

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



MISSISSIPPI DIVISION OF  
**MEDICAID**

**February 13, 2014 at 2:00pm**

**Woolfolk Building, Room 117**

**Jackson, MS**

Prepared by:

The University of Mississippi School of Pharmacy

Evidence-Based DUR Initiative, MS-DUR

**MS | DUR**

## Drug Utilization Review Board

Allison Bell, Pharm.D.  
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## 2014 DUR Board Meeting Dates

February 13, 2014  
August 21, 2014

May 15, 2014  
November 20, 2014

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.

Only Mississippi Medicaid beneficiaries with fee-for-service claims are included in the analyses, including dual enrollees with Medicare Part D. MississippiCAN data is not being reported unless otherwise specified. Further, reported dollar figures represent reimbursement to providers and are not representative of overall Medicaid costs. Any reported enrollment data are 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 official PDL list.

**MISSISSIPPI DIVISION OF MEDICAID**  
**OFFICE OF THE GOVERNOR**  
**DRUG UTILIZATION REVIEW BOARD**  
**AGENDA**  
**February 13, 2014**

<b>Welcome</b>	Dennis Smith, R.Ph. (Chair)
<b>Old Business</b>	Dennis Smith, R.Ph. (Chair)
Approval of November 2013 Meeting Minutes	<i>page 6</i>
<b>Resource Utilization Review</b>	Kyle D. Null, Pharm.D., Ph.D.
Enrollment Summary	<i>page 10</i>
Top 10 Drug Movement by Amount Paid*	<i>page 11</i>
Top 10 Drug Movement by Number of Claims	<i>pages 12</i>
<b>Pharmacy Program Update</b>	Shannon Hardwick, R.Ph.
<b>New Business</b>	Kyle D. Null, Pharm.D., Ph.D. &
<i>Special Analysis Projects</i> (short titles)	Ben Banahan, Ph.D.
Multi-Opioid, Multi-Provider Use in Persons without Cancer (Null)	<i>page 14</i>
Analysis of APAP Dose Recommendations by FDA (Null)	<i>page 21</i>
Access to and Utilization of Immunizations Services (Banahan)	<i>page 24</i>
<i>Exceptions Monitoring</i>	
Exceptions Monitoring Criteria Recommendations	<i>page 39</i>
<i>Appendix</i>	
Top 25 Drugs by Amount Paid*	<i>page 43</i>
Top 25 Drugs by Number of Claims	<i>page 48</i>
<b>Next Meeting Information</b>	Dennis Smith, R.Ph. (Chair)

## **DUR Board Meeting Minutes**

**MISSISSIPPI DIVISION OF MEDICAID  
DRUG UTILIZATION REVIEW (DUR) BOARD  
MINUTES OF THE NOVEMBER 21, 2013 MEETING**

<b>DUR Board Members:</b>	<b>Present</b>	<b>Absent</b>
Allison Bell, Pharm.D.	✓	
James R. "Beau" Cox, Pharm.D. (Co-Chair)	✓	
Logan Davis, Pharm.D.	✓	
Lee Greer, M.D.		✓
Antoinette M. Hubble, M.D.		✓
Sarah Ishee, Pharm.D.	✓	
Cherise McIntosh, Pharm.D.	✓	
Jason Parham, M.D.	✓	
Bobby Pactor, M.D.		✓
Sue Simmons, M.D.		✓
Dennis Smith, R.Ph. (Chair)	✓	
Cynthia Undesser, M.D.		✓
<b>Total</b>	<b>7</b>	<b>5</b>

**Also Present:****DOM Staff:**

Judith Clark, R.Ph., DOM Pharmacy Bureau Director; Terri Kirby, R.Ph., DOM Clinical Pharmacist; Tamiko Young; Carmen Robinson; Andrea McNeal, PI; Sue Reno, PI; Wil Ervin

**MS-DUR Staff:**

Kyle Null, Pharm.D., Ph.D., Clinical Director; Ben Banahan, Ph.D., Project Director, Ruchit Shah, Graduate Research Assistant

**Xerox Staff:**

Leslie Leon, Pharm.D.

**Visitors:**

Dan Barbera, Lilly; Ed MacMillan, Abbott; Melanie Vanderpool, Astellas; John Kirby, Sanofi; Tim Hambacher, Otsuka; Teri Breidenbach, Pfizer, Roger Grozinger, BMS; Adam Reno, Walgreens; Jeff Stockard, Walgreens

**Call to Order:** Mr. Dennis Smith, Chairman of the Board, called the meeting to order at 2:00pm.

Dr. McIntosh is expected to arrive late, therefore approval of minutes was deferred until her arrival. Ms. Clark, Pharmacy Director, represented DOM for Ms Hardwick, DUR Coordinator, who was unable to attend.

**Resource Utilization Review:**

Dr. Null discussed changes in the Resource Utilization report. MS-DUR will be adding enrollment data and other "movers and shakers" reports in the following months. Mr. Smith asked if a % change column

could be added. MS-DUR is planning to add % change and share in class. It was also suggested that the report contain a change in utilization comparison to the prior quarter and possibly the prior year.

**Pharmacy Program Update:**

Ms. Clark noted folders were provided containing recent provider notices from the Division of Medicaid. She highlighted a few topics: (1) pharmacy permit renewal time and the need for pharmacy permit renewals to be sent to Xerox, (2) a small number of beneficiaries will be migrating from CHIP to Medicaid, (3) the Preferred Drug List will be updated effective 1/1/2014, (4) OTC formulary items will no longer be covered for long-term care, (5) a new pharmacy standard prior authorization form will be available at the first of 2014, (6) the new Federal mandate that any prescriber for Medicaid covered prescription must be written by a provider enrolled in Medicaid, and (7) DOM will start covering the Zoster vaccine for enrollees 60 and over through the point-of-sale (POS) and medical benefits. Ms. Clark also noted that the Drug Information Service at UMMC will be assisting with the prior authorization process.

Ms. Clark called attention to the Center for Mississippi Health Policy publication and the mention of Division of Medicaid and the Prescription Monitoring Program. Dr. Null briefed board on work with PQA and upcoming studies to be reviewed at the February Board Meeting.

Ms. Clark announced that a provider notice will be coming out soon about Ciprodex age edits and Pulmicort. She also noted that the DOM is working with the MSCAN program to develop a unified preferred drug list. She added that the DOM also wants to develop uniformity as to what drugs are covered through pharmacy or medical only, which is already being done in several other states. Ms. Clark concluded the pharmacy program update by pointing out that GHS has already worked with Texas and West Virginia to accomplish PDL uniformity with the managed Medicaid plans.

**New Business:***Utilization of Elidel and Protopic*

Dr. Null reported on the utilization of Elidel and Protopic due to unusual days supply reported on claims by pharmacies, noting that Magnolia has 1 gm/day and United Healthcare has 2 gr/day limits on these products. A discussion ensued regarding the placement of a quantity limit on Elidel and Protopic, but the general consensus was reached that no action be taken at this time.

*Diabetic Supply DME Claims Analysis*

Dr. Banahan reviewed insulin supply issues related to reimbursement being limited to DME. Several Board members commented that results were very alarming, suggesting that the analysis clearly was in favor of DOM covering diabetic supplies at the POS. The consensus of the Board members was that the current policy should be changed to allow coverage of diabetic supplies at the POS. The vote was deferred until Dr. McIntosh arrived. Ms. Clark recommended that a CE article be prepared jointly by MS-DUR, the P&T Committee, and the DUR Board.

*Adherence to Diabetes Medications*

Dr. Null reviewed a report on adherence to diabetic medications. He reviewed the issue of case-mix adjustments when reviewing outcomes-oriented quality measures. Dr. Ishee pointed out that DUR should look at adherence to more expensive antidiabetic agents since these are less likely to be dropped or switched to cash when prescription limit is reached.

Dr. McIntosh arrived at 3:02pm. The following items were reviewed and votes taken.

Dr. Parham made a motion that the recommendation from MS-DUR regarding reimbursement policy for insulin supplies be approved as printed in packet. Motion was seconded by Dr. Bell. All voted in favor of the motion.

Mr. Smith asked for a motion to accept the minutes from the meeting of August 15, 2013. Dr. Cox made a motion to accept the minutes with a second from Dr. Davis. All voted in favor of the motion.

*Exceptions Monitoring*

Dr. Null reviewed exceptions criteria recommendations. All exceptions monitoring criteria reviewed at this meeting were from FDA recommended safety warnings and labeling changes for things MS-DUR can monitor in a meaningful way. Dr. Ishee recommended accepting the exceptions monitoring criteria as a block vote, which was seconded by Dr. McIntosh.

**Other Business:**

Dr. Banahan reviewed the process of ad hoc projects and encouraged the Board to recommended ad hoc projects.

**Next Meeting Information**

Mr. Smith announced that the next meeting date is February 13, 2014 at 2:00p.m. and thanked everyone for making the effort to attend the DUR Board meeting in order to have a quorum. Dr. Null noted that this is one week earlier than normal due to the ADURS conference. The meeting adjourned at 3:21pm.

Submitted,  
Evidence-Based DUR Initiative, MS-DUR



## **Resource Utilization Review**

***Enrollment Statistics for Last 12 Months***

<b>Month</b>	<b>Tot. Enroll</b>	<b>Dual- Eligible</b>	<b>CAN</b>	<b>FFS</b>	<b>LTC</b>	<b>Pharmacy Benefits</b>	<b>&lt;=2</b>	<b>3 - 6</b>	<b>7 - 12</b>	<b>13 - 17</b>	<b>18 - 21</b>	<b>22 - 35</b>	<b>36 - 50</b>	<b>51 - 64</b>
1/2013	666,359	149,551	135,840	380,968	2,771	360,804	31,031	93,237	105,011	70,358	26,635	13,238	6,862	9,668
2/2013	666,201	149,582	138,097	378,522	2,770	358,026	30,552	92,751	104,691	70,336	25,759	12,934	6,655	9,546
3/2013	665,983	149,685	138,926	377,372	2,754	357,055	31,980	92,352	104,313	70,107	24,779	12,847	6,526	9,344
4/2013	666,332	149,581	139,123	377,628	2,744	356,970	33,444	91,830	104,121	69,942	23,900	13,046	6,548	9,306
5/2013	664,817	149,476	139,704	375,637	2,749	354,990	34,605	91,035	103,398	69,668	22,976	12,809	6,397	9,245
6/2013	664,455	149,626	140,577	374,252	2,719	353,055	36,161	90,236	102,884	69,319	21,984	12,352	6,132	9,095
7/2013	665,393	149,760	141,150	374,483	2,732	353,029	37,902	90,028	102,611	69,073	20,999	12,498	6,117	8,860
8/2013	666,233	149,897	140,372	375,964	2,732	354,263	40,275	89,753	102,357	68,869	19,971	12,993	6,284	8,791
9/2013	665,261	150,007	140,708	374,546	2,711	353,110	42,022	89,215	101,946	68,697	18,729	12,839	6,208	8,479
10/2013	662,408	149,946	141,089	371,373	2,711	350,464	43,239	88,405	101,461	68,286	17,559	12,365	5,989	8,161
11/2013	658,915	149,790	141,472	367,653	2,641	346,591	44,616	87,426	100,759	67,886	16,439	11,215	5,498	7,776
12/2013	648,243	147,415	142,608	358,220	2,576	337,216	44,695	85,685	99,318	67,032	14,711	8,810	4,728	7,275

***TOP 10 DRUGS BY CHANGE IN DOLLARS PAID October, 2013 TO December, 2013***

<b>Generic Molecule</b>	<b>Oct 2013 \$ Paid</b>	<b>Nov 2013 \$ Paid</b>	<b>Dec 2013 \$ Paid</b>	<b>Oct 2013 # Claims</b>	<b>Nov 2013 # Claims</b>	<b>Dec 2013 # Claims</b>	<b>Oct 2013 # Benes</b>	<b>Nov 2013 # Benes</b>	<b>Dec 2013 # Benes</b>
Oseltamivir	\$246,822	\$758,812	\$1,232,165	1,572	4,484	7,328	1,562	4,469	5,770
Palivizumab	\$78,864	\$165,953	\$227,955	33	86	122	25	72	62
Tetrabenazine	\$48,390	\$48,390	\$107,706	5	5	10	5	5	4
Leuprolide	\$63,189	\$55,711	\$121,819	28	21	29	27	20	18
Interferon Beta-1a	\$69,317	\$60,481	\$113,510	16	14	25	15	12	11
Deferasirox	\$73,551	\$59,134	\$101,891	17	14	26	17	14	14
Erlotinib	\$11,446	\$35,746	\$36,113	2	6	6	2	5	4
Glatiramer	\$29,186	\$34,049	\$53,499	6	7	11	6	7	6
Idursulfase	\$6,986	\$6,986	\$29,564	1	1	4	1	1	1
Azithromycin	\$340,127	\$364,016	\$362,432	10,584	11,395	11,263	10,351	11,162	8,626

***Only drugs with > \$500 paid (amount reimbursed to pharmacy) in last month are included in detail listing***

**TOP 10 DRUGS BY CHANGE IN NUMBER OF CLAIMS October, 2013 TO December, 2013**

Generic Molecule	Oct 2013 \$ Paid	Nov 2013 \$ Paid	Dec 2013 \$ Paid	Oct 2013 # Claims	Nov 2013 # Claims	Dec 2013 # Claims	Oct 2013 # Benes	Nov 2013 # Benes	Dec 2013 # Benes	Incr. # Claims
Oseltamivir	\$246,822	\$758,812	\$1,232,165	1,572	4,484	7,328	1,562	4,469	5,770	5,756
Brompheniramine/ Dextromethorph/Phenylephrine	\$83,776	\$98,052	\$97,474	9,165	10,715	10,676	8,971	10,482	8,147	1,511
Azithromycin	\$340,127	\$364,016	\$362,432	10,584	11,395	11,263	10,351	11,162	8,626	679
Codeine-Guaifenesin	\$19,344	\$24,707	\$25,636	1,728	2,230	2,387	1,699	2,194	1,857	659
Amoxicillin	\$127,730	\$134,668	\$131,816	11,705	12,226	11,991	11,447	11,986	9,241	286
Guaifenesin	\$4,859	\$5,592	\$6,315	975	1,102	1,255	939	1,066	975	280
Benzonatate	\$4,615	\$5,541	\$6,689	518	644	777	494	600	559	259
Cefdinir	\$277,241	\$288,973	\$291,731	3,386	3,492	3,626	3,325	3,439	2,744	240
Amoxicillin-Clavulanate	\$297,949	\$320,315	\$308,619	4,904	5,206	5,126	4,819	5,136	4,002	222
Antipyrine-Benzocaine Otic	\$12,017	\$13,751	\$14,703	948	1,076	1,160	945	1,074	923	212

*Only drugs with > \$500 paid (amount reimbursed to pharmacy) in last month are included in detail listing*

## **Special Analysis Projects**

## MULTI-OPIOID, MULTI-PROVIDER USE IN PERSONS WITHOUT CANCER

### BACKGROUND

Approximately 10% of patients who are prescribed opioids seek care from multiple doctors and are prescribed high daily doses ( $\geq 100$  mg morphine equivalent dose (MED) per day), and account for 40% of opioid overdoses.<sup>1, 2</sup> Patients exceeding this MED cut-off are at high risk for overdose themselves but may also be diverting or providing drugs to others who are using them without prescriptions. This suggests that prevention of opioid overdose deaths should focus on strategies that target (1) high-dose opioid users as well as (2) persons who seek care from multiple doctors, receive high doses and are likely involved in drug diversion.<sup>3</sup>

The Washington State Agency Medical Directors Group has suggested 120mg MED as a dosage level that should not be exceeded without special consideration.<sup>4</sup> Additionally, CMS' controlled substance overutilization monitoring system (OMS) for the Medicare Part D program currently identifies potential outlier opioid utilization issues at the beneficiary level using the following criteria: 'Excluding patients with cancer or receiving hospice care, beneficiaries whose daily MED is greater than 120mg for at least 90 consecutive days, and who used more than 3 prescribers and more than 3 pharmacies.'<sup>5, 6</sup>

In line with these aforementioned groups, three draft measures have been proposed by the Pharmacy Quality Alliance's (PQA) Medication Safe Use Workgroup to examine the quality of opioid use related to the dose of the medications over time, access to the medications and the combination of both of these criteria.<sup>3</sup>

- **Measure 1 (Opioid Dose Over-utilization):** The percentage of individuals without cancer receiving a daily dosage of opioids greater than 120mg morphine equivalent dose (MED) for 90 days or longer.
- **Measure 2 (Multiple Providers and Multiple Pharmacies):** The percentage of individuals without cancer receiving prescriptions for opioids from four (4) or more prescribers AND four (4) or more pharmacies.
- **Measure 3 (Multi-Provider, Multi-Opioid Use):** The percentage of individuals without cancer receiving prescriptions for opioids greater than 120mg morphine equivalent dose

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<sup>1</sup> Dunn KM, Saunders KW, Rutter CM, et al. Opioid prescriptions for chronic pain and overdose. *Ann Intern Med* 2010;152:85–92.

