Division of Medicaid
Office of the Governor
State of Mississippi
Drug Utilization Review (DUR) Board Meeting

MISSISSIPPI DIVISION OF
MEDICAID

December 11, 2025 at 1:00pm

Walter Sillers Building, Cobb Conference Room

Jackson, MS

Prepared by:

MS | DUR Evidence-Based DUR Initiative
The University of Mississippi School of Pharmacy

Drug Utilization Review Board

Amy Catherine Baggett, PharmD
Love's Pharmacy of Diamondhead
45000 E Aloha Dr., Suite B
Diamondhead, MS 39525
Term Expires: June 30, 2027

Terrence Brown, PharmD
BioScrip Infusion Services
187 Country Place Pkwy, Suite C
Pearl, MS 39208
Term Expires: June 30, 2026

Greg Browning, MD
Premier Medical Group
332 MS-12
Kosciusko, MS 39090
Term Expires: June 30, 2028

Rachel Burt, PharmD
Walmart Pharmacy
2530 Jackson Avenue West
Oxford, MS 38655
Term Expires: June 30, 2026

Steven Clark, MD
Cleveland Medical Clinic
810 East Sunflower Road
Cleveland, MS 38732
Term Expires: June 30, 2028

Chrysanthia Davis, PharmD
Omnicare Pharmacy
100 Business Park Dr, Suite D
Ridgeland, MS 39157
Term Expires: June 30, 2028

Dena Jackson, MD
King's Daughters Specialty Clinic
940 Brookway Blvd
Brookhaven, MS 39601
Term Expires: June 30, 2026

Jessica Lavender, MD
UMMC
2500 N. State Street
Jackson, MS 39216
Term Expires: June 30, 2028

Holly R. Moore, PharmD
Anderson Regional Medical Center
2124 14th Street
Meridian, MS 39301
Term Expires: June 30, 2026

Joshua Pierce, PharmD (Chair)
McGuffee Drugs
102 Main Street
Magee, MS 39111
Term Expires: June 30, 2027

Gaylen Sanders, MD
The Pediatric Clinic
415 South 28th Avenue
Hattiesburg, MS 39401
Term Expires: June 30, 2027

Joshua Trull, DO
UMMC Dept of Psychiatry
2500 N. State Street
Jackson, MS 39216
Term Expires: June 30, 2027

2025 DUR Board Meeting Dates

March 20, 2025
June 12, 2025
September 18, 2025
December 11, 2025

As with any analysis, great efforts are made to ensure that the information reported in this document is accurate. The most recent administrative claims data available are being used at the time the reports are generated, which includes the most recent adjudication history. As a result, values may vary between reporting periods and between DUR Board meetings, reflecting updated reversals and claims adjustments.

Unless otherwise indicated, all MS-DUR analyses are conducted for the entire Mississippi Medicaid program including beneficiaries receiving services through the Medicaid fee-for-service (FFS) and the Mississippi Medicaid Coordinated Care Organizations (CCOs). When dollar figures are reported, the reported dollar figures represent reimbursement amounts paid to providers and are not representative of final Medicaid costs after rebates. Any reported enrollment data presented are unofficial and are only for general information purposes for the DUR Board.

Please refer to the Mississippi Division of Medicaid website for the current official Universal Preferred Drug List (PDL).

http://www.medicaid.ms.gov/providers/pharmacy/preferred-drug-list/

MISSISSIPPI DIVISION OF MEDICAID
OFFICE OF THE GOVERNOR
DRUG UTILIZATION REVIEW BOARD
AGENDA
December 11, 2025

Welcome

Old Business

Resource Utilization Review

Follow-up and Discussion from the Board

New Business

Pharmacy Program Update

Proposed 2026 Meeting Information

March 5, 2026	September 10, 2026
June 11, 2026	December 10, 2026

DUR Board Meeting Minutes

MISSISSIPPI DIVISION OF MEDICAID
DRUG UTILIZATION REVIEW (DUR) BOARD
MINUTES OF THE SEPTEMBER 18, 2025 MEETING

DUR Board Roster: State Fiscal Year 2025 (July 1, 2025 – June 30, 2026)	**Dec 2024**	**Mar 2025**	**Jun 2025**	**Sep 2025**
Amy Catherine Baggett, PharmD		✓		✓
Terrence Brown, PharmD		✓	✓	✓
Greg Browning, MD	NA	NA	NA	✓
Rachel Burt, PharmD	NA	NA	NA	✓
Steven Clark, MD	NA	NA	NA	✓
Chrysanthia Davis, PharmD	✓	✓	✓	✓
Dena Jackson, MD		✓	✓	
Jessica Lavender, MD		✓	✓	✓
Holly Moore, PharmD	✓	✓		✓
Joshua Pierce, PharmD		✓	✓	✓
Gaylen Sanders, MD	✓	✓	✓	✓
Joshua Trull, DO	✓	✓		✓
TOTAL PRESENT**	**5**	**11**	**7**	**11**

** *Total Present may not be reflected by individual members marked as present above due to members who either resigned or whose terms expired being removed from the list.*

Also Present:

Division of Medicaid (DOM) Staff:
Terri Kirby, RPH, CPM, Pharmacy Director; Dennis Smith, RPH, DUR Coordinator; Amy Ly-Ha, PharmD, Pharmacist II; Kimberly Meredith, Student Pharmacist; Olivia Mottlau, Student Pharmacist;

University of Mississippi School of Pharmacy - MS-DUR Staff:
Eric Pittman, PharmD, PhD, MS-DUR Project Director; Kaustuv Bhattacharya, PhD, MS-DUR Research Assistant Professor; John Bentley, PhD, CPMM Director; Connor Callahan, Student Pharmacist Intern;

Coordinated Care Organization (CCO) Staff:
Jenni Grantham, PharmD, Director of Pharmacy, Magnolia Health; Jessica Lawson, PharmD, TruCare;

Gainwell Staff:
Lew Ann Snow, RN, Advisor Business Analyst; Tricia Banks, PharmD, Director of Pharmacy;

Teligen Staff:
Buddy Ogletree, PharmD, Pharmacist; Samuel Lyles, Student Pharmacist;

Visitors: Paula Whatley, Novo Nordisk; Folger Tuggle, Alnylam.

Call to Order/Welcome:
The meeting began at 1:05 pm.

OLD BUSINESS:
Dr. Brown moved to approve the minutes from the June 2025 DUR Board Meeting, seconded by Dr. Davis, and unanimously approved by the DUR Board.

Resource Utilization Review
Dr. Pittman presented the resource utilization report for June 2025. Data presented was across all pharmacy programs. With this being the first meeting for three new Board members, Dr. Pittman took the opportunity to provide the Board with a brief overview of resource utilization tables.

NEW BUSINESS:

Election of Co-Chair
Dr. Brown nominated Dr. Lavender to serve as Co-Chair for the upcoming year, and Dr. Trull seconded the motion. No other nominations were brought forth. Nominations were closed and the Board unanimously approved Dr. Lavender as the new Co-Chair.

Update on MS-DUR Educational Interventions
Dr. Pittman provided an overview of all DUR mailings and educational notices that occurred between June 2025 and August 2025.

Influenza Annual Update
Dr. Pittman provided the Board a review of influenza vaccination and treatment during the 2024-2025 season. While 2024-2025 flu season was classified as one of the most severe seasons in recent years, the total number of MS Medicaid members vaccinated against influenza decreased slightly compared to the prior season. Additionally, the number of members treated with anti-influenza agents was lower than the prior season.

For next year, the Board requested MS-DUR examine the proportion of members hospitalized with flu-related illnesses who had received influenza vaccination. After a brief discussion, no formal recommendations were proposed as a result of this report.

RSV Annual Update
Dr. Pittman provided the Board with a review of RSV prevention among Medicaid members during the 2024-2025 RSV season. For the 2024-2025 RSV season, MS Medicaid saw a dramatic increase in the proportion of infants who received RSV protection during their first RSV season. During this past season, approximately 22% of eligible newborns received RSV protection, up from 10% in the 2023/2024 RSV season. While encouraging, efforts should be undertaken to continue increasing the proportion of newborns protected from RSV. MS-DUR will examine RSV

protection by county to identify areas where additional education may be needed. Concluding a robust discussion, MS-DUR made the following recommendation:

- DOM should communicate with prescribers the importance of RSV protection for newborns, including in this communication the process for Medicaid billing for these agents.

Dr. Davis made a motion to approve the recommendation, seconded by Dr. Sanders, and unanimously approved by the Board.

Medicaid Case Mix Change

Understanding how Medicaid enrollment has changed in recent years is vital in explaining shifts in spending as well as in preparing future budgeting models. Factoring inflation-adjustments into annual costs, MS Medicaid saw modest increases in spending during the observation period. During the COVID-19 pandemic, enrollment numbers climbed as a result of the public health emergency (PHE). Following the end of the PHE and unwinding in 2023, Medicaid enrollment declined, however, the remaining members were those with higher utilization of services. Throughout the entire period, the proportion of the total costs attributed to pharmacy costs remained relatively flat between 20-23%. Coupling the decline in enrollment with the retention of higher utilizers of services drove the per member per month (PMPM) costs up in 2024. Upon examining total costs by comorbid conditions, conditions where high-cost biologic agents were approved or received additional on-label indications, such as dermatology and autoimmune disorders, saw the largest PMPM increases.

This report was primarily for informational purposes. Following discussion, no formal recommendations were proposed as a result of this report.

Preliminary Healthcare Utilization Patterns Among Members Initiating GLP-1 RA Anti-obesity Medications

When comparing healthcare expenditures during the 12 month pre- and post-initiation of glucagon-like peptide-1 receptor agonists anti-obesity medications (GLP-1 RA AOMs) between July 2023 and June 2024, it was noted that comorbid conditions and adherence patterns may influence potential cost savings. It should be noted that the current study sample includes approximately 17% of the total number of Medicaid members who have initiated GLP-1 RA AOMs to date in MS Medicaid. Additionally, supply-chain issues potentially impacted adherence patterns for members during the study period. Given these considerations, these preliminary findings, especially in certain specific adherence-stratified clinical subgroups, are limited by small sample size and presence of outlier data. Despite the above-mentioned considerations and limitations, in this sample of the MS Medicaid population who initiated GLP-1 RA AOMs, the data suggests specific patient groups where potential impacts on healthcare utilization may be seen in a relatively short period of time. Members with comorbidities of type 2 diabetes mellitus (T2DM) and metabolic dysfunction-associated steatotic liver disease (MASLD) saw mean total cost savings, excluding the cost of the GLP-1 RA AOM, in one-year post-initiation,

regardless of adherence. Additionally, those with kidney-related conditions, hyperlipidemia, cardiovascular disease, and hypertension saw savings among those with higher adherence. Further work will continue examining additional factors that may impact cost savings associated with GLP-1 RA AOM use among Mississippi Medicaid members.

During a robust discussion, Board members offered input regarding future considerations to examine. It was suggested that MS-DUR examine additional comorbidities such as depression and osteoarthritis. Board members also encouraged MS-DUR to explore phase-specific costs (initiation versus maintenance), utilization of other preventive care services, and control for catastrophic events unrelated to obesity.

No formal motions were made in reference to this report.

FDA Drug Safety Updates:
Dr. Pittman reviewed the FDA drug safety communications published between June 2025 through August 2025.

Input on MCO Incentive/Withhold Program
DOM solicited input from the DUR Board on the quality measures used as part of the Managed Care Organization (MCO) Incentive/Withhold Program. Members suggested replacing the Immunizations for Adolescents (IMA) measure with the Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents (WCC).

Pharmacy Program Update:
The following items were included in the pharmacy program update:

- The Board was reminded of the Pharmacy and Therapeutics Committee's purpose and their upcoming meeting in October 2025.
- DOM recently held train-the-trainer sessions for care managers with the coordinated care organizations around obesity management.
- Annual open enrollment for the coordinated care organizations that participate in MississippiCAN program will run October 1, 2025 through December 15, 2025, with changes being effective January 1, 2026.
- Mississippi Medicaid recently received their notice of funding from the Centers for Medicare and Medicaid Services for the cell and gene therapy access model. Mississippi was one of eight states to receive this funding.

Next Meeting Information:
Remaining meeting dates for 2025:

- December 11, 2025

Dr. Brown adjourned the meeting at 3:07 pm.

Submitted,

Eric Pittman, PharmD, PhD
Evidence-Based DUR Initiative, MS-DUR

DUR Board Meeting Resources

Members

The DUR Board is composed of twelve participating Medicaid providers who are in good standing with their representative organizations.

- DUR Board Member List

Meetings

Meetings will be held on the following dates at 1:00 p.m. in the Cobb Conference Room at 550 High St, Jackson, MS (**see map**).

- March 20, 2025
- June 12, 2025
- September 18, 2025
- December 11, 2025

The September 18 meeting may be viewed virtually by clicking on the following link:
Click Here for MS Medicaid DUR Live Broadcast on September 18, 2025, at 1:00 p.m.

Please note: This link will only be live during the meeting and will not be archived for future viewing.

Resource Utilizaton Review

TABLE 04A: ENROLLMENT STATISTICS FOR LAST 6 MONTHS
April 1, 2025 through September 30, 2025

			Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25
Total enrollment			722,486	720,166	718,664	717,804	715,521	710,894
Dual-eligibles			163,042	162,978	163,221	163,193	163,027	163,041
Pharmacy benefits			559,673	557,646	556,053	555,233	553,232	549,495
	LTC		15,809	15,823	15,808	15,795	15,745	15,641
	PLAN %	**FFS**	21.8%	21.8%	21.5%	21.6%	21.3%	20.8%
		MSCAN-UHC	27.9%	27.2%	26.6%	0.1%	0.1%	0.1%
		MSCAN-Magnolia	31.6%	32.0%	32.4%	37.7%	38.0%	38.3%
		MSCAN-Molina	18.7%	19.0%	19.5%	23.8%	24.1%	24.3%
		MSCAN-TrueCare	0.0%	0.0%	0.0%	16.8%	16.5%	16.5%

TABLE 04B: PHARMACY UTILIZATION STATISTICS FOR LAST 6 MONTHS
April 1, 2025 through September 30, 2025

		Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25
# Rx Fills	**FFS**	98,287	94,021	87,191	92,628	97,773	97,250
	MSCAN-UHC	131,441	120,842	108,536	284	235	228
	MSCAN-Mag	151,518	143,283	131,418	160,709	180,440	177,461
	MSCAN-Mol	68,356	64,457	58,127	82,949	95,226	93,729
	MSCAN-Tru	-	-	-	65,418	72,785	70,820
# Rx Fills / Bene	**FFS**	0.8	0.8	0.7	0.8	0.8	0.9
	MSCAN-UHC	0.8	0.8	0.7	0.5	0.4	0.4
	MSCAN-Mag	0.9	0.8	0.7	0.8	0.9	0.8
	MSCAN-Mol	0.7	0.6	0.5	0.6	0.7	0.7
	MSCAN-Tru	#DIV/0!	#DIV/0!	#DIV/0!	0.7	0.8	0.8
$ Paid Rx	**FFS**	$13,336,847	$13,698,784	$13,207,892	$14,660,590	$14,374,348	$14,191,586
	MSCAN-UHC	$19,226,651	$18,582,719	$18,378,483	$148,269	$95,188	$87,854
	MSCAN-Mag	$21,503,987	$21,566,776	$20,806,386	$26,506,284	$25,976,199	$26,876,384
	MSCAN-Mol	$8,224,348	$8,346,466	$7,983,243	$13,224,670	$12,543,456	$13,287,036
	MSCAN-Tru	$0	$0	$0	$10,617,936	$9,835,460	$10,581,541
$ /Rx Fill	**FFS**	$135.69	$145.70	$151.48	$158.27	$147.02	$145.93
	MSCAN-UHC	$146.28	$153.78	$169.33	$522.07	$405.06	$385.32
	MSCAN-Mag	$141.92	$150.52	$158.32	$164.93	$143.96	$151.45
	MSCAN-Mol	$120.32	$129.49	$137.34	$159.43	$131.72	$141.76
	MSCAN-Tru	#DIV/0!	#DIV/0!	#DIV/0!	$162.31	$135.13	$149.41
$ /Bene	**FFS**	$109.31	$112.69	$110.48	$122.24	$121.98	$124.17
	MSCAN-UHC	$123.13	$122.51	$124.25	$267.04	$172.06	$159.88
	MSCAN-Mag	$121.59	$120.86	$115.49	$126.63	$123.56	$127.71
	MSCAN-Mol	$78.58	$78.78	$73.63	$100.08	$94.08	$99.51
	MSCAN-Tru	#DIV/0!	#DIV/0!	#DIV/0!	$113.83	$107.75	$116.71

NOTE: Paid amounts represent amount reported on claims as paid to the pharmacy. These amounts do not reflect final actual costs after rebates, etc.

TABLE C: TOP 10 DRUG CATEGORIES BY NUMBER OF CLAIMS IN SEP 2025 (FFS AND CCOs)

subcategory_top_drug	Month Year	Rank Volume	# RXs	$ Paid	# Unique Benes
CNS stimulants (e.g.,methylphenidate)	Sep 2025	1	24,545	$3,373,370	21,366
	Aug 2025	1	22,567	$3,121,896	19,629
	Jul 2025	1	21,967	$3,069,253	18,936
atypical antipsychotics (e.g.,risperidone)	Sep 2025	2	14,107	$5,436,863	11,845
	Aug 2025	3	13,981	$5,402,912	11,675
	Jul 2025	2	14,275	$5,574,741	11,651
aminopenicillins (e.g.,amoxicillin)	Sep 2025	3	13,342	$194,651	13,106
	Aug 2025	2	14,057	$203,926	13,830
	Jul 2025	12	8,125	$114,866	7,989
SSRI antidepressants (e.g.,sertraline)	Sep 2025	4	12,977	$167,958	11,903
	Aug 2025	5	12,731	$165,409	11,667
	Jul 2025	3	12,964	$166,808	11,690
adrenergic bronchodilators (e.g.,albuterol)	Sep 2025	5	12,485	$566,428	10,837
	Aug 2025	4	13,972	$717,460	11,948
	Jul 2025	6	10,900	$635,142	9,298
nonsteroidal anti-inflammatory agents (e.g.,ibuprofen)	Sep 2025	6	12,439	$168,297	11,942
	Aug 2025	6	12,412	$169,845	11,821
	Jul 2025	5	11,056	$153,272	10,550
antiadrenergic agents, centrally acting (e.g.,clonidine)	Sep 2025	7	11,821	$189,754	10,588
	Aug 2025	7	11,706	$190,406	10,528
	Jul 2025	4	11,574	$180,818	10,262
antihistamines (e.g.,cetirizine)	Sep 2025	8	11,324	$194,040	10,901
	Aug 2025	8	11,604	$215,500	11,177
	Jul 2025	9	8,673	$158,286	8,302
glucocorticoids (e.g.,prednisolone)	Sep 2025	9	10,770	$469,993	10,434
	Aug 2025	9	11,231	$490,775	10,841
	Jul 2025	16	7,159	$416,065	6,890
proton pump inhibitors (e.g.,pantoprazole)	Sep 2025	10	10,131	$290,719	9,575
	Aug 2025	11	10,124	$285,373	9,523
	Jul 2025	7	10,234	$290,722	9,551

TABLE D: TOP 10 DRUG CATEGORIES BY DOLLARS PAID IN SEP 2025 (FFS AND CCOs)

subcategory_top_drug	Month Year	Rank Paid Amt	# RXs	$ Paid	# Unique Benes
interleukin inhibitors (e.g.,dupilumab)	Sep 2025	1	1,053	$6,482,538	953
	Aug 2025	1	964	$6,118,055	904
	Jul 2025	1	1,068	$6,562,160	966
atypical antipsychotics (e.g.,paliperidone)	Sep 2025	2	14,107	$5,436,863	11,845
	Aug 2025	2	13,981	$5,402,912	11,675
	Jul 2025	2	14,275	$5,574,741	11,651
GLP-1 receptor agonists for obesity (e.g.,semaglutide)	Sep 2025	3	3,164	$4,107,326	2,954
	Aug 2025	3	2,884	$3,739,210	2,719
	Jul 2025	3	3,015	$3,901,286	2,779
TNF alpha inhibitors (e.g.,adalimumab)	Sep 2025	4	398	$3,520,763	355
	Aug 2025	5	347	$2,989,986	329
	Jul 2025	4	401	$3,462,444	357
CNS stimulants (e.g.,methylphenidate)	Sep 2025	5	24,545	$3,373,370	21,366
	Aug 2025	4	22,567	$3,121,896	19,629
	Jul 2025	5	21,967	$3,069,253	18,936
antiviral combinations (e.g.,bictegravir/emtricitabine/tenofovir)	Sep 2025	6	669	$2,534,453	622
	Aug 2025	6	734	$2,809,702	690
	Jul 2025	6	637	$2,487,783	601
CFTR combinations (e.g.,elexacaftor/ivacaftor/tezacaftor)	Sep 2025	7	96	$2,532,726	82
	Aug 2025	8	80	$2,174,463	70
	Jul 2025	8	87	$2,306,235	78
GLP-1 receptor agonists for non-obesity indications (e.g.,dulaglutide)	Sep 2025	8	2,614	$2,455,990	2,478
	Aug 2025	7	2,569	$2,413,503	2,446
	Jul 2025	7	2,564	$2,422,092	2,398
factor for bleeding disorders (e.g.,emicizumab)	Sep 2025	9	135	$2,096,061	102
	Aug 2025	9	127	$1,822,226	106
	Jul 2025	9	135	$2,105,697	108
SGLT-2 inhibitors (e.g.,empagliflozin)	Sep 2025	10	2,242	$1,826,084	2,143
	Aug 2025	10	2,276	$1,784,089	2,145
	Jul 2025	10	2,275	$1,854,972	2,133

TABLE E: TOP 25 DRUG MOLECULES
BY NUMBER OF CLAIMS IN SEP 2025 (FFS and CCOs)

Drug Molecule Therapeutic Category	Aug 2025 # Claims	Sep 2025 # Claims	Sep 2025 $ Paid	Sep 2025 # Unique Benes
amoxicillin / aminopenicillins	14,027	13,315	$193,807	13,079
albuterol / adrenergic bronchodilators	12,841	11,720	$354,800	10,268
methylphenidate / CNS stimulants	8,039	8,888	$1,714,972	7,943
ondansetron / 5HT3 receptor antagonists	8,058	8,707	$133,473	8,362
azithromycin / macrolides	10,357	8,651	$135,823	8,513
amphetamine-dextroamphetamine / CNS stimulants	7,240	7,698	$226,495	6,719
cetirizine / antihistamines	8,037	7,689	$134,583	7,573
clonidine / antiadrenergic agents, centrally acting	7,191	7,345	$105,485	6,891
fluticasone nasal / nasal steroids	7,621	6,847	$120,130	6,789
ibuprofen / nonsteroidal anti-inflammatory agents	6,660	6,569	$83,071	6,426
montelukast / leukotriene modifiers	6,299	6,085	$87,952	5,953
gabapentin / gamma-aminobutyric acid analogs	6,055	6,029	$93,898	5,593
sertraline / SSRI antidepressants	5,135	5,264	$64,422	4,813
prednisolone / glucocorticoids	5,047	5,206	$113,673	5,092
cefdinir / third generation cephalosporins	5,560	5,113	$107,359	5,069
amoxicillin-clavulanate / penicillins/beta-lactamase inhibitors	5,318	5,043	$104,136	4,980
triamcinolone topical / topical steroids	5,104	4,945	$86,275	4,839
acetaminophen-hydrocodone / narcotic analgesic combinations	4,782	4,669	$80,413	4,410
ergocalciferol / vitamins	4,592	4,653	$43,107	3,880
guanfacine / antiadrenergic agents, centrally acting	4,512	4,475	$83,663	4,261
hydroxyzine / miscellaneous anxiolytics, sedatives and hypnotics	4,412	4,407	$80,168	4,234
amlodipine / calcium channel blocking agents	4,474	4,405	$71,073	4,099
mupirocin topical / topical antibiotics	4,202	4,267	$63,534	4,191
pantoprazole / proton pump inhibitors	4,232	4,255	$54,927	3,964
omeprazole / proton pump inhibitors	4,271	4,217	$55,137	4,085

