

**CMS ADULT CORE SET QUALITY MEASURE:  
ANTIDEPRESSANT MEDICATION MANAGEMENT –  
MISSISSIPPI MEDICAID PERFORMANCE FOR CALENDAR YEAR 2016**

## **BACKGROUND**

The National Institute of Mental Health estimates that 6.7% of the adult population in the US (16.1 million individuals) have suffered from at least one major depressive episode in 2015.<sup>1</sup> Treatment guidelines for major depressive disorder recommend use of antidepressants in three distinct phases:

- an acute phase, aimed at inducing remission;
- a continuation phase that aims to prevent relapse; and
- a maintenance phase for high risk patients.<sup>2</sup>

Research shows that more than 50% of patients using antidepressants are not adherent to their medication. Reasons for non-adherence to antidepressants include patient concerns about side effects, fear of addiction, lack of patient education, and poor follow-up.<sup>3</sup> Adherence to antidepressants is recommended by the American Psychiatric Association (APA) through the maintenance phase in order to prevent relapse and improve outcomes.<sup>2</sup>

The National Committee for Quality Assurance (NCQA) developed the Antidepressant Medication Management (AMM) quality measure as part of the Healthcare Effectiveness Data and Information Set (HEDIS). HEDIS measures are used to evaluate quality among managed care programs, health care delivery organizations and in the Medicare and Medicaid programs. In 2013, the Centers for Medicare and Medicaid Services (CMS) adopted the AMM measure as part of the initial Adult Core Set of quality measure used in state Medicaid programs.

As part of the Mississippi's Division of Medicaid (DOM) ongoing drug utilization review (DUR) quality improvement activities, MS-DUR evaluated DOM's performance on the AMM measure for the calendar year 2015.

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<sup>1</sup> National Institutes of Mental Health (NIMH). Major Depression Among Adults. Available at: <https://www.nimh.nih.gov/health/statistics/prevalence/major-depression-among-adults.shtml> Accessed on: January 12<sup>th</sup>, 2017

<sup>2</sup> American Psychiatric Association (APA). Practice guideline for the treatment of patients with major depressive disorder. 3rd ed. Arlington (VA): American Psychiatric Association (APA); 2010 Oct. p. 152.

<sup>3</sup> Sansone, Randy A., and Lori A. Sansone. "Antidepressant Adherence: Are Patients Taking Their Medications?" *Innov Clin Neurosci*. 2012;9(5–6):41–46.

## METHODS

MS-DUR conducted a retrospective analysis using DOM's pharmacy claims data from January 2014 to December 2015. The sample included beneficiaries enrolled in Medicaid fee-for-service (FFS) and the coordinated care organizations (CCOs) – UnitedHealthcare (UHC) and Magnolia. MS-DUR calculated performance on the AMM measure using the 2016 reporting technical specifications provided by CMS and HEDIS. Measures were computed for both the acute phase and the continuation phase treatment periods. Although the measure is designed for adults (age 18 and older), MS-DUR also computed the measure for beneficiaries under the age of 18 years.

### ***CMS/HEDIS Quality Measure: Antidepressant Medication Management (AMM)***

Description: The percentage of members 18 years of age and older who were treated with antidepressant medication, had a diagnosis of major depression and remained on an antidepressant medication treatment.

Two different rates are reported as part of this measure:

1. the effective acute phase treatment, and
2. the effective continuation phase treatment.

### **Denominator** (Inclusion criteria)

- Age 18 years or older as of April 30 of the measurement year.
- One prescription for antidepressant medication between May 1 of the year prior to the measurement year and ending on April 30 of the measurement year, labelled the Index Prescription Start Date (IPSD).
- No pharmacy claims for either new or refill prescriptions for an antidepressant medication during a period of 105 days prior to the IPSD.
- Continuous enrollment required from 105 days prior to IPSD through 231 days after the IPSD, with no more than one gap in continuous enrollment of up to 45 days.
- Diagnosis of major depression in an inpatient, outpatient, ED, intensive outpatient or partial hospitalization setting during the 121-day period from 60 days prior to the IPSD, through the IPSD and the 60 days after the IPSD.

