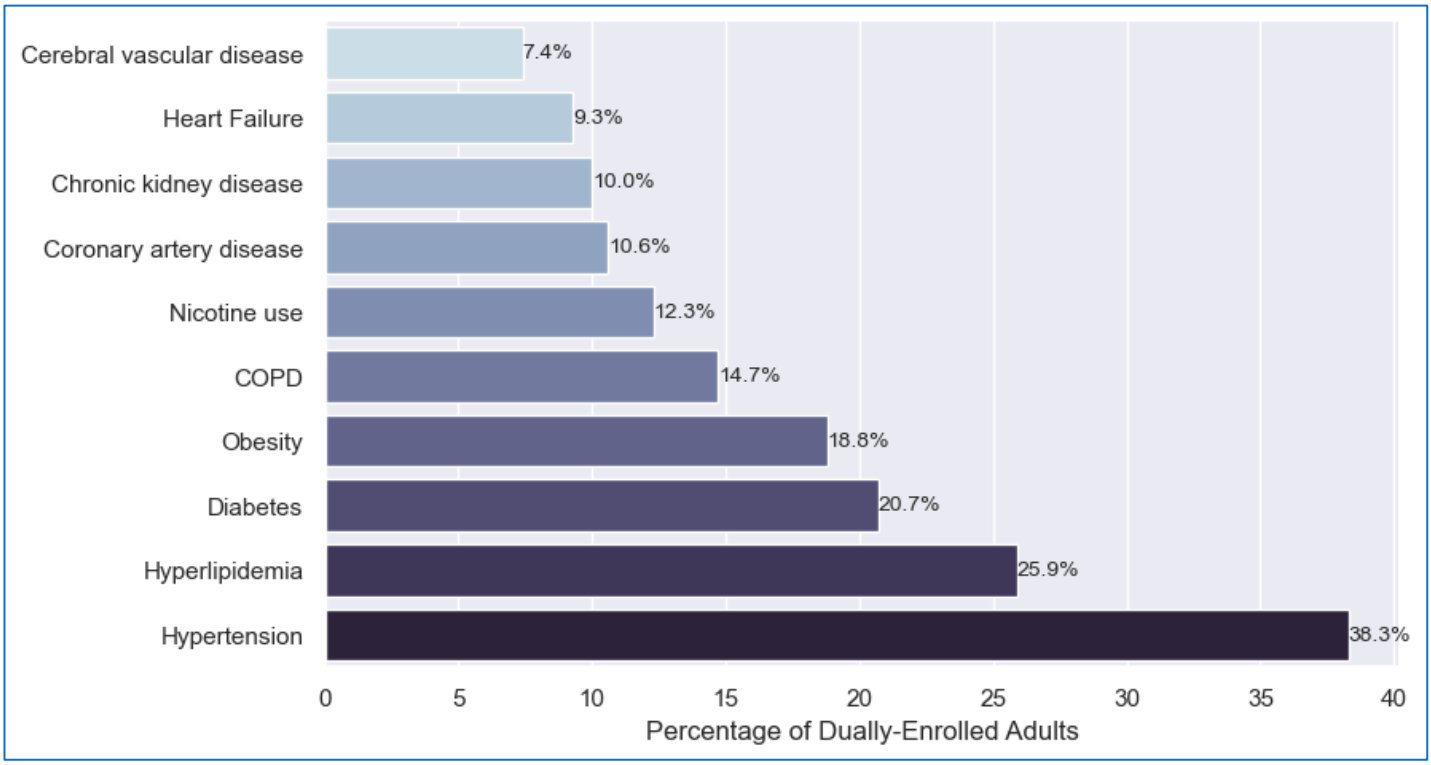


Figure 13: Most Frequent Conditions in Adult Medicare-Medicaid Dual Eligible Population



The table below demonstrates the higher prevalences of chronic conditions in the dual-eligible population compared to the Medicaid only population. The 18-64 and 65 and older age groups are shown for the Medicaid-only and Medicaid-Medicare dual eligible populations. Dual-eligible risk ratios are shown for chronic health conditions within each age group. Cells are highlighted with the highest rates for each condition colored red and the lowest rates colored green and sorted by the highest risk ratio for the 18-64 dual eligible group.

Even in the younger age group (18 to 64), dual eligibles were 1.4 times more likely to have chronic health conditions reported compared to individuals with Medicaid only, with two- to nearly five-times greater risk for 13 of the 25 conditions studied. The 18–64-year-old dual eligible group had the highest rates overall for several conditions, including epilepsy, obesity, pre-diabetes, nicotine use, and asthma. Dual eligibles 65 and older had a two- to eleven-times greater risk for all but one of the conditions studied (sickle cell anemia), compared to adults without Medicare in the same age group. This group was highest overall on kidney disease, conditions related to heart disease, diabetes, hypertension, hyperlipidemia, and COPD.

Adults 65 and older who were not enrolled in Medicare were the least likely to have a chronic health condition reported, even compared to the 18-64 Medicaid-only cohort. There were 3,721 adults in the study 65-years-old or older not enrolled in Medicare, making up 20.0% of the 65 and older group. This group's duration of enrollment in Medicaid during 2022 was not significantly different than the other groups studied, but their likelihood of having at least one Medicaid service reported was significantly lower than other cohorts. 73% of enrollees with Medicaid only who were 65 or older did NOT have a Medicaid service reported in 2022, compared to 29% of dual eligibles of the same age group, and 23% of adults 18-64 with Medicaid only.

Adults 65 and older who are not disabled can qualify for Medicare if they have 10 years of eligible work history but must pay a monthly premium to be enrolled in Medicare insurance (Part B) and many Medicare Advantage plans (Part C). The cohort of individuals 65 and older without Medicare may include individuals who choose not to pay Medicare

premiums due to being in relatively good health, being satisfied with the benefits available to them through Medicaid, or otherwise having reduced incentive to utilize the medical system. Some individuals face barriers to Medicare enrollment including immigrants (who must be citizens for 5 years to qualify for Medicare) and individuals without the required work history. These individuals may be hesitant to utilize their Medicaid benefits due to language and cultural barriers or other access challenges. These points are only conjecture, and this subject would need greater exploration to fully understand.

Table 18: Risk of Chronic Health Conditions for Adults with Medicaid/Medicare Compared to Medicaid-Only Enrollees

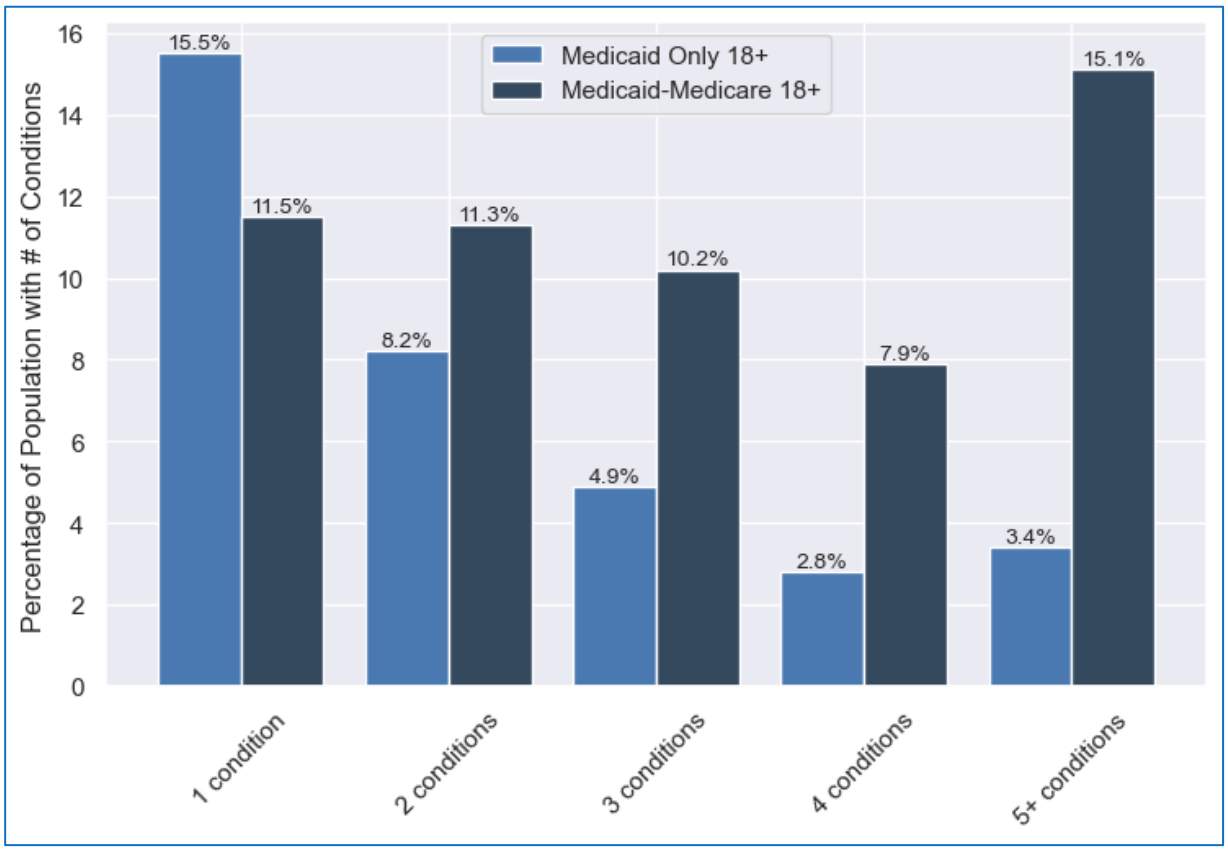
Chronic Health Condition	18-64			65 and over		
	Medicaid Only	Dual Eligibles	Dual Eligible Risk Ratio	Medicaid Only	Dual Eligibles	Dual Eligible Risk Ratio
1+ chronic condition	38.2%	52.3%	1.4	19.8%	61.4%	3.1
Chronic kidney disease	1.3%	6.4%	4.9	3.1%	13.6%	4.4
Heart failure	1.4%	5.8%	4.1	2.8%	12.8%	4.6
Peripheral vascular disease	0.9%	3.6%	4.0	1.4%	7.6%	5.4
Atherosclerosis	0.6%	2.4%	4.0	1.2%	5.7%	4.8
Stroke	0.5%	1.9%	3.8	1.0%	4.3%	4.3
Chronic obstructive pulmonary disease	3.4%	11.5%	3.4	4.5%	17.9%	4.0
Cerebral vascular disease	1.3%	4.1%	3.2	2.3%	10.7%	4.7
Epilepsy	1.6%	4.9%	3.1	0.6%	2.7%	4.5
Coronary artery disease	2.4%	6.7%	2.8	3.7%	14.7%	4.0
Transient ischemic attacks	0.2%	0.5%	2.5	0.1%	1.1%	11.0
Diabetes	7.0%	17.4%	2.5	7.4%	24.1%	3.3
Hyperlipidemia	10.0%	21.1%	2.1	9.1%	30.9%	3.4
Hypertension	15.1%	30.5%	2.0	14.4%	46.2%	3.2
Valvular heart disease	0.7%	1.2%	1.7	0.7%	2.1%	3.0
Traumatic brain injury	0.9%	1.4%	1.6	0.2%	1.0%	5.0
Prediabetes	1.6%	2.4%	1.5	0.8%	2.3%	2.9
Morbid obesity alone	7.5%	11.0%	1.5	1.9%	7.5%	3.9
Housing or economic issues	1.0%	1.3%	1.3	0.3%	1.4%	4.7
Obesity (inclusive of morbid obesity)	16.9%	21.4%	1.3	4.1%	16.2%	4.0
Nicotine use	10.4%	12.9%	1.2	3.6%	11.7%	3.3
Asthma	6.4%	7.4%	1.2	1.3%	4.5%	3.5
Migraine	4.0%	4.1%	1.0	0.3%	1.2%	4.0
Sickle cell anemia	0.2%	0.2%	1.0	0.1%	0.1%	1.0
Post-COVID 19 condition	0.5%	0.4%	0.8	0.2%	0.7%	3.5
Metabolic Syndrome	0.4%	0.3%	0.8	0.1%	0.2%	2.0

Chronic condition diagnosis rates for the 18-64 and 65 and over age groups for individuals with Medicaid only and dual eligibles, and risk ratios for the dual-eligible population compared to same-age group Medicaid-only populations. Rates are highlighted from lowest rates (green) to highest rates (red) per condition and sorted by highest risk ratio for the 18-64 dual eligible group.

Multimorbidities in the Adult Dual Eligible Population

Dual eligibles are more likely to have multiple chronic conditions than adults with Medicaid only. As shown below in Figure 14, a larger percentage of dual eligibles have five or more chronic conditions (15.1%) than only one (11.5%).

Figure 14: Percentage of Adults with One or More Chronic Conditions by Dual Eligible Status



D. Chronic Health Conditions in Persons without and with Behavioral Health Diagnoses

Table 19 shows percentages of enrollees who had various chronic health conditions reported in 2022, comparing individuals without and with behavioral health diagnoses. The final column displays the risk ratio for each condition, for individuals with a behavioral health diagnosis. The table is sorted and highlighted by the conditions with the highest to lowest risk ratios.

Individuals in the study with a behavioral health diagnosis reported in 2022 were significantly more likely to have been diagnosed with one or more of the chronic health conditions studied, compared to those without a behavioral health diagnosis reported. Overall, 20.2% of persons without a behavioral health diagnosis had one or more of the chronic conditions, compared to 52.5% of individuals with a behavioral health diagnosis. Rates of specific chronic conditions in persons with behavioral health diagnoses far exceeded rates for those with no behavioral health diagnosis. For most of the conditions studied, the behavioral health population was at least three times as likely to have had specific chronic health conditions reported than the population without behavioral health diagnoses.

Table 19: Percent with Chronic Conditions - Persons without and with Behavioral Health Diagnoses, with Risk Ratios for Persons with Behavioral Health Diagnoses

Chronic Health Condition	No BH Diagnosis	Any BH Diagnosis	Risk Ratio for Persons with BH Diagnosis
1+ chronic condition	20.2%	52.2%	2.6
Housing or economic issues	0.2%	1.8%	7.3
Epilepsy	0.6%	3.5%	5.4
Migraine	1.2%	5.8%	4.9
Post-COVID 19 condition	0.2%	0.7%	4.6
Transient ischemic attacks	0.1%	0.5%	4.2
Peripheral vascular disease	0.6%	2.3%	4.0
Stroke	0.3%	1.3%	4.0
Traumatic brain injury	0.4%	1.7%	3.9
Atherosclerosis	0.4%	1.6%	3.7
Cerebral vascular disease	0.8%	3.1%	3.7
Chronic obstructive pulmonary disease	2.0%	6.7%	3.4
Metabolic syndrome	0.1%	0.5%	3.3
Morbid obesity alone	3.0%	9.9%	3.3
Nicotine use	4.1%	12.9%	3.2
Valvular heart disease	0.3%	1.0%	3.1
Heart failure	1.1%	3.3%	3.0
Obesity	7.3%	21.7%	3.0
Hyperlipidemia	5.1%	15.1%	3.0
Chronic kidney disease	1.1%	3.3%	2.9
Prediabetes	0.7%	2.0%	2.9
Coronary artery disease	1.6%	4.4%	2.8
Hypertension	7.9%	21.9%	2.8
Asthma	4.0%	10.8%	2.7
Diabetes	4.1%	10.6%	2.6
Sickle cell anemia	0.1%	0.2%	1.3

Percentages of enrollees with chronic health conditions, comparing individuals without and with behavioral health diagnoses. The final column displays the risk ratio for each condition for individuals with a behavioral health diagnosis. The table is sorted and highlighted by the conditions with the highest to lowest risk ratios.

E. Chronic Health Conditions by Primary Behavioral Health Group

Table 20 shows the percentages of enrollees by primary behavioral health group who had various chronic health conditions reported in 2022, compared to those without behavioral health diagnoses. The table is sorted by the conditions most common in the SWMBH Medicaid population overall. Rates that are significantly ($p < 0.05$) higher or lower than the population with no behavioral health diagnosis are shaded. Darker shading indicates a greater difference in rates.

Individuals with a primary mental illness diagnosis were the most likely to have had one or more chronic health conditions reported. Enrollees with primary SMI/SED were 2.9 times as likely to have a chronic health condition reported (53.8% vs. 18.6%) than those without a behavioral health diagnosis, and individuals with mild-moderate mental illness were not far behind with 51.2% having a chronic condition reported. Since 2006, many studies have highlighted and supported the fact that those with mental illness die on average 10 to 25 years earlier than the general population. The premature deaths are mostly from preventable chronic health conditions, with cardiovascular disease being a prominent complicating factor. This problem persists partially due to newer medications that contribute to obesity and metabolic disorder, lifestyle factors such as smoking, and potentially, challenges with access to preventative healthcare for individuals with mental illness and substance use disorders.

Enrollees with SUD were 2.4 times as likely to have one or more chronic conditions reported as enrollees without a behavioral health diagnosis. The SUD population had substantially higher rates of housing issues (15.2 times), epilepsy (5.1 times), and nicotine use (5.0 times) than those without a behavioral health diagnosis. Transient ischemic attacks (TIAs), valvular heart disease, traumatic brain injury, chronic obstructive pulmonary disease (COPD), and hypertension were all at least three times as common among enrollees who are SUD as they are among enrollees without behavioral health conditions.

These findings highlight the importance of monitoring individuals with mental illness and substance use disorders, especially those who are taking psychotropic medications, and managing medication side effects and chronic diseases. Health and wellness support may assist in controlling disease progression. Chronic disease management programs like Whole Health Action Management (WHAM) and Chronic Disease Self-Management Program (CDSMP) can help individuals develop skills for managing chronic conditions. Case managers, community health workers, and family members can assist individuals in managing and monitoring their conditions and can function as advocates for care.

Enrollees with Intellectual or Developmental Disabilities (IDD) are often subject to increased health risk related to mobility and/or health maintenance challenges, as well as genetic risk factors. Persons with IDD in our analysis had 1.9-times the risk of being diagnosed with one or more of the chronic conditions studied, compared to those without a behavioral health diagnosis. The IDD population was 21.5 times more likely to have a diagnosis of epilepsy reported, followed by a 4.6-times higher risk of peripheral vascular disease. Hyperlipidemia, migraine, and both diabetes and pre-diabetes were also significantly higher in the IDD population. Certain conditions that occur relatively frequently in the IDD population, such as gastroesophageal reflux disease (GERD), dysphagia, and thyroid conditions were not included in this analysis. In future studies it may be beneficial to include these or other conditions that contribute to support needs and quality of life for those with IDD.

It was unexpected that the diagnosis rates for chronic conditions within the IDD population were lower than rates in the SUD and mental illness populations. We reviewed peer-reviewed studies that assessed chronic condition frequencies in the IDD population compared to the non-disabled population, and our results were generally in line with other findings. Additional analyses were conducted with the IDD population, examining differences between those with Medicaid-Medicare dual-eligibility, those with PIHP services, and those on the Medicaid Habilitation Supports Waiver. Generally higher condition rates were seen in the IDD dual-eligible and Habilitation Supports Waiver

populations than the IDD non-dual, non-waiver enrolled groups. Rates of chronic conditions in these two groups were on par with the primary mental illness behavioral health groups, with some variances. Analyses were also conducted that included anyone diagnosed with an IDD (even those whose primary behavioral health group was not IDD). This resulted in reduced rates of chronic condition diagnosis in the IDD-alone population and elevated rates in the IDD/mental illness dual diagnosis population compared to the IDD primary rates shown in table 19. Looking at dual-diagnosis populations and examining additional conditions affecting the developmentally disabled may provide helpful insights in future work. To request detail on these analyses or make suggestions, please contact the primary author.

Table 20: Percent with Chronic Health Conditions by Primary Behavioral Health Group

Chronic Health Condition	No BH Diagnosis	Intellectual /Develop-Mental Disabilities	Mild/ Moderate Mental Illness	SMI/SED	SUD
1+ chronic condition	20.2%	**37.8%**	**51.2%**	**53.8%**	**47.9%**
Hypertension	7.9%	10.9%	**22.6%**	**25.1%**	**23.6%**
Obesity (inclusive of morbid obesity)	7.3%	13.0%	**25.0%**	**24.6%**	**14.6%**
Hyperlipidemia	5.1%	**10.6%**	**16.2%**	**17.6%**	**10.3%**
Nicotine use	4.1%	**1.3%**	**14.0%**	**15.7%**	**20.3%**
Diabetes	4.1%	**7.0%**	**10.9%**	**13.4%**	**7.5%**
Asthma	4.0%	**8.0%**	**11.9%**	**11.3%**	**6.2%**
Morbid obesity alone	3.0%	4.9%	**11.8%**	**11.4%**	4.4%
Chronic obstructive pulmonary disease	2.0%	1.3%	**6.8%**	**9.1%**	**7.3%**
Coronary artery disease	1.6%	**0.8%**	**4.5%**	**4.7%**	**3.7%**
Migraine	1.2%	**1.6%**	**7.1%**	**6.3%**	2.7%
Chronic kidney disease	1.1%	2.0%	**3.0%**	**4.1%**	1.9%
Heart failure	1.1%	1.6%	**3.0%**	**3.7%**	**3.0%**
Cerebral vascular disease	0.8%	1.3%	**2.8%**	**3.1%**	**2.3%**
Prediabetes	0.7%	**1.1%**	**2.4%**	**2.4%**	1.5%
Epilepsy	0.6%	**13.8%**	**2.5%**	**3.6%**	**3.3%**
Peripheral vascular disease	0.6%	**2.6%**	**2.1%**	**2.5%**	1.3%
Traumatic brain injury	0.4%	1.1%	**1.6%**	**2.2%**	**1.7%**
Atherosclerosis	0.4%	0.5%	**1.4%**	**1.6%**	1.0%
Stroke	0.3%	0.7%	**1.2%**	**1.3%**	0.9%
Valvular heart disease	0.3%	0.7%	**1.1%**	**0.9%**	**1.3%**
Housing or economic issues	0.2%	0.4%	**1.5%**	**3.1%**	**3.8%**
Post-COVID 19 condition	0.2%	0.2%	**0.9%**	**0.5%**	0.4%
Metabolic syndrome	0.1%	0.3%	**0.6%**	**0.6%**	0.1%
Sickle cell anemia	0.1%	0.1%	0.2%	0.2%	0.2%
Transient ischemic attacks	0.1%	0.1%	**0.5%**	**0.5%**	**0.4%**

Bold font with red or green shading indicates that a rate is significantly higher (red) or lower (green) than the remaining population. Darker shading indicates a greater proportional difference in rates.

Table 21 below shows the risk ratios for being diagnosed with each condition for each behavioral health group, compared to individuals without a behavioral health diagnosis, using the same formatting as Table 20. For every chronic health condition studied, individuals with mental illness had at least two times the risk of diagnosis compared with the population with no behavioral health conditions.

Table 21: Chronic Condition Risk Ratios by Primary Behavioral Health Group, Compared to Population with No Behavioral Health Diagnosis

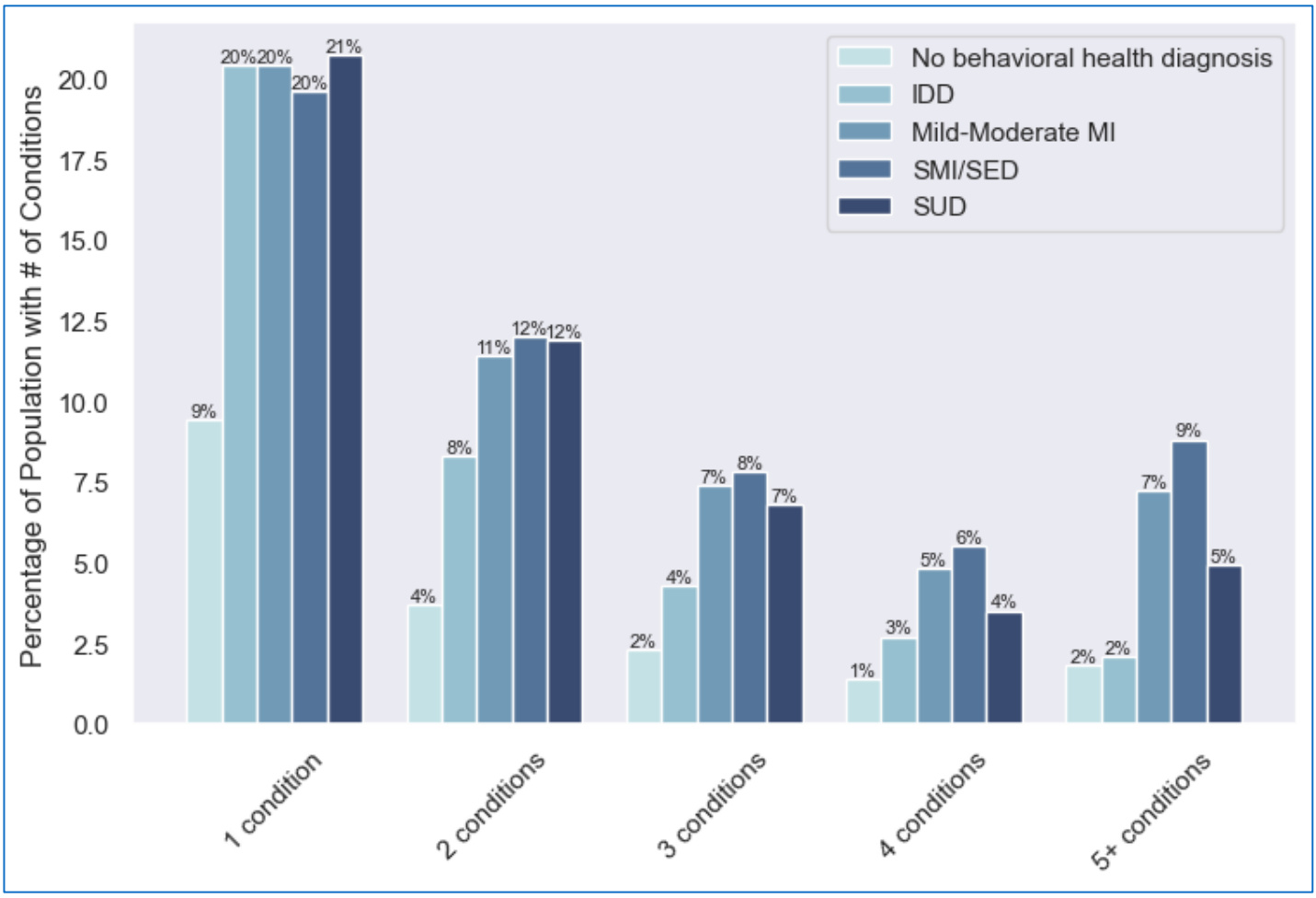
Chronic Health Condition	No BH Diagnosis	Intellectual /Develop-Mental Disabilities	Mild/ Moderate Mental Illness	SMI/SED	SUD
1+ chronic condition	1.0	**1.9**	**2.5**	**2.7**	**2.4**
Hypertension	1.0	1.4	**2.9**	**3.2**	**3.0**
Obesity (inclusive of morbid obesity)	1.0	1.8	**3.4**	**3.4**	**2.0**
Hyperlipidemia	1.0	**2.1**	**3.2**	**3.5**	**2.0**
Nicotine use	1.0	**0.3**	**3.4**	**3.8**	**5.0**
Diabetes	1.0	**1.7**	**2.7**	**3.3**	**1.8**
Asthma	1.0	**2.0**	**3.0**	**2.8**	**1.6**
Morbid obesity alone	1.0	1.6	**3.9**	**3.8**	1.5
Chronic obstructive pulmonary disease	1.0	0.7	**3.4**	**4.6**	**3.7**
Coronary artery disease	1.0	**0.5**	**2.8**	**2.9**	**2.3**
Migraine	1.0	**1.3**	**5.9**	**5.3**	2.3
Chronic kidney disease	1.0	1.8	**2.7**	**3.7**	1.7
Heart failure	1.0	1.5	**2.7**	**3.4**	**2.7**
Cerebral vascular disease	1.0	1.6	**3.5**	**3.9**	**2.9**
Prediabetes	1.0	**1.6**	**3.4**	**3.4**	2.1
Epilepsy	1.0	**23.0**	**4.2**	**6.0**	**5.5**
Peripheral vascular disease	1.0	**4.3**	**3.5**	**4.2**	2.2
Traumatic brain injury	1.0	2.8	**4.0**	**5.5**	**4.3**
Atherosclerosis	1.0	1.3	**3.5**	**4.0**	2.5
Stroke	1.0	2.3	**4.0**	**4.3**	3.0
Valvular heart disease	1.0	2.3	**3.7**	**3.0**	**4.3**
Housing or economic issues	1.0	2.0	**7.5**	**15.5**	**19.0**
Post-COVID 19 condition	1.0	1.0	**4.5**	**2.5**	2.0
Metabolic syndrome	1.0	3.0	**6.0**	**6.0**	1.0
Sickle cell anemia	1.0	1.0	2.0	2.0	2.0
Transient ischemic attacks	1.0	1.0	**5.0**	**5.0**	**4.0**

Bold font with red or green shading indicates that a risk ratio is significantly higher (red) or lower (green) than the remaining population. Darker shading indicates a greater proportional difference in risk ratios.

Mulitmorbidities in Individuals with Behavioral Health Conditions

In addition to having higher risk of having any chronic condition diagnosis, individuals with behavioral health conditions were also more likely to have mulitmorbidities compared to individuals without behavioral health conditions. Figure 15 below shows that individuals with SMI/SED in our study were more than four times as likely to have five or more chronic health conditions (at 8.8%) than persons with no behavioral health conditions (1.8%), and individuals with SUD were more than twice as likely (at 4.9%).

Figure 15: Percentage of Adults with One or More Chronic Conditions by Primary Behavioral Health Group



F. Chronic Health Conditions by Race or Ethnicity

Table 22 displays the rates of enrollees with chronic conditions reported in 2022, broken out by race or ethnicity. Chi-square tests were used to determine statistical significance, using $p < 0.05$ with Bonferroni correction for multiple analyses.

Across all demographics, White enrollees were most likely to have had one or more diagnoses for chronic conditions reported, with significantly higher rates for all conditions studied reported except asthma, prediabetes, housing or economic issues, metabolic syndrome, and sickle-cell anemia. Persons with American Indian/Alaskan Native backgrounds were second most likely to have had at least one of the conditions reported, at 30.9%, but none of their reported rates were statistically significant except traumatic brain injury, at 1.4% comparted to 0.8% overall. Nicotine use is on the higher end in this population. Thirty percent (30.0%) of Black or African American individuals in the study had at least one chronic condition reported. The Black or African American population was significantly less likely than other groups to have been diagnosed with hyperlipidemia, nicotine use, morbid obesity, chronic obstructive pulmonary disease, migraine, coronary artery disease, peripheral vascular disease, and epilepsy. However, the Black population was more likely to have been diagnosed with hypertension, asthma, chronic kidney disease, prediabetes, stroke, metabolic syndrome, and sickle cell anemia.

Enrollees with Hispanic/Latino backgrounds were least likely to have had one or more diagnoses for chronic conditions, along with the "Unknown" and "Other" race cohorts, at 20.7%, 20.1%, and 21.7% respectively. The Hispanic/Latino population was associated with significantly lower rates of diagnoses for all chronic conditions studied except housing or economic issues and metabolic syndrome. The "Other Race" and "Unknown Race" cohorts had significantly lower rates than the other populations on several conditions. Enrollees with Asian backgrounds exhibit a similar trend in that they were associated with significantly lower rates of diagnoses for several of the chronic conditions studied. The Native Hawaiian or Pacific Islander cohort has a smaller population size and is therefore less likely to trigger statistically significant results. This group had lower than average rates for many conditions and a (not statistically significant) higher rate of heart failure at 2.8% compared to 1.8% overall.

In future studies, it may be beneficial to examine the impact of limited English proficiency or English as first or subsequent language on diagnosis rates for various chronic conditions. The similarities in lower rates of diagnoses with the Hispanic/Latino and Asian backgrounds may reflect systemic barriers to healthcare such as language and immigration status. An individual may be reluctant to seek treatment if there is not an available provider who speaks their language or additional barriers may be posed by involvement of family members acting as translators in some scenarios.

