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

MISSISSIPPI DIVISION OF
MEDICAID

February 2, 2017 at 2:00pm

Woolfolk Building, Room 145

Jackson, MS

Prepared by:

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

Drug Utilization Review Board

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Term Expires: June 30, 2018

Craig L. Escudé, MD **(Co-Chair)**
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Term Expires: June 30, 2019

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Term Expires: June 30, 2018

2017 DUR Board Meeting Dates

February 2, 2017
April 27, 2017
July 27, 2017
November 2, 2017

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 two 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
February 2, 2017

Welcome — Pearl Wales, MD (Chair)

Old Business — Pear Wales, MD (Chair)
- Approval of September 2016 Meeting Minutes — page 5

Resource Utilization Review (Banahan)
- Enrollment Statistics — page 11
- Pharmacy Utilization Statistics — page 11
- Top 10 Drug Categories by Number of Claims — page 12
- Top 10 Drug Categories by Amount Paid — page 13
- Top 25 Drug Molecules by Number of Claims — page 14
- Top 25 Drug Molecules by Amount Paid — page 15
- Top 25 Drug Molecules by Change in Number of Claims — page 16
- Top 25 Drug Molecules by Change in Amount Paid — page 17
- Top 15 Solid Dosage Form High Volume Products By Percent Change In Amount Paid Per Unit — page 18

Pharmacy Program Update — Terri Kirby, RPh; Sara (Cindy) Noble, PharmD, MPH

Feedback and Discussion from the Board

New Business

Mississippi Opiate/Heroin Working Group and other efforts to address drug abuse and drug abuse treatment in Mississippi — *John Meynardie, JD, U.S. Attorney's Office*

Special Analysis Projects (Banahan)
- *Mississippi Medicaid Pharmacy Programs: Demographics, Utilization and Comorbidities* — page 21
- *CMS Adult Core Set Quality Measure: Antidepressant Medication Management – Mississippi Medicaid Performance For Calendar Year 2016* — page 31
- *Use Of Multiple Providers For Opioids: Impact Of Cash Prescriptions And Affiliate Provider Identifiers On Identifying At Risk Beneficiaries* — page 38

Next Meeting Information — Pearl Wales, MD (Chair)

DUR Board Meeting Minutes

MISSISSIPPI DIVISION OF MEDICAID
DRUG UTILIZATION REVIEW (DUR) BOARD
MINUTES OF THE SEPTEMBER 29, 2016 MEETING

DUR Board Members:	Feb 2015	May 2015	Aug 2015	Nov 2015	Jan 2016	Apr 2016	Jul 2016	Sep 2016
Allison Bell, PharmD	✓	✓	✓	✓	✓	✓		✓
Craig Escudé, MD								✓
Juanice Glaze, RPh								✓
Antoinette M. Hubble, MD	✓	✓	✓	✓	✓	✓	✓	✓
Cherise McIntosh, PharmD	✓	✓		✓		✓		
Alice Messer, FNP-BC								✓
Janet Ricks, DO				✓	✓			✓
Sue Simmons, MD	✓	✓	✓		✓	✓		✓
Dennis Smith, RPh(Chair)	✓	✓	✓	✓	✓	✓		✓
James Taylor, PharmD								✓
Cynthia Undesser, MD	✓	✓	✓		✓	✓	✓	
Pearl Wales, PharmD				✓	✓	✓	✓	✓
TOTAL PRESENT	**9**	**10**	**9**	**10**	**10**	**11**	**3***	**10**

**Only eight members were active due to new appointments to DUR Board not being approved by Governor prior to meeting.*

Also Present:

Division of Medicaid (DOM) Staff:
Terri Kirby, RPh, CPM, Pharmacy Director, DOM; Cindy Noble, PharmD, MPH, DUR Coordinator, DOM; Tami Brooks, MD, DOM's Medical Director

MS-DUR Staff:
Ben Banahan, PhD, MS-DUR Project Director

Xerox State Healthcare Staff:
Leslie Leon, PharmD, Clinical Pharmacist, Mississippi Medicaid Project; Lew Anne Snow, RN BSN, Pharmacy Services Sr. Analyst, Mississippi Medicaid Project

Change Healthcare Staff:
Shannon Hardwick, RPh; Paige Clayton, PharmD

Coordinated Care Organization Staff:
Mike Todaro, PharmD, Vice President, Pharmacy Operations, Magnolia Health

Visitors:
Dan Barbera, Lilly; Phil Hecht, Abbvie; Sunnye Simmons, Abbvie; Nick Casale, Indivior; Gary Thunauer, Pfizer; Greg Johnson, Pfizer; Judy Clark, Consultant.

Call to Order:

Mr. Smith called the meeting to order at 2:01 pm. Ms. Kirby introduced new board members, Dr. Escudé, Ms. Glaze, Ms. Messer, and Dr. Taylor. All Board Members and DOM staff did brief introductions. Drs. Noble and Banahan provided an overview of the role of the DUR Board. Dr. Noble introduced Dr. Brooks, DOM Medical Director.

Old Business:
Dr. Hubble moved that the minutes from the April 2016 and July 2016 DUR Board meetings be approved as presented, seconded by Dr. Bell. Approval of the meeting minutes was passed unanimously.

Resource Utilization Review:
Dr. Banahan explained that resource utilization tables included in the board packets provide information about prescription utilization and serves to identify potential issues that may need further investigation and/or possible action. These tables in the board packet are a subset of a much larger report reviewed with Medicaid pharmacy staff each month. Dr. Banahan highlighted the reduction in prescription volume for United Healthcare (UHC) in Table 04B for April through July 2016. MS-DUR will be investigating whether all encounter data is now reported or if there has been an actual change in utilization for UHC beneficiaries during this timeframe. During discussion, clarification was provided that FFS and UHC have a five prescription limit while Magnolia does not; however, Early and Periodic Screening, Diagnosis and Treatment (EPSTD) program children can be approved for more than the limit set by the legislature. Dr. Banahan noted that top drug categories by volume and amount paid (Tables 04C and 04D) have been fairly stable with the exception of proton pump inhibitor volume. Adderall XR stood out as having high unit cost changes during the report period. Dr. Banahan reported this has been attributed to a shortage of generic amphetamine salt. Dr. Noble noted that opioids and atypical antipsychotics are major categories of importance due to volume and costs. Both categories are being addressed through a variety of initiatives in collaboration with CMS and other national organizations and will be of on-going focus at future DUR Board meetings.

Pharmacy Program Update:
Ms. Kirby informed the DUR Board that:

- Effective October 1, 2016, the prior authorization (PA) vendor will be Change Healthcare Pharmacy Solutions (formerly Goold Health Systems).
- Change Healthcare also will be implementing a new medication therapy program, Complex Pharmaceutical Care (CPC), for management of beneficiaries taking complex and/or high-cost medications. Ms. Shannon Hardwick who will be the CPC Pharmacist
- Dr. Paige Clayton who will be the on-site pharmacists at DOM for Change Healthcare.
- The next Pharmacy Reimbursement Stakeholder Meeting will be held on October 12 to address specialty drug and hemophilia reimbursement.
- The Pharmacy and Therapeutics (P&T) Committee will meet October 18 for the annual review of the categories included in the universal preferred drug list (UPDL).
- She recently attending a national meeting of Medicaid State Pharmacy Directors where a major focus was substance abuse use and medication abuse treatment and acknowledges the DUR Board's efforts to enable Mississippi Medicaid to be in the forefront of other Medicaid states in addressing these opioid abuse and treatment.

Dr. Noble described DOM's ongoing involvement with the National Behavioral Council and the Centers for Medicare and Medicaid Services (CMS) since last December to address opioid related issues. She reported that DOM also has participated in ongoing efforts by CMS to address the use of antipsychotics in children and that DOM is in the process of implementing a new clinical edit in SmartPA to reduce use of multiple antipsychotics in children. The new edit will allow for a period of titrating from one antipsychotic to another without requiring a manual PA.

Feedback and Discussion from the Board

Dr. Taylor asked if a universal PA form could be developed to make it easier for providers. Dr. Todaro with Magnolia indicated there are logistical difficulties in having a universal PA form because of the different PA review groups and how information is communicated to and from them.

NEW BUSINESS

Election of new co-chair:

Mr. Smith asked for nominations for co-chair as Dr. Pearl Wales will assume responsibilities as DUR Board Chair at this meeting. Dr. Hubble moved to nominate Dr. Escudé as co-chair, seconded by Dr. Simmons. There being no other nominations, Dr. Escudé was elected by acclamation.