<sup>2</sup> Bohnert AS, Valenstein M, Bair MJ, et al. Association between opioid prescribing patterns and opioid overdose-related deaths. *JAMA* 2011;305:1315–21.

<sup>3</sup> PQA Medication Safe Use Workgroup. Use of Opioids from Multiple Providers or at High Dosage in Persons Without Cancer.

<sup>4</sup> Interagency Guideline on Opioid Dosing for Chronic Non-cancer Pain: An educational aid to improve care and safety with opioid therapy. Available at: <http://www.agencymeddirectors.wa.gov/Files/OpioidGdline.pdf> Accessed on: Jan 15, 2014.

<sup>5</sup> Memorandum: Medicare Part D Overutilization Monitoring System. Available at: [http://www.amcp.org/uploadedFiles/Production\\_Menu/Policy\\_Issues\\_and\\_Advocacy/Letters,\\_Statements\\_and\\_Analysis\\_-\\_docs/2013/OMS%20HPMS%20Announcement%20Memo\\_FINAL\\_070513.pdf](http://www.amcp.org/uploadedFiles/Production_Menu/Policy_Issues_and_Advocacy/Letters,_Statements_and_Analysis_-_docs/2013/OMS%20HPMS%20Announcement%20Memo_FINAL_070513.pdf) Accessed on: Jan 15, 2014.

<sup>6</sup> CMS Announces Medicare Part D Overutilization Monitoring System (OMS) for Controlled Substances. Available at:

[http://www.amcp.org/uploadedFiles/Production\\_Menu/Policy\\_Issues\\_and\\_Advocacy/Letters,\\_Statements\\_and\\_Analysis\\_-\\_docs/2013/CMS\\_OMS\\_July2013\\_Letterhead\\_Final.pdf](http://www.amcp.org/uploadedFiles/Production_Menu/Policy_Issues_and_Advocacy/Letters,_Statements_and_Analysis_-_docs/2013/CMS_OMS_July2013_Letterhead_Final.pdf) Accessed on: Jan 15, 2014.

(MED) for 90 days or longer, who received opioid prescriptions from four (4) or more prescribers AND four (4) or more pharmacies.

Measure 2 has already been reviewed in previous MS-DUR Board Packets of May and November 2012. After feedback from Program Integrity, discussions with the MS Division of Medicaid and keeping in line with what CMS' OMS and PQA are doing at the national level, MS-DUR made a decision to review this (i.e., Measure 2) and two additional measures (i.e., Measures 1 and 3). The purpose of this analysis was to conduct a sensitivity analysis so as to identify the appropriate thresholds that should be utilized in the numerators of these preliminary measures.

## METHODS

Medicaid fee-for-service beneficiaries aged ≥18 years, with continuous 12 month enrollment, and two or more prescription claims for opioids that total ≥15 days supply on at least two separate days during 2012 were identified in the Mississippi Medicaid administrative claims data. Beneficiaries with Prescription Drug Hierarchical Condition Categories (Rx-HCCs) 8, 9, 10, 11 were excluded from the final sample (representing cancer diagnoses). Representative opioids comprised of those included in the 'CDC Injury Center Morphine Milligram Equivalent (MME) Table.' Morphine Equivalent Dose (MED) was calculated using the following formula:

$$MED = \frac{\text{Submitted Quantity} \times \text{Strength} \times \text{MME Conversion Factor}}{\text{Days Supply}}$$

Unique prescribers and pharmacies were identified by their national provider identifier number.

**RESULTS****Table 1: Denominator**

#	DESCRIPTION	UNIQUE BENEFICIARIES IN 2012	# EXCLUDED
1.	Total Beneficiaries	449,901	-
2.	Continuously Enrolled Beneficiaries	302,411	147,490
3.	Beneficiaries Aged $\geq 18$ Years on December 31, 2012	100,126	202,285
4.	Beneficiaries with a Rx Claim of an Opioid Med	43,397	56,729
5.	Beneficiaries with $\geq 2$ Prescription Claims Totaling $\geq 15$ Days Supply for an Opioid Medication, on at least Two Separate Days	11,042	32,355
6.	Excluding Beneficiaries with Rx-HCCs 8, 9, 10, and 11	<b>10,552 (255 IN LTC)</b>	490
LTC: Long-term Care			

**Demographics:** The total number of beneficiaries included in the denominator is 10,297 (255 beneficiaries in LTC were excluded for the remainder of the analysis). The sample was predominantly female (73.0%), Caucasian (52.2%), and had an average age of 44.33 years (See Table 2).

**Table 2: Sample Demographics (N = 10,297)**

DESCRIPTION	RESULTS
<b>Gender</b>	
Female	73.01% (n = 7,518)
Male	26.99% (n = 2,779)
<b>Race</b>	
Caucasian	52.21 (n = 5,376)
African American	41.73 (n = 4,297)
Unspecified	5.51 (n = 567)
Other*	0.55 (n = 57)
<b>Age (in years)</b>	
Mean (SD)	44.33 (12.15)
Minimum	18
Maximum	77
*American Indian, Asian, Hispanic	



**Table 3: Measure 1 – Opioid Dose Over-utilization**

DESCRIPTION	UNIQUE BENEFICIARIES IN 2012	EXAMPLE MEASURES
MED TYPE	90 Consec. DAYS, NON-LTC	
MED > 100 (Ref.)	263	263/10,297 = 2.6%
MED > 120	192	192/10,297 = 1.9%

**Table 4: Count of Unique Prescribers and Unique Pharmacies**

UNIQUE PHARMACISTS								
UNIQUE PRESCRIBERS	COUNT	1	2	3	4	5	6+	TOTAL
	1	2752	813	222	49	9	5	3850
	2	1382	981	318	101	22	10	2814
	3	621	609	343	120	35	6	1734
	4	190	291	240	118	43	17	899
	5	61	123	123	93	40	22	462
	6+	43	101	114	111	79	90	538
	TOTAL	5049	2918	1360	592	228	150	10,297

**KEY:**

≥ 4 Prescribers AND  
≥ 4 Pharmacies = 613

**Table 5: Measure 2 – Multiple Providers and Multiple Pharmacies**

DESCRIPTION	UNIQUE BENEFICIARIES IN 2012 (NON-LTC)	EXAMPLE MEASURE
<i>Beneficiaries receiving opioid prescriptions from:</i> <b>≥ 4 Prescribers AND ≥ 4 Pharmacies</b>	613	613/10,297 = 5.9%

**Table 6: Measure 3 – Multi-Provider ( $\geq 4$  Providers AND  $\geq$  Pharmacies), Multi-Opioid Use**

DESCRIPTION	UNIQUE BENEFICIARIES IN 2012	EXAMPLE MEASURES
MED TYPE	90 Consec. DAYS, NON-LTC	
MED > 100 (Ref.)	13	13/10,297 = 0.13%
MED > 120	11	11/10,297 = 0.11%

**RECOMMENDATIONS**

MS-DUR is seeking a directive from the DUR Board to provide educational outreach to providers with Mississippi Medicaid beneficiaries who are receiving prescriptions from 4 or more unique prescribers AND pharmacies and/or those who are receiving a daily dosage of opioids greater than 120mg morphine equivalent dose (MED) for 90 days or longer. The previously established criteria for recommending beneficiaries to program integrity will remain the same. Educational outreach to providers may include information about prescription fills from other providers and pharmacies, including fill dates, quantities and other pertinent information.

Some considerations for discussion include the exclusion of long-term care (LTC) beneficiaries as they only represent ~ 2% of the sample. Also, the long-term care population is likely managed to a greater extent than the general population, with regard to care coordination among prescribers.

**MED REPORT APPENDIX****Table Opioid Morphine Equivalent Conversion Factors<sup>1</sup>**

Type of Opioid	Morphine Equivalent Conversion Factor	Included in 2012 CMS?
<b>buprenorphine patch<sup>2</sup></b>	42	No
<b>buprenorphine tab or film</b>	10	No
<b>butorphanol</b>	7	No
<b>codeine</b>	0.15	Yes
<b>dihydrocodeine</b>	0.25	Yes
<b>fentanyl buccal or SL tablets, or lozenge/troche<sup>3</sup></b>	0.13	Yes
<b>fentanyl film or oral spray<sup>4</sup></b>	0.18	Yes
<b>fentanyl nasal spray<sup>5</sup></b>	0.16	Yes
<b>fentanyl patch<sup>6</sup></b>	7.2	Yes
<b>hydrocodone</b>	1	Yes
<b>hydromorphone</b>	4	Yes
<b>levorphanol tartrate</b>	11	Yes
<b>meperidine hydrochloride</b>	0.1	Yes
<b>methadone</b>	3	Yes
<b>morphine</b>	1	Yes
<b>nalbuphine</b>	1	No
<b>opium</b>	1	No
<b>oxycodone</b>	1.5	Yes
<b>oxymorphone</b>	3	Yes
<b>pentazocine</b>	0.37	No
<b>tapentadol</b>	0.4	No
<b>tramadol</b>	0.1	No

<sup>1</sup>Center for Disease Control and Prevention, Morphine equivalent conversion factors for opioids, 2011 version CDC, Atlanta, GA, 2013.

<sup>2</sup>MME conversion factor for buprenorphine patches is 42 based on 15% bioavailability compared with IV buprenorphine, which is 40 times the strength of morphine and the use of such patches for 7 days. In other words,  $40 \times 0.15 \times 7 = 42$

<sup>3</sup>MME conversion factor for fentanyl buccal tablets, sublingual tablets, and lozenges/troche is 0.13. It is intended to be multiplied by the number of micrograms in a given lozenge/troche

<sup>4</sup>MME conversion factor for fentanyl film and oral spray is 0.18 (based on 40% greater exposure compared to lozenge for film and 38% greater compared to lozenge for oral spray).

<sup>5</sup>MME conversion factor for fentanyl nasal spray is 0.16 (based on 20% greater exposure compared to lozenge for nasal spray)

<sup>6</sup>The MME conversion factor for fentanyl patches is 2.4, but each patch is usually worn for 3 days. Since daily dosage is calculated by multiplying pill size in MME by number of pills and then dividing by number of days prescribed, failure to account for the long use of each patch would underestimate daily dosage. For example, 10 patches dispensed for use over 30 days would be  $(10 \times 2.4)/30$ . Multiplying the conversion factor by 3 accounts for the prolonged use of a patch. Therefore, the conversion factor is given as 7.2.

**CMS Morphine Equivalent Dose (MED) Example Calculation<sup>7</sup>**

- Prescription for oxycodone 5mg 1-2 tablets every 4-6 hours as needed quantity **#60**
- Pharmacist enters days supply = **5** (could take up to 12 tablets in 24 hour period)
- Number of opioid dosage units per day =  $\frac{\text{Submitted Quantity}}{\text{Days Supply}} = \frac{60}{5} = 12$
- **Oral MED Daily Dose Per Claim:**  
= *Number of Opioid Units per Day* × *Strength* × *MME Conversion Factor*  
= 12 × 5 × 1.5  
= 90

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<sup>7</sup> AMCP 2013 Nexus. Research Briefs: Identifying and Managing Controlled Substance Abuse.

## ANALYSIS OF APAP DOSE RECOMMENDATIONS BY FDA

### BACKGROUND

Acetaminophen (APAP) is the most widely used drug in the United States. An overdose of APAP can cause liver damage, including acute liver failure (ALF).<sup>8</sup> To curb such overuse, the FDA recommends a maximum dose of 4,000mg per day. In 2011, the FDA put forth another recommendation suggesting that health professionals should discontinue prescribing medications containing more than 325mg of APAP in combination with another drug.<sup>9</sup> This report assesses the impact that these recommendations have had on physician prescribing behavior in the Mississippi Medicaid population in the years 2012 and 2013.

### METHODS

A retrospective analysis was conducted using Mississippi Medicaid prescriptions claims data from January 1, 2012 to November 30, 2013. NDCs for all drugs containing APAP alone, and in combination with another drug, were identified using Multum. Prescription claims for combination products containing more than the recommended 325mg of APAP were flagged. An APAP dose per day value was calculated for each day that a beneficiary possessed a product containing APAP (monotherapy or combination) using the prescription fill date, days' supply, and quantity submitted. This information was used to identify days on which a beneficiary possessed more than the recommended 4000mg of APAP. Further, chronic use of >4000mg of APAP per day was also assessed at varying cut-points at 15, 30, 60, and 90 consecutive days. Since this analysis does not include APAP obtained over-the-counter which was not billed to Medicaid, the actual numbers for APAP dose per day may be expected to be higher.