Table 22: Percent with Chronic Health Conditions by Race/Ethnicity

Chronic Health Condition	Overall	American Indian or Alaskan Native	Asian	Black or African American	Hispanic or Latino	Native Hawaiian or Other Pacific Islander	Other Race	Unknown	White
1+ chronic condition	29.8%	30.9%	**22.8%**	30.0%	**20.7%**	25.2%	**21.7%**	**20.1%**	**31.7%**
Hypertension	12.1%	11.7%	10.5%	**13.7%**	**5.6%**	10.4%	**8.8%**	**9.0%**	**12.7%**
Obesity (inclusive of morbid obesity)	11.6%	11.7%	**6.0%**	11.8%	**9.6%**	9.5%	**7.0%**	**5.8%**	**12.3%**
Hyperlipidemia	8.1%	8.0%	**10.1%**	**6.4%**	**4.2%**	7.1%	**6.6%**	**5.2%**	**9.2%**
Nicotine use	6.8%	7.7%	**2.2%**	**5.8%**	**2.7%**	5.8%	**3.7%**	**3.8%**	**7.8%**
Asthma	6.0%	6.8%	**2.6%**	**7.7%**	**4.6%**	7.1%	**4.1%**	**3.4%**	**5.9%**
Diabetes	6.0%	6.1%	7.2%	6.0%	**4.2%**	6.4%	**4.5%**	**4.5%**	**6.4%**
Morbid obesity	5.1%	5.4%	**1.2%**	**5.3%**	**3.5%**	5.2%	**2.5%**	**2.7%**	**5.4%**
COPD	3.4%	3.3%	**1.0%**	**2.2%**	**0.5%**	2.8%	**1.8%**	3.0%	**4.3%**
Migraine	2.6%	2.5%	**0.9%**	**1.8%**	**1.5%**	1.8%	**1.3%**	**1.0%**	**3.1%**
Coronary artery disease	2.4%	2.1%	2.0%	**1.8%**	**0.7%**	2.1%	**1.6%**	2.8%	**2.9%**
Chronic kidney disease	1.8%	1.5%	**1.0%**	**2.1%**	**0.7%**	1.8%	**1.3%**	2.0%	**1.9%**
Heart failure	1.8%	1.3%	**0.9%**	1.8%	**0.5%**	2.8%	**1.2%**	**3.0%**	**2.0%**
Cerebral vascular disease	1.5%	1.0%	1.1%	1.5%	**0.5%**	1.2%	1.3%	**2.4%**	**1.7%**
Epilepsy	1.5%	1.6%	1.1%	**1.3%**	**0.6%**	1.8%	1.4%	1.2%	**1.7%**
Prediabetes	1.1%	1.3%	**2.2%**	**1.4%**	**0.9%**	0.0%	**0.8%**	**0.5%**	1.1%
Peripheral vascular disease	1.1%	0.9%	0.6%	**0.9%**	**0.3%**	1.2%	**0.7%**	0.9%	**1.3%**
Atherosclerosis	0.8%	0.6%	0.4%	**0.6%**	**0.2%**	0.0%	**0.5%**	1.1%	**0.9%**
Traumatic brain injury	0.8%	**1.4%**	0.5%	0.8%	**0.6%**	0.0%	0.7%	0.9%	**0.9%**
Housing or economic issues	0.7%	1.3%	0.0%	0.8%	0.4%	0.6%	0.5%	1.2%	0.7%
Stroke	0.6%	0.3%	0.5%	**0.7%**	**0.2%**	0.9%	0.5%	0.8%	**0.7%**
Valvular heart disease	0.5%	0.5%	0.5%	0.5%	**0.2%**	0.6%	**0.3%**	0.4%	**0.6%**
Post-COVID 19 condition	0.3%	0.2%	0.3%	0.3%	**0.2%**	0.6%	0.2%	0.3%	**0.4%**
Metabolic syndrome	0.3%	0.1%	0.1%	**0.4%**	0.2%	0.3%	**0.1%**	0.0%	0.2%
Transient ischemic attacks	0.2%	0.2%	0.2%	0.2%	**0.1%**	0.3%	0.1%	0.1%	**0.2%**
Sickle cell anemia	0.1%	0.1%	0.0%	**0.6%**	**0.1%**	0.0%	0.1%	0.0%	**0.0%**

Bold font with red or green shading indicates that a rate is significantly higher (red) or lower (green) than the remaining population. Darker shading indicates a greater proportional difference in rates.

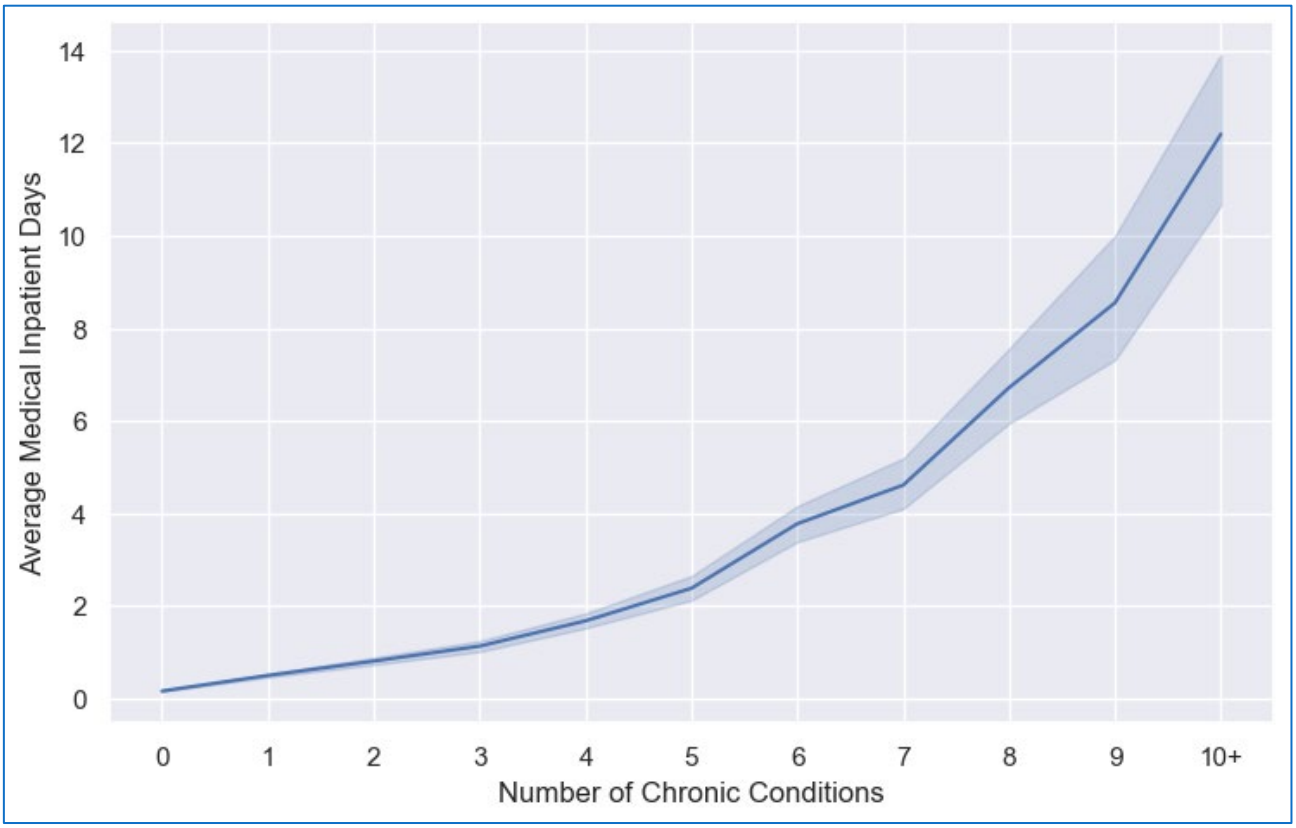
G. Chronic Health Conditions and Inpatient Hospitalization Risk

Figure 16 shows that as the number of chronic conditions in the population increased, the average number of medical acute inpatient days in 2022 also increased. 95% confidence intervals are shaded in light blue. There is a sharp curve after the presence of five or more chronic conditions.

Some conditions are more highly associated with inpatient risk than others. Using logistic regression in supervised machine learning, the conditions found most likely to predict any medical inpatient utilization in the SWMBH Medicaid population in 2022 were:

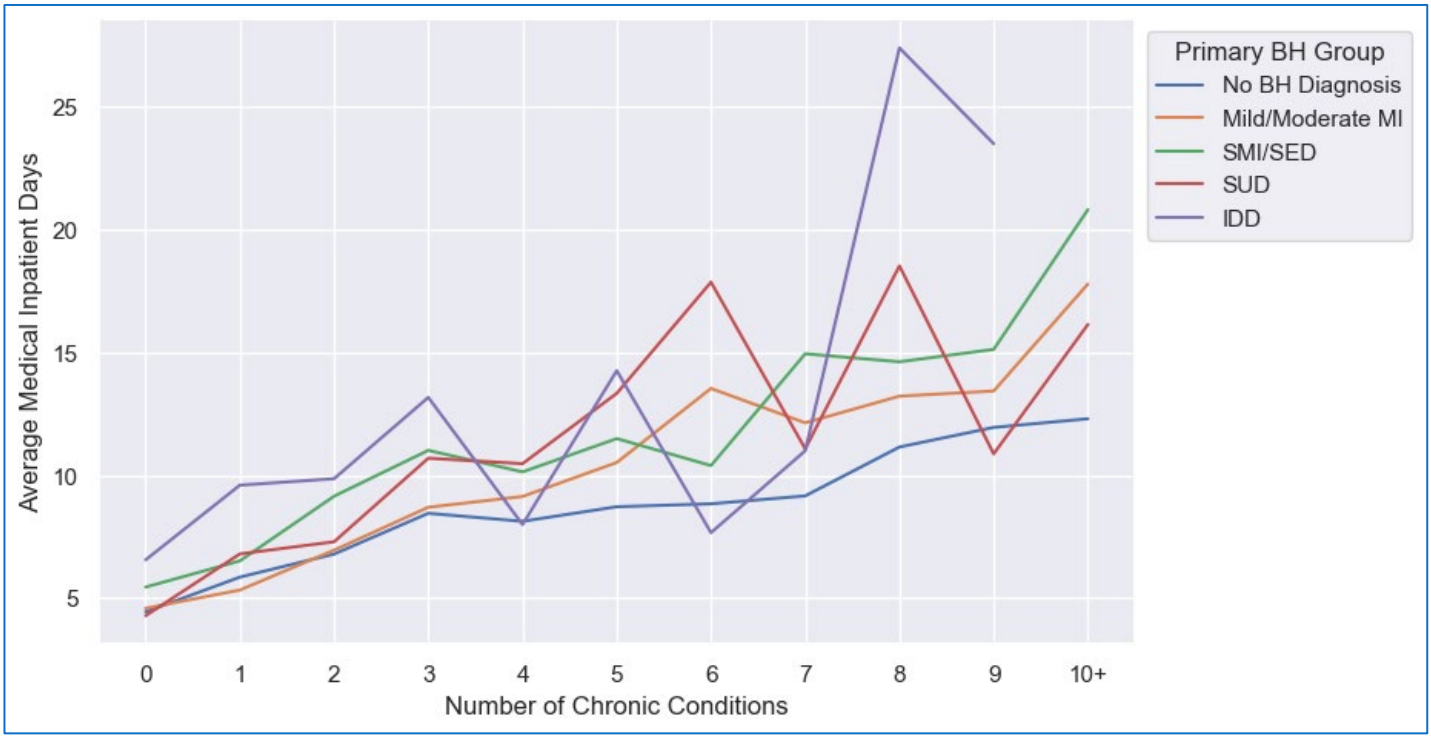
1. Heart failure
2. Hypertension
3. Coronary artery disease
4. Presence of any ambulatory care sensitive condition
5. COPD

Figure 16: Average Inpatient Days per Person by Number of Chronic Health Conditions



When individuals have one or more of the chronic health conditions studied, along with a behavioral health condition, medical inpatient utilization generally trends higher, seen below in Figure 17. As was shown previously, individuals with mental illness and substance use disorder diagnoses are more likely to have multiple chronic conditions and are more likely to have the specific chronic conditions listed above compared to individuals without behavioral health conditions. Chronic disease management and care coordination may assist in reducing inpatient risk and improving quality of life for these individuals.

Figure 17: Average Medical Inpatient Days per Person by Number of Chronic Health Conditions and Primary Behavioral Health Group



H. Ambulatory Care Sensitive Conditions

Ambulatory care sensitive conditions (ACSCs) are those that have potential complications that are preventable by routine, non-emergency medical care. For example, diabetes can cause many serious complications if untreated or uncontrolled; however, these complications almost always can be prevented by proper treatment outside of an emergency setting. The State of Michigan estimates that in 2021, about 22.6% of hospitalizations statewide were related to ACSCs (source: vitalstats.michigan.gov accessed 12/19/23). For our analysis, we looked at a selected group of ambulatory care sensitive conditions: hypertension, diabetes, asthma, urinary tract infections, and congestive heart failure (in order of incidence in the SWMBH population).

Distribution in SWMBH County Populations

The table below contains the average/mean numbers of the targeted ACSCs per person by county, along with rates of having any of the ACSCs and rates for the specific conditions. There is some variation within the counties, but this variation is not as significant as variation observed across age groups, Medicare enrollment, primary behavioral health conditions, or race/ethnicity. Within the counties, the average number of ACSC diagnoses per person in 2022 ranged from 0.27 (in half of the counties) to 0.30 (Berrien and Calhoun Counties). The percentages of individuals with any ACSC followed the same pattern.

Table 23: Ambulatory Care Sensitive Conditions by County

County	Barry County	Berrien County	Branch County	Calhoun County	Cass County	Kalamazoo County	St. Joseph County	Van Buren County
Mean # of ACSCs per person	0.29	0.30	0.27	0.30	0.27	0.27	0.29	0.27
% with any ACSC	20.8%	**21.0%**	**18.9%**	**21.0%**	19.5%	**19.2%**	20.4%	**19.2%**
Hypertension	12.2%	**13.7%**	11.8%	**12.5%**	12.2%	**11.3%**	**11.4%**	**11.5%**
Diabetes	**5.3%**	6.3%	6.3%	6.2%	5.9%	**5.7%**	**6.9%**	6.0%
Asthma	**6.9%**	6.0%	**5.2%**	**6.3%**	**5.1%**	6.2%	6.1%	**5.6%**
Urinary tract infection	3.0%	2.9%	**2.5%**	**3.3%**	2.7%	**2.6%**	**3.2%**	**2.4%**
Congestive heart failure	1.2%	1.4%	1.3%	1.5%	1.5%	1.3%	1.3%	1.3%

Bold font with red or green shading indicates that a rate is significantly higher (red) or lower (green) than the remaining population. Darker shading indicates a greater proportional difference in rates.

Distribution by Dual-eligible Status and Age Group

When stratified by Medicare enrollment and age, we see similar patterns to the breakout by SWMBH county. Dual-eligibles were more likely to have any of the targeted ACSCs except asthma, which was relatively high in both of the 18-64 age groups.

Table 24: Ambulatory Care Sensitive Conditions by Dual Eligible Status and Age Group

Dual Eligible Status	Medicaid only			Medicaid-Medicare		
Age Group	**Under 18**	**18 to 64**	**65 and Over**	**Under 18**	**18 to 64**	**65 and Over**
Mean # of ACSCs per person	0.08	0.33	0.27	N/A	0.64	0.92
% with any ACSC	7.3%	23.9%	16.7%	N/A	38.9%	52.5%
Hypertension	0.3%	15.1%	14.4%	N/A	30.5%	46.2%
Diabetes	0.4%	7.0%	7.4%	N/A	17.4%	24.1%
Asthma	5.7%	6.4%	1.3%	N/A	7.4%	4.5%
Urinary tract infection	1.1%	3.5%	1.7%	N/A	4.2%	7.4%
Congestive heart failure	0.0%	1.1%	2.3%	N/A	4.5%	10.1%

Distribution in Behavioral Health Populations

Rates of ACSC diagnoses are higher for populations with behavioral health diagnoses. Enrollees with behavioral health diagnoses are at increased risk of complications for a variety of reasons, including non-adherence to medical advice, unstable living arrangement and other reasons well documented elsewhere.

Table 25: Ambulatory Care Sensitive Conditions by Primary Behavioral Health Group

Primary Behavioral Health Group	No BH Diagnosis	IDD	Mild/ Moderate MI	SMI/SED	SUD
Mean # of ACSCs per person	0.19	0.3	0.53	0.58	0.48
% with any ACSC	13.8%	**22.1%**	**36.4%**	**38.1%**	**32.2%**
Hypertension	7.9%	10.9%	**22.6%**	**25.1%**	**23.6%**
Diabetes	4.1%	**7.0%**	**10.9%**	**13.4%**	**7.5%**
Asthma	4.0%	**8.0%**	**11.9%**	**11.3%**	**6.2%**
Urinary tract infection	1.7%	3.5%	**5.4%**	**6.0%**	**5.1%**
Congestive heart failure	0.9%	1.0%	**2.4%**	**2.6%**	**2.4%**

Bold font with red or green shading indicates that a rate is significantly higher (red) or lower (green) than the remaining population. Darker shading indicates a greater proportional difference in rates.

Distribution by Race or Ethnicity

When ACSC rates were stratified by race or ethnicity, the highest rates of diagnoses were in the Black or African American population, with 22.2% with one or more of the ACSCs studied. The lowest rates were in the Hispanic or Latino population at 12.8%.

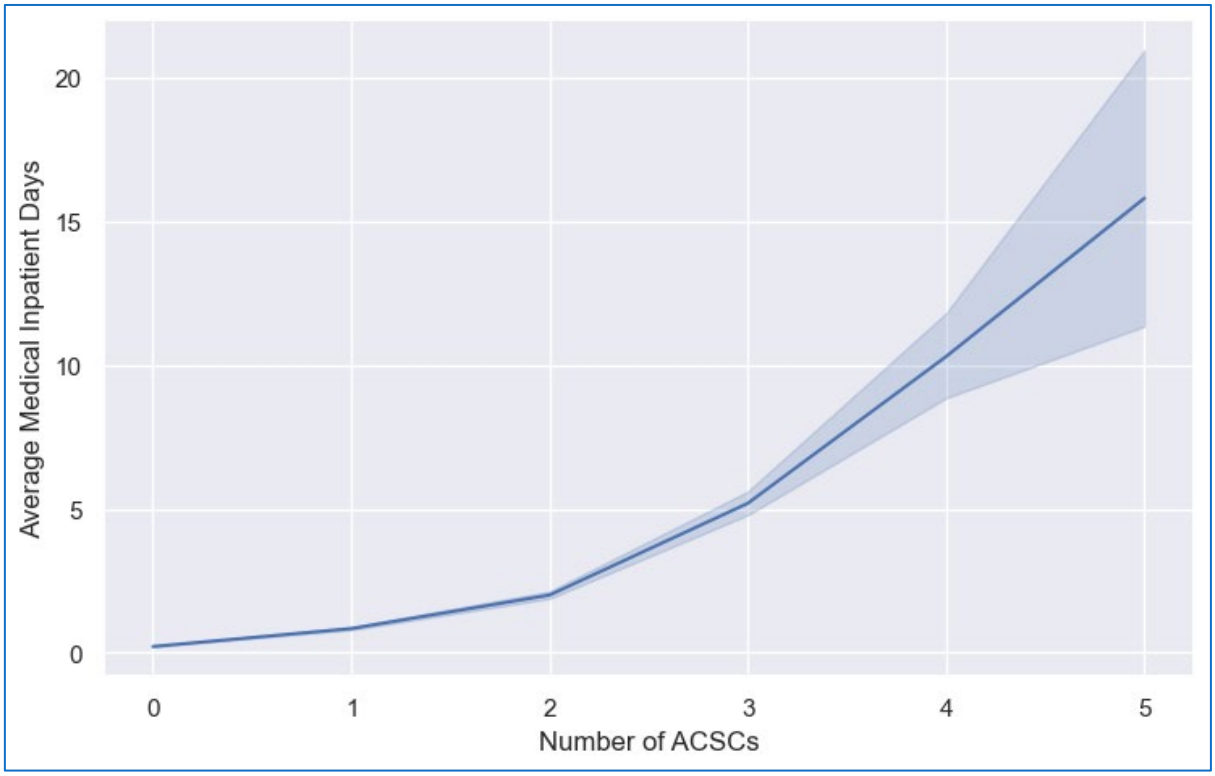
Table 26: Ambulatory Care Sensitive Conditions by Race or Ethnicity

Race or Ethnicity	American Indian or Alaska Native	Asian	Black or African American	Hispanic or Latino	Native Hawaiian / Pacific Islander	Other Race	Unknown or Not Reported	White
Mean # of ACSCs per person	0.29	0.22	0.32	0.17	0.27	0.20	0.22	0.30
% with any ACSC	20.6%	**15.7%**	**22.2%**	**12.8%**	18.7%	**14.7%**	**14.2%**	**20.8%**
Hypertension	11.7%	10.5%	**13.7%**	**5.6%**	10.4%	**8.8%**	**9.0%**	**12.7%**
Diabetes	6.1%	7.2%	6.0%	**4.2%**	6.4%	**4.5%**	**4.5%**	**6.4%**
Asthma	6.8%	**2.6%**	**7.7%**	**4.6%**	7.1%	**4.1%**	**3.4%**	**5.9%**
Urinary tract infection	3.0%	**1.5%**	2.7%	**2.0%**	0.9%	**1.7%**	2.8%	**3.1%**
Congestive heart failure	1.0%	**0.6%**	1.4%	**0.4%**	1.8%	**1.0%**	**2.3%**	**1.5%**

Bold font with red or green shading indicates that a rate is significantly higher (red) or lower (green) than the remaining population. Darker shading indicates a greater proportional difference in rates.

We previously found that the presence of any ACSC in the SWMBH population was associated with a significantly higher risk of inpatient hospitalization (Section VI.G.). Figure 18 shows that as the number of ACSCs in the population increased, the average number of inpatient days (of any type) in 2022 also increased. 95% confidence intervals are shaded in light blue. Individuals with 3 ACSCs had an average of approximately 5 acute inpatient days in 2022, individuals with 4 had an average of approximately 10 inpatient days, and individuals with all 5 had an average of approximately 15 inpatient days. These averages are much higher than the averages for multiples of any of the chronic conditions that we examined, seen in Section V.G.

Figure 18: Medical Inpatient Days Per Person by Number of Ambulatory Care Sensitive Conditions



VII. INPATIENT AND EMERGENCY DEPARTMENT (ED) UTILIZATION

A. Method

2022 Medicaid inpatient and emergency department (ED) encounters were analyzed to assess utilization and identify patterns of use of these intensive, high-cost services in the SWMBH Medicaid population. PIHP and/or CMH-funded behavioral health inpatient services (including behavioral health state inpatient), as well as acute medical inpatient and ED services funded by Medicaid Health Plans and Medicaid Fee-For-Service were included. Note that ED visits and medical inpatient days with a primary substance use service diagnosis were not available for this report, due to 42 CFR Part 2 privacy protections. Because of this, ED and medical inpatient statistics for persons with substance use disorders will be under-represented.

For our analysis, an ED visit or inpatient day was considered “behavioral” if the principal service diagnosis code associated with the claim was behavioral, and “medical” if not. If multiple ED claims were billed for the same day, with both behavioral and medical principal service diagnoses, the visit was counted in both categories, which occurred in less than 2% of ED visits.

B. Overall Statistics

7.1% of the study population (20,476 individuals) had one or more acute inpatient claims in 2022. 0.7% of the study population had behavioral health inpatient admissions, while 6.5% had acute medical inpatient admissions. For those with inpatient admissions, the average number of behavioral health inpatient days was 17.4 and the average number of medical inpatient days was 7.4.

29.8% of the study population (85,702 individuals) had one or more ED claims in 2022. 1.7% of the study population had behavioral health ED claims, while 29.5% had medical ED claims. For those with ED visits, the average number of behavioral health visits was 1.7 and the average number of medical visits was 2.1.

Initial exploratory analysis regarding ED boarding for youth found that for minors with Medicaid under 18 years old, 19% of behavioral health ED visits spanned two or more dates, compared to 9% of medical ED visits for minors. Future studies could examine ED boarding in greater depth to assist in understanding and prevention of this issue.

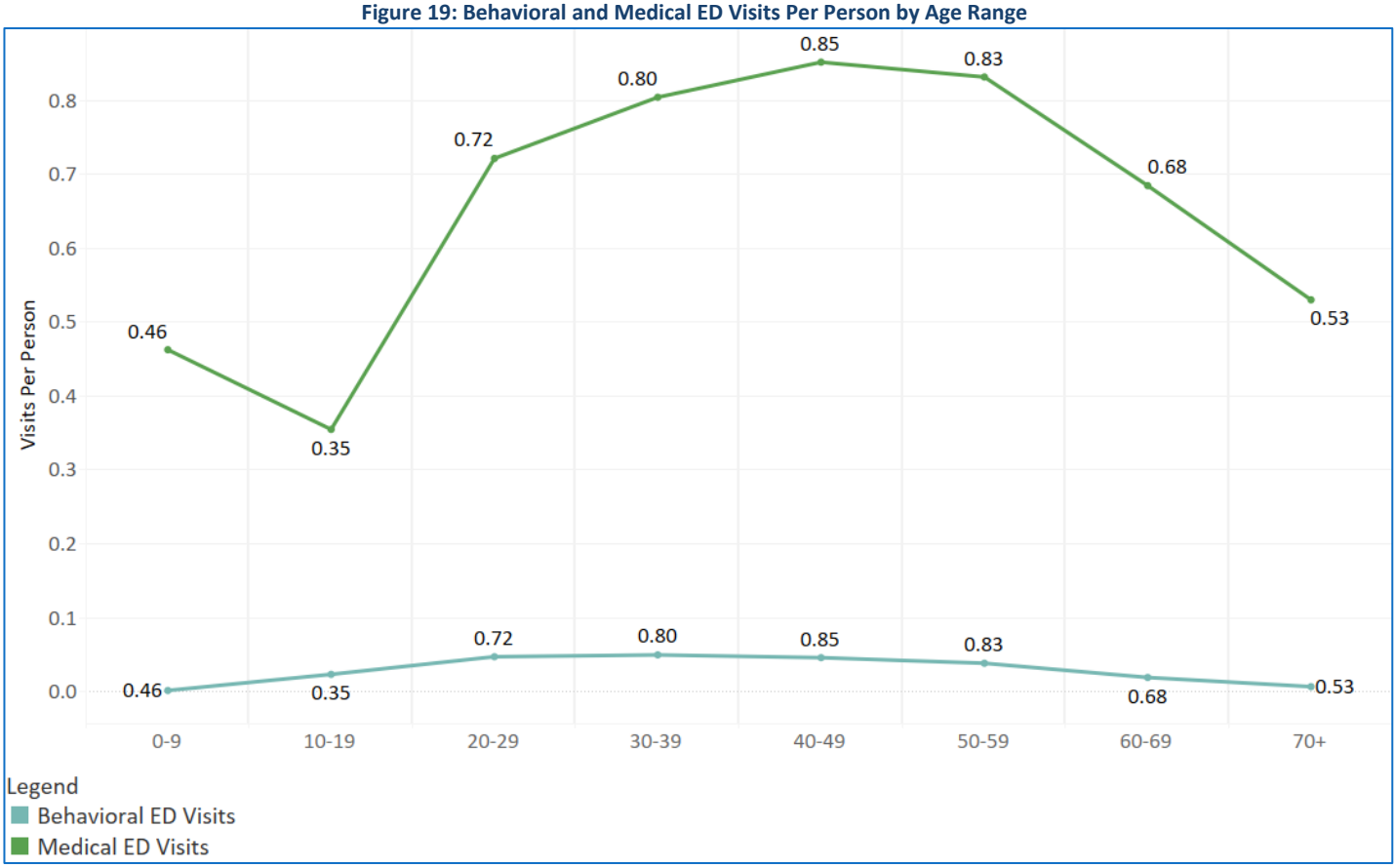
C. ED Visits by Age Range

Figure 19 shows ED visits per person in 2022 for 10-year age ranges and the 70+ age range, grouped into ED visits with principal medical diagnoses and principal behavioral health diagnoses.

Medical ED utilization was higher for the 0-9 age range than for the 10-19 age range. After age 19, utilization steadily climbed through adulthood before decreasing after age 60.

Behavioral health ED utilization was highest for the 20-29 through 59-59 age ranges. This is consistent with our earlier finding of behavioral health diagnoses being most common for adults 18-64 compared to children and adolescents and the 65 and older age range.

Figure 19: Behavioral and Medical ED Visits Per Person by Age Range



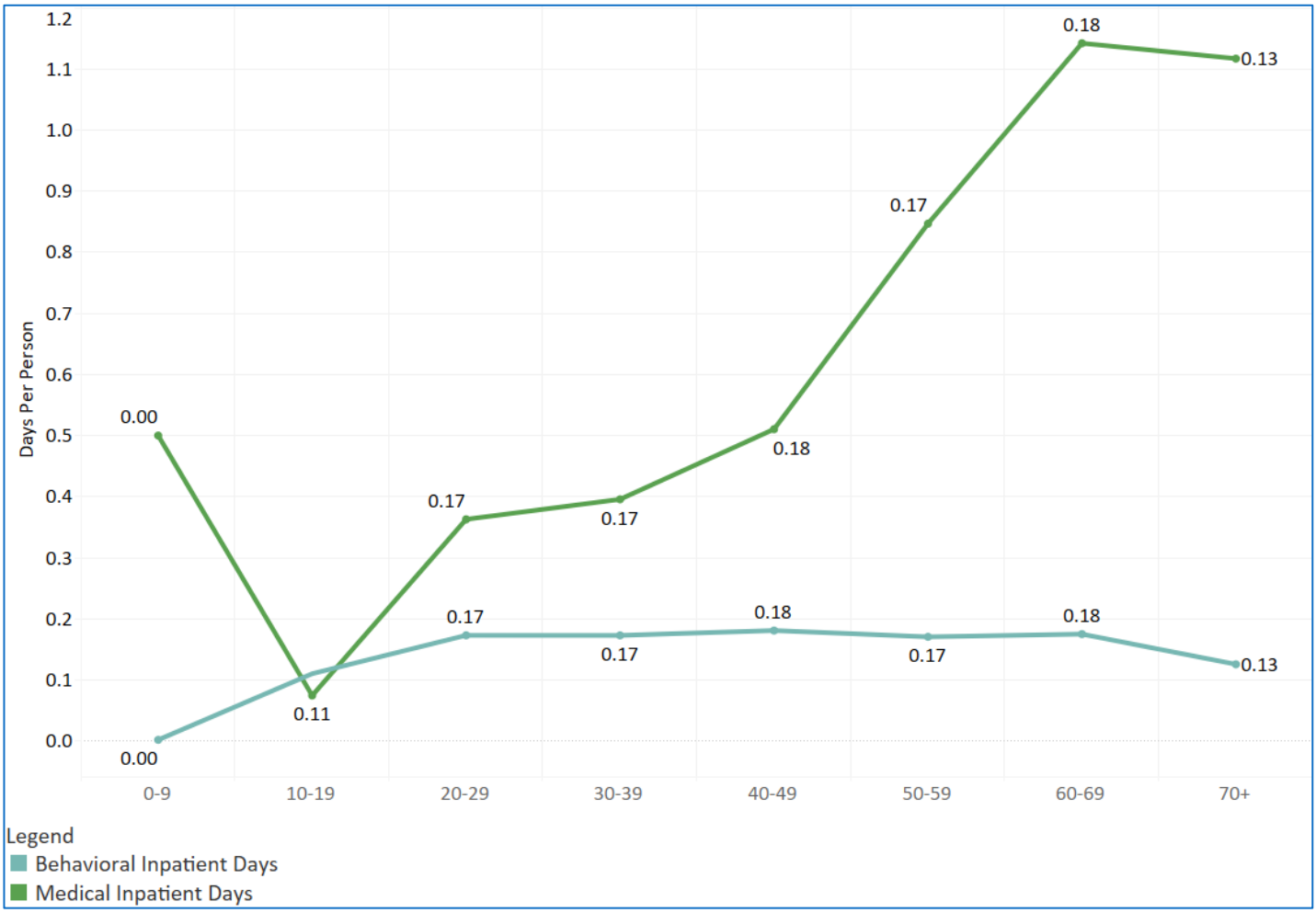
D. Hospitalizations by Age Range

Figure 20 shows inpatient days per person in 2022 for 10-year age ranges and the 70+ age range, grouped by number of days per person with principal medical diagnoses and number of days with principal behavioral health diagnoses.

Medical inpatient utilization in 2022 was high among the 0-9 range (driven largely by newborn hospital days), at its lowest point during childhood and adolescence, and then steadily increased through adulthood until peaking with the 60-69 age range.

Behavioral health inpatient utilization started occurring in late childhood, then climbed, and stayed consistent through adulthood, until dropping with the 70+ age range. Data regarding behavioral inpatient utilization is sparse within this range and does not exist at all for enrollees beyond the age of 81.

Figure 20: Behavioral and Medical Inpatient Days Per Person by Age Range



E. ED Utilization Among Individuals with Behavioral Health Diagnoses

Medical ED Utilization

Across all age ranges, there was a higher rate of ED visits for both medical and behavioral health reasons if a person had a behavioral health diagnosis. Individuals with primary SMI/SED and SUD diagnoses had the highest rates of ED visits and hospital inpatient admissions.

Figure 21 shows medical ED visits per person in 2022 for 10-year age ranges and the 70+ age range, grouped by number of days per person by primary behavioral health diagnosis group. In 2022, individuals with IDD, mild-moderate mental illness, SMI/SED, and SUD had higher rates of medical ED utilization than individuals without behavioral health diagnoses across all ages, but particularly after age 20. After age 20, medical ED utilization for persons with SUD or SMI/SED was three to four times higher than medical ED utilization for persons with no behavioral health diagnosis.