Research Reports:

Benzodiazepine Utilization for Insomnia

Dr. Banahan summarized a MS-DUR analysis examining utilization of benzodiazepines (estazolam, flurazepam, temazepam, and triazolam) that only have FDA approved indications as sedative hypnotics for the short-term treatment of insomnia). Major findings were:

- At the recommendation of the DUR Board in August 2015, quantity limits were place on triazolam to assure utilization consistent with labeling for short term use only. This has been effective with 90.5% (n=19) of beneficiaries prescribed triazolam in 2016 having $\leq$31 total days on therapy.
- Almost all use among these products, 96.7%, (n=979) has been for temazepam, one of the preferred products (total n=1,012 beneficiaries). Although temazepam has similar labeling as triazolam, 63.5% (n=622)) of the beneficiaries prescribed temazepam had total therapy > 31 days.

MS-DUR asked the Board to consider recommending quantity limits for temazepam that were similar to the ones for triazolam (limit of 10-day supply per month and cumulative limit of 60 days within a 365-day period) to ensure criteria consistency for the two products. During discussion, DUR Board members expressed a desire to reduce chronic use of benzodiazepines, but questioned what would be recommended as an alternative for beneficiaries with chronic insomnia. After lengthy discussion, the consensus of the Board was that information will need to be available about treatment alternatives before further restricting use of these agents. Dr. Hubble moved to table any change in criteria for temazepam until further information can be provided about alternative treatment options that could be recommended when a hard edit is implemented. The motion, seconded by Dr. Simmons, was passed unanimously.

Update on Concomitant Use of Benzodiazepines and Opioids

Dr. Banahan summarized a MS-DUR analysis examining concomitant utilization of benzodiazepines and opioids. During the April DUR Board meeting review of the Centers for Disease Control (CDC) guidelines

for prescribing opioids for chronic pain, the DUR Board recommended implementation of a SmartPA edit that would require a manual PA for concomitant use of these products. Also recommended was that MS-DUR develop and mail educational information to providers on this issue. The current analysis was provided as additional background on recent utilization and as a baseline for evaluating change in the future. Ms. Messer commented on the need to avoid concomitant use of benzodiazepines and opioids now that safety and quality of care concerns are being raised. She also discussed problems incurred when one provider is treating the mental health component and another provider is treating the pain component. Following discussion, the DUR Board recommended that the clinical edit allow a few days of overlap before rejecting a prescription in order to accommodate acute situations and that MS-DUR consider changes in the number of days of concomitant use in addition to prevalence of concomitant use.

Buprenorphine/Naloxone DOM Clinical Guidelines and Recommended Changes

Dr. Banahan reviewed the current DOM clinical guidelines for buprenorphine/naloxone therapy, in consideration of national initiatives to make medication assisted therapy (MAT) for drug abuse more accessible, and the recent CMS ruling on the Mental Health Parity and Addiction Equity Act of 2008 applies to state Medicaid programs. MS-DUR provided an updated analysis of the report presented at the July, 2016 DUR Board meeting that included data on cash payments from the Prescription Monitoring Program regarding. He reported that inclusion of prescriptions paid for with cash increased the number of beneficiaries exceeding the current maximum dose guidelines and the number of beneficiaries exceeding the cumulative 24-month criterion. These results provided further evidence that the current DOM clinical guidelines might be more restrictive than what providers need for effective MAT.

After discussion, Dr. Hubble made the following motion, seconded by Dr. Escudé, and the motion was passed unanimously.

DOM's clinical guidelines for use of buprenorphine/naloxone in the treatment of opioid dependence should be modified as follows:

- Appropriate diagnosis – no change
- Length of coverage –the 24-month maximum length of coverage and limits on restarts-remove
- Step therapy with maximum daily doses –
    - Induction and stabilization phase – maximum daily dose of 24mg/6mg for up to 2 months (change)
    - Maintenance phase – maximum daily dose of 16mg/4mg (change)
    - Opioid use restriction – unchanged

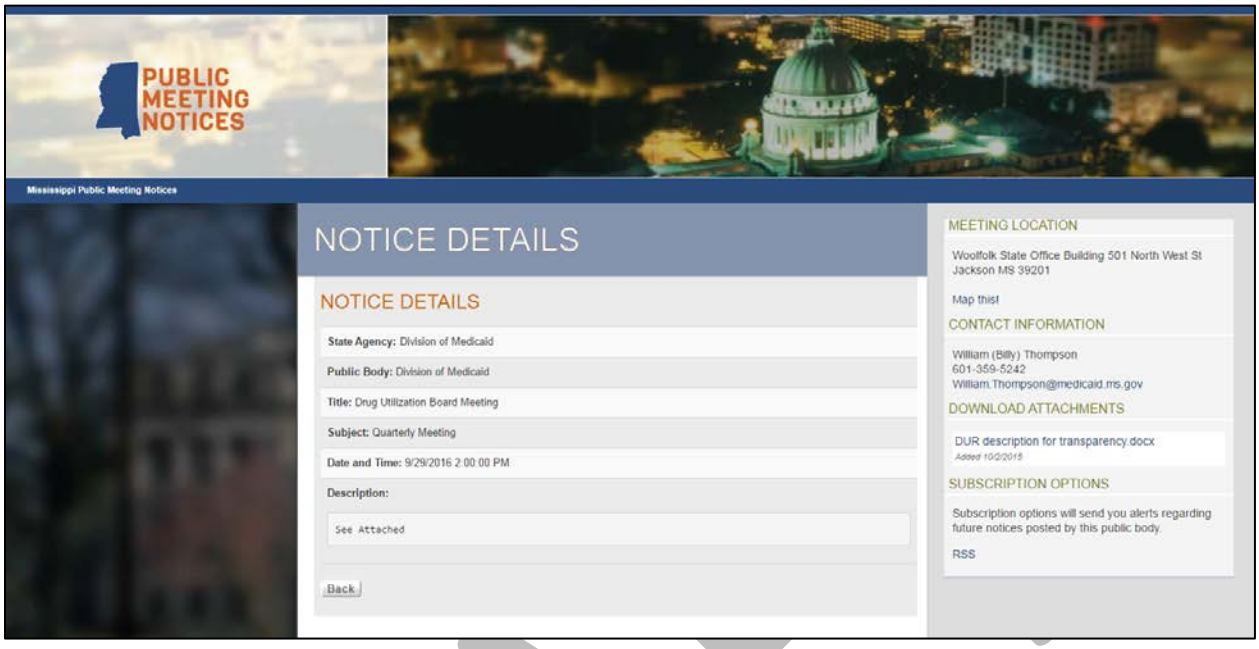
Next Meeting Information:

Dr. Wales announced that the next meeting DUR BOARD meeting is scheduled for February 2, 2017 at 2:00 p.m. Dr. Banahan mentioned that the schedule for all of 2017 is included in the front of the DUR packet and the meeting location will change to Woolfolk 145 next year. Dr. Wales thanked everyone for their attendance and participation at the September DUR Board meeting. The meeting adjourned at 4:03 pm.

Submitted,

Benjamin F. Banahan, III, PhD
Evidence-Based DUR Initiative, MS-DUR

PUBLIC MEETING NOTICES



MISSISSIPPI DIVISION OF
MEDICAID

Drug Utilization Review
Board Meeting

September 29th, 2016
2:00 P.M.
Woolfolk Building - Room 117

Resource Utilizaton Review

TABLE 04A: ENROLLMENT STATISTICS FOR LAST 6 MONTHS June 1, 2016 through November 30, 2016							
			Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16
Total enrollment			752,512	750,015	748,444	744,936	739,905	734,796
Dual-eligibles			155,736	155,594	155,640	155,230	154,883	154,404
Pharmacy benefits			646,404	643,666	641,503	637,662	632,087	626,365
	LTC		17,560	17,541	17,574	17,496	17,347	17,131
	PLAN %	FFS	21.6%	21.9%	22.7%	22.9%	22.8%	22.2%
		MSCAN-UHC	39.1%	38.9%	38.5%	38.3%	38.3%	38.6%
		MSCAN-Magnolia	39.3%	39.2%	38.8%	38.8%	38.9%	39.2%