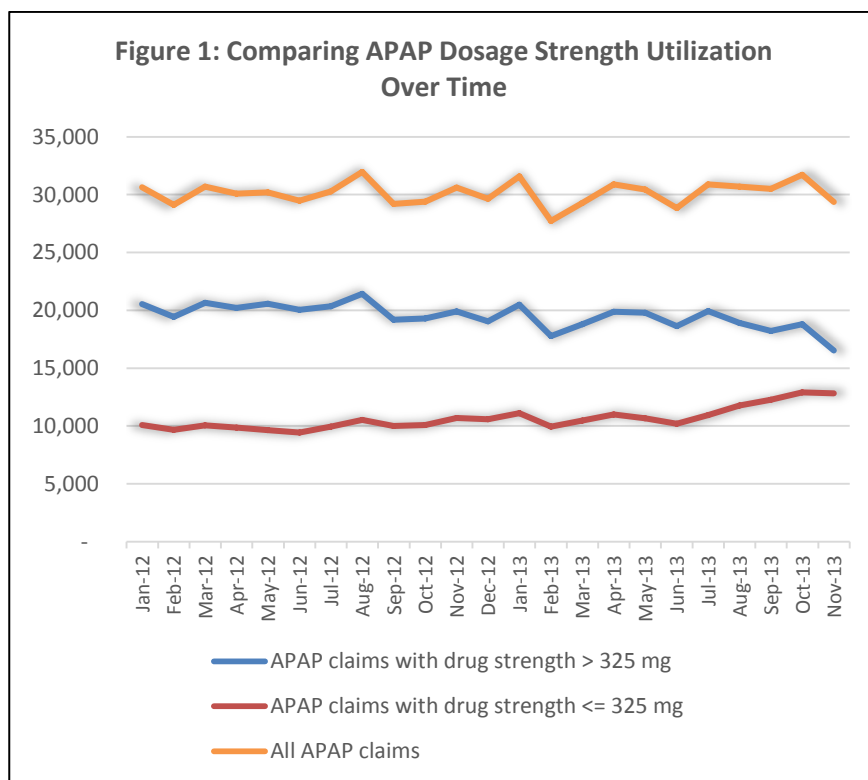
### RESULTS

During the study period, 693,318 prescriptions for medications containing APAP (monotherapy or combination) were found. These prescriptions were attributed to 204,584 beneficiaries. 448,494 (64.7%) for these prescriptions were for combination products containing >325mg of APAP. Despite such a high percentage, favorable trends were observed while looking at these numbers by month. As can be seen in Figure 1, though the trend for total number of APAP prescriptions did not change much over time (orange line), the number of prescriptions for drugs with >325mg of APAP decreased in the second half of 2013 (blue line), while that for drugs with ≤325 mg of APAP increased (red line).

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<sup>8</sup> FDA Center for Drug Evaluation and Research, Acetaminophen Overdose and Liver Injury—Background and Options for Reducing Injury, Available on FDA's Web site at <http://www.fda.gov/AdvisoryCommittees/CommitteesMeetingMaterials/Drugs/DrugSafetyandRiskManagementAdvisoryCommittee/ucm126014.htm>

<sup>9</sup> Prescription Drug Products Containing Acetaminophen: Actions to Reduce Liver Injury from Unintentional Overdose. Available on Regulations.gov at <http://www.regulations.gov/#!documentDetail;D=FDA-2011-N-0021-0001>



### CMS MEDICARE PART D OVERUTILIZATION MONITORING SYSTEM

The Center for Medicare and Medicaid Services (CMS) has implemented a monitoring system for Medicare Part D plans that assesses high daily utilization of APAP as follows:<sup>10</sup>

**APAP Overutilization:** Beneficiaries who may be taking more than 4g of APAP per day for 30 or more days within any six month period during the measurement cycle, and at least one day of overutilization occurring in the most recent calendar quarter.

Using the CMS monitoring criteria as a guide, we conducted analyses to determine the extent of high daily utilization of APAP in the MS Medicaid population, testing different cut points for days on high dose APAP. For the purpose of presenting this topic to the DUR Board, the data used for this analysis spanned two years to account for seasonality in utilization and fluctuations in enrollment. For monitoring purposes, the criteria would be based on a shorter time frame and would reflect more recent utilization. Since our access to data is more immediate than CMS's access to Part D data, the need for "at least one day of overutilization occurring in the most recent calendar quarter" will not be relevant for our purposes.

<sup>10</sup> Center for Medicare & Medicaid Services (CMS). Improving Drug Utilization Review Controls in Part D. HPMS Memo: Medicare Part D Overutilization Monitoring System – Updates (10/25/2013). <http://www.cms.gov/Medicare/Prescription-Drug-Coverage/PrescriptionDrugCovContra/RxUtilization.html>

**Table 1: Consecutive Days of APAP Use >4g/day**

	Days of consecutive APAP use >4g/day			
Total sample (n=37,275)	15 Days	30 Days	60 Days	90 Days
Number of beneficiaries (%)	1,288 (3.5%)	211 (0.6%)	4 (0.01%)	1 (0.003%)

The data indicated (Table 1) that 37,275 of the 204,584 beneficiaries (18.2%) with a prescription for a drug containing APAP, possessed a dose of more than 4,000 mg per day for at least one day in the study period. No change in trend was observed in this prescribing behavior over the course of the study period. Of these, 1,288 beneficiaries (3.5%) possessed such a high dose for at least 15 consecutive days, 211 (0.6%) for at least 30 consecutive days, 4 (0.01%) for at least 60 consecutive days, and 1 (0.003%) for at least 90 consecutive days.

### CONCLUSIONS

This report indicates that prescribers are changing their prescribing patterns based on the FDA recommendation of using drugs with  $\leq 325$  mg of APAP. The APAP dose per day analysis, however, indicated that despite the FDA recommendation of prescribing less than 4,000 mg of APAP per day, about 18% of the beneficiaries received a higher dose on at least one day in the analysis. Though most of these beneficiaries received such a high dose acutely, there was some evidence of chronic high dose use. Due to the recent removal of prescription products containing >325mg of APAP per tablet, it is likely that the utilization of high daily doses of APAP will decrease.

### RECOMMENDATIONS

MS-DUR is seeking a recommendation from the DUR Board to monitor high daily utilization of APAP exceeding 4gm per day and to notify prescribers in cases of that use spans greater than 30 consecutive days. Priority for prescriber communication will be placed on beneficiaries with high utilization of APAP over 30 consecutive days with at least two prescribers writing prescriptions for products containing APAP.

## ACCESS TO AND UTILIZATION OF IMMUNIZATION SERVICES IN THE MISSISSIPPI MEDICAID PROGRAM

### BACKGROUND

Immunizations play a critical role in preventing infectious diseases and are recommended throughout an individual's life. Adult immunization coverage, however, remains low for the most routinely recommended vaccines and well below *Healthy People 2020* targets.<sup>11,12</sup> While public health initiatives such as mandatory vaccination programs aimed at the reduction of childhood diseases have been successful, similar success has not been seen in adult vaccination programs with reports of upward of 40,000-50,000 vaccine preventable deaths being reported in the adult population yearly.<sup>13</sup> The CDC's most recent immunization schedule (Table 1) recommends routine vaccination to prevent 17 vaccine-preventable diseases that occur in infants, children, adolescents, and adults.<sup>14</sup>

**TABLE 1: Recommended Adult Immunization Schedule, by vaccine and age group, 2012**

VACCINE ▼	AGE GROUP ►	19–21 years	22–26 years	27–49 years	50–59 years	60–64 years	≥65 years
Influenza <sup>2,*</sup>		1 dose annually					
Tetanus, diphtheria, pertussis (Td/Tdap) <sup>3,*</sup>		Substitute 1-time dose of Tdap for Td booster; then boost with Td every 10 years					
Varicella <sup>4,*</sup>		2 doses					
Human papillomavirus (HPV) <sup>5,*</sup> Female		3 doses					
Human papillomavirus (HPV) <sup>5,*</sup> Male		3 doses					
Zoster <sup>6</sup>						1 dose	
Measles, mumps, rubella (MMR) <sup>7,*</sup>		1 or 2 doses				1 or 2 doses	
Pneumococcal (polysaccharide) <sup>8,9</sup>			1 or 2 doses				1 dose
Meningococcal <sup>10,*</sup>			1 or more doses				
Hepatitis A <sup>11,*</sup>			2 doses				
Hepatitis B <sup>12,*</sup>			3 doses				

\* Covered by the Vaccine Injury Compensation Program

For all persons in this category who meet the age requirements and who lack documentation of vaccination or have no evidence of previous infection

Recommended if some other risk factor is present (e.g., on the basis of medical, occupational, lifestyle, or other indications)

Tdap recommended for ≥65 if contact with <12 month old child. Either Td or Tdap can be used if no infant contact

No recommendation

Source: Centers for Disease Control and Prevention [Internet]. Atlanta (GA): Centers for Disease Control and Prevention; updated 2012 Feb [cited 2011 Aug 24]. Available from: <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6104a9.htm>

<sup>11</sup> CDC. Adult vaccination coverage reported via National Health Interview Survey (NHIS). Atlanta, GA: US Department of Health and Human Services. CDC; 2011. Available at <http://www.cdc.gov/vaccines/stats-surv/nhis/default.htm>. Accessed October, 17, 2012.

<sup>12</sup> U.S. Department of Health and Human Services. Office of Disease Prevention and Health Promotion. *Healthy People 2020*. Washington, DC. Available at <http://www.healthypeople.gov/2020/default.aspx>. Accessed November 1, 2012.

<sup>13</sup> Robert Wood Johnson Foundation. Trust for America's Health. Infectious Diseases Society of America. *Adult Immunizations: Shots to Save Lives*. Available at <http://www.rwjf.org/content/dam/web-assets/2010/02/adult-immunization>. Accessed November 19, 2012.

<sup>14</sup> Centers for Disease Control and Prevention. *General Recommendations on Immunizations: Recommendations of the Advisory Committee on Immunization Practices (ACIP)*. MMWR 2011;60(2):3-61.



The World Health Organization (WHO) reports that every U.S. dollar invested in a vaccination dose saves \$2 to \$27 dollars in health costs making vaccines the single most cost-effective public health intervention. For example, influenza vaccinations are recommended every fall (or winter) and are administered in a single dose with well documented mortality and cost benefits reported in the literature of up to 49,000 deaths annually, 200,000 hospitalizations annually, and upwards of \$10 billion in costs associated with a moderate seasonal outbreak.<sup>15</sup>

Much work has been done regarding the oversight, surveillance, and overall vaccination coverage on a state and national level to better understand vaccination administration rates. According to the National Immunization Survey (NIS), immunization rates for influenza were 37.3% and 42.2% respectively in high-risk populations of 18-49 year olds and 50-64 year olds. Likewise, the NIS reported that on average 32.8% of 18-64 year olds who were high risk for pneumococcal infection received the vaccination. Vaccination rates were significantly lower in Blacks and Hispanics in comparison to Whites at a level of equal risk stratification.<sup>6</sup>

This problem is of greatest significance in rural populations such as a state like Mississippi with significant access issues and health disparities. According to the Behavioral Risk Factor Surveillance System (BRFSS) survey, immunization rates for influenza in Mississippi are significantly low across all races ranging from 19.7% to 25.0% of individuals 18-49 years old with significantly lower rates than the national average of 24.2-37.9% in individuals 50-64 years old.<sup>16</sup> Substantial improvement in adult vaccination rates and methods to achieve this has been called for in the medical literature. To achieve the reduction of costly health consequences of vaccine preventable diseases among adults, the removal of well-documented barriers to adult immunization including limited access, limited care/insurance coverage, limited financing for immunizations, and misinformation regarding the safety and efficacy of vaccines all need to be addressed.<sup>17</sup>

Mississippi, like other states, is facing major shortages of health care professionals, especially for citizens in small isolated communities. Recruitment of healthcare professionals to rural areas is a growing problem not only within the state, but nationally as well.<sup>18</sup> Limited reliefs to such problems are expected without significant incentives for physicians to practice in underserved areas. Unequal access to health care is a concern in Mississippi due to a largely rural population, a high minority composition, high poverty levels, and low baseline health/education status. In 2002, of 82 counties in the state of Mississippi, 71 were deemed underserved and 11 met the federal standards for physician/potential patient ratio. These 71 underserved counties are home to 76% of the state's population, with 42% residing in a Primary Care Health Professional Shortage Area.<sup>19</sup>

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<sup>15</sup> Thompson WW, Shay DK, Weintraub E, et al. Influenza-associated hospitalizations in the United States. *JAMA* 2004 (11);292:1333-1340.

<sup>16</sup> CDC. *Final state specific influenza vaccination coverage estimates for the 2010–11 season—United States, National Immunization Survey and Behavioral Risk Factor Surveillance System, August 2010 through May 2011*. Atlanta, GA: US Department of Health and Human Services, CDC; 2011. Available at [http://www.cdc.gov/flu/professionals/vaccination/coverage\\_1011estimates.htm](http://www.cdc.gov/flu/professionals/vaccination/coverage_1011estimates.htm). Accessed November 5, 2012.

<sup>17</sup> Appel A. Improving adult immunization rates: overcoming barriers. *American family physician*. 2011;84:977.

<sup>18</sup> Iglehart JK. Health care reform and graduate medical education. *New England Journal of Medicine*. 1994;330:1167-1171.

<sup>19</sup> Hart-Hester S, Thomas C. Access to health care professionals in rural Mississippi. *Southern medical journal*. 2003;96:149-154.

Studies have presented that Pharmacists are highly trained, willing, and in a place of easy and consistent access to their patients with strong evidence to support their direct impact on adult immunization rates. Higginbotham and colleagues reported significantly increased rates of immunization in indigent adults.<sup>20</sup> Vijay and colleagues modeled that a pharmacist-driven pneumococcal vaccination program is two and a half times more cost beneficial than a physician or nurse-driven traditional adult immunization program.<sup>21</sup> Bearden and Holt cited significant impact of pharmacist immunizers through increasing adult immunization rates in rural areas of Oregon, citing the importance of access issues and pharmacists ability to fill primary care gaps. Murphy and colleagues highlighted the convenience and accessibility of pharmacist immunizers practicing in community settings in Medically Underserved Areas (MUAs). They showed that states with the highest proportion of their population in MUAs provided up to 77.1% of influenza vaccinations in this manner.<sup>22</sup>

**Although pharmacies are more accessible than physicians in Mississippi, the Medicaid program is not currently taking full advantage of this with respect to adult immunizations.** Currently, the Mississippi Division of Medicaid (DOM) provides reimbursement to pharmacies for adult influenza and pneumococcal vaccinations despite Mississippi Board of Pharmacy regulations granting pharmacists the right within the state to administer all federally approved immunizations to patients of any age through protocol, standing order, or prescription.<sup>23</sup>

Another potential barrier is how vaccines are reimbursed. DOM currently reimburses the administration of vaccines by pharmacies in the same way as dispensing other medications – cost of product plus dispensing fee. In 2013, **the average amount paid to pharmacies for the administration of all types of flu vaccines was \$13.47.** This compares to \$32 price charged by two major Mississippi chain pharmacies (Table 2). Although pharmacies are very accessible and they promote vaccinations when they offer the service, DOM's reimbursement level does not encourage these pharmacies to push Medicaid patients to be immunized.

<b>TABLE 2: Current Immunizations Offered by Mississippi Community Pharmacies and Pricing*</b>							
	Influenza	Pneum	HepA	HepB	Meningitis	Zoster	Tdap
<b>Walgreens<sup>a</sup></b>	\$32	\$80	\$109	\$100	\$133	\$220	\$64
<b>CVS<sup>b</sup></b>	\$32	\$100	\$140	\$140	\$180	-	\$100

<sup>a</sup> Walgreen's immunization services. Walgreen's Pharmacy. Available from:

[https://www.walgreens.com/pharmacy/immunization/immunization\\_index.jsphttp://www.minuteclinic.com/services/vaccination/](https://www.walgreens.com/pharmacy/immunization/immunization_index.jsphttp://www.minuteclinic.com/services/vaccination/).