Figure 21: Medical ED Visits Per Person by Age Range and Primary Behavioral Health Diagnosis Group

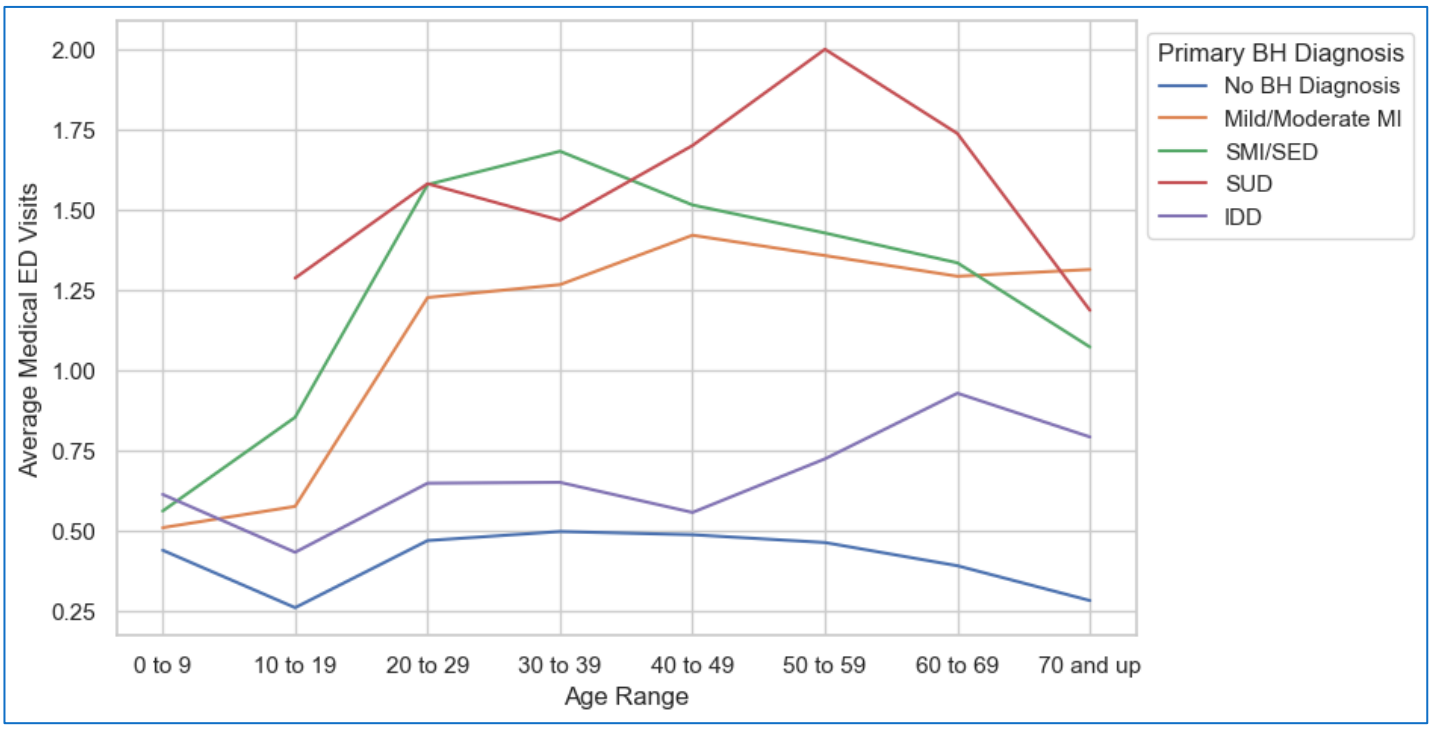


Table 27 shows medical ED visits per person in 2022 by county and primary behavioral health diagnosis group. Table 28 displays risk ratios for medical ED visits by county and primary behavioral health diagnosis group compared to individuals without behavioral health diagnoses. Again, we see that individuals with IDD, mild-moderate mental illness, SMI/SED, and SUD had higher rates of medical ED utilization than individuals without behavioral health diagnoses. Medical ED utilization by persons with SMI/SED, SUD, and mild/moderate mental illness was generally highest in residents of the region's largest counties, Kalamazoo, Berrien, Calhoun, and Van Buren Counties. However, Calhoun and Kalamazoo Counties had lower than average medical ED utilization among individuals with no behavioral health diagnosis.

Table 27: Medical ED Visits Per Person by County and Primary Behavioral Health Diagnosis Group

Primary Behavioral Health Diagnosis Group	Overall	Barry County	Berrien County	Branch County	Calhoun County	Cass County	Kalamazoo County	St. Joseph County	Van Buren County
No BH Diagnosis	0.41	0.37	0.48	0.40	0.40	0.41	0.35	0.41	0.50
Mild/Moderate MI	1.08	1.00	1.31	1.03	1.01	1.07	0.96	1.11	1.25
SMI/SED	1.38	1.19	1.51	1.30	1.32	1.03	1.54	1.17	1.28
SUD	1.64	1.60	1.69	1.26	1.60	1.35	1.82	1.40	1.67
IDD	0.61	0.42	0.60	0.74	0.60	0.52	0.59	0.57	0.80

Table 28: Risk Ratios for Medical ED Visits by County for Persons with Behavioral Health Diagnosis Compared to No Behavioral Health Diagnosis

Primary Behavioral Health Diagnosis Group	Overall	Barry County	Berrien County	Branch County	Calhoun County	Cass County	Kalamazoo County	St. Joseph County	Van Buren County
No BH Diagnosis	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Mild/Moderate MI	2.63	2.70	2.74	2.57	2.53	2.64	2.72	2.74	2.50
SMI/SED	3.34	3.22	3.16	3.22	3.31	2.53	4.36	2.88	2.57
SUD	3.99	4.33	3.54	3.12	4.01	3.32	5.16	3.44	3.34
IDD	1.49	1.15	1.27	1.83	1.50	1.27	1.67	1.41	1.60

Behavioral ED Utilization

Figure 22 shows ED visits per person in 2022 for 10-year age ranges and the 70+ age range, grouped by number of days per person by primary behavioral health diagnosis group. 2022 ED utilization for behavioral health needs was highest among persons with primary SMI/SED needs. Their utilization peaked in the 20-29 age range, then gradually decreased across subsequent ranges. Behavioral health ED utilization for persons with primary SUD needs was relatively high from adolescence until the 60-69 age range, then decreased. Note that ED data for principal substance use service diagnoses were not available for this report, so it is likely that the actual behavioral health ED utilization for individuals with primary SUD needs was much higher than the volume shown here.

Figure 22: Behavioral ED Visits Per Person by Age Range and Primary Behavioral Health Diagnosis Group

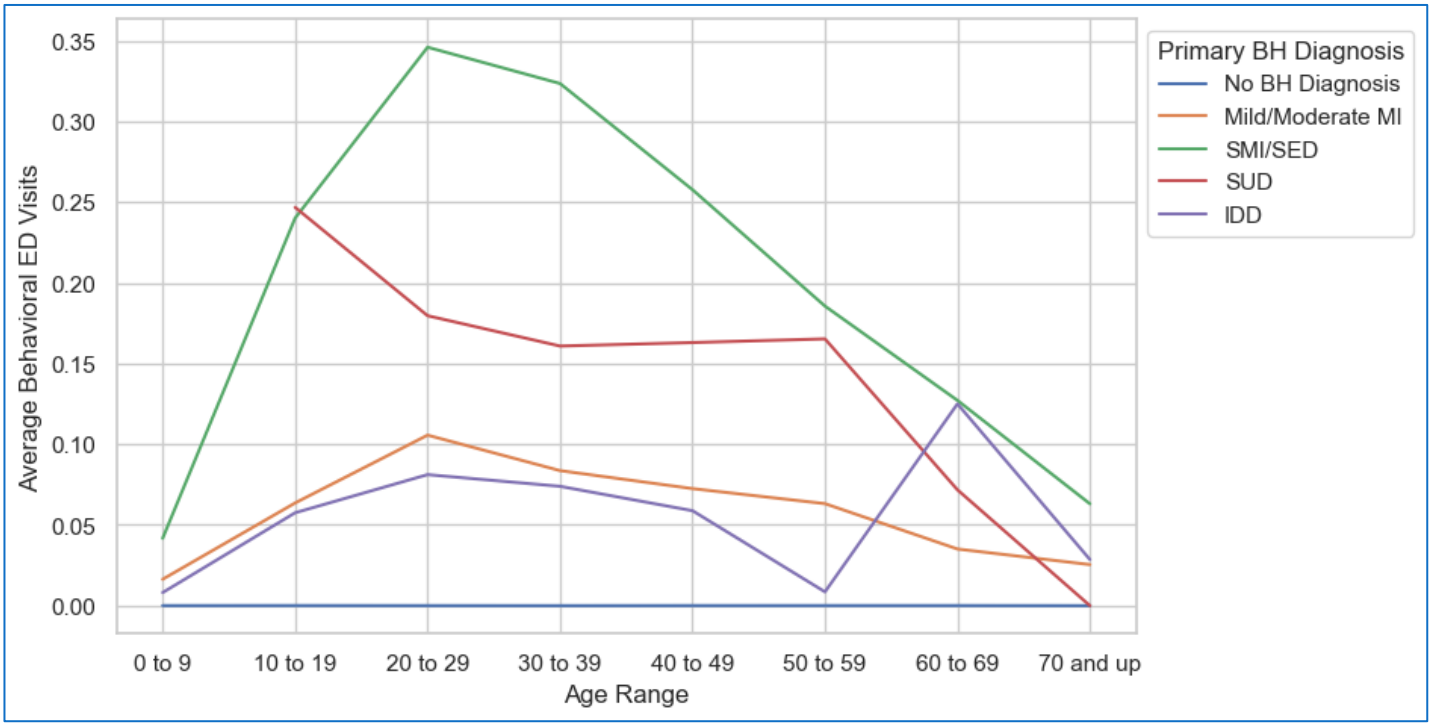


Table 29 shows behavioral ED visits per person in 2022 by county and primary behavioral health diagnosis group across all ages. Again, we see that ED utilization by persons with SMI/SED, SUD, and mild/moderate mental illness was generally highest among residents of our largest counties, Kalamazoo, Berrien, and Calhoun Counties. Behavioral ED utilization was particularly high for residents of Kalamazoo County with primary IDD, SMI/SED, and SUD diagnosis types.

Table 29: Behavioral ED Visits Per Person by County and Primary Behavioral Health Diagnosis Group

Primary Behavioral Health Diagnosis Group	Overall	Barry County	Berrien County	Branch County	Calhoun County	Cass County	Kalamazoo County	St. Joseph County	Van Buren County
No BH Diagnosis	**0.00**	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mild/Moderate MI	**0.07**	0.06	0.07	0.05	0.07	0.05	0.08	0.07	0.07
SMI/SED	**0.24**	0.16	0.23	0.18	0.21	0.10	0.36	0.19	0.19
SUD	**0.16**	0.11	0.14	0.18	0.14	0.12	0.20	0.17	0.12
IDD	**0.05**	0.01	0.02	0.07	0.04	0.00	0.11	0.04	0.02

F. Inpatient Utilization Among Individuals with Behavioral Health Diagnoses

Medical Inpatient Utilization

Figure 23 shows that after age 10, individuals with IDD, mild-moderate mental illness, SMI/SED, and SUD had higher rates of medical inpatient utilization than individuals without behavioral health diagnoses across all 10-year age groups. After age 20, inpatient utilization for medical needs for persons with SUD, SMI/SED, and mild/moderate mental illness was three to seven times higher than medical inpatient utilization for persons with no behavioral health diagnosis.

Figure 23: Medical Inpatient Days Per Person by Age Range and Behavioral Health Diagnosis Group

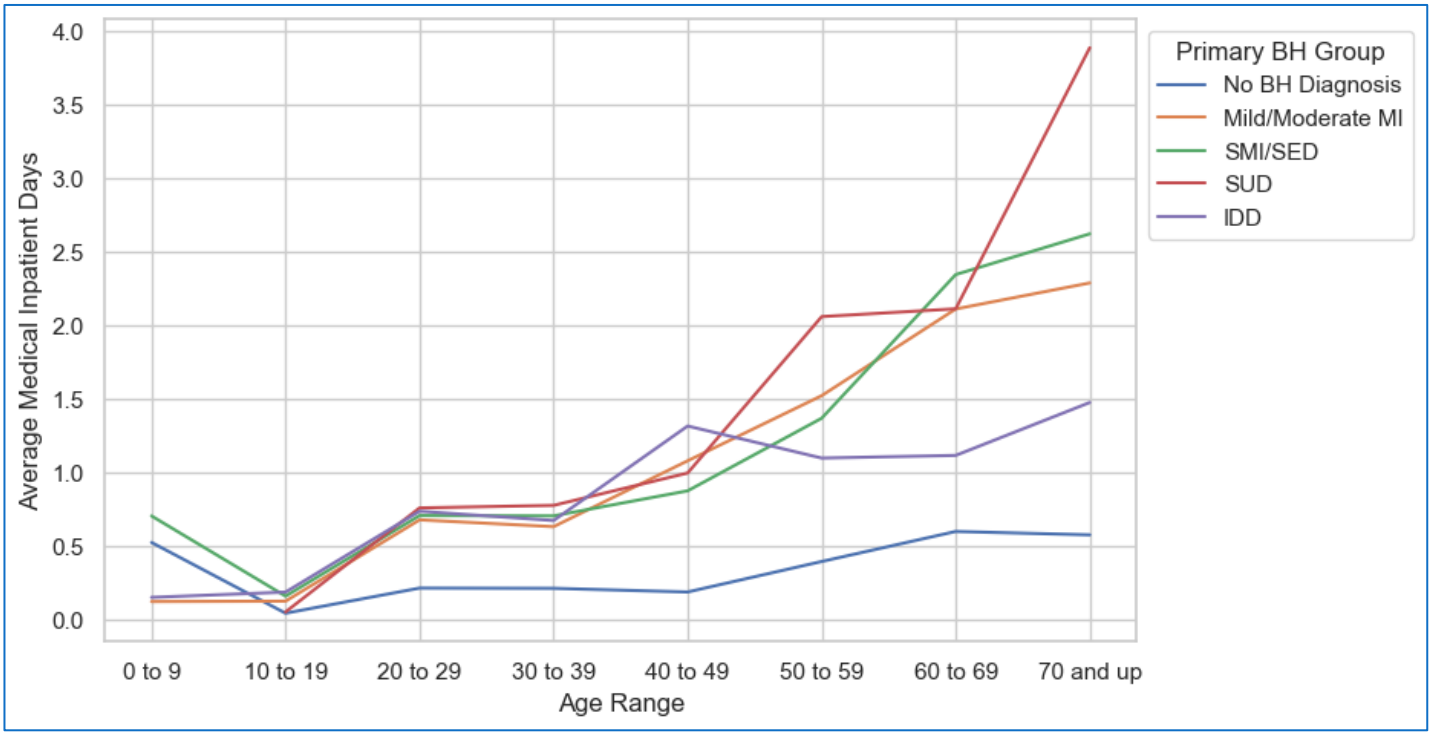


Table 30 shows medical inpatient days per person in 2022 by county and primary behavioral health diagnosis group. Table 31 displays risk ratios for medical inpatient days by county and primary behavioral health diagnosis group. Individuals with SUD had the highest average medical inpatient utilization compared to other behavioral health diagnosis groups in all counties except Branch County. In all counties, the relative risk of inpatient utilization for persons with SUD was at least three times that of individuals without a behavioral health diagnosis (overall relative risk of 3.99). It is not clear what the effect would be if all SUD-related encounters were available for analysis, but one possibility is that the SUD population here is more medically and behaviorally complex than the overall Medicaid SUD-diagnosed population, because the data represents only those who were served by the PIHP/CMH system. Medical inpatient utilization among individuals with primary SED/SMI was next highest after those with SUD, with an overall 3.34 times relative risk of medical inpatient days compared to individuals with no behavioral health diagnosis.

Table 30: Medical Inpatient Days Per Person by County and Primary Behavioral Health Diagnosis Group

Primary Behavioral Health Diagnosis Group	Overall	Barry County	Berrien County	Branch County	Calhoun County	Cass County	Kalamazoo County	St. Joseph County	Van Buren County
No BH Diagnosis	**0.41**	0.37	0.48	0.40	0.40	0.41	0.35	0.41	0.50
Mild/Moderate MI	**1.08**	1.00	1.31	1.03	1.01	1.07	0.96	1.11	1.25
SMI/SED	**1.38**	1.19	1.51	1.30	1.32	1.03	1.54	1.17	1.28
SUD	**1.64**	1.60	1.69	1.26	1.60	1.35	1.82	1.40	1.67
IDD	**0.61**	0.42	0.60	0.74	0.60	0.52	0.59	0.57	0.80

Table 31: Risk Ratios for Medical Inpatient Days Per Person by County for Persons with Behavioral Health Diagnosis Compared to Those without Behavioral Health Diagnosis

Primary Behavioral Health Diagnosis Group	Overall	Barry County	Berrien County	Branch County	Calhoun County	Cass County	Kalamazoo County	St. Joseph County	Van Buren County
No BH Diagnosis	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Mild/Moderate MI	2.63	2.70	2.74	2.57	2.53	2.64	2.72	2.74	2.50
SMI/SED	3.34	3.22	3.16	3.22	3.31	2.53	4.36	2.88	2.57
SUD	3.99	4.33	3.54	3.12	4.01	3.32	5.16	3.44	3.34
IDD	1.49	1.15	1.27	1.83	1.50	1.27	1.67	1.41	1.60

Behavioral Inpatient Utilization

Figure 24 shows that inpatient utilization for behavioral health needs was highest in persons with primary SMI/SED needs and lowest in persons with primary mild/moderate behavioral health needs throughout the lifetime. An exception was the 50-59 age range, where behavioral health inpatient utilization was lowest for persons with primary IDD needs.

Figure 24: Behavioral Health Inpatient Days Per Person by Age Range and Behavioral Health Diagnosis Group

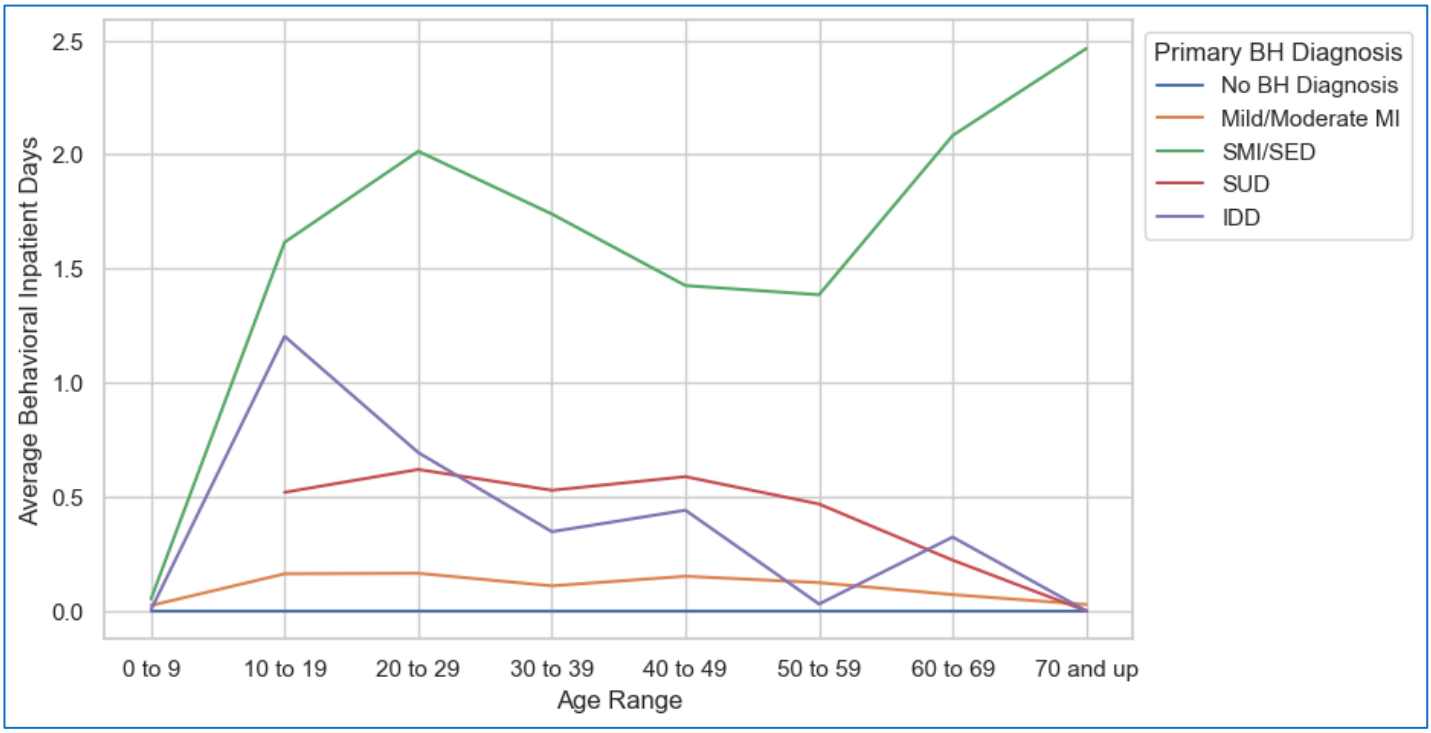


Table 32 shows behavioral inpatient days per person in 2022 by county and primary behavioral health diagnosis group. Overall, individuals with primary SMI/SED had the highest inpatient behavioral health days by a wide margin, with an average of 1.66 days per person in the SMI/SED diagnosis group compared to a range of 0.13 (Mild/Moderate MI) to 0.52 (SUD) days per person for the other diagnosis groups. Cass County had the lowest average behavioral health inpatient days of all counties for each of the diagnosis groups. Barry County's average days per person was lower than average for each diagnosis group. Other notable findings include higher days per person for individuals with SMI/SED

in Kalamazoo County (2.36 compared to 1.66 days for the regional overall), higher days per person for individuals with IDD in Branch and Kalamazoo Counties, and higher days per person for individuals with SUD and lower than average days for persons with SMI/SED in St. Joseph County.

Table 32: Behavioral Inpatient Days Per Person by County and Primary Behavioral Health Diagnosis Group

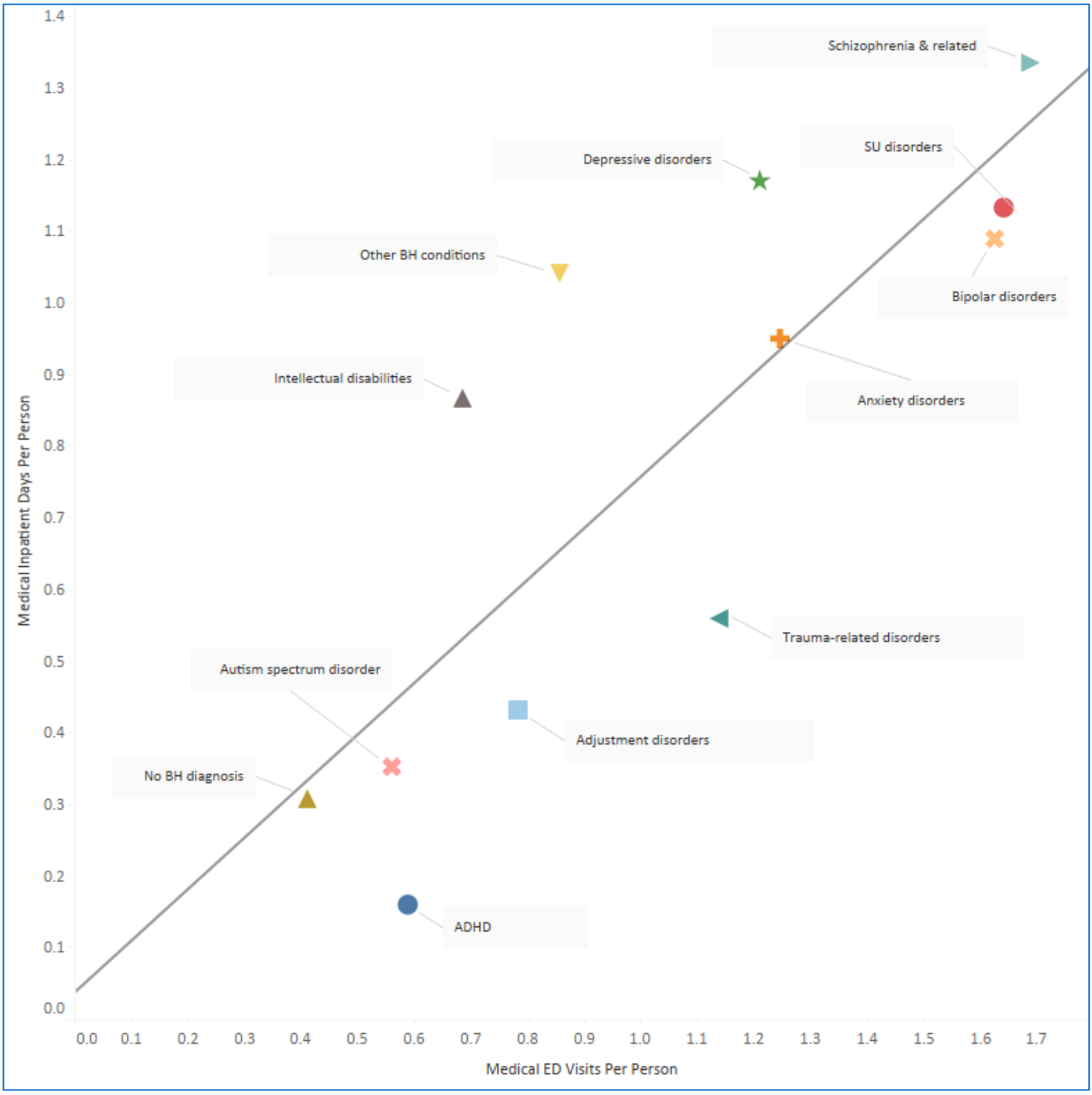
Primary Behavioral Health Diagnosis Group	Overall	Barry County	Berrien County	Branch County	Calhoun County	Cass County	Kalamazoo County	St. Joseph County	Van Buren County
No BH Diagnosis	**0.00**	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mild/Moderate MI	**0.13**	0.15	0.10	0.09	0.10	0.02	0.16	0.18	0.13
SMI/SED	**1.66**	0.97	1.93	1.60	1.29	0.58	2.36	0.98	1.43
SUD	**0.52**	0.51	0.46	0.81	0.58	0.28	0.46	0.95	0.34
IDD	**0.47**	0.04	0.01	1.42	0.13	0.00	1.30	0.04	0.12

G. Medical ED and Hospital Utilization by Types of Behavioral Health Diagnoses

Figure 25 shows medical inpatient days and medical ED visits based on each individual's primary (most frequently reported) behavioral health diagnosis type. The y (vertical) axis displays average medical inpatient days per person by primary behavioral health diagnosis type, and the x (horizontal) axis displays average medical ED visits per person by primary behavioral health diagnosis type.

On average, individuals with substance use disorders and severe behavioral health diagnoses such as schizophrenia and bipolar disorder had higher medical IP and ED utilization than people with milder forms of mental illness such as adjustment disorders and ADHD. People with no behavioral health diagnoses had the fewest medical ED visits and the 2nd fewest medical inpatient days.

Figure 25: Medical ED Visits and IP Days by Primary Behavioral Health Diagnosis Type



Medical inpatient days and medical ED visits based on each individual's primary (most frequently reported) behavioral health diagnosis type. The y (vertical) axis displays average medical inpatient days per person by primary behavioral health diagnosis type, and the x (horizontal) axis displays average medical ED visits per person by primary behavioral health diagnosis type.

VIII. MULTIMORBIDITY AND HOSPITALIZATION RISK

A. Complex Multimorbidities

Individuals with multiple (>2) chronic conditions present many challenges to the health care system, including but not limited to effective coordination of care and cost containment. Individuals with complex multimorbidities have increased hospital readmissions and emergency department visits, which are commonly cited indicators of poor quality or poorly coordinated care, and important drivers of increased healthcare spending. Therefore, it is important to gather, report and analyze data on multi-morbidity and hospitalization risk for reducing recidivism rates.

In 2010, the Center for Health Care Strategies (CHCS) commissioned an analysis by researchers at Johns Hopkins University on the prevalence of co-morbidities in Medicaid beneficiaries with disabilities (Boyd, C., Leff, B., et al. (2010, December. Clarifying Multimorbidity Patterns to Improve Targeting and Delivery of Clinical Services for Medicaid Populations. Center for Health Care Strategies, Inc.). This study resulted in a list of the Top 25 Patterns of Multimorbidities ranked by per capita cost. In this context, "multi-morbidity" is a case where several conditions are present simultaneously, based on diagnostic claims data.

The index conditions examined in the current report are as follows:

- Asthma and/or Chronic Obstructive Pulmonary Disease (COPD)
- Cerebral Vascular Disease
- Chronic Ischemic Heart Disease
- Chronic Kidney Disease
- Congestive Heart Failure (CHF)
- Dementia
- Diabetes
- Hypertension
- Mental Illness

Table 33 lists combinations of these co-morbid conditions present in the original study, along with the number of persons with those combinations in SWMBH's Medicaid population in 2022, and their relative risk of hospitalization compared to individuals without any of the multimorbidities. On average, these combinations resulted in over a tenfold risk of inpatient hospitalization in 2022.

Table 33: Multimorbidity and Relative Risk of Hospitalization*

Multimorbidities	N	Relative Risk of Hosp.
No Multimorbidity	**287,018**	**1**
Cerebral Vascular Disease/Stroke, Chronic Kidney Disease/ESRD, CHF, Chronic Ischemic Heart Disease, Dementia, Hypertension, Mental Illness	28	23.6
Asthma/COPD, Chronic Kidney Disease/ESRD, CHF, Chronic Ischemic Heart Disease, Dementia, Hypertension, Mental Illness	27	22.2
Cerebral Vascular Disease/Stroke, CHF, Chronic Ischemic Heart Disease, Dementia, Hypertension, Mental Illness	48	18.7
Asthma/COPD, Chronic Kidney Disease/ESRD, CHF, Chronic Ischemic Heart Disease, Dementia, Hypertension	42	17.9
Chronic Kidney Disease/ESRD, CHF, Chronic Ischemic Heart Disease, Dementia, Hypertension, Mental Illness	61	14.8
Chronic Kidney Disease/ESRD, CHF, Chronic Ischemic Heart Disease, Dementia, Hypertension	92	14.3
Asthma/COPD, CHF, Chronic Ischemic Heart Disease, Dementia, Hypertension, Mental Illness	50	13.8
Chronic Kidney Disease/ESRD, Chronic Ischemic Heart Disease, Dementia, Hypertension, Mental Illness	128	12.2
CHF, Chronic Ischemic Heart Disease, Dementia, Hypertension, Mental Illness	108	11.3
Asthma/COPD, CHF, Dementia, Hypertension, Mental Illness	99	11.3
Chronic Kidney Disease/ESRD, CHF, Dementia, Hypertension	185	11.2
Any Multimorbidity	**328**	**10.13**

***Clarifying Multimorbidity Patterns to Improve Targeting and Delivery of Clinical Services for Medicaid Populations. Cynthia Boyd, Bruce Leff, Carlos Weiss, Jennifer Wolff, Allison Hamblin and Lorie Martin. Center for Health Care Strategies, Inc. December 2010.**

328 of the SWMBH enrollees have at least one of the above multimorbidity patterns. These are distributed across counties and by quantity as shown below:

Table 34: SWMBH Multimorbidity Patterns

Multi-morbidities	Total	Barry	Berrien	Branch	Calhoun	Cass	Kalamazoo	St. Joseph	Van Buren	Duals
Total Unique Enrollees	287,346	16,054	54,226	16,278	54,970	16,865	77,224	23,054	28,675	30,002
No Multimorbidity	287,018	16,034	54,138	16,258	54,914	16,843	77,146	23,036	28,649	29,690
1-3 multi-morbidity combinations	257	16	62	17	49	15	64	15	19	247
4-6 multi-morbidity combinations	24	1	11	1	2	4	3	0	2	21
7-9 multi-morbidity combinations	39	3	13	1	5	2	9	3	3	37
All 11 multi-morbidity combinations	8	0	2	1	0	1	2	0	2	7

The table below shows inpatient days and ED visits for the SWMBH enrollees and with 1+ CHCS-identified high-risk multimorbidity pattern by county. Risk ratios are highlighted according to magnitude, with red signifying the highest risk ratios among each type of risk ratio and green signifying the lowest. Those with a CHCS-identified high-risk multimorbidity pattern used inpatient hospital days at a rate more than ten times higher than those without any multi-morbidities, and the relative risk of ED visits per capita was at more than three times the rate for enrollees with no multimorbidity. The risk ratio for inpatient days per capita was highest for Berrien (14.15); Kalamazoo also has a significant risk ratio for inpatient days per capita (12.73), contributing to the overall high-risk ratio. Berrien has the highest risk ratio for emergency room visits (4.37) for their 1+ multimorbidity population.