TABLE 04B: PHARMACY UTILIZATION STATISTICS FOR LAST 6 MONTHS June 1, 2016 through November 30, 2016							
		Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16
# Rx Fills	FFS	85,749	82,855	95,720	93,475	93,191	93,622
	MSCAN-UHC	181,745	174,152	210,130	202,146	193,451	211,294
	MSCAN-Mag	211,070	200,608	241,001	232,048	235,275	239,514
# Rx Fills / Bene	FFS	0.6	0.6	0.7	0.6	0.6	0.7
	MSCAN-UHC	0.7	0.7	0.9	0.8	0.8	0.9
	MSCAN-Mag	0.8	0.8	1.0	0.9	1.0	1.0
$ Paid Rx	FFS	$11,254,139	$11,093,937	$12,068,117	$11,311,562	$11,658,484	$11,082,472
	MSCAN-UHC	$14,558,636	$14,141,778	$16,032,295	$15,171,037	$14,548,607	$16,042,751
	MSCAN-Mag	$16,621,584	$15,706,138	$17,606,955	$16,895,876	$17,246,981	$17,597,780
$ /Rx Fill	FFS	$131.25	$133.90	$126.08	$121.01	$125.10	$118.37
	MSCAN-UHC	$80.10	$81.20	$76.30	$75.05	$75.21	$75.93
	MSCAN-Mag	$78.75	$78.29	$73.06	$72.81	$73.31	$73.47
$ /Bene	FFS	$80.60	$78.70	$82.87	$77.46	$80.90	$79.70
	MSCAN-UHC	$57.60	$56.48	$64.91	$62.12	$60.10	$66.35
	MSCAN-Mag	$65.43	$62.25	$70.74	$68.29	$70.14	$71.67

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 04C: TOP 10 DRUG CATEGORIES BY NUMBER OF CLAIMS IN NOV 2016 (FFS AND CCOs)

Category	Month Year	Rank Volume	# RXs	$ Paid	# Unique Benes
CNS stimulants	Nov 2016	1	25,950	$5,569,135	22,321
	Oct 2016	1	25,309	$5,396,139	21,989
narcotic analgesic combinations	Nov 2016	2	24,750	$561,321	22,365
	Oct 2016	2	24,416	$529,259	22,244
aminopenicillins	Nov 2016	3	20,721	$215,144	20,284
	Oct 2016	3	17,673	$183,455	17,343
adrenergic bronchodilators	Nov 2016	4	18,465	$1,364,945	16,135
	Oct 2016	5	16,529	$1,312,488	14,437
antihistamines	Nov 2016	5	17,452	$376,768	16,874
	Oct 2016	4	16,718	$367,428	16,190
nonsteroidal anti-inflammatory agents	Nov 2016	6	16,159	$209,773	15,523
	Oct 2016	6	16,252	$230,392	15,638
macrolides	Nov 2016	7	16,085	$388,248	15,630
	Oct 2016	7	13,240	$337,478	12,942
glucocorticoids	Nov 2016	8	14,764	$316,082	14,229
	Oct 2016	8	12,914	$276,355	12,500
atypical antipsychotics	Nov 2016	9	11,645	$1,855,061	10,393
	Oct 2016	10	11,473	$1,884,358	10,338
leukotriene modifiers	Nov 2016	10	11,599	$495,306	11,357
	Oct 2016	9	11,482	$481,099	11,331

TABLE 04D: TOP 10 DRUG CATEGORIES BY DOLLARS PAID IN NOV 2016 (FFS AND CCOs)

Category	Month Year	Rank Paid Amt	# RXs	$ Paid	# Unique Benes
CNS stimulants	Nov 2016	1	25,950	$5,569,135	22,321
	Oct 2016	1	25,309	$5,396,139	21,989
	Sep 2016	1	26,180	$5,528,633	22,523
antiviral combinations	Nov 2016	2	751	$3,100,229	718
	Oct 2016	2	735	$2,930,588	710
	Sep 2016	2	756	$2,798,059	719
insulin	Nov 2016	3	4,638	$2,373,978	3,518
	Oct 2016	4	4,569	$2,347,235	3,480
	Sep 2016	3	4,642	$2,370,303	3,503
factor for bleeding disorders	Nov 2016	4	98	$2,104,520	75
	Oct 2016	3	107	$2,588,774	74
	Sep 2016	4	96	$2,081,553	74
atypical antipsychotics	Nov 2016	5	11,645	$1,855,061	10,393
	Oct 2016	5	11,473	$1,884,358	10,338
	Sep 2016	5	11,926	$2,035,352	10,601
adrenergic bronchodilators	Nov 2016	6	18,465	$1,364,945	16,135
	Oct 2016	6	16,529	$1,312,488	14,437
	Sep 2016	6	15,823	$1,424,435	13,788
antirheumatics	Nov 2016	7	332	$1,324,338	309
	Oct 2016	7	309	$1,200,315	290
	Sep 2016	7	321	$1,309,179	298
inhaled corticosteroids	Nov 2016	8	3,632	$1,150,608	3,568
	Oct 2016	8	3,309	$1,047,927	3,259
	Sep 2016	8	3,041	$933,944	3,002
bronchodilator combinations	Nov 2016	9	2,991	$899,241	2,805
	Oct 2016	9	2,971	$897,951	2,799
	Sep 2016	9	2,974	$897,154	2,758
immune globulins	Nov 2016	10	326	$894,122	218
	Oct 2016	65	21	$137,198	15
	Sep 2016	68	17	$129,059	13

TABLE 04E: TOP 25 DRUG MOLECULES
BY NUMBER OF CLAIMS IN NOV 2016 (FFS and CCOs)

Drug Molecule Therapeutic Category	Oct 2016 # Claims	Nov 2016 # Claims	Nov 2016 $ Paid	Nov 2016 # Unique Benes
amoxicillin / aminopenicillins	17,592	20,629	$214,028	20,193
albuterol / adrenergic bronchodilators	15,862	17,874	$1,003,902	15,697
acetaminophen-hydrocodone / narcotic analgesic combinations	17,082	17,069	$187,564	15,772
azithromycin / macrolides	12,519	15,192	$293,750	14,803
cetirizine / antihistamines	11,393	11,781	$265,227	11,593
montelukast / leukotriene modifiers	11,481	11,598	$495,211	11,356
lisdexamfetamine / CNS stimulants	8,628	8,857	$2,328,644	8,552
prednisolone / glucocorticoids	7,098	8,471	$257,771	8,172
ibuprofen / nonsteroidal anti-inflammatory agents	7,635	7,796	$66,129	7,633
amoxicillin-clavulanate / penicillins/beta-lactamase inhibitors	6,362	7,501	$377,207	7,367
gabapentin / gamma-aminobutyric acid analogs	7,226	7,172	$109,778	6,771
fluticasone nasal / nasal steroids	6,694	7,023	$385,139	6,974
omeprazole / proton pump inhibitors	6,787	6,932	$51,184	6,755
amlodipine / calcium channel blocking agents	6,674	6,807	$22,949	6,598
amphetamine-dextroamphetamine / CNS stimulants	6,379	6,523	$742,956	5,567
cefdinir / third generation cephalosporins	4,887	6,188	$427,903	6,050
methylphenidate / CNS stimulants	5,877	5,971	$1,286,121	5,300
clonidine / antiadrenergic agents, centrally acting	5,558	5,712	$120,847	5,390
ondansetron / 5HT3 receptor antagonists	4,924	5,681	$80,048	5,530
sulfamethoxazole-trimethoprim / sulfonamides	5,554	5,120	$91,173	5,035
lisinopril / angiotensin converting enzyme inhibitors	4,671	4,652	$13,547	4,537
ethinyl estradiol-norgestimate / contraceptives	4,393	4,459	$104,714	4,223
guanfacine / antiadrenergic agents, centrally acting	4,215	4,276	$94,303	4,051
ranitidine / H2 antagonists	4,104	4,088	$199,724	3,966
metformin / biguanides	3,864	3,875	$49,089	3,768

TABLE 04F: TOP 25 DRUG MOLECULES BY DOLLARS PAID IN NOV 2016 (FFS and CCOs)