<sup>b</sup> CVS pharmacy vaccination guides. CVS Pharmacy. Available from:

<http://www.cvs.com/promo/promoLandingTemplate.jsp?promoLandingId=additional-vaccines>.

<sup>20</sup> Higginbotham S et al. Impact of a pharmacist immunizer on adult immunization rates. *Journal of the American Pharmacists Association*. 2012;52:376-371.

<sup>21</sup> Vijay N Joish, M Rhona M T Limcangco, Edward P Armstrong. Cost-benefit analysis of a pharmacist-advocated pneumococcal vaccination program. *Formulary*. 2001; 36:147.

<sup>22</sup> Taitel M, Cohen E, Duncan I, Pegus C. Pharmacists as providers: targeting pneumococcal vaccinations to high risk populations. *Vaccine*. 2011;29:8073-8076.

<sup>23</sup> Mississippi Board of Pharmacy. Personal communication.

## Research Objectives

The Pharmacy Bureau asked MS-DUR to examine trends in accessibility to vaccines and immunization rates and to evaluate the potential for increasing both through community pharmacies. The major objectives of the white paper developed for DOM were:

1. To describe current policies and reimbursement related to vaccines in Mississippi and other state Medicaid programs.
2. To examine trends in administration of child and adult vaccines by physicians and pharmacists through the state Medicaid program.
3. To evaluate the relationship between accessibility to vaccines and immunization rates at the county level.

## METHODS

MS-DUR conducted a review of practice regulations and reimbursement policies related to immunization services through published articles, surveys of web-sites for state and national organizations, and personal conversations with pharmacy leaders in Mississippi. Trends in accessibility to vaccines and immunization rates were determined through a retrospective analysis of Mississippi Medicaid pharmacy and medical claims data, beneficiary eligibility data, and provider enrollment data for 2010 – 2012. Accessibility was determined in the following manner:

- The population of providers participating in the state Medicaid program for each year was determined to be all providers with any Medicaid paid claims for any services during the year.
- Accessibility to vaccines was evaluated for each type of vaccine for each year.
- Pharmacies were classified as being accessible for administering a specific type of immunization if they had at least one paid pharmacy claim for a type of vaccine product that was not followed within 10 days by a physician claim for administration of a vaccine for the same beneficiary. Pharmacies administering vaccines are currently reimbursed by the DOM in the same manner as for any other prescription product – cost of goods a dispensing fee; therefore, administration of immunizations was determined by the presence of a prescription claims for the appropriate NDCs.
- Prescribers were classified as being accessible for administering each type of immunization if they had at least one medical claim for a vaccine product type or for administration of a vaccine type. Provision of a vaccine by a prescriber was identified using NDCs in the drug code fields and procedure codes for administration of the various types of vaccines.
- Each provider was assigned to a county based on the county code for their practice address identified in the National Provider Identifier (NPI) data base or in the Mississippi Provider data base when a match cannot be made.
- Beneficiaries were classified as having access to a pharmacy and/or prescriber (a) if they lived in a county with an accessible provider and (b) if they had any paid claims from a provider that administered immunizations.

Immunization rates were also estimated for each year and by county. Separate rates were estimated for each type of vaccine and overall for beneficiaries receiving any immunization. For purposes of estimating immunization rates, beneficiaries were only included in the denominator of the rate calculation if they were enrolled in Medicaid (fee-for-service or managed care) for at least 3 months during the calendar year.

Beneficiaries were classified as receiving a specific type of immunization if they had any claim for that type immunization during the year. Prescription and medical claims were linked and compared in order to account for any “brown-bag” situations in which a physician-initiated prescription for an immunization was filled at a local pharmacy and subsequently administered by a physician immunizer. Any patients with a pharmacy product claim and a medical administration fee claim were considered to have received the immunization at the physician’s office on the date of the medical claims. Since most dual-eligibles are covered for immunizations through Medicare Part D plans, this analysis was limited to beneficiaries age 64 and below.

## CURRENT POLICIES AND REIMBURSEMENT

As shown in Table 3, State pharmacy regulations allow pharmacists in every state to administer some types of vaccines. Only 14 states have regulations that limit the types of immunizations that pharmacists can administer. Seven states allow pharmacists to administer any vaccine but this must be done with a prescription from a medical provider.

TABLE 3: Types of Vaccines Allowed to be Administered by Pharmacists (2010)	
Vaccines allowed	States
Any vaccine	AL, AK, AZ*, AR*, CA, CO, DE, GA*, HI, ID, IL, IN*, IA, KS, KY, LA, MI, MN, MS, MT, NE, NV, NJ, NM, NC*, ND, OK, OR, PA, RI, SC*, TN, TX, UT, VT, VA*, WA, WI
Influenza only	DC, FL, MA, NH, PR
Influenza and pneumococcal	NY, WV
Other combinations	OH, CT, ME, MD, MO, SD, WY

\*Via prescription

Source: Types of vaccines authorized to administer. American Pharmacist Association. 2010 May [cited 2012 Aug 20]. Available from:

[http://www.pharmacist.com/sites/default/files/files/PharmacistIzAuthority\\_May2012.pdf](http://www.pharmacist.com/sites/default/files/files/PharmacistIzAuthority_May2012.pdf).

State pharmacy regulations allow pharmacists to administer different vaccines using three potential methods:

- **Standing order:** Eligible healthcare providers may vaccinate individuals who meet set criteria.<sup>24</sup>
- **Protocol:** Pharmacist must enter into protocol with physician to administer vaccines; usually including pharmacist be certified in immunizations and BLS and the physician be a licensed, practicing physician. The pharmacist must notify the physician and the patient’s primary care physician that the patient has received the vaccine in a set time period<sup>19</sup>
- **Prescription required:** Patient must present a prescription for vaccine to be administered<sup>19</sup>

As shown in Table 4, several other Medicaid programs have policies for paying an administration fee to pharmacists for administration of vaccines. Most of these policies pay an administration fee that is much higher than the usual dispensing fee.

<sup>24</sup> Standing orders for administering vaccines. Immunization Action Coalition. Available from: <http://www.immunize.org/standing-orders>

<b>TABLE 4: Other Medicaid Program Reimbursement Policies for Pharmacies Providing Immunizations</b>		
<b>State</b>	<b>Reimbursement Policy</b>	<b>Requirements and Stipulations</b>
<b>Alabama<sup>a</sup></b>	Dec 2010- enrolled pharmacists reimbursed for administration and cost of pneumo and Tdap, in addition to influenza	<ul style="list-style-type: none"> <li>• <b>Administration fee of \$5</b> with no dispensing fee</li> <li>• Prescription from PCP required</li> <li>• Patients must be over 19 years old</li> </ul>
<b>Arkansas<sup>b</sup></b>	Enrolled pharmacists reimbursed cost of and administration of influenza and pneumo vaccines	<ul style="list-style-type: none"> <li>• Patients must be 21 or older</li> <li>• Pharmacist must enroll as a provider in the program</li> <li>• No PCP referral required</li> <li>• Influenza limited to one per fiscal year</li> <li>• Pneumo limited to 1 every 10 years</li> </ul>
<b>Illinois<sup>c</sup></b>	2007- Medicaid reimburses pharmacists for administration of influenza vaccine	<ul style="list-style-type: none"> <li>• For ages 21 or older</li> <li>• Maximum <b>administration fee of \$3.70</b></li> </ul>
<b>Kentucky<sup>d</sup></b>	Medicaid reimburses pharmacist for administration of vaccine	<ul style="list-style-type: none"> <li>• Pharmacists are reimbursed <b>same rate as physicians</b></li> </ul>
<b>Louisiana<sup>e</sup></b>	Jan 2011- enrolled pharmacists will be reimbursed for cost and administration of influenza vaccine	<ul style="list-style-type: none"> <li>• Pharmacists issued Medicaid provider numbers</li> <li>• <b>Administration fee of \$15.22</b></li> <li>• Influenza vaccine only</li> <li>• Only for eligible patients over 19 years old</li> </ul>
<b>Michigan<sup>e</sup></b>	Sept 2010- Medicaid reimburses pharmacists for administration of influenza vaccine	<ul style="list-style-type: none"> <li>• For ages 19 and older</li> <li>• Pharmacist must have training and letter of delegation from a physician</li> <li>• Standing orders required from physicians</li> <li>• <b>Administration fee of \$7.00</b> with no dispensing fee</li> </ul>
<b>New York<sup>f</sup></b>	Oct 2010- qualified pharmacists will be reimbursed for administration and cost	<ul style="list-style-type: none"> <li>• Medicaid fee for service enrollees only and &gt;19 years old</li> <li>• Only covers influenza and pneumococcal</li> <li>• Reimbursement is AAP + <b>administration fee of \$13.23</b></li> </ul>
<b>Ohio<sup>g</sup></b>	Medicaid pay administration fee and cost for influenza vaccine administered by pharmacist	<ul style="list-style-type: none"> <li>• Must be administered between Oct 1<sup>st</sup> and May 31<sup>st</sup></li> <li>• <b>Administration fee of \$10.00</b> with no dispensing fee paid</li> </ul>

<sup>a</sup> PDL update. Alabama Medicaid Pharmacist. 2011 Winter [cited 2012 Aug 20]. Available from:

<http://www.hidinc.com/assets/files/almedicaid/newsletters/Winter%2011%20AL%20Newsletter.pdf>

<sup>b</sup> Provider manual update. Arkansas Department of Human Services. 2010 Mar [cited 2012 Aug 20]. Available from:

<http://www.sos.arkansas.gov/rulesRegs/Arkansas%20Register/2010/Feb10Reg/016.06.09-043.pdf>

<sup>c</sup> Administration of flu vaccine. Illinois Department of Health and Human Services. 2007 Nov [cited 2012 Aug 20]. Available from: <http://hfs.illinois.gov/html/111507flu.html>

<sup>d</sup> Pharmacy vaccine administration reimbursement for seasonal influenza vaccinations. Michigan Department of Community Health. 2010 Aug [cited 2012 Aug 20]. Available from: [https://michigan.fhsc.com/Downloads/MSA\\_10-30\\_330003\\_7.pdf](https://michigan.fhsc.com/Downloads/MSA_10-30_330003_7.pdf)

<sup>e</sup> Reimbursement of influenza vaccine and administration. Louisiana Department of Health and Human Services. 2010 Dec [cited 2012 Aug 20]. Available from: [http://www.lamedicaid.com/provweb1/Pharmacy/Vaccine\\_Reimbursement.pdf](http://www.lamedicaid.com/provweb1/Pharmacy/Vaccine_Reimbursement.pdf)

<sup>f</sup> NYS Medicaid fact sheet pharmacists as immunizers. New York Medicaid. 2010 Oct [cited 2012 Aug 20]. Available from: [http://www.health.ny.gov/health\\_care/medicaid/program/pharmacists\\_as\\_immunizers/fact\\_sheet\\_10-14-10.htm](http://www.health.ny.gov/health_care/medicaid/program/pharmacists_as_immunizers/fact_sheet_10-14-10.htm)

<sup>g</sup> Medicaid payment of influenza vaccine administration at the pharmacy. Ohio Department of Jobs and Family Services. Available from: <http://jfs.ohio.gov/ohp/bhpp/omdp/pdf/PharmacyFluNotice.pdf>

MS-DUR examined the percentage of providers and pharmacies in each county administering immunizations each year. For purposes of this analysis of accessibility, providers and pharmacies were considered to be included in the denominator of eligible sources for the county if they had at least one Medicaid paid claim for the year.

Table 5 shows the rate of beneficiaries receiving vaccines each year. **NOTE – these numbers are based on paid claims and will not include vaccinations through Health Departments or other units that do not bill Medicaid for the service.** As previously stated, the rate for immunizations in Mississippi Medicaid is much lower than the national average. Immunization rates are lowest for young adults and middle-age adults. The immunization rate has not changed significantly during the three years examined.

TABLE 5: Beneficiaries Recieveing Vaccine by Age and Year												
Beneficiary Age at End of Year	2010				2011				2012			
	Any Vaccine		Influenza or Pneumococcal		Any Vaccine		Influenza or Pneumococcal		Any Vaccine		Influenza or Pneumococcal	
	# Eligible*	% Getting	# Eligible*	% Getting	# Eligible*	% Getting	# Eligible*	% Getting	# Eligible*	% Getting	# Eligible*	% Getting
2 or less	83,855	61.1%	83,602	7.7%	82,495	55.9%	82,235	1.2%	78,929	59.1%	78,675	0.8%
3 - 6	98,705	28.2%	98,470	4.0%	102,853	28.3%	102,623	3.9%	105,502	26.9%	105,248	4.1%
7 - 12	113,857	9.2%	113,699	2.9%	115,122	9.8%	115,009	3.2%	114,883	13.1%	114,767	3.7%
13 - 17	79,376	9.1%	79,236	2.2%	80,989	9.8%	80,879	2.7%	81,861	15.6%	81,744	3.6%
18 - 21	46,703	5.5%	46,208	2.8%	46,652	5.6%	46,137	3.0%	44,798	5.5%	44,186	2.7%
22 - 35	91,172	4.9%	90,304	3.6%	93,239	4.9%	92,281	4.1%	93,867	4.4%	92,935	3.7%
36 - 50	59,490	5.1%	58,921	3.9%	60,511	5.2%	59,984	4.3%	59,851	4.9%	59,311	4.2%
51 - 64	65,779	6.6%	65,198	5.3%	69,897	6.3%	69,366	5.7%	72,561	6.2%	72,026	5.6%
65 or more	85,855	0.2%	85,558	0.2%	87,410	0.1%	87,070	0.1%	88,585	0.1%	88,304	0.1%
Total	724,792	18.1%	721,196	3.6%	739,168	17.3%	735,584	3.1%	740,837	18.7%	737,196	3.2%

\* # eligible for ANY VACCINE includes all beneficiaries with 3 or more months of eligibility in Medicaid during year. # eligible for INFLUENZA OR PNEUMOCOCCAL includes all beneficiaries with 3 or more months of eligibility in Medicaid during January-March and/or September-December of year.

Tables 6 shows the percentage of beneficiaries in each county receiving immunizations each year. Tables 7 and 8 show the percentage of providers and pharmacies in each county administering immunizations each year. As shown in Table 6, there is considerable disparity in immunization rates across counties. In 2012, the percentage of beneficiaries getting any vaccine ranged from highs in of 27.4% (Tate) and 26.6% (Desoto) to lows of 6.7% (Issaquena) and 7.0% (Humphreys).