Table 35: Inpatient Days/ED Visits for SWMBH Enrollees with 1+ Multimorbidity Pattern

Utilization	No Multi-morbidity	1+ Multimorbidity									
		All	Barry	Berrien	Branch	Calhoun	Cass	Kalamazoo	St. Joseph	Van Buren	Duals
IP Days per Person	0.598	6.082	2.100	8.466	4.350	5.571	1.591	7.615	4.889	3.538	5.327
ED Visits per Person	0.637	2.180	1.200	2.784	1.750	1.893	1.091	2.513	2.056	1.846	2.003
IP Days Risk Ratio	1.00	10.17	3.51	14.15	7.27	9.31	2.66	12.73	8.17	5.91	8.90
ED Visits Risk Ratio	1.00	3.42	1.88	4.37	2.75	2.97	1.71	3.95	3.23	2.90	3.15

IX. HEALTHCARE MONITORING

A. Relias Population Performance Healthcare Monitoring Metrics

Understanding access to quality healthcare for Medicaid enrollees in the SWMBH region is important to ensure optimal well-being across populations. In this section we review data pulled from Relias Population Performance. These data identify basic healthcare standards and show the percentage of Medicaid enrollees in our region who are receiving medically recommended care for common conditions. Higher percentages are better. Note that for most of these metrics, laboratory testing or prescription medication must be ordered by a healthcare provider, *and* the individual must then follow through with the recommended treatment or test. The tables below show treatment or monitoring rates for enrolled adults or children within the SWMBH region overall and by county. Dual-eligibles are not included in this analysis, because Medicare claims were not available for analysis.

In Tables 36 and 37, rates of access and adherence to selected healthcare monitoring metrics are shown. Counties with statistically significant (using chi-square with $p < 0.05$) higher rates of recommended care are indicated in green, while significantly significant lower rates of care are represented in red. For example, in Table 36, Branch County had the highest rate (64%) of lipid profiles for adults with diabetes in 2022; this rate is the only one highlighted in green for this specific health metric.

We see the highest performance in adult Medicaid enrollees' access to preventative and or ambulatory visits. Within the region overall 77% of adult Medicaid enrollees had at least one preventative or ambulatory visit during 2022. Adult Medicaid enrollees in Barry County and Kalamazoo County were most likely to have had ambulatory or preventative care at 79% while those in Cass County had these visits at 73%. Preventative healthcare is important to ensure chronic conditions are treated early or avoided altogether. About 23% of adult Medicaid enrollees in the region are not using preventative visits as often as recommended.

Prescription statin medications for adult Medicaid enrollees diagnosed with coronary artery disease was the next leading healthcare metric. Sixty-two percent received this recommended care. Adult Medicaid enrollees with coronary artery disease in Cass County received this treatment most frequently at 73%, while enrollees in Kalamazoo County received it only 53% of the time.

Of the healthcare metrics indicating the lowest access to or adherence with recommended care, the presence of medication management for members diagnosed with asthma during 75% or more of their treatment period was at 42% for the region overall. Enrollees in Cass County with asthma received and remained on bronchodilator medication during 75% or more of their treatment period 54% of the time. Medicaid enrollees with asthma in Berrien County however, only received and remained on this treatment 34% of the time when diagnosed with the same condition.

In the region, most counties had relatively low rates on the presence of at least two annual hemoglobin A1C tests for members diagnosed with diabetes mellitus. Regionally 45% of enrollees with diabetes received these tests with Berrien, Branch, Calhoun, Cass, Kalamazoo, St. Joseph, and Van Buren seeing rates between 42% and 50%. Barry County demonstrated the strongest performance in the region at 54% on this healthcare metric.

Demographics may impact access to quality healthcare and individuals' ability to adhere to healthcare recommendations. Kalamazoo County had four metrics in red, signifying statistically significant lower rates of healthcare metric adherence. Similarly, Berrien County had two healthcare metrics in red. Both counties have higher Black, Brown, and indigenous populations than more rural counties in the region. Barry County, as a small rural community, demonstrated the strongest access to and adherence with care, being the only county in the region having no healthcare metrics in red.

Table 36: Adult Healthcare Monitoring Metrics

Metric Description	Overall	Barry County	Berrien County	Branch County	Calhoun County	Cass County	Kalama-zoo County	St. Joseph County	Van Buren County
Presence of preventive and or ambulatory visit within 12-months	77%	**79%**	**75%**	77%	**79%**	**73%**	**79%**	**75%**	77%
Presence of statin medications by members with a history of coronary artery disease	62%	66%	64%	67%	65%	73%	**53%**	65%	53%
Presence of bronchodilator within 30 days for member diagnosed with COPD exacerbation	60%	68%	62%	**32%**	69%	62%	55%	61%	53%
Presence of a Lipid Profile for a member diagnosed with diabetes	55%	58%	53%	**64%**	58%	54%	**53%**	56%	56%
Presence of lipid profile for member diagnosed with coronary artery disease	53%	62%	53%	57%	55%	58%	**49%**	55%	51%
Presence of at least two hemoglobin A1C tests within the past 12 months for member diagnosed with diabetes mellitus	45%	**54%**	42%	48%	**47%**	42%	**42%**	42%	**50%**
Presence of medication management for members diagnosed with asthma during 75% or more of their treatment period	42%	43%	**34%**	48%	45%	**54%**	39%	46%	46%

Bold font with red or green shading indicates that a rate is significantly higher (red) or lower (green) than the remaining population.

Table 37 shows rates of access to recommended care for children and adolescents enrolled in Medicaid in the region, and some gaps are notable. 55% (12/22) children and adolescents diagnosed with diabetes who were prescribed an antipsychotic medication received the recommended metabolic testing. In Barry (0/1), Branch (0/2), Cass (0/1), and Van Buren (0/1) counties, none of the children with diabetes who were taking an antipsychotic received this monitoring, but the population sizes were too small to be statistically significant. Success was clear in Kalamazoo (3/3) and St. Joseph (6/6) counties where 100% of children in this circumstance received this recommended care. Although this was the best performing metric for children and adolescents in the region, it was still relatively low considering the increased risk of medical complications for this population. Higher rates of monitoring children and adolescents with diabetes who are taking antipsychotics may help the reduce the high frequency of co-morbid chronic conditions and medical ED and inpatient utilization seen in adult populations with mental health diagnoses. During psychiatric visits for children, clinicians and caregivers can advocate improving this further.

The presence of metabolic/diabetes screening for children 17 years of age or younger on antipsychotic medications was the healthcare metric for children and adolescents with the lowest access regionally at 20% (294/1,454). Berrien,

Branch, Calhoun, Cass, and Kalamazoo all fell below the regional average. Barry County had the highest rate at 44% (44/101). Early detection and management of metabolic issues in children may help improve their quality of life and assist in preventing chronic health complications.

For the presence of medication management for children diagnosed with asthma during 75 percent or more of their treatment period, 31% (338/1,108) percent of the targeted children enrolled in Medicaid with asthma received this recommended care in the region overall. In Berrien and Cass counties this was received by just 1 in 4 children with asthma. Branch, Kalamazoo and Calhoun were also below the regional average at 28%, 29%, and 30% respectively. Children received this care most often in Barry County at 44%.

Improvement is needed to ensure that children and adolescents enrolled in Medicaid are receiving recommended healthcare. Parents and other adult caregivers are important advocates for children during medical appointments and helping to educate and empowering these adults will be a benefit to children's care.

Table 37: Child and Adolescent Healthcare Monitoring Metrics

Metric Description	Overall	Barry County	Berrien County	Branch County	Calhoun County	Cass County	Kalamazoo County	St. Joseph County	Van Buren County
Presence of metabolic testing for members diagnosed with diabetes and have been prescribed an antipsychotic	55%	0%	50%	0%	25%	0%	100%	**100%**	0%
Presence of medication management for members diagnosed with asthma during 75 percent or more of their treatment period	31%	**44%**	25%	28%	30%	25%	29%	32%	35%
Presence of metabolic/diabetes screening for members 17 years of age or younger on antipsychotics	20%	**35%**	17%	13%	16%	14%	22%	19%	**31%**

Bold font with red or green shading indicates that a rate is significantly higher (red) or lower (green) than the remaining population.

X. BEHAVIORAL PHARMACY ANALYSIS

A. Adults

This section displays a selection of behavioral health pharmacy analytics, which point to clinical interests such as relative risk of hospitalization and reduction of risk of adverse outcomes. Regional as well as county-by-county comparisons are provided. Medicaid-Medicare dual eligibles are not included in this analysis.

Adult General Behavioral Pharmacy Use Data

The table below shows the percentage of SWMBH Medicaid-only adult enrollees (18 years old and up as of the end of December 2022) prescribed behavioral and opioid medications during 2022, for the regional overall and each county. Bolded, red highlighted cells indicate that a statistically significant higher percentage of the population was prescribed the medication in comparison to the rest of the regional population; green cells indicate significantly lower rates from the remaining population.

In general, each county has higher rates of prescribing of some drug classes and lower rates of others. Compared to a similar analysis conducted in 2014, the prescription rates for opioids and benzodiazepines for adult Medicaid beneficiaries in the region have decreased, from 21.1% being prescribed opioids over the course of 2014 to 5.0% in 2022, and from 10.6% being prescribed benzodiazepines in 2014 to 3.7% in 2022.

Table 38: Adults – Behavioral Pharmacy Utilization by Percentage of Population

Medication Type	SWMBH	Barry County	Berrien County	Branch County	Calhoun County	Cass County	Kalamazoo County	St. Joseph County	Van Buren County
Antidepressants (all)	16.0%	**20.1%**	**13.9%**	17.2%	16.0%	15.7%	15.8%	**18.2%**	16.5%
Antidepressant: Selective serotonin reuptake inhibitors (SSRIs)	9.7%	**12.6%**	**8.8%**	10.3%	9.5%	9.4%	9.6%	**10.8%**	10.0%
Antipsychotics	5.1%	5.0%	**4.8%**	5.4%	**5.6%**	5.1%	5.1%	5.5%	**4.6%**
Opioids	5.0%	5.1%	**4.5%**	5.0%	**5.4%**	**4.1%**	**4.7%**	**5.8%**	**6.0%**
Benzodiazepines	3.7%	4.1%	**3.2%**	**3.4%**	**4.5%**	**2.8%**	**3.3%**	**4.7%**	4.3%
Insomnia agents	3.0%	3.5%	2.9%	3.0%	3.1%	2.8%	2.9%	3.3%	2.9%
ADHD medication	2.8%	**3.9%**	3.0%	**2.1%**	**2.4%**	**3.7%**	2.8%	2.8%	2.5%
Mood stabilizers	2.7%	3.0%	**2.1%**	2.5%	**3.0%**	2.3%	**2.9%**	2.8%	2.7%
ADHD: stimulants	2.4%	**3.6%**	**2.7%**	**1.7%**	**2.0%**	**3.3%**	2.3%	2.4%	2.1%
Antidepressants: Tricyclics (TCAs)	1.4%	1.5%	**1.2%**	1.6%	1.3%	**2.1%**	**1.3%**	**1.8%**	1.5%

Bold font with red or green shading indicates that a rate is significantly higher (red) or lower (green) than the remaining population.

Adult Behavioral Pharmacy Metric Triggering Percentages

The table below shows the top 15 most frequently triggered adult behavioral pharmacy metrics in SWMBH's Relias Population Performance application. Population Performance uses algorithms to measure the proportion of a given population who meet best practice recommendations for behavioral pharmacy prescribing and management. Each of the metrics were designed with clinical research to support them.

The trigger rates show the percentages of individuals meeting the population specification for each metric, who did not meet the clinical recommendation for the metric. For these metrics, lower percentages are better. A zero rate is not always possible, but higher percentages can indicate possible over-prescribing, or in the case of adherence metrics, issues with medication side effects, access to refills, or lack of understanding of or agreement with the need for treatment. Peer clinical review of cases triggered in the Relias Population Performance application could be a helpful quality assurance check and brainstorming opportunity.

The top three most frequently triggered metrics are adherence metrics. Delay in or failure to refill a mood stabilizer is the most frequently triggered indicator; 49.3% of adult Medicaid-only enrollees prescribed a mood stabilizer over the year failed to refill it at some point within 30 days of the prescription ending. Triggering this metric is associated with a 4.6-time relative risk of inpatient hospitalization compared to individuals who did not trigger a behavioral pharmacy metric (as shown in Table 40).

Trigger rates on the prescribing metrics were low compared to adherence metrics, with a rate of 5.5% on the most frequently triggered prescribing metric, *Use of bipolar mood stabilizer at a lower than recommended dose for 60 or more days in the absence of any other adequately dosed bipolar mood stabilizer*.

Table 39: Adult Behavioral Pharmacy Metric Triggering Rates

Metric Description	Overall	Barry County	Berrien County	Branch County	Calhoun County	Cass County	Kalamazoo County	St. Joseph County	Van Buren County
Delay in or failure to refill a mood stabilizer medication resulting in less than 80% of treatment period with medication coverage (persons with bipolar or depression diagnosis)	49.3%	50.0%	48.7%	40.6%	48.6%	50.0%	50.6%	52.5%	48.1%
Failure to refill newly prescribed antidepressant within 30 days of prescription ending	40.0%	33.9%	38.1%	34.2%	41.4%	39.4%	**42.9%**	43.8%	35.8%
Delay in or failure to refill an antipsychotic medication resulting in less than 80% of treatment period with medication coverage (persons with schizophrenia diagnosis)	37.0%	32.0%	38.7%	34.3%	37.6%	30.0%	39.8%	39.0%	26.2%
Use of bipolar mood stabilizer at a lower than recommended dose for 60 or more days in the absence of any other adequately dosed bipolar mood stabilizer	5.5%	5.5%	**2.9%**	2.2%	**7.4%**	3.0%	6.7%	5.2%	5.3%
Use of two or more antipsychotic medications for 60 or more days	4.6%	2.5%	4.0%	5.9%	5.2%	4.3%	4.0%	4.4%	**7.0%**

Metric Description	Overall	Barry County	Berrien County	Branch County	Calhoun County	Cass County	Kalamazoo County	St. Joseph County	Van Buren County
Use of two or more second generation antipsychotics and a bipolar mood stabilizer for 90-days or more	4.3%	2.1%	3.5%	5.1%	5.9%	2.2%	3.8%	3.3%	6.5%
Multiple prescribers of the same class of psychotropic medications for 45 or more days	3.9%	4.7%	**3.1%**	4.6%	4.3%	3.3%	3.9%	4.4%	4.0%
Multiple prescribers of antidepressants for 45 or more days	3.7%	4.7%	**2.9%**	3.8%	4.2%	3.3%	3.6%	4.0%	3.8%
Use of four or more psychotropic medications for 60 or more days	2.8%	1.8%	2.6%	2.8%	3.1%	2.8%	2.7%	3.1%	3.0%
Use of amphetamine medications at a higher than recommended dose for 45 or more days	2.7%	2.3%	3.8%	1.6%	1.7%	4.3%	2.2%	1.5%	4.2%
Use of an antipsychotic at a higher than recommended dose for 45 or more days	0.9%	0.8%	1.1%	0.8%	0.9%	0.7%	0.8%	1.0%	1.1%
Use of 2 or more benzodiazepines for 45 or more days	0.5%	0.3%	0.3%	0.4%	0.5%	0.4%	0.4%	0.6%	0.7%
Use of benzodiazepines for 60 or more days	0.5%	0.3%	0.3%	0.4%	0.5%	0.4%	0.4%	0.6%	0.7%
Use of 3 of more antidepressants for 60 or more days	0.8%	0.9%	0.9%	0.5%	0.8%	0.7%	0.8%	1.1%	1.0%
Use of benzodiazepines at a higher than recommended dose for 60 or more days	0.3%	0.0%	0.6%	0.8%	0.1%	0.0%	0.2%	0.2%	**1.2%**

Adult Relative Risk of Hospitalization Related to Medication Utilization Patterns

The table below displays the behavioral pharmacy metric data, sorted by relative risk of hospitalization (compared to enrollees not triggering behavioral pharmacy metric) of enrollees triggering each behavioral pharmacy metric. The top 15 behavioral pharmacy metrics are shown in order of hospitalization risk. The data shows that enrollees who triggered any behavioral pharmacy metric have a higher risk (2.5 relative risk) of hospitalizations than those who did not trigger any metrics. The highest risk of hospitalization (6.7 times) was with individuals with schizophrenia who did not consistently refill antipsychotic medications on time. This metric was triggered in 37% of adults with schizophrenia taking antipsychotics.

Table 40: Adult – Behavioral Pharmacy Metric Triggering and Relative Risk of Hospitalization

Metric	Description	N in Numer-ator	% of Total (in age band)	N Hosp's per 100	Relative Risk
	Adult - No QIs Triggered	**159,247**	**95.5%**	**6.1**	**1**
	1+ QIs Triggered	**7,473**	**4.5%**	**15.5**	**2.5**
376	Delay in or failure to refill an antipsychotic medication resulting in less than 80% of treatment period with medication coverage (persons with schizophrenia diagnosis)	506	0.3%	41.1	6.7
314	Use of 2 or more tricyclic antidepressants for 60 or more days	3	0.0%	33.3	5.5
515	Delay in or failure to refill a mood stabilizer medication resulting in less than 80% of treatment period with medication coverage (persons with bipolar or depression diagnosis)	424	0.3%	28.3	4.6
283	Multiple prescribers of the same class of psychotropic medications for 45 or more days	1,201	0.7%	22.1	3.6
306	Multiple prescribers of antidepressants for 45 or more days	841	0.5%	16.8	2.8
291	Use of benzodiazepines for 60 or more days	24	0.0%	16.7	2.7
312	Use of 2 or more benzodiazepines for 45 or more days	24	0.0%	16.7	2.7
271	Use of two or more antipsychotic medications for 60 or more days	316	0.2%	13.3	2.2
231	Use of opioids and benzodiazepines for 30 or more days	460	0.3%	13.3	2.2
257	Use of two or more second generation antipsychotics and a bipolar mood stabilizer for 90 days or more	69	0.0%	13.0	2.1
343	Failure to refill newly prescribed antidepressant within 30 days of prescription ending	2,033	1.2%	13.0	2.1
309	Use of 2 or more SSRIs for 60 or more days	33	0.0%	12.1	2.0
310	Use of 2 or more antidepressants for 60 or more days	201	0.1%	11.9	2.0
217	Use of four or more psychotropic medications for 60 or more days	846	0.5%	11.0	1.8
290	Use of an antipsychotic at a higher than recommended dose for 45 or more days	64	0.0%	10.9	1.8

Adult Hospitalization Rates – Behavioral and Non-Behavioral

The table below displays the behavioral pharmacy metric data, sorted by the relative risk of behavioral hospitalization of enrollees triggering each behavioral pharmacy metric compared to enrollees not triggering any metrics. The top 15 behavioral pharmacy metrics are shown in order of hospitalization risk. Like the table above, the data shows that enrollees who triggered one or more metric have a higher risk of hospitalizations than those who did not trigger any metrics. For behavioral hospitalizations, the relative risk is 7.9 times for persons triggering any of these metrics. Adults with failure to refill an antipsychotic present the highest overall relative risk of hospitalization, namely behavioral hospitalization at 55.0 times greater risk. The data indicate that consistency in medication management is a key factor in preventing hospitalization stays.

Table *41*: Adult – Behavioral Pharmacy Metrics and Relative Risk of Behavioral/Non-Behavioral Hospitalization

Metric	Description	N in Numer-ator	Total Hospital Stays / Relative Risk (RR)					
			Total		Behavioral		Non-Behavioral	
			N per 100 pts	RR	N per 100 pts	RR	N per 100 pts	RR
	Adult - No QIs Triggered	**159,247**	**6.1**	**1**	**0.5**	**1.0**	**5.6**	**1.0**
	1+ QIs Triggered	**7,473**	**15.5**	**2.5**	**4.1**	**7.9**	**11.4**	**2.0**
376	Failure to refill an antipsychotic medication resulting in less than 80% of treatment period with medication coverage (persons with schizophrenia diagnosis)	506	41.1	6.7	28.7	55.0	12.5	2.2
515	Failure to refill a mood stabilizer medication resulting in less than 80% of treatment period with medication coverage (persons with bipolar or depression diagnosis)	424	28.3	4.6	18.2	34.8	11.1	2.0
290	Use of an antipsychotic at a higher than recommended dose for 45 or more days	64	10.9	1.8	9.4	18.0	1.6	0.3
271	Use of two or more Antipsychotic medications for 60 or more days	316	13.3	2.2	7.3	14.0	6.0	1.0
283	Multiple prescribers of the same class of psychotropic medications for 45 or more days	1,201	22.1	3.6	6.2	11.8	16.0	2.8
309	Use of 2 or More SSRIs for 60 or More Days	33	12.1	2.0	6.1	11.6	6.1	1.1
217	Use of four or more psychotropic medications for 60 or more days	846	11.0	1.8	4.4	8.4	6.6	1.2
306	Multiple prescribers of antidepressants for 45 or more days	841	16.8	2.8	4.3	8.2	12.5	2.2

Metric	Description	N in Numer-ator	Total Hospital Stays / Relative Risk (RR)					
			Total		Behavioral		Non-Behavioral	
			N per 100 pts	RR	N per 100 pts	RR	N per 100 pts	RR
	Adult - No QIs Triggered	**159,247**	**6.1**	**1**	**0.5**	**1.0**	**5.6**	**1.0**
	1+ QIs Triggered	**7,473**	**15.5**	**2.5**	**4.1**	**7.9**	**11.4**	**2.0**
310	Use of 3 of more antidepressants for 60 or more days	201	11.9	2.0	3.5	6.7	8.5	1.5
343	Failure to refill newly prescribed antidepressant within 30 days of prescription ending	2,033	13.0	2.1	3.3	6.4	9.7	1.7
257	Use of two or more second generation antipsychotics and a bipolar mood stabilizer for 90-days or more	69	13.0	2.1	2.9	5.6	10.1	1.8
293	Use of bipolar mood stabilizer at a lower than recommended dose for 60 or more days in the absence of any other adequately dosed bipolar mood stabilizer	209	10.0	1.6	1.0	1.8	9.1	1.6
231	Use of opioids and benzodiazepines for 30 or more days	460	13.3	2.2	0.2	0.4	13.0	2.3
314	Use of 2 or more tricyclic antidepressants for 60 or more days	3	33.3	5.5	0.0	0.0	33.3	6.0

B. Child and Adolescent

This section displays a selection of behavioral health pharmacy analytics for children and adolescents, which point to clinical interest in regards to relative risk of hospitalization.

Child and Adolescent General Behavioral Pharmacy Use Data

In the table below, we see the percentage of each population's (all SWMBH and each county) medication utilization by medication class for child and adolescent enrollees (under the age of 18 as of the end of December 2022). Bolded, red shaded cells indicate that a statistically significant higher percentage of the local population is prescribed the medication, and green indicates a lower rate. In general, each county has higher rates of prescribing of some drug classes and lower rates of others. More child and adolescent enrollees in SWMBH's population are prescribed ADHD medications (stimulants and non-stimulants) and antidepressants respectively compared to the other medication classes.

Table *42*: Child and Adolescent – Behavioral Pharmacy Utilization by Percentage of Population

Medication Type	SWMBH	Barry County	Berrien County	Branch County	Calhoun County	Cass County	Kalamazoo County	St. Joseph County	Van Buren County
ADHD medication (all)	5.4%	**7.2%**	**5.0%**	5.6%	5.4%	**6.6%**	**4.7%**	**7.2%**	5.0%
ADHD: stimulants	4.9%	**6.5%**	**4.4%**	5.2%	4.8%	**6.1%**	**4.3%**	**6.4%**	4.5%
Antidepressants (all)	2.9%	**4.7%**	**2.2%**	3.0%	**2.6%**	2.8%	2.8%	**3.7%**	3.0%
Antidepressant: SSRIs	2.4%	**3.8%**	**1.7%**	2.5%	**1.9%**	2.3%	2.4%	**3.2%**	2.7%
Antipsychotics	1.3%	1.6%	**1.6%**	1.7%	1.4%	1.2%	**1.0%**	1.4%	1.4%
Mood stabilizers	0.6%	0.6%	**0.5%**	0.7%	0.6%	0.4%	0.7%	**1.3%**	0.5%
Insomnia agents	0.5%	**0.9%**	0.4%	0.7%	0.4%	0.5%	**0.4%**	**1.0%**	0.5%
Benzodiazepines	0.3%	0.2%	0.2%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%
Opioids	0.3%	0.4%	0.2%	0.3%	0.3%	0.3%	0.3%	**0.5%**	0.4%
Antidepressants: TCAs	0.1%	0.1%	**0.2%**	**0.2%**	**0.1%**	0.1%	**0.1%**	**0.3%**	0.2%

Bold font with red or green shading indicates that a rate is significantly higher (red) or lower (green) than the remaining population.

Child and Adolescent Behavioral Pharmacy Metric Triggering Rates

The table below shows the top 12 most frequently triggered child and adolescent behavioral pharmacy metrics with their triggering rates for the SWMBH region overall and the eight counties. There were no statistically significant differences between county rates on these metrics. Most had relatively small denominator sizes.

Percentage of members under the age of 18 taking antipsychotics who are diagnosed with ADHD was the most frequently triggered behavioral pharmacy metric for children and adolescents, at 51.3%. Of the 1,297 children/adolescents in 2022 who were prescribed antipsychotics in 2022, 666 (51.3%) had a diagnosis of ADHD. Antipsychotic medications are not approved for the treatment of ADHD, and there is no evidence that antipsychotic medications are effective for the treatment of core symptoms of ADHD such as inattention and hyperactivity.

Mood stabilizer and antipsychotic adherence were the next most common behavioral pharmacy metrics triggered for children and adolescents, with 48% of the youth prescribed a mood stabilizer for bipolar disorder or depression remaining on the medication for less than 80% of their treatment period. The antipsychotic adherence metric available for children and adolescents differs from the adult antipsychotic adherence metric and the mood stabilizer adherence metric for adults and children. It measures only the percentage of children who failed to refill their antipsychotic medication within 30 days of the prescription ending in the last 90 days of 2022. The rate was 9.6%. The remaining behavioral pharmacy metrics for children and adolescents triggered at less than 4% each.

Table 43: Child and Adolescent Behavioral Pharmacy Metric Triggering Rates

Metric Description	Overall	Barry County	Berrien County	Branch County	Calhoun County	Cass County	Kalama-zoo County	St. Joseph County	Van Buren County
Percentage of members under the age of 18 taking antipsychotics who are diagnosed with ADHD	51.3%	49.4%	49.8%	55.0%	54.2%	56.5%	54.1%	44.4%	46.4%
Failure to refill a mood stabilizer medication resulting in less than 80% of treatment period with medication coverage (persons with bipolar or depression diagnosis)	48.0%	0.0%	40.0%	60.0%	100.0%	No data	50.0%	50.0%	50.0%
Failure to refill antipsychotic medication within 30 days of the prescription ending (last 90 days of 2022, any diagnosis)	9.6%	8.0%	8.0%	13.0%	12.9%	13.0%	6.5%	10.3%	9.3%
Use of amphetamine medications at a higher than recommended dose for 45 or more days	3.9%	3.6%	3.3%	2.3%	4.9%	1.7%	4.2%	5.8%	3.4%
Use of an antipsychotic at a higher than recommended dose for 45 or more days	3.5%	0.0%	3.8%	7.0%	4.0%	1.4%	2.0%	5.9%	3.5%
Use of two or more second generation antipsychotics and a bipolar mood stabilizer for 90-days or more	2.9%	6.3%	7.7%	0.0%	2.8%	0.0%	2.6%	0.0%	0.0%
Use of benzodiazepines at a higher than recommended dose for 60 or more days	2.6%	0.0%	2.3%	0.0%	5.1%	10.5%	1.2%	0.0%	2.6%
Use of benzodiazepines for 60 or more days	1.9%	0.0%	0.0%	5.0%	0.0%	0.0%	3.0%	0.0%	6.3%
Use of 2 or more benzodiazepines for 45 or more days	1.9%	0.0%	0.0%	5.0%	0.0%	0.0%	3.0%	0.0%	6.3%
Multiple prescribers of antidepressants for 45 or more days	1.9%	1.4%	2.0%	2.2%	1.7%	1.3%	1.5%	2.2%	3.3%
Failure to refill newly prescribed ADHD medication	1.5%	1.5%	1.4%	2.4%	1.3%	1.3%	1.8%	1.0%	1.2%
Multiple prescribers of the same class of psychotropic medications for 45 or more days	1.3%	0.8%	1.0%	1.7%	1.5%	0.7%	1.2%	1.7%	2.0%

Child and Adolescent Relative Risk due to Behavioral Pharmacy Metric Triggering

The table below displays the behavioral pharmacy metric data, sorted by the relative risk of hospitalization compared to children and adolescents not triggering behavioral pharmacy metric. The top 8 behavioral pharmacy metrics in order of risk of hospitalization are shown. The data shows that any child who triggered any behavioral pharmacy metric has an increased risk (3.1 relative risk) of hospitalizations than those who did not trigger any metrics. Those children with failure to refill a mood stabilizer within 30 days of prescription had the most significant relative risk of hospitalization (10.7 relative risk).

Table 44: Child and Adolescent – Behavioral Pharmacy Metrics and Relative Risk of Hospitalization

Metric	Description	N in Numer-ator	% of Total (in age band)	Days per 100 Patients	RR
	Child - No metrics triggered	**96,062**	**98.9%**	**2.3**	**1**
	1+ QIs metrics triggered	**1,038**	**1.1%**	**7.2**	**3.1**
515	Failure to refill a mood stabilizer medication resulting in less than 80% days with medication coverage (persons with bipolar or depression diagnosis)	12	0.0%	33.3	14.3
290	Use of an antipsychotic at a higher than recommended dose for 45 or more days	46	0.0%	15.2	6.5
283	Multiple prescribers of the same class of psychotropic medications for 45 or more days	102	0.1%	9.8	4.2
214	Failure to refill antipsychotic medication within 30 days of the prescription ending (last 90 days of 2022, any diagnosis)	125	0.1%	9.6	4.1
301	Percentage of members under the age of 18 taking antipsychotics who are diagnosed with ADHD	666	0.7%	8.0	3.4
306	Multiple prescribers of antidepressants for 45 or more days	53	0.1%	7.5	3.2
285	Use of amphetamine medications at a higher than recommended dose for 45 or more days	187	0.2%	2.1	0.9
269	Failure to refill newly prescribed ADHD medication	78	0.1%	1.3	0.6

Child and Adolescent Hospitalization Rates – Behavioral and Non-Behavioral

The table below displays the behavioral pharmacy metrics data, sorted by the relative risk of both behavioral and non-behavioral hospitalization compared to enrollees not triggering any metrics. The top 15 behavioral pharmacy metrics are shown in order of hospitalization risk. Like the table above, the data shows that enrollees who triggered one or more metric have a higher risk (3.1 relative risk) of hospitalizations compared to those who did not trigger any metrics.

Those children and adolescents with failure to refill a mood stabilizer within 30 days of the prescription ending present the highest overall relative risk of hospitalization, with behavioral hospitalization at 179.9 relative risk. Consistency in medication management seems to be a key factor in keeping enrollees out of the hospital. Decreasing hospitalization rates would provide less disruption to continuity of care and result in significant cost savings.

Table 45: Child – BPM QIs and Relative Risk of Behavioral/Non-Behavioral Hospitalization

Metric	Description	N in Numer-ator	Total Hospital Stays / Relative Risk (RR)					
			Total		Behavioral		Non-Behavioral	
			Days per 100 Patients	RR	Days per 100 Patients	RR	Days per 100 Patients	RR
	Child - No QIs Triggered	**96,062**	**2.3**	**1**	**0.1**	**1**	**2.3**	**1**
	1+ QIs Triggered	**1,038**	**7.2**	**3.1**	**3.0**	**32.2**	**4.2**	**1.8**
515	Failure to refill a mood stabilizer medication resulting in less than 80% days with medication coverage (persons with bipolar or depression diagnosis)	12	33.3	14.3	16.7	179.9	16.7	7.2
283	Multiple prescribers of the same class of psychotropic medications for 45 or more days	102	9.8	4.2	3.9	42.3	5.9	2.5
306	Multiple prescribers of antidepressants for 45 or more days	53	7.5	3.2	3.8	40.7	3.8	1.6
301	Percentage of members under the age of 18 taking antipsychotics who are diagnosed with ADHD	666	8.0	3.4	3.5	37.3	4.5	1.9
214	Failure to refill antipsychotic medication within 30 days of the prescription ending (last 90 days of 2022, any diagnosis)	125	9.6	4.1	3.2	34.5	6.4	2.7
290	Use of an antipsychotic at a higher than recommended dose for 45 or more days	46	15.2	6.5	2.2	23.5	13.0	5.6
285	Use of Amphetamine medications at a higher than recommended dose for 45 or more days	187	2.1	0.9	0.5	5.8	1.6	0.7
269	Failure to Refill Newly Prescribed ADHD Medication	78	1.3	0.6	0.0	0.0	0.0	0.0

XI. OPIOID PHARMACY ANALYSIS

The table below shows the top five most frequently triggered opioid pharmacy metrics and their triggering rates for the SWMBH region overall and the eight counties in SWMBH's Relias Population Performance application. Again, Medicaid and Medicare dually enrolled individuals were not included. Trigger rates show the percentages of individuals meeting the prescription criteria for each metric (i.e., individuals who had opioid prescriptions filled or opioids in combination with buprenorphine or benzodiazepines) who were flagged for potentially harmful combinations, strengths, or durations of these prescriptions. The absence of child opioid metric data should be noted. While there are three opioid pharmacy metrics available for children and adolescents, denominators for all three were 0 in 2022.