### **Numerator**

- *Effective Acute Phase Treatment*: At least 84 days (12 weeks) of continuous treatment with antidepressant medication during the 114-day period following the IPSD (inclusive), with no more than 30 cumulative gap days.
- *Effective Continuation Phase Treatment*: At least 180 days (6 months) of continuous treatment with antidepressant medication during the 231-day period following the IPSD (inclusive), with no more than 51 cumulative gap days.

## RESULTS

The prevalence of new starts and the percentage of new starts with a major depression diagnosis are reported by age group and pharmacy program in Table 1. A total of 28,784 beneficiaries were continuously enrolled and had a new start (no prescription fill in prior 105 days) for antidepressant medications during the study period.

- Only 31.4% of these new starts had a diagnosis for major depression detected in the medical claims within 60 days before or after starting the medication.
- The prevalence of a major depression diagnosis varied slightly among the three pharmacy programs -- ranging from a low of 27.3% for UHC to a high of 39.9% for Magnolia.
- Overall, 9,038 beneficiaries with new starts had a major depression diagnosis and met the inclusion criteria for calculation of the AMM quality measure.

**Table 1: Number of Beneficiaries Starting Treatment With Antidepressant Medication and Having Depression Diagnosis by Pharmacy Program**

Age group	FFS		UHC		MAG		TOTAL	
	# Starting Therapy	#/% With Depression Diagnosis*	# Starting Therapy	% With Depression Diagnosis*	# Starting Therapy	% With Depression Diagnosis*	# Starting Therapy	% With Depression Diagnosis*
0 to 11	1,207	134 (11.1%)	71	6 (8.5%)	128	17 (13.3%)	1,406	157 (11.2%)
12 to 17	3,304	1,230 (37.2%)	211	53 (25.1%)	356	113 (31.7%)	3,871	1,396 (36.1%)
18 to 44	2,929	988 (33.7%)	5,412	1,744 (32.2%)	6,966	2,288 (32.9%)	15,307	5,020 (32.8%)
45 to 64	2,162	603 (27.9%)	2,152	656 (30.5%)	3,728	1,177 (31.6%)	8,042	2,436 (30.3%)
65 +	73	9 (12.3%)	31	7 (22.6%)	54	11 (20.4%)	158	27 (17.1%)
0 to 17	4,511	1,364 (30.2%)	282	59 (20.9%)	484	130 (26.9%)	5,277	1,553 (29.4%)
18 +	5,164	1,600 (31.0%)	7,595	2,407 (31.7%)	10,748	3,476 (32.3%)	23,507	7,483 (31.8%)
<b>Total</b>	<b>9,675</b>	<b>2,964 (32.8%)</b>	<b>7,877</b>	<b>2,466 (27.3%)</b>	<b>11,232</b>	<b>3,606 (39.9%)</b>	<b>28,784</b>	<b>9,036 (31.4%)</b>

Note: When reporting for calendar year 2015, the measurement period for starting treatment with antidepressants extends from May 1, 2014 through April 30, 2015.

\* Diagnosis for major depression coded in medical claim within 60 days prior to 60 days after initiating antidepressant therapy.

The most recent report on state Medicaid programs' performances on this measure is the annual report for Federal Fiscal Year (FFY) 2014, in which 31 states reported on this voluntary CMS/HEDIS antidepressant measure.<sup>1</sup>

Table 2 shows the number and percent of beneficiaries in each age group and pharmacy program who met the measure criteria for receiving effective treatment with antidepressants.

<sup>1</sup> Health and Human Services Secretary, 2015 Annual Report on the Quality of Care for Adults in Medicaid, February 2016. <https://www.medicaid.gov/medicaid/quality-of-care/performance-measurement/adult-core-set/index.html> (accessed May 2016).

### Acute Phase:

- During the acute phase (first 12 weeks), 30.5% of adults enrolled in DOM received effective treatment with antidepressants.
  - This varied somewhat by pharmacy program with a low of 26.3% for adults in UHC to a high of 36.8% of adults in FFS.
- In the CMS report for FFY 2014, the mean rate of effective treatment for the acute phase was 47.6% and the 25<sup>th</sup> percentile was 41.0%.
- Based on these numbers, Mississippi Medicaid is currently performing below the 25<sup>th</sup> percentile for the acute phase.