Drug Molecule Therapeutic Category	Oct 2016 $ Paid	Nov 2016 $ Paid	Nov 2016 # Claims	Nov 2016 # Unique Benes
lisdexamfetamine / CNS stimulants	$2,261,761	$2,328,644	8,857	8,552
methylphenidate / CNS stimulants	$1,268,400	$1,286,121	5,971	5,300
ledipasvir-sofosbuvir / antiviral combinations	$1,230,805	$1,197,537	36	34
albuterol / adrenergic bronchodilators	$904,750	$1,003,902	17,874	15,697
antihemophilic factor / factor for bleeding disorders	$969,642	$996,510	34	21
insulin glargine / insulin	$823,643	$838,344	1,848	1,780
adalimumab / antirheumatics	$743,833	$812,022	149	144
budesonide / inhaled corticosteroids	$720,664	$794,635	1,727	1,704
palivizumab / immune globulins	$0	$782,067	305	202
deferasirox / chelating agents	$668,177	$753,628	74	69
amphetamine-dextroamphetamine / CNS stimulants	$706,008	$742,956	6,523	5,567
dexmethylphenidate / CNS stimulants	$631,094	$662,616	3,248	2,734
anti-inhibitor coagulant complex / factor for bleeding disorders	$1,169,957	$657,293	6	4
insulin aspart / insulin	$654,808	$653,155	1,183	1,121
somatropin / growth hormones	$683,170	$610,353	149	144
aripiprazole / atypical antipsychotics	$566,989	$589,774	2,798	2,633
pregabalin / gamma-aminobutyric acid analogs	$570,012	$575,857	1,405	1,361
lurasidone / atypical antipsychotics	$519,478	$544,563	459	436
montelukast / leukotriene modifiers	$481,005	$495,211	11,598	11,356
cefdinir / third generation cephalosporins	$353,556	$427,903	6,188	6,050
etanercept / antirheumatics	$353,086	$392,662	91	83
insulin detemir / insulin	$368,348	$390,959	782	747
efavirenz/emtricitabine/tenofovir / antiviral combinations	$387,276	$388,616	155	152
fluticasone nasal / nasal steroids	$371,089	$385,139	7,023	6,974
cobicistat/elvitegravir/emtricitabine/tenofov / antiviral combinations	$322,825	$379,011	136	128

TABLE 04G: TOP 25 DRUG MOLECULES
BY CHANGE IN NUMBER OF CLAIMS FROM SEP 2016 TO NOV 2016 (FFS and CCOs)

Drug Molecule	Sep 2016 # Claims	Oct 2016 # Claims	Nov 2016 # Claims	Nov 2016 $ Paid	Nov 2016 # Unique Benes
amoxicillin / aminopenicillins	16,716	17,592	20,629	$214,028	20,193
azithromycin / macrolides	12,046	12,519	15,192	$293,750	14,803
albuterol / adrenergic bronchodilators	14,898	15,862	17,874	$1,003,902	15,697
prednisolone / glucocorticoids	6,201	7,098	8,471	$257,771	8,172
cefdinir / third generation cephalosporins	4,519	4,887	6,188	$427,903	6,050
amoxicillin-clavulanate / penicillins/beta-lactamase inhibitors	6,071	6,362	7,501	$377,207	7,367
ondansetron / 5HT3 receptor antagonists	4,455	4,924	5,681	$80,048	5,530
cetirizine / antihistamines	10,842	11,393	11,781	$265,227	11,593
codeine-guaifenesin / upper respiratory combinations	1,064	1,202	1,710	$23,480	1,687
promethazine / antihistamines	3,301	3,555	3,822	$44,197	3,606
oseltamivir / neuraminidase inhibitors	232	423	654	$135,365	653
prednisone / glucocorticoids	3,234	3,305	3,639	$21,946	3,535
budesonide / inhaled corticosteroids	1,324	1,554	1,727	$794,635	1,704
fluticasone nasal / nasal steroids	6,632	6,694	7,023	$385,139	6,974
dextromethorphan-promethazine / upper respiratory combinations	685	758	1,060	$7,882	1,030
montelukast / leukotriene modifiers	11,250	11,481	11,598	$495,211	11,356
cefprozil / second generation cephalosporins	1,006	1,069	1,336	$69,537	1,319
brompheniramine/dextromethorphan/pse / upper respiratory combinations	400	494	708	$14,161	696
palivizumab / immune globulins	0	0	305	$782,067	202
benzonatate / antitussives	862	912	1,139	$11,184	1,097
ciprofloxacin-dexamethasone otic / otic steroids with anti-infectives	610	575	780	$159,232	764
pantoprazole / proton pump inhibitors	1,386	1,443	1,551	$42,160	1,508
beclomethasone / inhaled corticosteroids	1,395	1,468	1,544	$280,658	1,521
clarithromycin / macrolides	701	661	839	$59,264	830
penicillin v potassium / natural penicillins	1,387	1,408	1,506	$15,268	1,408

TABLE 04H: TOP 25 DRUG MOLECULES AND INDIVIDUAL PRODUCT DETAILS BY CHANGE IN AMOUNT PAID FROM SEP 2016 TO NOV 2016 (FFS and CCOs)

Drug Molecule	Sep 2016 $ Paid	Oct 2016 $ Paid	Nov 2016 $ Paid	Nov 2016 # Claims	Nov 2016 # Unique Benes
palivizumab / immune globulins	$0	$0	$782,067	305	202
sofosbuvir-velpatasvir / antiviral combinations	$78,952	$236,851	$315,799	12	11
anti-inhibitor coagulant complex / factor for bleeding disorders	$432,821	$1,169,957	$657,293	6	4
budesonide / inhaled corticosteroids	$611,438	$720,664	$794,635	1,727	1,704
albuterol / adrenergic bronchodilators	$861,201	$904,750	$1,003,902	17,874	15,697
pyrimethamine / miscellaneous antimalarials	$71,281	$118,802	$190,083	3	2
deferasirox / chelating agents	$641,954	$668,177	$753,628	74	69
cefdinir / third generation cephalosporins	$316,702	$353,556	$427,903	6,188	6,050
oseltamivir / neuraminidase inhibitors	$47,635	$87,579	$135,365	654	653
amoxicillin-clavulanate / penicillins/beta-lactamase inhibitors	$298,999	$307,826	$377,207	7,501	7,367
cobicistat/elvitegravir/emtricitabine/tenofov / antiviral combinations	$306,509	$322,825	$379,011	136	128
prednisolone / glucocorticoids	$185,404	$220,652	$257,771	8,471	8,172
ivacaftor-lumacaftor / CFTR combinations	$189,536	$126,351	$251,611	13	12
azithromycin / macrolides	$232,978	$249,850	$293,750	15,192	14,803
elbasvir-grazoprevir / antiviral combinations	$19,220	$19,220	$76,880	4	4
c1 esterase inhibitor, human / factor for bleeding disorders	$0	$0	$56,570	1	1
imatinib / BCR-ABL tyrosine kinase inhibitors	$132,736	$163,516	$186,622	20	19
elosulfase alfa / lysosomal enzymes	$0	$0	$45,789	3	1
dasatinib / BCR-ABL tyrosine kinase inhibitors	$49,039	$54,329	$94,729	10	8
lurasidone / atypical antipsychotics	$499,781	$519,478	$544,563	459	436
amoxicillin / aminopenicillins	$169,480	$182,553	$214,028	20,629	20,193
clobazam / benzodiazepine anticonvulsants	$256,010	$270,382	$296,380	189	170
amphetamine-dextroamphetamine / CNS stimulants	$704,868	$706,008	$742,956	6,523	5,567
insulin detemir / insulin	$355,097	$368,348	$390,959	782	747
antihemophilic factor-von willebrand factor / factor for bleeding disorders	$241,619	$219,182	$276,646	9	6

TABLE 04I: 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 SEP 2016 TO NOV 2016 (FFS and CCOs)