The table below includes the top five most frequently triggered opioid pharmacy metrics and their triggering rates for the SWMBH region overall and the eight counties. Red indicates there was a significantly higher rate of occurrence within the local population in comparison to the remaining regional population for each opioid pharmacy metric listed. Lower rates on these metrics are better. *Use of opioids and benzodiazepines for 30 or more days* was the most frequently triggered metric across all counties, at 37.1% (460/1,241), followed by *Use of opioid medications for 45 or more days in absence of a diagnosis supporting chronic use* at 28.6% (2,022/7,066).

Table 46: Adult – Opioid Metric Triggering Rate Comparison

Metric Description	Overall	Barry County	Berrien County	Branch County	Calhoun County	Cass County	Kalama-zoo County	St. Joseph County	Van Buren County
Use of opioids and benzodiazepines for 30 or more days	37.1%	40.0%	38.3%	34.4%	36.4%	45.7%	33.0%	34.1%	43.1%
Use of opioid medications for 45 or more days in absence of a diagnosis supporting chronic use	28.6%	32.1%	27.3%	24.9%	**31.7%**	**28.6%**	26.2%	**23.2%**	**34.9%**
Use of buprenorphine with a benzodiazepine that has been prescribed by another physician for 30 or more days	22.4%	25.0%	11.1%	50.0%	0.0%	25.0%	27.3%	33.3%	50.0%
Use of two or more opioid medications for 60 days	4.2%	5.6%	4.5%	3.0%	**2.2%**	**7.0%**	4.2%	2.5%	**7.3%**
Use of opioids at a higher than recommended dose without a diagnosis of cancer	1.1%	2.0%	1.2%	0.0%	1.2%	1.8%	0.9%	0.5%	1.3%

A. Adult Relative Risk of Hospitalization Based Related to Opioid Utilization Patterns

The table below displays the opioid pharmacy metrics data, sorted by the relative risk of medical or behavioral hospitalization for enrollees triggering each indicator compared to enrollees not triggering opioid pharmacy metrics. The top five metrics in order of risk of hospitalization are shown. The data indicate that enrollees who triggered any opioid pharmacy metrics have a higher risk (2.5 relative risk) of hospitalizations than those who did not trigger any metrics.

Use of buprenorphine with a benzodiazepine that has been prescribed by another physician for 30 or more days had the highest relative risk (6 times) of hospitalization. In this case, all hospital days for the 11 individuals in the numerator of the metric were psychiatric. *Use of two or more opioid medications for 60 days* had a much larger numerator, affecting 276 people, and was associated with a 4.5 times relative risk of hospitalization.

Table 47: Adult – Opioid Metrics and Relative Risk of Any Hospitalization

Metric	Description	N in Numer-ator	% of Total (in age band)	Days per 100 Patients	Relative Risk
	Adult - No metrics triggered	**159,247**	**95.5%**	**6.1**	**1.0**
	1+ metrics triggered	**7,473**	**4.5%**	**15.5**	**2.5**
295	Use of buprenorphine with a benzodiazepine that has been prescribed by another physician for 30 or more days.	11	0.0%	36.4	6
278	Use of two or more opioid medications for 60 days.	276	0.2%	27.2	4.5
297	Use of opioids at a higher than recommended dose without a diagnosis of cancer.	57	0.0%	21.1	3.5
231	Use of opioids and benzodiazepines for 30 or more days.	460	0.3%	13.3	2.2
213	Use of opioid medications for 45 or more days in absence of a diagnosis supporting chronic use.	2,022	1.2%	13.3	2.2

B. Adult Medical Hospitalization and ED Rates

The table below displays the opioid pharmacy metrics data, sorted by the relative risk of medical inpatient days and ED visits (compared to enrollees not triggering opioid pharmacy metrics) for enrollees triggering each indicator. In addition to having the highest risk ratio for inpatient hospital days seen in the table above, *Use of buprenorphine with a benzodiazepine that has been prescribed by another physician for 30 or more days* was associated with the highest risk of medical ED use compared to other individuals triggering opioid pharmacy metrics.

Table 48: Adult – Opioid Metrics and Relative Risk Medical Hospitalization and ED

Metric	Description	N in Numer-ator	Medical Events / Risk Ratio			
			Medical Inpatient		Medical ED	
			Days per 100 Patients	RR	Visits per 100 Patients	RR
	Adult - No QIs Triggered	**159,247**	**5.6**	**1.0**	**53.4**	**1.0**
	1+ QIs Triggered	**7,473**	**11.4**	**2.0**	**129.3**	**2.4**
295	Use of buprenorphine with a benzodiazepine that has been prescribed by another physician for 30 or more days.	11	0.0	0.0	181.8	3.4
278	Use of two or more opioid medications for 60 days.	276	26.4	4.7	126.8	2.4
297	Use of opioids at a higher than recommended dose without a diagnosis of cancer.	57	21.1	3.8	124.6	2.3
231	Use of opioids and benzodiazepines for 30 or more days.	460	13.0	2.3	117.6	2.2
213	Use of opioid medications for 45 or more days in absence of a diagnosis supporting chronic use.	2,022	13.0	2.3	106.1	2.0

XI. Recommendations for Population Health Management

This study found that individuals with behavioral health conditions, especially mental illness and substance use disorders, had significantly higher rates of diagnosis for chronic conditions than individuals with no behavioral health conditions. Individuals with mental illness and SUD were at substantially greater risk of having five or more chronic health condition diagnoses compared to individuals without behavioral health needs. ED and inpatient utilization for medical needs for persons with behavioral health conditions was higher than that of persons without behavioral health needs, even compared to those with the same number of medical co-morbidities. Average medical ED and inpatient utilization increased as the severity of mental health disorders increased.

Integrated care teams with Medicaid Health Plan and PIHP/CMH representation currently provide support to individuals with complex co-morbidities receiving PIHP/CMH services who have high ED or inpatient utilization. The SUD population has not been a specific target of these services, largely due to confidentiality restrictions. Increased population health support for the SUD population is needed. This could be accomplished through increased care management at the PIHP, expansion of opioid health homes, or other mechanisms as determined by regional population health and provider network experts.

In the 2024 Michigan Medicaid Health Plan rebid, Medicaid Health Plans are asked to make community health workers or peer support specialists available to individuals with significant behavioral health conditions and complex physical health needs. PIHPs/CMHs and health plans should collaborate to ensure that community health workers and peer support specialists reach people who most need them. Evidence-based interventions such as self-management support and disease management programs should be used as much as possible. PIHPs and CMHs can provide expert guidance and support regarding roll-out of these resources within their populations.

Our study saw that males under the age of 18 were diagnosed with behavioral conditions more frequently than females, and the reverse was true in adults. Compared to the 18-64-year age group, adults over the age of 65 had relatively low behavioral health diagnosis rates. Adult males and adults over the age of 65 may be under-diagnosed. Disparities were also seen in the rates of behavioral health condition diagnosis by race and ethnicity, with White and American Indian/Alaskan Native populations generally having higher rates of diagnosis than other racial and ethnic groups. The Medicaid Health Plan rebid asks plans to ensure access to and reimburse for behavioral health screening services in primary care settings. Universal behavioral health screening may assist with alleviating inequities in rates of diagnosis. Protocols should be developed between PIHPs/CMHs and Medicaid Health Plans to ensure that individuals who are positively screened are offered timely services appropriate to their level of need. A behavioral health anti-stigma campaign is currently being implemented by SWMBH and should continue.

In 2022 in the SWMBH region, the rate of ADHD diagnosis for male children and adolescents was twice the female rate. Of the children and adolescents prescribed antipsychotics during the study period, over 50% had a diagnosis of ADHD. Antipsychotics are not an approved treatment for ADHD and have not been shown to alleviate the core ADHD symptoms of inattention and hyperactivity. Interventions like cognitive behavioral therapy, applied behavior analysis, and parent training can be effective tools for alleviating behavioral concerns and assisting children with developing effective coping strategies. These interventions can be ancillary or first line treatments when psychotropic medications are being considered. Additionally, preventative behavioral health services can provide parent and caretaker training, social-emotional learning, and other supportive measures that may prevent youth from receiving a behavioral health diagnosis or needing behavioral health medications. The Medicaid Health Plan rebid asks plans to cover preventive behavioral health services for all enrollees (up to 12 sessions per year). These preventative services could assist in addressing the mental health crisis in young people and should be an implementation priority among the new Medicaid Health Plan requirements.

Only 20% of the children taking antipsychotics received the recommended metabolic monitoring during the study period of 2022. Appropriate healthcare screening and monitoring for individuals with behavioral health conditions, especially those taking antipsychotic medications, may help prevent or alleviate medical complications later in life. Letter campaigns, prescriber trainings, and healthy behavior incentive programs could assist with increasing healthcare screening of children taking antipsychotics.

Finally, the study confirmed the complexities of needs within the Medicaid-Medicare dual eligible population. Dual eligibles were more likely to be diagnosed with behavioral health and chronic medical conditions than individuals enrolled in Medicaid only. More dual eligibles had five or more chronic medical conditions than had only one. It is important that behavioral health providers participate in care coordination efforts for their served population who are enrolled in Medicare.

GLOSSARY

Behavioral Health Treatment Episode Data Set (BH-TEDS)	A data set established by the Substance Abuse and Mental Health Services Administration (SAMHSA) comprised of information gathered at a person's first PIHP/CMH-funded date of service ('admission'), last date of service ('discharge'), or during a person's service to monitor status ('update'). Among other items, these data include demographics, socioeconomic factors, diagnoses, substance use information (where applicable), and designations for mental illness or intellectual/developmental disability populations.
Living Arrangement Type	Categories of living arrangements used to simplify reporting of BH-TEDS living arrangement data. The four Living Arrangement Types and their corresponding BH-TEDS living arrangement values are as follows: Dependent: Crisis Residence (MH Only) Dependent living (SU Only) Foster Home/Foster Care (MH Only) Institutional Setting (MH Only) Jail/Correctional/Other Institutions under the justice system (MH Only) Living in a private residence that is owned and/or controlled by the PIHP, CMHSP, or the contracted provider, alone or with spouse or non-relative (MH Only) Residential Care/AFC (MH Only) Independent: Independent living (SU Only) Living in a private residence that is not owned or controlled by the PHIP, CMHSP, or the contracted provider, alone or with spouse or non-relative(s). (MH Only) Living in a private residence with natural or adoptive family member(s). "Family member" means parent, stepparent, sibling, child, or grandparent of the primary consumer or an individual upon whom the primary consumer is dependent for at least 50% or his/her financial support. (MH Only) Unhoused: Homeless Unknown: Unknown for this single service event
Relias Population Performance	Relias Population Performance is a population health analytics platform that was used to pull healthcare monitoring metrics and data related to prescribing patterns.
Risk Ratio	The ratio of the risk of disease or an event among a subset of defined individuals when compared to another population. For example, a RR or 1.0 means there is no difference whereas a RR of 2.0 means that that group is twice as likely as the comparison group to experience the event.

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for Prepaid Inpatient Health Plans

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3. Assessment of Prepaid Inpatient Health Plan Performance

HSAG used findings across mandatory EQR activities conducted during the SFY 2023 review period to evaluate the performance of the PIHPs on providing quality, timely, and accessible healthcare services to Behavioral Health Managed Care program members. Quality, as it pertains to EQR, means the degree to which the PIHPs increased the likelihood of members' desired health outcomes through structural and operational characteristics; the provision of services that were consistent with current professional, evidenced-based knowledge; and interventions for performance improvement. Timeliness refers to the elements defined under §438.68 (adherence to MDHHS' network adequacy standards) and §438.206 (adherence to MDHHS' standards for timely access to care and services). Access relates to members' timely use of services to achieve optimal health outcomes, as evidenced by how effective the PIHPs were at successfully demonstrating and reporting on outcome information for the availability and timeliness of services.

HSAG follows a step-by-step process to aggregate and analyze data conducted from all EQR activities and draw conclusions about the quality, timeliness, and accessibility of care furnished by each PIHP.

- **Step 1**: HSAG analyzes the quantitative results obtained from each EQR activity for each PIHP to identify strengths and weaknesses that pertain to the domains of quality, timeliness, and access to services furnished by the PIHP for the EQR activity.
- **Step 2**: From the information collected, HSAG identifies common themes and the salient patterns that emerge across EQR activities for each domain, and HSAG draws conclusions about overall the quality, timeliness, and accessibility of care and services furnished by the PIHP.
- **Step 3**: From the information collected, HSAG identifies common themes and the salient patterns that emerge across all EQR activities as they relate to strengths and weaknesses in one or more of the domains of quality, timeliness, and accessibility of care and services furnished by the PIHP.

Objectives of External Quality Review Activities

This section of the report provides the objectives and a brief overview of each EQR activity conducted in SFY 2023 to provide context for the resulting findings of each EQR activity. For more details about each EQR activity's objectives and the comprehensive methodology, including the technical methods for data collection and analysis, a description of the data obtained and the related time period, and the process for drawing conclusions from the data, refer to Appendix A.

Validation of Performance Improvement Projects

For the SFY 2023 PIP activity, the PIHPs continued PIP topics that focused on disparities within their populations, as applicable, and reported quality improvement strategies for each performance indicator. HSAG conducted validation on the PIP Design stage (Steps 1 through 6) and Implementation stage (Steps 7 and 8) of the selected PIP topic for each PIHP in accordance with CMS' EQR protocol for the validation of PIPs (CMS EQR Protocol 1). Table 3-1 outlines the selected PIP topics and performance indicator(s) as defined by each PIHP.

Table 3-1—PIP Topic and Performance Indicator(s)

PIHP	PIP Topic	Performance Indicator(s)
NCN	*Increase the Percentage of Individuals Who Are Diagnosed with a Co-Occurring Disorder and Are Receiving Integrated Co-Occurring* [COD] *Treatment from a Network Provider*	The percentage of individuals ages 12 years and older who are diagnosed with a co-occurring disorder that are receiving co-occurring treatment from a member CMHSP.
NMRE	*The Percentage of Individuals Who are Eligible for OHH* [Opioid Health Home] *Services, Enrolled in the Service, and are Retained in the Service*	Client enrollment.
LRE	*FUH* [Follow-up After Hospitalization for Mental Illness] *Metric: Decrease in Racial Disparity Between Whites and African Americans/Black*	1. FUH Metric for Adults and Children Combined Who Identify as African American/Black. 2. FUH Metric for Adults and Children Combined Who Identify as White.
SWMBH	*Reducing Racial Disparities in Follow-Up After Emergency Department* [ED] *Visit for Alcohol and Other Drug Abuse or Dependence*	1. The percentage of African-American/Black beneficiaries with a 30-day follow-up after an ED visit for alcohol or other drug abuse or dependence. 2. The percentage of White beneficiaries with a 30-day follow-up after an ED visit for alcohol or other drug abuse or dependence.
MSHN	*Improving the Rate of New Persons Who Have Received a Medically Necessary Ongoing Covered Service Within 14 Days of Completing a Biopsychosocial Assessment and Reducing or Eliminating the Racial Disparities Between the Black/African American Population and the White Population*	1. The percentage of new persons who are Black/African American and have received a medically necessary ongoing covered service within 14 days of completing a biopsychosocial assessment. 2. The percentage of new persons who are White and have received a medically necessary ongoing covered service within 14 days of completing a biopsychosocial assessment.

PIHP	PIP Topic	Performance Indicator(s)
CMHPSM	*Reduction of Disparity Rate Between Persons Served who are African American/Black and White and miss their appointment for an initial Biopsychosocial (BPS) Assessment and Assist Individuals in scheduling and keeping their initial assessment for services*	1. Initial assessment no-show rate for African-American consumers. 2. Initial assessment no-show rate for White consumers.
DWIHN	*Reducing the Racial Disparity of African Americans Seen for Follow-Up Care within 7-Days of Discharge from a Psychiatric Inpatient Unit*	1. Follow-Up within 7 Days After Hospitalization for Mental Illness for the Black or African-American Population. 2. Follow-Up within 7 Days After Hospitalization for Mental Illness for the White Population.
OCHN	*Improving Antidepressant Medication Management—Acute Phase*	1. The rate for White adult members who maintained antidepressant medication management for 84 days. 2. The rate for African-American adult members who maintained antidepressant medication management for 84 days.
MCCMH	*Increase Percentage of Adults Receiving and a Reduction in Racial Disparity Between Caucasian and African Americans Served Post Inpatient Psychiatric Hospitalizations*	1. The percentage of Caucasian adults discharged from a psychiatric inpatient unit who are seen for follow-up care within seven calendar days. 2. The percentage of African-American adults discharged from a psychiatric inpatient unit who are seen for follow-up care within seven calendar days.
Region 10	*Reducing Racial/Ethnic Disparities in Access to SUD Services*	1. The percentage of new persons (Black/African American) receiving a face-to-face service for treatment or supports within 14 calendar days of a non-emergency request for service for persons with substance use disorders. 2. The percentage of new persons (White) receiving a face-to-face service for treatment or supports within 14 calendar days of a non-emergency request for service for persons with substance use disorders.

Performance Measure Validation

For the SFY 2023 PMV, HSAG validated the PIHPs' data collection and reporting processes used to calculate rates for a set of performance indicators identified through the MDHHS Codebook that were developed and selected by MDHHS for validation. The data collection and reporting processes evaluated included the PIHP's eligibility and enrollment data system, medical services data system (claims and encounters), Behavioral Health Treatment Episode Data Set (BH-TEDS) data production, and the PIHP's oversight of affiliated CMHSPs, as applicable. The PMV was conducted in accordance with CMS' EQR protocol for the validation of performance measures (CMS EQR Protocol 2) and included a PIHP information systems capabilities assessment (ISCA) and a review of data reported for the first quarter of SFY 2023.

Based on all validation methods used to collect information during the Michigan SFY 2023 PMV, HSAG determined results for each performance indicator and assigned each an indicator designation of *Reportable*, *Do Not Report*, or *Not Applicable*. The performance indicators developed and selected by MDHHS for the PMV are identified in Table 3-2.

Table 3-2—Performance Indicators

Indicator Number and Description	
#1	*The percentage of persons during the quarter receiving a pre-admission screening for psychiatric inpatient care for whom the disposition was completed within three hours.*
#2	*The percentage of new persons during the quarter receiving a completed biopsychosocial assessment within 14 calendar days of a non-emergency request for service.*
#2e	*The percentage of new persons during the quarter receiving a face-to-face service for treatment or supports within 14 calendar days of non-emergency request for service for persons with SUDs.*
#3	*The percentage of new persons during the quarter starting any medically necessary ongoing covered service within 14 days of completing a non-emergent biopsychosocial assessment.*
#4a	*The percentage of discharges from a psychiatric inpatient unit during the quarter that were seen for follow-up care within 7 days.*
#4b	*The percentage of discharges from a substance abuse detox unit during the quarter that were seen for follow-up care within 7 days.*
#5	*The percent of Medicaid recipients having received PIHP managed services.*
#6	*The percent of Habilitation Supports Waiver (HSW) enrollees during the quarter with encounters in data warehouse who are receiving at least one HSW service per month that is not supports coordination.*
#8	*The percent of (a) adults with mental illness, the percentage of (b) adults with intellectual or developmental disabilities, and the percentage of (c) adults dually diagnosed with mental illness/intellectual or developmental disability served by the CMHSPs and PIHPs who are employed competitively.*
#9	*The percent of (a) adults with mental illness, the percentage of (b) adults with intellectual or developmental disabilities, and the percentage of (c) adults dually diagnosed with mental illness/intellectual or developmental disability served by the CMHSPs and PIHPs who earned minimum wage or more from any employment activities.*

Indicator Number and Description	
#10	*The percentage of readmissions of MI and I/DD children and adults during the quarter to an inpatient psychiatric unit within 30 days of discharge.*
#13	*The percent of adults with intellectual or developmental disabilities served, who live in a private residence alone, with spouse, or non-relative(s).*
#14	*The percent of adults with serious mental illness served, who live in a private residence alone, with spouse, or non-relative(s).*

Compliance Review

The SFY 2023 compliance review is the third year of the three-year cycle of compliance reviews that commenced in SFY 2021. The review focuses on standards identified in 42 CFR §438.358(b)(1)(iii) and applicable state-specific contract requirements. The compliance reviews for Michigan PIHPs consist of 13 program areas referred to as standards. MDHHS requested that HSAG conduct a review of the first six standards in Year One (SFY 2021) and a review of the remaining seven standards in Year Two (SFY 2022). This SFY 2023 (Year Three) review consisted of a review of the standards and elements that required a CAP during the SFY 2021 (Year One) and SFY 2022 (Year Two) compliance review activities. Table 3-3 outlines the standards reviewed over the three-year compliance review cycle. The compliance review activity was conducted in accordance with CMS' EQR protocol for the review of compliance with Medicaid and CHIP managed care regulations (CMS EQR Protocol 3).

Table 3-3—Three-Year Cycle of Compliance Reviews

Compliance Review Standards	Associated Federal Citations[1, 2]		Year One (SFY 2021)	Year Two (SFY 2022)	Year Three (SFY 2023)
	Medicaid	CHIP			
Standard I—Member Rights and Member Information	§438.10 §438.100	§457.1207 §457.1220	✓		Review of PIHPs' implementation of Year One and Year Two CAPs
Standard II—Emergency and Poststabilization Services	§438.114	§457.1228	✓		
Standard III—Availability of Services	§438.206	§457.1230(a)	✓		
Standard IV—Assurances of Adequate Capacity and Services	§438.207	§457.1230(b)	✓		
Standard V—Coordination and Continuity of Care	§438.208	§457.1230(c)	✓		
Standard VI—Coverage and Authorization of Services	§438.210	§457.1230(d)	✓		
Standard VII—Provider Selection	§438.214	§457.1233(a)		✓	
Standard VIII—Confidentiality	§438.224	§457.1233(e)		✓	
Standard IX—Grievance and Appeal Systems	§438.228	§457.1260		✓	
Standard X—Subcontractual Relationships and Delegation	§438.230	§457.1233(b)		✓	

Compliance Review Standards	Associated Federal Citations[1, 2]		Year One (SFY 2021)	Year Two (SFY 2022)	Year Three (SFY 2023)
	Medicaid	CHIP			
Standard XI—Practice Guidelines	§438.236	§457.1233(c)		✓	
Standard XII—Health Information Systems[3]	§438.242	§457.1233(d)		✓	
Standard XIII—Quality Assessment and Performance Improvement Program	§438.330	§457.1240(b)		✓	

[1] The Disenrollment: Requirements and Limitations standard under §438.56 does not apply to the Michigan PIHPs as disenrollment requests are handled through the Michigan MHPs. Therefore, these requirements are not reviewed as part of the PIHPs' three-year compliance review cycle.

[2] The compliance review standards comprise a review of all requirements, known as elements, under the associated federal citation, including all requirements that are cross referenced within each federal standard, as applicable (e.g., Standard IX—Grievance and Appeal Systems standard includes a review of §438.228 and all requirements under 42 CFR Subpart F).

[3] The Health Information Systems standard includes an assessment of each PIHP's information systems (IS) capabilities.

Encounter Data Validation

In SFY 2023, HSAG conducted and completed EDV activities for all 10 PIHPs. The EDV activities included:

- IS review—assessment of MDHHS' and the PIHPs' IS and processes. The goal of this activity was to examine the extent to which MDHHS' and the PIHPs' IS infrastructures are likely to collect and process complete and accurate encounter data. This activity corresponds to Activity 1: Review State Requirements and Activity 2: Review the MCP's [Managed Care Plan's] Capability in CMS EQR Protocol 5.
- Administrative profile—analysis of MDHHS' electronic encounter data completeness, accuracy, and timeliness. The goal of this activity was to evaluate the extent to which the encounter data in MDHHS' data warehouse are complete, accurate, and submitted by the PIHPs in a timely manner for encounters with dates of service from October 1, 2021, through September 30, 2022. This activity corresponds to Activity 3: Analyze Electronic Encounter Data in CMS EQR Protocol 5.

Region 4—Southwest Michigan Behavioral Health

Validation of Performance Improvement Projects

Performance Results

HSAG's validation evaluated the technical methods of **Southwest Michigan Behavioral Health**'s PIP (i.e., the PIP Design and Implementation stages). Based on its technical review, HSAG determined the overall methodological validity of the PIP and assigned an overall validation rating (i.e., *Met*, *Partially Met*, *Not Met*). Table 3-25 displays the overall validation rating and the baseline results for the performance indicators. The PIP had not progressed to reporting remeasurement outcomes for this validation cycle. The first remeasurement will be assessed and validated in SFY 2024.

Table 3-25—Overall Validation Rating for SWMBH

PIP Topic	Validation Rating*	Performance Indicators	Performance Indicator Results			
			Baseline	R1	R2	Disparity
Reducing Racial Disparities in Follow-Up After Emergency Department Visit for Alcohol and Other Drug Abuse or Dependence	*Met*	The percentage of African American/Black beneficiaries with a 30-day follow up after an ED visit for alcohol or other drug abuse or dependence.	14.53%	—	—	Yes
		The percentage of White beneficiaries with a 30-day follow up after an ED visit for alcohol or other drug abuse or dependence.	23.39%	—	—	

R1 = Remeasurement 1

R2 = Remeasurement 2

— The PIP had not progressed to including remeasurement (R1, R2) results during SFY 2023.

* The PIP activities for SFY 2023 were initiated prior to release of the 2023 CMS EQR Protocols; therefore, HSAG adhered to the guidance published in the 2019 CMS EQR Protocols. With the release of the new protocols, HSAG updated its PIP worksheets for SFY 2024 to include the two validation ratings (i.e., overall confidence that the PIP adhered to an acceptable methodology for all phases of design and data collection, and the PIHP conducted accurate data analysis and interpretation of PIP results; overall confidence that PIP produced significant evidence of improvement).

The goals for **Southwest Michigan Behavioral Health**'s PIP are that there will no longer be a statistically significant rate difference between the two subgroups, and the disparate subgroup (African American/Black) will demonstrate a significant increase over the baseline rate without a decline in performance to the comparison subgroup (White) or achieve clinically or programmatically significant improvement as a result of implemented intervention(s). Table 3-26 displays the barriers identified through quality improvement and causal/barrier analysis processes, and the interventions initiated by the PIHP to support achievement of the PIP goals and address the barriers.

Table 3-26—Barriers and Interventions for SWMBH

Barriers	Interventions
Inconsistent coordination between ED and PIHP/providers.	Provided feedback to Project ASSERT (Alcohol & Substance Abuse Services, Education, and Referral to Treatment) programs and ED staff; collaborated to identify ways to increase the percentage of Blacks/African Americans who received follow-up care. Expanded Project ASSERT peer intervention to Van Buren County Community Mental Health.
Data sharing gaps between Project ASSERT programs and PIHP/MDHHS.	Project ASSERT programs reported encounters for ED follow-up services using H0002 code, beginning with Integrated Services of Kalamazoo County.

Strengths, Weaknesses, and Recommendations

Through the EQR, HSAG assessed the findings for the PIP validation against the domains of quality, timeliness, and access. Substantial strengths and weaknesses within the findings of the PIP validation have been linked to and impacted one or more of these domains. If a domain is not associated with an identified strength or weakness, the findings did not determine significant impact to the quality, timeliness, and/or accessibility of care.

Strengths

Strength #1: Southwest Michigan Behavioral Health designed a methodologically sound PIP that met State and federal requirements. A methodologically sound design created the foundation for **Southwest Michigan Behavioral Health** to progress to subsequent PIP stages—collecting data and carrying out interventions to positively impact performance indicator results and outcomes for the project. [**Quality**]

Strength #2: Southwest Michigan Behavioral Health used appropriate quality improvement tools to conduct a causal/barrier analysis and prioritized the identified barriers to improve member outcomes. [**Quality, Timeliness,** and **Access**]

Weaknesses and Recommendations

Weakness #1: There were no identified weaknesses.

Recommendation: Although there were no identified weaknesses, HSAG recommends that **Southwest Michigan Behavioral Health** revisit its causal/barrier analysis annually and continue to evaluate interventions to determine the effectiveness of each effort. To reduce the existing disparity and increase the prevalence of African-American/Black members attending follow-up appointments after an ED visit for alcohol or other drug abuse or dependence, **Southwest Michigan Behavioral Health** should identify the barriers of care that are specific to the African-American/Black population and implement interventions that are tailored to the needs of the African-American/Black community to mitigate those identified barriers.

Performance Measure Validation

HSAG evaluated **Southwest Michigan Behavioral Health**'s data systems for the processing of each type of data used for reporting MDHHS performance indicators and identified no concerns with the PIHP's eligibility and enrollment data system, medical services data system (claims and encounters), BH-TEDS data production, or oversight of affiliated CMHSPs.

Southwest Michigan Behavioral Health received an indicator designation of *Reportable* for all indicators except indicator #2e, which received an indicator designation of *Not Applicable*. The PIHPs were not required to report a rate to MDHHS for indicator #2e, and SFY 2023 data were presented to allow identification of opportunities to improve rate accuracy for future reporting only. A *Reportable* designation signifies that **Southwest Michigan Behavioral Health** had calculated all indicators in compliance with the MDHHS Codebook specifications and that rates could be reported.

Performance Results

Table 3-27 presents **Southwest Michigan Behavioral Health**'s performance measure results and the corresponding MPS when an MPS was established by MDHHS. Rates shaded in yellow indicate that **Southwest Michigan Behavioral Health** met or exceeded the MPS. Comparison percentages shaded in green indicate a rate increase of 5 percentage points or more from SFY 2022 to SFY 2023, and percentages shaded in red indicate a rate decrease of 5 percentage points or more from SFY 2022 to SFY 2023.

Table 3-27—Performance Measure Results for SWMBH

Performance Indicator	SFY 2022 Rate	SFY 2023 Rate	SFY 2022–SFY 2023 Comparison	Minimum Performance Standard
#1: The percentage of persons during the quarter receiving a pre-admission screening for psychiatric inpatient care for whom the disposition was completed within three hours.				
Children—Indicator #1a	99.36%	96.39%	-2.97%	95.00%
Adults—Indicator #1b	99.32%	97.85%	-1.47%	95.00%
#2: The percentage of new persons during the quarter receiving a completed biopsychosocial assessment within 14 calendar days of a non-emergency request for service.				
MI–Children—Indicator #2a	71.97%	50.23%	-21.74%	NA
MI–Adults—Indicator #2b	70.75%	67.47%	-3.28%	NA
I/DD–Children—Indicator #2c	83.50%	52.67%	-30.83%	NA
I/DD–Adults—Indicator #2d	82.35%	73.68%	-8.67%	NA
Total—Indicator #2	72.12%	61.15%	-10.97%	NA
#2e: The percentage of new persons during the quarter receiving a face-to-face service for treatment or supports within 14 calendar days of non-emergency request for service for persons with SUDs. [1]				
Consumers	64.26%	62.34%	-1.92%	NA

Performance Indicator	SFY 2022 Rate	SFY 2023 Rate	SFY 2022–SFY 2023 Comparison	Minimum Performance Standard
#3: The percentage of new persons during the quarter starting any medically necessary ongoing covered service within 14 days of completing a non-emergent biopsychosocial assessment.				
MI–Children—Indicator #3a	64.99%	56.24%	-8.75%	NA
MI–Adults—Indicator #3b	67.04%	56.68%	-10.36%	NA
I/DD–Children—Indicator #3c	52.94%	57.58%	+4.64%	NA
I/DD–Adults—Indicator #3d	80.00%	80.00%	+/-0.00%	NA
Total—Indicator #3	65.64%	57.12%	-8.52%	NA
#4a: The percentage of discharges from a psychiatric inpatient unit during the quarter that were seen for follow-up care within 7 days.				
Children	98.11%	94.74%	-3.37%	95.00%
Adults	96.21%	94.80%	-1.41%	95.00%
#4b: The percentage of discharges from a substance abuse detox unit during the quarter that were seen for follow-up care within 7 days.				
Consumers	97.93%	98.92%	+0.99%	95.00%
#5: The percent of Medicaid recipients having received PIHP managed services.				
The percentage of Medicaid recipients having received PIHP managed services.	5.90%	6.37%	+0.47%	—
#6: The percent of HSW enrollees during the reporting period with encounters in data warehouse who are receiving at least one HSW service per month that is not supports coordination.				
The percentage of HSW enrollees during the reporting period with encounters in data warehouse who are receiving at least one HSW service per month that is not supports coordination.	88.13%	89.41%	+1.28%	—
#8: The percent of (a) adults with mental illness, the percentage of (b) adults with intellectual or developmental disabilities, and the percentage of (c) adults dually diagnosed with mental illness/intellectual or developmental disability served by the CMHSPs and PIHPs who are employed competitively.[2]				
MI–Adults—Indicator #8a	19.14%	23.74%	+4.60%	—
I/DD–Adults—Indicator #8b	8.46%	8.78%	+0.32%	—
MI and I/DD–Adults—Indicator #8c	8.45%	10.00%	+1.55%	—
#9: The percent of (a) adults with mental illness, the percentage of (b) adults with intellectual or developmental disabilities, and the percentage of (c) adults dually diagnosed with mental illness/intellectual or developmental disability served by the CMHSPs and PIHPs who earned minimum wage or more from any employment activities.[3]				
MI–Adults—Indicator #9a	99.74%	99.93%	+0.19%	—
I/DD–Adults—Indicator #9b	92.70%	93.41%	+0.71%	—

Performance Indicator	SFY 2022 Rate	SFY 2023 Rate	SFY 2022–SFY 2023 Comparison	Minimum Performance Standard
MI and I/DD–Adults—Indicator #9c	88.75%	92.45%	+3.70%	—
#10: The percentage of readmissions of MI and I/DD children and adults during the quarter to an inpatient psychiatric unit within 30 days of discharge.*				
MI and I/DD–Children—Indicator #10a	7.69%	2.94%	-4.75%	15.00%
MI and I/DD–Adults—Indicator #10b	12.27%	9.57%	-2.70%	15.00%
#13: The percent of adults with intellectual or developmental disabilities served, who live in a private residence alone, with spouse, or non-relative(s).				
I/DD–Adults	20.06%	17.81%	-2.25%	—
MI and I/DD–Adults	21.99%	21.45%	-0.54%	—
#14: The percent of adults with serious mental illness served, who live in a private residence alone, with spouse, or non-relative(s).				
MI–Adults	51.68%	48.25%	-3.43%	—

Indicates that the reported rate met or exceeded the MPS.
Indicates a rate increase of 5 percentage points or more from SFY 2022 to SFY 2023.
Indicates a rate decrease of 5 percentage points or more from SFY 2022 to SFY 2023.

