

OPIOID PRESCRIBING TRENDS IN MISSISSIPPI MEDICAID

BACKGROUND

The opioid epidemic and its devastating impacts have led to extensive changes in the way opioids are prescribed across the United States. Mississippi Medicaid DUR has been involved in assessing multiple opioid-related quality measures and implementing various DUR initiatives over the past several years. In 2016 the Centers for Disease Control and Prevention (CDC) published the CDC Guidelines for Prescribing Opioids for Chronic Pain.¹ At the April 2016 DUR Board meeting, the Board reviewed the CDC guidelines along with Medicaid claims data analysis and made several recommendations for the prescribing of opioids. Over the next several years the Mississippi Division of Medicaid (DOM) carefully developed criteria based on those DUR Board recommendations. As an initial step, in late 2016 MS-DUR began conducting multiple patient-specific provider notices focused on educating prescribers on the CDC guidelines. In August 2019, DOM implemented four Opioid Initiatives in response to the DUR Board's recommendations which aligned with the CDC's guidelines, the Mississippi State Board of Medical Licensure prescribing regulations, the Governor's Opioid and Heroin Task Force recommendations, and Medicaid requirements under section 1004 of the Substance Use-Disorder Prevention that Promotes Opioid Recovery and Treatment for Patients and the Communities Act (SUPPORT Act).¹⁻⁴

The four Opioid Initiatives implemented were:

- 1. New opioid prescriptions (first opioid fill within 90 days) for opiate-naïve patients must be for short-acting (SA) opioid.***
- 2. For new starts (first opioid fill within 90 days) a SA opioid can be filled for a maximum of two 7-day supplies in a 30 day period.** Use of SA opioids for longer periods will require a manual PA.*
- 3. Any prescriptions (whether individual and/or cumulative daily sum of all prescriptions for the patient) with a Morphine Equivalent Daily Dose (MEDD) of ≥ 90 will require a manual PA** with documentation that the benefits outweigh the risks and that the patient has been counseled about the risks of overdose and death.*
(Patients with a diagnosis of cancer or sickle-cell disease are exempt from the 3 edits above.)*
- 4. Concomitant use of opioids and benzodiazepines should require a manual PA.**
To allow for the short-term treatment of pre-procedure anxiety or other short-term anxiety, a prescription for up to 2 units of a solid oral dosage form of a benzodiazepine can be overridden at the point-of-sale by the dispensing pharmacist based upon his/her clinical judgment and consultation with the prescriber. A maximum of two, 2-unit prescriptions may be overridden in a 60 day period. Prospective DUR billing directions can be found on DOM's website.

MS-DUR analyzed opioid claims for the period from January 2018 through June 2020 to examine prescribing trends related to CDC Guidelines and DOM's Opioid Initiatives among Medicaid beneficiaries.

METHODS

A retrospective analysis was conducted using Mississippi Medicaid administrative claims data from January 2018 to June 2020. The analysis included data from the Fee-for-Service (FFS) program and the Coordinated Care Organizations (CCOs) which include Magnolia Health (MAG), Molina Healthcare (MOL), and UnitedHealthcare (UHC). All opioid claims during the study period were identified in pharmacy claims data and monthly trends in prescription-related factors were analyzed.

RESULTS

Table 1: All opioid prescriptions were analyzed and classified as short-acting or long-acting opioids based on CDC's Injury Center list of NDCs prescription data and morphine milligram equivalent (MME) conversion factor information (<https://www.cdc.gov/drugoverdose/resources/data.html>). The first prescription was identified as the index opioid prescription. Beneficiaries were identified as new starts if they did not have an opioid prescription in the 90-day period prior to the index opioid prescription. Opioid prescriptions for beneficiaries with a diagnosis for cancer or sickle cell disease from January 2017 to June 2020 were excluded from this analysis.