Drug Product Therapeutic Category	Nov 2016 # Claims	Nov 2016 $ Paid	Nov 2016 Avr. Paid Per Rx	Nov 2016 Avr. Units Per Rx	Sep 2016 Paid Per Unit	Oct 2016 Paid Per Unit	Nov 2016 Paid Per Unit	Percent Change
rizatriptan 10 mg tablet / antimigraine agents (P)	119	$3,663	$30.78	10	$2.02	$2.42	$2.53	25.3%
Adderall XR (amphetamine-dextroamphetamine) 5 mg capsule, extended release / CNS stimulants (P)	120	$25,312	$210.93	29	$5.98	$6.16	$7.25	21.3%
Adderall XR (amphetamine-dextroamphetamine) 10 mg capsule, extended release / CNS stimulants (P)	546	$112,454	$205.96	29	$5.71	$6.16	$6.91	20.9%
Focalin XR (dexmethylphenidate) 30 mg capsule, extended release / CNS stimulants	113	$33,455	$296.06	30	$8.13	$8.11	$9.73	19.7%
Focalin XR (dexmethylphenidate) 15 mg capsule, extended release / CNS stimulants	162	$51,033	$315.02	30	$8.86	$10.37	$10.49	18.4%
Focalin XR (dexmethylphenidate) 20 mg capsule, extended release / CNS stimulants	209	$70,796	$338.74	31	$9.40	$9.33	$10.77	14.5%
zonisamide 100 mg capsule / carbonic anhydrase inhibitor anticonvulsants (P)	377	$50,438	$133.79	89	$1.24	$1.37	$1.42	14.2%
Adderall XR (amphetamine-dextroamphetamine) 20 mg capsule, extended release / CNS stimulants (P)	881	$179,865	$204.16	31	$5.81	$5.81	$6.40	10.3%
Latuda (lurasidone) 40 mg tablet / atypical antipsychotics	151	$163,102	$1,080.15	31	$32.36	$34.56	$35.53	9.8%
Latuda (lurasidone) 60 mg tablet / atypical antipsychotics	116	$130,894	$1,128.40	32	$32.36	$34.27	$35.50	9.7%
Adderall XR (amphetamine-dextroamphetamine) 30 mg capsule, extended release / CNS stimulants (P)	817	$159,332	$195.02	30	$5.77	$6.17	$6.31	9.3%
fluconazole 200 mg tablet / azole antifungals	275	$5,447	$19.81	8	$1.03	$1.02	$1.11	7.6%
Focalin XR (dexmethylphenidate) 10 mg capsule, extended release / CNS stimulants	181	$55,694	$307.70	30	$9.74	$10.81	$10.34	6.2%

TABLE 04I: 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 SEP 2016 TO NOV 2016 (FFS and CCOs)

Drug Product Therapeutic Category	Nov 2016 # Claims	Nov 2016 $ Paid	Nov 2016 Avr. Paid Per Rx	Nov 2016 Avr. Units Per Rx	Sep 2016 Paid Per Unit	Oct 2016 Paid Per Unit	Nov 2016 Paid Per Unit	Percent Change
phenazopyridine 100 mg tablet / miscellaneous genitourinary tract agents	136	$3,922	$28.84	13	$1.57	$1.49	$1.65	5.5%
nifedipine 60 mg tablet, extended release / calcium channel blocking agents (P)	278	$13,191	$47.45	33	$1.25	$1.26	$1.30	3.5%

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MISSISSIPPI MEDICAID PHARMACY PROGRAMS: DEMOGRAPHICS, UTILIZATION AND COMORBIDITIES

BACKGROUND

An important function of Mississippi Medicaid retrospective drug utilization review (DUR) is to assure comparability across the three pharmacy programs: fee-for-service (FFS), UnitedHealth Care (UHC) and Magnolia. MS-DUR routinely prepares and presents to the DUR Board results from utilization analyses for the Division of Medicaid (DOM) as a whole, as well as for each pharmacy program. In most analyses, the three programs would be expected to have similar results when the universal preferred drug list (UPDL) and other clinical criteria are implemented consistently across programs. However, there are times that differences between FFS and the two coordinated care (CCO) organizations' programs may exist due to population differences rather than inconsistent implementation of clinical guidelines. This report helps explain what and how population differences exist between the three programs and how these differences may account for differences in utilization that may appear between FFS and the CCO programs.

METHODS

A retrospective analysis was conducted using DOM's pharmacy and medical claims for the period July 1, 2015 through June 30, 2016 – State Fiscal Year 2016 (SFY 2016). The prevalences of comorbidities and potentially disabling conditions were identified using ICD-9/ICD-10 codes and the number of claim types specified by the Centers for Medicare and Medicaid Services (CMS) Chronic Condition Warehouse (CCW).[1] The CCW uses expert panels to determine the appropriate ICD codes and the number and type of claims required in order to reliably detect chronic conditions using administrative claims data. The CCW criteria for identifying some chronic conditions includes a two or three year lookback period because of the infrequency with which the condition would be recorded as a reason for treatment in medical claims. For these conditions, medical claims from SFY 2015 and SFY 2014 were included when they contained ICD codes for a target condition.

Table 1 summarizes the CCW algorithm for each chronic condition and other chronic or potentially disabling conditiosn included in this analysis. As seen in Table 1, the most common algorithm for these conditions is the presence of a target ICD code in at least one (1) inpatient claim or at least two (2) outpatient claims during the observation year. Hemophilia is not a condition included by the CCW but was added due to its importance in Mississippi Medicaid.

[1] https://www.ccwdata.org/web/guest/condition-categories accessed 12/15/16.

TABLE 1: CMS Chronic Condition Warehouse Algorithms for Chronic Conditions and Other Chronic or Potentially Disabling Conditions		
Condition	**Number/Type of Claims With Dx Code Required**	**Years Lookback**
Acquired hypothyroidism	1 inpatient OR 2 outpatient	1
Anxiety disorders		
Asthma		
Atrial Fibrillation		
Attention deficit / hyperactivity disorder (ADHD)		
Autism		
Benign Prostatic Hyperplasia		
Bipolar disorder		
Cancer - breast		
Cancer - colorectal		
Cancer - endometrial		
Cancer - lung		
Cancer - prostate		
Cerebral palsy		
Chronic Kidney Disease (CKD)		
Chronic obstructive pulmonary disease (COPD) and bronchiectasis		
Cystic fibrosis and other metabolic developmental disorders		
Diabetes		
Epilepsy		
Hemophilia *		
Hepatitis C		
Human immunodeficiency virus and acquired immunodeficiency syndrome (HIV/AIDS)		
Hyperlipidemia		
Hypertension		
Migraine and chronic headache		
Multiple sclerosis and transverse myelitis		
Muscular dystrophy		
Obesity		
Osteoporosis		
Peripheral vascular disease (PVD)		
Personality disorders		
Post-traumatic stress disorder (PTSD)		
Schizophrenia and other psychotic disorders		
Stroke		
Anemia	1 inpatient / outpatient	1
Depression		
Acute Myocardial infarction	1 inpatient	1
Hip/pelvic fracture		
Heart failure	1 inpatient / outpatient	2
Ischemic Heart Disease		
Rheumatoid arthritis / osteoarthritis	2 inpatient / outpatient claims	2
Alzheimer's disease	1 inpatient / outpatient	3
Alzheimer's disease and related disorders or senile dementia		

** Hemophilia is not included in the CCW condition list but was added using algorithms and ICD codes typically used in published research.*

RESULTS

Information about all prescription claims during SFY 2016 is displayed in Table 2. A total of 519,522 unique beneficiaries were enrolled in Medicaid for at least one month during the SFY 2016. When compared to the FFS pharmacy program, each of the CCO programs have almost twice as many unique beneficiaries enrolled. As noted in the resource utilization reports presented to the DUR Board, the average amount paid per prescription in the FFS program is significantly higher than in the two CCO programs. The higher per prescription cost in the FFS program can be attributed to the older FFS population and a greater percentage of chronic conditions. The two CCO programs are very similar with respect to average paid per prescription and the number of unique prescribers and pharmacies used during SFY 2016.

TABLE 2: Prescription Utilization By Program SFY 2016 (Includes all prescription claims)

	FFS	UHC	Magnolia	Total
Number of Unique Beneficiaries Served[a]	129,186	229,890	230,731	519,522
Number of Prescription Fills	1,129,212	2,389,474	2,792,979	6,311,665
Total Paid for Prescriptions	$157,126,474	$211,989,052	$238,705,030	$607,820,555
Average Paid / Prescription	$139.15	$88.72	$85.47	$96.30
Number of Unique Prescribers	11,502	13,952	15,020	19,696
Number of Unique Pharmacies	1,590	809	836	1,597

[a] *Beneficiaries attributed to pharmacy program at time of prescription claim. Beneficiaries may be counted in more than one program.*

It is critical that beneficiaries be enrolled for a sufficient number of months during the observation year in order to accurately estimate the prevalence of comorbidities in a population. The CCW algorithms are based on continuous enrollment for the observation year. Therefore, our analysis of chronic conditions was limited to beneficiaries continuously enrolled in Medicaid throughout the SFY 2016. For reporting purposes, beneficiaries were attributed to the pharmacy program they were enrolled in during June 2016. Demographics of the beneficiaires in each pharmacy program are reported in Table 3. The FFS program differed significantly from the two CCO programs based on gender, race and age. Almost all children have been moved to the CCOs; thus the FFS population is comprised of a significantly older population.