— Indicates that an MPS was not established for this measure indicator.
NA indicates that an MPS was not currently established.
* A lower rate indicates better performance.
[1] Please note that the PIHP data for indicator #2e are displayed for information only, as the PIHPs were not required to report a rate to MDHHS. Data are presented to allow identification of opportunities to improve rate accuracy for future reporting.
[2] Competitive employment includes full time and part time. This indicator includes all adults by population no matter their employment status.
[3] Employed consumers include full time and part time, enclave/mobile crew, or sheltered workshop. This indicator only includes the adults who meet the "employed" status.

Strengths, Weaknesses, and Recommendations

Through the EQR, HSAG assessed the findings for the PMV against the domains of quality, timeliness, and access. Substantial strengths and weaknesses within the findings of the PMV have been linked to and impacted one or more of these domains. If a domain is not associated with an identified strength or weakness, the findings did not determine significant impact to the quality, timeliness, and/or accessibility of care.

Strengths

Strength #1: Southwest Michigan Behavioral Health continued to demonstrate strength in its collaboration and process improvements across all CMHSPs. Through committee meetings, process improvement trainings, and Power BI dashboard checks and balances, **Southwest Michigan Behavioral Health** ensured standardization of CMHSP data entry that supports performance indicator reporting while providing **Southwest Michigan Behavioral Health** with the ability to readily monitor CMHSP performance. [**Quality**, **Timeliness**, and **Access**]

Strength #2: Southwest Michigan Behavioral Health continued to see an improvement in data quality as all delegated CMHSPs had switched to the same PCE-based EHR system, which includes extensive data controls and validation steps. The implementation of the PCE migration for Integrated Services of Kalamazoo County in 2022 is resulting in overall data quality improvement. [**Quality**]

Strength #3: Southwest Michigan Behavioral Health's reported rate for indicator #4b increased from SFY 2022 to SFY 2023 and exceeded the established MPS for both SFY 2022 and SFY 2023, demonstrating continuous improvement and suggesting that members received timely follow-up care (i.e., within seven days) following discharge from a substance abuse detox unit most of the time. [**Quality**, **Timeliness**, and **Access**]

Strength #4: Southwest Michigan Behavioral Health's reported rates for indicators #10a and #10b decreased from SFY 2022 to SFY 2023, demonstrating improvement, as a lower rate indicates better performance for these performance indicators. In addition, both performance indicators exceeded the established MPS for both SFY 2022 and SFY 2023, indicating that there were less readmissions for MI and I/DD children and adults to an inpatient psychiatric unit within 30 days of discharge. [**Quality**, **Timeliness**, and **Access**]

Weaknesses and Recommendations

Weakness #1: During the PSV session of the virtual review, in an Integrated Services of Kalamazoo County case reviewed for indicator #1, the start time and disposition time were the same. [**Quality**]

Why the weakness exists: Integrated Services of Kalamazoo County researched the issue further, tested the fields used within the performance indicator event screen in the electronic medical record (EMR) for the indicator data, and reported back to HSAG that the fields required manual entry by clinical staff and allowed values that may conflict or be nonchronological because field controls were not configured for the times.

Recommendation: HSAG recommends that **Southwest Michigan Behavioral Health** ensure that Integrated Services of Kalamazoo County provide targeted training to clinical staff to ensure they understand that dates and times entered need to match clinical documentation for the pre-screening. Additionally, HSAG recommends that **Southwest Michigan Behavioral Health** ensure that Integrated Services of Kalamazoo County perform a visual validation of all dates and times entered for indicator #1 prior to submission to **Southwest Michigan Behavioral Health** to ensure the dates and times match clinical documentation for the pre-screening.

Weakness #2: During HSAG's initial review of the member-level file detail provided, it was noted that for indicator #4b, **Southwest Michigan Behavioral Health** reported one exception with the reason "Exclude - Other." **Southwest Michigan Behavioral Health** researched the case and found that the record was for short-term residential rehabilitation services, had been erroneously marked as a sub-acute detoxification discharge, and should not have been included in indicator #4b. [**Quality**]

Why the weakness exists: Southwest Michigan Behavioral Health indicated that categorizing a service that did not qualify for the indicator was primarily a staff error and would be addressed through staff training. **Southwest Michigan Behavioral Health** also planned to explore changes to

performance indicator logic to identify similar services that should not be treated as inpatient detoxification for the indicator.

Recommendation: HSAG recommends that **Southwest Michigan Behavioral Health** carry out its proposed CAP to provide targeted training to SUD providers regarding which services qualify for the indicator #4b denominator, as well as explore report logic as a fail-safe to prevent errors.

Weakness #3: During the PSV session of the virtual review, an SUD case reviewed for indicator #2e was determined to be for an existing client and not a new request for services. [**Quality**]

Why the weakness exists: **Southwest Michigan Behavioral Health** indicated that the client is a twin who shares the same last name, date of birth, and Social Security number with his sibling, and that the two client records were combined into one record in error during 2022. To prevent the reporting of cases that are not true requests for services, **Southwest Michigan Behavioral Health** reported that it will update the report logic to better match a request for services to BH-TEDS admission records.

Recommendation: HSAG recommends that **Southwest Michigan Behavioral Health** carry out its proposed CAP to update the report logic to require a match between requests for services and BH-TEDS admission records. HSAG further recommends that **Southwest Michigan Behavioral Health** notify MDHHS when duplicate Social Security numbers are identified within the enrollment data, as twin members should have unique Social Security numbers assigned to them.

Weakness #4: During the PSV session of the virtual review, in an SUD case reviewed for indicator #4b, the dates reported did not match the service dates in the EMR. [**Quality**]

Why the weakness exists: **Southwest Michigan Behavioral Health** indicated that the SUD provider did not complete the BH-TEDS discharge record for the inpatient stay, so the record was still showing as "in progress"; as a result, the report logic did not pull the correct date because it does not look for records that are still in progress. **Southwest Michigan Behavioral Health** further indicated that it planned to contact the provider to correct the record and to review its report logic to ensure accurate reporting of follow-up care when members transfer from inpatient care to residential treatment.

Recommendation: HSAG recommends that **Southwest Michigan Behavioral Health** carry out its proposed CAP and also consider providing targeted training to SUD providers on how to update BH-TEDS records for members who transfer directly from inpatient care to residential treatment.

Weakness #5: **Southwest Michigan Behavioral Health**'s reported rates for indicator #4a for the child and adult populations decreased from SFY 2022 to SFY 2023 and fell below the established MPS for SFY 2023. [**Quality**, **Timeliness**, and **Access**]

Why the weakness exists: The reported rates for indicator #4a for the child and adult populations decreased from SFY 2022 to SFY 2023 and fell below the established MPS for SFY 2023, suggesting that some children and adults were not seen for timely follow-up care (i.e., within seven days) following discharge from a psychiatric inpatient unit.

Recommendation: HSAG recommends that **Southwest Michigan Behavioral Health** focus its efforts on increasing timely follow-up care for children and adults following discharge from a psychiatric inpatient unit. **Southwest Michigan Behavioral Health** should also consider the root

cause of the decrease in performance and should implement appropriate interventions to improve performance related to the performance indicator, such as providing member and provider education or improving upon coordination of care following discharge.

Compliance Review

Performance Results

Table 3-28 presents an overview of the results of the SFY 2021 and SFY 2022 compliance reviews for **Southwest Michigan Behavioral Health**. HSAG assigned a score of *Met* or *Not Met* to each of the individual elements it reviewed based on a scoring methodology, which is detailed in Section 2. If a requirement was not applicable to **Southwest Michigan Behavioral Health** during the period covered by the review, HSAG used a *Not Applicable* (*NA*) designation. In addition to an aggregated score for each standard, HSAG assigned an overall percentage-of-compliance score across all 13 standards.

Table 3-28—SFY 2021 and SFY 2022 Standard Compliance Scores for SWMBH

Standard	Total Elements	Total Applicable Elements	Number of Elements			Total Compliance Score
			M	*NM*	*NA*	
Standard I—Member Rights and Member Information	19	19	16	3	0	**84%**
Standard II—Emergency and Poststabilization Services[1]	10	10	10	0	0	**100%**
Standard III—Availability of Services	7	7	6	1	0	**86%**
Standard IV—Assurances of Adequate Capacity and Services	4	4	1	3	0	**25%**
Standard V—Coordination and Continuity of Care	14	14	12	2	0	**86%**
Standard VI—Coverage and Authorization of Services	11	11	11	0	0	**100%**
Standard VII—Provider Selection	16	16	12	4	0	**75%**
Standard VIII—Confidentiality[1]	11	11	10	1	0	**91%**
Standard IX—Grievance and Appeal Systems	38	38	33	5	0	**87%**
Standard X—Subcontractual Relationships and Delegation	5	5	5	0	0	**100%**
Standard XI—Practice Guidelines	7	7	5	2	0	**71%**
Standard XII—Health Information Systems[2]	12	11	9	2	1	**82%**
Standard XIII—Quality Assessment and Performance Improvement Program	30	30	20	10	0	**67%**
Total	**184**	**183**	**150**	**33**	**1**	**82%**

M = Met*; *NM = Not Met*; *NA = Not Applicable

Total Elements: The total number of elements within each standard.

Total Applicable Elements: The total number of elements within each standard minus any elements that were *NA*. This represents the denominator.

Total Compliance Score: The overall percentages were obtained by adding the number of elements that received a score of *Met* (1 point), then dividing this total by the total number of applicable elements.

[1] Performance in this standard should be interpreted with caution as there were noted opportunities for the PIHP to enhance written documentation supporting the federal requirements; therefore, full compliance in this program area is not considered a strength within this compliance review. The PIHP's progress in implementing HSAG's recommendations will be further assessed for continued compliance in future reviews.

[2] This standard includes a comprehensive assessment of the PIHP's IS capabilities.

Based on the findings of the SFY 2021 and SFY 2022 compliance review activities, **Southwest Michigan Behavioral Health** was required to develop and submit a CAP for each element assigned a score of *Not Met*. MDHHS and HSAG reviewed the CAP for sufficiency, and **Southwest Michigan Behavioral Health** was responsible for implementing each action plan in a timely manner. Table 3-29 presents an overview of the results of the SFY 2023 compliance review for **Southwest Michigan Behavioral Health**, which consisted of a comprehensive review of the PIHP's implementation of each action plan. HSAG assigned a score of *Complete* or *Not Complete* to each of the individual elements that required a CAP based on a scoring methodology, which is detailed in Appendix A.

Table 3-29—SFY 2023 Summary of CAP Implementation for SWMBH

Standard	Total CAP Elements	# of CAP Elements *Complete*	# of CAP Elements *Not Complete*
Standard I—Member Rights and Member Information	3	3	**0**
Standard III—Availability of Services	1	1	**0**
Standard IV—Assurances of Adequate Capacity and Services	3	3	**0**
Standard V—Coordination and Continuity of Care	2	2	**0**
Standard VII—Provider Selection	4	4	**0**
Standard VIII—Confidentiality	1	1	**0**
Standard IX—Grievance and Appeal Systems	5	5	**0**
Standard XI—Practice Guidelines	2	2	**0**
Standard XII—Health Information Systems[1]	2	1	**1**
Standard XIII—Quality Assessment and Performance Improvement Program	10	10	**0**
Total	**33**	**32**	**1**

Total CAP Elements: The total number of elements within each standard that required a CAP during the SFY 2021 and SFY 2022 compliance review activities.

# of CAP Elements *Complete*: The total number of CAP elements within each standard that were fully remediated at the time of the site review and demonstrated compliance with the requirement under review.

# of CAP Elements *Not Complete*: The total number of CAP elements within each standard that were not fully remediated at the time of the site review and/or did not demonstrate compliance with the requirement under review.

[1]This standard includes a comprehensive assessment of the PIHP's IS capabilities.

Strengths, Weaknesses, and Recommendations

Through the EQR, HSAG assessed the findings for the compliance review activity against the domains of quality, timeliness, and access. Substantial strengths and weaknesses within the findings of the compliance review have been linked to and impacted one or more of these domains. If a domain is not associated with an identified strength or weakness, the findings did not determine significant impact to the quality, timeliness, and/or accessibility of care.

Strengths

Strength #1: Southwest Michigan Behavioral Health demonstrated that it successfully remediated 32 of 33 elements, indicating the necessary policies, procedures, and/or interventions were implemented to assure compliance with the requirements under review. Further, **Southwest Michigan Behavioral Health** remediated all elements for nine of the 10 standards reviewed: Member Rights and Member Information, Availability of Services, Assurances of Adequate Capacity and Services, Coordination and Continuity of Care, Provider Selection, Confidentiality, Grievance and Appeal Systems, Practice Guidelines, and Quality Assessment and Performance Improvement Program. [**Quality**, **Timeliness**, and **Access**]

Weaknesses and Recommendations

Weakness #1: Southwest Michigan Behavioral Health did not remediate the one of the two elements for the Health Information Systems standard. **Southwest Michigan Behavioral Health** has not implemented the Patient Access API in accordance with the requirements of 42 CFR §431.60; therefore, the PIHP's members are not able to access their health data via the API on their internet-enabled devices (e.g., smartphones). Ensuring that members have simple and easy access, without special effort, to their health information can empower patients to make better decisions and inform providers to support better health outcomes. [**Quality** and **Access**]

Why the weakness exists: Southwest Michigan Behavioral Health has not implemented the Patient Access API and claimed that MDHHS has not put forth a requirement related to the Patient Access API; therefore, there was no requirement to audit the PIHP against. However, as a Medicaid MCE, **Southwest Michigan Behavioral Health** is required to comply with all federal Medicaid managed care requirements. This is further supported by MDHHS' contract with **Southwest Michigan Behavioral Health** that requires the PIHP to comply with all federal rules and regulations. The CMS Interoperability and Patient Access Final Rule (CMS-9115-F) published May 1, 2020, finalized its proposal requiring all Medicaid MCEs, including PIHPs, to comply with the regulations of 42 CFR §431.60 beginning January 1, 2021.[3-7]

Recommendation: HSAG continues to recommend that **Southwest Michigan Behavioral Health** thoroughly review the requirements of 42 CFR §431.60 and the CMS Interoperability and Patient

[3-7] While the APIs were required to be implemented by January 1, 2021, due to the COVID-19 PHE, CMS was not enforcing these requirements prior to July 1, 2021. Refer to https://www.medicaid.gov/sites/default/files/2020-08/sho20003_0.pdf for additional details.

Access Final Rule (CMS-9115-F) requiring Medicaid MCEs to implement the Patient Access API. **Southwest Michigan Behavioral Health** must ensure its API meets all federally required provisions and is prominently accessible on its website. Further, HSAG continues to recommend that **Southwest Michigan Behavioral Health** consider proactive ways to solicit developers to register their third-party applications with the PIHP, as the Patient Access API is only functional and useful for members with an available application.

Encounter Data Validation

Performance Results

Representatives from **Southwest Michigan Behavioral Health** completed an MDHHS-approved questionnaire supplied by HSAG. HSAG identified follow-up questions based on **Southwest Michigan Behavioral Health**'s original questionnaire responses, and **Southwest Michigan Behavioral Health** responded to these specific questions. To support its questionnaire responses, **Southwest Michigan Behavioral Health** submitted a wide range of documents with varying formats and levels of detail. The IS review gathered input and self-reported qualitative insights from **Southwest Michigan Behavioral Health** regarding its encounter data processes.

The administrative profile analyzes MDHHS' encounter data for completeness, timeliness, and accuracy by evaluating the data across multiple metrics and using supplemental data (e.g., member enrollment and demographic data, and provider data). Results of these analyses can help indicate the reliability of MDHHS' data to be used in subsequent analyses, such as rate setting and performance measure calculations.

Table 3-30 provides a list of the multifaceted analysis conducted for each of the EDV study components (i.e., IS review and administrative profile). The table contains key findings based on the overall understanding of the encounter data processes, as well as findings that contributed to the overall completeness, timeliness, and accuracy of MDHHS' encounter data.

Table 3-30—EDV Results for SWMBH

Analysis	Key Findings
IS Review	
Encounter Data Sources and Systems	• **Southwest Michigan Behavioral Health** uses a combination of Pyx12 and internal custom SQL logic for claim adjudication and encounter preparation. • **Southwest Michigan Behavioral Health** has processes in place to detect and identify duplicate claims, as well as manage both denied and adjusted claims during processing and submission. • **Southwest Michigan Behavioral Health** collects and processes provider data, as well as handles the enrollment data.

Analysis	Key Findings
Payment Structures	• For inpatient encounters, **Southwest Michigan Behavioral Health** utilizes a fee-for-service method for its claim payment strategies, while for outpatient, it uses capitation, fee-for-service, and case rate methods. • **Southwest Michigan Behavioral Health** collects and verify TPL information through manual lookup in the Community Health Automated Medicaid Processing System (CHAMPS), manual entry into its claims processing system, and presentation/scanning of insurance cards at intake.
Encounter Data Quality Monitoring	• **Southwest Michigan Behavioral Health** does not conduct any reviews of the encounters before submission to MDHHS. However, it performs quality checks on data stored in its data warehouse, including claim volume by submission month, electronic data interchange (EDI) compliance edits, field-level completeness and accuracy, alignment of payment fields in claims with financial reports, and MRRs.
Administrative Profile	
Encounter Data Completeness	• **Southwest Michigan Behavioral Health** displayed consistent encounter volume for both professional and institutional encounters throughout the measurement year. • **Southwest Michigan Behavioral Health** had a low volume of duplicate encounters, with 2.9 percent of professional encounters and 0.1 percent of institutional encounters identified as duplicative.
Encounter Data Timeliness	• **Southwest Michigan Behavioral Health** did not demonstrate timely submission of professional or institutional encounters. For professional encounters, **Southwest Michigan Behavioral Health** submitted 80.1 percent of encounters to MDHHS within 60 days of payment and submitted 92.5 percent of encounters to MDHHS within 180 days of payment. • **Southwest Michigan Behavioral Health** submitted institutional encounters slightly more timely than professional encounters, with 88.7 percent of institutional encounters submitted to MDHHS within 60 days, and 91.8 percent submitted to MDHHS within 180 days.
Field-Level Completeness and Accuracy	• The member ID field had lower than expected validity rates for both professional and institutional encounters in **Southwest Michigan Behavioral Health**'s submitted data. For professional encounters, 94.2 percent of populated member IDs were valid, whereas 93.0 percent of populated institutional member IDs were valid. • In **Southwest Michigan Behavioral Health**'s submitted professional encounters, the billing provider NPI was populated

Analysis	Key Findings
	43.8 percent of the time, and the rendering provider NPI was populated 17.4 percent of the time. • All other data elements in **Southwest Michigan Behavioral Health**'s submitted data had high rates of population and validity.
Encounter Referential Integrity	• Of all identified member IDs in **Southwest Michigan Behavioral Health**'s submitted data, 97.3 percent were identified in the enrollment data. • Of all identified provider NPIs in **Southwest Michigan Behavioral Health**'s submitted data, 99.4 percent were identified in the provider data.
Encounter Data Logic	• No major concerns were noted for **Southwest Michigan Behavioral Health**.

Strengths, Weaknesses, and Recommendations

Through the EQR, HSAG assessed the findings for the EDV activity against the domains of quality, timeliness, and access. Substantial strengths and weaknesses within the findings of the EDV have been linked to and impacted one or more of these domains. If a domain is not associated with an identified strength or weakness, the findings did not determine significant impact to the quality, timeliness, and/or accessibility of care.

Strengths

Strength #1: Southwest Michigan Behavioral Health demonstrated its capability to collect, process, and transmit encounter data to MDHHS. The PIHP has also established data review and correction processes that efficiently address quality concerns identified by MDHHS. [**Quality**]

Strength #2: Southwest Michigan Behavioral Health has a robust system for monitoring encounter data submissions designed to oversee the accuracy, completeness, and timeliness of encounter data, which includes encounter data submissions from its own data warehouse and directly from its subcontractors. [**Quality**]

Strength #3: While MRR can be labor- and resource-intensive process for conducting data quality checks, **Southwest Michigan Behavioral Health** indicated its usage as a method for assessing its subcontractors' data. The use of this method enhances the reliability, accuracy, and contextual understanding of its subcontractors' encounter data. This reflects **Southwest Michigan Behavioral Health**'s commitment to delivering high-quality healthcare data. [**Quality**]

Strength #4: Across all encounters, most key data elements for **Southwest Michigan Behavioral Health** were populated at high rates, and most data elements were over 99 percent valid. [**Quality**]

Weaknesses and Recommendations

Weakness #1: Southwest Michigan Behavioral Health did not submit professional or institutional encounters timely, where within 120 days of payment, 87.2 percent of professional encounters were submitted, and 90.6 percent of institutional encounters were submitted. **Southwest Michigan Behavioral Health** reached over a 99 percent professional encounter submission rate within 330 days and after 360 days for institutional encounters. [**Quality** and **Timeliness**]

Why the weakness exists: The timely submission of encounters is crucial to guarantee that conducted analyses include comprehensive data. Failure to submit encounters in a timely manner may lead to incomplete analyses and inaccurate results.

Recommendation: Southwest Michigan Behavioral Health should monitor its encounter data submission to MDHHS to ensure encounters are submitted after payment.

Weakness #2: The member ID field had lower than expected validity rates in both professional and institutional data, with validity rates of 94.2 percent and 93 percent, respectively. Additionally, 97.3 percent of members with a medical encounter were identified in the enrollment file. Combined, these findings suggest that **Southwest Michigan Behavioral Health**'s enrollment data may not be complete. [**Quality**]

Why the weakness exists: Linking datasets to each other to pull in additional information (i.e., enrollment start date or enrollment end date) may be important in subsequent analyses. Additionally, members identified in the encounter file should be enrolled on the date the service occurred.

Recommendation: Southwest Michigan Behavioral Health should collaborate with MDHHS to ensure both entities have an accurate and complete database of enrolled members.

Weakness #3: Although not required to be populated, 43.8 percent and 17.4 percent of professional encounters contained a billing provider NPI and a rendering provider NPI, respectively. [**Quality**]

Why the weakness exists: Billing and rendering provider information is important for proper provider identification.

Recommendation: Southwest Michigan Behavioral Health should determine the completeness of key provider data elements by implementing quality checks to ensure these fields are populated.

Overall Conclusions for Quality, Timeliness, and Access to Healthcare Services

HSAG performed a comprehensive assessment of **Southwest Michigan Behavioral Health**'s aggregated performance and its overall strengths and weaknesses related to the provision of healthcare services to identify common themes within **Southwest Michigan Behavioral Health** that impacted, or will have the likelihood to impact, member health outcomes. HSAG also considered how **Southwest Michigan Behavioral Health**'s overall performance contributed to the Michigan Behavioral Health Managed Care program's progress in achieving the CQS goals and objectives. Table 3-31 displays each applicable performance area and the overall performance impact as it relates to the quality, timeliness, and accessibility of care and services provided to **Southwest Michigan Behavioral Health**'s Medicaid members.

Table 3-31—Overall Performance Impact Related to Quality, Timeliness, and Access

Performance Area	Overall Performance Impact
Addressing Health Inequity	**Quality**, **Timeliness**, and **Access**—**Southwest Michigan Behavioral Health** continued its PIP topic required by MDHHS to focus on disparities within the PIHP's population and address health inequity. **Southwest Michigan Behavioral Health** identified a race/ethnicity disparity that was also statistically significant between African-American/Black members compared to its White population who received a follow-up visit for alcohol or other drug abuse or dependence within 30 days from an ED visit. The goals for **Southwest Michigan Behavioral Health**'s PIP are that there will no longer be a statistically significant rate difference between the two subgroups, and the disparate subgroup (African-American/Black members) will demonstrate a significant increase over the baseline rate without a decline in performance to the comparison subgroup (White members). **Southwest Michigan Behavioral Health** reported inconsistent coordination between the ED and the PIHP/providers as a barrier to care. In an effort to achieve the PIP goal and to address this barrier, **Southwest Michigan Behavioral Health** provided feedback to Project ASSERT programs and ED staff, collaborated to identify ways to increase the percentage of African-American/Black members who receive follow-up care, and had a planned expansion of Project ASSERT peer intervention to another county within its service region. According to NCQA, timely follow-up care for individuals with alcohol or other drug abuse or dependence who were seen in the ED is associated with a reduction in substance use, future ED use, hospital admissions, and bed days. Successful implementation of **Southwest Michigan Behavioral Health**'s PIP should therefore support improved outcomes for its African-American/Black population who seek treatment at an ED for alcohol or other drug abuse or dependence. **Southwest Michigan Behavioral Health** should conduct a study to determine whether any barriers to obtaining timely appointments are unique to African-American/Black members. If significant differences in barriers are noted between the African-American/Black and White populations, **Southwest Michigan Behavioral Health** should target interventions specifically to the African-American/Black population to address those barriers.
Timely Access to Care and Services	**Quality**, **Timeliness**, and **Access**—The PMV activity identified strengths of **Southwest Michigan Behavioral Health**'s managed care program, as some performance measure indicators met MDHHS' MPS. Notably, during the reporting period: • Most members received timely pre-admission screenings for inpatient psychiatric care (indicator #1). • Most members received timely follow-up care after discharge from a substance abuse detox unit (indicator #4b).

Performance Area	Overall Performance Impact
	• Most members were not readmitted to an inpatient psychiatric unit within 30 days of discharge (indicator #10). Additionally, MDHHS' Access Standards policy outlines admission priority standards for each population along with the current interim service requirements. Members who are pregnant or injecting drug users have admission preference over any other member accessing the system and are identified as a priority population. During the SFY 2021 compliance review, which is part of the current three-year cycle of reviews (SFY 2021–SFY 2023), **Southwest Michigan Behavioral Health** did not demonstrate a process to actively monitor adherence to all time frame standards, including admission standards for priority populations. The current SFY 2023 compliance review activity, which consisted of a CAP review of the deficiencies identified through the SFY 2021 and SFY 2022 compliance reviews, confirmed remediation of all deficiencies for the Availability of Services program area, indicating **Southwest Michigan Behavioral Health** implemented actions to monitor priority population admission standards for SUD treatment. **Southwest Michigan Behavioral Health** also demonstrated varying results for new members starting timely services. For indicator #3c, the rate of new children with I/DD starting services timely increased by a rate of 4.64 percentage points from the previous year. In contrast, for indicator #3a, the rate of new MI children, and indicator #3b, the rate of new MI adults, fell by 8.75 percentage points and 10.36 percentage points, respectively. Additionally, fewer new members received a timely biopsychosocial assessment and fewer new members received a timely face-to-face service for treatment or supports from the prior year, as all rates for indicator #2 and indicator #2e demonstrated a decline over time ranging from 1.92 percentage points to 30.83 percentage points. While MDHHS has not established MPSs for indicator #2, indicator #2e, or indicator #3, the results of the PMV activity confirmed that **Southwest Michigan Behavioral Health** has continued opportunities to improve timely access to non-emergency behavioral health and SUD care and services.
Network Adequacy	**Timeliness** and **Access**—MDHHS established network adequacy standards that reflect services that it deemed most in need of access to increase the health and wellness of Medicaid members served by the PIHPs. The PMV activity demonstrated varying results related to the PIHP's network adequacy. **Southwest Michigan Behavioral Health** appeared to have an adequate network of providers for rendering timely pre-admission screenings, timely follow-up care following discharge from an SUD detox unit, and lower percentages for readmissions of MI and I/DD children and adults to an inpatient psychiatric unit within 30 days of discharge, as **Southwest Michigan Behavioral Health** met the MPS for both rates under indicator #1, the one rate under indicator #4b, and both rates under indicator #10. However, **Southwest Michigan Behavioral Health** demonstrated lower performance for all rates

Performance Area	Overall Performance Impact
	under indicator #2, #2e, and #3, as all rates were at or below 80 percent. Except for indicators #3c and #3d, all rates demonstrated a decline from the prior year, with all but one of those rates declining substantially as indicated by a decline of more than 5 percentage points. Additionally, **Southwest Michigan Behavioral Health** did not meet the MDHHS-established MPS for follow-up care following discharge from a psychiatric inpatient unit (indicator #4a.) While various factors could influence lower rates for these indicators, a potential factor could be an inadequate provider network to provide timely services for new members, timely biopsychosocial assessments, and timely face-to-face services. During the SFY 2021 compliance review, which is part of the current three-year cycle of reviews (SFY 2021–SFY 2023), **Southwest Michigan Behavioral Health** demonstrated that it had not implemented processes to evaluate its provider network using the time/distance standards required by MDHHS. The member/provider ratio standards had also not been reviewed since 2018. However, through the current SFY 2023 compliance review activity, which consisted of a CAP review of the deficiencies identified through the SFY 2021 and SFY 2022 compliance reviews, HSAG confirmed remediation of all deficiencies for the Assurances of Adequate Capacity and Services program area, indicating **Southwest Michigan Behavioral Health** has taken steps to monitor its network adequacy. **Southwest Michigan Behavioral Health** will be required to participate in a new NAV activity in SFY 2024. The purpose of the activity is to assess and validate the adequacy of **Southwest Michigan Behavioral Health**'s network in accordance with MDHHS' established network adequacy standards. The findings from this activity will provide insight into whether the PIHP maintains a provider network that is sufficient to provide timely and accessible care to Medicaid members across the continuum of services for which the PIHP is responsible. **Southwest Michigan Behavioral Health** must work in collaboration with MDHHS and HSAG throughout the NAV activity and follow all reporting standards and specifications communicated to the PIHP.
Health Information Systems and Technology	**Quality** and **Access—Southwest Michigan Behavioral Health** is required to report on performance indicators in the areas of Access, Adequacy/Appropriateness, Outcomes: Employment, Outcomes: Inpatient Recidivism, and Residence. Through the PMV activity, **Southwest Michigan Behavioral Health** received a *Reportable* indicator designation for all applicable indicators,[3-8] indicating the PIHP maintained an adequate health information system that allowed it to calculate performance measure rates that were accurate based on measure specifications and MDHHS' reporting requirements. Additionally, through the EDV activity, **Southwest Michigan**

[3-8] Indicator #2e received an indicator designation of *Not Applicable*, as the PIHPs were not required to report a rate to MDHHS for this indicator. The SFY 2023 data presented in this is report are included to allow identification of opportunities to improve rate accuracy for future reporting only.

Performance Area	Overall Performance Impact
	Behavioral Health demonstrated it can effectively collect, process, and transmit encounter data to MDHHS in accordance with MDHHS' expectations for reporting, and has robust processes to monitor the accuracy, completeness, and timeliness of encounter data submissions, which helps ensure that MDHHS can use the data to effectively monitor the services provided under the Medicaid managed care program. However, the compliance review identified noncompliance within the federal managed care Health Information System program area. **Southwest Michigan Behavioral Health** had not implemented the Patient Access API that met all requirements of the CMS Interoperability and Patient Access Final Rule (CMS-9115-F). While **Southwest Michigan Behavioral Health** suggested that the requirements of the Patient Access API were not applicable to the PIHP as MDHHS has not established standards for the API, **Southwest Michigan Behavioral Health**, being a Medicaid MCE, is required to abide by federal Medicaid managed care regulations and all guidance issued by CMS. **Southwest Michigan Behavioral Health** must ensure it implements all requirements of the APIs described in CMS-9115-F. Further, CMS has enhanced interoperability and API requirements as described in the CMS Interoperability and Prior Authorization Processes Final Rule (CMS-0057-F). As such, **Southwest Michigan Behavioral Health** should begin preparing for the development and implementation of these new requirements.