**TABLE 6: Beneficiaries Receiving Vaccine by County and Year**

County	2010				2011				2012			
	Any Vaccine		Influenza or Pneumococcal		Any Vaccine		Influenza or Pneumococcal		Any Vaccine		Influenza or Pneumococcal	
	# Eligible*	% Getting	# Eligible*	% Getting	# Eligible*	% Getting	# Eligible*	% Getting	# Eligible*	% Getting	# Eligible*	% Getting
Adams	9,795	16.3%	9,746	1.7%	9,803	14.2%	9,761	1.9%	9,620	15.3%	9,572	1.9%
Alcorn	9,422	15.6%	9,380	3.7%	9,685	15.7%	9,600	3.4%	9,565	18.8%	9,496	4.8%
Amite	3,616	18.2%	3,593	5.9%	3,747	15.3%	3,724	4.8%	3,662	15.5%	3,648	4.3%
Attala	6,004	18.9%	5,977	5.6%	6,035	17.4%	6,014	4.4%	6,011	17.9%	5,974	4.6%
Benton	2,749	11.8%	2,730	2.1%	2,814	11.3%	2,795	1.4%	2,799	14.4%	2,779	2.4%
Bolivar	13,885	13.1%	13,821	3.1%	13,889	11.9%	13,808	2.4%	13,790	12.5%	13,731	2.5%
Calhoun	4,283	17.8%	4,273	4.5%	4,368	15.2%	4,353	3.8%	4,328	17.4%	4,309	5.0%
Carroll	2,411	13.3%	2,398	2.9%	2,458	15.4%	2,448	3.2%	2,430	17.1%	2,414	3.9%
Chickasaw	5,365	17.1%	5,347	4.8%	5,520	15.6%	5,499	4.3%	5,535	16.3%	5,515	3.9%
Choctaw	2,443	17.0%	2,428	4.4%	2,460	15.3%	2,448	4.1%	2,440	14.8%	2,428	4.3%
Claiborne	3,700	21.0%	3,685	7.0%	3,759	13.9%	3,747	3.1%	3,767	12.4%	3,755	3.5%
Clarke	4,411	13.2%	4,388	2.4%	4,395	11.7%	4,376	1.7%	4,341	12.7%	4,322	1.6%
Clay	6,473	18.6%	6,441	2.4%	6,497	17.8%	6,485	2.5%	6,374	19.3%	6,351	2.3%
Coahoma	12,079	14.1%	12,025	4.9%	12,223	14.1%	12,172	3.5%	12,153	17.5%	12,116	4.8%
Copiah	9,077	14.6%	9,051	6.0%	9,200	14.5%	9,163	5.2%	9,218	14.9%	9,192	5.2%
Covington	5,678	14.1%	5,659	3.1%	5,726	14.3%	5,707	3.5%	5,671	15.8%	5,641	3.9%
DeSoto	18,540	25.5%	18,404	2.5%	19,568	24.5%	19,426	2.1%	20,289	26.6%	20,135	2.1%
Forrest	18,891	20.1%	18,791	3.5%	19,560	18.7%	19,428	3.2%	19,704	19.7%	19,586	3.1%
Franklin	2,177	15.6%	2,165	5.2%	2,189	14.6%	2,184	3.9%	2,188	16.1%	2,179	3.4%
George	4,915	8.2%	4,885	1.8%	5,028	8.8%	5,001	1.8%	5,011	9.8%	4,986	1.4%
Greene	2,796	13.2%	2,783	2.4%	2,890	12.0%	2,873	1.8%	2,801	12.0%	2,787	1.9%
Grenada	6,764	10.1%	6,745	3.5%	6,839	17.5%	6,811	6.2%	6,838	19.2%	6,810	7.0%
Hancock	7,808	11.0%	7,757	4.3%	8,084	12.6%	8,021	3.7%	8,212	14.1%	8,162	4.2%
Harrison	36,174	17.7%	35,939	6.6%	37,756	17.7%	37,537	4.4%	39,410	18.8%	39,169	4.5%
Hinds	58,996	11.7%	58,779	3.2%	60,483	12.0%	60,252	3.0%	60,090	12.5%	59,848	2.9%
Holmes	9,392	10.7%	9,375	1.5%	9,514	11.2%	9,485	1.4%	9,456	11.8%	9,433	1.9%
Humphreys	4,789	6.6%	4,778	0.9%	4,829	5.8%	4,816	1.0%	4,832	7.0%	4,821	1.0%
Issaquena	465	10.8%	458	2.6%	459	10.0%	457	1.1%	445	6.7%	445	1.6%
Itawamba	4,527	13.6%	4,501	4.4%	4,582	14.9%	4,564	3.4%	4,592	15.2%	4,564	3.4%
Jackson	23,195	20.1%	23,029	5.1%	24,342	19.4%	24,162	3.6%	24,713	20.3%	24,571	2.6%
Jasper	5,492	7.3%	5,465	1.7%	5,483	7.9%	5,461	1.7%	5,530	9.3%	5,494	2.2%

<b>TABLE 6: Beneficiaries Receiving Vaccine by County and Year (CONTINUED)</b>												
<b>County</b>	<b>2010</b>				<b>2011</b>				<b>2012</b>			
	<b>Any Vaccine</b>		<b>Influenza or</b>		<b>Any Vaccine</b>		<b>Influenza or</b>		<b>Any Vaccine</b>		<b>Influenza or</b>	
	<b># Eligible*</b>	<b>% Getting</b>	<b># Eligible*</b>	<b>% Getting</b>	<b># Eligible*</b>	<b>% Getting</b>	<b># Eligible*</b>	<b>% Getting</b>	<b># Eligible*</b>	<b>% Getting</b>	<b># Eligible*</b>	<b>% Getting</b>
<b>Jefferson</b>	3,239	13.8%	3,232	3.0%	3,310	12.6%	3,297	2.3%	3,260	13.4%	3,249	2.7%
<b>Jefferson Davis</b>	4,205	16.4%	4,187	2.7%	4,280	16.4%	4,271	3.2%	4,280	18.6%	4,267	3.5%
<b>Jones</b>	18,274	6.4%	18,188	1.9%	18,604	6.4%	18,519	2.0%	18,620	7.4%	18,516	2.2%
<b>Kemper</b>	2,822	11.6%	2,817	1.3%	2,855	10.2%	2,843	1.6%	2,821	9.2%	2,810	1.5%
<b>Lafayette</b>	6,133	15.1%	6,099	5.0%	6,444	14.9%	6,382	3.6%	6,512	16.2%	6,472	3.9%
<b>Lamar</b>	7,836	20.9%	7,779	3.2%	8,241	20.0%	8,194	2.9%	8,451	20.5%	8,400	2.9%
<b>Lauderdale</b>	19,954	11.1%	19,857	1.6%	20,110	11.0%	20,023	1.2%	20,008	11.3%	19,929	1.1%
<b>Lawrence</b>	3,529	19.3%	3,508	7.7%	3,605	19.0%	3,588	6.9%	3,562	20.4%	3,542	8.1%
<b>Leake</b>	6,300	18.7%	6,278	5.3%	6,369	17.9%	6,345	3.1%	6,452	19.8%	6,422	5.3%
<b>Lee</b>	18,943	15.0%	18,846	4.2%	19,476	15.1%	19,369	2.7%	19,577	17.1%	19,473	2.8%
<b>Leflore</b>	13,182	21.0%	13,138	2.9%	13,514	20.6%	13,465	2.5%	13,606	20.3%	13,564	4.2%
<b>Lincoln</b>	8,948	23.6%	8,886	11.5%	8,983	20.9%	8,952	8.8%	9,043	22.7%	8,986	9.3%
<b>Lowndes</b>	13,688	17.3%	13,623	1.2%	13,934	17.2%	13,873	2.0%	14,015	17.5%	13,938	1.4%
<b>Madison</b>	14,841	17.0%	14,790	2.5%	14,668	16.6%	14,630	2.4%	14,543	19.5%	14,487	3.0%
<b>Marion</b>	8,329	21.9%	8,290	2.8%	8,437	20.6%	8,404	3.3%	8,411	20.1%	8,371	2.6%
<b>Marshall</b>	10,133	13.6%	10,054	1.8%	10,438	13.9%	10,365	1.6%	10,549	15.4%	10,479	1.7%
<b>Monroe</b>	9,281	12.9%	9,217	2.6%	9,222	10.8%	9,163	1.9%	9,102	11.4%	9,057	2.4%
<b>Montgomery</b>	3,555	12.0%	3,536	3.1%	3,550	14.3%	3,539	3.2%	3,558	17.9%	3,538	2.8%
<b>Neshoba</b>	8,756	11.9%	8,709	2.2%	8,870	8.2%	8,838	1.5%	8,889	7.7%	8,827	1.7%
<b>Newton</b>	5,903	12.8%	5,873	2.6%	5,984	11.5%	5,950	2.2%	5,995	11.7%	5,967	2.4%
<b>Noxubee</b>	4,895	13.7%	4,877	1.3%	4,896	12.4%	4,881	1.2%	4,859	13.6%	4,835	1.3%
<b>Oktibbeha</b>	8,548	18.3%	8,511	3.8%	8,650	16.4%	8,620	3.6%	8,585	18.1%	8,554	3.9%
<b>Panola</b>	11,304	15.1%	11,260	2.8%	11,775	14.2%	11,722	2.3%	11,878	15.1%	11,823	2.5%
<b>Pearl</b>	12,629	13.4%	12,539	2.9%	13,141	14.4%	13,042	2.5%	13,254	14.0%	13,175	2.1%
<b>Perry</b>	3,392	15.8%	3,373	2.9%	3,438	15.7%	3,423	3.1%	3,378	18.2%	3,366	3.2%
<b>Pike</b>	13,688	20.5%	13,626	8.5%	13,857	19.0%	13,805	6.3%	13,684	20.1%	13,642	6.8%
<b>Pontotoc</b>	6,395	18.9%	6,361	4.8%	6,550	18.2%	6,519	4.3%	6,671	19.2%	6,634	4.5%
<b>Prentiss</b>	6,482	14.9%	6,449	4.6%	6,668	14.6%	6,641	3.5%	6,667	15.9%	6,632	3.7%
<b>Quitman</b>	3,640	14.0%	3,631	4.5%	3,715	15.1%	3,700	4.0%	3,698	15.3%	3,684	4.2%
<b>Rankin</b>	19,780	10.8%	19,664	3.7%	20,191	10.4%	20,071	3.3%	20,139	12.6%	20,022	3.2%



<b>TABLE 6: Beneficiaries Receiving Vaccine by County and Year (CONTINUED)</b>												
<b>County</b>	<b>2010</b>				<b>2011</b>				<b>2012</b>			
	<b>Any Vaccine</b>		<b>Influenza or</b>		<b>Any Vaccine</b>		<b>Influenza or</b>		<b>Any Vaccine</b>		<b>Influenza or</b>	
	<b># Eligible*</b>	<b>% Getting</b>	<b># Eligible*</b>	<b>% Getting</b>	<b># Eligible*</b>	<b>% Getting</b>	<b># Eligible*</b>	<b>% Getting</b>	<b># Eligible*</b>	<b>% Getting</b>	<b># Eligible*</b>	<b>% Getting</b>
<b>Scott</b>	8,788	13.2%	8,742	3.0%	8,909	14.3%	8,875	3.1%	9,070	14.3%	9,024	2.9%
<b>Sharkey</b>	2,390	8.2%	2,386	0.9%	2,411	6.4%	2,408	1.1%	2,426	9.2%	2,423	1.2%
<b>Simpson</b>	7,330	16.3%	7,296	5.4%	7,403	16.6%	7,364	5.3%	7,336	15.3%	7,278	4.7%
<b>Smith</b>	3,845	13.2%	3,824	4.7%	3,831	12.4%	3,812	4.1%	3,767	13.3%	3,740	3.5%
<b>Stone</b>	3,425	14.3%	3,406	3.4%	3,432	12.3%	3,414	2.2%	3,521	12.2%	3,488	2.6%
<b>Sunflower</b>	10,368	9.4%	10,313	1.4%	10,376	8.5%	10,319	1.3%	10,316	8.8%	10,256	1.3%
<b>Tallahatchie</b>	4,932	18.0%	4,915	2.9%	5,089	15.3%	5,063	2.6%	5,101	16.1%	5,082	2.9%
<b>Tate</b>	6,281	27.6%	6,252	2.4%	6,445	23.7%	6,418	2.4%	6,563	27.4%	6,533	3.3%
<b>Tippah</b>	6,251	16.8%	6,219	3.2%	6,272	15.4%	6,239	2.7%	6,217	16.5%	6,187	3.1%
<b>Tishomingo</b>	4,789	14.4%	4,763	4.2%	4,813	13.7%	4,782	4.1%	4,698	15.1%	4,670	5.2%
<b>Tunica</b>	3,977	14.3%	3,955	1.5%	4,153	12.9%	4,138	1.0%	4,264	15.7%	4,241	1.4%
<b>Union</b>	6,247	20.0%	6,212	2.9%	6,343	18.3%	6,299	2.8%	6,283	20.4%	6,257	3.7%
<b>Walthall</b>	5,043	17.7%	5,021	6.4%	4,956	16.9%	4,932	5.1%	4,816	15.5%	4,802	4.5%
<b>Warren</b>	12,631	14.2%	12,552	2.0%	13,017	7.0%	12,948	1.8%	13,021	7.7%	12,962	2.1%
<b>Washington</b>	21,842	17.7%	21,743	3.8%	21,863	17.8%	21,787	4.6%	21,813	18.1%	21,738	2.7%
<b>Wayne</b>	6,103	11.4%	6,069	2.2%	6,162	10.7%	6,135	2.1%	6,082	11.7%	6,065	2.0%
<b>Webster</b>	2,705	17.9%	2,691	4.9%	2,694	16.4%	2,682	4.6%	2,649	18.8%	2,634	5.2%
<b>Wilkinson</b>	3,171	16.8%	3,159	2.3%	3,249	14.0%	3,238	2.4%	3,192	12.2%	3,183	1.9%
<b>Winston</b>	5,624	14.0%	5,600	2.7%	5,686	12.0%	5,659	2.8%	5,782	11.9%	5,753	2.2%
<b>Yalobusha</b>	4,254	11.1%	4,235	3.2%	4,192	11.5%	4,174	2.7%	4,149	12.7%	4,130	3.3%
<b>Yazoo</b>	9,880	14.7%	9,849	2.6%	9,912	16.4%	9,886	2.8%	9,889	16.4%	9,856	3.2%
<b>Total</b>	724,792	18.1%	721,196	3.6%	739,168	17.3%	735,584	3.1%	740,837	18.7%	737,196	3.2%

\* # eligible for ANY VACCINE includes all beneficiaries with 3 or more months of eligibility in Medicaid during year. # eligible for INFLUENZA OR PNEUMOCOCCAL includes all beneficiaries with 3 or more months of eligibility in Medicaid during January-March and/or September-December of year.

As shown in Table 7, considerable disparity also exists among the counties in the percentage and number of providers doing vaccine administrations. Overall only 32% of Medicaid providers administered vaccines. 7 counties had no Medicaid providers available who administered vaccines (Benton, George, Issaquena, Jefferson, Noxubee, Perry, and Tallahatchie).