TABLE 3: Demographic Characteristics of Beneficiaries Continuously Enrolled During SFY 2016[a]					
		FFS	UHC	Magnolia	Total
TOTAL		51,000	213,975	217,090	482,065
Gender *	Female	32,952 64.6%	115,635 54.0%	120,048 55.3%	268,635
	Male	18,046 35.4%	98,340 46.0%	97,042 44.7%	213,428
Race *	Caucasian	17,166 33.7%	71,168 33.3%	64,657 29.8%	152,991
	African American	26,388 51.7%	129,543 60.5%	139,220 64.1%	295,151
	Hispanic	884 1.7%	6,368 3.0%	5,642 2.6%	12,894
	Amer Indian	2,579 5.1%	162 0.1%	302 0.1%	3,043
	Other	3,983 7.8%	6,734 3.1%	7,269 3.3%	17,986
Age * (as or June 30, 2016)	0 - 11	12,333 24.2%	113,614 53.1%	111,391 51.3%	237,338
	12 - 17	7,375 14.5%	50,341 23.5%	47,962 22.1%	105,678
	18 - 44	21,561 42.3%	36,950 17.3%	40,334 18.6%	98,845
	45 - 64	6,749 13.2%	13,037 6.1%	17,354 8.0%	37,140
	65+	2,982 5.8%	33 0.0%	49 0.0%	3,064

[a] *Beneficiaries:*
- Includes only beneficiaries continuously enrolled for the year and not dual eligible or in long term care.
- Beneficiaries are attributed to the pharmacy program they were enrolled in during June 2016.
** Significant difference across pharmacy programs ($p < 0.001$).*

Tables 4 – 13 report the number and prevalence rate for selected chronic conditions and potentially disabling conditions within each pharmacy program. It is important to note that the rates reported are conservative estimates of the true prevalence of each condition. Chronic conditions can only be identified from admistrative claims data when medical care is delivered and the condition is coded as a reason for the service. Existing chronic conditions that are not being actively treated at the time are typically not recorded on claims.

For every condition except "migraines and chronic headaches", the prevalence of each chronic condition was significantly higher in the FFS program. For most conditions, the prevalence in the FFS program was two to three times as high as in the CCO programs.

TABLE 4: Diseases of the Circulatory System[a] Among Beneficiaries Continuously Enrolled During SFY 2016[b]				
	FFS	UHC	Magnolia	All Programs
TOTAL Number of Beneficiaries	51,000	213,975	217,090	482,065
Acute Myocardial infarction *	130 0.25%	215 0.10%	238 0.11%	583 0.12%
Atrial Fibrillation*	322 0.63%	402 0.19%	495 0.23%	1,219 0.25%
Heart failure *	1,319 2.59%	1,858 0.87%	2,480 1.14%	5,657 1.17%
Hypertension *	3,429 6.72%	6,294 2.94%	8,396 3.87%	18,119 3.76%
Ischemic Heart Disease *	1,427 2.80%	2,457 1.15%	3,269 1.51%	7,153 1.48%
Peripheral vascular disease (PVD) *	449 0.88%	675 0.32%	903 0.42%	2,027 0.42%
Stroke *	719 1.41%	562 0.26%	703 0.32%	1,984 0.41%

[b] *Beneficiaries:*
- Includes only beneficiaries continuously enrolled for the year and not dual eligible or in long term care.
- Beneficiaries are attributed to the pharmacy program they were enrolled in during June 2016.
** Significant difference across pharmacy programs (p < 0.001).*

Beneficiaries identified as having a diagnosis of hemophilia are assigned to the FFS program, which is depicted in in Table 5. Although beneficiaries with hemophilia represent a small percentage of Medicaid beneficiaries the per beneficiary costs for treating hemophilia patients is very high. This is one major contributor to the higher average per prescription cost in the FFS program.

TABLE 5: Diseases of the Blood, Blood-Forming Organs and Certain Disorders Involving the Immune Mechanism[a] Among Beneficiaries Continuously Enrolled During SFY 2016[b]				
	FFS	UHC	Magnolia	All Programs
TOTAL Number of Beneficiaries	51,000	213,975	217,090	482,065
Anemia *	4,316 8.46%	10,923 5.10%	12,402 5.71%	27,641 5.73%
Hemophilia *	89 0.17%	1 0.00%	3 0.00%	93 0.02%

[b] *Beneficiaries:*
- Includes only beneficiaries continuously enrolled for the year and not dual eligible or in long term care.
- Beneficiaries are attributed to the pharmacy program they were enrolled in during June 2016.
** Significant difference across pharmacy programs (p < 0.001).*

TABLE 6: Endocrine, Nutritional and Metabolic Disorders[a] Among Beneficiaries Continuously Enrolled During SFY 2016[b]				
	FFS	**UHC**	**Magnolia**	**All Programs**
TOTAL Number of Beneficiaries	51,000	213,975	217,090	482,065
Acquired hypothyroidism *	887 1.74%	1,701 0.79%	2,134 0.98%	4,722 0.98%
Cystic fibrosis and other metabolic developmental dis	152 0.30%	223 0.10%	207 0.10%	582 0.12%
Diabetes *	3,013 5.91%	5,601 2.62%	7,414 3.42%	16,028 3.32%
Hyperlipidemia *	2,415 4.74%	5,184 2.42%	7,129 3.28%	14,728 3.06%
Obesity *	2369 4.65%	5487 2.56%	6828 3.15%	14,684 3.05%

[b] *Beneficiaries:*
- *Includes only beneficiaries continuously enrolled for the year and not dual eligible or in long term care.*
- *Beneficiaries are attributed to the pharmacy program they were enrolled in during June 2016.*

** Significant difference across pharmacy programs (p < 0.001).*

TABLE 7: Diseases of the Respiratory System[a] Among Beneficiaries Continuously Enrolled During SFY 2016[b]				
	FFS	**UHC**	**Magnolia**	**All Programs**
TOTAL Number of Beneficiaries	51,000	213,975	217,090	482,065
Asthma *	3571 7.00%	13213 6.18%	13966 6.43%	30,750 6.38%
Chronic obstructive pulmonary disease (COPD) and bronchiectasis *	1,498 2.94%	3,947 1.84%	4,720 2.17%	10,165 2.11%

[b] *Beneficiaries:*
- *Includes only beneficiaries continuously enrolled for the year and not dual eligible or in long term care.*
- *Beneficiaries are attributed to the pharmacy program they were enrolled in during June 2016.*

** Significant difference across pharmacy programs (p < 0.001).*

TABLE 8: Diseases of the Musculoskeletal System and Connective Tissue[a] Among Beneficiaries Continuously Enrolled During SFY 2016[b]				
	FFS	**UHC**	**Magnolia**	**All Programs**
TOTAL Number of Beneficiaries	51,000	213,975	217,090	482,065
Hip/pelvic fracture **	31 0.06%	71 0.03%	80 0.04%	182 0.04%
Osteoporosis *	106 0.21%	171 0.08%	202 0.09%	479 0.10%
Rheumatoid arthritis / osteoarthritis *	2,060 4.04%	5,037 2.35%	6,049 2.79%	13,146 2.73%

[b] *Beneficiaries:*
- *Includes only beneficiaries continuously enrolled for the year and not dual eligible or in long term care.*
- *Beneficiaries are attributed to the pharmacy program they were enrolled in during June 2016.*

** Significant difference across pharmacy programs (p < 0.001).*

*** Significant difference across pharmacy programs (p < 0.05).*

TABLE 9: Diseases of the Nervous System[a] Among Beneficiaries Continuously Enrolled During SFY 2016[b]				
	FFS	**UHC**	**Magnolia**	**All Programs**
TOTAL Number of Beneficiaries	51,000	213,975	217,090	482,065
Alzheimer's disease *	44 0.09%	18 0.01%	14 0.01%	76 0.02%
Alzheimer's disease and related disorders or senile dementia *	308 0.60%	404 0.19%	450 0.21%	1,162 0.24%
Cerebral palsy *	893 1.75%	304 0.14%	320 0.15%	1,517 0.31%
Epilepsy *	1432 2.81%	2029 0.95%	2199 1.01%	5,660 1.17%
Migraine and chronic headache	585 1.15%	2607 1.22%	2699 1.24%	5,891 1.22%
Multiple sclerosis and transverse myelitis *	105 0.21%	139 0.06%	166 0.08%	410 0.09%
Muscular dystrophy *	101 0.20%	54 0.03%	83 0.04%	238 0.05%