Region 4—Southwest Michigan Behavioral Health

Table 4-4—Prior Year Recommendations and Responses for SWMBH

1. Prior Year Recommendation From the EQR Technical Report for Performance Improvement Projects
HSAG recommended the following: • Although there were no identified weaknesses, HSAG recommends that **Southwest Michigan Behavioral Health** use appropriate causal/barrier analysis methods to identify barriers to care and initiate interventions to address those barriers in a timely manner.
MCE's Response: (Note—the narrative within the MCE's Response section was provided by the MCE and has not been altered by HSAG except for minor formatting)
a. Describe initiatives implemented based on recommendations **(include a brief summary of activities that were either completed or implemented, and any activities still underway to address the finding that resulted in the recommendation):** • SWMBH organized an internal Performance Improvement Project (PIP) workgroup to conduct a causal-barrier analysis. The workgroup gathered input from stakeholders, conducted a literature review, and reviewed SWMBH-specific data to inform the causal-barrier analysis. Through this process, the workgroup identified barriers to health equity in metric FUA-30 [Follow-Up After Emergency Department Visit for Alcohol and Other Drug Abuse or Dependence—30 days]. The workgroup then ranked the identified barriers based on risk and selected the top-ranked barriers as the focal point for initial intervention development.
b. Identify any noted performance improvement as a result of initiatives implemented (if applicable): • The following interventions were developed in response to the causal-barrier analysis: – New encounter reporting for Peer Emergency Department (ED) follow up services in Kalamazoo County. – New Peer Emergency Department (ED) follow up program in Van Buren County. – New Health Disparities Grant Coordinator position – Retained MPHI to work with the 8 Community Mental Health Service Providers (CMHSPs) to implement health equity initiatives. – Implemented a regionwide anti-stigma marketing campaign.
c. Identify any barriers to implementing initiatives: • The Health Disparities Grant Coordinator position has recently been filled; however, recruitment took longer than expected. All interventions are progressing steadily since hire. It is maintained that true impact in terms of reducing stigma and decreasing provider biases will require a variety of sustained efforts over time.
HSAG Assessment: HSAG has determined that **Southwest Michigan Behavioral Health** addressed the prior year's recommendations. The PIHP used appropriate causal/barrier analysis methods to identify barriers to care and initiated interventions to address those barriers in a timely manner.

2. Prior Year Recommendation From the EQR Technical Report for Performance Measure Validation
HSAG recommended the following: • During initial review of the member-level file detail provided to HSAG and during PSV, it was noted for indicator #2 that two of a specific CMHSP's members were reported to have assessment dates prior to the date of the service request (i.e., 30 days and 231 days prior to the request). HSAG recommends that the PIHP work with the CMHSP to complete updates to programming code to ensure that historical dates prior to the service request are not used for reporting compliance on the performance indicator. • During initial review of the member-level detail file (the reporting template used by the PIHP for aggregating data and calculating indicator rates) provided to HSAG and during PSV, it was noted that non-Medicaid members were being included in reporting for indicator #4b. HSAG recommends that the PIHP implement visual validation checks on the raw data in the aggregated reporting template prior to MDHHS submission to ensure requirements within the MDHHS Codebook are being met. This will help ensure that appropriate populations are being included in performance indicator reporting but will also help to identify additional types of errors, such as reporting historical service dates that occur prior to a service request. • During initial review of the member-level detail file (the reporting template used by the PIHP for aggregating data and calculating indicator rates) provided to HSAG and during PSV, it was noted that the count of compliant cases within the file for indicator #10 did not match the count reported to MDHHS for the performance indicator. HSAG recommends that the PIHP update the formulas in the reporting template to be inclusive of both "Yes/Y" to ensure accurate reporting going forward. Additionally, the PIHP is encouraged to remind CMHSPs of the template instructions and requirements for each column. • After reviewing the final BH-TEDS data submitted by MDHHS, HSAG noted nine **Southwest Michigan Behavioral Health** member records with discrepant employment and minimum wage BH-TEDS data. HSAG recommends that **Southwest Michigan Behavioral Health** and the CMHSPs employ additional enhancements to their BH-TEDS validation process to ensure that there are no discrepant data entered.
MCE's Response: (Note—the narrative within the MCE's Response section was provided by the MCE and has not been altered by HSAG except for minor formatting)
a. Describe initiatives implemented based on recommendations **(include a brief summary of activities that were either completed or implemented, and any activities still underway to address the finding that resulted in the recommendation):** • Indicator #2 – SWMBH implemented an updated MMBPIS reporting template in October 2022 with additional conditional formatting to easily identify events with outcomes containing negative numbers. SWMBH also worked with Integrated Services of Kalamazoo (ISK) to update their EHR code and ensure assessment dates do not pre-date the request for service dates. • Indicator #4b – In July 2022, SWMBH further modified the Tableau report to ensure non-Medicaid members are not included in the final Indicator 4b data. SWMBH QAPI department also verifies eligibility for a sample of Indicator 4b events every quarter for further data validation. • Indicator #10 – SWMBH implemented an updated MMBPIS reporting template in October 2022 with enhanced formulas to ensure both "Y" and "Yes" responses are captured correctly. Instructions are routinely

2. Prior Year Recommendation From the EQR Technical Report for Performance Measure Validation
reviewed during SWMBHs regional Quality Management Committee meetings and will also be included in a MMBPIS PPT training to be finalized by 12/31/23. • BH Teds – In early FY23, SWMBH implemented additional enhancements to the validation process for BH TEDS capturing employment and minimum wage values. Prompts that assist the provider with choosing the correct value based on employment status were also added. SWMBH also maintains a BH TEDS presentation that is utilized for onboarding SUD providers or give further feedback to providers experiencing issues with TEDS as well.
b. Identify any noted performance improvement as a result of initiatives implemented (if applicable): • While regional indicator 4b outcomes slightly dipped in the first quarter of FY23, SWMBH notes an overall improvement. Tableau report coding changes and increased validation of qualifying cases for this indicator have been implemented with success. Template revisions resulted in decreased time spent doing manual auditing of the data for both the CMHSPs and the PIHP.
c. Identify any barriers to implementing initiatives: • No identified barriers for the performance indicator findings. Should any discrepant employment data in BH TEDS records be identified in future PMV reviews, SWMBH requests the member event IDs to make all necessary remediation with the CMHSPs and providers.
HSAG Assessment: HSAG has determined that **Southwest Michigan Behavioral Health** fully addressed the prior year's recommendations. **Southwest Michigan Behavioral Health** fully addressed the prior year's recommendation for indicator #2 to work with a CMHSP to complete updates to programming code to ensure that historical dates prior to the service request are not used for reporting. During the SFY 2023 virtual review, **Southwest Michigan Behavioral Health** reported that the CMHSP converted to a PCE EHR, which provided a number of front-end validations during data entry at the point of care as well as validations when creating file extracts for reporting to **Southwest Michigan Behavioral Health**. Programming logic was developed with PCE and thoroughly tested and vetted by both CMHSP and PCE staff prior to implementation. No further related issues were identified during the SFY 2023 PMV audit. **Southwest Michigan Behavioral Health** fully addressed the prior year's recommendation for indicator #4b to implement visual validation checks on the raw data in the aggregated reporting template prior to MDHHS submission to ensure requirements within the MDHHS Codebook are being met. During the SFY 2023 virtual review, **Southwest Michigan Behavioral Health** reported reviewing a larger sample of the raw data at least quarterly as an extra validation step and adjusting its source code to ensure the correct populations are included in each indicator. Additionally, **Southwest Michigan Behavioral Health** added conditional formatting to the reporting template to quickly point out date issues (e.g., service date before request date). No further related issues were identified during the SFY 2023 PMV audit. **Southwest Michigan Behavioral Health** fully addressed the prior year's recommendation for indicator #10 to update the formulas in the reporting template to be inclusive of both "Yes/Y" to ensure accurate reporting and remind CMHSPs of the template instructions and requirements for each column. During the SFY 2023 virtual review, **Southwest Michigan Behavioral Health** reported evaluating the process for checking the

2. Prior Year Recommendation From the EQR Technical Report for Performance Measure Validation
completeness and accuracy of the reporting template during committee meetings with the CMHSPs. **Southwest Michigan Behavioral Health** also reported that it resolved the formula issues in the reporting template and updated the validation process to ensure a more comprehensive review. No further related issues were identified during the SFY 2023 PMV audit. **Southwest Michigan Behavioral Health** fully addressed the prior year's recommendation for discrepant employment and minimum wage BH-TEDS data. HSAG did not find any discrepant data during the SFY 2023 audit.

3. Prior Year Recommendation From the EQR Technical Report for Compliance Review
HSAG recommended the following: • **Southwest Michigan Behavioral Health** received a score of 75 percent in the Provider Selection program area, indicating that providers may not be appropriately credentialed or assessed in accordance with federal and/or contractual requirements. While **Southwest Michigan Behavioral Health** was required to develop a CAP, HSAG recommends that the PIHP enhance oversight and monitoring of the implementation of credentialing processes completed by the PIHP and/or by its delegates. HSAG recommends that **Southwest Michigan Behavioral Health** conduct a comprehensive review of a random sample of credentialing files and require a remediation plan for all identified deficiencies. Ongoing monitoring of internal and/or external processes should then be catered toward the performance of the entity responsible for credentialing (e.g., continued monthly file reviews until full compliance is achieved). • **Southwest Michigan Behavioral Health** received a score of 67 percent in the QAPI program area, indicating that the PIHP had not developed or implemented a QAPI program in accordance with all contractual requirements. While **Southwest Michigan Behavioral Health** was required to develop a CAP, HSAG recommends that the PIHP conduct a comprehensive review of its QAPI program—specifically, the annual program description, workplan, and evaluation. This review should include a comparison of each individual QAPI program element required under **Southwest Michigan Behavioral Health**'s contract with MDHHS against the PIHP's current QAPI program. **Southwest Michigan Behavioral Health** should also leverage MDHHS' QAPI program checklist in this review. **Southwest Michigan Behavioral Health** could consider developing a crosswalk of each individual provision with a description of how/where the PIHP is or is not meeting the requirement. For gaps HSAG identified during the compliance review activity, and self-identified gaps through this crosswalk, **Southwest Michigan Behavioral Health** should identify an action plan for how it will come into compliance with the requirement(s). If **Southwest Michigan Behavioral Health** develops the recommended crosswalk, the PIHP could submit it with the annual QAPI submission to MDHHS to solicit additional collaboration between the PIHP and MDHHS.
MCE's Response: (Note—the narrative within the MCE's Response section was provided by the MCE and has not been altered by HSAG except for minor formatting)
a. Describe initiatives implemented based on recommendations **(include a brief summary of activities that were either completed or implemented, and any activities still underway to address the finding that resulted in the recommendation):** • Provider Selection: – In March 2023, SWMBH held a training for CMH staff who perform delegated credentialing functions, which included specific citations from HSAG and remediation requirements.

3. Prior Year Recommendation From the EQR Technical Report for Compliance Review
– In April 2023, SWMBH completed the annual CMH Site Review process. As part of this process, SWMBH enhanced the Credentialing File Review Tool. Enhancements included pulling separate samples for initial credentialing and recredentialing (previously only a single sample inclusive of initial and recredentialing files was pulled) and modifying the tool to mirror the HSAG Provider Selection standards/elements. – Another credentialing training is scheduled for October 19, 2023, to be delivered at the Regional Provider Network Management Committee meeting. – SWMBH is evaluating the impact and resource requirements of moving from an annual credentialing file review to a quarterly credentialing file review. This type of a frequency change was implemented for two other delegated functions beginning in FY23 Q3 and is currently being evaluated before moving other delegated functions to this schedule. • QAPI: – SWMBH conducted a comprehensive review of all HSAG and MDHHS requirements around PIHP QAPI program descriptions, workplans and evaluations. This resulted in multiple updates that were included in SWMBH's FY23 annual submission. – SWMBH will complete a crosswalk of each individual QAPI provision in the MDHHS/PIHP contract to include with its next annual QAPI submission.
b. Identify any noted performance improvement as a result of initiatives implemented (if applicable): • Provider Selection: – The initiatives described above met HSAG requirements during the HSAG CAP Monitoring review that was completed in August 2023. • QAPI: – The FY23 annual QAPI submission met HSAG and MDHHS requirements during the HSAG CAP Monitoring review that was completed in August 2023. – Currently working on the crosswalk of contractual requirements. Any identified gaps will be analyzed and addressed by the QAPI department. The crosswalk will be included in the FY24 annual submission.
• Identify any barriers to implementing initiatives: • Provider Selection: – SWMBH has not identified any barriers to implementing initiatives, but has identified a continuing lack of understanding and/or awareness of the delegated credentialing requirements even after implementing the initiatives and is working to remediate those through additional education and potentially changing the frequency of file reviews. • QAPI: – SWMBH has not identified any barriers to implementing these initiatives.
HSAG Assessment: HSAG has determined that **Southwest Michigan Behavioral Health** addressed the prior year's recommendations based on the responses provided by the PIHP and the SFY 2023 compliance review activity, which confirmed the 14 deficiencies under the Provider Selection and Quality Assessment and Performance Improvement program areas have been remediated.

5. Prepaid Inpatient Health Plan Comparative Information

In addition to performing a comprehensive assessment of each PIHP's performance, HSAG uses a step-by-step process methodology to compare the findings and conclusions established for each PIHP to assess the Michigan Behavioral Health Managed Care program. Specifically, HSAG identifies any patterns and commonalities that exist across the 10 PIHPs and the Michigan Behavioral Health Managed Care program, draws conclusions about the overall strengths and weaknesses of the program, and identifies areas in which MDHHS could leverage or modify Michigan's CQS to promote improvement.

Prepaid Inpatient Health Plan External Quality Review Activity Results

This section provides the summarized results for the mandatory EQR activities across the PIHPs.

Validation of Performance Improvement Projects

For the SFY 2023 validation, the PIHPs submitted quality improvement strategies for their PIHP-specific PIP topic. HSAG's validation evaluated the technical methods the PIHPs' PIPs (i.e., the PIP Design and Implementation stages). Based on its technical review, HSAG determined the overall methodological validity of each PIHP's PIP and assigned an overall validation rating (i.e., *Met*, *Partially Met*, *Not Met*). Table 5-1 provides a comparison of the overall PIP validation ratings and the scores for the PIP Design stage (Steps 1 through 6) and Implementation stage (Steps 7 and 8), by PIHP. Table 5-1 also identifies whether a statistically significant racial or ethnic disparity was noted within the PIHP's data, and the disparate population that was targeted through the PIP, as applicable.

Table 5-1—Comparison of Validation Ratings and Scores, by PIHP

PIP Topics and Overall PIP Validation Rating, by PIHP			Design and Implementation Scores			Disparity (Yes/No) and Target Population
			Met	Partially Met	Not Met	
NCN	*Increase the Percentage of Individuals Who Are Diagnosed with a Co-Occurring Disorder and Are Receiving Integrated Co-Occurring Treatment from a Network Provider*	*Met*	100%	0%	0%	No
NMRE	*The Percentage of Individuals Who are Eligible for OHH Services, Enrolled in the Service, and are Retained in the Service*	*Met*	100%	0%	0%	No
LRE	*FUH Metric: Decrease in Racial Disparity Between Whites and African Americans/Black*	*Met*	100%	0%	0%	Yes, African American/ Black

PIP Topics and Overall PIP Validation Rating, by PIHP			Design and Implementation Scores			Disparity (Yes/No) and Target Population
			Met	Partially Met	Not Met	
SWMBH	*Reducing Racial Disparities in Follow-Up After Emergency Department Visit for Alcohol and Other Drug Abuse or Dependence*	*Met*	100%	0%	0%	Yes, African American/ Black
MSHN	*Improving the Rate of New Persons Who Have Received a Medically Necessary Ongoing Covered Service Within 14 Days of Completing a Biopsychosocial Assessment and Reducing or Eliminating the Racial Disparities Between the Black/African American Population and the White Population*	*Met*	100%	0%	0%	Yes, African American/ Black
CMHPSM	*Reduction of Disparity Rate Between Persons Served who are African American/Black and White and miss their appointment for an initial Biopsychosocial (BPS) Assessment and Assist Individuals in scheduling and keeping their initial assessment for services*	*Met*	100%	0%	0%	Yes, African American/ Black
DWIHN	*Reducing the Racial Disparity of African Americans Seen for Follow-Up Care within 7-Days of Discharge from a Psychiatric Inpatient Unit*	*Met*	100%	0%	0%	Yes, African American/ Black
OCHN	*Improving Antidepressant Medication Management—Acute Phase*	*Met*	100%	0%	0%	Yes, African American/ Black
MCCMH	*Increase Percentage of Adults Receiving and a Reduction in Racial Disparity Between Caucasian and African Americans Served Post Inpatient Psychiatric Hospitalizations*	*Met*	100%	0%	0%	Yes, African American/ Black
Region 10	*Reducing Racial/Ethnic Disparities in Access to SUD Services*	*Met*	100%	0%	0%	Yes, African American/ Black

Performance Measure Validation

Table 5-2 presents the PIHP-specific results for the SFY 2023 validated performance indicators. For each indicator, green font is used to denote the highest-performing PIHP(s), while red font is used to denote the lowest-performing PIHP(s).

Table 5-2—SFY 2023 PIHP-Specific Performance Measure Rate Percentages

Performance Indicator		Region 1 NCN	Region 2 NMRE	Region 3 LRE	Region 4 SWMBH	Region 5 MSHN	Region 6 CMHPSM	Region 7 DWIHN	Region 8 OCHN	Region 9 MCCMH	Region 10 PIHP
#1	Children—Indicator #1a	100%	99.20%	97.56%	96.39%	99.32%	100%	99.24%	94.56%	99.01%	100%
	Adults—Indicator #1b	100%	98.87%	98.22%	97.85%	99.42%	99.55%	98.12%	91.61%	99.01%	99.77%
#2	MI–Children—Indicator #2a	65.33%	59.24%	58.94%	50.23%	59.14%	62.13%	28.81%	30.89%	15.08%	58.48%
	MI–Adults—Indicator #2b	55.94%	51.29%	55.57%	67.47%	62.95%	58.41%	54.33%	53.53%	17.09%	53.64%
	I/DD–Children—Indicator #2c	51.85%	66.67%	60.64%	52.67%	49.21%	66.34%	28.71%	21.74%	17.95%	50.00%
	I/DD–Adults—Indicator #2d	53.33%	45.71%	66.20%	73.68%	57.29%	59.38%	43.55%	24.24%	23.81%	61.64%
	Total—Indicator #2	59.20%	54.43%	57.86%	61.15%	60.81%	60.34%	45.15%	44.97%	16.86%	54.99%
#2e	Consumers[1]	64.61%	65.43%	67.22%	62.34%	72.68%	60.32%	61.45%	81.71%	82.52%	72.21%

Performance Indicator		Region 1 NCN	Region 2 NMRE	Region 3 LRE	Region 4 SWMBH	Region 5 MSHN	Region 6 CMHPSM	Region 7 DWIHN	Region 8 OCHN	Region 9 MCCMH	Region 10 PIHP
#3	MI–Children—Indicator #3a	70.73%	62.33%	52.58%	56.24%	56.86%	72.57%	85.36%	99.62%	66.20%	78.59%
	MI–Adults—Indicator #3b	69.09%	62.89%	56.31%	56.68%	59.47%	72.31%	88.80%	98.91%	72.40%	80.16%
	I/DD–Children—Indicator #3c	65.22%	71.67%	64.13%	57.58%	77.16%	85.11%	84.78%	100%	80.68%	85.82%
	I/DD–Adults—Indicator #3d	88.24%	50.00%	59.46%	80.00%	61.90%	89.29%	77.05%	97.22%	55.56%	81.97%
	Total—Indicator #3	70.28%	62.89%	55.28%	57.12%	59.53%	74.63%	87.24%	99.09%	71.45%	80.30%
#4a	Children	100%	96.88%	93.55%	94.74%	97.25%	94.44%	100%	96.15%	51.47%	97.30%
	Adults	96.74%	94.87%	96.20%	94.80%	95.60%	94.86%	98.14%	95.73%	38.93%	94.64%
#4b	Consumers	97.06%	90.08%	98.06%	98.92%	97.83%	95.73%	100%	100%	92.88%	94.95%
#5	Medicaid Recipients[2]	6.64%	7.43%	5.18%	6.37%	7.11%	6.21%	5.86%	7.31%	4.56%	6.82%
#6	HSW Enrollees[2]	98.06%	95.47%	95.29%	89.41%	96.76%	90.75%	93.54%	93.46%	94.92%	96.55%
#8	MI–Adults—Indicator #8a	20.27%	25.30%	21.77%	23.74%	21.67%	18.26%	17.44%	24.21%	21.71%	17.52%
	I/DD–Adults—Indicator #8b	9.01%	10.74%	10.82%	8.78%	8.77%	10.66%	8.79%	14.19%	5.94%	6.63%
	MI & I/DD–Adults—Indicator #8c	8.90%	15.67%	10.87%	10.00%	10.12%	9.18%	7.52%	11.01%	6.81%	8.56%

Performance Indicator		Region 1 NCN	Region 2 NMRE	Region 3 LRE	Region 4 SWMBH	Region 5 MSHN	Region 6 CMHPSM	Region 7 DWIHN	Region 8 OCHN	Region 9 MCCMH	Region 10 PIHP
#9	MI–Adults—Indicator #9a	100%	99.88%	99.85%	99.93%	99.85%	99.72%	99.84%	100%	100%	99.94%
	I/DD–Adults—Indicator #9b	92.00%	69.13%	95.41%	93.41%	92.53%	93.68%	94.35%	83.51%	94.35%	94.07%
	MI & I/DD–Adults—Indicator #9c	91.30%	93.50%	93.75%	92.45%	93.75%	93.33%	98.70%	80.00%	92.96%	94.40%
#10	MI & I/DD–Children—Indicator #10a*	5.71%	14.63%	9.92%	2.94%	8.75%	6.35%	7.51%	0.00%	4.23%	8.57%
	MI & I/DD–Adults—Indicator #10b*	9.82%	10.25%	8.90%	9.57%	13.01%	14.23%	14.69%	9.83%	15.36%	10.62%
#13	I/DD–Adults	17.31%	21.85%	15.02%	17.81%	19.69%	25.34%	21.08%	19.53%	15.50%	16.74%
	MI & I/DD–Adults	22.67%	32.76%	22.39%	21.45%	25.91%	29.24%	29.11%	26.88%	20.22%	24.49%
#14	MI–Adults	54.54%	50.36%	45.11%	48.25%	48.77%	35.86%	39.44%	33.64%	46.59%	46.36%

* A lower rate indicates better performance.

Best-performing PIHPs' rates are denoted in green font.

Worst-performing PIHPs' rates are denoted in red font.

[1] Please note that the PIHP data for indicator #2e are displayed for information only, as the PIHPs were not required to report a rate to MDHHS. Data are presented to allow identification of opportunities to improve rate accuracy for future reporting.

[2] No red or green font is shown for PIHPs' rates for this performance indicator since the rates do not indicate best or worse performance among PIHPs.

Statewide rates were calculated by summing the number of cases that met the requirements of the indicator across all PIHPs (e.g., for all 10 PIHPs, the total number of adults who received a timely follow-up service) and dividing this number by the number of applicable cases across all PIHPs (e.g., for all 10 PIHPs, the total number of adults discharged from psychiatric inpatient facilities). These calculations excluded raw data from any PIHP that received a *Do Not Report (DNR)* audit designation.

Table 5-3 presents the SFY 2022 and SFY 2023 statewide results for the validated performance indicators with year-over-year comparative rates. MDHHS defined an MPS for seven performance indicators. For these performance indicators, the statewide rates that met or exceeded the MPS are denoted by green font.

Table 5-3—SFY 2022 and SFY 2023 Statewide Performance Measure Rates

Performance Indicator	2022 Rate	2023 Rate
#1: The percentage of persons during the quarter receiving a pre-admission screening for psychiatric inpatient care for whom the disposition was completed within three hours. *MPS = 95%*		
Children—Indicator #1a	98.40%	98.60%
Adults—Indicator #1b	97.90%	98.11%
#2: The percentage of new persons during the quarter receiving a completed biopsychosocial assessment within 14 calendar days of a non-emergency request for service. *No standard for second year of implementation*		
MI–Children—Indicator #2a	60.48%	50.54%
MI–Adults—Indicator #2b	59.27%	55.21%
I/DD–Children—Indicator #2c	62.06%	43.69%
I/DD–Adults—Indicator #2d	56.33%	52.92%
Total—Indicator #2	59.78%	52.83%
#2e: The percentage of new persons during the quarter receiving a face-to-face service for treatment or supports within 14 calendar days of non-emergency request for service for persons with SUDs.[1] *No standard for second year of implementation*		
Consumers	70.34%	68.56%
#3: The percentage of new persons during the quarter starting any medically necessary ongoing covered service within 14 days of completing a non-emergent biopsychosocial assessment. *No standard for second year of implementation*		
MI–Children—Indicator #3a	72.27%	66.44%
MI–Adults—Indicator #3b	73.90%	71.53%
I/DD–Children—Indicator #3c	80.39%	78.59%
I/DD–Adults—Indicator #3d	76.05%	72.06%
Total—Indicator #3	73.95%	70.51%

Performance Indicator	2022 Rate	2023 Rate
#4a: The percentage of discharges from a psychiatric inpatient unit during the quarter that were seen for follow-up care within 7 days. *MPS = 95%*		
Children	92.07%	91.10%
Adults	89.91%	86.47%
#4b: The percentage of discharges from a substance abuse detox unit during the quarter that were seen for follow-up care within 7 days. *MPS = 95%*		
Consumers	98.43%[2]	97.15%
#5: The percent of Medicaid recipients having received PIHP managed services. *An MPS was not established.*		
The percentage of Medicaid recipients having received PIHP managed services.	6.07%	6.22%
#6: The percent of HSW enrollees during the quarter with encounters in data warehouse who are receiving at least one HSW service per month that is not supports coordination. *An MPS was not established.*		
The percentage of HSW enrollees during the reporting period with encounters in data warehouse who are receiving at least one HSW service per month that is not supports coordination.	88.22%	94.39%
#8: The percent of (a) adults with mental illness, the percentage of (b) adults with intellectual or developmental disabilities, and the percentage of (c) adults dually diagnosed with mental illness/intellectual or developmental disability served by the CMHSPs and PIHPs who are employed competitively. [3] *An MPS was not established.*		
MI–Adults—Indicator #8a	17.05%	20.62%
I/DD–Adults—Indicator #8b	8.61%	9.57%
MI and I/DD–Adults—Indicator #8c	8.41%	9.63%
#9: The percent of (a) adults with mental illness, the percentage of (b) adults with intellectual or developmental disabilities, and the percentage of (c) adults dually diagnosed with mental illness/intellectual or developmental disability served by the CMHSPs and PIHPs who earned minimum wage or more from any employment activities. [4] *An MPS was not established.*		
MI–Adults—Indicator #9a	99.66%	99.89%
I/DD–Adults—Indicator #9b	79.93%	89.67%
MI and I/DD–Adults—Indicator #9c	82.77%	92.74%
#10: The percentage of readmissions of MI and I/DD children and adults during the quarter to an inpatient psychiatric unit within 30 days of discharge.* *MPS = 15%*		
MI and I/DD–Children—Indicator #10a	6.53%	7.38%
MI and I/DD–Adults—Indicator #10b	12.34%	12.62%
#13: The percent of adults with intellectual or developmental disabilities served, who live in a private residence alone, with spouse, or non-relative(s). *An MPS was not established.*		
I/DD–Adults	19.39%	19.26%
MI and I/DD–Adults	26.24%	25.65%

Performance Indicator	2022 Rate	2023 Rate
#14: The percent of adults with serious mental illness served, who live in a private residence alone, with spouse, or non-relative(s). *An MPS was not established.*		
MI–Adults	44.11%	43.69%

The statewide rates that met or exceeded the MPS are denoted in green font for performance indicators that have an MPS.

* A lower rate indicates better performance.

[1] Please note that the PIHP data for indicator #2e are displayed for information only, as the PIHPs were not required to report a rate to MDHHS. Data are presented to allow identification of opportunities to improve rate accuracy for future reporting.

[2] MDHHS reported that indicator #4b may have demonstrated inflated compliance due to the PIHPs' use of allowable exceptions. While HSAG determined that the PIHPs receiving a *Reportable* designation for indicator #4b did report the indicator in alignment with the MDHHS Codebook, HSAG agrees with MDHHS' assessment that PIHP reliance on exception criteria likely resulted in overall increased compliance with the indicator #4b MPS.

[3] Competitive employment includes full time and part time. This indicator includes all adults by population no matter their employment status.

[4] Employed consumers include full time and part time, enclave/mobile crew, or sheltered workshop. This indicator only includes the adults who meet the "employed" status.

Compliance Review

HSAG calculated the Michigan Behavioral Health Managed Care program overall performance in each of the 13 performance standards reviewed during the current three-year compliance review cycle. Table 5-4 compares the statewide average compliance score with the compliance score achieved by each PIHP for the standards reviewed in SFY 2021 and SFY 2022. Green font is used to denote the highest-performing PIHP(s), while red font is used to denote the lowest-performing PIHP(s). For Standard II, since all PIHPs performed the same, no red or green font is shown.

Table 5-4—PIHP and Statewide Compliance Review Scores for SFY 2021 and SFY 2022

Standard[1, 2]	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	Statewide
I	84%	84%	89%	84%	84%	84%	84%	89%	84%	79%	**85%**
II[3]	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	**100%**
III	71%	100%	71%	86%	71%	71%	86%	71%	100%	86%	**81%**
IV	25%	50%	50%	25%	25%	25%	0%	50%	25%	25%	**30%**
V	93%	100%	79%	86%	93%	79%	79%	93%	79%	86%	**86%**
VI	82%	64%	73%	100%	91%	82%	64%	82%	73%	73%	**78%**
SFY 2021 Total	**83%**	**86%**	**82%**	**86%**	**85%**	**80%**	**77%**	**86%**	**82%**	**80%**	**83%**
VII	75%	75%	81%	75%	75%	75%	75%	75%	75%	75%	**76%**
VIII[3]	100%	91%	82%	91%	91%	91%	91%	91%	82%	91%	**90%**
IX	79%	84%	87%	87%	84%	76%	84%	84%	89%	87%	**84%**
X	80%	80%	60%	100%	100%	80%	80%	40%	20%	100%	**74%**

Standard[1, 2]	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	Statewide
XI	86%	57%	86%	71%	100%	86%	86%	100%	57%	100%	**83%**
XII[4]	82%	82%	82%	82%	92%	82%	82%	82%	73%	82%	**82%**
XIII	90%	70%	87%	67%	93%	73%	83%	93%	67%	90%	**81%**
SFY 2022 Total	**84%**	**78%**	**84%**	**80%**	**88%**	**78%**	**83%**	**85%**	**75%**	**87%**	**82%**
Combined Total	**84%**	**81%**	**83%**	**82%**	**87%**	**79%**	**81%**	**85%**	**77%**	**85%**	**82%**

Standard I—Member Rights and Member Information
Standard II—Emergency and Poststabilization Services
Standard III—Availability of Services
Standard IV—Assurances of Adequate Capacity and Services
Standard V—Coordination and Continuity of Care
Standard VI—Coverage and Authorization of Services
Standard VII—Provider Selection
Standard VIII—Confidentiality
Standard IX—Grievance and Appeal System
Standard X—Subcontractual Relationships and Delegation
Standard XI—Practice Guidelines
Standard XII—Health Information Systems
Standard XIII—Quality Assessment and Performance Improvement Program

Highest-performing PIHP(s) in each program area.

Lowest-performing PIHP(s) in each program area.

[1] The Disenrollment: Requirements and Limitations standard under §438.56 does not apply to the Michigan PIHPs as disenrollment requests are handled through the Michigan MHPs. Therefore, these requirements are not reviewed as part of the PIHPs' three-year compliance review cycle.

[2] The compliance review standards comprise a review of all requirements, known as elements, under the associated federal citation, including all requirements that are cross referenced within each federal standard, as applicable (e.g., Standard IX—Grievance and Appeal Systems standard includes a review of §438.228 and all requirements under 42 CFR Subpart F).

[3] Performance in these standards should be interpreted with caution as there were noted opportunities for the PIHP to enhance written documentation supporting the federal requirements; therefore, a high compliance score in these program areas is not considered a strength within this compliance review. The PIHP's progress in implementing HSAG's recommendations will be further assessed for continued compliance in future reviews.

[4] The Health Information Systems standard includes an assessment of each PIHP's IS capabilities.

Table 5-5 compares the number of total CAP elements, and the *Complete* and *Not Complete* elements across the PIHPs for the SFY 2023 CAP implementation review. The number of elements statewide are also provided.

Table 5-5—PIHP and Statewide Summary of 2023 CAP Implementation

PIHP	Total CAP Elements	*Complete*	*Not Complete*
NCN	30	25	5
NMRE	35	27	8
LRE	31	29	2
SWMBH	33	32	1
MSHN	24	23	1
CMHPSM	39	37	2
DWIHN	35	33	2
OCHN	27	24	3
MCCMH	42	37	5
Region 10	28	26	2
Total	**324**	**293**	**31**

Encounter Data Validation

Table 5-6 presents the EDV results for all PIHPs. Results for the administrative profile are stratified by category of service. For both analyses, cells with a "✓" indicate no or minor concerns noted, cells with a "—" indicate moderate concerns noted, and cells with an "x" indicate major concerns noted. For PIHP-specific results, refer to Section 3.