TABLE F: TOP 25 DRUG MOLECULES
BY DOLLARS PAID IN SEP 2025 (FFS and CCOs)

Drug Molecule Therapeutic Category	Aug 2025 $ Paid	Sep 2025 $ Paid	Sep 2025 # Claims	Sep 2025 # Unique Benes
semaglutide / GLP-1 receptor agonists for obesity	$3,684,323	$4,032,669	3,092	2,887
dupilumab / interleukin inhibitors	$2,760,753	$3,038,459	754	685
adalimumab / TNF alpha inhibitors	$2,322,607	$2,741,848	280	247
elexacaftor/ivacaftor/tezacaftor / CFTR combinations	$1,947,139	$2,308,922	88	75
paliperidone / atypical antipsychotics	$2,160,869	$2,222,622	676	625
dulaglutide / GLP-1 receptor agonists for non-obesity indications	$1,881,397	$1,897,845	1,995	1,908
methylphenidate / CNS stimulants	$1,534,347	$1,714,972	8,888	7,943
aripiprazole / atypical antipsychotics	$1,558,043	$1,528,973	3,738	3,496
bictegravir/emtricitabine/tenofovir / antiviral combinations	$1,556,687	$1,485,611	333	313
emicizumab / factor for bleeding disorders	$806,057	$1,061,883	34	27
ixekizumab / interleukin inhibitors	$881,219	$963,973	117	99
empagliflozin / SGLT-2 inhibitors	$897,535	$959,068	1,125	1,071
dapagliflozin / SGLT-2 inhibitors	$882,456	$862,918	1,110	1,069
cariprazine / atypical antipsychotics	$797,576	$801,672	551	532
etanercept / TNF alpha inhibitors	$571,890	$694,613	105	95
apixaban / factor Xa inhibitors	$634,425	$645,191	1,263	1,115
cannabidiol / miscellaneous anticonvulsants	$549,965	$537,522	161	149
risperidone / atypical antipsychotics	$507,974	$511,355	3,955	3,558
lisdexamfetamine / CNS stimulants	$492,529	$506,216	3,416	3,312
somatropin / growth hormones	$459,777	$505,770	115	104
antihemophilic factor / factor for bleeding disorders	$686,486	$504,079	11	8
risankizumab / interleukin inhibitors	$424,418	$496,301	25	25
ustekinumab / interleukin inhibitors	$583,912	$491,878	25	25
immune globulin intravenous / immune globulins	$447,789	$484,064	26	23
teduglutide / miscellaneous GI agents	$375,232	$469,040	10	10

TABLE G: TOP 25 DRUG MOLECULES
BY CHANGE IN NUMBER OF CLAIMS FROM JUL 2025 TO SEP 2025 (FFS and CCOs)

Drug Molecule	Jul 2025 # Claims	Aug 2025 # Claims	Sep 2025 # Claims	Sep 2025 $ Paid	Sep 2025 # Unique Benes
amoxicillin / aminopenicillins	8,105	14,027	13,315	$193,807	13,079
azithromycin / macrolides	4,254	10,357	8,651	$135,823	8,513
ondansetron / 5HT3 receptor antagonists	5,385	8,058	8,707	$133,473	8,362
prednisolone / glucocorticoids	2,739	5,047	5,206	$113,673	5,092
cetirizine / antihistamines	5,231	8,037	7,689	$134,583	7,573
albuterol / adrenergic bronchodilators	9,748	12,841	11,720	$354,800	10,268
fluticasone nasal / nasal steroids	4,878	7,621	6,847	$120,130	6,789
cefdinir / third generation cephalosporins	3,289	5,560	5,113	$107,359	5,069
amoxicillin-clavulanate / penicillins/beta-lactamase inhibitors	3,350	5,318	5,043	$104,136	4,980
methylphenidate / CNS stimulants	7,708	8,039	8,888	$1,714,972	7,943
ibuprofen / nonsteroidal anti-inflammatory agents	5,568	6,660	6,569	$83,071	6,426
influenza virus vaccine, inactivated / viral vaccines	12	268	911	$63,343	911
prednisone / glucocorticoids	2,270	3,422	3,104	$33,464	3,018
amphetamine-dextroamphetamine / CNS stimulants	7,163	7,240	7,698	$226,495	6,719
montelukast / leukotriene modifiers	5,555	6,299	6,085	$87,952	5,953
cephalexin / first generation cephalosporins	2,675	3,011	3,086	$52,589	3,037
oseltamivir / neuraminidase inhibitors	192	627	583	$14,953	582
dexmethylphenidate / CNS stimulants	2,635	2,772	2,996	$136,485	2,559
lisdexamfetamine / CNS stimulants	3,064	3,094	3,416	$506,216	3,312
methylprednisolone / glucocorticoids	1,505	2,060	1,852	$25,372	1,831
benzonatate / antitussives	506	860	810	$10,992	798
mupirocin topical / topical antibiotics	4,020	4,202	4,267	$63,534	4,191
budesonide / inhaled corticosteroids	1,009	1,283	1,228	$120,633	1,188
lidocaine topical / topical anesthetics	214	321	428	$10,003	417
azelastine nasal / nasal antihistamines and decongestants	332	528	504	$9,803	499

TABLE H: TOP 25 DRUG MOLECULES
BY CHANGE IN AMOUNT PAID FROM JUL 2025 TO SEP 2025 (FFS and CCOs)

Drug Molecule	Jul 2025 $ Paid	Aug 2025 $ Paid	Sep 2025 $ Paid	Sep 2025 # Claims	Sep 2025 # Unique Benes
methylphenidate / CNS stimulants	$1,469,848	$1,534,347	$1,714,972	8,888	7,943
coagulation factor viia / factor for bleeding disorders	$15,294	$0	$203,920	1	1
semaglutide / GLP-1 receptor agonists for obesity	$3,854,060	$3,684,323	$4,032,669	3,092	2,887
elexacaftor/ivacaftor/tezacaftor / CFTR combinations	$2,167,678	$1,947,139	$2,308,922	88	75
risankizumab / interleukin inhibitors	$365,507	$424,418	$496,301	25	25
bictegravir/emtricitabine/tenofovir / antiviral combinations	$1,380,024	$1,556,687	$1,485,611	333	313
bimekizumab / interleukin inhibitors	$302,564	$389,453	$403,989	18	16
cabozantinib / VEGF/VEGFR inhibitors	$155,108	$155,108	$248,515	10	9
risdiplam / miscellaneous uncategorized agents	$309,766	$202,031	$397,298	17	11
deutivacaftor/tezacaftor/vanzacaftor / CFTR combinations	$113,662	$227,324	$198,909	7	6
nintedanib / multikinase inhibitors	$115,782	$115,667	$196,833	15	12
ixekizumab / interleukin inhibitors	$884,521	$881,219	$963,973	117	99
amoxicillin / aminopenicillins	$114,488	$202,959	$193,807	13,315	13,079
azithromycin / macrolides	$65,228	$160,848	$135,823	8,651	8,513
diazoxide / agents for hypertensive emergencies	$90,610	$86,363	$160,078	7	5
efgartigimod alfa-hyaluronidase / immune globulins	$0	$66,939	$66,939	1	1
triptorelin / antineoplastic hormones	$22,309	$0	$89,236	4	4
nirmatrelvir-ritonavir / antiviral combinations	$49,649	$175,350	$115,216	80	80
tovorafenib / multikinase inhibitors	$36,871	$147,485	$101,399	3	3
influenza virus vaccine, inactivated / viral vaccines	$735	$15,923	$63,343	911	911
belimumab / selective immunosuppressants	$203,460	$181,839	$263,000	54	44
prednisolone / glucocorticoids	$55,749	$110,452	$113,673	5,206	5,092
dolutegravir-lamivudine / antiviral combinations	$114,607	$138,404	$171,032	45	41
pomalidomide / miscellaneous antineoplastics	$55,955	$79,937	$111,910	4	3
deferiprone / antidotes	$72,086	$72,086	$124,623	7	6

TABLE I: TOP 15 DRUG SOLID DOSAGE FORM HIGH VOLUME (100+ RX FILLS LAST MONTH) PRODUCTS WITH UNIT COST > $1
BY PERCENT CHANGE IN AMOUNT PAID PER UNIT JUL 2025 TO SEP 2025 (FFS and CCOs)

Drug Product Therapeutic Category	Sep 2025 # Claims	Sep 2025 $ Paid	Sep 2025 Avr. Paid Per Rx	Sep 2025 Avr. Units Per Rx	Jul 2025 Paid Per Unit	Aug 2025 Paid Per Unit	Sep 2025 Paid Per Unit	Percent Change
naltrexone 50 mg tablet / drugs used in alcohol dependence (Y)	313	$14,993	$47.90	29	$1.12	$1.16	$1.20	7.5%
Xulane (ethinyl estradiol-norelgestromin) 35 mcg-150 mcg/24 hr film, extended release / contraceptives (Y)	1,730	$191,403	$110.64	3	$31.61	$32.19	$32.93	4.2%
dexmethylphenidate 10 mg capsule, extended release / CNS stimulants (Y)	556	$29,741	$53.49	30	$1.37	$1.40	$1.43	4.1%
Xarelto (rivaroxaban) 20 mg tablet / factor Xa inhibitors (Y)	368	$198,694	$539.93	28	$18.01	$18.28	$18.58	3.1%
methylphenidate (30/70 release) 30 mg/24 hr capsule, extended release / CNS stimulants (Y)	114	$7,312	$64.14	30	$1.71	$1.78	$1.76	2.8%
Entresto (sacubitril-valsartan) 24 mg-26 mg tablet / angiotensin receptor blockers and neprilysin inhibitors (Y)	299	$187,531	$627.19	55	$10.82	$10.94	$11.11	2.7%
lisdexamfetamine 30 mg tablet, chewable / CNS stimulants (Y)	120	$26,645	$222.04	30	$6.98	$6.96	$7.13	2.1%
dexmethylphenidate 30 mg capsule, extended release / CNS stimulants (Y)	206	$14,509	$70.43	30	$1.93	$2.07	$1.97	2.1%
Eliquis (apixaban) 2.5 mg tablet / factor Xa inhibitors (Y)	144	$64,881	$450.57	46	$9.07	$9.10	$9.26	2.0%
Qelbree (viloxazine) 150 mg capsule, extended release / noradrenergic uptake inhibitors for ADHD (Y)	118	$71,384	$604.95	48	$11.84	$11.91	$12.04	1.7%
Linzess (linaclotide) 72 mcg capsule / guanylate cyclase-C agonists (Y)	153	$86,552	$565.70	30	$17.85	$18.02	$18.12	1.5%
Tradjenta (linagliptin) 5 mg tablet / dipeptidyl peptidase 4 inhibitors (Y)	104	$68,228	$656.04	38	$15.89	$16.22	$16.06	1.1%
Qelbree (viloxazine) 200 mg capsule, extended release / noradrenergic uptake inhibitors for ADHD (Y)	339	$157,077	$463.36	38	$11.81	$11.83	$11.93	1.0%

Products are only included if 100 or more fills in last month and average cost per unit in reference month was >= $1.

TABLE I: TOP 15 DRUG SOLID DOSAGE FORM HIGH VOLUME (100+ RX FILLS LAST MONTH) PRODUCTS WITH UNIT COST > $1
BY PERCENT CHANGE IN AMOUNT PAID PER UNIT JUL 2025 TO SEP 2025 (FFS and CCOs)

Drug Product Therapeutic Category	Sep 2025 # Claims	Sep 2025 $ Paid	Sep 2025 Avr. Paid Per Rx	Sep 2025 Avr. Units Per Rx	Jul 2025 Paid Per Unit	Aug 2025 Paid Per Unit	Sep 2025 Paid Per Unit	Percent Change
Entresto (sacubitril-valsartan) 49 mg-51 mg tablet / angiotensin receptor blockers and neprilysin inhibitors (Y)	176	$112,778	$640.78	59	$10.75	$10.73	$10.83	0.8%
Brilinta (ticagrelor) (ticagrelor) 90 mg tablet / platelet aggregation inhibitors (Y)	121	$50,697	$418.98	56	$7.14	$7.14	$7.20	0.8%

Products are only included if 100 or more fills in last month and average cost per unit in reference month was >= $1.

New Business

Special Analysis Projects

MISSISSIPPI DIVISION OF MEDICAID

MS-DUR INTERVENTION / EDUCATIONAL INITIATIVE UPDATE

SEPTEMBER – NOVEMBER 2025

Ongoing Mailings:

PROVIDER SHOPPING FOR OPIOIDS (≥4 Prescribers AND ≥4 Pharmacies)				CONCOMITANT USE OF OPIOIDS AND ANTIPSYCHOTICS			SABA MONOTHERAPY		
Month	Prescribers Mailed	Pharms Mailed	Members Addressed	Month	Prescribers Mailed	Members Addressed	Month	Prescribers Mailed	Members Addressed
Dec-24	2	2	4	Dec-24	44	54	Dec-24	NA	NA
Jan-25	2	2	4	Jan-25	51	57	Jan-25	150	216
Feb-25	1	1	2	Feb-25	41	47	Feb-25	150	190
Mar-25	1	1	2	Mar-25	32	38	Mar-25	150	208
Apr-25	2	2	4	Apr-25	35	39	Apr-25	150	191
May-25	1	2	3	May-25	37	39	May-25	150	203
Jun-25	2	3	5	Jun-25	38	46	Jun-25	150	186
Jul-25	3	3	6	Jul-25	36	36	Jul-25	150	195
Aug-25	3	3	6	Aug-25	41	43	Aug-25	150	179
Sep-25	1	1	2	Sep-25	41	42	Sep-25	150	183
Oct-25	1	1	2	Oct-25	48	51	Oct-25	150	182
Nov-25	2	2	4	Nov-25	36	40	Nov-25	150	183

11-6-2025

IMPORTANT INFORMATION REGARDING RESPIRATORY SYNCYTIAL VIRUS PROTECTION

Dear Provider,

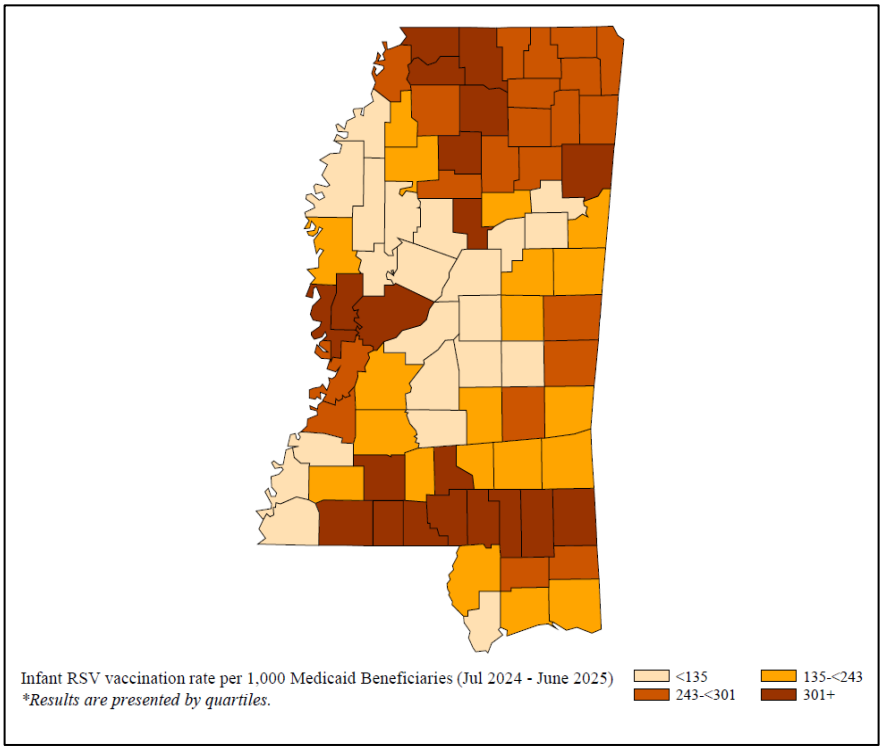
Mississippi Medicaid recently reviewed RSV protection rates among infants during the 2024–2025 RSV season. Our analysis identified 25,031 infants with at least one month of Medicaid eligibility who were born between March 2024 and March 2025 and were therefore eligible to receive RSV protection during their first RSV season.

Among these infants:

- 5,097 received nirsevimab (Beyfortus),
- 401 received RSV protection through maternal vaccination (Abrysvo).

In total, approximately **22%** of eligible infants covered by Mississippi Medicaid received RSV protection (either Beyfortus or Abrysvo) during their first RSV season—an improvement from about 10% in the 2023–2024 season.

While this represents meaningful progress, additional efforts are needed to ensure more newborns are protected from RSV across Mississippi. County-level analyses have identified areas where RSV protection rates remain lowest (see image).



As we enter the 2025–2026 RSV season, Mississippi Medicaid continues to support RSV protection for eligible pregnant members and infants. We encourage providers to remain diligent in discussing and administering RSV protection to help safeguard Mississippi's youngest residents.

Thank you for your continued efforts to protect the health of Mississippi's children.

Sincerely,

Terri R. Kirby, RPh, CPM
Director, Office of Pharmacy
Mississippi Division of Medicaid

Eric Pittman, PharmD, PhD
Project Director, MS-DUR
University of Mississippi School of Pharmacy

Protecting Mississippi Babies from Respiratory Syncytial Virus: What Nurse Practitioners Need to Know

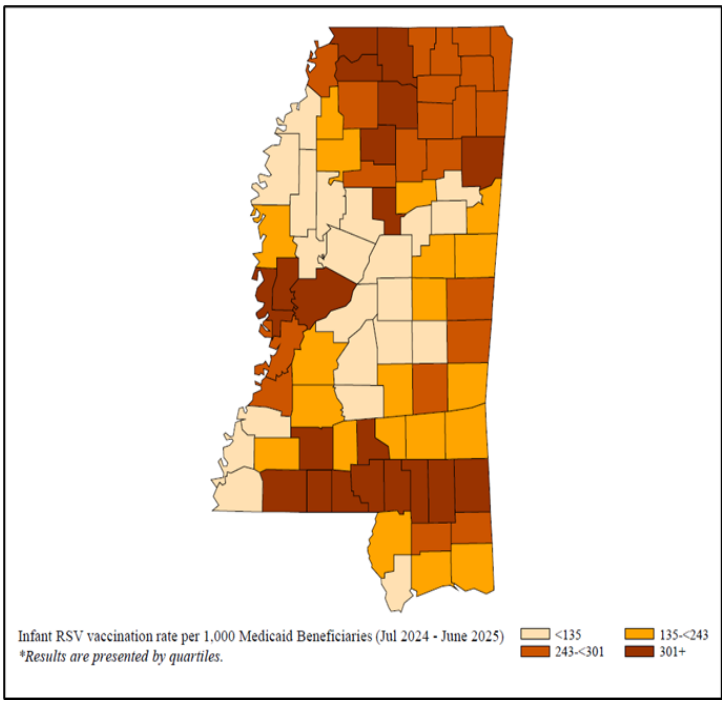
Mississippi Medicaid shares updated data and opportunities to improve infant RSV protection.

How Mississippi Infants Were Protected Last Season

During the 2024–2025 season, Mississippi Medicaid reviewed RSV protection for infants born between March 2024 and March 2025. A total of 25,031 infants were eligible to receive protection during their first RSV season.

- 5,097 infants received Beyfortus® (nirsevimab)
- 401 infants received passive protection through maternal RSV vaccination (Abrysvo®)
- Overall protection reached **22%**, up from approximately 10% the previous season

This improvement shows meaningful progress, but many infants across Mississippi still lack protection from RSV.



Where Protection Rates Are Lowest

Some counties continue to have lower RSV protection rates and may benefit from targeted outreach and additional provider engagement.

How Nurse Practitioners Can Make a Difference

Nurse practitioners play a critical role in increasing RSV protection across the state. As we approach the 2025–2026 season, NPs can help by:

- Discussing RSV prevention with all pregnant patients
- Ensuring infants receive Beyfortus® or Enflonsia® early in the RSV season
- Reinforcing vaccine and antibody safety during patient counseling
- Helping families understand timing and eligibility during prenatal, newborn, and well-child visits

Clinical Highlights

The following are some key points regarding RSV protection for infants:

Infant Monoclonal Antibody:

• Beyfortus® is indicated for infants born during or entering their first RSV season and for children up to 24 months of age who remain vulnerable to severe RSV through their second RSV season.

• Enflonsia® is indicated for infants born during or entering their first RSV season.

Maternal RSV Vaccination:

• Abrysvo® is the only RSV vaccine recommended for pregnant individuals.

• CDC recommends one dose of Abrysvo® for individuals who are 32 0/7 weeks through 36 6/7 weeks gestation.

• In most of the continental United States, pregnant individuals should receive RSV vaccine from September (1–2 months before the anticipated start of RSV season) through January (2–3 months before the anticipated end of the RSV season) so that their babies are protected against severe RSV disease at birth.

• At this time, if a pregnant individual has already received a maternal RSV vaccine during any previous pregnancy, CDC does not recommend another dose of RSV vaccine during subsequent pregnancies. If birthing parent was **not** vaccinated during the **current** pregnancy, the infant should receive nirsevimab during October–March (ideally, in October if born during April–September or at birth if born during October–March).

• If the birthing parent received RSV vaccination within 14 days of delivery, then it is recommended that all infants born during RSV season or entering their first RSV season receive one dose of an RSV monoclonal antibody.

Resources & Support

Mississippi Division of Medicaid — Office of Pharmacy: Pharmacy - Mississippi Division of Medicaid

MISSISSIPPI DIVISION OF MEDICAID

MISSISSIPPI MEDICAID OPIOID OVERUTILIZATION ASSESSMENT PROGRAM

[DATE]

[PRESCRIBER'S NAME]

The Mississippi Division of Medicaid (DOM) Office of Pharmacy is committed to improving the quality of care provided to Mississippi Medicaid beneficiaries. DOM's Drug Utilization Review (DUR) Board has recommended several quality improvement initiatives addressing the use of opioids for the treatment of pain. The Centers for Medicare and Medicaid Services have included the use of opioids from multiple providers as one of the quality measures for adults in Medicaid programs. This measure identifies **beneficiaries without cancer who received prescriptions for opioid medications from four (4) or more prescribers and four (4) or more pharmacies.**

WHY YOU ARE RECEVING THIS LETTER

Our analysis of data from Medicaid and the Mississippi Prescription Monitoring Program for period [REPORT_START_DATE] to [REPORT_END_DATE] identified that the following beneficiary(ies) listed in the included table filled an opioid prescription written by you and met the above criteria of potential provider shopping.

WHAT WE ASK OF YOU?

Multimodal and multidisciplinary therapies can help reduce pain and improve function more effectively than single modalities. Several non-opioid pharmacologic therapies (including acetaminophen, NSAIDs, and selected antidepressants and anticonvulsants) are recommended first-line for chronic pain, and we encourage you to consider these options first. When you do think an opioid is appropriate, please use the Mississippi Prescription Monitoring Program to be sure the patient is not provider shopping and/or receiving too high a dose or too many opioids.

