Evaluation of the Indiana Medicaid Preferred Drug List (PDL) Program

Report # 10

PERIOD EVALUATED: April 1, 2008 through September 30, 2008
(Claims with dates of service from April 1, 2008 through September 30, 2008)

Presented by:
ACS Health Management Solutions

For
State of Indiana
Office of Medicaid Policy and Planning
And
Indiana Medicaid DUR Board

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FOREWORD

The tenth PDL report has expanded the Appendix section to include more tables at the end of this report. This section now has three exhibits including the Preferred Drug List Prior Authorization (PDL PA) Summary, the Number of PDL PAs by PDL Therapeutic Class, and the Percent Preferred of PDL Therapeutic Class. All tables found in the Appendix section were based on claims data with dates of service from April 1, 2008 through September 30, 2008 as the basis for analyses.

Should you wish to review prior PDL reports, they may be found at the following web locations:
www.indianamedicaid.com/ihcp/PharmacyServices/hcfa_dur_reports.asp, or
www.indianapbm.com.

We hope all readers find this report helpful in gaining a better understanding of the Indiana Medicaid Preferred Drug List program, and the substantial clinical and financial benefit it provides to the Indiana Medicaid program and to those whom the program serves.

--ACS Health Management Solutions

GLOSSARY OF TERMS IN THIS PDL REPORT

Note: the words "medications" and "drugs" are used interchangeably in this report.

Behavioral health drugs—For purposes of PDL reports, the terms "behavioral health drugs" and "mental health drugs" are synonymous. Both terms refer collectively to antidepressants, antipsychotics, anti-anxiety medications, and so-called "cross-indicated" drugs.

Cross-indicated drug—Defined in Indiana statute at IC 12-15-35.5-2 as "a drug that is used for a purpose generally held to be reasonable, appropriate, and within the community standards of practice even though the use is not included in the federal Food and Drug Administration's approved labeled indications for the drug."

Triple A/cross-indicated drugs (or "3A/cross-indicated drugs")—For purposes of PDL reports, triple A/cross-indicated drugs are "behavioral health drugs" (synonymous with "mental health drugs").

PDL exception—Refers to a situation during which prior authorization is required for a claim that is associated with a drug in a therapeutic class subject to the preferred drug list.

Phase One Reviews—ACS considers "Phase I" reviews to be those reviews that occur in the months of February and August of each year. The review that occurs in February is "clinical", and does not involve consideration of supplemental rebates. The review that occurs in August is "financial", and does involve consideration of supplemental rebates. The same classes of drugs that are reviewed in February are reviewed in August. Those classes are the following: respiratory agents, antiinfectives, cardiovascular agents, lipotropics, triptans, electrolyte depleters, and multiple sclerosis agents.

Phase Two Reviews—ACS considers "Phase II" reviews to be those reviews that occur in the months of May and November of each year. The review that occurs in May is "clinical" and does not involve consideration of supplemental rebates. The review that occurs in November is "financial" and does involve consideration of supplemental rebates. The same classes of drugs that are reviewed in May are reviewed in November. Those classes are the following: CNS and others, dermatologic agents, endocrine agents, gastrointestinal agents, genitourinary agents, hematologic agents, and topical agents.

Report period—Comprised of claims with dates of service during a specific period of time. For example, the tenth PDL report analyzes the report period from April 1, 2008 through September 30, 2008, and is based on claims with dates of service during that timeframe.

Federal rebate shifts—The difference between (total federal rebates of prior therapeutic classes plus federal rebates of any new therapeutic classes added to the PDL in the current reporting period) and (total federal rebates of therapeutic classes from the prior reporting period).

OBJECTIVES

The goal of this and prior reports is to evaluate the overall impact of the Indiana PDL program upon costs (prescription and medical) and access to care for Indiana Medicaid recipients.

Specifically, the four objectives in accordance with Indiana Code 12-15-35-28(h) are to evaluate:

1. Any increase in Medicaid physician, laboratory, or hospital costs or in other state funded programs as a result of the preferred drug list.
2. The impact of the preferred drug list on the ability of a Medicaid recipient to obtain prescription drugs.
3. The number of times prior authorization was requested and the number of times prior authorization was approved and denied.
4. The cost of administering the preferred drug list.

KEY FINDINGS

Key findings resulting from analyses of the impact of the Indiana PDL program conducted for the prior and current reports are listed as follows.

1. Estimated PDL Program Savings[1]

Estimated savings from the PDL program implementation in 2002 to present are as follows:

- **Program savings before administrative costs are deducted:**
  Estimated savings to the program from the PDL program (after Federal rebates are considered) before administrative costs are deducted are approximately **$31.06 million**. Supplemental rebate savings after six years of operation are approximately **$37.99 million** and that amount is in addition to savings obtained through the regular PDL program. Therefore, **total savings are approximately $69.05 million**.

- **Approximate administrative costs:**
  The costs to administer the PDL program over the six-year period are approximately **$7.43 million.**

- **Estimated net savings:**
  Total estimated net savings since the PDL program's inception (after deducting administrative costs) are approximately **$61.62 million.**

2. Once Indiana Medicaid Recipients Switched from Non-preferred to Preferred Medications, the Vast Majority Did Not Switch Back to Non-preferred Medications.

3. No Negative Impact Upon the Ability of Indiana Medicaid Recipients to Obtain Prescription Medications

Repeated analyses have shown no evidence suggesting that the ability of Indiana Medicaid recipients to obtain prescription medications has been compromised or that quality of care for recipients has suffered as a result of the PDL program. More importantly, **adherence by the recipient to the prescribed drug regimen** was determined to be the primary issue, not whether recipients were taking a preferred or non-preferred medication.[2]

[1] NOTE: All dollars mentioned throughout the report are state and federal funds unless specifically stated otherwise.
[2] See Page 29 for the detailed evaluation of Indiana Medicaid recipients' adherence to their prescribed therapy.

4. Medical Expenditures Have No Statistically Significant Differences

Repeated analyses have shown that the PDL program has not resulted in any statistically significant differences in overall medical expenditures for recipients impacted by the PDL as compared to recipients not impacted by the PDL.

5. Behavioral Health Drug Expenditures

From 2003 through September 2005, behavioral health drugs constituted over 30% of Indiana Medicaid prescription drug expenditures. Behavioral health drugs have represented approximately **43.7%** of such expenditures from 2006 through the study period of this tenth report.

The Mental Health Quality Advisory Committee (MHQAC) has been tasked with developing guidelines and programs that promote appropriate use of mental health medications.

KEY OBSERVATION: PDL SAVINGS SUMMARY

Over the entire six-year PDL program, the overall pharmacy savings is estimated to be $31.06 million plus an additional estimated $37.99 million in supplemental rebates for a total of $69.05 million. Administrative costs are $7.43 million for a total estimated net savings of $61.62 million over six years.

RECOMMENDATIONS

Over time, this report has included recommendations for improving the PDL and its associated processes in order to maximize the clinical and fiscal benefits that the PDL provides. Recommendations from prior reports have been reviewed in the context of the results of the analysis of the reporting period. This report will continue to focus on past recommendations which are as follows:

1. Continue to review criteria used in prior authorization determinations to verify where such criteria could and should be made more appropriate in ensuring clinically and fiscally responsible drug therapy.

2. Continue analysis of new medications and monitoring for new therapeutic classes in order to determine whether or not PDL updating and/or revisions are necessary.

3. Continue quantity limits on drug therapy to ensure optimization of drug use.

4. Employ SmartPA rules when possible to decrease administrative costs and improve provider relations.

Recommendations and suggestions from the DUR board members are welcome.

ANALYSIS OF THE CURRENT REPORTING PERIOD

This report evaluated Indiana PDL program operations during the current reporting period -- dates of service from April 1, 2008 through September 30, 2008. This evaluation involved 68 therapeutic classes from 67 to 71 months after PDL program implementation. This section of Report #10 addresses topics as specified in the original legislation and as referenced in the "Key Findings" portion of this report.

1. Estimated PDL Program Savings

Total estimated savings (after Federal rebates were considered) were approximately **$0.62 million**. Associated supplemental rebate savings were approximately **$2.38 million**. The combined PDL program and supplemental rebate savings total was approximately **$3.00 million** for the six-month reporting period. The costs to administer the PDL program were approximately $675,000 for the six-month reporting period. The **net estimated PDL program and supplemental rebate savings** after deducting administrative costs for the PDL program was approximately **$2.33 million** for this reporting period.

Preferred Drug Market Share Shifts

Overall, the preferred drug market share shifted from 75.2% before implementation to 95.8% after Year 1, and has remained fairly steady at approximately **94.9% preferred** throughout (up to this reporting period) the second half of Year 6 (April 1, 2008 through September 30, 2008). In general, once recipients switched to preferred medications, they tend to remain on preferred medications.

Net Savings Estimates: Current Reporting Period

Table 1 (next page) depicts estimated net savings[3] including Federal rebate savings plus supplemental rebate savings. Table 2 (next page) depicts the pharmacy benefit net savings (after deductions for CMS [standard Federal] rebate shifts[4] & after PDL program administration costs) plus savings from supplemental rebates for the current reporting period.

[3]Estimates include both state and federal share.

[4]Federal rebate shifts are defined as the difference between total federal rebates of previously reviewed therapeutic classes plus federal rebates of any new therapeutic classes added to the PDL in the current reporting period minus total federal rebates of previously reviewed therapeutic classes from the prior reporting period.

Table 1. Number of Classes, Rebate Shifts & Estimated Savings[5] for the April 1, 2008 through September 30, 2008 Reporting Period

# Classes Affected by the PDL Program	Estimated Savings from Market Share Shifts[6] before Federal Rebates are Considered	Estimated Federal Rebate Shifts	Estimated Net Savings[6] Minus (Federal Rebate Shifts)	Supplemental Rebate Savings	Estimated Net Savings including Supplemental Rebates
68	$0.98 million	$0.36 million	$0.62 million	$2.38 million	$3.00 million

The savings formula is as follows:

Step 1.(Estimated Savings from Market Share Shifts Before Federal Rebates are Considered) Minus (Estimated Federal Rebate Shifts) = (Estimated Net Savings) Minus (Federal Rebate Shifts).

Step 2.(Estimated Net Savings) Minus (Federal Rebate Shifts) plus (Supplemental Rebate Savings) = Estimated Net Savings including Supplemental Rebates

Step 3.(Estimated Net Savings including Supplemental Rebates) Minus (Approximate Cost of Administering the PDL) = Estimated Final Net Savings

Table 2. Estimated Net Savings[6] minus Approximate Cost of Administering the PDL for the April 1, 2008 through September 30, 2008 Reporting Period

(Estimated Net Savings[6]) Minus (Federal Rebate Shifts) Plus (Supplemental Rebate Savings) = Estimated Net Savings including Supplemental Rebates	Approximate Cost of Administering the PDL	(Estimated Net Savings[6]) Minus (Federal Rebate Shifts) Plus (Supplemental Rebate Savings) Minus (Approximate Cost of Administering the PDL) = Estimated Final Net Savings
$3.00 million	$675,000	**$2.33 million**

[5] All savings and net savings are estimated.
[6] Estimates include both state and federal share.

2. Once Indiana Medicaid Recipients Switched from Non-preferred to Preferred Medications, the Vast Majority Did Not Switch Back to Non-preferred Medications.

Since its introduction, the PDL drug program encourages recipients to switch to a preferred medication. Under the PDL program, the percentage of preferred medications has increased from 75.7% in January 2002 to 98.9% for this report. Additionally, the proportion of denied claims since the implementation has decreased which indicates recipients are remaining on the preferred medications.

3. No Negative Impact Upon the Ability of Indiana Medicaid Recipients to Obtain Prescription Medications

Repeated analyses have shown no evidence suggesting that the ability of Indiana Medicaid recipients to obtain prescription medications has been compromised or that quality of care for recipients has suffered as a result of the PDL program. More importantly, adherence by the recipient to the prescribed drug regimen was determined to be the primary issue, not whether recipients were taking a preferred or non-preferred medication.

For Report #10, a total of 28,967 unique recipients had paid and denied claims in the 25 therapeutic classes followed, of which only 1,069 recipients (3.7%) had a denied claim. One hundred twenty-three of the 1,069 recipients had a denied claim with no subsequent paid claim because they were no longer eligible. Of the 946 recipients still eligible that had a denied claim, 794 (83.9%) had a subsequent paid claim; 152 recipients (16.1%) had a denied claim without a subsequent paid claim. Over 95% of the recipients who had *denied claims with no subsequent paid claims* were attempting to obtain early medications refills. Not being able to receive an early refill does not necessarily mean that a recipient went without medication (see discussion below).

Of the 794 recipients who had a denied claim and a subsequent paid claim, 681 (85.8%) had a paid claim within 24 hours to 30 days of the denial. One hundred thirteen (14.2%) had a paid claim within 31 to 180 days of the denial. Finally, 152 of the 946 recipients (16.1%) having a denied claim did not subsequently have a paid claim during the 180-day period.

The total of 152 recipients who had a claim denial without a *subsequent paid claim 31 to 180 days later* did not necessarily go without medication, as it is possible that some of these recipients had samples or other medications at home, and therefore did not request the medication again until they needed it. Of the recipients who did not have a subsequent paid claim, it is impossible to determine how many, if any, might have had other supplies of medication on hand and how many may no longer have needed the medication.

The 0.78%[7] of recipients not having a related claim within 30 days of a denial in the first year of analyses strongly suggests a minimum impact on recipients of the PDL prior authorization policies. In addition, denials diminished in later evaluation periods as providers gained experience with the PDL program. This is evidenced by similar data for successive time periods: 0.023% at 26 months, 0.013% at 31 months, 0.05% at 49 months, and 0.40% at 55 months. In the current reporting period, the number of recipients who had claim denials rose to 3.80% of all recipients at 61 months, 6.40% at 67 months and 3.70% at 72 months after the program began. However, the percentage of recipients who had denials with subsequent paid claims within 30 days of the denial remained relatively constant over all reporting periods. All recipients who had claim denials without subsequent paid claims had also remained relatively constant and low over all reporting periods, at a range of approximately 0.04% to 0.40%.