TABLE 1. Trends in Opioid Prescriptions in Mississippi Medicaid January 2018 - June 2020									
Month filled	Total opioid Rx	Number of benes with opioids	Percentage of benes on SA opioids among all opioid Rx	Short-acting (SA) opioid users			Long-acting (LA) opioid users		
				Number of benes	New starts	Percentage of new starts among SA opioid users	Number of benes	New starts	Percentage of new starts among LA opioid users
2018-01	19,021	16,888	88.8%	16,636	6,606	39.7%	609	16	2.6%
2018-02	17,911	16,001	89.3%	15,756	7,721	49.0%	580	48	8.3%
2018-03	18,541	16,383	88.4%	16,144	6,997	43.3%	576	17	3.0%
2018-04	17,553	15,581	88.8%	15,364	6,472	42.1%	543	15	2.8%
2018-05	17,922	15,682	87.5%	15,479	6,447	41.6%	522	13	2.5%
2018-06	17,692	15,696	88.7%	15,497	6,690	43.2%	511	16	3.1%
2018-07	17,401	15,448	88.8%	15,265	6,504	42.6%	496	8	1.6%
2018-08	17,923	15,561	86.8%	15,371	6,590	42.9%	490	15	3.1%
2018-09	15,783	14,114	89.4%	13,930	5,594	40.2%	466	13	2.8%
2018-10	16,970	14,921	87.9%	14,734	6,097	41.4%	479	15	3.1%
2018-11	15,763	13,856	87.9%	13,671	6,118	44.8%	463	40	8.6%
2018-12	14,711	13,126	89.2%	12,957	5,578	43.1%	450	34	7.6%
2019-01	15,617	13,790	88.3%	13,630	2,522	18.5%	432	36	8.3%
2019-02	14,279	12,755	89.3%	12,597	1,883	14.9%	412	6	1.5%
2019-03	14,676	13,153	89.6%	13,000	2,011	15.5%	427	12	2.8%
2019-04	14,740	13,118	89.0%	12,965	2,169	16.7%	421	9	2.1%
2019-05	14,705	12,977	88.2%	12,834	2,058	16.0%	411	10	2.4%
2019-06	13,778	12,487	90.6%	12,338	2,062	16.7%	384	6	1.6%
2019-07	14,905	13,185	88.5%	13,036	2,220	17.0%	388	10	2.6%
2019-08	13,062	11,589	88.7%	11,438	2,138	18.7%	341	5	1.5%
2019-09	12,370	11,139	90.0%	10,995	2,051	18.7%	330	6	1.8%
2019-10	12,635	11,305	89.5%	11,168	2,216	19.8%	323	2	0.6%
2019-11	11,235	10,233	91.1%	10,103	1,971	19.5%	300	4	1.3%
2019-12	11,378	10,291	90.4%	10,168	2,072	20.4%	284	2	0.7%
2020-01	11,793	10,558	89.5%	10,443	2,361	22.6%	273	4	1.5%
2020-02	10,713	9,738	90.9%	9,623	2,185	22.7%	256	6	2.3%
2020-03	10,175	9,099	89.4%	8,983	1,947	21.7%	260	8	3.1%
2020-04	8,658	7,746	89.5%	7,622	1,462	19.2%	261	1	0.4%
2020-05	9,962	8,951	89.9%	8,828	1,879	21.3%	253	3	1.2%
2020-06	11,255	10,060	89.4%	9,951	2,446	24.6%	255	8	3.1%

Note: Beneficiaries with a diagnosis for either cancer or sickle cell disease anytime from Jan 2017 to June 2020 were excluded.
Red line indicates when Medicaid Opioid Initiatives we implemented.

From Table 1:

- Total number of opioid prescription fills consistently trended down until May 2020.
- The percentage of beneficiaries taking SA opioids was approximately 90% after the Opioid Initiatives were implemented.
- A minimal number of beneficiaries were initiated on LA opioids. This number continued to decrease after the Opioid Initiatives were implemented.

Table 2: Among new starts, beneficiaries with short-acting opioid prescriptions were identified. Prescriptions were classified into different categories based on prescription days of supply (1 to 3, 4 to 7, 8 to 15, 16 to 29 and 30+ days). Based on the Opioid Initiative regarding days supply for initial SA opioid fills, new starts who either had more than 2 prescriptions for 7-day supply each or prescriptions with day supply lasting more than 7 day were flagged as beneficiaries exceeding the fill limit.

TABLE 2. Trends in Days Supply Prescribed to New Starts of Short-Acting (SA) Opioids in Mississippi Medicaid January 2018 - June 2020