Sincerely,

Eric Pittman, PharmD
Clinical Director
MS-DUR

Terri R. Kirby, RPh, CPM
Director, Office of Pharmacy
Division of Medicaid

OPIOID UTILIZATION FOR: [BENEFICIARY NAME]			
Name of Prescriber	**Last drug prescribed**	**Date of last prescription**	**Name of Pharmacy**
[PRESCRIBER_1]	[DRUG_1]	[DATE_1]	[{JHARMACY_1]
[PRESCRIBER_2]	[DRUG_2]	[DATE_2]	[{JHARMACY_2]
[PRESCRIBER_3]	[DRUG_3]	[DATE_3]	[{JHARMACY_3]
[PRESCRIBER_4]	[DRUG_4]	[DATE_4]	[{JHARMACY_4]

{Date}

IMPORTANT INFORMATION REGARDING CONCURRENT PRESCRIBING OF OPIOIDS AND ANTIPSYCHOTICS

Dear Dr. {Prescriber Name},

In accordance with recent updates in the Centers for Medicare & Medicaid Services' (CMS) Minimum Standards in Medicaid State Drug Utilization Review (DUR), the Mississippi Division of Medicaid's DUR program has initiated a program monitoring the concurrent prescribing of opioids and antipsychotics to Medicaid beneficiaries. The intention of this review is to encourage coordination of care for beneficiaries taking antipsychotic and opioid medications concurrently.

This monitoring program is supported by the FDA's boxed warning of increased risk of respiratory and central nervous system (CNS) depression with concurrent use of opioids and CNS depressants such as antipsychotics or sedatives.[1] According to CMS, *"Patients concurrently prescribed opioid and antipsychotic drugs can benefit from increased coordination of care. Additionally, improving treatment of comorbid mental disorders is an important consideration when trying to reduce the overall negative impacts of pain. Evidence indicates that optimizing mental health and pain treatment can improve outcomes in both areas for patients seen in primary and specialty care settings. Untreated psychiatric conditions may increase the risk of both unintentional and intentional medication mismanagement, opioid use disorder, and overdose.[2] Given the intersection between psychiatric/psychological symptoms and chronic pain, it is important that the behavioral health needs of patients with pain are appropriately and carefully evaluated and treated with the concurrent physical pain problem. As such, beneficiaries who are concurrently prescribed both opioids and antipsychotics should be considered from a health system or policy perspective when addressing their treatment.[3] A patient's unique presentation and circumstances should be considered when prescribing opioids and antipsychotics."*

WHY YOU ARE RECEIVING THIS LETTER

Our analysis of prescription claims data identified the following beneficiary(ies) who filled a prescription written by you that resulted in the concurrent use of antipsychotic and opioid therapy for ≥ 14 days.

		Opioid			Antipsychotic		
Beneficiary Name	DOB	Drug Name	Date Filled	Prescriber	Drug Name	Date Filled	Prescriber

[1] Office of the Commissioner. ''Drug Safety Communications—FDA warns about serious risks and death when combining opioid pain or cough medicines with benzodiazepines; requires its strongest warning.'' *U.S. Food and Drug Administration Home Page,* Office of the Commissioner. https://www.fda.gov/drugs/drug-safety-and-availability/fda-drug-safety-communication-fda-warns-about-serious-risks-and-death-when-combining-opioid-pain-or

[2] Pain Management Best Practices Inter-Agency Task Force. ''Pain Management Best Practices.'' https://www.hhs.gov/sites/default/files/ pmtf-final-report-2019-05-23.

[3] Davis, Matthew A., et al. ''Prescription Opioid Use among Adults with Mental Health Disorders in the United States.'' The Journal of the American Board of Family Medicine, vol. 30, no. 4, 2017, pp. 407–417, doi:10.3122/jabfm.2017.04.170112.

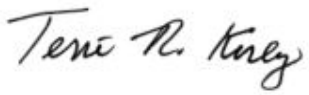
Evidence-Based DUR Initiative

WHAT WE ASK OF YOU?

When prescribing antipsychotics and opioids, ensure the coordination of care for both pain management and mental health conditions is occurring and both conditions are being appropriately treated. Optimizing both mental health and pain treatment can improve patient outcomes in both areas and minimize the risks of adverse events. Although not pain therapies, buprenorphine/naloxone products are included on the list of opioids that trigger this letter. In such cases, we are encouraging optimization of mental health treatment to support the successful management of opioid use disorder (OUD).

We want to thank you for the care you provide to Medicaid beneficiaries. If we can be of any assistance, please do not hesitate to contact us.

Sincerely,



Terri R. Kirby, RPh, CPM
Director, Office of Pharmacy
Mississippi Division of Medicaid

Eric Pittman, PharmD
Project Director
MS-DUR

{Date}

IMPORTANT INFORMATION REGARDING THE TREATMENT OF ASTHMA

Dear Dr. {Prescriber Name},

The 2024 Global Initiative for Asthma (GINA) report provides recommendations for the management of asthma across various age groups.[1] In recent years, asthma treatment guidelines have been updated to reflect a shift away from the use of short-acting beta-agonists (SABA) as monotherapy in asthma patients due to increased risks of adverse events. The use of 3 or more SABA inhalers per year is associated with a higher risk of severe exacerbations, while the use of 12 or more SABA inhalers per year is associated with a higher risk of asthma-related death.[1] Conversely, the use of inhaled corticosteroids (ICS) has been shown to significantly reduce the risks of adverse events such as emergency department visits, hospitalizations, and death.[2] In general, maintenance and reliever therapy (MART) or single-inhaler maintenance and reliever therapy (SMART) with an ICS-containing product is recommended as initial therapy for most individuals with asthma ages 6 years and above. Specifically, guidelines recommend the use of a single combination agent containing a low-dose ICS and the long-acting beta-agonist formoterol.[1]

Recently, Medicaid's Drug Utilization Review Board affirmed their support for the use of ICS/formoterol products as both maintenance and reliever therapy for the treatment of asthma. To make it easier to prescribe SMART for Medicaid beneficiaries, we have included a table listing products that are preferred and available without prior authorization for both maintenance and reliever use.

Drug	Strength	PDL Status
Symbicort (budesonide/formoterol)	80mcg/4.5mcg 160mcg/4.5mcg	Preferred
Dulera (mometasone/formoterol)	50mcg/5mcg 100mcg/5mcg 200mcg/5mcg	Preferred

We examined the use of ICS-containing products among members 6 years and older with an asthma diagnosis and a history of 3 or more SABA fills in the previous six months. Our analysis of Medicaid claims data revealed that **56.9%** of members received only SABA inhalers for the treatment of their asthma. This indicates SABA monotherapy in a majority of members being treated for asthma for whom guidelines recommend the use of an ICS-containing product.

WHY YOU ARE RECEIVING THIS LETTER?

You have been identified as an outlier in our analysis. During our most recent analysis, we identified Medicaid members under your care who were 6 years and older with an asthma diagnosis who received 3 or more SABA inhalers in the previous 6 months with no pharmacy claims for ICS-containing medications. In this six-month period, you are in the lowest quartile of providers examined estimated based on the proportion of members you have prescribed SABA to who also received ICS. See figure below:

Your performance compared to your peers

$$\text{Rate of ICS therapy in conjunction with SABA use} = \frac{\text{Members with SABA \& ICS use}}{\text{Members prescribed SABA inhalers}}$$

[1] Global Initiative for Asthma, 2024. Global Initiative for Asthma - GINA. Accessed June 3, 2024. https://ginasthma.org/

[2] Crossingham I, Turner S, Ramakrishnan S, et al. Combination fixed-dose beta agonist and steroid inhaler as required for adults or children with mild asthma. *Cochrane Database Syst Rev*. 2021;5(5):CD013518. doi:10.1002/14651858.CD013518.pub2

The following Medicaid member(s) under your care were identified as receiving 3 or more SABA inhalers in the previous 6 months and did not have any pharmacy claims for ICS-containing medications.

INSERT TABLE IDENTIFYING MEMBER(S)

OUR GOAL FOR ASTHMA PATIENTS

Medicaid is looking to improve the health of individuals experiencing asthma. We support the use of ICS-containing products, specifically ICS/formoterol products, in the treatment of asthma and encourage providers to engage in shared clinical decision-making discussions with eligible members. We want to thank you for the care you provide to Medicaid members. If we can be of any assistance, please do not hesitate to contact us.

Sincerely,

Terri R. Kirby, RPh, CPM
Director, Office of Pharmacy
Mississippi Division of Medicaid

Eric Pittman, PharmD, PhD
Project Director, MS-DUR
University of Mississippi School of Pharmacy

HUMAN IMMUNODEFICIENCY VIRUS (HIV) UPDATE: UTILIZATION OF PRE-EXPOSURE PROPHYLAXIS AND ADHERENCE TO ANTIRETROVIRAL THERAPY

BACKGROUND

An estimated 1.2 million people in the U.S. are living with HIV. Between 2018 and 2022, new HIV infections declined by 12%, dropping to roughly 31,800 annually—a meaningful step toward the primary goal of the federal *Ending the HIV Epidemic in the U.S.* (EHE) initiative.[1] EHE aims to sharply reduce new HIV infections through a coordinated strategy focused on 57 priority jurisdictions: 48 counties, Washington, DC, and San Juan, Puerto Rico—areas that accounted for over half of new diagnoses in 2016–2017—as well as seven states, including Mississippi, where HIV disproportionately affects rural communities.[2] In 2022, Mississippi had the fifth-highest HIV incidence rate among adolescents and adults nationwide, at approximately 17.3 cases per 100,000 people, compared to the national rate of 11.3 per 100,000.[3]

The EHE initiative is built around four key evidence-based strategies: diagnose, treat, prevent, and respond. This report examines two of those strategies among Mississippi Medicaid members—prevention and treatment.

PREVENTION

One focus area for the EHE initiative is preventing new HIV infections through pre-exposure prophylaxis (PrEP). PrEP involves routine use of antiretroviral medications by HIV-negative individuals who are at high risk of being exposed to HIV. Individuals for whom PrEP is recommended include:

- Those with a sexual partner with HIV;
- Those who do not consistently use condoms;
- Those with a sexually transmitted infection (STI) in the past six months;
- Those who have had anal or vaginal sex in the past six months and don't know the HIV status of their sexual partners;
- Those who inject drugs and share needles or other equipment.

According to HIV Surveillance Data, 38% of individuals eligible for PrEP medications in Mississippi received prescriptions for PrEP in 2022.[3]

Currently, two daily oral medications—Descovy® (emtricitabine/tenofovir alafenamide) and Truvada® (emtricitabine/tenofovir disoproxil fumarate)—and two injectable agents—Apretude® (cabotegravir) and Yeztugo® (lenacapavir)—are approved by the U.S. Food and Drug Administration (FDA) for PrEP. Apretude® (approved in 2021) is administered every two months, while Yeztugo® (approved summer 2025) is administered every six months after initiation dosing with subcutaneous injection and two days of Yeztugo® oral tablets.

When consistently taken, PrEP has been shown to be highly effective at preventing HIV[4]; however, significant disparities in uptake exist. Barriers such as stigma, lack of insurance coverage, and travel distance to a health care provider have been shown to negatively impact the uptake of PrEP, particularly among some of the populations most at-risk for HIV infections.[5–7]

For Mississippi Division of Medicaid (DOM) members, PrEP medications are covered under the Universal Preferred Drug List (UPDL).[8] Currently, Descovy®, emtricitabine/tenofovir (generic Truvada®), and Apretude® are preferred agents available without prior authorization requirements. Beginning January 2026, Yeztugo® will be added as a preferred agent to the UPDL. To further facilitate access, PrEP medications are included on the list of medications covered under DOM's Family Planning Waiver, which provides family planning-related services and covers many sexually transmitted infection/sexually transmitted disease (STI/STD) treatment medications for both women and men. [9]

For this analysis, MS-DUR examined the utilization of PrEP products among Mississippi Medicaid members between 2015-2024.

METHODS – PrEP Utilization

A retrospective analysis was conducted using Mississippi Medicaid pharmacy and medical claims for fee-for-service and coordinated care organizations [UnitedHealthcare (UHC), Magnolia Health (MAG), and Molina Healthcare (MOL)] for the period of January 1, 2015 to December 31, 2024. This identification window allowed for a 12-month lookback period (from January 2014) and a 30-day follow-up period (through January 2025) for every member in the sample.

A claims-based algorithm developed by Wu et al.[10,11] and used by the CDC was followed. PrEP users were identified using:

- Pharmacy claims for agents indicated for PrEP use;
- Medical claims with ICD-10 code Z29.81 or procedure codes G0012, J0739, J0750, J0751, J0799.

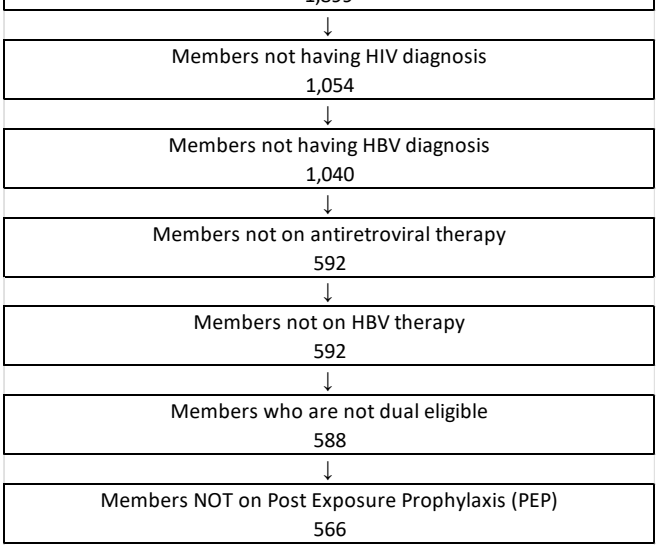
Members were excluded if they had:

- Any diagnosis of HIV or hepatitis B (HBV) before or within 30 days of a PrEP claim;
- Any prescription intended for non-PrEP HIV or HBV use before or within 30 days of a PrEP claim;
- Dual Medicare/Medicaid eligibility at the time of the claim;
- Prescriptions consistent with post-exposure prophylaxis (PEP), defined as ≤28 cumulative days of supply during the study period.

Prevalent users included all members with ≥1 PrEP claim in a calendar year. Incident users were those with their first-ever PrEP claim during the study period. Reinitiators in later years were not counted as new incident users.

Demographic and eligibility characteristics were summarized for incident users. Trends in annual prevalent and incident PrEP users were assessed from 2015–2024. County-level distributions of PrEP utilizers and prescribers were geographically mapped.

Figure 1. Sample Attrition for Members on Pre-Exposure Prophylaxis (PrEP) Therapy (January 1, 2015 - December 31, 2024)



RESULTS – PrEP Utilization

A total of 566 Medicaid members were identified as utilizing PrEP therapy between 2014 and 2024. Among those members, most were Black, female, and between the ages of 18 to 35 years. Among the pharmacy plans, FFS had the largest number of PrEP utilizers. (Table 1)

TABLE 1. Demographic Characteristics of Members on Pre-Exposure Prophylaxis (PrEP) (January 1, 2015 - December 31, 2024)

Characteristics	Total Members (n = 566)		By Plan At Index							
			FFS (n = 262)		UHC (n = 134)		MAG (n = 119)		MOL (n = 51)	
Age in years, n (%)										
Less than 18	59	10.42%	13	4.96%	23	17.16%	17	14.29%	6	11.76%
18 to 35	396	69.96%	219	83.59%	77	57.46%	69	57.98%	31	60.78%
36-50	81	14.31%	23	8.78%	21	15.67%	23	19.33%	14	27.45%
51-64	30	5.30%	7	2.67%	13	9.70%	10	8.40%	0	0.00%
Sex, n (%)										
Female	333	58.83%	136	51.91%	89	66.42%	73	61.34%	35	68.63%
Male	233	41.17%	126	48.09%	45	33.58%	46	38.66%	16	31.37%
Race, n (%)										
White	72	12.72%	35	13.36%	18	13.43%	13	10.92%	6	11.76%
Black	421	74.38%	210	80.15%	94	70.15%	83	69.75%	34	66.67%
Other	73	12.90%	17	6.49%	22	16.42%	23	19.33%	11	21.57%

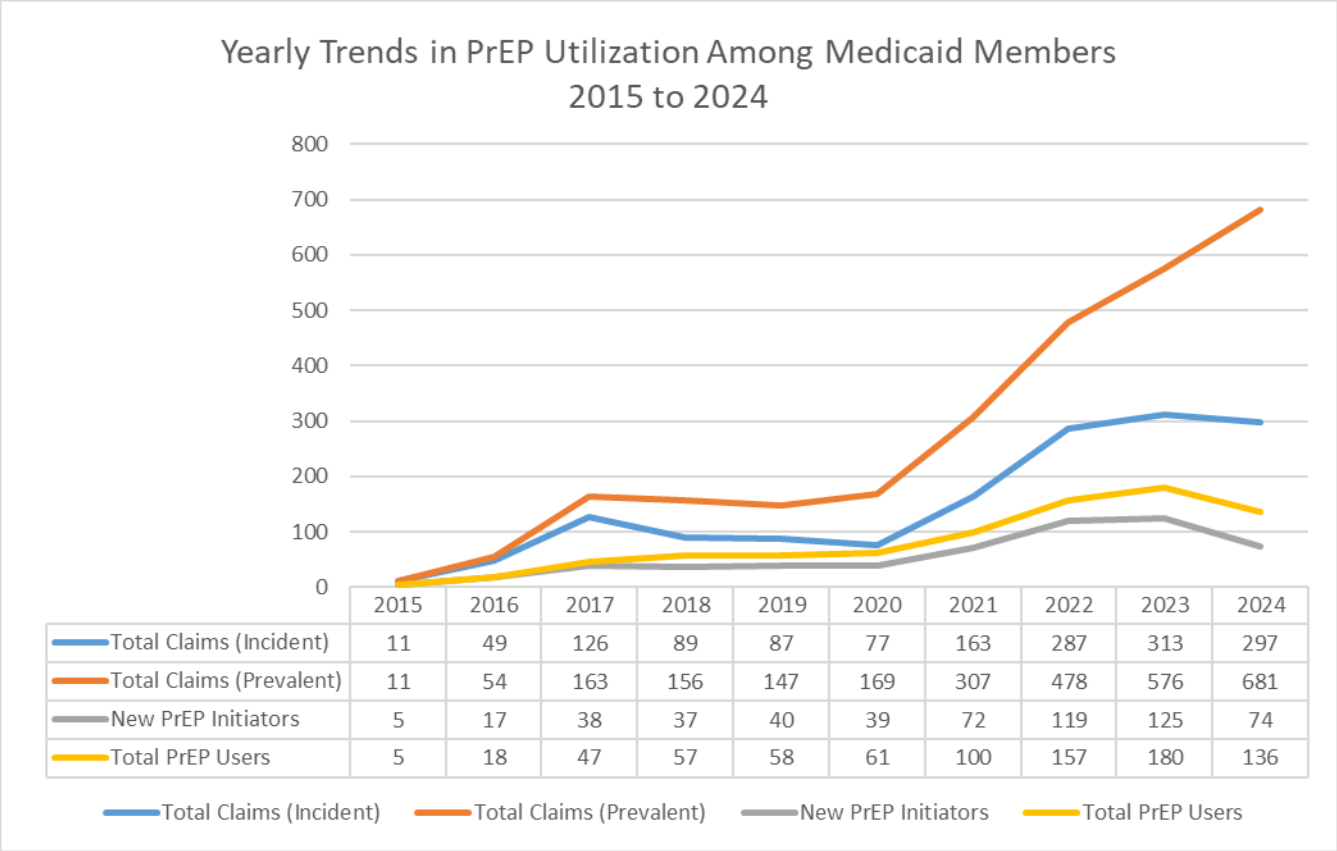
Note: FFS = Fee-for-Service; UHC = UnitedHealthcare; MAG = Magnolia; MOL = Molina

Figure 2 displays yearly trends in PrEP use. Total PrEP users and annual initiators remained relatively flat between 2017-2020. Beginning in 2021, PrEP use began to increase, reaching an annual peak in 2023 with 125 initiators and 180 total PrEP users during that year.

The number of PrEP initiators dropped 41% from 2023 to 2024, while total PrEP users dropped 24% over that same period. These dips corresponded to the Medicaid unwinding process that began in 2023 when Medicaid programs resumed member eligibility redetermination.

A subgroup analysis was conducted comparing the use of oral versus injectable PrEP agents. Injectable PrEP medications were first utilized in 2023 with 4.4% (8/180) of members on PrEP therapy utilizing injectable medications that year. In 2024, those figures increased to 13.2% (18/136) of members on injectable PrEP.