In summary:

- The proportion of users who had denied claims due to the PDL program was low. In this analysis period, only 3.7% (1,069) of recipients subject to the PDL had a denied claim and of those, 152 recipients had a denied claim with no subsequent paid claim within 180 days.

- Recipient ineligibility explains why some denied claims did not result in a prescription being filled for a medication in the same or a related class. One hundred twenty-three (11.5%) of the 1,069 recipients who experienced a denied claim with no subsequent paid claim were no longer eligible.

- Those recipients seeking to refill their prescriptions early caused claim denials, due to early refill ProDUR alerts.

- One hundred fifty-two utilizers who had a denied claim had no claims for follow up medication in the same or a related class within 180 days of the event. These 152 utilizers might have had sample medications, other medications at home, or might have no longer needed medication therapy. The 152 utilizers represent 0.5% of the 28,967 unique participants with a denied claim.

4. Medical Expenditures Have No Statistically Significant Differences

Repeated analyses have shown that the PDL program has not resulted in any statistically significant differences in overall medical expenditures for those recipients impacted by the PDL as compared to those recipients not impacted by the PDL.

For Report #10, of the therapeutic classes evaluated, overall medical expenditures of recipients affected by the PDL program were not associated with any statistically

[7] Based on data from the 1st PDL report. The report's access to care section reviewed 188,508 recipients and 1,485 experienced a denied claim with no paid claims within 30 days.

significant differences (p=0.21) when compared to recipients not affected by the PDL program (already taking preferred medications prior to and after PDL implementation, or already taking non-preferred prior to and after implementation). In other words, recipients affected by the PDL program were not associated with any statistically significant differences in overall medical expenditures when compared to recipients not affected by the PDL program measured at 68 to 72 months after PDL implementation. This finding is consistent with Reports #1 through #9.

Furthermore, of the therapeutic classes evaluated between 68 and 72 months after PDL implementation, specific medical service types were examined. There was no evidence to suggest that specific medical expenditures associated with other health care providers (e.g., laboratory, emergency room or hospital) were higher on a wide, systematic scale for recipients who switched to preferred medications or were already taking preferred medications versus recipients who were taking non-preferred medications.

In summary, of the therapeutic classes evaluated, overall and specific medical expenditures of recipients affected by the PDL program were not associated with any statistically significant differences when compared to recipients not affected by the PDL program (already taking preferred medications prior to and after PDL implementation).

It must be noted that we can only determine association, not causality. This report was not a randomized, controlled design since Medicaid patients were not randomly assigned to take preferred or non-preferred medications; therefore, only association or lack of association can be determined.

5. Behavioral Health Drug Expenditures

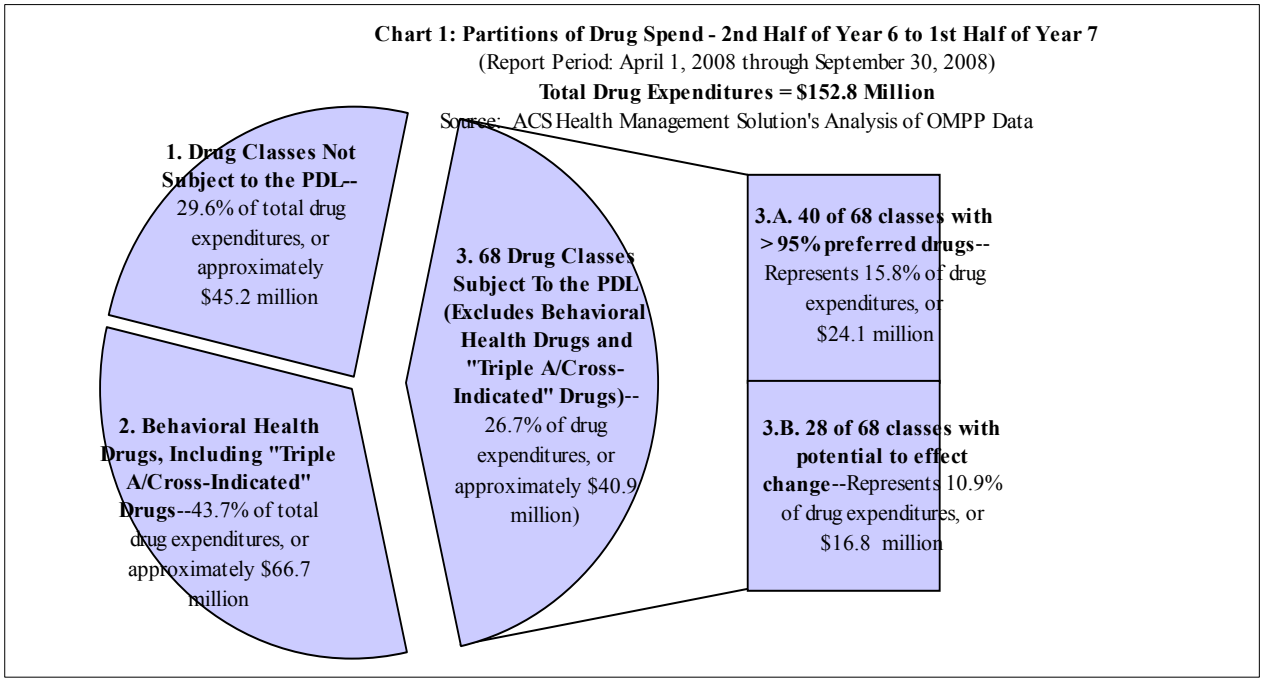
From 2003 through September 2005, behavioral health drugs constituted over 30.0% of Indiana Medicaid prescription drug expenditures. Behavioral health drugs have represented approximately 43.7% of such expenditures from 2006 up through the study period of this (the 10th) report.

The Mental Health Quality Advisory Committee (MHQAC) has been tasked with developing guidelines and programs that promote appropriate use of mental health medications.

Report Period Ten: 04/01/2008 through 09/30/2008 - Partitions of Drug Expenditures

The total pharmacy expenditures for fee-for-service Medicaid program for this report were approximately $152.8[8] million. This figure is comprised of expenditures from three major categories, with one of the major categories divided into two separate subcategories. Please refer to the categories and subcategories descriptions immediately below and the partitions diagram (Chart 1) that follows.

1. **Drug Classes Not Subject to the PDL**[9] —Represents 29.6% of total drug expenditures, equaling approximately $45.2 million
2. **Behavioral Health Drugs, Including "Triple A/Cross-Indicated" Drugs**—Preferred status, due to state statute. Represents 43.7% of total drug expenditures, equaling approximately $66.7 million
3. **68 Drug Classes Subject to the PDL (Excludes Behavioral Health Drugs and "Triple A/Cross-Indicated" Drugs)**—Represents 26.7% of total drug expenditures, equaling approximately $40.9 million. See breakout on Chart 1.
   3.A.—40 of 68 classes with greater than or equal to 95% preferred drugs[10] during reporting period. Represents 15.8% of total drug expenditures.
   3.B.—28 of 68 classes with potential to effect change. Represents 10.9% of total drug expenditures. Total pharmacy benefit net savings (after accounting for CMS [standard Federal] rebate market share shifts, plus supplemental rebate savings, and deductions for cost to administer the PDL program) were approximately $2.33 million for the time period April 1, 2008 through September 30, 2008.



[8] Estimates are from April 1, 2008 through September 30, 2008 claims data by date of service and include both state and federal share. It does not include rebates Indiana received from drug manufacturers as part of the Medicaid federal rebate program or state supplemental rebate program. Dollar amount includes drug ingredient costs plus dispensing fees.
[9] Classes of medications that have not been reviewed for PDL status as of April 2008.
[10] Exactly 92.6% were preferred medications at the beginning of the second half of Year 6.

HISTORICAL SUMMARY

This section gives a short history of the PDL program's genesis and a short history of what prior reports (Reports 1 – 9) have shown – individually and collectively.

In the past, much historical information was carried forth from report to report. In an attempt to condense the size of these bi-annual reports (beginning with Report 6) we condensed information into this "Historical Summary" section that lists the notable findings from each iteration of the PDL Report. This Historical Summary section will be updated as time progresses and additional reports are issued.[11] Detailed information included in prior reports that is not carried forth into the Historical Summary remains publicly available via copies of prior reports that are website-accessible (see **www.indianapbm.com**, or **www.indianamedicaid.com/ihcp/PharmacyServices /hcfa_dur_reports.asp**). Please refer to the website if you would like to read an earlier report in its entirety.

The Historical Summary section is organized into the headings as follows:

- Preferred Drug Market Share
- Estimated PDL Program Savings
- Partitions of Prescription Drug Expenditures
- PDL Program Prior Authorizations (PA) Totals
- Access to Prescription Medications
- Impact of the PDL Program upon Medical Costs
- PDL Savings Edit Analysis

1. Preferred Drug Market Share

Overall, the preferred drug market share shifted from approximately 75.2% to 95.7% during the Year 1 period, then shifted slightly back toward non-preferred medications to approximately 93.8% preferred at the end of Year 2. The preferred drug market share then increased to 98.7% for the 1st half of Year 3, then decreased slightly back to 95.4% preferred at the end of the second half of Year 3. The preferred drug market share has remained steady at approximately 95.8% preferred throughout Year 4, first half of Year 5 and including the most recent evaluation period, the second half of Year 6 (April 1, 2008 through September 30, 2008). The second half of Year 5 shifted back to 92.3%.

The preferred market share is listed for each PDL therapeutic class in the Appendix.

[11] NOTE: Information in this section has been excerpted from prior reports, the full text of which are available on the web sites specified herein. Please note that there may be slight variations between the text in this section and that of the corresponding original documents that are on the web, attributable to minor corrections (e.g., correction of typographical errors that appeared in the original document).

2. Estimated PDL Program Savings: All Reports August 1, 2002 through September 30, 2008

Table 3 (next page) depicts the total pharmacy benefit net savings including supplemental rebates (after deducting CMS [standard Federal] rebate shifts and PDL program administrative costs) for each period evaluated over the entire six years.

Table 3. Number of Classes, Rebates & Estimated Net Savings[12]

Time Period	# Classes Affected by the PDL Program	Total Estimated Savings from Market Share Shifts[13] before Federal Rebates	Total Estimated Federal Rebate Shifts	(Total Net Savings[13] Estimates) Minus (Federal Rebate Estimates)	Supplemental Rebate Savings	Originally Reported Savings in prior PDL Reports 1 - 6 before adding Supplemental Rebate Savings (Estimated Net Savings) Minus (Federal Rebate Shifts) Minus (PDL Administrative Costs)	Approximate Cost of Administering the PDL	(Total Net Savings[13] Estimates) Minus (Federal Rebate Estimates) Plus (Supplemental Rebate Savings) Minus (Approximate Cost of Administering PDL)
Year 1 (8/1/02 to 7/31/03)	52	$12.43 million	$3.52 million	$8.91 million	No Supplemental Rebate Program	$8.91 million	$1.13 million	**$7.78 million**
Year 2[14] (10/1/03 to 9/30/04)	54	$2.06 million	$0.93 million	$1.13 million	No Supplemental Rebate Program	$1.13 million	$1.12 million	**$100,000**
1st half Year 3 (10/1/04 to 3/31/05)	62	$1.99 million	$0.13 million	$1.86 million	**$6.08 million[15]**	$1.30 million	$562,500	**$7.38 million**
2nd half Year 3 (4/1/05 to 9/30/05)	67	$10.96 million	$1.73 million	$9.23 million	**$7.81 million**	$8.67 million †	$562,500	**$16.48 million**
1st half Year 4 (10/1/05 to 3/31/06)	64	$4.53 million	$1.59 million	$2.94 million	**$7.59 million**	$2.27 million	$675,000	**$9.86 million**
2nd half Year 4 (4/1/06 to 9/30/06)	65	$2.92 million	$0.96 million	$1.96 million	**$2.89 million**	$1.29 million	$675,000	**$4.14 million**
1st half Year 5 (10/1/06 to 3/31/07)	68	$5.11 million	$1.99 million	$3.12 million	**$3.36 million**	--	$675,000	**$5.80 million**
2nd half Year 5 (4/1/07 to 9/30/07)	68	$1.14 million	$0.48 million	$0.66 million	**$3.81 million**	--	$675,000	**$3.80 million**
1st half Year 6 (10/1/07 to 3/31/08)	68	$1.02 million	$0.39 million	$0.63 million	**$4.07 million**	--	$675,000	**$4.03 million**
2nd half Year 6 (4/1/08 to 9/30/08)	68	$0.98 million	$0.36 million	$0.62 million	**$2.38 million**	--	$675,000	**$2.33 million**
SubTotal		**$43.14 million**	$12.08 million	$31.06 million	**$37.99 million**		$7.43 million	**$61.70 million**
GRAND TOTAL Net Savings (since implementation) →								**$61.70 million**

[12] All savings and net savings are estimated.
[13] Estimates include both state and federal share.
[14] The break in months between the first and second evaluation of the PDL program was because CMS Federal Rebates are produced by quarters. To account for CMS Federal rebate shifts, the data must be analyzed in the same quarter periods as rebates are measured. For example, if Federal rebates are analyzed and calculated by the quarter (October 1, 2006 to December 31, 2006) then the savings net Federal and Supplemental rebates needed to follow the same quarters.
[15] Report #3 reported supplemental rebate savings for the October 04 to March 05 period as $6.81 million. After all adjustments were made, the supplemental rebate savings changed to $6.08 million; therefore, supplemental rebate savings were adjusted accordingly in Report #4 and all reports going forward.

† **Reason for Increased Savings from First Half to Second Half of Year 3†**

The large increase in net savings from the first half of Year 3 to the second half of Year 3 illustrated in Table 4 was attributable to two factors: 1.) Federal CMS rebate savings resulting from large changes in the PDL program; and 2.) Savings resulting from less utilization due to implementation of step edits and quantity limits. Most of the savings came from a few classes. For example, the 'Brand Name Narcotics' therapeutic category jumped from 92.4% preferred to 99.3% preferred. Additionally generic oxycodone ER 80mg and fentanyl patches were placed on the preferred list while Palladone® was placed on the non-preferred list. Fentanyl was limited to ten patches per 30 days, and a step edit was added to Palladone® (which was removed from market in mid-July). Step edits, quantity limits and shifting of agents on the PDL list resulted in a net savings of approximately $5.5 million in this one Narcotics therapeutic class alone.