Month filled	New starts of SA opioid fills	Days supply filled					Percentage of new starts exceeding fill limit*
		Percentage of new starts with corresponding days supply					
		1 to 3	4 to 7	8 to15	16 to 29	30+	
2018-01	6,606	41.8%	39.2%	12.0%	2.5%	4.5%	18.9%
2018-02	7,721	40.4%	33.2%	11.7%	4.5%	10.1%	26.3%
2018-03	6,997	45.0%	35.7%	11.5%	2.5%	5.3%	19.2%
2018-04	6,472	45.8%	34.2%	11.6%	2.9%	5.5%	19.9%
2018-05	6,447	46.5%	34.2%	10.9%	3.0%	5.5%	19.3%
2018-06	6,690	45.3%	36.8%	10.5%	2.5%	4.9%	17.9%
2018-07	6,504	47.5%	37.0%	8.6%	2.3%	4.5%	15.4%
2018-08	6,590	47.4%	37.5%	8.5%	2.0%	4.6%	15.0%
2018-09	5,594	48.3%	37.0%	8.7%	2.1%	3.8%	14.6%
2018-10	6,097	47.4%	38.0%	8.5%	2.2%	3.9%	14.6%
2018-11	6,118	44.1%	35.8%	8.6%	3.4%	8.1%	20.1%
2018-12	5,578	43.8%	36.8%	9.2%	3.2%	7.0%	19.3%
2019-01	2,522	37.4%	27.8%	9.6%	6.6%	18.8%	34.9%
2019-02	1,883	43.1%	33.3%	8.9%	4.5%	10.2%	23.6%
2019-03	2,011	44.8%	33.3%	10.4%	3.8%	7.8%	21.8%
2019-04	2,169	45.8%	33.4%	9.5%	3.2%	8.0%	20.7%
2019-05	2,058	45.6%	35.7%	8.0%	2.4%	8.3%	18.6%
2019-06	2,062	46.7%	34.9%	8.5%	2.9%	7.0%	18.4%
2019-07	2,220	46.9%	34.6%	8.6%	2.6%	7.2%	18.3%
2019-08	2,138	50.8%	46.1%	1.5%	0.6%	1.0%	2.9%
2019-09	2,051	49.3%	44.9%	1.7%	1.1%	3.1%	5.7%
2019-10	2,216	49.2%	43.2%	2.5%	1.6%	3.5%	7.4%
2019-11	1,971	48.8%	45.5%	1.5%	0.9%	3.3%	5.6%
2019-12	2,072	48.1%	46.8%	1.4%	0.8%	2.8%	5.0%
2020-01	2,361	50.2%	43.8%	1.6%	1.1%	3.3%	6.0%
2020-02	2,185	48.1%	44.7%	1.9%	1.4%	4.0%	6.9%
2020-03	1,947	46.9%	45.3%	1.8%	1.8%	4.2%	7.5%
2020-04	1,462	44.9%	46.7%	2.1%	1.8%	4.4%	8.3%
2020-05	1,879	47.0%	46.8%	2.0%	0.7%	3.4%	6.1%
2020-06	2,446	50.4%	45.3%	1.4%	0.7%	2.2%	4.2%

Note: Beneficiaries with a diagnosis for either cancer or sickle cell disease anytime from Jan 2017 to June 2020 were excluded.

* 'Fill limit' was determined based on PA edit specification (August 2019) of maximum two 7-day fills for new starts of SA opioids. Benes represented in this category either had more than two 7-day fills or had fills for more than 7 days of supply.

Red line indicates when Medicaid Opioid Initiatives we implemented.

From Table 2:

- The percent of new start claims for 7 days or less has remained above 90% since implementation of the Opioid Initiatives.
- The percentage of new starts exceeding the fill limit has averaged only 6.3% since implementation of the Opioid Initiatives.

Table 3: All opioid prescriptions (excluding cancer and sickle cell patients) were included in this analysis. MME daily dose was calculated for individual and/or cumulative opioid prescriptions for beneficiaries during the study period. Beneficiaries with MME \geq 90 mg were flagged. In instances

where the High MME (≥ 90 MG) event spanned over multiple months for a beneficiary, the High MME was attributed to the month in which the first day of high MME use occurred.

TABLE 3. Trends in High Morphine Milligram Equivalent (MME) Daily Dose Among Medicaid Beneficiaries January 2018 - June 2020				
Month filled	Total opioid Rx	Number of benes with opioids	Number of benes with MME ≥ 90 mg*	Percentage of benes with MME ≥ 90 mg*
2018-01	19,021	16,888	174	1.0%
2018-02	17,911	16,001	187	1.2%
2018-03	18,541	16,383	250	1.5%
2018-04	17,553	15,581	199	1.3%
2018-05	17,922	15,682	219	1.4%
2018-06	17,692	15,696	195	1.2%
2018-07	17,401	15,448	240	1.6%
2018-08	17,923	15,561	232	1.5%
2018-09	15,783	14,114	183	1.3%
2018-10	16,970	14,921	233	1.6%
2018-11	15,763	13,856	185	1.3%
2018-12	14,711	13,126	234	1.8%
2019-01	15,617	13,790	203	1.5%
2019-02	14,279	12,755	243	1.9%
2019-03	14,676	13,153	277	2.1%
2019-04	14,740	13,118	213	1.6%
2019-05	14,705	12,977	168	1.3%
2019-06	13,778	12,487	157	1.3%
2019-07	14,905	13,185	170	1.3%
2019-08	13,062	11,589	117	1.0%
2019-09	12,370	11,139	97	0.9%
2019-10	12,635	11,305	120	1.1%
2019-11	11,235	10,233	115	1.1%
2019-12	11,378	10,291	130	1.3%
2020-01	11,793	10,558	110	1.0%
2020-02	10,713	9,738	90	0.9%
2020-03	10,175	9,099	116	1.3%
2020-04	8,658	7,746	87	1.1%
2020-05	9,962	8,951	102	1.1%
2020-06	11,255	10,060	81	0.8%