Figure 2. Yearly Trends in PrEP Utilization



	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Total Claims (Incident)	11	49	126	89	87	77	163	287	313	297
Total Claims (Prevalent)	11	54	163	156	147	169	307	478	576	681
New PrEP Initiators	5	17	38	37	40	39	72	119	125	74
Total PrEP Users	5	18	47	57	58	61	100	157	180	136

Mississippi Medicaid has several different types of eligibility classifications for members. While individuals enrolled in the Family Planning Waiver do not receive full pharmacy benefits, PrEP is a covered benefit under this waiver. It was found that 17% (97/566) of PrEP users were enrolled in the Family Planning Waiver. (Table 2)

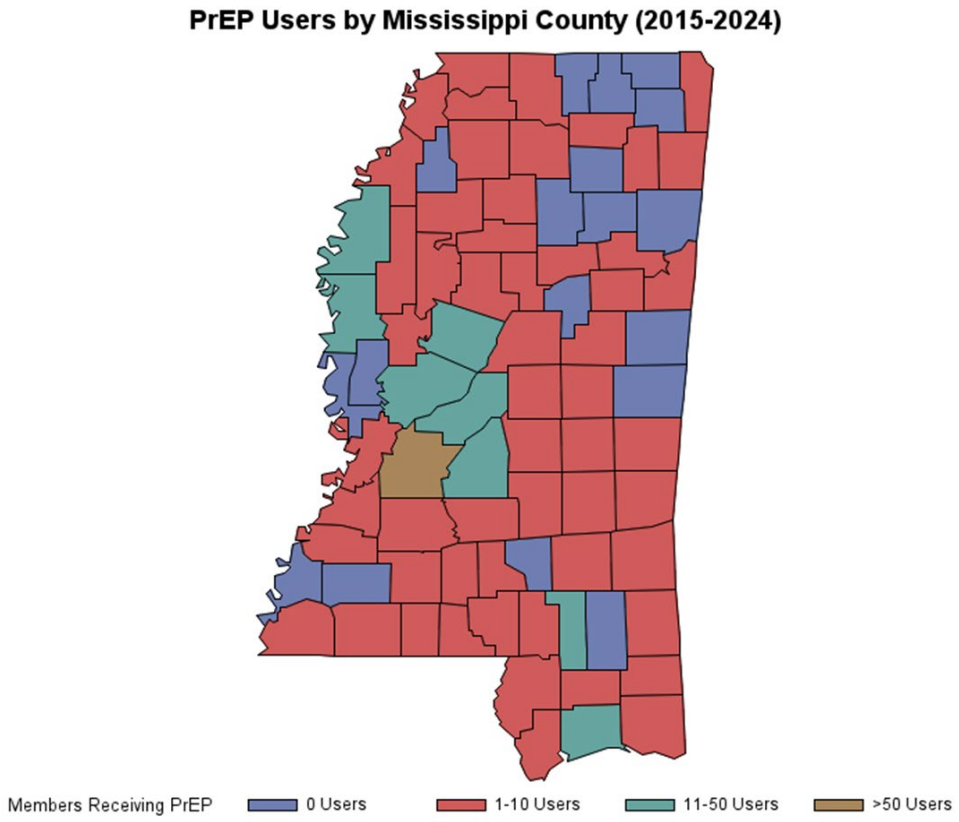
TABLE 2. Categories of Eligibility by Health Plan

Category of Eligibility at First Claim	FFS	UHC	Mag	Mol	Total
Parents/Caretakers of children under the age 18 (EFFECTIVE: 1/1/2014)	30	47	36	26	139
Children 6–19 with income at or below 107% FPL	62	39	20	7	128
SSI Individual via SDX	20	38	53	14	125
Family Planning	97	0	0	0	97
Pregnant Women under 194%	23	2	1	3	29
Quasi-CHIP – Children 6–19 with income between 107% and 133% FPL	11	7	5	1	24
Children Health Insurance Program (CHIP) (EFFECTIVE: 1/1/2014)	6	0	0	0	6
Protected Foster Care Child Full Medicaid Benefits	5	0	0	0	5
Healthier MS Waiver Only (No Medicare)	5	0	0	0	5
IV-E Foster Care/Adoption Assistance Related	2	0	1	0	3
Medical Assistance – Intact Family (END: 12/31/2013)	0	1	1	0	2
Working Disabled	0	0	1	0	1
CWS Foster Care/Adoption Assistance Child	0	0	1	0	1
TBI/SCI Waiver (Traumatic Brain Injury/Spinal Cord Injury)	1	0	0	0	1
Total	262	134	119	51	566

Note: FFS = Fee-for-Service; UHC = UnitedHealthcare; MAG = Magnolia; MOL = Molina

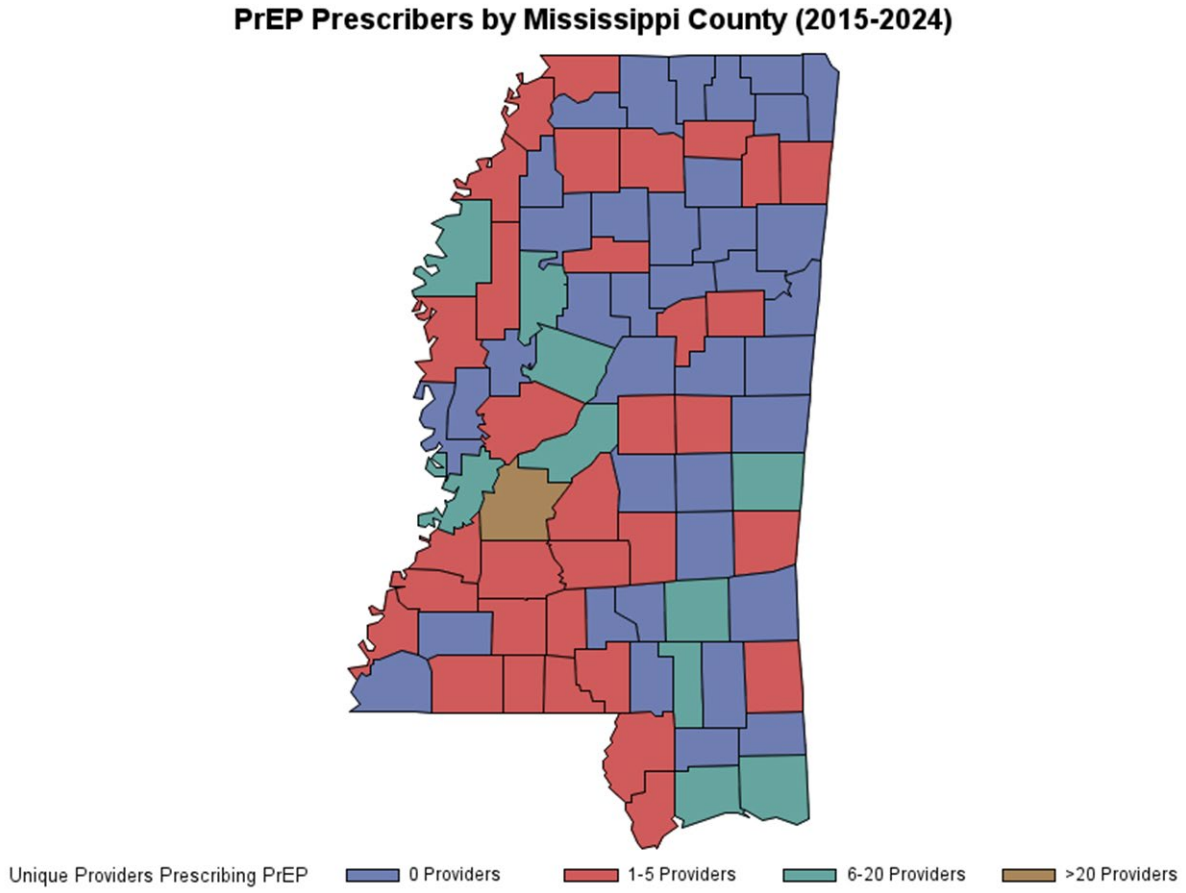
PrEP use is limited across Mississippi. Only nine counties across the state had more than ten Medicaid members receive PrEP medications between 2015-2024. (Figure 3) Of those nine counties, only Hinds County had more than 50 Medicaid members utilize PrEP over the ten-year period examined.

Figure 3. Geographic Distribution of PrEP Utilizers



One of the barriers noted in literature negatively impacting PrEP use is the distance a person must travel to a healthcare provider. MS-DUR examined the location of providers prescribing PrEP medications to Medicaid members. (Figure 4) Thirty-seven counties did not have any providers prescribe PrEP to Medicaid members between 2015-2024, while only 11 counties had six or more providers prescribe PrEP during that period. Only one county, Hinds County, had more than 20 providers identified over a ten-year period who prescribed PrEP to Medicaid members.

Figure 4. Geographic Distribution of PrEP Prescribers



CONCLUSIONS – PrEP Utilization

Prevention of new HIV infections using PrEP is essential in the fight to eliminate HIV in the U.S. When taken as directed, PrEP has been found to be highly effective at preventing HIV; however, multiple barriers have impeded uptake. While PrEP therapy is part of Medicaid's UPDL, including coverage as part of the Family Planning Waiver, uptake has been limited across the state.

RECOMMENDATIONS – PrEP Utilization

1. The DOM should conduct provider education on PrEP therapy to include:
    - Incidence rates for HIV infections in Mississippi.
    - Categories of individuals identified as being high risk for acquiring HIV infection.
    - Preferred status of PrEP products on UPDL.
    - Inclusion of PrEP products as covered medications under the Family Planning Waiver for both males and females.
    - Need for more providers around the state to identify high-risk members and prescribe PrEP.

TREATMENT

Current guidelines recommend immediate initiation of antiretroviral therapy (ART) in all patients diagnosed with HIV.[12] Rapid initiation increases the uptake of ART, decreases the time to viral suppression, and reduces the time newly diagnosed individuals can transmit HIV. The goal of ART is to reduce and maintain plasma HIV ribonucleic acid (RNA) levels below detectable levels (<200 copies/ml), known as viral suppression, and therefore, preventing further HIV transmission.

Adherence to ART has been found to be critical to achieving viral load suppression. The World Health Organization (WHO) and the National Institutes of Health (NIH) both emphasize the importance of adherence in attaining viral suppression and optimal outcomes.[13] Lack of appropriate adherence to ART may result in treatment failure, increased HIV transmission rates, and the emergence of viral drug resistance. Not only is nonadherence a threat to population health, but it places an additional burden on payers with an estimated cost of nonadherence exceeding $30,000 per patient annually.[14]

The aim of this analysis is to determine adherence to ART among Medicaid members.

METHODS – ART Adherence

A retrospective analysis of Mississippi Medicaid pharmacy claims from fee-for-service and coordinated care organizations (UHC, MAG, MOL) was conducted for January 1–December 31, 2024. Adherence was assessed using the Pharmacy Quality Alliance (PQA) Proportion of Days Covered: Antiretroviral Medications (PDC-ARV) measure. PDC-ARV measures the percentage of individuals 18 years and older who meet the proportion of days covered threshold of 90%.

Eligible members included:
- 18 years or older on the first day of the measurement period;
- Filled at least 3 distinct antiretrovirals or an FDA-approved 2-drug regimen;
- Had at least 2 different dates of service with qualifying ART during 2024.

Combination products were decomposed into individual components to identify distinct agents. The earliest date with overlapping coverage of ≥3 ARVs (or a 2-drug regimen) was the index prescription start date (IPSD).

Members required at least 91 days in the treatment period (IPSD to disenrollment, death, or year-end). Hospice members were excluded. Members with a PDC of 90% or greater were considered adherent under PQA specifications.

Results were stratified by:
- Health plan
- Age group

• Sex
• Race
• 90-day supply status

Cabenuva® (cabotegravir + rilpivirine) is not included in the PDC-ARV measurement specifications, therefore, its adherence was assessed separately.

RESULTS – ART Adherence

Table 3 describes the demographic characteristics of Medicaid members included in the analysis using PQA's PDC ARV measure specifications. The majority of members on ART were Black, female, and between the ages of 36 to 65 years.

TABLE 3. Demographic Characteristics of Mississippi Medicaid Members on Antiretroviral Therapy (January 1, 2024 - December 31, 2024)

Characteristic	FFS (n = 155)	UHC (n = 271)	MAG (n = 354)	MOL (n = 109)	Total (n = 889)
Age, n (%)					
18 to 35 years	61 (39.35%)	59 (21.77%)	64 (18.08%)	34 (31.19%)	218 (24.52%)
36 to 65 years	93 (60.00%)	210 (77.49%)	290 (81.92%)	75 (68.81%)	668 (75.14%)
66 years and above	1 (0.65%)	2 (0.74%)	0	0	3 (0.34%)
Sex, n (%)					
Female	85 (54.84%)	138 (50.92%)	195 (55.08%)	55 (50.46%)	473 (53.21%)
Male	70 (45.16%)	133 (49.08%)	159 (44.92%)	54 (49.54%)	416 (46.79%)
Race, n (%)					
White	24 (15.49%)	29 (10.70%)	38 (10.74%)	12 (11.01%)	103 (11.59%)
Black	115 (74.19%)	150 (55.35%)	210 (59.32%)	54 (49.54%)	529 (59.51%)
Other	16 (10.32%)	92 (33.95%)	106 (29.94%)	43 (39.45%)	257 (28.90%)

Note: FFS = Fee-for-Service, UHC = UnitedHealthcare, MAG = Magnolia Health, MOL = Molina Heathcare

Tables 4, 4a, and 4b describe ART adherence among Medicaid members. Table 4 displays adherence across several adherence categories stratified by each member's days supply of ART. Across all plans and days supply, 46.34% of members had a PDC of 80% or above. The PQA measure sets a threshold for adherence at 90% for ART. Across all plans, only 34.87% of members had a PDC $\geq$ 90% during calendar year 2024. This proportion is down from 42.11% in 2019, the last time MS-DUR reported ART adherence. While a 90% adherence rate to ART is commonly accepted as the level needed to maintain viral suppression, recent studies have indicated that individuals can achieve viral suppression with adherence levels below 90%.[15] Examining a lower threshold, Table 4b displays the proportion of members with PDC $\geq$ 85%. The overall proportion of members with PDC $\geq$ 85% for their ART was 41.7%. Across all plans, members who received 90 days supply of their ART had consistently higher PDC levels.

TABLE 4. Medication Adherence by Days Supply of Antiretroviral Therapy Among Mississippi Medicaid Members (January 1, 2024 - December 31, 2024)								
Proportion of Days Covered (PDC)	FFS		UHC		MAG		MOL	
	Less than 90 days (n = 115)	90 days (n = 40)	Less than 90 days (n = 208)	90 days (n = 63)	Less than 90 days (n = 263)	90 days (n = 91)	Less than 90 days (n = 82)	90 days (n = 27)
Less than 50	44 (38.26%)	4 (10%)	63 (30.29%)	16 (25.40%)	70 (26.62%)	15 (16.48%)	24 (29.27%)	2 (7.41%)
50 to 69	15 (13.04%)	8 (20%)	44 (21.15%)	8 (12.70%)	47 (17.87%)	12 (13.19%)	20 (24.39%)	6 (22.22%)
70 to 79	15 (13.04%)	4 (10%)	22 (10.58%)	3 (4.76%)	19 (7.22%)	6 (6.9%)	6 (7.32%)	4 (14.81%)
80 or more	41 (35.65%)	24 (60%)	79 (37.98%)	36 (57.14%)	127 (48.29%)	58 (63.74%)	32 (39.02%)	15 (55.56%)

Note: FFS = Fee-for-Service, UHC = UnitedHealthcare, MAG = Magnolia Health, MOL = Molina Heathcare

TABLE 4a. Proportion of Members with PDC ≥ 90			
Program	Overall PDC ≥ 90	PDC ≥ 90 by days supply	
FFS	33.55%	<90 days	27.82%
		90 days	50.00%
UHC	31.37%	<90 days	27.89%
		90 days	42.86%
MAG	40.40%	<90 days	36.88%
		90 days	50.55%
MOL	27.52%	<90 days	24.39%
		90 days	37.04%

Note: FFS = Fee-for-Service, UHC = UnitedHealthcare, MAG = Magnolia Health, MOL = Molina Heathcare

TABLE 4b. Proportion of Members with PDC ≥ 85			
Program	Overall PDC ≥ 85	PDC ≥ 85 by days supply	
FFS	38.71%	<90 days	33.04%
		90 days	55.00%
UHC	38.38%	<90 days	34.62%
		90 days	50.79%
MAG	47.18%	<90 days	44.11%
		90 days	56.04%
MOL	36.70%	<90 days	32.93%
		90 days	48.15%

Note: FFS = Fee-for-Service, UHC = UnitedHealthcare, MAG = Magnolia Health, MOL = Molina Heathcare

Examination of claims identified 66 members who received Cabenuva® for ART in 2024. Among those 66 members, only 5 (7.58%) had a PDC ≥ 90%. The majority of members (62.12%) on Cabenuva® had PDC levels between 50-69%.

CONCLUSIONS – ART Adherence

Adherence to antiretroviral therapy is crucial in attaining viral suppression and optimal outcomes among individuals treated for HIV. ART adherence of ≥ 90% is the recognized threshold for achieving viral suppression. Among Medicaid members included in the PDC ARV measure, 34.87% of members receiving ART in 2024 achieved PDC ≥ 90%, down from 42.11% in 2019, while only 7.58% of members on injectable ART therapy with Cabenuva® achieved PDC ≥ 90%. Opportunities exist to improve adherence to antiretroviral therapy among Medicaid members.

RECOMMENDATIONS – ART Adherence

1. DOM should collaborate with Mississippi State Department of Health, infectious disease practice groups, and state medical/pharmacy/nursing associations on strategies to improve ART adherence among Medicaid members.

2. DOM should conduct targeted outreach to providers with members who have low ART adherence.

REFERENCES

1. CDC. Estimated HIV Incidence and Prevalence. HIV Data. February 7, 2025. Accessed November 21, 2025. https://www.cdc.gov/hiv-data/nhss/estimated-hiv-incidence-and-prevalence.html

2. EHE Overview. HIV.gov. Accessed November 21, 2025. https://www.hiv.gov/federal-response/ending-the-hiv-epidemic/overview

3. AHEAD | HIV Data in Mississippi. Accessed November 24, 2025. https://ahead.hiv.gov/mississippi/

4. O Murchu E, Marshall L, Teljeur C, et al. Oral pre-exposure prophylaxis (PrEP) to prevent HIV: a systematic review and meta-analysis of clinical effectiveness, safety, adherence and risk compensation in all populations. *BMJ Open*. 2022;12(5):e048478. doi:10.1136/bmjopen-2020-048478

5. Sullivan PS, Juhasz M, DuBose SN, et al. Association of state-level PrEP coverage and new HIV diagnoses in the USA from 2012 to 2022: an ecological analysis of the population impact of PrEP. *Lancet HIV*. 2025;12(6):e440-e448. doi:10.1016/S2352-3018(25)00036-0

6. Chittamuru D, Frye V, Koblin BA, et al. PrEP Stigma, HIV Stigma, and Intention to Use PrEP among Women in New York City and Philadelphia. *Stigma Health*. 2020;5(2):240-246. doi:10.1037/sah0000194

7. Siegler AJ, Bratcher A, Weiss KM. Geographic Access to Preexposure Prophylaxis Clinics Among Men Who Have Sex With Men in the United States. *Am J Public Health*. 2019;109(9):1216-1223. doi:10.2105/AJPH.2019.305172

8. Universal Preferred Drug List - Mississippi Division of Medicaid. April 8, 2014. Accessed November 23, 2025. https://medicaid.ms.gov/preferred-drug-list/

9. Family Planning - Mississippi Division of Medicaid. January 29, 2014. Accessed November 23, 2025. https://medicaid.ms.gov/medicaid-coverage/who-qualifies-for-coverage/family-planning/

10. Wu H, Mendoza MCB, Huang YLA, Hayes T, Smith DK, Hoover KW. Uptake of HIV Preexposure Prophylaxis Among Commercially Insured Persons-United States, 2010-2014. *Clin Infect Dis Off Publ Infect Dis Soc Am*. 2017;64(2):144-149. doi:10.1093/cid/ciw701

11. Furukawa NW, Smith DK, Gonzalez CJ, et al. Evaluation of Algorithms Used for PrEP Surveillance Using a Reference Population From New York City, July 2016-June 2018. *Public Health Rep Wash DC 1974*. 2020;135(2):202-210. doi:10.1177/0033354920904085

12. Panel on Antiretroviral Guidelines for Adults and Adolescents. Guidelines for the Use of Antiretroviral Agents in Adults and Adolescents with HIV. Department of Health and Human Services. Year. September 25, 2025. Accessed November 27, 2025. https://clinicalinfo.hiv.gov/en/guidelines/hiv-clinical-guidelines-adult-and-adolescent-arv

13. Iacob SA, Iacob DG, Jugulete G. Improving the Adherence to Antiretroviral Therapy, a Difficult but Essential Task for a Successful HIV Treatment-Clinical Points of View and Practical Considerations. *Front Pharmacol*. 2017;8:831. doi:10.3389/fphar.2017.00831

14. Cutler RL, Fernandez-Llimos F, Frommer M, Benrimoj C, Garcia-Cardenas V. Economic impact of medication non-adherence by disease groups: a systematic review. *BMJ Open*. 2018;8(1):e016982. doi:10.1136/bmjopen-2017-016982

15. Byrd KK, Hou JG, Hazen R, et al. Antiretroviral Adherence Level Necessary for HIV Viral Suppression Using Real-World Data. *JAIDS J Acquir Immune Defic Syndr*. 2019;82(3):245. doi:10.1097/QAI.0000000000002142

WEIGHT AND BODY MASS INDEX (BMI) CHANGES AMONG MEDICAID MEMBERS INITIATING GLUCAGON-LIKE PEPTIDE-1 RECEPTOR AGONISTS (GLP-1 RA) FOR OBESITY MANAGEMENT

BACKGROUND

Obesity is a chronic, relapsing disease with a complex pathophysiology that places a substantial burden on individuals, communities, and health systems across the United States. Mississippi (MS) consistently ranks among the highest U.S. states in adult obesity prevalence, with recent data indicating that more than 40% of adults are classified as obese.[1–3] This health crisis disproportionately affects low-income populations, including Medicaid enrollees, who often face significant barriers to accessing effective, evidence-based obesity treatments.[4]

Obesity is associated with more than 60 comorbid conditions, including hypertension, type 2 diabetes, coronary artery disease, depression, osteoarthritis, and several cancers.[5] The risk and severity of these comorbidities increase over time, along with an increase in mortality.[6] Even modest weight reduction can meaningfully improve health outcomes such as improving blood pressure, cholesterol, and glycemic control.[7] A 5% reduction in body weight is widely accepted as clinically meaningful and is included as part of the efficacy criteria included in the U.S. Food and Drug Administration's (FDA) draft guidance for anti-obesity medications.[7,8]

Glucagon-like peptide-1 receptor agonists (GLP-1 RAs) have emerged as transformative anti-obesity medications (AOMs). First approved in 2005 for the treatment of type 2 diabetes mellitus (T2DM), these agents have demonstrated substantial benefits in promoting weight loss and reducing cardiovascular risk—including among individuals without T2DM.[9] Numerous randomized controlled trials have shown that GLP-1 RAs can reduce body weight by 10–20% and lower the risk of major adverse cardiovascular events (MACE), representing a paradigm shift in obesity pharmacotherapy.[9,10] GLP-1 RAs have also been associated with improvements in obesity-related conditions such as knee osteoarthritis, metabolic dysfunction-associated steatohepatitis (MASH), heart failure with preserved ejection fraction, chronic kidney disease, and obstructive sleep apnea. Consequently, guidelines increasingly recommend GLP-1 RA AOMs as part of comprehensive obesity treatment.[11,12]

MS Medicaid began covering select GLP-1 RA AOMs for obesity on July 1, 2023. Coverage also extends to members who are overweight with specific co-occurring chronic conditions (e.g., hypertension, hyperlipidemia, glucose dysregulation, obstructive sleep apnea, coronary artery disease, heart failure, prior myocardial infarction or cerebrovascular accident, and metabolic dysfunction-associated steatotic liver disease [MASLD], formerly non-alcoholic fatty liver disease [NAFLD]).

The aim of this project was to determine weight and body mass index (BMI) changes among Mississippi Medicaid members initiated on GLP-1 RA AOMs.

METHODS

Study Design and Data Source

This observational analysis used Mississippi Medicaid administrative claims data and linked prior authorization (PA) records from July 2023 through June 2024. The dataset included claims from both the Fee-for-Service (FFS) program and coordinated care organizations (CCOs), which comprised Magnolia Health (MAG), Molina Healthcare (MOL), and UnitedHealthcare (UHC). Pharmacy claims were used to identify all GLP-1 RA AOM initiations during the study period. For Mississippi Medicaid coverage, prescribers are required to complete a PA form documenting clinical information such as height, weight, and BMI upon initiation, reauthorization, and maintenance at 6-month intervals. Data from PA records was manually extracted for Medicaid members who initiated GLP-1 RA AOM therapy between July 2023 and June 2024.

Study Population

The study cohort consisted of all new GLP-1 RA AOM initiators with available PA data during the study period. PA records were linked with claims to obtain demographic information, comorbidities, and pharmacy dispensing records. The following criteria were established:

- In cases where multiple initial assessments were identified, the PA assessment closest to the first medication fill date was identified and the PA approval date was defined as the index date.
- A maximum interval of 60 days between PA approval and the first fill was allowed to account for delayed initiation.
- Exclusions included members who never filled a prescription, those with medication fills prior to their earliest identified PA form, and those with only one PA assessment during the study period.

Two analytic cohorts–6-month and 12-month–were created based on the timing of follow-up assessments.

- The 6-month cohort included members with a subsequent assessment occurring between 4 and 8 months after initial assessment.
- The 12-month cohort included members with a reassessment occurring between 10 and 14 months after the initial assessment.

Members were excluded if they were younger than 18 years at treatment initiation or lacked continuous enrollment during the cohort follow-up period.

Covariates

Baseline characteristics in this study included demographic and clinical variables. Demographic characteristics include age, sex, race, and plan (FFS, UHC, MAG, MOL). Clinical characteristics included weight and BMI at baseline, comorbid conditions (type 1 diabetes, type 2 diabetes, prediabetes, hypertension, hyperlipidemia, sleep apnea, MASLD, depression, osteoarthritis, cardiovascular disease, kidney disease), pregnancy, and Elixhauser comorbidity index (ECI). All baseline characteristics were assessed during the one year prior to the first fill date and up to six months after, excluding members with a pregnancy event. Pregnancy was captured from the first

fill date to the last fill date within the 6-month or 12-month study period. To evaluate the potential influence of medication changes on weight outcomes, switching between GLP-1 RA AOMs was included as an additional characteristic.