A similar situation occurred with the gastrointestinal (GI) agents therapeutic class, 'Proton Pump Inhibitors (PPIs).' Omeprazole switched from prescription to an over-the-counter drug and a step therapy edit was implemented requiring new patients to try an H_2 blocker or OTC Prilosec® prior to receiving a preferred PPI. Prevacid® changed from PDL neutral to non-preferred while a step therapy edit was implemented with a quantity limit of one capsule per day for Nexium®. Step edits, quantity limits and shifting of agents on the PDL list resulted in a net savings of approximately $3.5 million in the GI therapeutic category.

Finally, the 'Non-sedating Antihistamines' therapeutic class had several changes. Allegra® was switched to non-preferred; step edits were added so that patients must fail a trial of OTC loratadine before obtaining other non-sedating antihistamines whether preferred or non-preferred; and, quantity limits were implemented for the non-preferred drug Allegra®. Step edits, quantity limits and shifting of agents on the PDL list resulted in a net savings of approximately $1.4 million in Non-Sedating Antihistamine therapeutic class.

In summary, changes from preferred to non-preferred created shifts in net CMS rebates resulting in savings. Additionally, use of step therapy edits and quantity limits have resulted in substantial savings by lowering utilization of expensive medications.

3. Partitions of Prescription Drug Expenditures

Behavioral Health Drug Expenditures

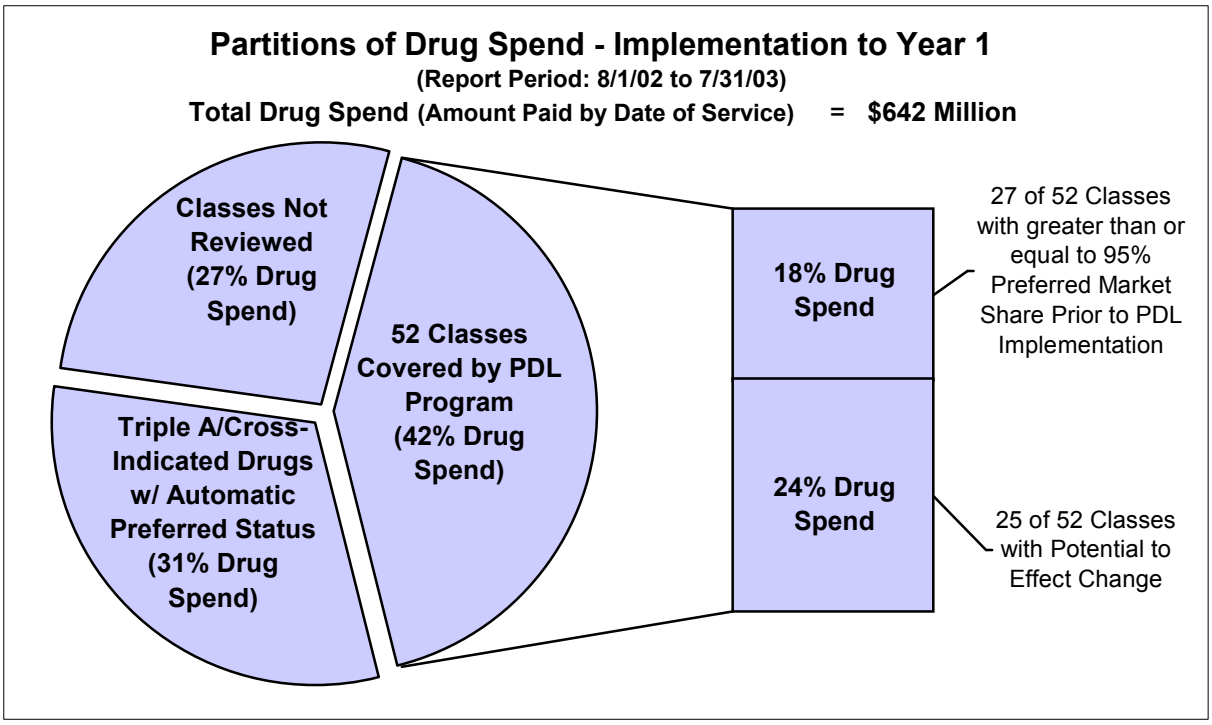
Behavioral health drugs constituted over 30% of Indiana Medicaid prescription drug expenditures from 2003 to 2005, and behavioral health medications represented approximately **43%** of such expenditures from 2006 through the time period of this tenth study, September 30, 2008. The Mental Health Quality Advisory Committee (MHQAC) has been tasked with developing guidelines and programs that promote appropriate use of mental health medications.

Report Period One: 8/1/02 to 7/31/03 - Partitions of Drug Expenditures

The total pharmacy expenditures for the Primary Care Case Management and Fee-For-Service Medicaid program for the annual date of service period of 8/1/02 to 7/31/03 were an estimated $642[16] million (Chart 1). This figure includes four major categories partitioned by estimated paid amount:

- PDL Applicable – PDL Classes with Potential to Effect Change (24%) = $154 M
- Triple A/Cross-Indicated (considered preferred per statute) (31.1%) = $200 M
- Classes Not Reviewed[17] (27%) = $173 M
- PDL classes with limited[18] benefit @ ≥95% preferred prior to implementation (18%) = $116 M

Chart 1. Partitions of Total Drug Expenditures ($642 Million) from 8/1/02 to 7/31/03
Source: ACS Government Healthcare Solutions Analysis of OMPP data.



Total annualized pharmacy benefit net savings (after accounting for CMS [standard Federal] rebates after market share shifts, and deductions for PDL program administrative costs) in the 52 PDL classes implemented and evaluated from August 1, 2002 through September 30, 2003 (Year 1 post-PDL implementation) were estimated to be $7.78 million.

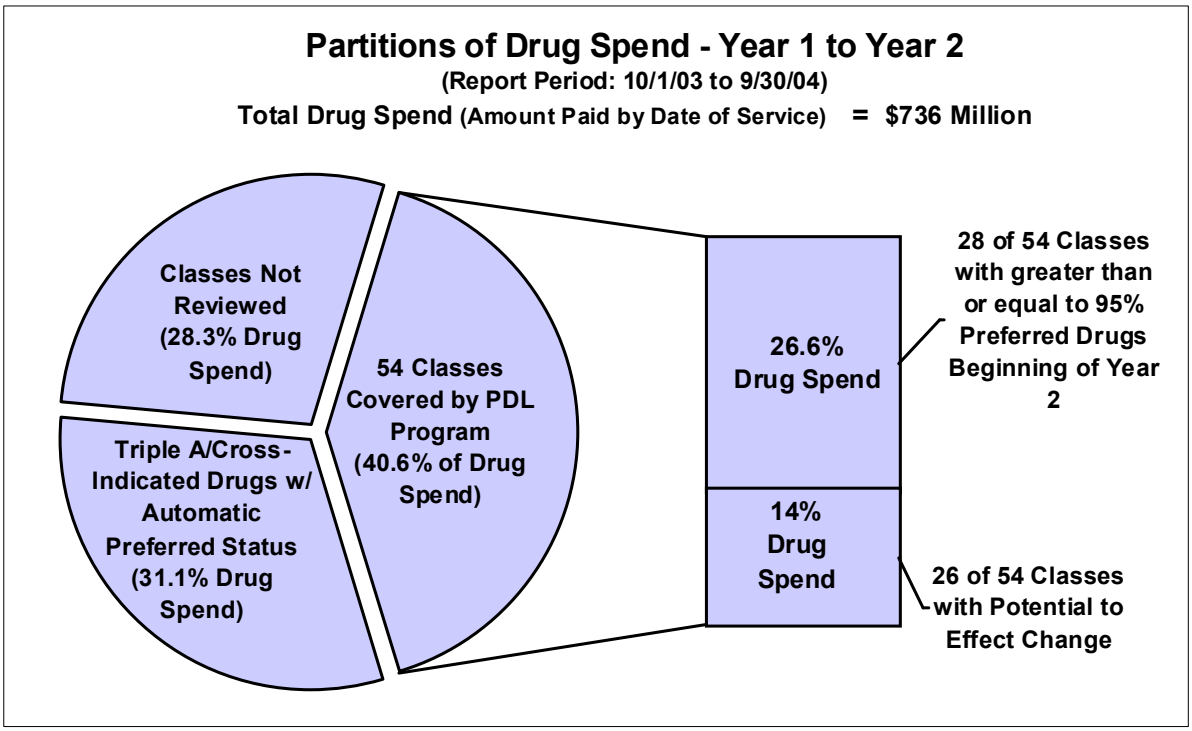
[16] Estimates are from 8/1/02 to 7/31/03 claims data by date of service and includes both state and federal share. It does not include rebates Indiana received from drug manufacturers as part of the Medicaid federal rebate program. Dollar amount includes drug ingredient costs plus dispensing fees.
[17] Drug classes of medications not on the PDL program from August 2002 to August 2003.
[18] Over 95% of market share were preferred medications prior to implementation.

Report Period Two: 10/1/03 to 9/30/04 (FFY 2004) Partitions of Drug Expenditures

The total pharmacy expenditures for the Primary Care Case Management and Fee-For-Service Medicaid program for the annual date of service period of 10/1/03 to 9/30/04 were an estimated $736[19] million (Chart 2). This figure includes four major categories partitioned by estimated paid amount:

- PDL Applicable – PDL Classes with Potential to Effect Change (14%) = $103 M
- Triple A/Cross-Indicated (considered preferred per statute) (31.1%) = $229 M
- Classes Not Reviewed[20] (28.2%) = $208 M
- PDL classes with limited[21] benefit @ ≥95% preferred prior to implementation (26.6%) = $196 M

Chart 2. Partitions of Total Drug Expenditures ($736 Million) from 10/1/03 to 9/30/04



Source: ACS Government Healthcare Solutions Analysis of OMPP data.

Total annualized pharmacy benefit net savings (after accounting for CMS [standard Federal] rebates after market share shifts, and deductions for PDL program administrative costs) in the 54 PDL classes implemented and evaluated beginning in August 2002 are estimated to be $7.78 million in Year 1, and an additional $175,000 in Year 2.

[19] Estimates are from 10/1/03 to 9/30/04 claims data by date of service and includes both state and federal share. It does not include rebates Indiana received from drug manufacturers as part of the Medicaid federal rebate program. Dollar amount includes drug ingredient costs plus dispensing fees.
[20] Drug classes of medications not on the PDL program from October 2003 to September 2004.
[21] Over 95% of market share were preferred medications at beginning of Year 2.

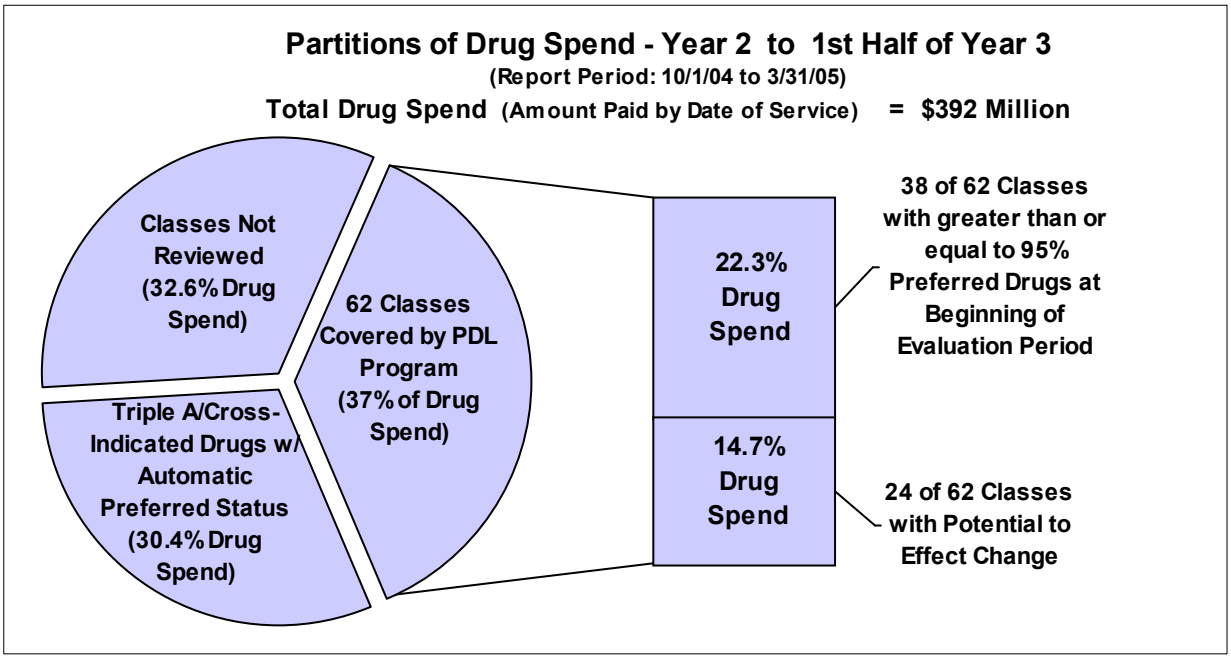
Report Period Three: 10/1/04 to 3/31/05 - Partitions of Drug Expenditures

The total pharmacy expenditures for the Primary Care Case Management and Fee-For-Service Medicaid program for the annual date of service period of 10/1/04 to 3/31/05 were an estimated $392[22] million (Chart 3). This figure includes four major categories partitioned by estimated paid amount:

- PDL Applicable – PDL Classes with Potential to Effect Change (14.7%)= $57.4 M
- PDL classes with limited[23] benefit @ ≥95% preferred prior to implementation (22.3%) = $87.6 M
- Triple A/Cross-Indicated (considered preferred per statute) (30.4%) = $119 M
- Classes Not Reviewed[24] (32.6%[25]) = $128 M

Chart 3. Partitions of Total Drug Expenditures ($392 Million) from 10/1/04 to 3/31/05

Source: ACS Government Healthcare Solutions Analysis of OMPP data.