[b] *Beneficiaries:*
- *Includes only beneficiaries continuously enrolled for the year and not dual eligible or in long term care.*
- *Beneficiaries are attributed to the pharmacy program they were enrolled in during June 2016.*

** Significant difference across pharmacy programs (p < 0.001).*

TABLE 10: Diseases of the Genitourinary System[a] Among Beneficiaries Enrolled During SFY 2016[b]				
	FFS	UHC	Magnolia	All Programs
TOTAL Number of Beneficiaries	51,000	213,975	217,090	482,065
Benign Prostatic Hyperplasia *	151 0.30%	192 0.09%	283 0.13%	626 0.13%
Chronic Kidney Disease *	1,996 3.91%	3,684 1.72%	4,453 2.05%	10,133 2.10%

[b] *Beneficiaries:*
- Includes only beneficiaries continuously enrolled for the year and not dual eligible or in long term care.
- Beneficiaries are attributed to the pharmacy program they were enrolled in during June 2016.
** Significant difference across pharmacy programs (p < 0.001).*

The prevalence of Hepatitis C is higher in the FFS program, but this difference is barely significant statistically. Approximately one-third of all beneficiaries in SFY 2016 were identified as having Hepatitis C.

TABLE 11: Certain Infectious and Parasitic Diseases[a] Among Beneficiaries Continuously Enrolled During SFY 2016[b]				
	FFS	UHC	Magnolia	All Programs
TOTAL Number of Beneficiaries	51,000	213,975	217,090	482,065
Hepatitis C **	192 0.38%	624 0.29%	704 0.32%	1,520 0.32%
Human immunodeficiency virus and acquired immunodeficiency syndrome (HIV/AIDS) *	101 0.20%	387 0.18%	551 0.25%	1,039 0.22%

[b] *Beneficiaries:*
- Includes only beneficiaries continuously enrolled for the year and not dual eligible or in long term care.
- Beneficiaries are attributed to the pharmacy program they were enrolled in during June 2016.
** Significant difference across pharmacy programs (p < 0.001).*
*** Significant difference across pharmacy programs (p < 0.05).*

TABLE 12: Mental, Behavioral and Neurodevelopmental Disorders[a] Among Beneficiaries Continuously Enrolled During SFY 2016[b]				
	FFS	UHC	Magnolia	All Programs
TOTAL Number of Beneficiaries	51,000	213,975	217,090	482,065
Anxiety disorders *	2,695 5.28%	9,113 4.26%	9,730 4.48%	21,538 4.47%
Attention deficit / hyperactivity disorder (ADHD) *	4,877 9.56%	17,362 8.11%	16,257 7.49%	38,496 7.99%
Autism *	1,111 2.18%	1,095 0.51%	956 0.44%	3,162 0.66%
Bipolar disorder *	1,941 3.81%	5,025 2.35%	5,299 2.44%	12,265 2.54%
Depression *	4,036 7.91%	12,244 5.72%	13,616 6.27%	29,896 6.20%
Personality disorders *	408 0.80%	1103 0.52%	1169 0.54%	2,680 0.56%
Post-traumatic stress disorder (PTSD) *	352 0.69%	1105 0.52%	1248 0.57%	2,705 0.56%
Schizophrenia and other psychotic disorders *	1,144 2.24%	3,105 1.45%	3,683 1.70%	7,932 1.65%

[b] *Beneficiaries:*
- Includes only beneficiaries continuously enrolled for the year and not dual eligible or in long term care.
- Beneficiaries are attributed to the pharmacy program they were enrolled in during June 2016.
** Significant difference across pharmacy programs (p < 0.001).*

TABLE 13: Neoplasms[a] Among Beneficiaries Continuously Enrolled During SFY 2016[b]				
	FFS	UHC	Magnolia	All Programs
TOTAL Number of Beneficiaries	51,000	213,975	217,090	482,065
Breast cancer *	136 0.27%	241 0.11%	314 0.14%	691 0.14%
Colorectal cancer *	113 0.22%	99 0.05%	141 0.06%	353 0.07%
Endometrial cancer **	13 0.03%	24 0.01%	42 0.02%	79 0.02%
Lung cancer *	82 0.16%	113 0.05%	123 0.06%	318 0.07%
Prostate cancer *	57 0.11%	82 0.04%	108 0.05%	247 0.05%

[b] *Beneficiaries:*
- Includes only beneficiaries continuously enrolled for the year and not dual eligible or in long term care.
- Beneficiaries are attributed to the pharmacy program they were enrolled in during June 2016.
** Significant difference across pharmacy programs (p < 0.001).*
*** Significant difference across pharmacy programs (p < 0.05).*

Table 14 summarizes the number of chronic conditions identified for beneficiaries enrolled continuously during SFY 2016. Both CCO programs had approximately 12% more beneficiaries without any of the chronic conditions identified. Beneficiaries in the FFS program averaged 50% more chronic conditions compared to beneficiaries in the two CCO programs.

TABLE 14: Number of Chronic Conditions Among Beneficiaries Continuously Enrolled During SFY 2016[a]

		FFS	UHC	Magnolia	Total
Total number of beneficiaries		51,000	213,975	217,090	482,065
Number of Chronic Conditions	0	30297 59.4%	153972 72.0%	153333 70.6%	337602 70.0%
	1	9642 18.9%	34584 16.2%	34716 16.0%	78942 16.4%
	2	4465 8.8%	11037 5.2%	11820 5.4%	27322 5.7%
	3	2335 4.6%	5573 2.6%	6179 2.8%	14087 2.9%
	4	1431 2.8%	3078 1.4%	3759 1.7%	8268 1.7%
	5 - 9	2459 4.8%	5036 2.4%	6380 2.9%	13875 2.9%
	10 - 14	351 0.7%	658 0.3%	854 0.4%	1863 0.4%
	15 - 19	19 0.0%	37 0.0%	49 0.0%	105 0.0%
	20 or more	1 0.0%	0 0.0%	0 0.0%	1 0.0%
	Mean number of Comorbidities *	1.00	0.58	0.66	0.66

[a] *Beneficiaries:*
- Includes only beneficiaries continuously enrolled for the year and not dual eligible or in long term care.
- Beneficiaries are attributed to the pharmacy program they were enrolled in during June 2016.
** Significant difference across pharmacy programs ($p < 0.001$).*

CONCLUSIONS AND RECOMMENDATIONS AND BOARD ACTION

Although only about 22% of current beneficiaries receive services through the FFS program, these are older beneficiaries who have significantly more chronic conditions. Therefore it would be expected that the FFS program would have greater utilization per beneficiary and would have a higher per beneficiary cost/month for both pharmacy and medical services.

The populations of the two CCO programs are very similar with respects to demographics and the prevalence of chronic conditions
The information provided in this report is for informational purposes only and should be useful when MS-DUR monitors for compliance with the Universal PDL. No additional DUR Board action is requested at this time.

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.[1] 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.[2]

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.[3] Adherence to antidepressants is recommended by the American Psychiatric Association (APA) through the maintenance phase in order to prevent relapse and improve outcomes.[2]

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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[1] 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 12th, 2017

[2] 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.

3 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%)
Total	9,675	2,964 (32.8%)	7,877	2,466 (27.3%)	11,232	3,606 (39.9%)	28,784	9,036 (31.4%)

Note: When reporting for calendar year 2015, the measurement period for starting treatment with antidrepressants 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. [1]

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.

[1] 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 25th percentile was 41.0%.
- Based on these numbers, Mississippi Medicaid is currently performing below the 25th 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 25th percentile of 24.9%.

TABLE 2: Percent of Beneficiaries Starting Antidepressant Medication With Depression Diagnosis and

Acute Phase Treatment				
Age group	**FFS**	**UHC**	**MAG**	**TOTAL**
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%)
Total	1,103 (37.2%)	643 (22.5%)	1,107 (38.8%)	2,853 (31.6%)
Continuation Phase Treatment				
Age group	**FFS**	**UHC**	**MAG**	**TOTAL**
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%)
Total	539 (18.2%)	264 (10.7%)	521 (14.5%)	1,324 (14.7%)

Notes:

When reporting for calendar year 2015, the measurement period for starting treatment with antidrepressants 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-persistency 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-persistency 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).