**TABLE 7: Providers Administering Vaccines by County and Year (CONTINUED)**

County	2011			2012		
	# Eligible*	% Giving Any Vaccine	% Giving Influenza or Pneumococcal	# Eligible*	% Giving Any Vaccine	% Giving Influenza or Pneumococcal
Lincoln	17	47.1%	47.1%	21	42.9%	33.3%
Lowndes	42	35.7%	35.7%	39	35.9%	30.8%
Madison	45	28.9%	28.9%	47	40.4%	36.2%
Marion	17	41.2%	41.2%	15	46.7%	33.3%
Marshall	11	36.4%	36.4%	12	33.3%	33.3%
Monroe	38	36.8%	34.2%	36	30.6%	27.8%
Montgomery	9	22.2%	22.2%	9	33.3%	33.3%
Neshoba	17	47.1%	47.1%	19	26.3%	26.3%
Newton	13	7.7%	7.7%	15	33.3%	6.7%
Noxubee	6	0.0%	0.0%	6	0.0%	0.0%
Oktibbeha	37	62.2%	59.5%	34	64.7%	61.8%
Panola	20	35.0%	30.0%	20	35.0%	35.0%
Pearl	28	39.3%	25.0%	28	35.7%	28.6%
Perry	9	0.0%	0.0%	9	0.0%	0.0%
Pike	48	43.8%	43.8%	48	45.8%	45.8%
Pontotoc	10	60.0%	60.0%	7	85.7%	71.4%
Prentiss	18	50.0%	50.0%	18	66.7%	61.1%
Quitman	5	60.0%	60.0%	5	60.0%	60.0%
Rankin	88	29.6%	28.4%	87	31.0%	27.6%
Scott	13	38.5%	30.8%	15	33.3%	33.3%
Sharkey	6	16.7%	16.7%	6	33.3%	33.3%
Simpson	25	56.0%	56.0%	27	51.9%	48.2%
Smith	6	66.7%	66.7%	7	28.6%	28.6%
Stone	11	36.4%	36.4%	10	30.0%	30.0%
Sunflower	13	7.7%	7.7%	11	27.3%	18.2%
Tallahatchie	5	0.0%	0.0%	5	0.0%	0.0%
Tate	16	81.3%	68.8%	16	68.8%	43.8%
Tippah	11	45.5%	45.5%	11	36.4%	36.4%
Tishomingo	11	63.6%	63.6%	11	72.7%	72.7%
Tunica	6	33.3%	33.3%	7	42.9%	42.9%
Union	24	41.7%	37.5%	25	44.0%	40.0%
Walthall	5	40.0%	40.0%	5	40.0%	40.0%
Warren	48	35.4%	29.2%	47	38.3%	29.8%
Washington	45	42.2%	40.0%	39	48.7%	41.0%
Wayne	9	44.4%	44.4%	9	44.4%	22.2%
Webster	5	40.0%	20.0%	3	33.3%	0.0%
Wilkinson	4	0.0%	0.0%	5	20.0%	20.0%
Winston	7	28.6%	28.6%	9	22.2%	22.2%
Yalobusha	5	40.0%	40.0%	4	75.0%	75.0%
Yazoo	12	8.3%	8.3%	12	8.3%	8.3%
<b>Total</b>	<b>2,391</b>	<b>31.7%</b>	<b>28.6%</b>	<b>2473</b>	<b>31.9%</b>	<b>27.7%</b>

\* Providers were considered eligible if they were paid by Medicaid for any medical claims during the calendar year.

Table 8 shows the number of eligible Medicaid pharmacies in each county and the percentage administering vaccines. Again, considerable disparity exists among the counties with respect to pharmacies accessible for administering vaccines to Medicaid beneficiaries. Overall 29% of eligible Medicaid pharmacies provide immunizations. However, 22 counties do not have any pharmacies that provide immunizations to Medicaid beneficiaries.

**TABLE 8: Pharmacies Providing Vaccines by County and Year**

County	2010		2011		2012	
	# Eligible*	% Giving Influenza or Pneumococcal	# Eligible*	% Giving Influenza or Pneumococcal	# Eligible*	% Giving Influenza or Pneumococcal
Adams	10	30.0%	10	40.0%	10	50.0%
Alcorn	9	33.3%	10	40.0%	11	54.6%
Amite	3	0.0%	3	0.0%	3	0.0%
Attala	6	0.0%	6	16.7%	6	16.7%
Benton	1	0.0%	1	0.0%	1	0.0%
Bolivar	11	9.1%	11	9.1%	11	9.1%
Calhoun	7	57.1%	7	28.6%	7	71.4%
Carroll	1	0.0%	1	0.0%	1	0.0%
Chickasaw	5	0.0%	6	0.0%	6	16.7%
Choctaw	2	0.0%	2	0.0%	2	0.0%
Claiborne	2	0.0%	2	0.0%	2	0.0%
Clarke	3	33.3%	4	25.0%	4	0.0%
Clay	4	0.0%	4	25.0%	4	25.0%
Coahoma	11	9.1%	11	9.1%	11	18.2%
Copiah	7	14.3%	7	14.3%	7	14.3%
Covington	5	0.0%	5	0.0%	5	0.0%
DeSoto	39	35.9%	40	55.0%	41	61.0%
Forrest	19	15.8%	20	30.0%	22	27.3%
Franklin	3	0.0%	3	0.0%	3	0.0%
George	5	0.0%	5	20.0%	5	20.0%
Greene	2	0.0%	3	0.0%	3	0.0%
Grenada	7	28.6%	7	28.6%	7	28.6%
Hancock	8	25.0%	8	37.5%	8	37.5%
Harrison	41	26.8%	42	40.5%	44	34.1%
Hinds	54	33.3%	54	42.6%	55	38.2%
Holmes	6	0.0%	6	16.7%	6	16.7%
Humphreys	2	0.0%	2	0.0%	2	50.0%
Issaquena	0	-	0	-	0	-
Itawamba	5	20.0%	5	40.0%	5	40.0%
Jackson	26	19.2%	28	28.6%	27	29.6%
Jasper	4	0.0%	4	0.0%	4	0.0%
Jefferson	1	0.0%	1	0.0%	1	0.0%
Jefferson Davis	4	0.0%	4	25.0%	4	0.0%
Jones	17	11.8%	18	16.7%	18	22.2%
Kemper	1	0.0%	1	0.0%	1	0.0%
Lafayette	10	20.0%	10	20.0%	12	16.7%
Lamar	15	6.7%	15	20.0%	16	18.8%
Lauderdale	25	28.0%	25	28.0%	27	25.9%
Lawrence	2	0.0%	2	0.0%	2	0.0%
Leake	6	0.0%	6	16.7%	6	16.7%
Lee	21	19.1%	22	27.3%	24	25.0%
Leflore	8	25.0%	8	25.0%	8	37.5%
Lincoln	8	25.0%	8	50.0%	8	37.5%
Lowndes	21	9.5%	21	14.3%	23	21.7%
Madison	27	11.1%	29	24.1%	29	34.5%
Marion	9	22.2%	10	30.0%	10	30.0%

**TABLE 8: Pharmacies Providing Vaccines by County and Year (CONTINUED)**

County	2010		2011		2012	
	# Eligible*	% Giving Influenza or Pneumococcal	# Eligible*	% Giving Influenza or Pneumococcal	# Eligible*	% Giving Influenza or Pneumococcal
Marshall	5	0.0%	6	0.0%	6	33.3%
Monroe	11	18.2%	11	36.4%	11	27.3%
Montgomery	5	0.0%	6	0.0%	6	16.7%
Neshoba	6	33.3%	6	16.7%	6	16.7%
Newton	6	0.0%	6	0.0%	6	16.7%
Noxubee	3	0.0%	3	0.0%	3	33.3%
Oktibbeha	10	30.0%	10	30.0%	10	30.0%
Panola	11	27.3%	11	18.2%	11	27.3%
Pearl	14	21.4%	14	28.6%	15	40.0%
Perry	3	0.0%	3	33.3%	3	33.3%
Pike	11	27.3%	11	36.4%	13	30.8%
Pontotoc	5	0.0%	5	0.0%	5	20.0%
Prentiss	10	20.0%	10	10.0%	10	0.0%
Quitman	2	0.0%	2	50.0%	2	50.0%
Rankin	38	15.8%	41	17.1%	42	35.7%
Scott	7	28.6%	7	28.6%	8	25.0%
Sharkey	1	0.0%	1	0.0%	2	0.0%
Simpson	11	9.1%	10	30.0%	10	40.0%
Smith	2	0.0%	2	50.0%	2	50.0%
Stone	5	20.0%	5	20.0%	5	20.0%
Sunflower	6	0.0%	6	0.0%	6	0.0%
Tallahatchie	4	0.0%	4	25.0%	4	0.0%
Tate	7	14.3%	7	14.3%	7	14.3%
Tippah	5	20.0%	6	16.7%	6	33.3%
Tishomingo	8	0.0%	8	12.5%	8	37.5%
Tunica	2	0.0%	2	0.0%	2	0.0%
Union	8	25.0%	8	50.0%	8	37.5%
Walthall	3	0.0%	3	0.0%	3	0.0%
Warren	15	13.3%	15	20.0%	16	25.0%
Washington	16	12.5%	17	11.8%	19	26.3%
Wayne	5	0.0%	5	20.0%	5	20.0%
Webster	2	0.0%	1	0.0%	2	0.0%
Wilkinson	4	25.0%	4	25.0%	4	25.0%
Winston	7	0.0%	6	0.0%	7	28.6%
Yalobusha	3	0.0%	3	33.3%	3	33.3%
Yazoo	5	0.0%	5	20.0%	6	33.3%
<b>Total</b>	<b>749</b>	<b>17.9%</b>	<b>767</b>	<b>25.4%</b>	<b>794</b>	<b>29.1%</b>

\* Pharmacies were considered eligible if they were paid by Medicaid for any prescription claims during the calendar year.

An analysis was conducted to examine how well accessibility to a provider or a pharmacy that administered vaccines affected the likelihood of beneficiaries obtaining a flu or pneumonia immunization in 2012. Simply having a provider or a pharmacy providing immunizations in the same county had minimal impact on the likelihood a beneficiary getting an immunization. However, use of a provider or use of a pharmacy that provide immunizations significantly increased the likelihood of a beneficiary obtaining immunizations (Table 9).

<b>TABLE 9: Use of Pharmacy and Provider Doing Immunizations and Likelihood of Getting Immunization</b>			
		<b>Got Flu/Pneum Immunization in 2012</b>	
		No	Yes
<b>Use Pharmacy That Does Immunizations*</b>	No	96.3%	3.7%
	Yes	94.8%	5.2%
<b>Use Provider That Does Immunizations*</b>	No	98.0%	2.0%
	Yes	93.4%	6.6%

\* Significant ( $p < 0.0001$ )

## CONCLUSIONS

Adult Medicaid beneficiaries in Mississippi have very low rate of obtaining beneficial immunizations. Access to pharmacies or providers who administer vaccines is a problem in many rural Mississippi counties. DOM needs to consider changes that could be made to increase the number of pharmacies that are providing vaccines to adult beneficiaries. This report focused specifically on flu and pneumonia immunizations, since these are currently the only ones for which pharmacies can be reimbursed. MS-DUR is exploring the need for expanding the type of adult immunizations reimbursed in pharmacies.

## MS-DUR RECOMMENDATION FOR BOARD CONSIDERATION:

- DOM should not count vaccines against the monthly prescription service limit.
- DOM should work with state pharmacy associations to encourage more pharmacies to provide adult immunizations and to regularly offer training and certification for pharmacists.
- DOM should consider providing an administration fee to pharmacies for immunizations such that more pharmacies would be motivated to promote and provide immunizations to adult Medicaid beneficiaries.
- DOM should explore expanding the types of adult immunizations that are reimbursed in community pharmacies.

## **Exceptions Monitoring Criteria Recommendations**

**MISSISSIPPI MEDICAID  
RETROSPECTIVE DRUG UTILIZATION REVIEW  
EXCEPTIONS MONITORING CRITERIA RECOMMENDATIONS**

**Criteria Recommendations****1. Co-administration of aliskiren with Altace (ramipril) in patients with diabetes.**

Message: In October 2013, the FDA approved labeling changes for Altace (ramipril) capsules to include a boxed warning that aliskiren and Altace should not be co-administered in patients with diabetes.

Exception Type: DDI - Drug-drug interaction

Field 1

aliskiren

Field 2

Altace

Field 3

Diabetes

## References:

FDA Drug Safety Labeling Changes. October 2013. Available at:  
<http://www.fda.gov/Safety/MedWatch/SafetyInformation/ucm233254.htm>

**2. Coadministration of Diovan (valsartan) Tablets with products containing aliskiren**

Message: In October 2013, the FDA approved labeling changes for Diovan (valsartan) tablets to include a boxed warning that aliskiren and Diovan should not be co-administered in patients with diabetes.

Exception Type: DDI - Drug-drug interaction

Field 1

Diovan (valsartan)

Field 2

aliskiren

Field 3

Diabetes

## References:

FDA Drug Safety Labeling Changes. October 2013. Available at:  
<http://www.fda.gov/Safety/MedWatch/SafetyInformation/ucm262225.htm>

**3. Concomitant administration of Glucovance (glyburide and metformin HCl) and Glynase (micronized glyburide) tablets with Tracleer (bosentan).**

Message: In October 2013, the FDA updated the labeling of Glucovance (glyburide and metformin HCl) and Glynase (micronized glyburide) tablets to include a contraindication with concomitant use of Tracleer (bosentan) leading to increased risk of liver enzyme elevations.

Exception Type: DDI - Drug-drug interaction

Field 1

Glucovance (glyburide and metformin HCl)  
Glynase (micronized glyburide)

Field 2

Tracleer (bosentan)

## References:

FDA Drug Safety Labeling Changes. October 2013. Available at:  
<http://www.fda.gov/Safety/MedWatch/SafetyInformation/ucm194334.htm>

**4. Co-administration of Incivek (telaprevir) tablets with anticonvulsants.**

Message: In October 2013, the FDA approved labeling changes for Incivek (telaprevir) film coated tablets to include a contraindication with anticonvulsants including carbamazepine, phenobarbital, and phenytoin.

Exception Type: DDI - Drug-drug interaction

Field 1

Incivek (telaprevir)

Field 2

carbamazepine  
phenobarbital  
phenytoin

## References:

FDA Drug Safety Communications. October 2013. Available at:  
<http://www.fda.gov/Safety/MedWatch/SafetyInformation/ucm352014.htm>

**5. Combination therapy of Lipid (gemfibrozil) with simvastatin**

Message: In October 2013, the FDA included combination therapy of gemfibrozil with simvastatin as a contraindication on the label of gemfibrozil tablets due to an increased risk of skeletal muscle toxicity manifested as rhabdomyolysis

Exception Type: DDI - Drug-drug interaction

Field 1

gemfibrozil

Field 2

simvastatin

## References:

FDA Drug Safety Communications. October 2013. Available at:  
<http://www.fda.gov/Safety/MedWatch/SafetyInformation/ucm175927.htm>

**6. Co-administration of Lysteda (tranexamic acid) tablets with hormonal contraceptives.**

Message: In October 2013, the FDA modified the label for Lysteda (tranexamic acid) tablets. Because Lysteda is antifibrinolytic, the risk of venous thromboembolism, as well as arterial thromboses such as stroke, may increase further when hormonal contraceptives are administered with Lysteda.