Total annualized pharmacy benefit net savings (after accounting for CMS [standard Federal] rebates after market share shifts, and deductions for PDL program administrative costs) were estimated to be $1.30 million with 62 classes (8 additional classes) evaluated for the first half of Year 3 (October 1, 2004 through March 31, 2005). The supplemental rebate program was implemented during this period. Supplemental rebates contributed an additional $6.08 million in supplemental rebate savings.

[22] Estimates are from 10/1/04 to 3/31/05 claims data by date of service and includes both state and federal share. It does not include rebates Indiana received from drug manufacturers as part of the Medicaid federal rebate program or state supplemental rebate program. Dollar amount includes drug ingredient costs plus dispensing fees.

[23] Over 95% of market share were preferred medications at the beginning of Year 3.

[24] Drug classes of medications not on the PDL program from October 2004 to March 2005.

[25] Expenditures for classes not reviewed grew as a percentage of total spending from Year 2 to the first half of Year 3 because many new medications with high prices came onto market that had not yet been reviewed.

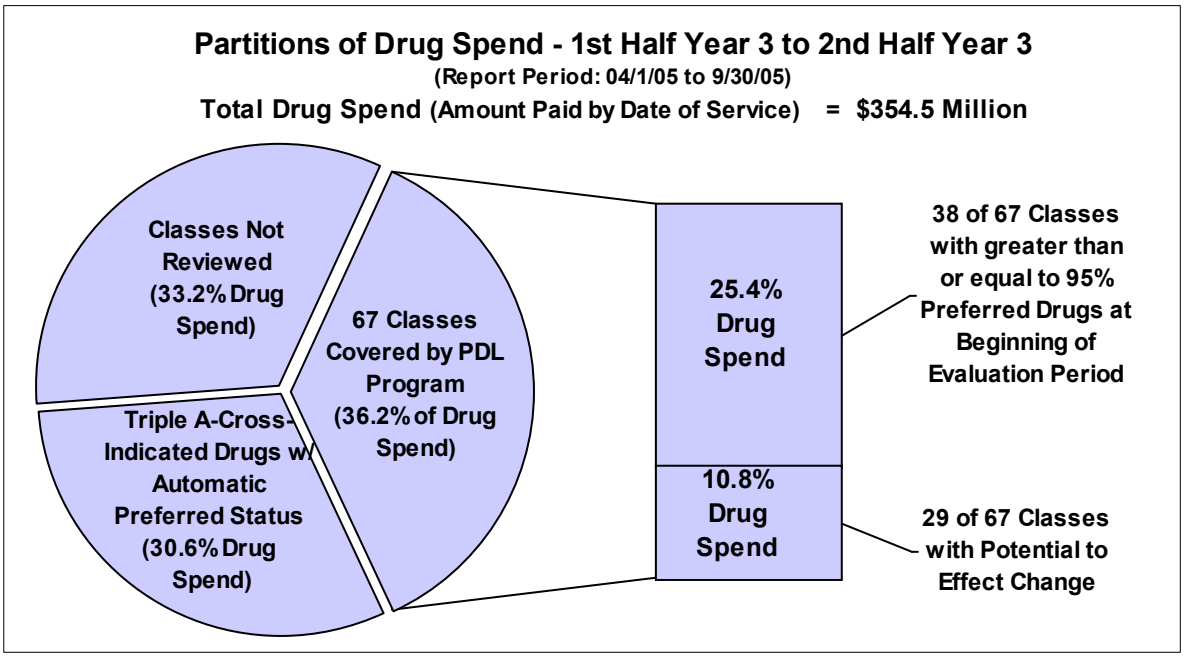
Report Period Four: 4/1/05 to 9/30/05 - Partitions of Drug Expenditures

The total pharmacy expenditures for the Primary Care Case Management and Fee-For-Service Medicaid program for the annual date of service period of 4/1/05 to 9/30/05 were an estimated $354.5[26] million (Chart 4). This figure includes four major categories partitioned by estimated paid amount:

- PDL Applicable – PDL Classes with Potential to Effect Change (10.8%)= $38.1 M
- PDL classes with limited[27] benefit @ ≥95% preferred prior to implementation (25.4%) = $90.2 M
- Triple A/Cross-Indicated (considered preferred per statute) (30.6%) = $108 M
- Classes Not Reviewed[28] (33.2%[29]) = $117.7 M

Chart 4. Partitions of Total Drug Expenditures ($354.5 Million) from 4/1/05 to 9/30/05

Source: ACS Government Healthcare Solutions Analysis of OMPP data.



Total annualized pharmacy benefit net savings (after accounting for CMS [standard Federal] rebate market share shifts, and deductions for cost to administer the PDL program) with 67 PDL classes evaluated (5 classes added to the analyses) were estimated to be $8.67 million for the second half of Year 3 (April 1, 2005 through September 30, 2005). Supplemental rebates were implemented during this evaluation period and supplemental rebate savings were an additional $7.81 million.

[26] Estimates are from 04/1/05 to 9/30/05 claims data by date of service and includes both state and federal share. It does not include rebates Indiana received from drug manufacturers as part of the Medicaid federal rebate program or state supplemental rebate program. Dollar amount includes drug ingredient costs plus dispensing fees.

[27] Over 95% of market share were preferred medications at the beginning of the second half of Year 3.

[27] Drug classes of medications not on the PDL program from April 2005 to September 2005.

[29] Expenditures for classes not reviewed grew as a percentage of total spending from the first to second half of Year 3 because many new medications with high prices came onto market that had not yet been reviewed.

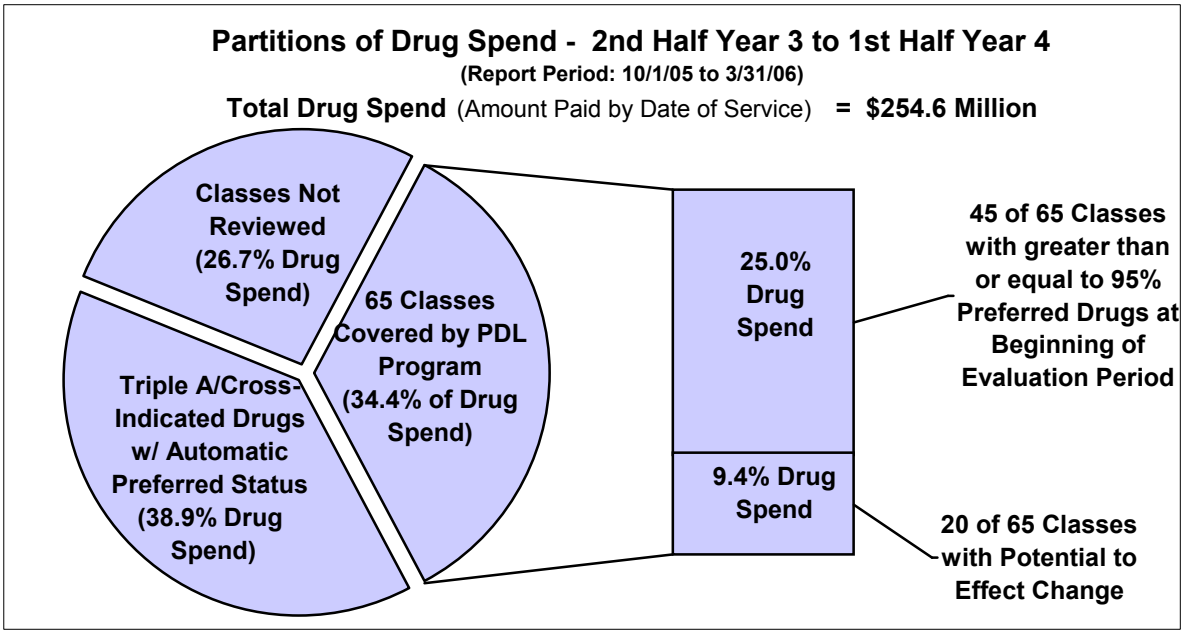
Report Period Five: 10/1/05 to 3/31/06 - Partitions of Drug Expenditures

The total pharmacy expenditures for the Primary Care Case Management and Fee-For-Service Medicaid program for the annual date of service period of 10/1/05 to 3/31/06 were an estimated $254.6[30] million (Chart 5). This figure includes four major categories partitioned by estimated paid amount:

- PDL Applicable – PDL Classes with Potential to Effect Change (9.4%) = $23.86 M
- PDL classes with limited[31] benefit @ ≥95% preferred prior to implementation (25.0%) = $63.8 M
- Triple A/Cross-Indicated (considered preferred per statute) (38.9%) = $99 M
- Classes Not Reviewed[32] (26.7%[33]) = $67.9 M

Chart 5. Partitions of Total Drug Expenditures ($254.6 Million) from 10/1/05 to 3/31/06

Source: ACS Government Healthcare Solutions Analysis of OMPP data.



Total annualized pharmacy benefit net savings (after accounting for CMS [standard Federal] rebate market share shifts, and deductions for cost to administer the PDL program) with 65 classes evaluated, were estimated to be an additional $2.27 million for the first half of Year 4 (October 1, 2005 through March 31, 2006). Supplemental rebate savings were an additional $7.59 million.

[30] Estimates are from 10/1/05 through 3/31/06 claims data by date of service and includes both state and federal share. It does not include rebates Indiana received from drug manufacturers as part of the Medicaid federal rebate program or state supplemental rebate program. Dollar amount includes drug ingredient costs plus dispensing fees. Also note there was expenditure shifting due to Medicare Part D, implemented January 1, 2006.

[31] Over 95% of market share were preferred medications at the beginning of the first half of Year 4.

[32] Drug classes of medications not on the PDL program from October 2005 to March 2006.

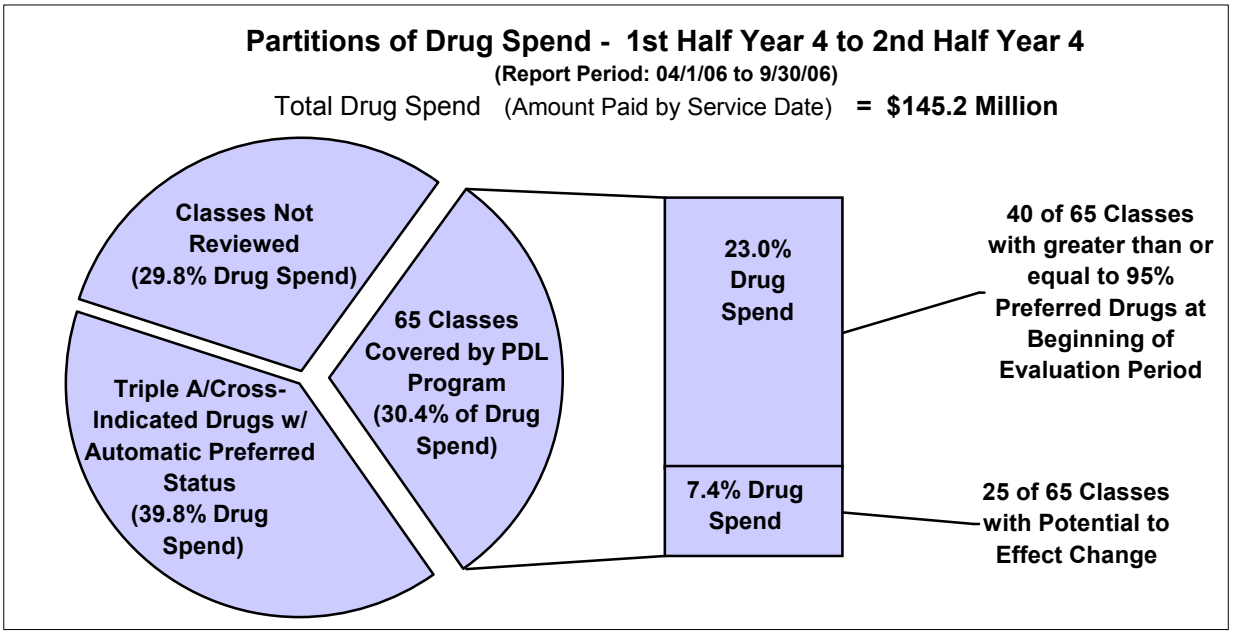
[33] Expenditures for classes not reviewed decreased as a percentage of total spending from the second half of Year 3 to the first half of Year 4 because less new medications with high prices came onto market that had not yet been reviewed, and medications that had come into the market in Years 2 and 3 had been reviewed.

Report Period Six: 04/1/06 to 9/30/06 - Partitions of Drug Expenditures

The total pharmacy expenditures for the Primary Care Case Management and Fee-For-Service Medicaid program for the annual date of service period of 04/1/06 to 9/30/06 were an estimated $145.2[34] million (Chart 6). This figure includes four major categories partitioned by estimated paid amount:

- PDL Applicable – PDL Classes with Potential to Effect Change (7.4%) = $10.75 M
- PDL classes with limited[35] benefit @ ≥95% preferred prior to implementation (23.0%) = $33.38 M
- Triple A/Cross-Indicated (considered preferred per statute) (39.8%) = $57.86 M
- Classes Not Reviewed[36] (29.8%[37]) = $43.27 M

Chart 6. Partitions of Total Drug Expenditures ($145.2 Million): 4/1/06 to 9/30/06
Source: ACS Government Healthcare Solutions Analysis of OMPP data.