TABLE 3: Beneficiaries Starting Antidepressant Medications: Reasons for Failing Medication Management Measure

	FFS		UHC		MAG		TOTAL	
Age Group	Not On Therapy Last 30 Days	On Therapy But Poor Adherence	Not On Therapy Last 30 Days	On Therapy But Poor Adherence	Not On Therapy Last 30 Days	On Therapy But Poor Adherence	Not On Therapy Last 30 Days	On Therapy But Poor Adherence
	Acute Phase Treatment							
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%)
Total	1,300 (43.9%)	561 (18.9%)	1,311 (53.2%)	512 (20.8%)	1,701 (47.2%)	798 (22.1%)	4,312 (47.7%)	1,871 (20.7%
	Continuation Phase Treatment							
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%)
Total	1,664 (56.1%)	761 (25.7%)	1,546 (62.7%)	656 (26.6%)	2,038 (56.5%)	1,047 (29.0%)	5,248 (58.1%)	2,464 (27.3%

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-persistency 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).

CONCULSIONS 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-persistency 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.

USE OF MULTIPLE PROVIDERS FOR OPIOIDS: IMPACT OF CASH PRESCRIPTIONS AND AFFILIATE PROVIDER IDENTIFIERS ON IDENTIFYING AT RISK BENEFICIARIES

BACKGROUND

In 2015, The Pharmacy Quality Alliance (PQA) approved the quality measure "Use of Opioids from Multiple Providers." This is a measure of the proportion of individuals without cancer receiving prescriptions for opioids from four (4) or more prescribers AND four (4) or more pharmacies during the year being reported. People who see multiple prescribers or use multiple pharmacies have an increased risk of dying from a drug overdoses.[1] Data from the California Prescription Drug Monitoring Program indicates that people with higher daily dosages are more likely to see multiple prescribers or go to multiple pharmacies.[2]

During the February 2015 DUR Board Meeting, the board recommended and approved an educational intervention program to be implemented by MS-DUR based on the quality measures being developed by PQA at that time. The previous educational activity was directed at notifying prescribers when suspected doctor/pharmacy shopping was occurring. This intervention primarily addressed possible abuse and safety problems that could occur from lack of coordination among prescribers.

At the January 2016 DUR Board Meeting, it was recommended that MS-DUR initiate an education intervention based on the Multiple Provider measure. Each month beneficiaries filling an opioid prescription during the previous month are identified if they exceed the criteria of having opioid prescriptions from four (4) physicians and four (4) pharmacies during the previous six months. ALL prescribers and pharmacies involved in the prescriptions contributing to the exception are notified. MS-DUR will also be using the components of this measure, along with other factors, to prepare a quarterly report for DOM identifying benericiaries with a high risk of opioid overdose. This report will be used by DOM Program Integrity (PI) to identify beneficiaries who might benefit from a lock-in program or through enrollment in a medication assisted drug abuse treatment program.

The PQA multiple provider measure can be used as a quality measure for not only comparing programs but also as a quality improvement tool for identifying high-risk beneficiaries for potential intervention efforts. When used as a quality measure, the official technical specifications must be followed. However, when a measure is being used for quality improvement, modifications can be made to improve the utility of the measure.

[1] Paulozzi, et al. A History of Being Prescribed Controlled Substances and Risk of Drug Overdose Death. Pain Medicine 2011.

[2] Han H, Kass PH, Wilsey BL, Li C-S (2012) Individual and County-Level Factors Associated with Use of Multiple Prescribers and Multiple Pharmacies to Obtain Opioid Prescriptions in California. PLoS ONE 7(9): e46246. doi:10.1371/journal.pone.0046246

This analysis examines two potential sources of error when using the measure for quality improvement:

- Underestimates can occur when only administrative claims are available and cash paid prescriptions are not included.
- Overestimates can also occur due to counting providers in the same practice site as multiple providers when individual provider identifiers (IDs) are used.

In an effort to more efficiently identify high-risk beneficiaries for provider notices and for PI review, MS-DUR has evaluated the inclusion of cash prescription for opioids and the use of affiliate provider IDs that count providers in the same facilities as one provider.

METHODS

A retrospective analysis was conducted using Mississippi Medicaid pharmacy administrative claims, linked with Mississippi Prescription Monitoring Program (MPMP) data for the period July 1, 2015 - June 30, 2016. MPMP data were obtained through a memorandum of agreement between Mississippi Medicaid and the Board of Pharmacy. Affiliate provider IDs were created linking prescribers in the same physical practice setting to a single ID and pharmacies in networked chains in the same zip code to a single ID. The PQA measure for use of opioids from multiple providers was calculated according to the measure specifications. Beneficiaries were identified as “provider shopping” (using 4+ prescribers and pharmacies), both with and without the inclusion of cash prescriptions and affiliate provider IDs.

RESULTS

As shown in Table 1, 30,124 beneficiaries were identified as having 2 or more opioid prescriptions for greater than 15 days supply and 26,796 of these beneficiaries had no cancer diagnoses. As quality measure excludes beneficiaries with cancer diagnoses; therefore, our focus is primarily on the results for these beneficiaries. Table 1 reports the results for all beneficiaries meeting the opioid use requirement, with and without the cancer exclusion, thus showing the number of beneficiaries with cancer that are excluded.

- When only administrative claims data *without affiliate provider IDs* was used, 1,390 (5.2%) of beneficiaries were classified as using multiple providers. Including cash payments added 148 (0.6%, p <0.001) more beneficiaries.
- As compared to using only administrative claims without affiliate IDs*, using affiliate provider IDs* reduced the number of beneficiaries meeting the measure criteria 269 (1.0%, p < 0.001).

Table 1: Using Multiple Providers For Opioids Measure: Demographics of Eligible Population and Quality Measure Performance

Characteristic		Without Cancer Exclusion	With Cancer Exclusion
TOTAL Beneficiaries With Opioid Prescriptions		**30,134**	**26,796**
Gender	Female	22,286 (74.0%)	20,037 (74.8%)
	Male	7,848 (26.0%)	6,759 (25.2%)
Race	Caucasian	12,360 (41.0%)	10,898 (40.7%)
	African American	15,401 (51.1%)	13,894 (51.9%)
	Hispanic	99 (0.3%)	89 (0.3%)
	American Indian	46 (0.2%)	44 (0.2%)
	Other	2,228 (7.4%)	1,871 (7.0%)
Age	18 to 44 years	15,596 (51.8%)	14,636 (54.6%)
	45 to 64 years	14,336 (47.6%)	11,993 (44.8%)
	65 years and older	202 (0.7%)	167 (0.6%)
Using Multiple Provider Measure	Without PMP data & without affiliate ID	1,594 (5.3%)	1,390 (5.2%)
	Without PMP data & with affiliate ID*	1,283 (4.3%)	1,121 (4.2%)
	With PMP data & without affiliate ID*	1,781 (5.9%)	1,538 (5.7%)
Using Multiple Physicians (>=4)	Without PMP data & without affiliate ID	7,342 (24.4%)	6,354 (23.7%)
	Without PMP data & with affiliate ID*	5,956 (19.8%)	5,184 (19.3%)
	With PMP data & without affiliate ID*	7,678 (25.5%)	6,645 (24.8%)
Using Multiple Pharmacies (>=4)	Without PMP data & without affiliate ID	2,426 (8.1%)	2,135 (8.0%)
	Without PMP data & with affiliate ID*	2,133 (7.1%)	1,876 (7.0%)
	With PMP data & without affiliate ID*	2,695 (8.9%)	2,360 (8.8%)

** indicates that the measure was significantly different when compared to the case without PMP data and without affiliate ID.*

CONCLUSIONS

Inclusion of cash paid prescriptions and use of affiliate provider IDs makes a statistically significant, although very small numerical difference when identifying beneficiaries using multiple providers for opioids. The small percentage change, although statistically significant, is minimal when used as a quality measure. However, the additional beneficiaries identified by using cash prescriptions may represent some of the higher risk beneficiaries. Similarly, when using affiliate IDs, the reduction in the number of beneficiaries identified as using multiple providers is small and may have little impact on quality measures. However, these beneficiaries represent "false positives" when the measure is being used to identify at risk beneficiaries. MS-DUR plans to use both cash prescriptions and affiliate IDs when identifying beneficiaries at risk of opioid overdose, abuse, and/or diversion.