Note: Beneficiaries with a diagnosis for either cancer or sickle cell disease anytime from Jan 2017 to June 2020 were excluded.

*Beneficiaries with individual and/or cumulative daily sum of all opioid prescriptions with high MME (≥ 90 mg) were identified and attributed to the month of the first day of high MME use.

Red line indicates when Medicaid Opioid Initiatives we implemented.

For Table 3:

- The percentage of beneficiaries with MME ≥ 90 mg decreased to an average of 1.1% monthly after the implementation of the Opioid Initiatives.

Table 4: All opioid prescriptions were included for this analysis. Cancer and sickle cell disease patients were NOT excluded. Concomitant use of benzodiazepines and opioids was defined as at least one overlapping day of use between the drug classes. Concomitant use for the beneficiary was attributed to the month of first day of overlapping use.

TABLE 4. Trends in Concomitant Use of Benzodiazepenes and Opioids Among Medicaid Beneficiaries January 2018 - June 2020				
Month filled	Total opioid Rx	Number of benes with opioids	Concomitant BZD Use	
			Number of benes with concomitant BZD use	Percentage of benes with concomitant BZD use
2018-01	22,693	19,886	2,278	11.5%
2018-02	21,441	18,926	2,185	11.5%
2018-03	22,276	19,439	2,014	10.4%
2018-04	21,197	18,598	2,006	10.8%
2018-05	21,618	18,660	1,922	10.3%
2018-06	21,323	18,658	1,818	9.7%
2018-07	21,016	18,384	1,647	9.0%
2018-08	21,661	18,571	1,681	9.1%
2018-09	19,183	16,963	1,543	9.1%
2018-10	20,547	17,810	1,538	8.6%
2018-11	19,155	16,601	1,351	8.1%
2018-12	18,027	15,842	1,229	7.8%
2019-01	19,056	16,584	1,272	7.7%
2019-02	17,521	15,445	1,101	7.1%
2019-03	17,944	15,850	1,089	6.9%
2019-04	17,969	15,756	1,039	6.6%
2019-05	17,945	15,608	973	6.2%
2019-06	16,726	14,967	854	5.7%
2019-07	18,096	15,785	912	5.8%
2019-08	16,021	13,976	583	4.2%
2019-09	15,187	13,495	562	4.2%
2019-10	15,556	13,662	539	3.9%
2019-11	13,952	12,469	472	3.8%
2019-12	14,095	12,502	395	3.2%
2020-01	14,592	12,832	482	3.8%
2020-02	13,274	11,902	424	3.6%
2020-03	12,755	11,194	397	3.5%
2020-04	11,067	9,699	416	4.3%
2020-05	12,454	10,997	419	3.8%
2020-06	13,821	12,157	433	3.6%

Note: Beneficiaries with a diagnosis for either cancer or sickle cell disease anytime from Jan 2017 to June 2020 were NOT excluded.
Red line indicates when Medicaid Opioid Initiatives we implemented.

From Table 4:

- The percentage of beneficiaries with concomitant opioid and benzodiazepine use has dropped to an average of 3.8% since the implementation of the Opioid Initiatives.

In addition to conducting analyses specifically aimed at assessing the impact of the Opioid Initiatives for this report, MS-DUR also runs 2 quality measures which DOM annually reports to CMS that are directly impacted by the Opioid Initiatives. The “Concurrent Use of Opioids and Benzodiazepines” (COB-AD) measure was developed by the Pharmacy Quality Alliance. The COB-AD assesses the percentage of beneficiaries who are taking opioids that have concurrent use of benzodiazepines for 30 or more days.