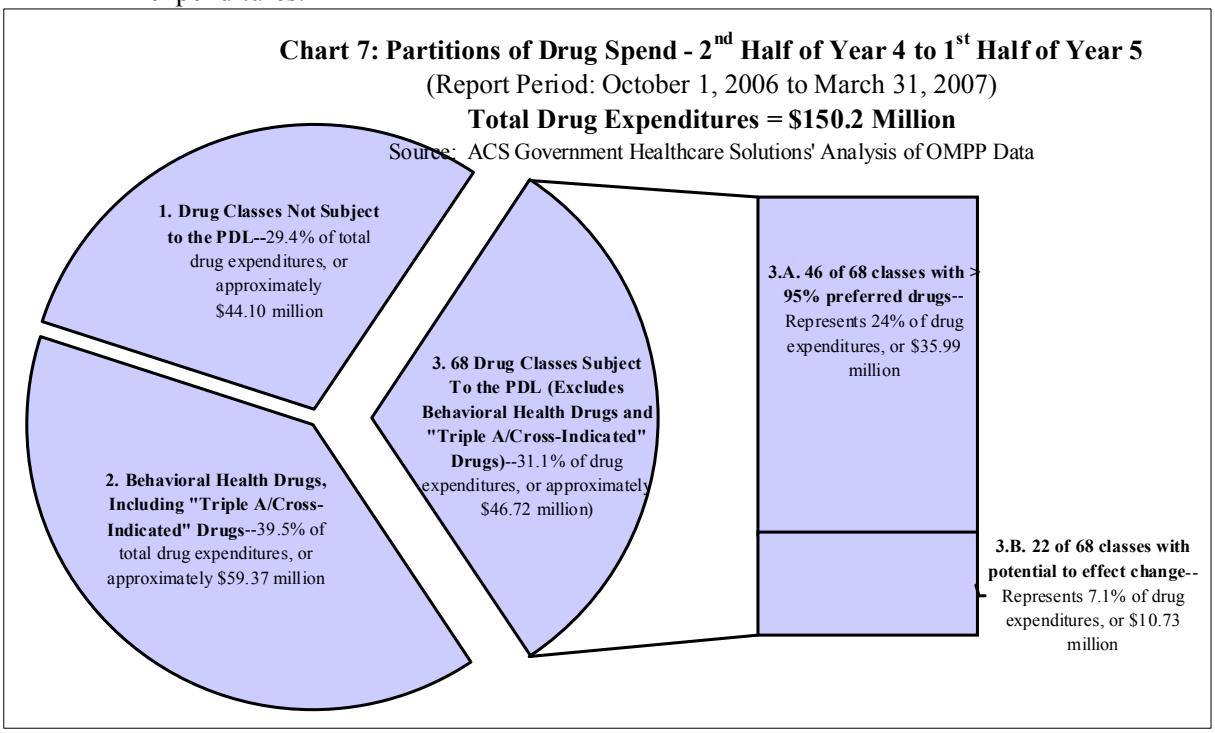
Total annualized pharmacy benefit net savings (after CMS [standard Federal] deductions and cost to administer the PDL program) with 65 PDL classes evaluated were estimated to be an additional $1.29 million for the second half of Year 4 (April 1 to September 30, 2006). Supplemental rebate savings were an additional $2.89 million.

[34] Estimates are from 04/1/06 to 9/30/06 claims data by date of service and includes both state and federal share. It does not include rebates Indiana received from drug manufacturers as part of the Medicaid federal rebate program or state supplemental rebate program. Dollar amount includes drug ingredient costs plus dispensing fees. Also note there was expenditure shifting due to Medicare Part D, implemented January 1, 2006.
[35] Over 95% of market share were preferred medications at the beginning of the second half of Year 4.
[36] Drug classes of medications not on the PDL program from April 2006 to September 2006.
[37] Expenditures for classes not reviewed increased as a percentage of total spending from the first half of Year 4 to the second half of Year 4 because more new medications with high prices came onto market that had not yet been reviewed, and the proportion of medications that were covered by the PDL program shrank after Medicare D implementation.

Report Period Seven: 10/1/06 to 3/31/07 - Partitions of Drug Expenditures

The total pharmacy expenditures for fee-for-service Medicaid program for this report were approximately $150.2[38] million. This figure is comprised of expenditures from three major categories, with one of the major categories divided into two separate subcategories. Please refer to the categories and subcategories descriptions immediately below and the partitions diagram (Chart 7) that follows.

1. **Drug Classes Not Subject to the PDL[39]** —Represents 29.4% of total drug expenditures, equaling approximately $44.11 million
2. **Behavioral Health Drugs, Including "Triple A/Cross-Indicated" Drugs**—Preferred status, due to state statute. Represents 39.5% of total drug expenditures, equaling approximately $59.37 million
3. **68 Drug Classes Subject to the PDL (Excludes Behavioral Health Drugs and "Triple A/Cross-Indicated" Drugs)**—Represents 31.1% of total drug expenditures, equaling approximately $46.72 million. See breakout on Chart 7.
   - 3.A.—46 of 68 classes with greater than or equal to 95% preferred drugs[40] during reporting period. Represents 24.0% of total drug expenditures.
   - 3.B.—22 of 68 classes with potential to effect change. Represents 7.1% of total drug expenditures.



Total pharmacy benefit net savings (after accounting for CMS [standard Federal] rebate market share shifts, plus supplemental rebate savings, and deductions for cost to administer the PDL program) were approximately $5.81 million for the time period October 1, 2006 to March 31, 2007.

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[38] Estimates are from October 1, 2006 to March 31, 2007claims data by date of service and include both state and federal share. It does not include rebates Indiana received from drug manufacturers as part of the Medicaid federal rebate program or state supplemental rebate program. Dollar amount includes drug ingredient costs plus dispensing fees. Also note there was expenditure shifting due to Medicare Part D, implemented January 1, 2006.

[39] Classes of medications that have not been reviewed for PDL status as of April 2007.

[40] Exactly 95.8% were preferred medications at the beginning of the first half of Year 5.

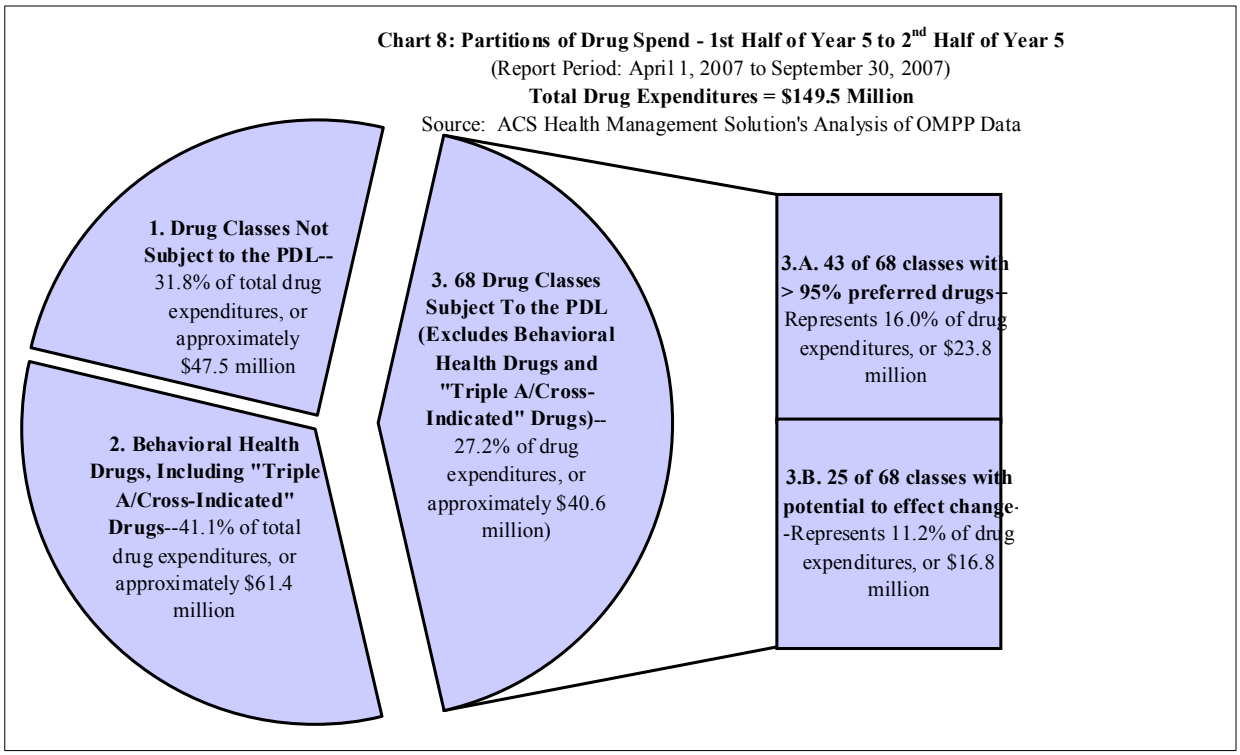
Report Period Eight: 04/01/07 to 09/30/07- Partitions of Drug Expenditures

The total pharmacy expenditures for fee-for-service Medicaid program for this report were approximately $149.5[41] million. This figure is comprised of expenditures from three major categories, with one of the major categories divided into two separate subcategories. Please refer to the categories and subcategories descriptions immediately below and the partitions diagram (Chart 8) that follows.

1. **Drug Classes Not Subject to the PDL**[42] —Represents 31.8% of total drug expenditures, equaling approximately $47.5 million
2. **Behavioral Health Drugs, Including "Triple A/Cross-Indicated" Drugs**—Preferred status, due to state statute. Represents 41.1% of total drug expenditures, equaling approximately $61.4 million
3. **68 Drug Classes Subject to the PDL (Excludes Behavioral Health Drugs and "Triple A/Cross-Indicated" Drugs)**—Represents 27.2% of total drug expenditures, equaling approximately $40.6 million. See breakout on Chart 8.

   3A.—43 of 68 classes with greater than or equal to 95% preferred drugs[43] during reporting period. Represents 16.0% of total drug expenditures.

   3B.—25 of 68 classes with potential to effect change. Represents 11.2% of total drug expenditures. Total pharmacy benefit net savings (after accounting for CMS [standard Federal] rebate market share shifts, plus supplemental rebate savings, and deductions for cost to administer the PDL program) were approximately $3.62 million for the time period April 1, 2007 to September 30, 2007.



[41] Estimates are from April 1, 2007 to September 30, 2007 claims data by date of service and include both state and federal share. It does not include rebates Indiana received from drug manufacturers as part of the Medicaid federal rebate program or state supplemental rebate program. Dollar amount includes drug ingredient costs plus dispensing fees.

[42] Classes of medications that have not been reviewed for PDL status as of April 2007.

[43] Exactly 94.8% were preferred medications at the beginning of the second half of Year 5.

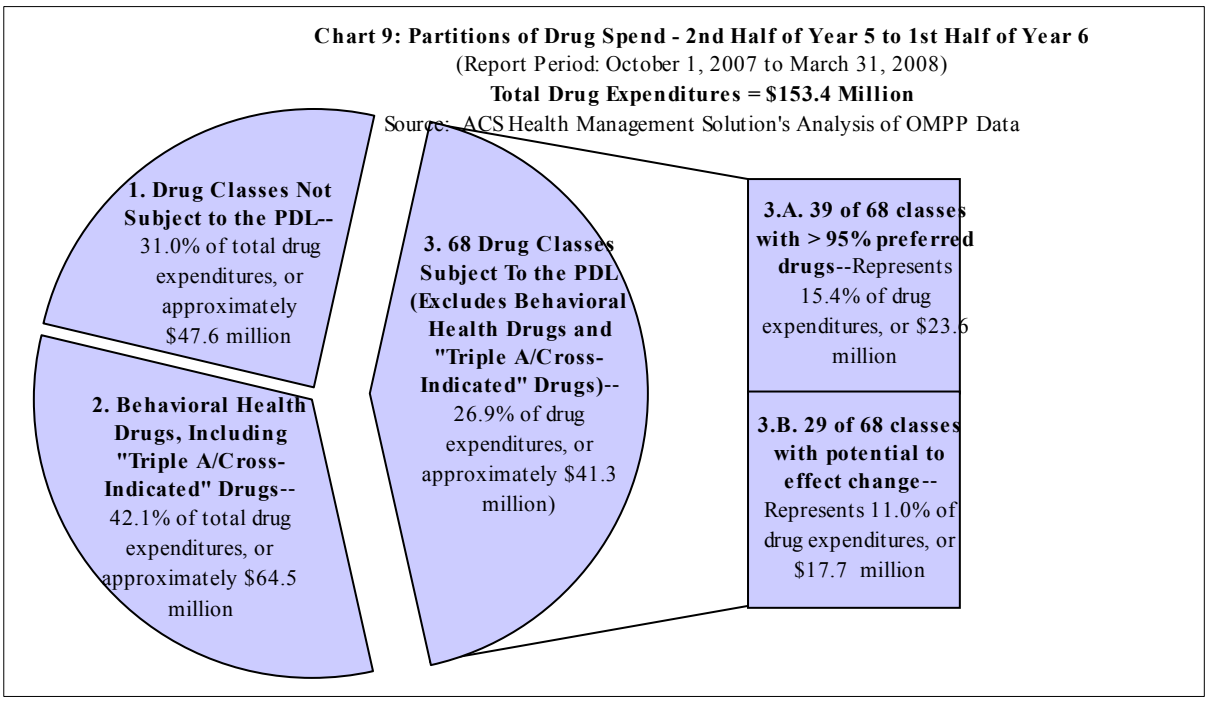
Report Period Nine: 10/01/07 through 03/31/08- Partitions of Drug Expenditures

The total pharmacy expenditures for fee-for-service Medicaid program for this report were approximately $153.4[44] million. This figure is comprised of expenditures from three major categories, with one of the major categories divided into two separate subcategories. Please refer to the categories and subcategories descriptions immediately below and the partitions diagram (Chart 9) that follows.

1. **Drug Classes Not Subject to the PDL**[45] —Represents 31.0% of total drug expenditures, equaling approximately $47.6 million
2. **Behavioral Health Drugs, Including "Triple A/Cross-Indicated" Drugs**—Preferred status, due to state statute. Represents 42.1% of total drug expenditures, equaling approximately $64.5 million
3. **68 Drug Classes Subject to the PDL (Excludes Behavioral Health Drugs and "Triple A/Cross-Indicated" Drugs)**—Represents 26.9% of total drug expenditures, equaling approximately $41.3 million. See breakout on Chart 9.

   3.A.—39 of 68 classes with greater than or equal to 95% preferred drugs[46] during reporting period. Represents 15.4% of total drug expenditures.

   3.B.—29 of 68 classes with potential to effect change. Represents 11.0% of total drug expenditures. Total pharmacy benefit net savings (after accounting for CMS [standard Federal] rebate market share shifts, plus supplemental rebate savings, and deductions for cost to administer the PDL program) were approximately $3.62 million for the time period October 1, 2007 to March 31, 2008.



[44] Estimates are from October 1, 2007 to March 31, 2008 claims data by date of service and include both state and federal share. It does not include rebates Indiana received from drug manufacturers as part of the Medicaid federal rebate program or state supplemental rebate program. Dollar amount includes drug ingredient costs plus dispensing fees.