Adherence and persistence were assessed within each cohort to evaluate patterns of medication use. Adherence was evaluated based on how consistently members filled their prescriptions during the observation period. Specifically, GLP-1 RA AOM adherence was measured using the monthly proportion of days covered (PDC) over the 6-month and 12-month follow-up periods following the first fill date. PDC, a commonly used adherence metric, is defined as the ratio of total days covered by a medication, based on days' supply, to the total number of days in the observation period. In this study, PDC was categorized into three groups: PDC < 0.5, PDC 0.5–0.8, and PDC > 0.8.

Persistence was defined as the continuous use of the medication without a consecutive gap of 60 days or more between prescription fills. Discontinuation was defined as having a 60-day gap between the last recorded fill date and the next observed refill date. Time to discontinuation was calculated as the number of days from the index date to the last fill date before the gap in therapy. Based on the duration for which members continued refilling their medication, persistence was categorized into three groups: less than 90 days, 90 to 180 days, and more than 180 days.

Outcomes

The primary outcomes of this study were changes in weight and BMI. Weight change was calculated as the difference between the assessment at the index date and the assessment closest to 6 months or 12 months after the index date. Because a 5% weight loss is considered a clinically meaningful goal for GLP-1 RA AOM therapy, the proportion of members achieving at least 5% weight reduction in each cohort was calculated. Additionally, the 6-month and 12-month cohorts were stratified by adherence, persistence, baseline characteristics, and medication switching to assess the impact these factors had on weight change.

Statistical Analysis

Descriptive statistics were used to summarize member demographic and clinical characteristics, as well as changes in weight and BMI in each cohort. Univariate analysis was also conducted to evaluate the impact each clinical and demographic covariate had on weight change among the cohort.

RESULTS

Baseline Characteristics

A total of 393 members met criteria for inclusion in the 6-month cohort, and 267 members met criteria for the 12-month cohort. Baseline demographic and clinical characteristics for both cohorts are summarized in Table 1. In the 6-month cohort, the majority of members were aged 31–45 years (52.9%), with smaller proportions aged 18–30 years (25.7%) and 46–65 years (21.4%). The age distribution was similar in the 12-month cohort. Females comprised the overwhelming

majority in both cohorts (90.3% in the 6-month cohort; 92.1% in the 12-month cohort). Racial distributions were comparable across cohorts, with those identifying as Black comprising 47.1% and 49.4%, respectively. Across both cohorts, most members were enrolled in MAG and UHC.

Mean baseline weight was 268.7 lbs (Standard Deviation(SD) 64.1) in the 6-month cohort and 271.8 lbs (SD 71.5) in the 12-month cohort. Mean baseline BMI was 44.4 kg/m² (SD 10.0) in the 6-month cohort and 44.7 kg/m² (SD 11.0) in the 12-month cohort, which indicate a study population living with severe obesity. Over 40% of members in each cohort had a BMI > 45 at baseline.

Comorbid chronic conditions were common across both cohorts. The majority of the study population experienced hypertension (55%), followed by depression (45%), and osteoarthritis (35 – 40%). Pregnancy during the use of GLP-1 RA AOM was rare across both cohorts (0.8% and 1.9%, respectively).

Medication adherence was high overall. The mean PDC was 0.9 in both cohorts, with more than 75% achieving a PDC above 0.8. Persistence patterns differed between the two follow-up periods, as expected given their differing durations. In the 6-month cohort, most members (79.4%) did not experience a discontinuation event during the observation window. In contrast, persistence declined over the longer 12-month period, with 25.8% maintaining continuous use without a 60-day gap. Among those who discontinued, earlier discontinuation was more common in the 12-month cohort, with nearly 30.3% discontinuing treatment within the first 90 days and roughly one-fifth discontinuing between 90 and 180 days.

Switching between GLP-1 RA AOM therapies occurred infrequently in the 6-month cohort but was more common in the 12-month cohort. About 6.1% of members in the 6-month cohort switched, whereas 15.7% did so in the 12-month cohort. All observed switches were from liraglutide to semaglutide.

TABLE 1. Characteristics of Mississippi Medicaid Members Initiating GLP-1 RA AOMs with Follow-up Prior Authorization Data July 2023 - June 2024

	6-month cohort (N = 393)	12-month cohort (N = 267)
Age (years)		
18 - 30	101 (25.7%)	57 (21.4%)
31 - 45	208 (52.9%)	153 (57.3%)
46 - 65	84 (21.4%)	57 (21.4%)
Sex		
Male	38 (9.7%)	21 (7.9%)
Female	355 (90.3%)	246 (92.1%)
Race		
White	154 (39.2%)	102 (38.2%)
Black	185 (47.1%)	132 (49.4%)
Other	54 (13.7%)	33 (12.4%)
Plan		
FFS	55 (14.0%)	31 (11.6%)
UHC	122 (31.0%)	94 (35.2%)
MOL	68 (17.3%)	47 (17.6%)
MAG	148 (37.7%)	95 (35.6%)
Weight at Baseline		
Weight; Mean (SD)	268.7 (64.1)	271.8 (71.5)
Weight; Median [IQR]	261 [222 to 309]	254 [220 to 320]
BMI at Baseline		
BMI; Mean (SD)	44.4 (10.0)	44.7 (11.0)
BMI; Median [IQR]	42.3 [37.1 to 49.8]	41.6 [36.8 to 49.9]
< 35	65 (16.5%)	48 (18.0%)
35 - 39.99	88 (22.4%)	60 (22.5%)
40 - 44.99	76 (19.3%)	52 (19.5%)
45+	164 (41.7%)	107 (40.1%)
Comorbidities		
Type 1 Diabetes	7 (1.8%)	6 (2.3%)
Type 2 Diabetes	66 (16.8%)	40 (15.0%)
Prediabetes	44 (11.2%)	28 (10.5%)
Obesity	376 (95.7%)	256 (95.9%)
Overweight	35 (8.9%)	31 (11.6%)
Hypertension	219 (55.7%)	149 (55.8%)
Hyperlipidemia	64 (16.3%)	44 (16.5%)
Sleep apnea	101 (25.7%)	66 (24.7%)
MASLD	46 (11.7%)	30 (11.2%)
Depression	177 (45.0%)	120 (44.9%)
Osteoarthritis	139 (35.4%)	107 (40.1%)
Cardiovascular[a]	55 (14.0%)	41 (15.4%)
Kidney[b]	21 (5.3%)	17 (6.4%)
Pregnancy[c]	3 (0.8%)	5 (1.9%)
Elixhauser comorbidity index (ECI)		
ECI < 3	116 (29.5%)	78 (29.2%)
ECI 3-4	139 (35.4%)	84 (31.5%)
ECI 5+	138 (35.1%)	105 (39.3%)
Adherence		
PDC; Mean (SD)	0.9 (0.2)	0.9 (0.2)
PDC < 0.5	27 (6.9%)	31 (11.6%)
PDC 0.5 - 0.8	31 (7.9%)	32 (12.0%)
PDC > 0.8	335 (85.2%)	204 (76.4%)
Persistence		
Never discontinue	312 (79.4%)	68 (25.8%)
Discontinue within 90 days	63 (16.0%)	81 (30.3%)
Discontinue 90 - 180 days	18 (4.6%)	59 (22.1%)
Discontinue after 180 days	NA	59 (22.1%)
Medication Switch[d]	24 (6.1%)	42 (15.7%)

Notes: Fee-for-Service (FFS); Magnolia Health (MAG); Molina Healthcare (MOL); UnitedHealthcare (UHC); Standard Deviation (SD); Interquartile range (IQR); Metabolic Dysfunction-Associated Steatotic Liver Disease (MASLD); Proportion of Days Covered (PDC); Body Mass Index (BMI)

[a] Cardiovascular diseases: coronary heart disease, heart failure, myocardial infarction

[b] Kidney diseases: chronic kidney disease, acute kidney disease, end-stage renal disease

[c] Pregnancy was identified 6 months /12 months after the first prescription filled, whereas other chronic conditions were identified from one year before the first prescription filled until 6 months post prescription filled

[d] All members who switched were switching from liraglutide to semaglutide

Weight loss of 5% or more

Table 2 summarizes the proportion of members achieving at least 5% weight loss stratified by adherence, persistence, switching, and comorbidity subgroups. Overall, 57.0% of members in the 6-month cohort reached a 5% weight reduction, increasing to 64.4% in the 12-month cohort.

Higher adherence was associated with greater weight loss. Members with high adherence (PDC > 0.8) were most likely to achieve the 5% threshold, with 63.6% doing so in the 6-month cohort and 73.5% in the 12-month cohort. In contrast, members with PDC below 0.5 had the lowest likelihood of meaningful weight loss, with only 18.5% reaching the threshold at 6 months and 12.9% at 12 months. Persistence reflected a similar pattern. Members who never discontinued therapy demonstrated the best outcomes, with 65% achieving at least 5% weight loss at 6 months and 88% at 12 months, whereas early discontinuation (within 90 days) was associated with substantially lower rates.

Members who switched therapy, all transitioning from liraglutide to semaglutide, generally had lower weight-loss success compared with those who did not switch, particularly in the 6-month cohort. Although switching remained associated with reduced success in the 12-month cohort, the difference narrowed with longer follow-up.

Across comorbidity groups, weight loss patterns were broadly consistent. Most conditions showed success rates between 45% and 60% in the 6-month cohort, with higher proportions achieving weight loss in the 12-month cohort. Members with less comorbidity burden, reflected by lower ECI scores, had slightly higher proportions achieving 5% weight loss.

TABLE 2. Proportion of Medicaid Members Initiating GLP-1 RA AOMs Who Achieved 5% Weight Loss July 2023 - June 2024

	6 month cohort			12 month cohort		
	N	5% weight loss	Proportion	N	5% weight loss	Proportion
Overall	393	224	57.0%	267	172	64.4%
Adherence						
PDC < 0.5	27	5	18.5%	31	4	12.9%
PDC 0.5 - 0.8	31	6	19.4%	32	18	56.3%
PDC > 0.8	335	213	63.6%	204	150	73.5%
Persistence						
Never discontinue	312	203	65.1%	68	60	88.2%
Discontinue within 90 days	63	15	23.8%	81	36	44.4%
Discontinue 90 - 180 days	18	6	33.3%	59	30	50.9%
Discontinue after 180 days	NA	NA	NA	59	46	78.0%
Medication Switch[d]						
No switch	369	217	58.8%	225	150	66.7%
Switch	24	7	29.2%	42	22	52.8%
Baseline BMI						
< 35	65	37	56.9%	48	26	54.2%
35 - 39.99	88	53	60.2%	60	45	75.0%
40 - 44.99	76	54	71.1%	52	31	59.6%
45+	164	80	48.8%	107	70	65.4%
Comorbidities						
Type 1 Diabetes	7	5	71.4%	6	4	66.7%
Type 2 Diabetes	66	32	48.5%	40	24	60.0%
Prediabetes	44	17	38.6%	28	17	60.7%
Hypertension	219	116	53.0%	149	96	64.4%
Hyperlipidemia	64	32	50.0%	44	32	72.2%
Sleep apnea	101	45	44.6%	66	40	60.6%
MASLD	46	28	60.9%	30	17	56.7%
Depression	177	95	53.7%	120	74	61.7%
Osteoarthritis	139	75	54.0%	107	64	59.8%
Cardiovascular[a]	55	26	47.3%	41	25	61.0%
Kidney[b]	21	13	61.9%	17	13	76.5%
Pregnancy[c]	3	0	0.0%	5	2	40.0%
Elixhauser comorbidity index (ECI)						
ECI < 3	116	74	63.8%	78	56	71.8%
ECI 3-4	139	83	59.7%	84	54	64.3%
ECI 5+	138	67	48.6%	105	62	59.1%

Notes: Metabolic Dysfunction-Associated Steatotic Liver Disease (MASLD); Proportion of Days Covered (PDC); Body Mass Index (BMI)

[a] *Cardiovascular diseases: coronary heart disease, heart failure, myocardial infarction*

[b] *Kidney diseases: chronic kidney disease, acute kidney disease, end-stage renal disease*

[c] *Pregnancy was identified 6 months /12 months after the first prescription filled, whereas other chronic conditions were identified from one year before the first prescription filled until 6 months post prescription filled*

[d] *All members who switched were switching from liraglutide to semaglutide*

Weight change from baseline

Table 3 summarizes the mean change in weight from baseline among the 6- and 12-month cohorts stratified by adherence, persistence, medication switching, and comorbidity subgroups. Overall, members in the 6-month cohort lost a mean of 15.3 pounds, while those in the 12-month cohort experienced a larger mean reduction of 21.7 pounds.

Members with high adherence (PDC > 0.8) had the greatest reductions, averaging 17.3 pounds of weight loss at 6 months and 26.1 pounds at 12 months. In contrast, members with PDC below 0.5 demonstrated minimal weight change at 6 months (−3.4 pounds) and even gained weight on average at 12 months (+4.7 pounds).

Persistence exhibited a similar relationship with outcomes. Members who remained persistent throughout the follow-up period experienced the largest weight reductions, averaging 17.8 pounds lost at 6 months and 36.7 pounds lost at 12 months. Early discontinuation was associated with smaller reductions − members who discontinued within 90 days lost only 5.2 pounds at 6

months and 10.4 pounds at 12 months. Those discontinuing between 90 and 180 days lost more weight than early discontinuers but considerably less than persistent members.

Members who switched medications generally achieved smaller weight reductions compared with those who did not switch. In the 6-month cohort, switchers lost an average of 9.8 pounds compared with 15.7 pounds among non-switchers; a similar pattern was present in the 12-month cohort.

Weight loss across comorbidity subgroups was broadly consistent. In the 6-month cohort, weight reductions across conditions ranged from approximately 8 to 25 pounds. Members with type 1 diabetes experienced the largest average reduction at 6 months. In the 12-month cohort, weight reductions across conditions ranged from approximately 19 to 28 pounds. In the 6-month cohort, members with lower comorbidity burden had slightly greater weight loss, while there was little variation among the 12-month cohort.

TABLE 3. Mean Weight Change from Baseline Among Mississippi Medicaid Members Initiating GLP-1 RA AOMs July 2023 - June 2024

	6 month cohort (N = 393)	12 month cohort (N = 267)
	Weight change; mean (SD)	Weight change; mean (SD)
Overall	-15.3 (17.4)	-21.7 (23.3)
Adherence		
PDC < 0.5	-3.4 (17.0)	4.7 (14.9)
PDC 0.5 - 0.8	-4.7 (14.8)	-19.1 (19.4)
PDC > 0.8	-17.3 (17.0)	-26.1 (22.2)
Persistence		
Never discontinue	-17.8 (16.8)	-36.7 (20.1)
Discontinue within 90 days	-5.2 (15.1)	-10.4 (22)
Discontinue 90 - 180 days	-8.4 (20.5)	-13.8 (21.6)
Discontinue after 180 days	NA	-27.9 (18.3)
Medication Switch[d]		
No switch	-15.7 (17)	-22.5 (22.6)
Switch	-9.8 (21.5)	-17.2 (26.5)
Baseline BMI		
< 35	-14.6 (21)	-20.9 (35.5)
35 - 39.99	-16.8 (26.5)	-22.6 (36)
40 - 44.99	-16.4 (28.5)	-23.9 (35.5)
45+	-18.9 (26.4)	-24.3 (41)
Comorbidities		
Type 1 Diabetes	-25.4 (25.7)	-21.7 (24.4)
Type 2 Diabetes	-13.1 (14.2)	-25 (24)
Prediabetes	-8.4 (15.2)	-24 (27.7)
Hypertension	-14 (15.7)	-23.3 (23.2)
Hyperlipidemia	-13.6 (14.7)	-27.4 (20.7)
Sleep apnea	-13.7 (17.7)	-19.2 (23.3)
MASLD	-15.4 (17.4)	-20.5 (23.9)
Depression	-14.5 (16.2)	-20.6 (23.4)
Osteoarthritis	-15.5 (17.8)	-19.7 (24.3)
Cardiovascular[a]	-14.4 (16.4)	-23.1 (25.3)
Kidney[b]	-17.1 (18.8)	-26.8 (23.5)
Pregnancy[c]	-3 (6.9)	-2.7 (15.1)
Elixhauser comorbidity index (ECI)		
ECI < 3	-17.2 (19.7)	-21.9 (20.2)
ECI 3-4	-16.2 (16.7)	-22.3 (23.5)
ECI 5+	-12.9 (15.8)	-21.1 (25.2)

Notes: Metabolic Dysfunction-Associated Steatotic Liver Disease (MASLD); Proportion of Days Covered (PDC); Standard Deviation (SD); Body Mass Index (BMI)

[a] Cardiovascular diseases: coronary heart disease, heart failure, myocardial infarction

[b] Kidney diseases: chronic kidney disease, acute kidney disease, end-stage renal disease

[c] Pregnancy was identified 6 months /12 months after the first prescription filled, whereas other chronic conditions were identified from one year before the first prescription filled until 6 months post prescription filled

[d] All members who switched were switching from liraglutide to semaglutide

Body Mass Index (BMI) change from baseline

Table 4 summarizes the change in BMI from baseline across adherence, persistence, switching status, and comorbidity subgroups. Overall, members experienced meaningful decreases in BMI in both follow-up periods, with greater reductions in the 12-month cohort (−3.6) compared with the 6-month cohort (−2.5).

Members with high adherence (PDC > 0.8) demonstrated the greatest improvements, with BMI decreasing by 2.8 units at 6 months and 4.3 units at 12 months. In contrast, members with PDC below 0.5 had only a minimal reduction at 6 months and, on average, a slight increase at 12 months.

Persistence followed a similar pattern. Members who never discontinued therapy achieved the largest changes, decreasing 2.9 units at 6 months and 6 units at 12 months. Early discontinuation (within 90 days) presented the smallest improvements, while those who discontinued between 90 and 180 days showed intermediate reductions. Members who discontinued after 180 days in the 12-month cohort still demonstrated a notable decline.

Members who switched medications had smaller BMI reductions than those who remained on their initial therapy. Switchers saw decreases of 1.6 units at 6 months and 2.9 units at 12 months, compared with a decrease of 2.6 and 3.7 at 6 months and 12 months for non-switchers, respectively.

BMI reductions were generally consistent across comorbidity subgroups. Members with type 1 diabetes had the greatest decline at 6 months, while those with hyperlipidemia and kidney disease showed some of the largest reductions at 12 months. Overall, BMI reduction varied modestly by comorbidity burden, with slightly larger declines among members with lower ECI scores.

TABLE 4. Body Mass Index (BMI) Change from Baseline Among Mississippi Medicaid Members Initiating GLP-1 RA AOMs July 2023 - June 2024		
	6 month cohort (N = 393)	12 month cohort (N = 267)
	BMI change; mean (SD)	BMI change; mean (SD)
Overall	-2.5 (2.9)	-3.6 (3.8)
Adherence		
PDC < 0.5	-0.6 (2.9)	0.8 (2.4)
PDC 0.5 - 0.8	-0.7 (2.2)	-3.2 (3.3)
PDC > 0.8	-2.8 (2.8)	-4.3 (3.6)
Persistence		
Never discontinue	-2.9 (2.8)	-6 (3.2)
Discontinue within 90 days	-0.8 (2.5)	-1.7 (3.7)
Discontinue 90 - 180 days	-1.5 (3.5)	-2.3 (3.5)
Discontinue after 180 days	NA	-4.6 (3)
Medication Switch[d]		
No switch	-2.6 (2.8)	-3.7 (3.7)
Switch	-1.6 (3.5)	-2.9 (4.4)
Comorbidities		
Type 1 Diabetes	-3.9 (3.7)	-3.5 (3.9)
Type 2 Diabetes	-2.1 (2.2)	-4 (3.7)
Prediabetes	-1.3 (2.6)	-3.8 (4.2)
Hypertension	-2.3 (2.6)	-3.8 (3.8)
Hyperlipidemia	-2.1 (2.4)	-4.5 (3.4)
Sleep apnea	-2.2 (2.9)	-3.1 (3.7)
MASLD	-2.5 (2.8)	-3.4 (4)
Depression	-2.4 (2.7)	-3.4 (3.8)
Osteoarthritis	-2.5 (2.9)	-3.3 (4)
Cardiovascular[a]	-2.3 (2.6)	-3.8 (4.1)
Kidney[b]	-2.6 (2.9)	-4.4 (3.9)
Pregnancy[c]	-0.5 (1.2)	-0.5 (2.3)
Elixhauser comorbidity index (ECI)		
ECI < 3	-2.9 (3.3)	-3.7 (3.3)
ECI 3-4	-2.7 (2.8)	-3.7 (4)
ECI 5+	-2.1 (2.6)	-3.4 (4.1)

Notes: Metabolic Dysfunction-Associated Steatotic Liver Disease (MASLD); Proportion of Days Covered (PDC); Standard Deviation (SD)

[a] *Cardiovascular diseases: coronary heart disease, heart failure, myocardial infarction*

[b] *Kidney diseases: chronic kidney disease, acute kidney disease, end-stage renal disease*

[c] *Pregnancy was identified 6 months /12 months after the first prescription filled, whereas other chronic conditions were identified from one year before the first prescription filled until 6 months post prescription filled*

[d] *All members who switched were switching from liraglutide to semaglutide*

Factors associated with weight loss vs weight gain

Table 5 summarizes factors associated with members who experienced weight loss versus weight gain. Most demographic and clinical characteristics, including age, sex, race, plan, and the presence of common comorbidities, were not significantly associated with weight-loss outcomes at either 6 or 12 months. Comorbidity burden, measured by the ECI, also showed no meaningful differences between members who lost weight and those who gained weight.

In contrast, patterns of medication use showed strong and consistent associations with weight loss. Higher adherence was significantly linked to greater likelihood of weight loss at both 6 months ($p = 0.006$) and 12 months ($p < 0.001$). Persistence demonstrated the same trend, with members who remained on therapy being far more likely to lose weight, while early discontinuation was associated with weight gain ($p = 0.007$ at 6 months; $p < 0.001$ at 12 months). Medication switching was also significant. Members who switched from liraglutide to semaglutide

were more likely to gain weight compared with those who remained on their initial therapy, with significant differences at both follow-up intervals. Overall, adherence, persistence, and switching medications were the primary factors driving differences in weight outcomes, whereas demographic and clinical characteristics showed no significant impact.

TABLE 5. Factors Associated with Weight Loss vs. Weight Gain Among Mississippi Medicaid Members Initiating GLP-1 RA AOMs July 2023 - June 2024

	6 month cohort (N = 393)			12 month cohort (N = 267)		
	Weight loss	Weight gain	P-value	Weight loss	Weight gain	P-value
Total	322	71		214	53	
Age			0.975			0.200
18 - 30	82	19		46	11	
31 - 45	171	37		127	26	
46 - 65	69	15		41	16	
Sex			0.952			0.390
Male	31	7		15	6	
Female	291	64		199	47	
Race			0.380			0.208
Whites	128	26		81	21	
Blacks	154	31		110	22	
Others	40	14		23	10	
Plan			0.702			0.778
FFS	42	13		25	6	
UHC	102	20		73	21	
MOL	56	12		40	7	
MAG	122	26		76	19	
Comorbidities						
Type 1 Diabetes	5	2	0.615	5	1	1.000
Type 2 Diabetes	53	13	0.706	34	6	0.404
Prediabetes	33	11	0.205	23	5	0.780
Hypertension	181	38	0.680	122	27	0.426
Hyperlipidemia	52	12	0.877	39	5	0.149
Sleep apnea	80	21	0.409	51	15	0.499
MASLD	41	5	0.223	24	6	0.983
Depression	144	33	0.788	94	26	0.501
Osteoarthritis	117	22	0.393	82	25	0.239
Cardiovascular[a]	43	12	0.436	31	10	0.428
Kidney[b]	17	4	1.000	15	2	0.538
Pregnancy[c]	1	2	0.085	3	2	0.259
Elixhauser comorbidity index (ECI)			1.000			0.569
ECI < 3	95	21		65	13	
ECI 3-4	114	25		68	16	
ECI 5+	113	25		81	24	
Adherence			**0.006**			**<.001**
PDC < 0.5	16	11		12	19	
PDC 0.5 - 0.8	25	6		27	5	
PDC > 0.8	281	54		175	29	
Persistence			**0.007**			**<.001**
< 90 days	44	19		52	29	
90 - 180 days	278	52		43	16	
More than 180 days	NA	NA		119	8	
Medication Switch[d]	15	9	**0.024**	28	14	**0.017**

Notes: Metabolic Dysfunction-Associated Steatotic Liver Disease (MASLD); Proportion of Days Covered (PDC)
P-values were calculated using chi-square tests comparing weight-loss vs. weight-gain groups. Fisher's exact test used where cell counts < 5.