TABLE 5: COB-AD Concurrent Use of Opioids and Benzodiazepines <i>Mississippi Medicaid January 1, 2019 - December 31, 2019</i> <i>Includes all Medicaid Beneficiaries Meeting Inclusion Criteria</i> <i>- DOES NOT include CHIP -</i>				
Beneficiary		Denominator	Numerator	Rate
TOTAL		12,559	937	7.5%
Age	18 - 65	12,523	932	7.4%
	65+	36	5	13.9%
Gender	Female	8,937	682	7.6%
	Male	3,622	255	7.0%
Race	Caucasian	4,601	507	11.0%
	Afr. Amer.	6,656	340	5.1%
	Amer. Indian	24	1	4.2%
	Hispanic	36	4	11.1%
	Other	1,242	85	6.8%
Pharmacy Program	FFS	1,951	176	9.0%
	UHC	4,624	309	6.7%
	MAG	5,412	436	8.1%
	MOL	572	16	2.8%

Table 5 shows the COB-AD quality measure rates for CY 2019 for all Mississippi Medicaid beneficiaries meeting the inclusion criteria for the denominator. The overall rate within Mississippi Medicaid was 7.5%. This shows a continued significant decrease for this measure compared to prior years reported (20.0% for CY 2017, 13.7% for CY 2018 and 7.5% for CY 2019).

The “Use of Opioids at High Dosage in Persons Without Cancer” (OHD-AD) was developed by the Pharmacy Quality Alliance and added to the Medicaid Adult Core Set in 2016. The OHD-AD assesses the potentially inappropriate prescribing of opioids at average morphine milligram equivalents (MME) of 90 or more for treatment periods of 90 or more days.

Table 6 shows the OHD-AD quality measure rates for CY 2019 for all Mississippi Medicaid beneficiaries meeting the inclusion criteria for the denominator. The overall rate within Mississippi Medicaid was 1.7% which was significantly lower than the rate of 2.5% for CY 2018.

TABLE 6: Use of Opioids at High Dosage in Persons Without Cancer <i>Includes all Medicaid Beneficiaries Meeting Inclusion Criteria Mississippi Medicaid January 1, 2019 - December 31, 2019 Includes Medicaid ONLY - No CHIP</i>				
Beneficiary		Denominator	Numerator	Rate
TOTAL		11,112	190	1.7%
Age	18 - 65	11,083	190	1.7%
	65+	29	0	0.0%
Gender	Female	7,884	111	1.4%
	Male	3,228	79	2.4%
Race	Caucasian	4,088	126	3.1%
	Afr. Amer.	5,896	48	0.8%
	Amer. Indian	23	0	0.0%
	Hispanic	28	1	3.6%
	Other	1,077	15	1.4%
Pharmacy Program	FFS	1,686	41	2.4%
	UHC	4,152	71	1.7%
	MAG	4,811	73	1.5%
	MOL	463	5	1.1%

CONCLUSIONS

Working with prescribers to appropriately prescribe opioids is a process that Medicaid has been working on for several years. With the implementation of DOM's Opioid Initiatives in 2019, a major step was taken toward regulating the appropriate prescribing of opioids for Medicaid beneficiaries. This study provides data demonstrating that prescribing trends for opioids are moving in a positive direction. Although significant progress has been made, the opioid epidemic fight continues. Assessing the impact of COVID-19 on the prescribing of opioids is an area that warrants further study.

RECOMMENDATIONS

1. DOM should continue monitoring trends in opioid prescribing related to the Opioid Initiatives and explore other metrics for measuring appropriate opioid prescribing.
2. MS-DUR, at the direction of DOM, should explore the impacts of COVID-19 on the prescribing of opioids.

References:

1. CDC Guideline for Prescribing Opioids for Chronic Pain — United States, 2016. *MMWR Recomm Rep*. 2016;65. doi:10.15585/mmwr.rr6501e1er
2. Prescribing Regulation Tools | Mississippi State Board of Medical Licensure. Accessed August 13, 2020. https://www.msbml.ms.gov/PR_Tools
3. Governor's Opioid and Heroin Study Taskforce. Stand Up, Mississippi. Accessed August 13, 2020. <https://standupms.org/governors-opioid-and-heroin-study-taskforce/>
4. State Guidance for Implementation of Medicaid Drug Utilization Review (DUR) provisions included in Section 1004 of the Substance Use-Disorder Prevention that Promotes Opioid Recovery and Treatment for Patients and Communities Act (P.L. 115-271). Accessed August 13, 2020. <https://www.medicare.gov/federal-policy-guidance/downloads/cib080519-1004.pdf>