[45] Classes of medications that have not been reviewed for PDL status as of April 2007.

[46] Exactly 93.8% were preferred medications at the beginning of the first half of Year 6.

4. PDL Program Prior Authorizations (PA) Totals

Preferred Drug List (PDL) program prior authorizations (PAs) requested, approved, and denied are listed in Table 4 below. In order to give two different perspectives on the PAs requested for non-preferred medications, both calendar year and federal fiscal year summary figures along with partial year data are listed in Table 4.

The percentage of prior authorizations (PAs) for non-preferred medications that were approved slightly decreased from 99.5% (between August 2002 through December 2002 when the PDL program first began) to its lowest point of 97.0% in calendar year 2003. The percentage of approved PAs for non-preferred medications increased from it lowest point in calendar year 2003 (97.0%) through calendar year 2004 (97.7%). The percentage of approved PAs for non-preferred medications increased after calendar year 2004 and has remained high in 2005 through 2007, but dropped thereafter to a 92.1 % approval rate during the first half of FFY 2008 and to a 90.9% approval rate during the second half of FFY2008.

Table 4. Preferred Drug List Prior Authorizations

Time Period	Average # Utilizers per Month	Total All PAs Requested	# Approved	% *Approved*	# Approved PUPM*	# Denied	% *Denied*	# Suspended	% *Suspended*
FFY 2003 (Oct 1, 2002 through Sep 30, 2003)	204,840	80,950	79,200	*97.8%*	0.0322	193	*0.2%*	1,557	*1.9%*
FFY 2004 (Oct 1, 2003 through Sep 30, 2004)	208,995	75,705	73,681	*97.3%*	0.0294	1,177	*1.6%*	847	*1.1%*
FFY 2005 (Oct 1, 2004 through Sep 30, 2005)	195,947	71,472	70,499	*98.6%*	0.0299	825	*1.2%*	148	*0.2%*
FFY 2006 (Oct 1, 2005 through Sep 30, 2006)	118,787	33,483[47]	33,164	*99.1%*	0.0233	290	*0.9%*	29	*0.09%*
FFY 2007 (Oct 1, 2006 through Sep 30, 2007)	110,206	16,251	15,546	*95.6%*	0.0122	339	*2.1%*	366	*2.3%*
1st half Year 6-FFY 2008 (10/1/07 through 3/31/08)	110,715	8,521	7,852	*92.1%*	0.0128	664	*7.8%*	5	*0.1%*
2nd half Year 6-FFY 2008 (4/1/2008 through 9/30/2008)	107,350	7,758	7,054	*90.9%*	0.0109	698	*9.0%*	6	*0.1%*
2nd half of Year 2002	200,054	17,866	17,775	*99.5%*	0.022	91	*0.5%*	0	*0%*
Calendar Year 2003	207,593	73,251	71,053	*97.0%*	0.029	259	*0.4%*	1,939	*2.6%*
Calendar Year 2004	204,754	81,440	79,567	*97.7%*	0.032	1,352	*1.7%*	521	*0.6%*
Calendar Year 2005	174,307	60,129	59,487	*98.9%*	0.028	546	*0.9%*	96	*0.1%*

* Per utilizer per month (PUPM)

[47] The significant decrease in total number of PAs requested was due to the January 1, 2006 implementation of Medicare D program in which approximately 35-40% of the Indiana Medicaid recipients were transferred from Indiana Medicaid into the Medicare D program.

5. Access to Prescription Medications - No Negative Impact of the PDL Upon the Ability of Indiana Medicaid Recipients to Obtain Prescription Medications

Recipients affected by the PDL program would be those taking a non-preferred medication before PDL implementation. Affected recipients would then either have:

- Switched to a preferred medication
- Received a prior authorization to continue with their non-preferred medication
- Switched to a preferred medication for a short period then switched back to a non-preferred medication
- Stopped taking their medication (either due to experiencing a denied claim at the pharmacy, or due to the fact that the medication was no longer needed)
- Dropped out of the analysis because they were no longer eligible and no longer received medications through the Medicaid program

Recipients were tracked after each denied claim for a non-preferred medication to evaluate whether the denied claim was followed by a paid claim within 30 days of the denial. Then for Reports #4, #5, #6, #7, #8 and #9 recipients were additionally followed from 30 to 180 days after the denial as well as within the first 30 days of denial.

Report #1 Evaluation

In Report #1, 23 classes contained enough claims data 12 months after PDL implementation to assess the PDL program's impact on users' access to medications. Of the 188,508 monthly recipients followed 12 months after the initial PDL program began, only 1,485 (0.79%) experienced a denied claim with no paid claim for a related medication within 30 days. It is impossible to know from pharmacy claims data what portion of these dropped claims were duplicate or unnecessary therapies.

Report #2 Evaluation (Adherence Report)

It is impossible to know from pharmacy administrative claims data what portion of dropped claims were duplicate or unnecessary therapies. Dropped claims are defined as claims for recipients experiencing a denied claim for a non-preferred drug and received no other drug within 30 to 180 days afterward. Since pharmacy claims data were the only source of information available to perform this analysis, it is impossible to determine which delay/terminations were clinically appropriate. Claims data does not allow full explanation for the therapy interruptions. For example, there are many potential reasons other than PDL such as: physician sampling of medications, other third party liability, patient adherence, or changes in patient therapy.

To put this into perspective, the rate of non-preferred claims denials where recipients had no later related claim within the next 30-days is far lower than the 30 to 50%

non-adherence rate after receiving medications documented in the literature.[48] Since between 30 to 50% of all patients fail to follow their prescribed therapy once they receive it, non-adherence or lack of persistence with taking medications may be a larger concern. Therefore, analysis in Report #2 examined recipients who were non-adherent (as evidenced by inconsistent prescription claims history) with their medications after receiving non-preferred and preferred medications.

Report #3 Evaluation

In Report #3, the PDL program's impact on users' access to medications after the PDL program had been operating for a long time period was assessed. Retail pharmacy prescription claims were examined at 26 and 31 months after initial implementation. Of the 203,463 monthly recipients followed for 26-months after, and of the 208,693 monthly recipients followed for 31-months after the initial PDL program began, only 3,288 (1.6%) experienced a denied claim in the two months of October 2004 and March 2005.

A random sample of 1,000 retail pharmacy Medicaid recipients' claims were analyzed during the month of October 2004 after the recipient experienced a denied claim due to a non-preferred prescription claim. Another random sample of 750 was analyzed in the month of March 2005. Of the 1,750 recipients followed from the initial claim rejection due to a non-preferred prescription claim, only 47 recipients (0.023%) in October 2004 and 28 recipients (0.013%) in March 2005 experienced a denied claim with no paid claim for a related medication within the next 30 days.

Report #4 Evaluation

Medicaid recipients' claims during the month of September 2005 were evaluated for Report #4. Analysis focused on two therapeutic classes of maintenance medications – both antihypertensive medications – angiotensin converting enzyme Inhibitors (ACE Inhibitors) and angiotensin receptor blockers (ARBs). Only 107 recipients experienced a claim rejection due to a non-preferred ACE Inhibitor prescription claim, and 194 recipients experienced a claim rejection due to a non-preferred ARB. Of the 107 recipients who experienced a claim rejection due to non-preferred ACE Inhibitors, only two recipients experienced a denied claim with no paid claim for a related medication within the next 30 days. Of the 194 recipients who experienced a claim rejection due to non-preferred ARBs, only two recipients (1.03%) experienced a denied claim with no paid claim for a related medication within the next 30 to 180 days.

[48] Meichenbaum D., Turk D.C. Facilitating Treatment Adherence: A Practitioner's Handbook. New York: Plenum Press, 1987. Sackett D.L., Snow, J.C. *The magnitude of compliance and non-compliance*. In: Haynes R.B., Taylor, W.D. Sackett, D.L. eds. Compliance in Health Care. Baltimore, London: The John Hopkins University Press, 1979: 11-22.

It is impossible, with such a small sample of two within each therapeutic class, to conclude whether these recipients were simply aberrations and no longer needed the antihypertensive medication, or whether the two recipients' access to care was impaired. Both recipients received medications for other problems after experiencing a denied claim for a non-preferred ACE inhibitor. So, it would seem plausible that these recipients still had access to care for antihypertensive as well as other treatments and were possibly not adherent with their antihypertensive therapy or no longer needed the antihypertensive drug.

Report #5 Evaluation

Medicaid recipients' claims were evaluated during the month of January 2006 for 15 therapeutic classes of maintenance medications. Of the 15 therapeutic classes in the month of January 2006, a total of 27,656 unique recipients had paid and denied claims. For January 2006, 27,398 recipients (99.1%) had paid claims and only 258 recipients (0.9%) experienced a denial. Twenty-six of the 258 recipients experienced a denied claim with no subsequent paid claim because they were no longer eligible. Of 232 (0.84% of 27,656) recipients still eligible and who experienced a denied claim, 35 (0.13%) recipients did not have a subsequent paid claim and 197 (0.71%) recipients had a subsequent paid claim. Of the 197 recipients (who had a subsequent paid claim, 163 (83% of 197 and 0.59% of total recipients) received a paid claim within 24 hours to 30 days after the PDL exception denial hit. Over 95% of the 163 recipients who had exceptions with subsequent paid claims were getting early fills of medication; therefore, if recipients received the medication within 30 days of the PDL exception, there should be no break or discontinuance in therapy due to lack of access to medications. Of the 197 recipients who experienced a PDL exception (denial) and who had a subsequent paid claim, 34 (17% of 197 and 0.12% of total recipients) received a paid claim within 31 to 180 days of the denial.

The 34 (0.12%) recipients who experienced a denial with a subsequent paid claim 31 to 180 days later may have experienced a delay in taking medication. There is also possibility that some of these recipients had samples or other medications at home and therefore did not request the medication again until they needed it. Of the 35 (0.13%) recipients who did not have a subsequent paid claim, it is impossible to determine how many may have gotten their medications through the Medicare D program and how many may no longer have needed the maintenance medication.

Overall, the initial number of recipients who may have experienced a delay in receiving needed medications (0.78% without a related claim within 30 days of the denial in the first year) suggests a minimum impact on PDL users. Further, denials diminished monthly as providers gained experience with the program as evidenced by the 0.023% at 26 months and 0.013% at 31 months after the program began.

Finally, in January 2006 even with the confusion of Medicare D implementation, the number of Medicaid recipients who may have experienced a delay in receiving

medications (0.12% without a related claim within 30 days of the denial and 0.13% without a related Medicaid paid claim for a total of 0.25%) suggests a minimum impact on PDL users.

Report #6 Evaluation

Of the 107,783 monthly recipients followed for 6 months (April 2006 to September 2006), only 2,043 (1.9%) experienced a denied claim.

For Report #6, Medicaid recipients' claims for 21 therapeutic classes of maintenance medications during the month of September 2006 were evaluated. For the 21 therapeutic classes in the month of September 2006, a total of 108,519 unique recipients had paid and denied claims, of which only 594 recipients (0.55%) experienced a denial. Thirty-six of the 594 recipients experienced a denied claim with no subsequent paid claim because they were no longer eligible. Of the 558 recipients still eligible, 0.51% experienced a denied claim. Over 95% of the recipients who had exceptions with subsequent paid claims were getting early fills of medication; therefore, if recipients received the medication within 30 days of the PDL exception, there should be no break or stoppage in taking therapy due to lack of access to medications. Of the recipients who experienced a PDL denial and who had a subsequent paid claim, 87% received a paid claim within 24-hours to 30 days of the denial; whereas, 13% of those with a denied claim or 0.05% of total recipients received a paid claim within 31 to 180 days of the denial.

The 52 (0.05%) recipients who experienced a denial with a subsequent paid claim 31 to 180 days later may have experienced a delay in taking medication. There is also a possibility that some of these recipients had samples or other medications at home and therefore did not request the medication again until they needed it. Of the recipients who did not have a subsequent paid claim, it is impossible to determine how many may have gotten their medications through the Medicare D program and how many may no longer have needed the medication.

Overall, the initial number of recipients who may have experienced a delay in receiving needed medications (0.78% without a related claim within 30 days of the denial in the first year) suggests a minimum impact on PDL users. Further, denials diminished in later evaluation periods as providers gained experience with the PDL program as evidenced by the 0.023% at 26 months, 0.013% at 31 months, and 0.05% at 49 months after the program began.

Report #7 Evaluation

Of the 112,738 monthly recipients followed for 6 months (October 2006 to March 2007), only 1,107 (1.8%) experienced a denied claim.

For Report #7, Medicaid recipients' claims for 21 therapeutic classes of maintenance medications during the month of March 2007 were evaluated. For the 21 therapeutic classes in the month of March 2007, a total of 62,174 unique recipients had paid and denied claims, of which only 1,107 recipients (1.8%) experienced a denial. Seventy-one of the 1,107 recipients experienced a denied claim with no subsequent paid claim because they were no longer eligible. Of the 1,036 recipients still eligible, 0.4% experienced a denied claim. Over 95% of the recipients who had exceptions with subsequent paid claims were getting early fills of medication; therefore, if recipients received the medication within 30 days of the PDL exception, there should be no break or stoppage in taking therapy due to lack of access to medications. Of the recipients who experienced a PDL denial and who had a subsequent paid claim, 92.2% received a paid claim within 24-hours to 30 days of the denial; whereas, 5.2 % of those with a denied claim or 2.6% of total recipients received a paid claim within 31 to 180 days of the denial.

The 52 (0.05%) recipients who experienced a denial with a subsequent paid claim 31 to 180 days later may have experienced a delay in taking medication. There is also the possibility that some of these recipients had samples or other medications at home and therefore did not request the medication again until they needed it.

Report #8 Evaluation

Of the 107,812 monthly recipients followed for 6 months (April 2007 to September 2007), only 2,019 (3.8%) experienced a denied claim.