Exception Type: DDI - Drug-drug interaction

Field 1

tranexamic acid

Field 2

hormonal contraceptives

## References:

FDA Drug Safety Communications. October 2013. Available at:  
<http://www.fda.gov/Safety/MedWatch/SafetyInformation/ucm255213.htm>



**7. Co-administration of Savella (milnacipran HCL) tablets with MAOIs.**

Message: In October 2013, the FDA updated the label for Savella (milnacipran HCL) tablets. The use of MAOIs intended to treat psychiatric disorders with Savella or within 5 days of stopping treatment with Savella is contraindicated because of an increased risk of serotonin syndrome.

Exception Type: DDI - Drug-drug interaction

Field 1

milnacipran HCL

Field 2

MAOIs

## References:

FDA Drug Safety Communications. October 2013. Available at:

<http://www.fda.gov/Safety/MedWatch/SafetyInformation/ucm203615.htm>

**8. Co-administration of Zestoretic (lisinopril and hydrochlorothiazide HCL) tablets with aliskiren in patients with diabetes.**

Message: In November 2013, the FDA approved a labeling change for Zestoretic (lisinopril and hydrochlorothiazide HCL) tablets. Co-administration of aliskiren with Zestoretic is contraindicated in patients with diabetes.

Exception Type: DDI - Drug-drug interaction

Field 1

Zestoretic (lisinopril and hydrochlorothiazide HCL)

Field 2

aliskiren

Field 3

diabetes

## References:

FDA Drug Safety Communications. November 2013. Available at:

<http://www.fda.gov/Safety/MedWatch/SafetyInformation/ucm165414.htm>

**9. Co-administration of Tikosyn (dofetilide) capsules and dolutegravir.**

Message: In December 2013, the FDA approved a labeling change for Tikosyn (dofetilide) capsules. It is contraindicated in patients on dolutegravir.

Exception Type: DDI - Drug-drug interaction

Field 1

Tikosyn (dofetilide)

Field 2

dolutegravir

## References:

FDA Drug Safety Communications. December 2013. Available at:

<http://www.fda.gov/Safety/MedWatch/SafetyInformation/ucm266132.htm>

## **Appendix**

***Detail Resource Utilization Report - Top 25 Drugs by Dollars Paid Last Month***

<b>Generic Molecule</b>	<b>Oct 2013 \$ Paid</b>	<b>Nov 2013 \$ Paid</b>	<b>Dec 2013 \$ Paid</b>	<b>Oct 2013 # Claims</b>	<b>Nov 2013 # Claims</b>	<b>Dec 2013 # Claims</b>	<b>Oct 2013 # Benes</b>	<b>Nov 2013 # Benes</b>	<b>Dec 2013 # Benes</b>
Montelukast	\$1,480,922	\$1,366,067	\$1,317,283	8,087	7,384	7,134	7,933	7,290	5,329
-----Singulair	\$1,478,982	\$1,365,339	\$1,317,151	8,071	7,376	7,133	7,918	7,283	5,328
Oseltamivir	\$246,822	\$758,812	\$1,232,165	1,572	4,484	7,328	1,562	4,469	5,770
-----Tamiflu	\$246,822	\$758,812	\$1,232,165	1,572	4,484	7,328	1,562	4,469	5,770
Lisdexamfetamine	\$1,037,320	\$937,281	\$870,344	5,386	4,893	4,532	5,137	4,715	3,516
-----Vyvanse	\$1,037,320	\$937,281	\$870,344	5,386	4,893	4,532	5,137	4,715	3,516
Budesonide	\$760,613	\$750,389	\$723,506	1,701	1,674	1,646	1,654	1,636	1,253
-----Pulmicort Respules	\$737,021	\$728,695	\$706,892	1,595	1,571	1,561	1,553	1,540	1,185
-----Pulmicort Flexhaler	\$13,854	\$13,272	\$12,494	88	87	79	87	84	65
-----Budesonide	\$9,738	\$8,421	\$4,120	18	16	6	18	16	4
Methylphenidate	\$750,240	\$682,430	\$650,155	4,656	4,252	4,022	4,225	3,923	2,972
-----Methylphenidate Hydrochloride Er	\$549,789	\$491,671	\$468,902	3,305	2,977	2,854	3,134	2,854	2,147
-----Quillivant Xr	\$50,676	\$55,006	\$61,151	236	250	266	230	248	216
-----Metadate Cd	\$59,955	\$54,156	\$52,886	274	249	244	262	237	199
-----Daytrana	\$56,809	\$49,289	\$42,688	262	226	194	248	221	152
-----Methylphenidate Hydrochloride	\$10,552	\$8,146	\$7,945	488	458	399	455	437	307
-----Concerta	\$12,251	\$15,403	\$7,638	47	58	29	46	58	29
-----Methylin	\$7,228	\$6,321	\$7,063	19	16	18	18	16	11
-----Ritalin La	\$1,380	\$681	\$741	8	4	5	8	4	5
-----Methylphenidate Hydrochloride Cd	\$1,004	\$1,366	\$610	4	6	3	4	6	3
Aripiprazole	\$671,531	\$605,284	\$587,108	1,164	1,068	1,027	1,010	958	717

***Only drugs with > \$500 paid (amount reimbursed to pharmacy) in last month are included in detail listing***

***Detail Resource Utilization Report - Top 25 Drugs by Dollars Paid Last Month***

<b>Generic Molecule</b>	<b>Oct 2013 \$ Paid</b>	<b>Nov 2013 \$ Paid</b>	<b>Dec 2013 \$ Paid</b>	<b>Oct 2013 # Claims</b>	<b>Nov 2013 # Claims</b>	<b>Dec 2013 # Claims</b>	<b>Oct 2013 # Benes</b>	<b>Nov 2013 # Benes</b>	<b>Dec 2013 # Benes</b>
-----Abilify	\$670,262	\$600,634	\$583,728	1,162	1,062	1,023	1,009	953	715
-----Abilify Discmelt	\$1,270	\$4,650	\$3,380	2	6	4	2	5	2
Antihemophilic Factor	\$774,068	\$548,634	\$540,782	51	36	33	23	17	19
-----Advate Rahf-Pfm	\$483,614	\$296,357	\$242,944	26	18	14	15	8	11
-----Recombinant	\$225,258	\$166,998	\$148,698	19	13	9	6	6	5
-----Kogenate Fs With Bioset	\$28,015	\$0	\$89,377	2	0	8	1	0	1
-----Xyntha	\$0	\$53,382	\$34,572	0	1	1	0	1	1
-----Helixate Fs	\$16,804	\$16,777	\$25,192	2	2	1	1	1	1
Amphetamine-Dextroamphetamine	\$575,603	\$519,552	\$520,233	3,708	3,388	3,368	3,150	2,917	2,231
-----Adderall Xr	\$465,204	\$413,263	\$413,472	1,964	1,748	1,739	1,845	1,652	1,278
-----Amphetamine-Dextroamphetamine	\$98,108	\$92,469	\$92,812	1,668	1,560	1,556	1,527	1,438	1,102
-----Amphetamine-Dextroamphetamine Er	\$12,017	\$13,539	\$13,809	75	78	72	70	75	53
Guanfacine	\$466,790	\$445,217	\$458,658	3,198	2,929	2,839	2,990	2,814	2,119
-----Intuniv	\$448,702	\$428,704	\$442,376	1,962	1,788	1,776	1,860	1,725	1,344
-----Guanfacine Hydrochloride	\$18,088	\$16,513	\$16,283	1,236	1,141	1,063	1,145	1,101	785
Albuterol	\$477,484	\$469,103	\$453,764	10,456	10,555	10,396	9,182	9,407	7,164
-----Proventil Hfa	\$267,860	\$249,442	\$225,553	4,206	3,939	3,565	4,129	3,874	2,680
-----Albuterol Sulfate	\$174,123	\$185,129	\$193,911	5,521	5,914	6,124	5,326	5,710	4,568
-----Ventolin Hfa	\$25,771	\$24,789	\$24,656	536	512	510	517	496	385
-----Proair Hfa	\$9,492	\$9,312	\$9,487	171	167	182	169	163	147
Quetiapine	\$431,863	\$412,283	\$447,595	964	921	992	781	749	606

***Only drugs with > \$500 paid (amount reimbursed to pharmacy) in last month are included in detail listing***

***Detail Resource Utilization Report - Top 25 Drugs by Dollars Paid Last Month***

<b>Generic Molecule</b>	<b>Oct 2013 \$ Paid</b>	<b>Nov 2013 \$ Paid</b>	<b>Dec 2013 \$ Paid</b>	<b>Oct 2013 # Claims</b>	<b>Nov 2013 # Claims</b>	<b>Dec 2013 # Claims</b>	<b>Oct 2013 # Benes</b>	<b>Nov 2013 # Benes</b>	<b>Dec 2013 # Benes</b>
-----Seroquel	\$344,014	\$328,560	\$358,678	790	759	825	634	609	502
-----Seroquel Xr	\$80,812	\$74,989	\$83,479	147	137	153	131	125	100
-----Quetiapine Fumarate	\$7,037	\$8,734	\$5,438	27	25	14	22	22	10
Esomeprazole	\$508,209	\$446,783	\$444,423	2,125	1,860	1,849	2,037	1,798	1,384
-----Nexium	\$508,209	\$446,783	\$444,423	2,125	1,860	1,849	2,037	1,798	1,384
Mometasone Nasal	\$523,465	\$465,154	\$434,083	3,420	3,037	2,852	3,395	3,018	2,111
-----Nasonex	\$523,465	\$465,154	\$434,083	3,420	3,037	2,852	3,395	3,018	2,111
Azithromycin	\$340,127	\$364,016	\$362,432	10,584	11,395	11,263	10,351	11,162	8,626
-----Azithromycin	\$292,692	\$310,761	\$310,869	8,524	9,073	9,027	8,338	8,887	6,878
-----Azithromycin 5 Day Dose Pack	\$45,018	\$50,742	\$49,084	1,960	2,220	2,137	1,930	2,193	1,686
-----Azithromycin 3 Day Dose Pack	\$2,418	\$2,513	\$2,479	100	102	99	100	102	74
Dexmethylphenidate	\$443,966	\$385,849	\$357,203	2,447	2,113	1,955	2,044	1,794	1,377
-----Focalin Xr	\$424,762	\$369,236	\$342,147	1,964	1,701	1,570	1,841	1,627	1,230
-----Dexmethylphenidate Hydrochloride	\$18,320	\$16,015	\$13,232	465	398	354	436	386	276
-----Focalin	\$885	\$598	\$1,825	18	14	31	17	12	24
Somatropin	\$401,138	\$364,354	\$328,376	105	95	85	98	91	71
-----Genotropin	\$77,700	\$102,152	\$86,200	17	20	16	16	18	11
-----Norditropin Flexpro Pen	\$54,783	\$53,218	\$73,653	17	18	23	17	17	20
-----Nutropin Aq Nuspin 20	\$115,719	\$103,630	\$50,626	21	19	11	19	18	11
-----Genotropin Miniquick	\$36,789	\$18,937	\$49,232	9	5	12	8	5	9
-----Nutropin Aq Nuspin 10	\$74,614	\$62,296	\$43,747	28	25	14	27	25	13

***Only drugs with > \$500 paid (amount reimbursed to pharmacy) in last month are included in detail listing***

***Detail Resource Utilization Report - Top 25 Drugs by Dollars Paid Last Month***

<b>Generic Molecule</b>	<b>Oct 2013 \$ Paid</b>	<b>Nov 2013 \$ Paid</b>	<b>Dec 2013 \$ Paid</b>	<b>Oct 2013 # Claims</b>	<b>Nov 2013 # Claims</b>	<b>Dec 2013 # Claims</b>	<b>Oct 2013 # Benes</b>	<b>Nov 2013 # Benes</b>	<b>Dec 2013 # Benes</b>
-----Omnitrope Pen 10 Cartridge	\$4,888	\$4,888	\$14,119	3	3	5	3	3	3
-----Nutropin Aq Pen 20 Cartridge	\$5,182	\$5,182	\$5,182	1	1	1	1	1	1
-----Nutropin Aq Nuspin 5	\$2,593	\$2,593	\$2,826	1	1	1	1	1	1
-----Nutropin Aq Pen 10 Cartridge	\$6,052	\$867	\$2,593	3	1	1	2	1	1
Amoxicillin-Clavulanate	\$297,949	\$320,315	\$308,619	4,904	5,206	5,126	4,819	5,136	4,002
-----Amoxicillin-Clavulanate	\$295,801	\$318,231	\$307,232	4,889	5,193	5,117	4,806	5,125	3,994
-----Augmentin	\$1,880	\$1,982	\$1,130	13	12	6	13	12	5
Cefdinir	\$277,241	\$288,973	\$291,731	3,386	3,492	3,626	3,325	3,439	2,744
-----Cefdinir	\$277,241	\$288,973	\$291,731	3,386	3,492	3,626	3,325	3,439	2,744
Cetirizine	\$301,130	\$273,555	\$244,728	14,370	13,226	12,234	14,000	12,964	9,206
-----Cetirizine Hydrochloride	\$299,490	\$272,006	\$243,521	14,158	13,030	12,089	13,797	12,781	9,109
-----All Day Allergy	\$1,210	\$1,095	\$902	178	160	119	171	159	82
Palivizumab	\$78,864	\$165,953	\$227,955	33	86	122	25	72	62
-----Synagis	\$78,864	\$165,953	\$227,955	33	86	122	25	72	62
Ondansetron	\$261,545	\$246,664	\$224,378	2,461	2,351	2,169	2,406	2,290	1,701
-----Ondansetron Hydrochloride	\$261,100	\$246,664	\$224,378	2,460	2,351	2,169	2,405	2,290	1,701
Fluticasone-Salmeterol	\$238,198	\$223,076	\$217,837	872	823	817	850	797	622
-----Advair Diskus	\$205,317	\$188,410	\$186,281	763	708	705	746	688	539
-----Advair Hfa	\$32,881	\$34,666	\$31,556	109	115	112	106	110	83
Risperidone	\$227,365	\$211,256	\$203,296	2,486	2,269	2,189	2,167	2,009	1,506
-----Risperidone	\$223,734	\$204,749	\$197,485	2,481	2,262	2,182	2,163	2,003	1,501

***Only drugs with > \$500 paid (amount reimbursed to pharmacy) in last month are included in detail listing***

***Detail Resource Utilization Report - Top 25 Drugs by Dollars Paid Last Month***

<b>Generic Molecule</b>	<b>Oct 2013 \$ Paid</b>	<b>Nov 2013 \$ Paid</b>	<b>Dec 2013 \$ Paid</b>	<b>Oct 2013 # Claims</b>	<b>Nov 2013 # Claims</b>	<b>Dec 2013 # Claims</b>	<b>Oct 2013 # Benes</b>	<b>Nov 2013 # Benes</b>	<b>Dec 2013 # Benes</b>
-----Risperdal Consta	\$3,127	\$6,098	\$5,627	3	6	5	2	5	3
Olanzapine	\$186,800	\$178,212	\$174,538	348	343	325	239	241	185
-----Olanzapine	\$132,903	\$130,448	\$143,912	242	243	263	186	187	156
-----Zyprexa	\$50,348	\$46,401	\$30,132	91	80	53	57	54	27
Insulin Glargine	\$150,199	\$141,783	\$160,724	535	483	546	505	462	406
-----Lantus	\$103,902	\$95,863	\$117,365	400	356	426	375	339	309
-----Lantus Solostar Pen	\$46,297	\$45,920	\$43,359	135	127	120	134	124	99