Table 5-6—EDV PIHP Comparison

Analysis		R1	R2	R3	R4	R5	R6	R7	R8	R9	R10
IS Review											
Encounter Data Sources and Systems		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Payment Structures		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Encounter Data Quality Monitoring		—	✓	✓	✓	—	—	—	—	✓	✓
Administrative Profile											
Encounter Data Completeness	Professional	✓	✓	✓	✓	—	—	—	—	✓	✓
	Institutional	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Encounter Data Timeliness	Professional	✓	✓	x	x	✓	✓	✓	x	✓	✓
	Institutional	✓	x	✓	x	x	✓	✓	x	✓	x
Field-Level Completeness and Accuracy	Professional	—	—	—	—	—	—	—	—	—	—
	Institutional	—	—	—	—	—	—	—	—	—	—
Encounter Referential Integrity	Professional	—	—	—	—	—	—	—	—	—	—
	Institutional	—	—	—	—	—	—	—	—	—	—
Encounter Data Logic	Professional	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Institutional	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

✓	No or minor concerns noted.
—	Moderate concerns noted.
x	Major concerns noted.

Southwest Michigan
BEHAVIORAL HEALTH

Information Technology Services

Management Business Information and Intelligence Updates

Presented by Natalie Spivak, Chief Information Officer

July 12,2024

IT Roles & Responsibilities

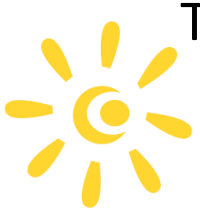
Geek Squad

- Information Security
- Help Desk & User support
- Hardware Management
- Software Administration
- Network Management
- Infrastructure Management
- Vendor Management
- Strategic Planning
- Website Management
- Knowledge Management & Collaboration

IT Roles & Responsibilities

Genius Bar

- Data Exchange with Partner Organizations
- Data Warehouse Management
- Programming & Application Development
- Audits
- State Reporting
- Production Process Monitoring
- System Automation
- Transaction & Data Submission Monitoring & Troubleshooting

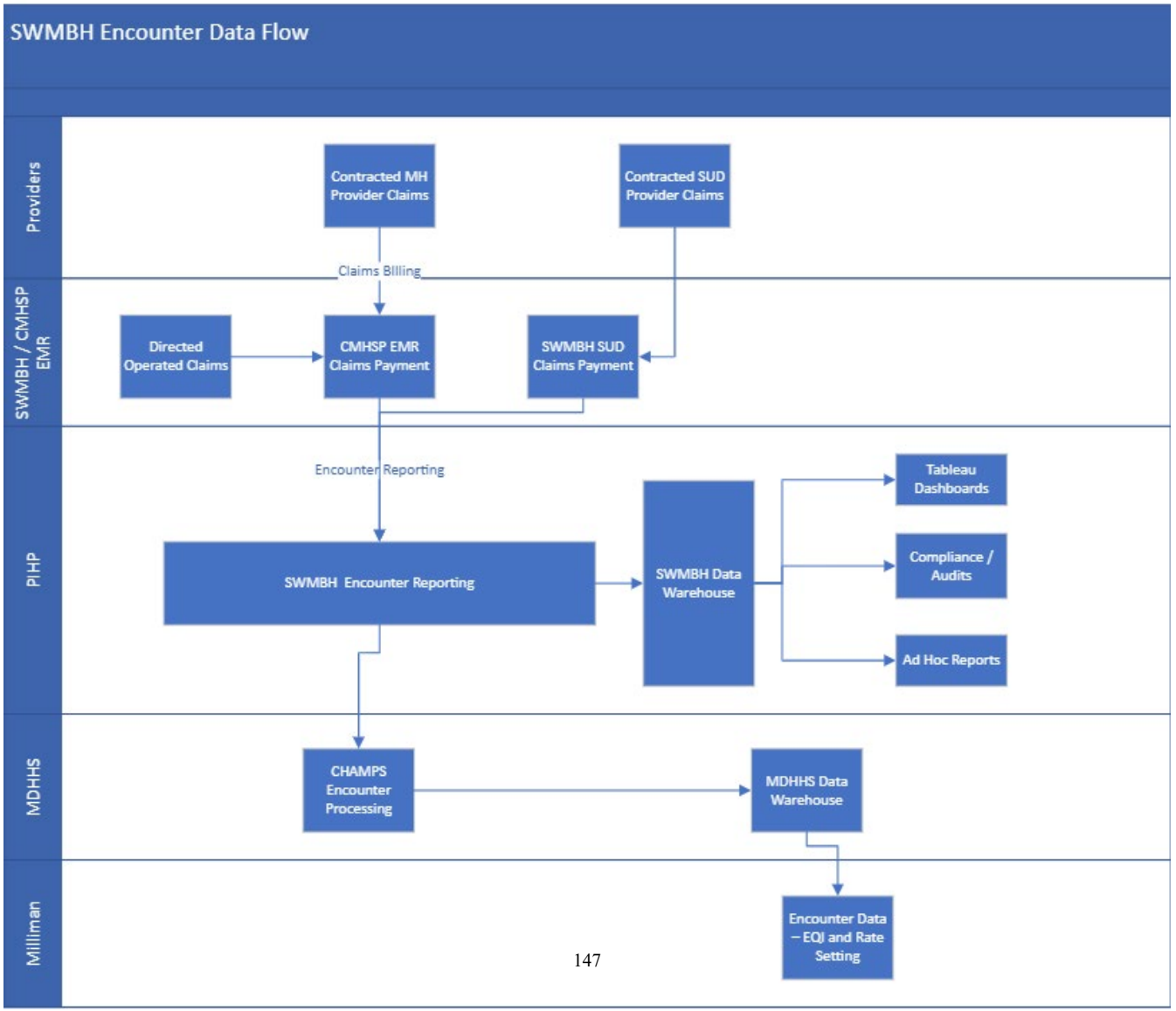


IT Roles & Responsibilities

Think Tank

- Tableau & Power BI Dashboard Development & Maintenance
- Ad Hoc Report Development
- Data Visualization
- Data Analysis
- Metrics

Encounter Data Flow



MH Encounters

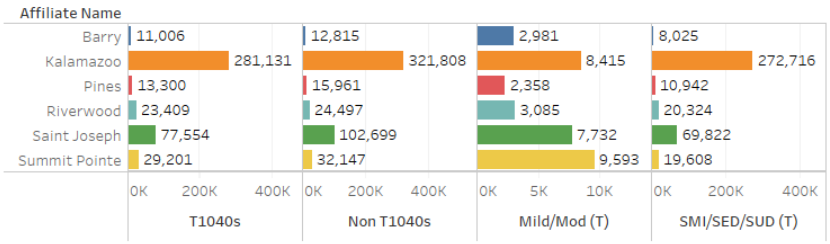
CCBHC Since Inception

Southwest Michigan Behavioral Health

Service From Date
10/1/2021 to 4/30/2024
and Null values

Fiscal Year Code
- [x] FY2022
- [x] FY2023
- [x] FY2024

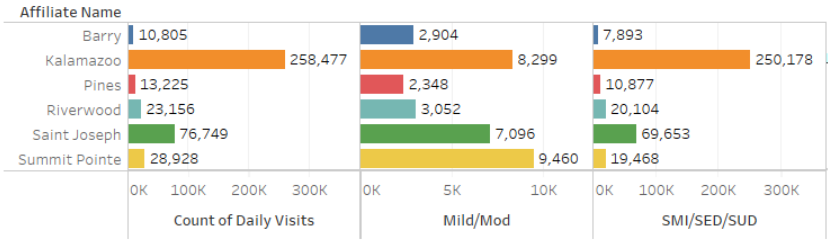
T1040 Count Graphs



T1040s Count Table

Affiliate Name	T1040s	Non T1040s	Mild/Mod (T)	SMI/SED/SUD (T)
Barry	11,006	12,815	2,981	8,025
Kalamazoo	281,131	321,808	8,415	272,716
Pines	13,300	15,961	2,358	10,942
Riverwood	23,409	24,497	3,085	20,324
Saint Joseph	77,554	102,699	7,732	69,822
Summit Pointe	29,201	32,147	9,593	19,608
Totals	435,601	509,927	34,164	401,437

Daily Visit Count Graphs



Daily Visits Count Table

Affiliate Name	Count of Daily Visits	Mild/Mod	SMI/SED/SUD
Barry	10,805	2,904	7,893
Kalamazoo	258,477	8,299	250,178
Pines	13,225	2,348	10,877
Riverwood	23,156	3,052	20,104
Saint Joseph	76,749	7,096	69,653
Summit Pointe	28,928	9,460	19,468
Totals	411,340	33,159	378,173

Data last updated: [6/20/2024 11:16:53 AM]

T1040 – Count of CCBHC accepted encounters with a T1040 procedure code
Non T1040 – Count of CCBHC accepted encounters with a procedure code other than T1040
Count of Daily Visits – Count of unique client/days with a CCBHC accepted encounter
Mild/Mod Count – count of CCBHC accepted encounters with a Mild/Moderate modifier & a T1040 procedure code

BHTEDS – Mental Health

FY24 MH Encounters w/BH-TEDS records				
Encounters: 10/01/2023 -04/30/2024*			BH-TEDS: 07/01/2022 - 06/11/2024	
		Distinct Count of Individuals With		
Region Name	Submitter ID	Non-H0002 & Non-Crisis, Non-OBRA Assessment & Non-Transportation	Non-H0002, Non-Crisis, Non-Health Home, Non-OBRA Assessment & Non-Transportation Encounters But NO BH-TEDS Record Since 07/01/2022	Current Completion Rate
CMH Partnership of SE MI	00XT	10,378	147	98.58%
Detroit/Wayne	00XH	52,774	3,731	92.93%
Lakeshore Regional Entity	00ZI	18,326	488	97.34%
Macomb	00GX	12,574	217	98.27%
Mid-State Health Network	0107	38,510	1,415	96.33%
NorthCare Network	0101	5,657	21	99.63%
Northern MI Regional Entity	0108	11,025	330	97.01%
Oakland	0058	22,561	396	98.24%
Region 10	0109	19,263	208	98.92%
Southwest MI Behavioral Health	0102	23,765	202	99.15%
Statewide		214,833	7,155	96.67%

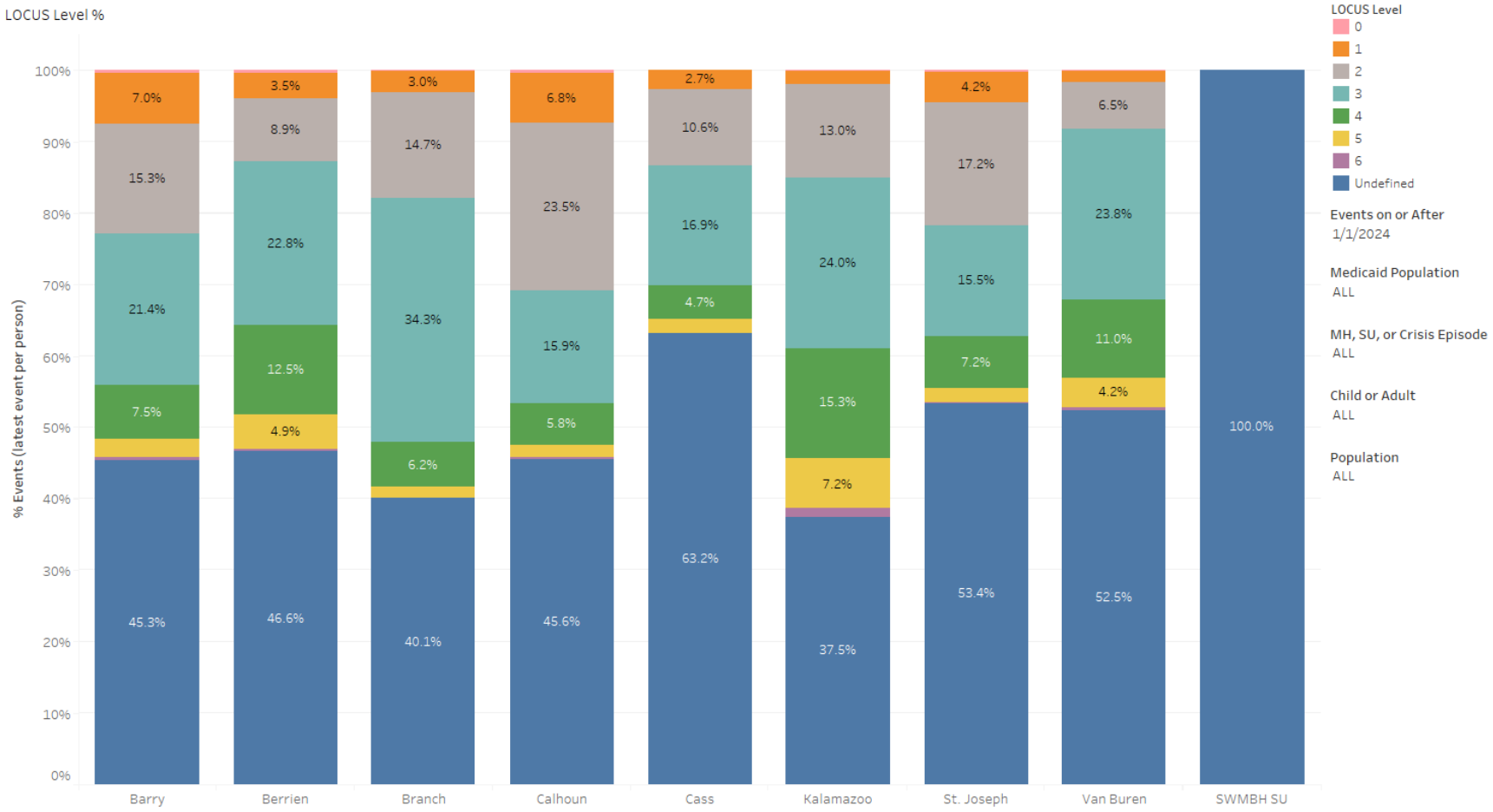
Key
95.00+ = Compliant
90.00-94.99
85.00-89.99
<85.00

*Encounters = All MH encounters **excluding**: A0080, A0090, A0100, A0110, A0120, A0130, A0140, A0170, A0425, A0427, H0002, H2011, H2034, Q3014, S0209, S0215, S0280, S0281, S9484, T1023, T1040, T2001-T2005 ,90839, 90840, 99304-99310

BHTEDS Fields used by Milliman in Rate Setting

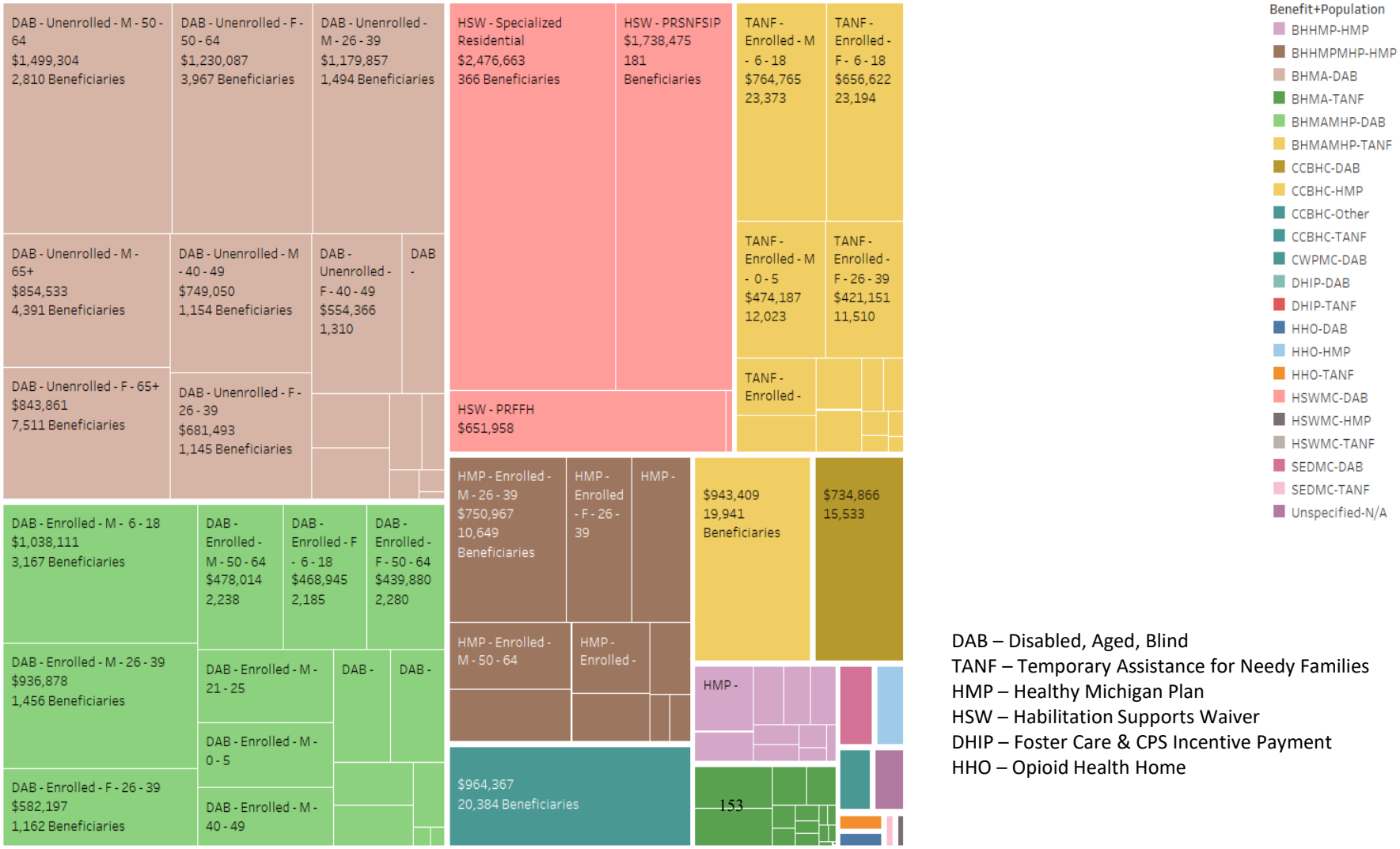
1. LOCUS Score
2. Legal Status
3. Education Level
4. Special Education
5. School Attendance Status
6. Employment Status
7. Detailed Not in Competitive Labor Force
8. Minimum Wage
9. Substance Use Problem (Primary, Secondary, and Tertiary)
10. Frequency of Use (Primary, Secondary, and Tertiary)
11. Attendance at SU or Co-dependent Self-help Groups in last 30 days
12. Medication-Assisted Opioid Therapy
13. Co-occurring Disorder/Integrated SU and MH Treatment

Geographical Risk Factors -Locus



Payment Rate Cell Analysis

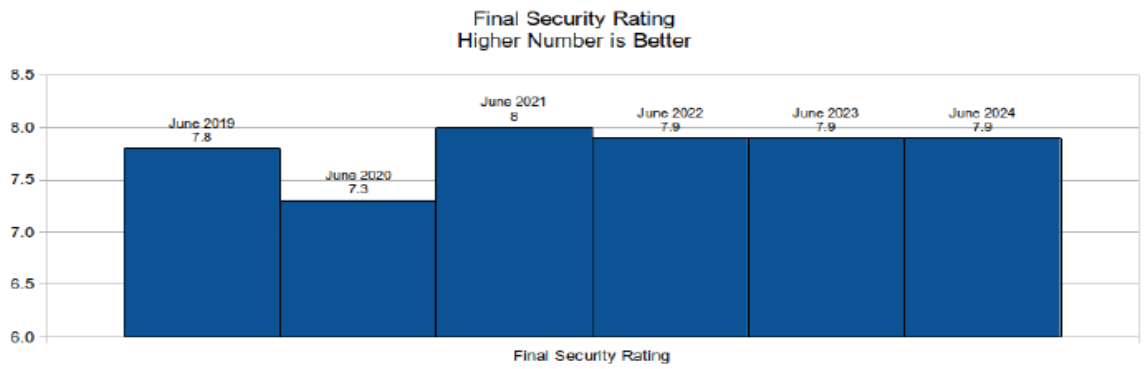
820 Payment Heatmap for January 2024



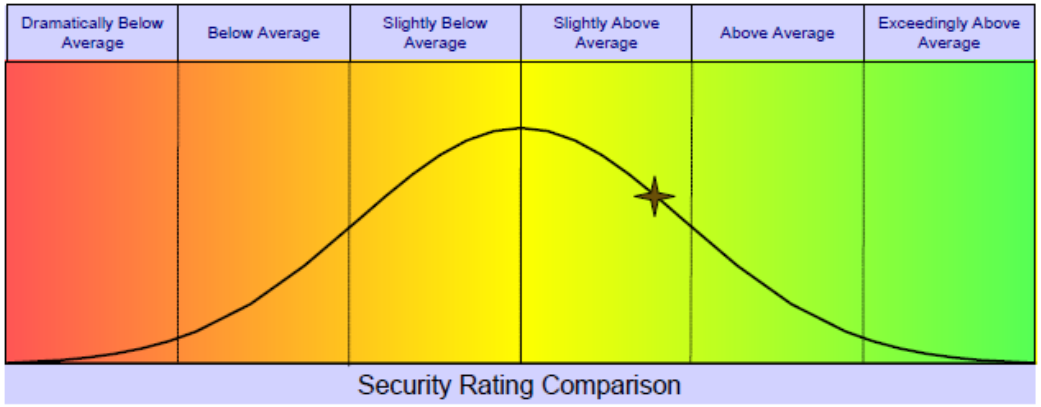
DAB – Disabled, Aged, Blind
TANF – Temporary Assistance for Needy Families
HMP – Healthy Michigan Plan
HSW – Habilitation Supports Waiver
DHIP – Foster Care & CPS Incentive Payment
HHO – Opioid Health Home

Network Penetration Test Results- June 2024

Final Security Rating History



Statistical Distribution



When compared to the overall security of similar organizations, you are rated Slightly Above Average.

Functions of a Managed Care Information System

- Member enrollment and Eligibility
- Claims Processing
- Provider Network Management
- Utilization Management
- Care Management
- Reporting and Analytics
- Customer Service and Suppport
- Financial Management
- Compliance and Regulatory Reporting
- Integration with other Healthcare systems and external databases to facilitation seamless data exchange and interoperability

MCIS vs. EHR Differences

Managed Care Information System

- Used by administrative staff of managed care organizations, including case managers, claims processors, and healthcare administrators.
- Includes tools for managing health plans, processing insurance claims, managing provider contracts, and analyzing healthcare costs.
- Deals with aggregated data related to populations, insurance plans, cost management, and provider performance.
- Interoperability focuses on data exchange between payers, providers, and other stakeholders involved in managed care operations.
- Measures outcomes related to cost efficiency, resource utilization, and financial performance of health plans.

Electronic Health Record System

- Primarily used by healthcare providers and clinical staff
- Supports direct patient care by providing tools for diagnosis and treatment.
- Deals with detailed, granular patient data on an individual level.
- Interoperability is for sharing patient data across different healthcare settings (hospitals, clinics, pharmacies).
- Measures outcomes related to patient health, clinical effectiveness, and quality of care.

Questions?

SWMBH Proposed Board Planning Timeline
Board Ends and Strategic Plan 2024-2027 Development

Month	Activity
September	**September 13 SWMBH Board Meeting.** **Management presents Strategic Plan.**
October	**October 11 SWMBH Board Meeting** **Susan presents final draft Ends.**
December	**December 13 SWMBH Board Meeting.** **Management presents Ends Interpretations and Metrics.**

RESOLUTION OF THE SOUTHWEST MICHIGAN BEHAVIORAL HEALTH BOARD OF DIRECTORS OPPOSING MDHHS DECISIONS TO IMPLEMENT CONFLICT FREE ACCESS AND PLANNING IN MICHIGAN

WHEREAS Southwest Michigan Behavioral Health (SWMBH) is a Regional Entity created in 2013 by eight Community Mental Health Services Programs (CMHSPs) listed below and functions as the Pre-Paid Inpatient Health Plan (PIHP) for those counties under a master Medicaid specialty supports and services contract with the Michigan Department of Health and Human Services (MDHHS); and

WHEREAS MDHHS has announced its decision to require CMHSPs to separate service assessment and planning from service delivery, requiring beneficiaries to receive the assessment and planning services from one entity and ongoing direct services from another, separate entity by October 1, 2024; and

WHEREAS after careful review by the SWMBH Board it is our assessment that the current DHHS CFAP plan

- Is in conflict with the statutory responsibilities of CMHSPs under Michigan law;
- Erroneously implies profit driven or undue enrichment motives on the part of governmental entities (CMHSPs and PIHPs) instead of recognizing what is actually a formal transfer of governmental responsibility from the State to the counties for the delivery of public behavioral health services;
- Ignores the capitation-based financing of the Michigan public behavioral health system, which is constant and does not vary by volume of individuals served negating any conflicts of interest in service planning and service delivery;
- Ignores Michigan's current shared risk (with MDHHS) financing system which already mitigates against conflict and self-interest;
- Is in conflict with the Certified Community Behavioral Health Clinic (CCBHC) model currently being implemented and expanded in Michigan; and
- Ignores, at best, and disregards, at worst, input from persons with lived experience that have consistently stated that the available procedural safeguards are preferable to systemic/structural upheaval inherent in MDHHS announced decisions.

THEREFORE, BE IT UNANIMOUSLY RESOLVED THAT, i**n the strongest possible terms** for the reasons noted above the SWMBH Board of Directors **opposes the MDHHS announced structural strategies** for compliance with the federal Conflict Free Access and Planning Regulations.

BE IT FURTHER UNANIMOUSLY RESOLVED THAT, the Southwest Michigan Behavioral Health Board of Directors requests MDHHS reconsideration of its current decisions and to honor CMS waiver approval of procedural mitigation of conflict, and to pursue CMS approval of strengthened procedural safeguards against conflict of interest in Michigan.

_____ _____

Sherii Sherban, SWMBH Board Chair Date

STATE OF MICHIGAN
DEPARTMENT OF HEALTH AND HUMAN SERVICES
LANSING

GRETCHEN WHITMER
GOVERNOR

ELIZABETH HERTEL
DIRECTOR

June 20, 2024

Mr. Bradley Casemore, CEO
Southwest Michigan Behavioral Health
5250 Lovers Lane, Suite 200
Portage, MI 49002

Dear Mr. Casemore:

Thank you for the cooperation extended to the Michigan Department of Health and Human Services (MDHHS) staff during the May 30, 2024, virtual site visit.

PRESENT AT THE SITE VISIT

SWMBH	Joel Smith, Director of SUD Treatment and Prevention Services Anastasia Miliadi, SUD Treatment Specialist Emily Flory, OHH Coordinator Achilles Malta, SUD Prevention Specialist Amy St. Peter, SUD Grant Specialist Erin Hetrick, SUD Treatment Specialist Tiffany Jackson, Financial Analyst Lily Smithson, Gambling Disorder Specialist
MDHHS	Angie Smith-Butterwick, SUGE Section Manager Lisa Coleman, Departmental Prevention Specialist Heather Rosales, Women's Treatment Specialist Madison Shutes, Site Review Analyst Ecole Barrow-Brooks, Treatment Analyst Kelli Dodson, Site Review Coordinator

SITE VISIT FINDINGS

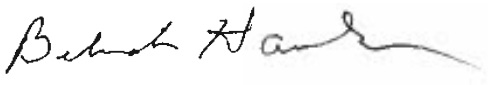
After careful consideration and review of the requirements and documentation submitted, we have determined that Southwest Michigan Behavioral Health (SWMBH) is in compliance with the SUD/PIHP Compliance Protocol.

Currently, SWMBH has all the necessary tools in place to manage, maintain and report and data from their provider network. Their providers will screen individuals to assess their needs and provide or make referrals for interventions as needed for individuals with an SUD.

We greatly appreciate SWMBH for the site visit and their commitment to provide our staff with the necessary documentation.

If you have any further questions, please contact Kelli Dodson, Site Review Coordinator at dodsonk@michigan.gov.

Sincerely,



Belinda Hawks, MPA
Director
Division of Adult Home and Community Based Services
Behavioral and Physical Health and Aging Services Administration

BH:kd

cc: Angie Smith-Butterwick, Treatment Section Manager
Kelli Dodson, Site Review Coordinator
Joel Smith, Director of SUD Treatment and Prevention Services

STATE OF MICHIGAN
DEPARTMENT OF HEALTH AND HUMAN SERVICES
LANSING

GRETCHEN WHITMER
GOVERNOR

ELIZABETH HERTEL
DIRECTOR

June 10, 2024

Bradley Casemore
Southwest Michigan Behavioral Health
5250 Lovers Lane, Suite 200
Portage, MI 49002

Dear Mr. Casemore:

Thank you for the cooperation extended to the Substance Use, Gambling and Epidemiology Section staff during the fiscal desk review process. The desk review, which included a review of your Fiscal Questionnaire, has been completed, as it pertains to programs under the Substance Use, Gambling and Epidemiology Section.

The objectives of the desk review were to evaluate responses to ensure that Southwest Michigan Behavioral Health complied with applicable program standards and requirements, and if any reporting or funding revisions were necessary. This review noted no exceptions.

If you have any questions concerning the procedures or the results of our review, please contact Choua Gonzalez-Medina at GonzalezMedinaC@michigan.gov.

Thank you for your cooperation.

Sincerely,

Belinda Hawks, MPA
Director
Division of Adult Home & Community Based Services
Behavioral and Physical Health and Aging Services Administration

BH:cg

c: Angela Smith-Butterwick, Substance Use, Gambling & Epidemiology Manager
Choua Gonzalez-Medina, State Opioid Coordinator
Garyl Guidry, Chief Financial Officer

Policy Governance® Bootcamp

A product of Partners in Policy Governance©

Hosted and facilitated by Sue Radwan, MEd, CAE, SMP. GSP Fellow

Looking for a thorough understanding of Policy Governance® (PG) as a model for Boards of Directors?

Partners in Policy Governance® has created a two full day event focused on Policy Governance Theory--what it is and why it works.

During the session, you will learn:

- ✓ The essential elements and concepts that are *critical* to understanding what is and is NOT PG
- ✓ The important concepts that contribute to why the system works
- ✓ How elements of the PG model compare with other methods of governance
- ✓ How the 10 principles of PG change how governing is done
- ✓ What benefits and value adopting a model of governance can bring to your organization

The content and approach for this PG Bootcamp was developed by Eric Craymer and Sue Radwan, co-authors of **Governing by Principles**: *An Approach to Unleash the Power of Policy Governance, © 2020, Leading Edge Press.*

We conducted research to discover what people found valuable in intensive education on Policy Governance. We have designed this event around our findings.

We have discovered that the theory and understanding of why the theory works, overlaid with a mix of different sector Boards attending together brings a huge value. When you can talk about how the principles are interpreted in different organizational settings you gain deeper insight into how Boards apply the principles in different contexts. This leads to a new level of model understanding.

Please let us know if you have any specific food allergies or requirements that might influence our food menu. We can accommodate gluten free, vegan, and specific food allergies if we know in advance. Please email your food needs to: susan.radwan@policygovernanceconsulting.com

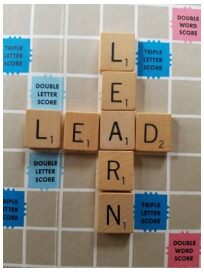
Location: Amway Grand Plaza
A Curio Collection Hotel by Hilton®
Grand Rapids, Michigan

NEW DATE: Wednesday-Thursday, Oct 30-31, 2024

This session is limited to 25 participants

The overall schedule for both days will be:

7:30	Breakfast
8:00	Session begins
9:45-10	Morning Break
10:30	Session continues
12-1 pm	Group Lunch
	Session continues
2:45-3:00	Afternoon break
3:00-5:00	Session continues
Day 2	Session ends at 3:30



PG Bootcamp Registration Fee
(includes breakfast & lunch and book: Governing By Principles)
Early bird: **$850** before Aug 1
Regular rate: **$900** between Aug 1-Sept 30
Last minute rate: **$950** after Sept 30

Hotel Room Rate: $184/night. Reserve your room by August 28 by calling (800) 253-3590.

Let the hotel know you are with the Partners in Policy Governance event.

Cancellation Policy:
Registrations are transferable to individuals inside your organization.

- ➢ Transfers are available (limited to one time).
- ➢ Full refund (less Paypal fee) if cancelled 31+ days before the scheduled event.
- ➢ 50% refund if cancelled 16-30 days before.
- ➢ No refund if cancelled 15 or less days prior to the scheduled event or a no show.
- ➢ If we cancel due to COVID flare, there is no penalty, but registration transfer is encouraged.

To register: Register and pay online at http://www.PGbootcamp.net.event
OR send your **commitment to attend** to susan.radwan@policygovernanceconsulting.com.
You can send your registration fee in advance to 302 E Jefferson, Grand Ledge, MI 48837.

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