For Report #8, Medicaid recipients' claims for 27 therapeutic classes of maintenance medications during the month of March 2007 were evaluated. For the 27 therapeutic classes in the month of March 2007, a total of 53,169 unique recipients had paid and denied claims, of which only 2,019 recipients (3.8%) experienced a denial. Two hundred eighty-nine of the 2,019 recipients experienced a denied claim with no subsequent paid claim because they were no longer eligible. Of the 1,730 recipients still eligible, 9.1% experienced a denied claim. Over 95% of the recipients who had exceptions with subsequent paid claims were getting early fills of medication; therefore, if recipients received the medication within 30 days of the PDL exception, there should be no break or stoppage in taking therapy due to lack of access to medications. Of the recipients who experienced a PDL denial and who had a subsequent paid claim, 89.5% received a paid claim within 24-hours to 30 days of the denial; whereas, 9.1 % of those with a denied claim received a paid claim within 31 to 180 days of the denial.

The 157 recipients who experienced a denial with a subsequent paid claim 31 to 180 days later may have experienced a delay in taking medication. There is also the possibility that some of these recipients had samples or other medications at home and therefore did not request the medication again until they needed it.

Report #9 Evaluation

Of the 110,715 monthly recipients followed for 6 months (October 2007 to March 2008), only 2,022 (6.4%) experienced a denied claim.

For Report #9, Medicaid recipients' claims for 24 therapeutic classes of maintenance medications during the month of October 2007 were evaluated. For the 24 therapeutic classes in the month of October 2007, a total of 31,279 unique recipients had paid and denied claims, of which only 2,022 recipients (6.4%) experienced a denial. Two hundred ninety-six of the 2,022 recipients experienced a denied claim with no subsequent paid claim because they were no longer eligible. Of the 1,726 recipients still eligible, 158 (9.2%) experienced a denied claim. Over 95% of the recipients who had exceptions with subsequent paid claims were getting early fills of medication; therefore, if recipients received the medication within 30 days of the PDL exception, there should be no break or stoppage in taking therapy due to lack of access to medications. Of the recipients who experienced a PDL denial and who had a subsequent paid claim, 88.6% received a paid claim within 24-hours to 30 days of the denial; whereas, 10.5% of those with a denied claim received a paid claim within 31 to 180 days of the denial.

The 158 recipients who experienced a denial with a subsequent paid claim 31 to 180 days later may have experienced a delay in taking medication. There is also the possibility that some of these recipients had samples or other medications at home and therefore did not request the medication again until they needed it.

In summary:

- The proportion of users with a denied claim due to PDL program was extremely low.
- Recipient ineligibility explains why some exception events did not result in a prescription being filled for a medication in the class or a related class.
- "Delays" in the receipt of medications were in part due to recipients seeking to refill their prescriptions too early.
- Relatively few eligible recipients had a denied claim and no claims for follow up medication in the same or a related class within 30 days of the event.

Overall, the initial number of recipients who may have experienced a delay in receiving needed medications without a related claim within 30 days of the denial in the first year suggests a minimum impact on PDL users. Further, denials diminished in later evaluation periods as providers gained experience with the PDL program as evidenced by the 0.023% at 26 months, 0.013% at 31 months, 0.05% at 49 months, 0.4% at 55 months, and 9.1% (0.3% of all unique utilizers) at 61 months.

6. Impact of PDL Program upon Medical Costs: No Statistically Significant Differences

OMPP required ACS Government Healthcare Solutions to conduct a study to analyze the Indiana preferred drug list program (PDL) to determine if the PDL results in a negative impact on the health outcomes of Medicaid recipients as well as any cost shifting to other health care providers, laboratory, emergency or hospital services.

Methods

This study used retrospective, paid claims data to evaluate recipient outcomes that may be related to implementation of the PDL program. Any changes in medical utilization or costs for those affected by the PDL program, relative to those not affected, would be *indicators of a possible association* between the PDL program and health outcomes.

It must be noted that we can only determine association, not causality. This report was not a randomized, controlled design since Medicaid patients were not randomly assigned to take preferred or non-preferred medications; therefore, only association or lack of association can be determined. Sample sizes were measured in number of recipients.

Data

The data for this study were derived from the historical paid claims files from the Indiana Medicaid program. Medical data extracts were created and stored in ACS Health Management Solutions data warehouse for the period of March 1, 2002 through September 30, 2008.

Medical Data Study Period

Analyses of the effects of PDL implementation on medical utilization and costs was limited to certain therapeutic groups where potential changes were most likely to have occurred as a result of PDL implementation. Study period one was 6-months prior to and 6-months after each specific therapeutic class' PDL implementation. The month of implementation was excluded in the medical analyses since most implementations occurred mid-month. Study period two was 12-months post- to two years post-implementation. The study periods were as follows:

- Study period three was 26 to 31 months post-implementation (10/1/04 to 3/31/05).
- Study period four was 32 to 37 months post-implementation (4/1/05 to 9/30/05).
- Study period five was 38 to 43 months post-implementation (10/1/05 to 3/31/06).
- Study period six was 44 to 49 months post-implementation (4/1/06 to 9/30/06).
- Study period seven was 50 to 55 months post-implementation (10/1/06 to3/31/07).
- Study period eight was 56 to 61 months post-implementation (4/1/07 to 9/30/07).
- Study period nine was 62 to 67 months post-implementation (10/1/07 to 3/31/08).
- Study period ten was 68 to 73 months post-implementation (4/1/08 to 9/30/08).

Outcome Measures

Selected outcomes measures studied were expenditures for physician office visits, emergency room services, laboratory services, number of inpatient hospital admissions and number of inpatient days stayed when hospitalized or institutionalized, as well as total medical expenditures per recipient. Medical outcomes were evaluated six months before and for periods of 12, 26, 31, 37, 43, 49, 55, 61, 67 and 73 months after implementation for each of the cohorts or groups of recipients per therapeutic class studied. The initial month of PDL implementation for the associated therapeutic class was assigned a null period in which no measurements were taken.

Outcome Measure Definitions

Physician office visits were defined by detailed procedure codes associated with outpatient or office services involving physician evaluation and management of patients. Emergency services were defined by locating the emergency physician services using procedure codes 99281-99288, and then rolling up the costs of all detail numbers associated with those emergency services claims.

Only services related to the disease states treated with the therapeutic class being studied were used in calculating medical expenditures for each service type. This allows a more detailed, narrow scope of expenditures, ensuring that only the expenditures associated with changes in therapy are being included.

Inpatient hospital services were measured as a count of each admission date per recipient ID and all expenditures associated with each unique recipient ID per admission date on the inpatient UB-92 claims. Inpatient hospital expenditures were measured only for services related to the disease state associated with the therapeutic class being studied.

Cost Definition

To explore the impact of drug use patterns associated with the PDL program on medical costs, Indiana Medicaid claims were partitioned by type of service. The amount actually paid directly by the Indiana Medicaid program minus recipient co-pays and other insurance was used as the Amount Paid for expenditures. We acknowledge that this definition does not capture the full costs of medical expenditures since Medicare is the primary payer for Medicare-covered services and Indiana Medicaid would pay only the balance. However, this study is only measuring differences in paid amounts between two groups. Because we are only interested in payment changes between groups, we contend that amount paid is sufficient as it applies equally to both groups.

Inclusion/Exclusion Criteria

Inclusion/exclusion criteria were applied to all therapeutic classes in the PDL list as shown in Figure 1. After applying the inclusion/exclusion criteria, recipients taking medications from select therapeutic classes were evaluated over a six-month pre- and a six-month post-each reporting period.

Figure 1. Inclusion/Exclusion Criteria for Therapeutic Classes Studied in the Medical Analyses

Therapeutic classes chosen for inclusion in studying medical data were:

- Therapeutic classes with the greatest likelihood of having at least 99% of paid medical claims available for the 6-month period following implementation of the therapeutic class. When using administrative claims databases, the lag time between when a medical service is provided and the time at which a claim for a medical service is entered into the database varies and may be delayed, especially for dual eligible recipients (Medicaid and Medicare). Therefore, recipients taking medications only in therapeutic classes implemented from August 2002 through December 2002 contained enough post-implementation medical data for study inclusion in Report #1. These same recipients in the original eight therapeutic classes (who were still eligible) were subsequently followed-up in the 2nd, 3rd, 4th, and 5th reports, along with additional classes that met the inclusion criteria.
- Therapeutic classes with a relatively large market shift to preferred drugs after PDL program implementation. A relatively large market shift was defined as therapeutic classes with 95% or less preferred market share prior to PDL program implementation.
- Therapeutic classes with approved use as long-term maintenance therapy for chronic illnesses. This maintenance therapy criterion allows for a sufficient number of recipients to have taken preferred or non-preferred medications for a long, continuous time period. Long-term maintenance therapy increases the likelihood of detecting an association due to the PDL program and not due to extraneous, unrelated influences.

Therapeutic classes excluded from medical data analyses were:

- Therapeutic classes with greater than 95% preferred drug market share prior to the PDL implementation. These classes were excluded due to an insufficient number of recipients who switched from non-preferred to preferred in order to detect a change in health status.
- Therapeutic classes approved for short-term therapy or with large seasonal fluctuations in usage (e.g., non-sedating antihistamines). It cannot be determined from prescription claims if a recipient terminated therapy due to decreased symptoms or because the PDL program limited access to the medication. Hence, it would be impossible to determine if medical expenditures are associated with taking or not taking the medications; and in turn, to determine if taking the medications for such a short time is associated with medical expenditures.
- Therapeutic classes with too few recipients taking the medications. The sample size of each therapeutic class must be large enough to obtain statistical significance ($\alpha = 0.05$ with a medium effect size) with reasonable power (.80).

Recipients' Medical Expenditures

Of the therapeutic classes evaluated, overall medical expenditures of recipients affected by the PDL program were not associated with any statistically significant differences when compared to recipients not affected by the PDL program (already taking preferred medications prior to and after PDL implementation, or already taking non-preferred prior to and after implementation). In other words, recipients affected by the PDL program were not associated with any statistically significant differences in overall medical expenditures when compared to recipients not affected by the PDL program after PDL implementation. This finding is consistent with prior Reports #1

through #9 in demonstrating that recipients affected by the PDL program were not associated with any statistically significant differences in overall medical expenditures when compared to recipients not affected by the PDL program measured at 12, 26, 31, 37, 43, 49, 55, 61, 67 and 73 months after PDL implementation.

In summary, when examining **specific medical service types** at 12, 26, 31, 37, 43, 49, 55, 61, and 73 months after PDL implementation of a therapeutic class, there is no evidence to suggest that specific medical costs (e.g. other health care providers, lab, emergency room services or hospital services) are higher on a wide, systematic scale for recipients switched to taking preferred medications or already taking preferred medications versus recipients taking non-preferred medications.

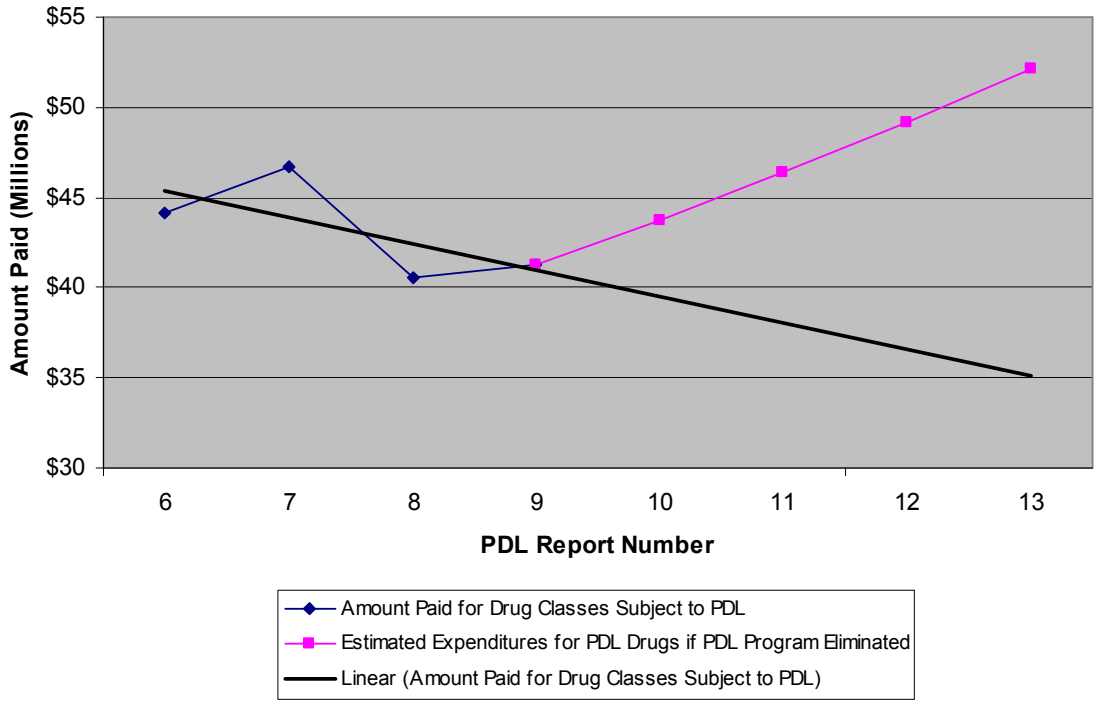
Additionally, of the therapeutic classes evaluated, **overall medical expenditures** of recipients affected by the PDL program were not associated with any statistically significant differences when compared to recipients not affected by the PDL program (already taking preferred medications prior to and after PDL implementation). It must be noted that we can only determine association, not causality. This report was not a randomized, controlled design since Medicaid patients were not randomly assigned to take preferred or non-preferred medications; therefore, only association or lack of association can be determined. Sample sizes were measured in number of recipients.

7. PDL Edit Savings Analysis

In PDL Report #9, ACS performed a PDL edit savings analysis to measure the impact of removing the PDL edits. The following text is a synopsis of this study.

ACS has other clients who have similar edits in place for their PDL programs and based on savings analyses, these edits provide an average of 6% savings of the total amount paid for their respective therapeutic classes. The following graph illustrates the trend over the next four reporting periods if all of the current PDL program edits were eliminated. Using the 6% benchmark described in the previous paragraph, the amount paid for Drug Classes Subject to PDL would increase at rate of 6% per year with the estimated amount paid being about $52 million by report #13 compared to a trend line of approximately $35 million if the edits remained in place.