### Continuation Phase:

- DOM's overall performance using the continuation phase was 14.3% for adults.
  - There was considerable variation among pharmacy programs on the continuation phase measure – low of 8.4% for adults in UHC and a high of 14.8% of adults in FFS.
- The CMS report for FFY 2014 for the continuation phase had a mean of 31.4% and a 25<sup>th</sup> percentile of 24.9%.

<b>TABLE 2: Percent of Beneficiaries Starting Antidepressant Medication With Depression Diagnosis and Having Effective Treatment by Pharmacy Program</b>				
<b>Acute Phase Treatment</b>				
<b>Age group</b>	<b>FFS</b>	<b>UHC</b>	<b>MAG</b>	<b>TOTAL</b>
0 to 11	61 (45.5%)	0 (0.0%)	9 (52.9%)	70 (44.6%)
12 to 17	453 (36.8%)	9 (17.0%)	39 (34.5%)	501 (35.9%)
18 to 44	339 (34.3%)	450 (25.8%)	670 (29.3%)	1,459 (29.1%)
45 to 64	246 (40.8%)	181 (27.6%)	386 (32.8%)	813 (33.4%)
65 +	4 (44.4%)	3 (42.9%)	3 (27.3%)	10 (37.0%)
0 to 17	514 (37.7%)	9 (15.3%)	48 (36.9%)	571 (36.8%)
18 +	589 (36.8%)	634 (26.3%)	1,059 (30.5%)	2,282 (30.5%)
<b>Total</b>	<b>1,103 (37.2%)</b>	<b>643 (22.5%)</b>	<b>1,107 (38.8%)</b>	<b>2,853 (31.6%)</b>
<b>Continuation Phase Treatment</b>				
<b>Age group</b>	<b>FFS</b>	<b>UHC</b>	<b>MAG</b>	<b>TOTAL</b>
0 to 11	28 (20.9%)	0 (0.0%)	6 (35.3%)	34 (21.7%)
12 to 17	197 (16.0%)	5 (9.4%)	17 (15.0%)	219 (15.7%)
18 to 44	162 (16.4%)	174 (10.0%)	302 (13.2%)	638 (12.7%)
45 to 64	151 (25.0%)	84 (12.8%)	195 (16.6%)	430 (17.7%)
65 +	1 (11.1%)	1 (14.3%)	1 (9.1%)	3 (11.1%)
0 to 17	225 (16.5%)	5 (8.5%)	23 (17.7%)	253 (16.3%)
18 +	314 (19.6%)	259 (10.8%)	498 (14.3%)	1,071 (14.3%)
<b>Total</b>	<b>539 (18.2%)</b>	<b>264 (10.7%)</b>	<b>521 (14.5%)</b>	<b>1,324 (14.7%)</b>

**Notes:**

When reporting for calendar year 2015, the measurement period for starting treatment with antidepressants extends from May 1, 2014 through April 30, 2015.

Effective treatment acute phase = 84 or more days of continuous treatment with antidepressant medication during the 114-day period following the IPSD.

Effective treatment continuation phase = 180 or more days of continuous treatment with antidepressant medication during the 231-day period following the IPSD.

The technical specifications are designed such that in order for a beneficiary to be classified as receiving effective treatment the beneficiary must continue the antidepressant therapy for the length of time in the acute and/or continuation phase and they must be adherent to therapy. Table 3 examines the reasons Mississippi beneficiaries were classified as not receiving effective therapy.

- Beneficiaries with no medication possession during the last 30 days of the measurement period (acute or continuation) were classified as non-persistent with their therapy. Persistency is a measure of how long patients remain on a new therapy. Persistency is typically measured as the percentage of patients still taking a medication at a specific time after starting therapy. Persistency is especially critical during the acute phase of antidepressant therapy since several months are required to determine whether antidepressant therapy is working appropriately.
- Beneficiaries who had medication possession during the last 30 days of the observation period but did not have effective therapy were considered to have poor medication adherence. Medication adherence is a measure of how often patients take their medication as prescribed (quantity, frequency, time of day, etc.). With administrative claims, adherence is usually measured as the percentage of days a patient has possession of medication based on prescription refill records. Low medication adherence can result in sub-therapeutic levels and possibly ineffective treatment.