[a] *Cardiovascular diseases: coronary heart disease, heart failure, myocardial infarction*

[b] *Kidney diseases: chronic kidney disease, acute kidney disease, end-stage renal disease*

[c] *Pregnancy was identified 6 months /12 months after the first prescription filled, whereas other chronic conditions were identified from one year before the first prescription filled until 6 months post prescription filled*

[d] *All members who switched were switching from liraglutide to semaglutide*

CONCLUSIONS

Obesity is a chronic, relapsing condition that affects a substantial portion of the population and is linked to more than 60 comorbidities. Even modest weight reduction can lead to meaningful improvements in many of these conditions. Among Medicaid members who initiated GLP-1 RA AOMs between July 2023 and June 2024 and had follow-up prior authorization data available, 57% of those in the 6-month cohort and 64.4% of those in the 12-month cohort achieved at least 5% weight loss. Patterns of medication use—including adherence, persistence, and lack of medication switching—were strongly and consistently associated with achieving weight loss.

RECOMMENDATIONS

1. DOM should continue to monitor the use of GLP-1 RA AOMs and evaluate outcomes associated with their use.

REFERENCES

1. Adult Obesity Prevalence Maps | Obesity | CDC. Accessed December 4, 2025. https://www.cdc.gov/obesity/data-and-statistics/adult-obesity-prevalence-maps.html

2. Obesity - Mississippi State Department of Health. Accessed December 4, 2025. https://msdh.ms.gov/page/43,0,289.html

3. Explore Obesity in Mississippi | AHR. Accessed December 4, 2025. https://www.americashealthrankings.org/explore/measures/Obesity/MS

4. Harvey JR, Ogden DE. Obesity treatment in disadvantaged population groups: where do we stand and what can we do? *Prev Med*. 2014;68:71-75. doi:10.1016/j.ypmed.2014.05.015

5. What Is Obesity? Obesity Medicine Association. Accessed December 4, 2025. https://obesitymedicine.org/blog/what-is-obesity/

6. Su W, Huang J, Chen F, et al. Modeling the clinical and economic implications of obesity using microsimulation. *J Med Econ*. 2015;18(11):886-897. doi:10.3111/13696998.2015.1058805

7. Ryan DH, Yockey SR. Weight Loss and Improvement in Comorbidity: Differences at 5%, 10%, 15%, and Over. *Curr Obes Rep*. 2017;6(2):187-194. doi:10.1007/s13679-017-0262-y

8. Research C for DE and. Obesity and Overweight: Developing Drugs and Biological Products for Weight Reduction. June 4, 2025. Accessed December 4, 2025. https://www.fda.gov/regulatory-information/search-fda-guidance-documents/obesity-and-overweight-developing-drugs-and-biological-products-weight-reduction

9. Popoviciu MS, Păduraru L, Yahya G, Metwally K, Cavalu S. Emerging Role of GLP-1 Agonists in Obesity: A Comprehensive Review of Randomised Controlled Trials. *Int J Mol Sci*. 2023;24(13):10449. doi:10.3390/ijms241310449

10. Lin G, Lee W, Fahim S. Semaglutide and Tirzepatide for Obesity: Effectiveness and Value; Draft Evidence Report. Institute for Clinical and Economic Review, September 9, 2025. Accessed December 4, 2025. https://icer.org/wp-content/uploads/2025/10/ICER_Obesity_Evidence-Report_For-Publication_102925.pdf

11. Celletti F, Farrar J, De Regil L. World Health Organization Guideline on the Use and Indications of Glucagon-Like Peptide-1 Therapies for the Treatment of Obesity in Adults. *JAMA*. Published online December 1, 2025. doi:10.1001/jama.2025.24288

12. Garvey WT, Mechanick JI, Brett EM, et al. American Association of Clinical Endocrinologists and American College of Endocrinology Comprehensive Clinical Practice Guidelines For Medical Care of Patients with Obesity. *Endocr Pract*. 2016;22:1-203. doi:10.4158/EP161365.GL

TRENDS, TREATMENT PATTERNS, AND HEALTHCARE UTILIZATION ASSOCIATED WITH MIGRAINE-RELATED MEDICATIONS

BACKGROUND

Migraines affect an estimated 39 million people in the United States each year, representing a major public health burden and a leading cause of disability—particularly among women. [1] Beyond physical symptoms, migraines substantially impair work productivity, career advancement, and interpersonal relationships.[2]

The treatment landscape shifted significantly with the introduction of calcitonin gene–related peptide (CGRP) inhibitors, the first class of therapies developed specifically for migraine prevention. Since the first FDA approval in 2018, two categories of CGRP-targeted agents have become available: injectable, large-molecule monoclonal antibodies indicated for preventive therapy, and oral, small-molecule inhibitors (gepants) approved for both acute and preventive treatment.[3,4] Mississippi Medicaid currently employs prior authorization criteria to guide appropriate use of these therapies. (see supplemental documents)

In 2024, the American Headache Society updated its position statement on CGRP-targeting therapies for migraine prevention.[5] Based on extensive real-world evidence, the Society concluded that preventive CGRP inhibitors demonstrate efficacy and tolerability comparable to—or exceeding—established first-line preventive options, with serious adverse events reported rarely. As a result, the Society now recommends CGRP inhibitors as first-line agents alongside traditional preventive therapies.

Despite their demonstrated benefits, evidence supporting combination use of CGRP inhibitors with other agents acting on the CGRP pathway remains limited.[6] Additionally, the high cost of CGRP therapies—whether used alone or in combination—raises important considerations for payers and policymakers. Further research is needed to determine safe, effective, and economically sustainable combination strategies.

This project seeks to characterize the current landscape of migraine treatment among Mississippi Medicaid members, with an emphasis on preventive therapy patterns and associated healthcare utilization.

OBJECTIVE 1

The objective of this analysis was to describe the utilization trends of migraine-related medications among Medicaid members from March 2018 to September 2025.

METHODS - OBJECTIVE 1

A retrospective analysis was conducted using Mississippi Medicaid pharmacy and medical claims data to assess the utilization of agents used in the treatment of migraine during the study period. The analysis included data from the Fee-for-Service (FFS) program and the coordinated care organizations (CCOs) [Magnolia Health (MAG), Molina Healthcare (MOL), UnitedHealthcare (UHC) and TrueCare (TRU)]. Medications utilized in the prevention and treatment of migraine were identified. (Appendix A) Pharmacy claims and medical claims for these medications during the study period were extracted. Medication spending was assessed as follows:

1. Migraine-specific medications: Pharmacy claims and medical claims for migraine-specific drugs (CGRP inhibitors, triptans, and 5-HT1f receptor agonists) were included in the trend analysis regardless of a member's prior migraine diagnosis.
2. Medications with indications beyond migraine (non-migraine specific): Medical claims of members prescribed these medications were extracted to determine whether treatment was related to migraine treatment. The first date of migraine diagnosis for each member was identified by checking for any medical claim with an International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) diagnosis code G43 for migraine in any position. If the pharmacy claim date was on or after the first date of migraine diagnosis, the pharmacy claim was included in the trend analysis.

Monthly pharmacy costs were evaluated with focus on the following specific trends: overall migraine-related pharmacy spending; spending on migraine-related preventive medications; spending on migraine-related acute medications; and spending on CGRP inhibitors. All analyses were stratified by health plan.

RESULTS – OBJECTIVE 1

A total of 658,052 claims met eligibility criteria and were included in the analysis, representing 51,795 members. Figures 1a-1d display the trends in migraine-related spending by health plan. The following observations can be drawn from the figures:

- From March 2018 to September 2025, the overall spending on migraine-related medications was approximately $28,910,977.73. Monthly spending increased from $123,307.45 in March 2018 to $361,898.19 in September 2025. Monthly spending was the highest in August 2023, with $471,524.38 for 7,050 members.
- The spending on acute migraine-related medications was around $11,090,709.36, while the spending on preventive medications was around $17,820,356.00. The increase of acute medication spending after July 2020 may be due to the addition of the first oral CGRP inhibitor for acute treatment as a preferred agent on the preferred drug list.
- Spending on CGRP inhibitors was $14,751,811.89 during the study period, which contributed to more than half of the total spending.

FIGURE 1a. Trends in Overall Migraine-related Medication Spending by Health Plan

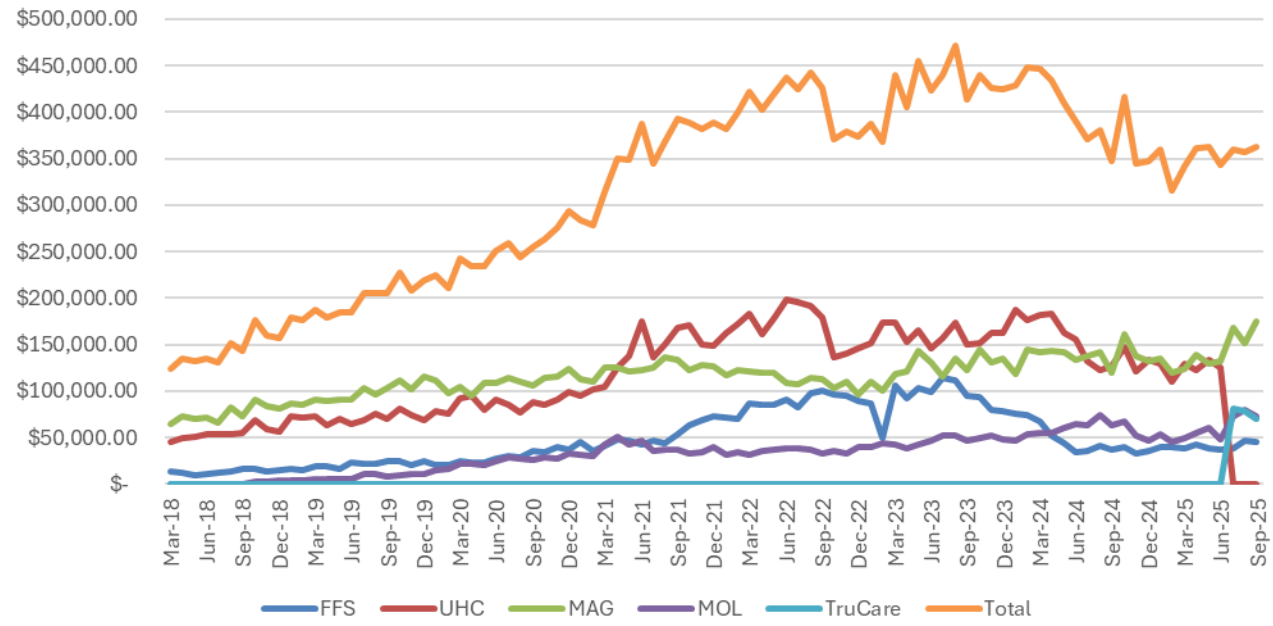


FIGURE 1b. Trends in Acute Medication Spending by Health Plan

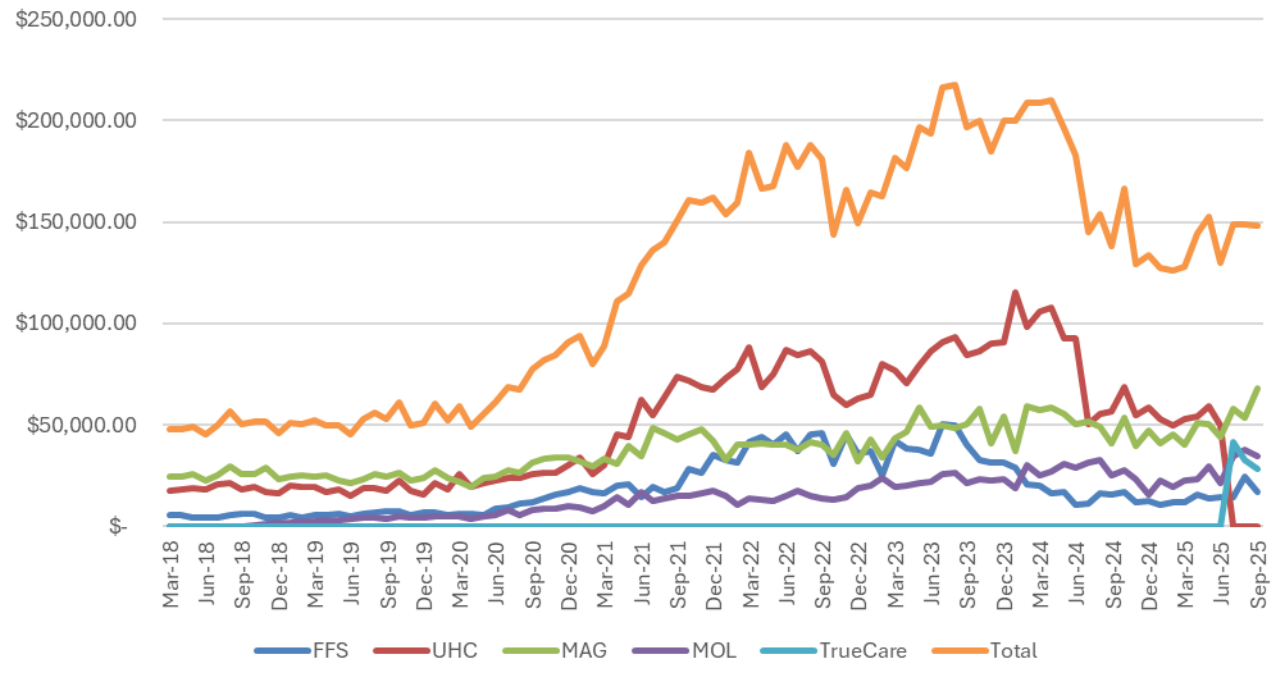


FIGURE 1c. Trends in Preventive Medication Spending by Health Plan

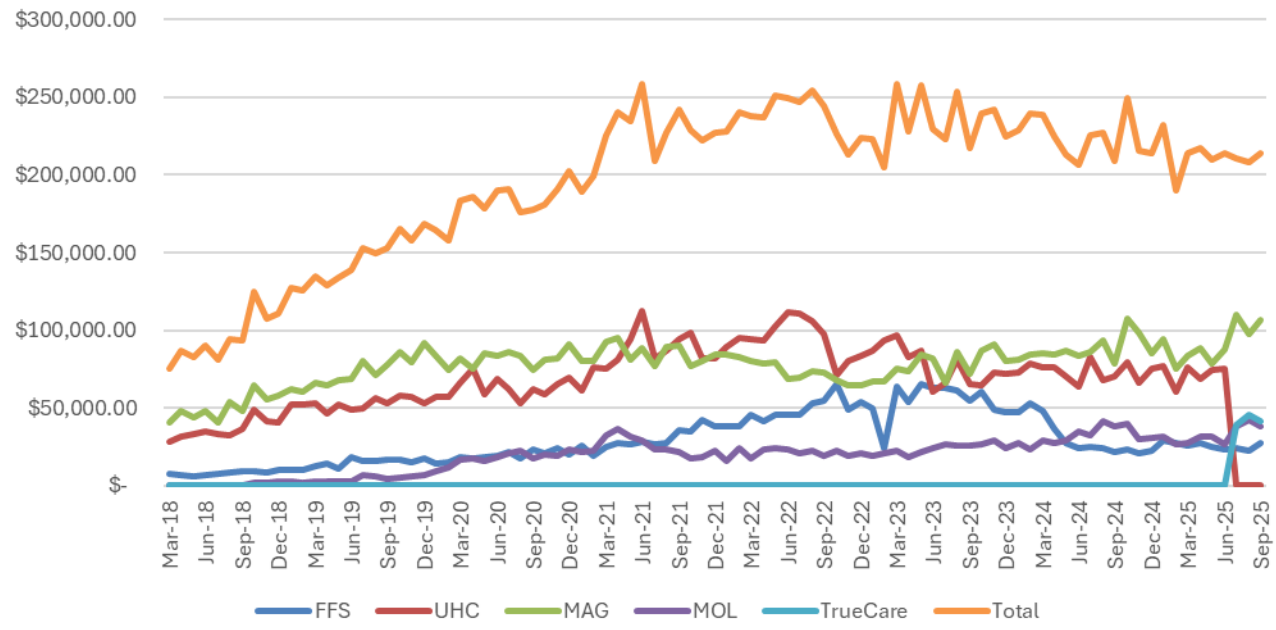
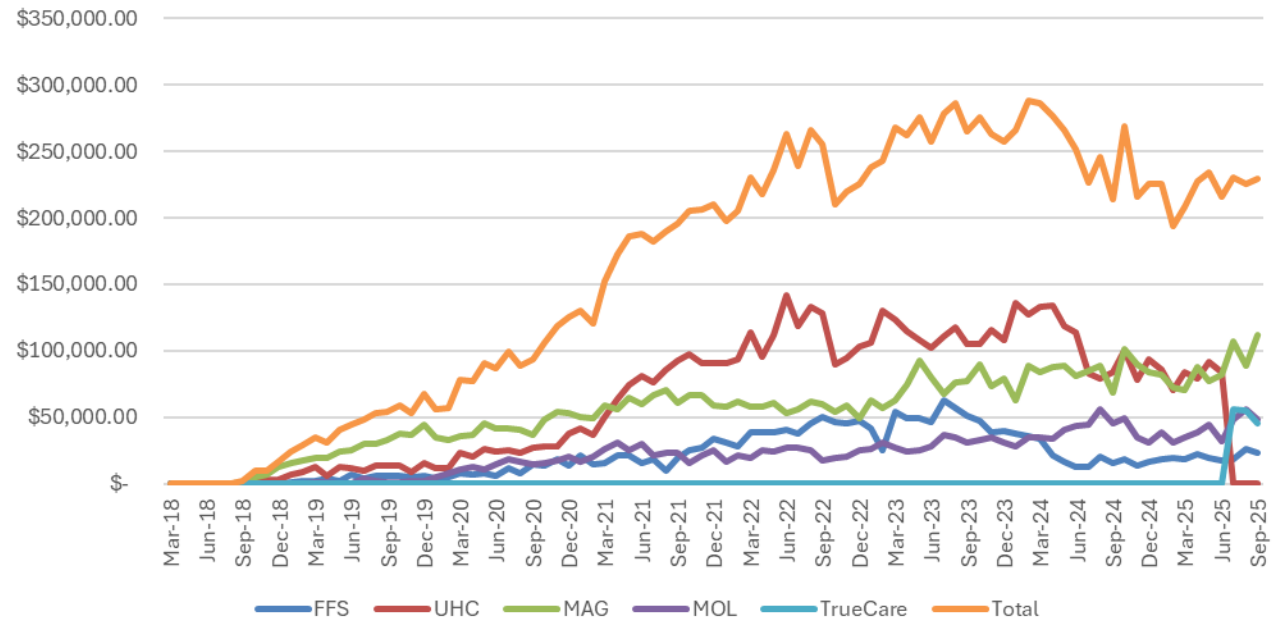


FIGURE 1d. Trends in CGRP Inhibitor Medication Spending by Health Plan



OBJECTIVE 2

The objective of this analysis was to describe treatment patterns and the concomitant use of acute and preventive migraine therapies among Mississippi Medicaid members identified as eligible to receive preventive migraine therapy from 2018 to 2024.

METHODS – OBJECTIVE 2

A retrospective analysis was conducted using FFS and CCO pharmacy and medical claims from January 1, 2018 through December 31, 2024, annually. The study population was derived from a predefined migraine cohort identified using the Pharmacy Quality Alliance Migraine Preventive Therapy (PQA MPT) measure. Eligible members were aged ≥18 years and had at least 12 headaches within a rolling 120-day period, as defined by the measure specifications. Individuals with any diagnosis of cluster headache or tension-type headache during the study period were excluded to reduce misclassification.

Among the eligible members, the distribution of the first migraine preventive therapy use was described annually from 2018 to 2024 by medication class and by individual drug. Rimegepant, a CGRP inhibitor indicated for both acute and preventive use was classified as a preventive therapy when the submitted quantity exceeded 15 tablets per fill, reflecting dosing consistent with preventive use. The exposure of interest was the concomitant use of acute and preventive migraine pharmacotherapy. Concomitant use was defined by three categories: (1) any preventive therapy plus any acute migraine medication; (2) preventive CGRP therapy plus any acute migraine medication; and (3) preventive CGRP therapy plus gepant use for acute treatment (e.g., rimegepant at acute doses, ubrogepant, or zavegepant). For each category, concomitant use was operationalized as overlapping days of medication possession between preventive and acute agents for windows of 1, 3, 7, 15, 30, and 45 days per year.

RESULTS – OBJECTIVE 2

Using the PQA MPT measure specifications, the annual migraine preventive therapy cohort in Mississippi Medicaid between 2018 to 2024 ranged from a low of 667 in 2018 to a high of 1,112 members in 2022. These yearly cohorts formed the denominator for all subsequent estimates of first-line preventive use, CGRP uptake, and concomitant therapy patterns shown in Tables 1–4. Among members from 2018 to 2024, antiepileptics (29.7% to 34.3%), antidepressants (24.5–28.4%), and beta blockers (22.8–27.4%) were the most common preventive medication classes used. CGRP monoclonal antibodies increased from 0.3% (2018) to 8.5% (2023), then decreased to 6.2% (2024), while the use of OnabotulinumtoxinA (between 3.3% to 4.9%) remained relatively consistent as shown in Table 1.