*Only drugs with > \$500 paid (amount reimbursed to pharmacy) in last month are included in detail listing*

***Detail Resource Utilization Report - Top 25 Drugs by Number of Claims Last Month***

<b>Generic Molecule</b>	<b>Oct 2013 \$ Paid</b>	<b>Nov 2013 \$ Paid</b>	<b>Dec 2013 \$ Paid</b>	<b>Oct 2013 # Claims</b>	<b>Nov 2013 # Claims</b>	<b>Dec 2013 # Claims</b>	<b>Oct 2013 # Benes</b>	<b>Nov 2013 # Benes</b>	<b>Dec 2013 # Benes</b>
Cetirizine	\$301,130	\$273,555	\$244,728	14,370	13,226	12,234	14,000	12,964	9,206
-----Cetirizine Hydrochloride	\$299,490	\$272,006	\$243,521	14,158	13,030	12,089	13,797	12,781	9,109
-----All Day Allergy	\$1,210	\$1,095	\$902	178	160	119	171	159	82
Amoxicillin	\$127,730	\$134,668	\$131,816	11,705	12,226	11,991	11,447	11,986	9,241
-----Amoxicillin	\$127,730	\$134,668	\$131,816	11,705	12,226	11,991	11,447	11,986	9,241
Azithromycin	\$340,127	\$364,016	\$362,432	10,584	11,395	11,263	10,351	11,162	8,626
-----Azithromycin	\$292,692	\$310,761	\$310,869	8,524	9,073	9,027	8,338	8,887	6,878
-----Azithromycin 5 Day Dose Pack	\$45,018	\$50,742	\$49,084	1,960	2,220	2,137	1,930	2,193	1,686
-----Azithromycin 3 Day Dose Pack	\$2,418	\$2,513	\$2,479	100	102	99	100	102	74
Brompheniramine/ Dextromethorph/Phenylephrine	\$83,776	\$98,052	\$97,474	9,165	10,715	10,676	8,971	10,482	8,147
-----Rynex Dm	\$75,315	\$88,885	\$89,160	8,138	9,575	9,666	7,980	9,375	7,355
-----Endacof-Dm	\$6,074	\$6,175	\$5,714	674	699	637	662	682	522
-----Dimaphen Dm	\$1,489	\$1,824	\$1,489	239	290	236	231	285	171
-----Cold & Cough Childrens	\$744	\$981	\$872	92	124	110	87	121	83
Albuterol	\$477,484	\$469,103	\$453,764	10,456	10,555	10,396	9,182	9,407	7,164
-----Albuterol Sulfate	\$174,123	\$185,129	\$193,911	5,521	5,914	6,124	5,326	5,710	4,568
-----Proventil Hfa	\$267,860	\$249,442	\$225,553	4,206	3,939	3,565	4,129	3,874	2,680
-----Ventolin Hfa	\$25,771	\$24,789	\$24,656	536	512	510	517	496	385
-----Proair Hfa	\$9,492	\$9,312	\$9,487	171	167	182	169	163	147
Oseltamivir	\$246,822	\$758,812	\$1,232,165	1,572	4,484	7,328	1,562	4,469	5,770
-----Tamiflu	\$246,822	\$758,812	\$1,232,165	1,572	4,484	7,328	1,562	4,469	5,770

***Only drugs with > \$500 paid (amount reimbursed to pharmacy) in last month are included in detail listing***



***Detail Resource Utilization Report - Top 25 Drugs by Number of Claims Last Month***

<b>Generic Molecule</b>	<b>Oct 2013 \$ Paid</b>	<b>Nov 2013 \$ Paid</b>	<b>Dec 2013 \$ Paid</b>	<b>Oct 2013 # Claims</b>	<b>Nov 2013 # Claims</b>	<b>Dec 2013 # Claims</b>	<b>Oct 2013 # Benes</b>	<b>Nov 2013 # Benes</b>	<b>Dec 2013 # Benes</b>
Montelukast	\$1,480,922	\$1,366,067	\$1,317,283	8,087	7,384	7,134	7,933	7,290	5,329
-----Singulair	\$1,478,982	\$1,365,339	\$1,317,151	8,071	7,376	7,133	7,918	7,283	5,328
Prednisolone	\$129,393	\$123,415	\$102,199	6,537	6,456	6,186	6,316	6,237	4,675
-----Prednisolone Sodium Phosphate	\$39,721	\$38,942	\$38,948	2,671	2,730	2,914	2,610	2,671	2,201
-----Prednisolone	\$35,974	\$35,357	\$35,005	2,603	2,515	2,543	2,549	2,449	1,935
-----Veripred 20	\$41,936	\$39,287	\$20,660	1,138	1,112	648	1,118	1,098	527
-----Orapred Odt	\$11,651	\$9,734	\$7,516	124	97	79	123	95	62
Ibuprofen	\$53,108	\$52,597	\$52,641	5,378	5,259	5,174	5,243	5,146	4,063
-----Ibuprofen	\$48,978	\$48,331	\$48,694	4,763	4,650	4,631	4,649	4,550	3,642
-----Ibu	\$2,285	\$1,931	\$1,497	408	342	264	395	336	209
-----Ibuprofen Children's	\$1,487	\$2,036	\$2,125	169	233	245	167	232	185
Amoxicillin-Clavulanate	\$297,949	\$320,315	\$308,619	4,904	5,206	5,126	4,819	5,136	4,002
-----Amoxicillin-Clavulanate	\$295,801	\$318,231	\$307,232	4,889	5,193	5,117	4,806	5,125	3,994
-----Augmentin	\$1,880	\$1,982	\$1,130	13	12	6	13	12	5
Acetaminophen-Hydrocodone	\$90,590	\$87,878	\$87,129	5,846	5,236	4,573	5,162	4,709	3,429
-----Acetaminophen-Hydrocod one Bitartrate	\$90,590	\$87,671	\$87,117	5,846	5,234	4,571	5,162	4,708	3,427
Lisdexamfetamine	\$1,037,320	\$937,281	\$870,344	5,386	4,893	4,532	5,137	4,715	3,516
-----Vyvanse	\$1,037,320	\$937,281	\$870,344	5,386	4,893	4,532	5,137	4,715	3,516
Methylphenidate	\$750,240	\$682,430	\$650,155	4,656	4,252	4,022	4,225	3,923	2,972
-----Methylphenidate Hydrochloride Er	\$549,789	\$491,671	\$468,902	3,305	2,977	2,854	3,134	2,854	2,147
-----Methylphenidate Hydrochloride	\$10,552	\$8,146	\$7,945	488	458	399	455	437	307

***Only drugs with > \$500 paid (amount reimbursed to pharmacy) in last month are included in detail listing***

***Detail Resource Utilization Report - Top 25 Drugs by Number of Claims Last Month***

<b>Generic Molecule</b>	<b>Oct 2013 \$ Paid</b>	<b>Nov 2013 \$ Paid</b>	<b>Dec 2013 \$ Paid</b>	<b>Oct 2013 # Claims</b>	<b>Nov 2013 # Claims</b>	<b>Dec 2013 # Claims</b>	<b>Oct 2013 # Benes</b>	<b>Nov 2013 # Benes</b>	<b>Dec 2013 # Benes</b>
-----Quillivant Xr	\$50,676	\$55,006	\$61,151	236	250	266	230	248	216
-----Metadate Cd	\$59,955	\$54,156	\$52,886	274	249	244	262	237	199
-----Daytrana	\$56,809	\$49,289	\$42,688	262	226	194	248	221	152
-----Concerta	\$12,251	\$15,403	\$7,638	47	58	29	46	58	29
-----Methylin	\$7,228	\$6,321	\$7,063	19	16	18	18	16	11
-----Ritalin La	\$1,380	\$681	\$741	8	4	5	8	4	5
-----Methylphenidate Hydrochloride Cd	\$1,004	\$1,366	\$610	4	6	3	4	6	3
Cefdinir	\$277,241	\$288,973	\$291,731	3,386	3,492	3,626	3,325	3,439	2,744
-----Cefdinir	\$277,241	\$288,973	\$291,731	3,386	3,492	3,626	3,325	3,439	2,744
Amphetamine-Dextroampheta mine	\$575,603	\$519,552	\$520,233	3,708	3,388	3,368	3,150	2,917	2,231
-----Adderall Xr	\$465,204	\$413,263	\$413,472	1,964	1,748	1,739	1,845	1,652	1,278
-----Amphetamine-Dextroamph etamine	\$98,108	\$92,469	\$92,812	1,668	1,560	1,556	1,527	1,438	1,102
-----Amphetamine-Dextroamph etamine Er	\$12,017	\$13,539	\$13,809	75	78	72	70	75	53
Sulfamethoxazole-Trimethoprim	\$62,845	\$44,636	\$40,754	4,404	3,388	3,096	4,323	3,327	2,365
-----Sulfamethoxazole-Trimeth oprim	\$47,518	\$33,376	\$29,997	2,781	2,185	1,924	2,733	2,152	1,474
-----Sulfamethoxazole-Trimeth oprim Ds	\$15,257	\$11,189	\$10,651	1,612	1,191	1,155	1,588	1,172	886
Mometasone Nasal	\$523,465	\$465,154	\$434,083	3,420	3,037	2,852	3,395	3,018	2,111
-----Nasonex	\$523,465	\$465,154	\$434,083	3,420	3,037	2,852	3,395	3,018	2,111
Guanfacine	\$466,790	\$445,217	\$458,658	3,198	2,929	2,839	2,990	2,814	2,119

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***Detail Resource Utilization Report - Top 25 Drugs by Number of Claims Last Month***

<b>Generic Molecule</b>	<b>Oct 2013 \$ Paid</b>	<b>Nov 2013 \$ Paid</b>	<b>Dec 2013 \$ Paid</b>	<b>Oct 2013 # Claims</b>	<b>Nov 2013 # Claims</b>	<b>Dec 2013 # Claims</b>	<b>Oct 2013 # Benes</b>	<b>Nov 2013 # Benes</b>	<b>Dec 2013 # Benes</b>
-----Intuniv	\$448,702	\$428,704	\$442,376	1,962	1,788	1,776	1,860	1,725	1,344
-----Guanfacine Hydrochloride	\$18,088	\$16,513	\$16,283	1,236	1,141	1,063	1,145	1,101	785
Clonidine	\$159,465	\$142,679	\$142,569	2,903	2,666	2,720	2,671	2,515	1,979
-----Clonidine Hydrochloride	\$21,968	\$20,335	\$20,737	2,436	2,234	2,291	2,267	2,135	1,679
-----Kapvay	\$117,138	\$79,371	\$61,262	388	255	197	365	240	153
-----Clonidine Hcl	\$10,716	\$33,110	\$49,341	49	145	195	48	136	136
-----Kapvay Dose Pack	\$3,918	\$1,959	\$3,918	12	6	12	10	6	7
-----Catapres-Tts-2	\$1,764	\$2,202	\$3,234	6	8	11	6	8	8
-----Catapres-Tts-3	\$3,254	\$4,469	\$2,843	8	11	7	8	11	7
-----Catapres-Tts-1	\$706	\$1,233	\$1,233	4	7	7	4	7	7
Ethinyl Estradiol-Norgestimate	\$97,051	\$91,830	\$92,444	2,878	2,584	2,568	2,668	2,425	1,769
-----Trinessa	\$14,515	\$15,022	\$15,175	464	473	486	437	441	332
-----Ortho Tri-Cyclen Lo	\$42,900	\$40,627	\$40,009	690	528	479	637	495	346
-----Tri-Sprintec	\$7,085	\$7,314	\$6,846	419	427	401	395	399	276
-----Sprintec	\$5,801	\$5,345	\$5,865	320	303	334	298	291	219
-----Mononessa	\$7,444	\$7,151	\$7,048	258	246	237	241	231	159
-----Tri-Previfem	\$4,836	\$4,131	\$5,247	142	123	146	136	120	101
-----Tri-Linyah	\$4,593	\$3,950	\$4,338	136	117	132	128	112	93
-----Ortho Tri-Cyclen	\$4,098	\$3,268	\$2,301	211	159	119	196	150	91
-----Ortho-Cyclen	\$1,639	\$1,075	\$1,117	82	60	65	72	56	47
-----Ethinyl Estradiol-Norgestimate	\$1,705	\$1,624	\$1,429	75	69	64	71	67	45
-----Previfem	\$1,037	\$959	\$1,618	34	33	54	32	30	31

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***Detail Resource Utilization Report - Top 25 Drugs by Number of Claims Last Month***

<b>Generic Molecule</b>	<b>Oct 2013 \$ Paid</b>	<b>Nov 2013 \$ Paid</b>	<b>Dec 2013 \$ Paid</b>	<b>Oct 2013 # Claims</b>	<b>Nov 2013 # Claims</b>	<b>Dec 2013 # Claims</b>	<b>Oct 2013 # Benes</b>	<b>Nov 2013 # Benes</b>	<b>Dec 2013 # Benes</b>
-----Mono-Linyah	\$1,398	\$1,363	\$1,451	47	46	51	44	44	31
Brompheniramine-Phenylephrine	\$19,445	\$19,956	\$20,272	2,313	2,430	2,447	2,280	2,397	1,898
-----Rynex Pe	\$18,311	\$18,767	\$19,026	2,132	2,238	2,250	2,102	2,208	1,749
-----Dimaphen Elixir	\$590	\$679	\$745	102	119	129	101	117	89
Codeine-Guaifenesin	\$19,344	\$24,707	\$25,636	1,728	2,230	2,387	1,699	2,194	1,857
-----Codeine Phosphate-Guaifenesin	\$4,298	\$5,547	\$5,956	686	913	987	674	896	761
-----Cheratussin Ac	\$14,199	\$16,061	\$13,252	982	1,098	953	968	1,085	781
-----Guaiaatussin Ac	\$395	\$2,475	\$5,819	26	173	399	25	173	282
-----lophen-C Nr	\$451	\$623	\$610	34	46	48	34	46	42
Risperidone	\$227,365	\$211,256	\$203,296	2,486	2,269	2,189	2,167	2,009	1,506
-----Risperidone	\$223,734	\$204,749	\$197,485	2,481	2,262	2,182	2,163	2,003	1,501
-----Risperdal Consta	\$3,127	\$6,098	\$5,627	3	6	5	2	5	3
Ondansetron	\$261,545	\$246,664	\$224,378	2,461	2,351	2,169	2,406	2,290	1,701
-----Ondansetron Hydrochloride	\$261,100	\$246,664	\$224,378	2,460	2,351	2,169	2,405	2,290	1,701
Triamcinolone Topical	\$29,464	\$25,720	\$27,072	2,340	1,974	2,011	2,275	1,936	1,482
-----Triamcinolone Acetonide Topical	\$29,464	\$25,267	\$26,388	2,340	1,972	2,008	2,275	1,934	1,481
-----Trianex	\$0	\$453	\$684	0	2	3	0	2	1

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