Table 3 shows the percentage of beneficiaries included in the AMM measure denominator who did not receive effective therapy due to non-persistence or poor adherence.

**Acute Phase:**

- Almost half of the new starts on antidepressant therapy stopped taking their medication before the last 30 days of the acute phase.
- The rate of non-persistence for adults during the acute phase varied slightly among the pharmacy programs (low of 42.8% in FFS to high of 53.0% in UHC).
- 21% of new starts were classified as not receiving effective therapy due to poor medication adherence.
- The rate for non-adherence varied very little among the pharmacy programs (low of 20.4% for FFS to high of 22.2% for Magnolia).

<b>TABLE 3: Beneficiaries Starting Antidepressant Medications: Reasons for Failing Medication Management Measure</b>								
<b>Age Group</b>	<b>FFS</b>		<b>UHC</b>		<b>MAG</b>		<b>TOTAL</b>	
	<b>Not On Therapy Last 30 Days</b>	<b>On Therapy But Poor Adherence</b>	<b>Not On Therapy Last 30 Days</b>	<b>On Therapy But Poor Adherence</b>	<b>Not On Therapy Last 30 Days</b>	<b>On Therapy But Poor Adherence</b>	<b>Not On Therapy Last 30 Days</b>	<b>On Therapy But Poor Adherence</b>
	<b>Acute Phase Treatment</b>							
0 to 17	615 (45.1%)	235 (17.2%)	35 (59.3%)	15 (25.4%)	57 (43.9%)	25 (19.2%)	707 (45.5%)	275 (17.7%)
18 +	685 (42.8%)	326 (20.4%)	1,276 (53.0%)	497 (20.7%)	1,644 (47.3%)	773 (22.2%)	3,605 (48.2%)	1,596 (21.3%)
<b>Total</b>	<b>1,300 (43.9%)</b>	<b>561 (18.9%)</b>	<b>1,311 (53.2%)</b>	<b>512 (20.8%)</b>	<b>1,701 (47.2%)</b>	<b>798 (22.1%)</b>	<b>4,312 (47.7%)</b>	<b>1,871 (20.7%)</b>
	<b>Continuation Phase Treatment</b>							
0 to 17	793 (58.1%)	346 (25.4%)	38 (64.4%)	16 (27.1%)	81 (62.3%)	26 (20.0%)	912 (58.7%)	388 (25.0%)
18 +	871 (54.4%)	415 (25.9%)	1,508 (62.7%)	640 (26.6%)	1,957 (56.3%)	1,021 (29.4%)	4,336 (57.9%)	2,076 (27.7%)
<b>Total</b>	<b>1,664 (56.1%)</b>	<b>761 (25.7%)</b>	<b>1,546 (62.7%)</b>	<b>656 (26.6%)</b>	<b>2,038 (56.5%)</b>	<b>1,047 (29.0%)</b>	<b>5,248 (58.1%)</b>	<b>2,464 (27.3%)</b>

**Chronic Phase:**

- The percentage of adult new starts that were non-persistent with therapy increased to 58% during the continuation phase.
- The rate of non-persistence for adults during the chronic phase varied somewhat among the pharmacy programs (low of 54.4% in FFS to high of 62.7% in UHC).
- The overall percentage classified as non-adherent to therapy increased slightly to 28%.
- The rate for non-adherence varied only slightly among the pharmacy programs (low of 25.9% for FFS to high of 29.4% for Magnolia).

**CONCLUSIONS AND BOARD ACTION REQUESTED**

DOM has an opportunity to improve performance on the Adult Core quality measure for antidepressant medication management. The major reason beneficiaries were classified as not receiving effective treatment appears to be non-persistence which is very high during the acute phase of treatment. Non-adherence to the medication regimen also contributes to our poor performance.

MS-DUR requests input from the DUR Board with regard to what interventions might be most effective at improving our performance on this CMS Adult Core Set measure.