TABLE 1. Distribution of First Migraine Preventive Therapy Among Medicaid Members by Medication Class (2018 - 2024)														
Medication Class	2018		2019		2020		2021		2022		2023		2024	
	n = 667		n = 759		n = 887		n = 1023		n = 1112		n = 999		n = 901	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
ACEI/ARBs	74	11.09%	82	10.80%	76	8.57%	78	7.62%	71	6.38%	68	6.81%	64	7.10%
Alpha Agonists	40	6.00%	35	4.61%	29	3.27%	42	4.11%	30	2.70%	33	3.30%	35	3.88%
Antidepressants	167	25.04%	191	25.16%	252	28.41%	242	23.66%	273	24.55%	248	24.82%	222	24.64%
Antiepileptics	229	34.33%	252	33.20%	267	30.10%	346	33.82%	348	31.29%	297	29.73%	275	30.52%
Antihistamines	29	4.35%	17	2.24%	19	2.14%	31	3.03%	25	2.25%	21	2.10%	19	2.11%
Beta Blockers	155	23.24%	183	24.11%	214	24.13%	233	22.78%	292	26.26%	268	26.83%	247	27.41%
CGRP	2	0.30%	15	1.98%	42	4.74%	56	5.47%	83	7.46%	85	8.51%	56	6.22%
OnabotulinumtoxinA	22	3.30%	27	3.56%	33	3.72%	42	4.11%	51	4.59%	49	4.90%	34	3.77%
Notes: ACEI = angiotensin converting enzyme inhibitors; ARB = angiotensin II receptor blockers; CGRP = calcitonin gene-related peptide; Preventive CGRPs include atogepant, eptinezumab, erenumab, galcanezumab, fremanezumab, rimegepant (if submitted quantity is ≥15)														

At the individual drug level, amitriptyline, topiramate, propranolol, and metoprolol were the most commonly prescribed first-line therapies throughout the study period, with amitriptyline accounting for roughly 18–21% of first-line initiations and topiramate for approximately 24–28% in recent years as shown in Table 2. Newer preventive CGRP agents (erenumab, fremanezumab, galcanezumab, rimegepant, and atogepant) entered the market beginning in 2019 and increased from no use in 2018 to about 8–10% of first preventive starts by 2023, followed by a small decrease in 2024, suggesting early uptake and subsequent stabilization. (Table 2)

TABLE 2. Distribution of First Migraine Preventive Therapy Among Medicaid Members by Medication (2018 - 2024)														
Medication	2018		2019		2020		2021		2022		2023		2024	
	n = 667		n = 759		n = 887		n = 1023		n = 1112		n = 999		n = 901	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Amitriptyline	121	18.14%	143	18.84%	187	21.08%	170	16.62%	204	18.35%	179	17.92%	175	19.42%
Atenolol	20	3.00%	20	2.64%	17	1.92%	22	2.15%	20	1.80%	14	1.40%	18	2.00%
Atogepant	0	0.00%	0	0.00%	0	0.00%	0	0.00%	2	0.18%	14	1.40%	6	0.67%
Candesartan	0	0.00%	1	0.13%	0	0.00%	0	0.00%	1	0.09%	0	0.00%	0	0.00%
Carbamazepine	11	1.65%	15	1.98%	18	2.03%	18	1.76%	16	1.44%	14	1.40%	15	1.66%
Clonidine	35	5.25%	34	4.48%	25	2.82%	38	3.71%	28	2.52%	31	3.10%	29	3.22%
Cyproheptadine	29	4.35%	17	2.24%	19	2.14%	31	3.03%	25	2.25%	21	2.10%	19	2.11%
Divalproex	32	4.80%	39	5.14%	35	3.95%	46	4.50%	50	4.50%	43	4.30%	39	4.33%
Eptinezumab	0	0.00%	0	0.00%	0	0.00%	2	0.20%	1	0.09%	2	0.20%	3	0.33%
Erenumab	2	0.30%	7	0.92%	14	1.58%	20	1.96%	34	3.06%	23	2.30%	17	1.89%
Fremanezumab	0	0.00%	3	0.40%	8	0.90%	22	2.15%	25	2.25%	17	1.70%	13	1.44%
Galcanezumab	0	0.00%	5	0.66%	20	2.25%	11	1.08%	6	0.54%	5	0.50%	8	0.89%
Rimegepant	0	0.00%	0	0.00%	0	0.00%	1	0.10%	15	1.35%	24	2.40%	9	1.00%
Guanfacine	4	0.60%	1	0.13%	4	0.45%	4	0.39%	2	0.18%	2	0.20%	6	0.67%
Lisinopril	73	10.94%	81	10.67%	76	8.57%	78	7.62%	70	6.29%	68	6.81%	64	7.10%
Metoprolol	65	9.75%	76	10.01%	109	12.29%	108	10.56%	127	11.42%	123	12.31%	106	11.76%
Nadolol	3	0.45%	2	0.26%	2	0.23%	0	0.00%	0	0.00%	3	0.30%	0	0.00%
Nebivolol	2	0.30%	0	0.00%	2	0.23%	2	0.20%	3	0.27%	3	0.30%	8	0.89%
Propranolol	56	8.40%	85	11.20%	84	9.47%	101	9.87%	142	12.77%	126	12.61%	115	12.76%
Timolol	1	0.15%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Topiramate	185	27.74%	201	26.48%	216	24.35%	284	27.76%	283	25.45%	241	24.12%	222	24.64%
Valproate	0	0.00%	0	0.00%	0	0.00%	0	0.00%	2	0.18%	1	0.10%	1	0.11%
Venlafaxine	41	6.15%	48	6.32%	65	7.33%	72	7.04%	70	6.29%	70	7.01%	53	5.88%
OnabotulinumtoxinA	22	3.30%	27	3.56%	33	3.72%	42	4.11%	51	4.59%	49	4.90%	34	3.77%
Notes: Rimegepant was considered preventive if the submitted quantity was ≥15.														

Table 3 shows the uptake of preventive CGRP medications increased steadily over time, from fewer than 1% of preventive users in 2018 to 6.1% in 2019, 8.9% in 2020, 11.3% in 2021, and 13.9% in 2022, peaking at 16.3% in 2023 before declining to 12.8% in 2024.

TABLE 3. Proportion of Members on Migraine Prevention Using CGRPs (2018 - 2024)							
	2018	2019	2020	2021	2022	2023	2024
Total Migraine Preventive Therapy Users (n)	667	759	887	1023	1112	999	901
Any Preventive CGRP Users							
n	6	46	79	116	155	163	115
%	0.90%	6.06%	8.91%	11.34%	13.94%	16.32%	12.76%

Notes: CGRP = calcitonin gene-related peptide;

As seen in Table 4, concomitant use of acute and preventive therapies was frequent with more than 78% of those on preventive therapy having at least one day of overlap with an acute migraine medication in each study year. Among those receiving preventive CGRP agents, 1 day overlap with acute therapy ranged from approximately 65% to over 80%. As the overlap window increased from 1 up to 45 days, the proportion with overlap declined but remained substantial.
Overlap of CGRP preventive therapies and gepants was observed in a minority of patients reaching a maximum of almost 33% having 1-day overlap in 2023. Subgroup analysis examined the concomitant use of gepants with migraine prophylaxis indications (atogepant and rimegepant) with other gepants. Among those treated with atogepant or rimegepant, 1-day overlap with another gepant ranged from 1-4% between 2022 and 2024, with very few members having > 15 days of overlap each year.

TABLE 4. Proportion of Concomitant Use of Acute Medications with Migraine Preventive Therapy by Medication Type and Days of Overlap (2018 to 2024)

Days of overlap	Concomitant Use Type	2018			2019			2020			2021			2022			2023			2024		
		Total*	n(%)		Total*	n(%)		Total*	n(%)		Total*	n(%)		Total*	n(%)		Total*	n(%)		Total*	n	(%)
1-day overlap	Any Preventive + Acute Therapy	667	526	78.86%	759	637	83.93%	887	738	83.20%	1023	896	87.59%	1112	955	85.88%	999	870	87.09%	901	765	84.91%
	Preventive CGRP + Acute Therapy	6	2	33.33%	46	30	65.22%	79	65	82.28%	116	98	84.48%	155	116	74.84%	164	106	64.63%	115	83	72.17%
	Preventive CGRP + Gepants		0	0.00%		0	0.00%		11	13.92%		34	29.31%		41	26.45%		54	32.93%		32	27.83%
3-day overlap	Any Preventive + Acute Therapy	667	519	77.81%	759	621	81.82%	898	723	80.51%	1023	880	86.02%	1112	939	84.44%	999	855	85.59%	901	754	83.68%
	Preventive CGRP + Acute Therapy	6	2	33.33%	46	30	65.22%	79	60	75.95%	116	96	82.76%	155	113	72.90%	164	104	63.41%	115	83	72.17%
	Preventive CGRP + Gepants		0	0.00%		0	0.00%		11	13.92%		34	29.31%		39	25.16%		53	32.32%		32	27.83%
7-day overlap	Any Preventive + Acute Therapy	667	480	71.96%	759	542	71.41%	898	656	73.05%	1023	795	77.71%	1112	847	76.17%	999	785	78.58%	901	697	77.36%
	Preventive CGRP + Acute Therapy	6	1	16.67%	46	28	60.87%	79	54	68.35%	116	93	80.17%	155	104	67.10%	164	93	56.71%	115	78	67.83%
	Preventive CGRP + Gepants		0	0.00%		0	0.00%		11	13.92%		33	28.45%		38	24.52%		48	29.27%		32	27.83%
15-day overlap	Any Preventive + Acute Therapy	667	399	59.82%	759	432	56.92%	898	535	59.58%	1023	645	63.05%	1112	689	61.96%	999	652	65.27%	901	570	63.26%
	Preventive CGRP + Acute Therapy	6	1	16.67%	46	22	47.83%	79	45	56.96%	116	80	68.97%	155	83	53.55%	164	78	47.56%	115	66	57.39%
	Preventive CGRP + Gepants		0	0.00%		0	0.00%		9	11.39%		25	21.55%		33	21.29%		41	25.00%		29	25.22%
30-day overlap	Any Preventive + Acute Therapy	667	276	41.38%	759	299	39.39%	898	367	40.87%	1023	471	46.04%	1112	502	45.14%	999	493	49.35%	901	422	46.84%
	Preventive CGRP + Acute Therapy	6	0	0.00%	46	12	26.09%	79	40	50.63%	116	47	40.52%	155	67	43.23%	164	56	34.15%	115	49	42.61%
	Preventive CGRP + Gepants		0	0.00%		0	0.00%		8	10.13%		18	15.52%		24	15.48%		27	16.46%		20	17.39%
45-day overlap	Any Preventive + Acute Therapy	667	191	28.64%	759	210	27.67%	898	270	30.07%	1023	357	34.90%	1112	378	33.99%	999	367	36.74%	901	309	34.30%
	Preventive CGRP + Acute Therapy	6	0	0.00%	46	8	17.39%	79	28	35.44%	116	37	31.90%	155	47	30.32%	164	42	25.61%	115	38	33.04%
	Preventive CGRP + Gepants		0	0.00%		0	0.00%		7	8.86%		14	12.07%		16	10.32%		21	12.80%		14	12.17%

Notes: CGRP = calcitonin gene-related peptide;

Preventive CGRPs include atogepant, eptinezumab, erenumab, galcanezumab, fremanezumab, rimegepant (if submitted quantity is ≥15) ; Gepants include rimegepant (if submitted quantity is less than 15), ubrogepant, zavegepant; First gepant launched in 2019 (ubrogepant)

***Total** contains total number of MS Medicaid members using any Migraine Preventive therapy and using CGRPs listed in Migraine Preventive Therapy*

OBJECTIVE 3

The objective of this analysis was to describe the frequency of migraine-related emergency department and inpatient visits among Mississippi Medicaid members eligible for preventive migraine treatment between 2022 and 2024.

METHODS – OBJECTIVE 3

A retrospective analysis was conducted using the FFS and CCO pharmacy and medical claims from January 1, 2022 through December 31, 2024, annually. As with Objective 2, the study population was derived from a predefined migraine cohort identified using the inclusion and exclusion criteria as outlined in the PQA MPT measure.

Exposure to preventive migraine therapy was categorized into three mutually exclusive groups based on the member's use during that calendar year:

1. no preventive therapy
2. non-CGRP preventive therapy
3. CGRP preventive therapy based on the member's use during that calendar year.

Migraine-related emergency department (ED) visits were identified from inpatient, outpatient, and other medical claims with a primary ICD-10-CM code G43 (migraine) in combination with revenue codes indicative of ED services. The primary outcome was the count of distinct migraine-related ED visits and inpatient visits per member from 2022–2024.

RESULTS – OBJECTIVE 3

Among members included in the sample, the majority of members in each year had no migraine-related emergency department (ED) visits, regardless of their type of preventive therapy category, as seen in Table 5. For example, in 2022, 91.3% of those without preventive therapy, 85.6% of those on non-CGRP preventive therapy, and 78.1% of those on CGRP preventive therapy had no ED visits. The proportion with at least one ED visit was highest among CGRP preventive therapy users compared with non-CGRP preventive users and those without preventive therapy across each observation year. Also, across all years, very few members experienced two or more ED visits and minimal migraine-related inpatient events were observed. (Table 5)

TABLE 5. Annual Events by Migraine Preventive Therapy Type for MS Medicaid Members (2022-2024)													
			Migraine-related ED Visits							Migraine-related Inpatient Visits			
Year	Preventive Therapy Category	n	Members with 0 ED visits	%	Members with 1 ED visit	%	Members with 2+ ED visits	%	Mean (SD) ED Visits	Members with 0 Inpatient visits	%	Members with 1+ Inpatient visits	%
2022	No Preventive Therapy	**930**	849	91.29%	63	6.77%	18	1.94%	0.132 (0.61)	929	99.89%	1	0.11%
	Non-CGRP Preventive Therapy	**957**	819	85.58%	82	8.57%	56	5.85%	0.325 (1.69)	955	99.79%	2	0.21%
	CGRP Preventive Therapy	**155**	121	78.06%	19	12.26%	15	9.68%	0.387 (0.93)	152	98.08%	3	1.94%
2023	No Preventive Therapy	**776**	731	94.20%	37	4.77%	8	1.03%	0.075 (0.35)	775	99.87%	1	0.13%
	Non-CGRP Preventive Therapy	**836**	765	91.51%	41	4.90%	30	3.59%	0.171 (0.98)	834	99.76%	2	0.24%
	CGRP Preventive Therapy	**163**	141	86.50%	15	9.20%	7	4.29%	0.208 (0.64)	162	99.39%	1	0.61%
2024	No Preventive Therapy	**658**	614	93.31%	31	4.71%	13	1.98%	0.117 (0.58)	656	99.70%	2	0.30%
	Non-CGRP Preventive Therapy	**786**	704	89.57%	54	6.87%	28	3.56%	0.167 (0.61)	783	99.62%	3	0.38%
	CGRP Preventive Therapy	**115**	99	86.09%	8	6.96%	8	6.96%	0.408 (1.6)	114	99.13%	1	0.87%

Notes: CGRP = calcitonin gene-related peptide;

OBJECTIVE 4

The objective of this analysis was to compare migraine-related healthcare utilization 12 months before and after the initiation of preventive therapy.

METHODS – Objective 4

A cohort study was conducted using pharmacy and medical claims between January 1, 2022 to September 30, 2025. Members with at least one claim for migraine-related preventive medication and had at least 12 headache days in a year prior to the claim were identified. Members with an initiation of preventive medication between January 1, 2023 and September 30, 2024 were included in the analysis. Rimegepant was considered as preventive therapy if the submitted quantity was greater than 15 tablets. Members with cluster headaches or tension-type headaches were excluded. Members were required to have continuous enrollment 12 months before and after the initiation of migraine preventive therapy to be included in the analysis. For healthcare utilization, migraine-related emergency department (ED) visits and inpatient visits in the 12 months before and after the initiation of preventive medication were identified.

RESULTS – Objective 4

A total of 3,717 members with migraine preventive medication use had at least 12 headache days in the one-year period prior to their preventive medication claim. A total of 1,897 members initiated any preventive medication during the study period and were eligible to be included in the analysis. The healthcare utilization before and after initiation of preventive medications is summarized in Table 6.

TABLE 6. Healthcare Utilization Before and After Initiation of Migraine Preventive Medications (July 1, 2023 - September 30, 2024)					
Initiation of preventive therapy	Number of members with preventive therapy	Number of members with at least one event		Event mean (standard deviation)	
		12 months before initiation	12 months after initiation	12 months before initiation	12 months after initiation
Migraine-related emergency department visit					
Any preventive therapy	1897	190 (10.01%)	113 (5.96%)	0.18 (0.94)	0.10 (0.72)
CGRP preventive therapy	125	17 (13.6%)	11 (8.8%)	0.21 (0.74)	0.14 (0.58)
Migraine-related inpatient visit					
Any preventive therapy	1897	14 (0.74%)	2 (0.11%)	0.008 (0.094)	0.001 (0.032)
CGRP preventive therapy	125	4 (3.2%)	0 (0)	0.04 (0.23)	0 (0)
Notes: CGRP = calcitonin gene-related peptide;					

Among the 1,897 members who initiated any preventive therapy, there was a lower proportion of members experiencing migraine-related ED visits after the initiation of preventive medications compared to before their initiation (10.01% vs 5.96%). A decrease in inpatient visits was also observed after the initiation of any preventive medication (0.74% vs 0.11%). There were 125 members who initiated CGRP preventive medications during the study period. Decreases in the proportion of members with ED visits (13.6% vs 8.8%) and inpatient visits (3.2% vs 0%) were also observed among this subgroup.

CONCLUSIONS

Migraine treatment has transformed since the introduction of CGRP therapy. Since 2018, these breakthrough medications have accounted for over half of Mississippi Medicaid's expenditures on migraine-related therapies. While the use of migraine preventive therapies has been shown to reduce migraine-related ED visits and hospitalizations, many members require the concurrent use of acute medications along with their preventive therapy, including those members taking preventive CGRP therapies. In light of the significant financial impact of CGRP inhibitors, DOM must ensure the appropriate clinical use of these therapies in the treatment of migraine.

RECOMMENDATIONS

1. DOM is asking the DUR Board to review its current criteria for CGRP inhibitors and provide input on potential modifications.

REFERENCES

1. Burch R, Rizzoli P, Loder E. The Prevalence and Impact of Migraine and Severe Headache in the United States: Figures and Trends From Government Health Studies. *Headache J Head Face Pain*. 2018;58(4):496-505. doi:10.1111/head.13281

2. Begasse de Dhaem O, Sakai F. Migraine in the workplace. *eNeurologicalSci*. 2022;27:100408. doi:10.1016/j.ensci.2022.100408

3. Rashid A, Manghi A. Calcitonin Gene-Related Peptide Receptor. In: *StatPearls*. StatPearls Publishing; 2025. Accessed December 2, 2025. http://www.ncbi.nlm.nih.gov/books/NBK560648/

4. Ornello R, Caponnetto V, Ahmed F, et al. Evidence-based guidelines for the pharmacological treatment of migraine. *Cephalalgia Int J Headache*. 2025;45(4):3331024241305381. doi:10.1177/03331024241305381

5. Charles AC, Digre KB, Goadsby PJ, Robbins MS, Hershey A, Society TAH. Calcitonin gene-related peptide-targeting therapies are a first-line option for the prevention of migraine: An American Headache Society position statement update. *Headache J Head Face Pain*. 2024;64(4):333-341. doi:10.1111/head.14692

6. Labastida-Ramírez A, Caronna E, Gollion C, et al. Mode and site of action of therapies targeting CGRP signaling. *J Headache Pain*. 2023;24(1):125. doi:10.1186/s10194-023-01644-8

APPENDIX

APPENDIX A. Migraine-related Medications		
Drug Class	**Chemical Entity**	**Formulations**
Acute therapy		
Analgesics	Celecoxib	Oral
Anti-emetics	Droperidol	Intravenous
Anti-emetics	Metoclopramide	Oral, nasal, injectable
Anti-emetics	Prochlorperazine	Oral, rectal, injectable
Anti-emetics	Promethazine	Oral, rectal, injectable
Barbiturates	Butalbital	Oral
Opioid	Butorphanol	Nasal
CGRP Receptor Antagonist	Rimegepant	Oral
CGRP Receptor Antagonist	Ubrogepant	Oral
CGRP Receptor Antagonist	Zavegepant	Nasal
Ergotamine Derivative Medications	Dihydroergotamine	Intramuscular, intravenous, subcutaneous, nasal
Ergotamine Derivative Medications	Ergotamine (+ caffeine)	Oral, rectal
Nonsteroidal	Flurbiprofen	Oral
Nonsteroidal	Ibuprofen	Oral, intravenous
Nonsteroidal	Ketorolac	Nasal, injectable
Nonsteroidal	Naproxen	Oral, topical
Nonsteroidal	Diclofenac	Oral
NSAIDs/Opioid	Acetaminophen-codeine	Oral
NSAIDs/Opioid	Acetaminophen-tramadol	Oral
Opioids	Codeine	Oral
Opioids	Meperidine	Oral, intravenous, injectable
Opioids	Tramadol	Oral
Serotonin 5-HT1f receptor agonist	Lasmiditan	Oral
Steroid	Dexamethasone sodium phosphate	Injectable
Triptan	Almotriptan	Oral
Triptan	Eletriptan	Oral
Triptan	Frovatriptan	Oral
Triptan	Naratriptan	Oral
Triptan	Rizatriptan	Oral
Triptan	Sumatriptan	Oral, nasal, subcutaneous
Triptan	Zolmitriptan	Oral, nasal
Preventative therapy		

Angiotensin Receptor Blocker	Candesartan	Oral
Angiotensin-converting Enzyme Blocker	Lisinopril	Oral
Alpha agonist	Clonidine	Oral, transdermal, intravenous, epidural
Alpha agonist	Guanfacine	Oral
Antidepressants	Amitriptyline	Oral
Antiepileptics	Carbamazepine	Oral, intravenous
Antiepileptics	Divalproex	Oral
Antiepileptics	Topiramate	Oral
Antiepileptics	Valproate	Oral, intravenous
Antihistamines	Cyproheptadine	Oral
Beta blockers	Atenolol	Oral
Beta blockers	Metoprolol	Oral, intravenous
Beta blockers	Nadolol	Oral
Beta blockers	Nebivolol	Oral
Beta blockers	Pindolol	Oral
Beta blockers	Propranolol	Oral, intravenous
Beta blockers	Timolol	Oral
CCBs	Nicardipine	Oral
CCBs	Nifedipine	Oral
CCBs	Nimodipine	Oral
CGRP	Atogepant	Oral
CGRP	Eptinezumab	Intravenous
CGRP	Erenumab	Subcutaneous
CGRP	Fremanezumab	Subcutaneous
CGRP	Galcanezumab	Subcutaneous
OnabotulinumtoxinA	OnabotulinumtoxinA	Intramuscular

Prior Authorization Criteria

Calcitonin Gene-Related Peptides (CGRP) Inhibitors PA Criteria

- **AIMOVIG (erenumab-aooe)**
- **AJOVY (fremanezumab-vfrm)**
- **EMGALITY (galcanezumab-gnlm)**
- **NURTEC ODT (rimegepant)**
- **QULIPTA (atogepant)**
- **UBRELVY (ubrogepant)**
- **ZAVZPRET (zavegepant)**

Calcitonin gene-related peptides (CGRP) are elevated during acute migraines and may be chronically elevated in chronic migraines. These drugs antagonize CGRP receptor function. Aimovig, Ajovy, Emgality, Nurtec ODT, and Qulipta are indicated for migraine *preventive*. Emgality 300mg is indicated for the treatment of *episodic cluster headache* in adults. Nurtec ODT, Ubrelvy, and Zavzpret nasal spray are indicated for *treatment of acute* migraine in adults.

Prior authorization is required for CGRP inhibitors. Prior authorization approval will be considered when the following criteria are met. Along with the Universal PA Form, please submit any supporting clinical documentation. Please also denote the indication (e.g., acute migraine treatment, episodic migraine prevention, chronic migraine prevention, episodic cluster headache treatment) for which the CGRP inhibitor is being requested for.

VYEPTI (eptinezumab-jjmr) – Please see separate criteria at
https://medicaid.ms.gov/pharmacy-prior-authorization/

Denial Criteria for any of the CGRP inhibitors:

- Medication will not be used within 12 weeks of last Botox administration
- Currently pregnant or nursing
- Medication Overuse Headache or Tension-Type Headache

A. Acute Migraine

1. Initial Authorization: 6 months

Preferred Agent(s)

- Nurtec ODT 75mg once a day prn (limit 8 tablets per 31 days)
- Ubrelvy 50 or 100mg tablets once a day prn; may repeat once in 2 or more hours after first dose (limit 16 tablets per 31 days)

Criteria for Preferred Agents for Acute Migraine Treatment

1. Patient must be in the age range as recommended by FDA label**; AND**
2. Documented diagnosis of migraine**; AND**
3. Documented trial and failure of two chemically distinct triptans in the past 6 months *OR* intolerance *OR* contraindication* to triptans as documented by historical diagnosis. Please provide documentation of contraindication (e.g., ICD-10 of contraindication)**; AND**
4. No concurrent therapy with another oral CGRP agent**; AND**
5. No concurrent therapy with a strong CYP3A4 inhibitor.

* Contraindication to triptans defined as follows:

1. History of ischemic heart disease: angina pectoris, Prinzmetal's angina, or previous myocardial infarction
2. Uncontrolled hypertension: documented diagnosis, claims history of current, ongoing multi-antihypertensive treatment
3. History of cerebrovascular disease: CVA (stroke), TIA, carotid stenosis, vertebral stenosis, intracranial stenosis, aneurysm, vascular malformation, peripheral vascular disease, ischemic bowel disease.

Non-Preferred Agent(s)

- Zavzpret single 10mg dose into one nostril once a day (limit 6 doses per 31 days)

Criteria for Non-Preferred Agents for Acute Migraine Treatment

1. Documented trial and failure of Nurtec ODT AND Ubrelvy in the past 6 months; having met the criteria above**; AND**
2. No concurrent therapy with an oral CGRP agent**; AND**
3. No concurrent therapy with a strong CYP3A4 inhibitor**; AND**
4. If unable to tolerate oral medications, documented trial of sumatriptan nasal spray in the past 6 months unless triptan use is contraindicated subject to the definition detailed in above section.

2. Reauthorization Criteria: 12 months

1. Positive response to therapy demonstrated by a reduction in frequency or severity of migraines [documentation required]; **AND**
2. Patient has an overall improvement in function with therapy.

Initial Authorization - Episodic or Chronic Migraine:

Preferred Agents

- Aimovig 70mg/1ml subcutaneously once monthly
- Aimovig 140mg/2ml subcutaneously once monthly
- Ajovy 225mg/1.5ml subcutaneously once monthly
- Ajovy 675mg/4.5ml subcutaneously once quarterly (*3 consecutive 225mg-SC injections*)
- Emgality 240 mg/1ml subcutaneously once as loading dose* (2 consecutive 120-mg injections) followed by Emgality 120 mg subcutaneously once monthly

Non-Preferred Agents (must try and fail 2 preferred agents)

- Nurtec ODT 75mg every OTHER day (limit 16 tablets per 31 days)
- Qulipta 10, 30 or 60mg tablet once daily

* Please provide documented date of first administered dose in prescriber's office of requested medication if applicable.

B. Episodic Migraine

1. Initial Authorization: 12 weeks

1. Patient must be within the age range as recommended by the FDA label**; AND**
2. Documentation of at least 4, but no more than 14 migraine days per month**; AND**
3. Prescriber is a specialist or has consulted a specialist such as a neurologist**; AND**
4. Documentation of MIDAS or HIT-6 assessment at baseline https://headaches.org/resources/headache-tests/ **; AND**
5. Documented failure of a consecutive 8-week trial at the optimal therapeutic dose as evidenced by paid pharmacy claims, *OR* intolerance *OR* contraindication, of at least ONE therapy, from any TWO of the following different therapeutic classes. One trial must be within the past 12 months.

    (a) Antidepressants: amitriptyline (20-50mg qhs), nortriptyline (10-100 mg qhs), duloxetine (60-120mg daily), or venlafaxine (75-150mg daily)
    (b) Anticonvulsants: divalproex sodium/valproate (500-1500mg daily) or topiramate (100mg daily)
    (c) Beta-blockers: atenolol (25-100mg daily), metoprolol (50-200mg daily), nadolol (20-240mg daily), propranolol (40-160mg daily), or timolol (10-30mg daily)
    (d) Angiotensin II Receptor Blockers: Candesartan (4 to 16 mg daily)

C. Chronic Migraine

1. Initial Authorization: 12 weeks

1. Patient must be within the age range as recommended by the FDA label**; AND**
2. Documentation of 15 or more headache days per month, of which at least 8 must be migraine days for at least 3 months**; AND**
3. Prescriber is a specialist or has consulted a specialist such as a neurologist**; AND**
4. Documentation of MIDAS or HIT-6 assessment at baseline https://headaches.org/resources/headache-tests/ **; AND**
5. Documented failure to a consecutive 8-week trial at an optimal therapeutic dose as evidenced by paid pharmacy claims for drugs "*a-d"* below, or a 12-week trial of "*e*", onabotulinumtoxinA, as documented by physician attestation and/or paid medical claims *OR* intolerance *OR* contraindication of at least ONE therapy, from any TWO of the following different therapeutic classes. One trial must be within the past 12 months.

    (a) Antidepressants: amitriptyline (20-50mg qhs), nortriptyline (10-100mg qhs), duloxetine (60-120mg daily), or venlafaxine (75-150mg daily)
    (b) Anticonvulsants: divalproex sodium/valproate (500-1500mg daily) or topiramate (100mg daily)
    (c) Beta-blockers: atenolol (25-100mg daily), metoprolol (50-200mg daily), nadolol (20-240mg daily), propranolol (40-160mg daily), or timolol (10-30mg daily)
    (d) Angiotensin II Receptor Blockers: Candesartan (4 to 16 mg daily)
    (e) Botulinum Toxin serotype A: *specifically* onabotulinumtoxinA (Botox®)

2. Reauthorization for Episodic or Chronic Migraine: 12 months

Reauthorization will be based on the following criteria:

1. Positive response to therapy demonstrated by a reduction in frequency or severity of migraines [documentation required] ie. overall symptom severity (as measured by MIDAS or HIT-6) compared to baseline https://headaches.org/resources/headache-tests/ **; AND**
2. Patient has an overall improvement in function with therapy**; AND**
3. Verified pharmacy prescription claims history of previously approved agent and demonstrated adherence to monthly or quarterly fills per FDA approved dosing.

D. Episodic Cluster Headache

Requested Product: Emgality 300 mg subcutaneously once monthly (*3 consecutive injections of 100 mg*)

Required Medical Information:

- Diagnosis of Episodic Cluster Headache
- Chart notes (documentation required upon request)
- Previous therapies tried/failed

Initial Authorization: Episodic Cluster Headache

Emgality 300 mg* *(3 consecutive injections of 100 mg)* at the onset of the cluster period, and then monthly until the end of the cluster period

* Please provide documented date of first administered dose in prescriber's office of requested medication.

1. Episodic Cluster Headaches -Initial Therapy (Emgality only: 12 weeks)

1. Patient must be within the age range as recommended by the FDA label**; AND**
2. Diagnosis of episodic cluster headaches**; AND**
3. At least 2 cluster periods lasting from 7 days to ≤ 1 year each and separated by pain-free remission periods of ≥ 3 months**; AND**
4. Prescribed by or in consultation with a neurologist or headache specialist**; AND**
5. Failure of verapamil at a dose of 360 mg per day, unless contraindicated or clinically significant adverse effects are experienced**; AND**
6. Emgality is not prescribed concurrently with other injectable CGRP antagonists or inhibitors**; AND**
7. Dose does not exceed 300 mg once monthly.

2. Episodic Cluster Headaches Reauthorization (Emgality only: up to a total of 12 months supply per cluster period)

1. Positive response to therapy demonstrated by a reduction in cluster headache attack frequency**; AND**
2. Must meet <u>one</u> of the following:
    a. Patient has not received more than 12 months of consecutive treatment**; OR**
    b. It has been at least 3 months since the patient last received Emgality**; AND**
3. Emgality is not prescribed concurrently with other injectable CGRP antagonists or inhibitors**; AND**
4. Dose does not exceed 300 mg once monthly.

FDA DRUG SAFETY COMMUNICATIONS

September 2025 – November 2025

No FDA Drug Safety Communications were released from September 2025 through November 2025.

Division of Medicaid
Drug Utilization Review Board
By-Laws

Article I. Purpose

The Drug Utilization Review Board (DUR) is a requirement of the Social Security Act, Section 1927. The purpose of the DUR Board is to provide clinical guidance to the Division of Medicaid (DOM) regarding the utilization of pharmaceutical products within the Mississippi Medicaid program. The DUR Board makes recommendations to DOM to promote patient safety and cost effective care in the Mississippi Medicaid program. The DUR Board shall advise DOM with respect to the content of medical criteria and standards for utilization management strategies including prospective drug prior authorization (PA), concurrent patient management, retrospective drug utilization review, and educational intervention programs. DOM retains the authority to accept or reject the recommendations by the DUR Board.

Article II. Membership

Section 1 – Board Composition

A. The DUR Board will consist of not less than twelve (12) voting members.
B. The DUR Board voting members will be comprised of at least one-third (1/3), but no more than fifty-one percent (51%), licensed and actively practicing physicians and at least one-third (1/3) licensed and actively practicing pharmacists. Voting members may consist of health care professionals with knowledge/expertise in one or more of the following:
   1) Prescribing of drugs,
   2) Dispensing and monitoring of drugs,
   3) Drug use review, evaluation, and intervention,
   4) Medical quality assurance.
C. Non-voting board members consist of the Division of Medicaid (DOM) Executive Director, Office of Pharmacy pharmacists, DUR Coordinator, the DUR contractor and Medical Director.

Section 2 – Appointment selection methodology

A. DOM's Office of Pharmacy in consultation with officially recognized state professional healthcare associations recommends potential, qualified new candidates for appointment or reappointment of existing board members to DOM's Executive Director.
B. Nominations are considered internally and appointments are given final approval by the DOM Executive Director.
C. Board members are appointed by the Governor of the State of Mississippi, or Governor's designee, pursuant to state law.

Section 3 - Term of Office

A. All members are appointed for three year terms following a staggered appointment fulfillment as follows: one-third of DUR Board members shall be appointed each term. All subsequent appointments shall be for terms of three years from the expiration date of the previous term.
B. Members may serve up to three consecutive three-year terms (for a total of nine consecutive years).
C. Members may serve for either an extended term or a fourth consecutive term at the discretion of the Executive Director and by recommendation of both the DUR Coordinator and Division of Medicaid Office of Pharmacy in the event that no qualified, willing candidate is found in sufficient time. Members, including those filling vacated positions, may be re-appointed by the Executive Director for a subsequent term.
D. In the event of an unexpected or expected vacancy, the DUR Coordinator and Office of Pharmacy may recommend a qualified replacement candidate to DOM's Executive Director for emergency approval.
E. The Executive Director shall fill any vacancy before the end of the term, and the person appointed to fill the vacancy shall serve for the remainder of the unexpired term. Members, including those filling vacated positions, may be re-appointed by the Executive Director for a subsequent term.

Section 4 - Attendance

A. Members are required to attend at least fifty percent of the meetings per year. Failure to attend meetings without an explanation of extenuating circumstances will result in the termination of the member's appointment.
B. Members are asked to give advance notice regarding any planned absences so that a quorum may be determined prior to meetings.

Section 5 - Resignation

A member of the DUR Board may resign by giving a 30 day written advance notice to the DUR Board Chair and DUR Coordinator.

Section 6 - Removal

A member of the DUR Board may be removed by either the DUR Board Chair or majority vote of the DUR Board for good cause. Good cause may be defined as one or more of the following conditions:

A. Lack of attendance –failure to attend at least 50% of the scheduled DUR meetings shall constitute a resignation by said DUR Board member,
B. Identified misconduct or wrongdoing during any DUR Board term, or

C. Not disclosing a conflict of interest either upon initial disclosure or throughout the rest of the term.

Section 7 - Board Officers

At the first meeting of the state fiscal year, which constitutes July 1 through June 30, board members shall select two members to serve as Chair and Chair-Elect of the board, respectively. The Chair and Chair-Elect shall both serve one year terms. At the end of the serving year, the Chair-Elect assumes the role of Chair, and a new Chair-Elect will be chosen.

If the persons serving as Chair and Chair-Elect have either previously served as Chair or Chair-Elect, that person may be reelected to either posting.

The Chair-Elect will serve as Chair in absentia of the Chair or by the Chair's request.

Section 8 – Reimbursement

The Division of Medicaid will reimburse DUR Board members for travel related expenses.

Article III. Meetings

Section 1 – Frequency

The DUR Board shall meet at least quarterly, and may meet at other times as necessary for the purpose of conducting business that may be required. The DUR Board Chair, a majority of the members of the board, or the Division of Medicaid Office of Pharmacy and DUR Coordinator, shall maintain the authority of calling DUR meetings.

Section 2 – Regular Meetings

The DUR Board will hold regular quarterly meetings in the city of Jackson, Mississippi. Meetings will occur at the predesignated time and place. Dates for the upcoming year's quarterly meetings will be posted before the first quarterly meeting of the upcoming year.

Section 3 – Special Meetings

The DUR Board may meet at other times other than regular quarterly meetings as deemed necessary and appropriate. The DUR Coordinator and Office of Pharmacy must notify DUR Board members of any special meeting at least two weeks, i.e., ten (10) days, prior to the requested meeting date. Special meetings may be requested by the following officials:

A. Division of Medicaid Executive Director,
B. DUR Coordinator and Office of Pharmacy,
C. DUR Board Chair, or
D. Majority of DUR Board members via communication to DUR Coordinator and/or DUR Board Chair.

Section 4 – Meeting Notice

DUR Board members will be notified of the location for the meeting a minimum of ten (10) days in advance. Notification may include one or a combination of the following methods: e-mail, fax, or other written communication. DUR Board members are required to keep on file with
DOM Office of Pharmacy his or her address, primary phone number, alternate phone number (i.e., cell), fax number, and email address to which notices and DUR related communications may be submitted.

Meetings may be cancelled due to lack of quorum, severe inclement weather, or other reasons as determined by the DUR Coordinator and Office of Pharmacy. In the event of a cancellation, the DUR Coordinator and DOM Pharmacy staff will communicate with DUR Board members regarding the meeting cancellation as soon as circumstances permit. Notifications shall also be posted with DFA and on DOM's website to ensure that the public is notified of any meeting cancellation.

DUR Board Meetings shall be open to the public and conducted in accordance with state law, specifically the Open Meetings Act. Notice of any meetings held shall be provided at least five (5) days in advance of the date scheduled for the meeting. The notice shall include the date, time, place and purpose for the meeting and shall identify the location of the meeting to the general public.

Section 5 – Meeting Sign-In

All meeting attendees will be required to sign-in at the meeting entrance for DUR meetings. Sign-in sheets will be logged, scanned and transferred to electronic medium for official records. All attendees shall include participant's name and entity represented (as applicable).

Section 6 – Quorum

A simple majority of voting board members shall constitute a quorum and must be present for the transaction of any business of the board. For a fully-appointed 12-person DUR Board as required by state law, seven voting board members constitutes a quorum. If a quorum is not present, the Chair, Chair-Elect or DUR Coordinator maintains the responsibility to conclude meeting proceedings. Meeting minutes shall reflect that a quorum was not present.

Section 7 – Voting

The voting process shall be conducted by the Chair or the Chair-Elect in absentia of the Chair.

All board recommendations shall begin with a motion by a voting board member. The motion may then be seconded by a voting board member. If a recommendation does not receive a second motion, the motion shall not pass. If a recommendation receives a second motion, then the board shall vote on the motion. A motion shall be considered as passed if the motion carries a majority of votes if a quorum of the board is present.

In the event that a motion receives a tie vote in the presence of a quorum, the motion shall not pass. The motion can be brought up for further discussion after which a subsequent motion may be made to vote on the issue again during the same meeting, or a motion can be made to table the issue and discussion until the next quarterly DUR Board meeting.

A vote abstention occurs when a voting member is present for the meeting and the action but has chosen not to vote on the current motion. An abstention is a vote with the majority on the measure. A recusal, on the other hand, is necessitated when a voting member has a conflict of interest or potential pecuniary benefit resulting from a particular measure. In order to properly and completely recuse oneself from a matter, the DUR Board member must leave the room or area where discussions, considerations, or other actions take place

before the matter comes up for discussion. The member must remain absent from the meeting until the vote is concluded. The minutes will state the recusing member left the room before the matter came before the DUR Board and did not return until after the vote.

Section 8 – Minutes

A public body speaks only through its minutes. State law, specifically the Open Meetings Act, requires minutes be kept of all meetings of a public body, whether in open or executive session, showing the following:

A. Members present or absent,
B. Date, time and place of meeting,
C. Accurate recording of any final actions taken,
D. Record, by individual member, of how s/he voted on any final action, and
E. Any other information that the public body requests is reflected in the minutes.

The minutes shall be finalized no later than thirty (30) days after the adjournment of the DUR Board meeting and shall be made available for public inspection. DOM Office of Pharmacy posts all DUR Board Minutes on the DUR webpage.

Section 9 – Speakers & Special Topics

DUR Board members may request various healthcare, industry, or specialized professionals to present at DUR meetings regarding a posted topic on an upcoming DUR agenda.

A. The DUR Board may allow up to 20 minutes for topic presentation by an invited speaker.
B. DUR Board Members may ask a member of the audience to provide information on a topic being discussed by the Board. Invited participants may be asked to disclose any potential conflicts of interests if applicable. (See Article IV, Section 1).
C. Members of the audience may not speak unless so designated at the appropriate time by a DUR Board member.
D. DUR Board Members, both voting and non-voting, maintain speaking privileges at DUR meetings.
E. Contracted employees of DOM and employees of other DOM vendors are considered members of the audience.

Section 10 – Executive Session

During special circumstances, the DUR Board may go into executive session at the conclusion of normal meeting proceedings; however, all DUR Board meetings must commence as an open meeting. In order for executive session to be called, the following procedure must be followed in accordance with the Open Meetings Act:

A. A member may <u>move to close</u> the meeting to determine whether board needs to go into executive session; vote in open meeting with vote recorded in minutes, majority rules.
B. Closed meeting: vote taken on whether to <u>declare</u> executive session, requires 3/5 of all members present.
C. Board comes back into open session and states statutory reason for executive session. The reason for the executive session shall be recorded in the meeting minutes.
D. Board members then will go into executive session where action may be taken on stated subject matter only.

E. Minutes must be kept in accordance with the Open Meetings Act.

Section 11 – Conduct of Participants

Pursuant to state law, specifically the Open Meetings Act, the DUR Board may make and enforce reasonable rules and regulations for the conduct of persons attending the DUR meetings. The following is a non-exhaustive list of rules for DUR Board meetings:

A. Attendees should please remain silent and allow for the efficient transaction of business.
B. Cell phones should be placed on silent or vibrate.
C. Laptop computers are discouraged from being utilized during meetings as frequent typing may distract board members.
D. Food and drink are not allowed in the meeting room.
E. Security is provided by the state. Guests not following proper decorum may be asked to leave by security.

Article IV. Public Participation

Section 1 - Disclosure of Persons Appearing Before DUR Board

The DUR Board may ask individuals appearing before the board to disclose either in writing or verbally their relationship, as applicable, including but not limited to pharmaceutical companies or special interest groups. Any such disclosures should be recorded as a matter of public record in the documented meeting minutes.

Article V. Conflicts of Interest

DUR Board members are expected to maintain the highest professional, ethical standards. A conflict of interest may exist when a DUR Board member maintains a financial/pecuniary, personal, or professional interest that may compete or interfere with the DUR Board member's ability to act in a fair, impartial manner while acting in the best interests of the Division of Medicaid and the beneficiaries that it serves.

As such, DUR Board members are required to complete and submit annually a Conflict of Interest disclosure statement with the DOM Office of Pharmacy and DUR Coordinator. Statements shall be maintained by the Office of Pharmacy. Members have an ongoing responsibility to update and revise said statements, disclosing any new conflicts of interest to the DUR Coordinator and DOM Office of Pharmacy.

It is the sole responsibility and requirement of each board member to review the agenda of each forthcoming board meeting to determine any if any potential conflicts of interest exist. If so, an aforementioned Disclosure statement must be updated indicating the conflict of interest. The board member should notify the Chair or Chair-Elect of the conflict of interest prior to the meeting.

A DUR Board member shall recuse himself/herself from any vote, action, or discussion pertaining to any product or product class if there is documentation stating an actual or perceived conflict of interest. Please refer to the procedure outlined in Article III, Section 7.

Article VI. Confidentiality

DUR Board members are required to safeguard all confidential and proprietary information, including but not limited to pricing information, which is disclosed by the Mississippi Division of Medicaid for purposes of conducting DUR Board activities. Any provider or patient specific information discussed by the DUR Board shall also be kept strictly confidential in accordance with state and federal law.

Article VII. Amendments

Proposed Amendments of By-Laws

A. Proposed amendments must be submitted to the DUR Coordinator at least thirty (30) days prior to the next scheduled DUR meeting and the proposed amendments will be disseminated to the DUR Board en masse for consideration at said DUR Board meeting.
B. Proposed amendments will be distributed to board members no less than five (5) business days prior to next DUR Board meeting.
C. Proposed amendments will be initiated by the Chair, or the Chair-Elect in absentia of the Chair, prior to Next Meeting Information announcements.
D. Proposed amendments will be voted upon at the next scheduled DUR Board meeting. If majority of DUR Board votes to ratify amendment, the amendment will take effect immediately at the conclusion of the meeting.

MS-DUR BOARD
COMMON ABBREVIATIONS

AWP	Any Willing Provider, Average Wholesale Price
BENE	Beneficiary
CAH	Critical Access Hospital
CCO	Coordinated Care Organization
CDC	Centers for Disease Control
CHIP	Children's Health Insurance Program
CMS	Center for Medicare and Medicaid Services
COB	Coordination of Benefits
CPC	Complex Pharmaceutical Care
DME	Durable Medical Equipment
DOC	Department of Corrections
DOM	Division of Medicaid
DUR	Drug Utilization Review
EOB	Explanation of Benefits
EPSDT	Early and Periodic Screening, Diagnosis and Treatment
FA	Fiscal Agent
FFS	Fee For Service
FPW	Family Planning Waiver
FQHC	Federally Qualified Health Clinic
FY	Fiscal Year
HB	House Bill
HCPCS/ HEIDIS	Health Plan Employer Data and Information Set
HHS	Department of Health and Human Services
HIPAA	Health Insurance Portability and Accountability
IDD	Intellectual and Developmental Disabilities
LTC	Long Term Care
MAG	Magnolia Health
MEDD	Morphine Equivalent Daily Dose
MOL	Molina Healthcare
MPR	Medication Possession Ratio
MSCAN	Mississippi Coordinated Access Network
MSDH	Mississippi State Department of Health
NADAC	National Average Drug Acquisition Cost
NDC	National Drug Code
P&T	Pharmacy and Therapeutics
PA	Prior Authorization
PBM	Pharmacy Benefit Manager
PDC	Proportion of Days Covered
PDL	Preferred Drug List
PI	Program Integrity
PIP	Performance Improvement Program
POS	Point of Sale, Place of Service, Point of Service
Pro-DUR	Prospective Drug Use Review
OTC	Over the Counter
QI	Quality Indicator
QIO	Quality Improvement Organization
QM	Quality Management
RA	Remittance Advise
REOMB	Recipient's Explanation of Medicaid Benefits
Retro-DUR	Retrospective Drug Utilization Review
RFI	Request for Information
RFP	Request for Proposal
RHC	Rural Health Clinic
SB	Senate Bill
SCHIP	State Child Health Insurance Program
SMART PA	Conduent's Pharmacy Application (SmartPA) is a proprietary electronic prior authorization system used for Medicaid fee for service claims
SPA	State Plan Amendment
UHC	United Healthcare
UM/QIO	Utilization Management and Quality Improvement Organization
UPDL	Universal Preferred Drug List
UR	Utilization Review
VFC	Vaccines for Children
WAC	Wholesale Acquisition Cost
WIC	Women, Infants, Children
340B	Federal Drug Discount Program