Graph: Estimated Expenditure Increase if PDL Program Eliminated



Conclusions

All past analyses have shown that the PDL program has not created any significant barriers to medically necessary medications. Since the beginning of the first analysis report, there has been no evidence found to suggest that access to care is being compromised or that quality of care for recipients has suffered as a result of the PDL program. In fact, adherence was demonstrated to be the more significant issue, not whether recipients were taking a preferred or non-preferred medication.

KEY OBSERVATIONS:

Recipients who were persistent in taking their medications had significantly lower mean expenditures for physician office visits, emergency room visits, and laboratory procedures than recipients who were non-adherent. The results illustrate that the problem with recipients' health outcomes for Indiana recipients are less likely to be related to whether recipients are taking non-preferred or preferred medications, but rather are more likely to be related to whether recipients will be adherent with taking any prescribed medication, whether it is preferred or non-preferred.

DISCUSSION AND CONCLUSIONS: REPORTS 1 - 10

In response to increases in prescription medication spending and utilization, many public sector pharmacy benefit programs have been developing and implementing a variety of innovative policy solutions for more effective management of pharmacy benefits. One of the methods that several state Medicaid agencies have implemented is the preferred drug list (PDL) program. The concept behind the PDL program is to improve the quality of pharmaceutical care by ensuring that the most clinically appropriate drug is used, while taking into account the relative costs of the available therapeutically equivalent alternatives. PDL programs may be able to address the problems associated with:

- Recipients who rarely see or pay the true costs of their medications; and therefore have no incentive to choose less expensive, yet equally effective medications.
- Prescribers who lack current knowledge of the true costs of medications being prescribed.

This evaluation demonstrates that a Preferred Drug List program does decrease net drug expenses. The most substantial net savings from federal CMS rebates are realized within the first year of the PDL program when the largest number of recipients shifts from non-preferred medications to preferred medications. Furthermore, the market share movement identified through this evaluation suggests that educating prescribers to prescribe and recipients to utilize preferred medications works. As a result of moving market share to the preferred products, the PDL program produced net savings with both federal and supplemental rebates.

Additionally, after following nearly 38,000 recipients in eight therapeutic classes over 6 years post-PDL implementation, no evidence was uncovered to suggest an association between the PDL and negative impacts on the quality of care or the ability for recipients to obtain medications. Specifically, there is no evidence at 12-months, 2-years (25 months), 2 ½ years (31 months), 3 years (37 months), 3 ½ years (43 months), 4 years (49 months), 4 ½ years (55 months), 5 years (61 months), 5 ½ years (66 months) and 6 years (73 months) post-PDL implementation to suggest that significant cost shifting to other health care providers, laboratories, emergency room services or hospital services is occurring on a wide, systematic scale.

Finally, since the first report to the most current report, analyses of the impact of the Indiana PDL program have shown that there is no evidence to suggest that the ability of Indiana Medicaid recipients to obtain prescription medications is being compromised or that quality of care for recipients has suffered as a result of the PDL program. In addition, the Indiana PDL program has generated an estimated $61.62 million in drug expenditure savings.

Appendix

Preferred Drug List (PDL) Program Prior Authorizations

PDL program prior authorizations (PAs) requested, approved, and disapproved (or denied) are listed in Exhibit 1 below. When PAs are requested for non-preferred medications, they are approved 90.9% of the time.

Exhibit 1. Preferred Drug List Prior Authorizations (PDL PA) Summary

Time Period	Average # Utilizers per Month	Total All PAs Requested	# Approved	*% Approved*	# Approved PUPM*	# Denied	*% Denied*	# Suspended	*% Suspended*
FFY08 (04-1-08 through 09-30-08) 2nd Half of Yr 6 – Report #10	107,350	7,758	7,054	*90.9%*	0.0109	698	*9.0%*	6	*0.1%*

* Per utilizer per month (PUPM)

Exhibit 2. Number of PDL PAs by PDL Therapeutic Class[49]

INDIANA MEDICAID - PA TOTALS PDL Program (Apr 08 through Sept 08)			
Apr 08 through Sept 08 - PDL PA Totals	**Approved**	**Denied**	**Suspended**
ACE Inhibitors	50	7	0
ACEI with CCB	42	0	0
ACEI with Diuretics	1	0	0
Acetaminophen Limits	93	5	0
Agents to treat COPD	114	3	0
Alpha Adrenergic Blockers	56	0	0
Angiotensin Receptor Blockers (ARBs)	217	0	0
Angiotensin Receptor Blockers/Diuretics	103	0	0
Angiotensin Receptor Blockers/CCBS	66	2	1
Antidiabetic Agents	64	4	0
Antiemetic - Antivertigo Agents	66	14	0
Antifungal Oral	49	0	0
Antifungal Topical	2	0	0
Antipsoriatics	9	1	0
Anti-Ulcer - H Pyloric Agents	33	0	0
Antiviral Anti-herpetic Agent	103	2	0
Antiviral Influenza Agents	15	0	0
ARBs with Diuretics	103	9	0
Benign Prostatic Hypertrophy	9	3	0
Beta and Alpha/Beta Blockers	116	15	0
Beta Adrenergics and Corticosteroids	146	6	0
Bile Acid Sequestrants	37	8	0
Brand NSAIDS	41	2	0
Calcium Channel Blockers	67	4	0
Calcium Channel Blockers w/HMG CoA Reductase	4	2	0
Cephalosporins	7	2	0
Chronic Constipation Agents	43	6	0
Cox-2 Inhibitor	281	11	0
Cytotec	14	2	0
Direct Renin Inhibitors	51	1	0
Electropyte Depleters	11	3	0
Fibric Acids	19	3	0
Fluoroquinolones	19	0	0
Forteo	15	2	0
H2 Antagonists	81	2	1
Heparin and Related Products	2	0	0
HMG CoA Reductase Inhibitors (Statins)	2	1	0
Inhaled Glucocorticoids	171	13	1
Injectable Hypoglycemics (New Implement Dec06)	290	21	0
Inspra	4	1	0
Leukocyte Stimulants	3	0	0
Leukotriene Receptor Antagonists	132	11	0
Lipotropics Miscellaneous	25	1	0
Long Acting Beta Agonists	29	12	0
Macrolides	27	0	0
Miotics- OIPR	44	0	1
Narcotic Antitussive	3	0	0
Narcotics	1,034	9	1
Nasal Steroids and Antihistamines	62	7	0
Non-Sedating Antihistamines	534	20	0
Ophthalmic Antibiotics	45	2	0
Ophthalmic Antihistamines	3	10	0
Opthalmic Mast Cell Stabilizers	1	0	0

[49] The PDL was broken into 68 classes for evaluation; however, only 66 classes are listed in Exhibit 2. This is because injectable hypoglycemics is listed as one class in the PA table but was split into three therapeutic classes based upon mechanism of action of the class during the report evaluation; therefore, the number of classes is equal.

Exhibit 2.-continued- Number of PDL PAs by PDL Therapeutic Class

Table 4--continued

--continued --Apr 08 through Sept 08 - PDL PA Totals	Approved	Denied	Suspended
Otic Antibiotics	10	1	0
Platelet Aggregation Inhibitors	6	0	0
Proton Pump Inhibitors	1,259	337	0
PPI/NSAID Combination	95	16	0
Revatio	20	0	0
Short Acting Beta Agonists	214	2	0
Skeletal Muscle Relaxants	406	41	0
Smoking Deterrent Agents	12	6	0
Systemic Vitamin A Deriv.	18	0	0
Thiazolidenediones	57	1	0
Topical Acne Agents	41	3	0
Topical Estrogen Agents	3	3	0
Topical Immunomodulators	7	0	0
Topical Vitamin A Deriv.	18	0	0
Triptans	61	5	1
Urinary Tract Antispasmodics - Antiincontinence	218	52	0
Vaginal Antimicrobials	10	0	0
Wound Care	41	4	0
PA TOTALS from PDL Program	**7,054**	**698**	**6**

Exhibit 3. Percent Preferred of PDL Therapeutic Class

PREFERRED DRUGS	Jan-02 (Before PDL by 7 months)	Oct 03 to Mar 04	Apr 04 to Sept 04	Oct 04 to Mar 05	Apr 05 to Mar 06	Oct 05 to Mar 06	Apr 06 to Sept 06	Oct 06 to Mar 07	Apr 07 to Sept 07	Oct 07 to Mar 08	Apr 08 to Sept 08
	% Pre-ferred	% Pre-ferred	% Pre-ferred	% Pre-ferred	% Pre-ferred	% Pre-ferred	% Pre-ferred	% Pre-ferred	% Pre-ferred	% Pre-ferred	% Pre-ferred
Z2A/OQ - Non-Sedating Antihistamines (RX)	24.3%	93.7%	94.1%	95.0%	95.0%	59.0%	65.2%	65.5%	64.5%	65.8%	35.2%
Z2A/OQ - Non-Sedating Antihistamines (OTC)				100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
A4D - ACE Inhibitor	33.1%	98.5%	97.5%	99.0%	99.2%	99.3%	99.1%	99.2%	99.30%	95.6%	99.2%
D4K - Proton Pump Inhibitors (RX)	34.9%	82.4%	73.7%	82.9%	81.6%	82.0%	83.7%	71.7%	75.90%	74.9%	70.6%
D4K - Proton Pump Inhibitors (OTC)				100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
J7A - ALPHA/BETA Adrenergic Blockers			100.0%	100.0%	100.0%	99.9%	100.0%	100.0%	100.0%	99.9%	100.0%
J7C - BETA Adrenergic Blockers			99.9%	100.0%	100.0%	99.9%	99.9%	99.9%	100.0%	99.8%	99.9%
J7B - ALPHA Adrenergic Blockers			99.5%	99.7%	99.8%	99.7%	99.6%	99.4%	99.6%	99.2%	99.4%
A9A - Calcium Channel Blockers	94.0%	97.6%	98.2%	97.7%	93.8%	87.9%	88.5%	91.7%	97.9%	96.3%	94.0%
R1M - Loop Diuretics	93.1%	99.0%	99.8%	99.9%	99.9%	No Longer Reviewed					
M9P - Platelet Aggregation Inhibitors	90.1%	100.0%	98.4%	89.9%	99.8%	99.8%	99.9%	99.0%	98.9%	99.8%	99.9%
C4N - Thiazolidenediones	52.5%	90.1%	98.7%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
A4D - ACE Inhibitor W/Diuretics	21.8%	90.0%	87.8%	99.8%	95.4%	99.7%	98.2%	98.4%	99.3%	95.6%	96.5%
A4F - Angiotensin Receptor Blockers w/Diuretics	50.7%	95.0%	93.1%	91.9%	90.3%	96.5%	94.3%	94.7%	94.5%	98.4%	97.8%
A4K - ACE Inhibitor w/CCB	95.2%	99.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	92.7%	91.8%
M4E - Statins	99.0%	99.6%	100.0%	100.0%	100.0%	100.0%	100.0%	99.9%	92.9%	91.3%	93.1%
H3F - Triptans	56.1%	93.4%	92.2%	96.7%	96.3%	97.9%	97.3%	87.5%	92.8%	94.3%	85.2%
Q9B - Benign Prostatic Hypertrophy Agents	100.0%	98.9%	98.8%	97.9%	98.1%	100.0%	99.2%	100.0%	100.0%	96.9%	98.1%
J5D - Beta Agonists										97.6%	98.3%
J5D - Beta Agonists - Short Acting					98.2%	98.6%	96.5%	98.5%	75.5%		
J5D - Beta Agonists - Long Acting					100.0%	100.0%	77.2%	79.1%	77.7%		
P5A - Inhaled Glucocorticoids	77.5%	97.7%	93.1%	98.7%	98.8%	97.8%	97.5%	98.3%	30.9%	98.5%	96.9%
Q7E/P - Nasal Anti-histamine/Anti-inflammatory Steroids	100.0%	100.0%	97.5%	93.9%	94.3%	75.4%	77.1%	62.3%	100.0%	100.0%	98.9%
Z4B - Leukotriene Receptor Antagonists	99.8%	99.9%	100.0%	100.0%	100.0%	97.4%	97.8%	98.4%	98.5%	98.3%	98.9%
J5G - Beta agonists and corticosteroids				100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
A4F - Angiotensin Receptor Blockers	45.7%	88.5%	85.8%	81.1%	79.1%	93.5%	93.5%	94.7%	94.5%	98.4%	93.9%
W1W - Cephalosporins			99.8%	99.8%	100.0%	No Longer Reviewed					
W1X - 2nd Gen Cephalosporins			96.9%	96.0%	94.3%	No Longer Reviewed					
W1Y - 3rd Gen Cephalosporins			76.3%	99.5%	99.4%	99.0%	99.6%	99.5%	64.0%	97.4%	73.6%
W1D - Macrolides	99.7%	100.0%	96.7%	98.0%	92.5%	94.6%	93.8%	92.1%	99.2%	99.5%	98.6%
W1Q - Fluoroquinolones	100.0%	100.0%	97.9%	100.0%	99.6%	98.6%	100.0%	98.5%	98.4%	98.3%	98.5%
W3B - Antifungals	87.4%	94.7%	92.5%	94.6%	90.5%	96.3%	94.4%	91.2%	96.0%	98.7%	98.8%
H6J - Antiemetic/Antivertigo Agents	96.2%	99.0%	98.4%	91.8%	94.0%	96.6%	98.3%	97.8%	29.1%	86.1%	99.4%
M9K - Heparin and Related Products	92.3%	89.0%	99.8%	99.5%	99.6%	100.0%	100.0%	99.5%	39.7%	85.1%	86.5%
P4L - SERM's/Bone Resorption Suppression Agents	62.5%	95.6%	93.4%	91.4%	89.6%	84.5%	92.8%	93.8%	93.3%	91.9%	89.9%
C4K/L/M - Antidiabetic Agents	99.1%	99.9%	98.8%	98.9%	99.0%	99.2%	99.2%	99.3%	98.9%	99.3%	99.3%
D7L - Bile Acid Sequestrants	50.6%	71.2%	72.2%	76.9%	75.7%	41.9%	65.9%	65.3%	18.2%	74.6%	67.2%
H3A - Brand Name Narcotics	89.3%	98.1%	98.4%	92.4%	99.3%	98.1%	98.3%	98.2%	98.0%	97.6%	99.9%
H6H - Skeletal Muscle Relaxants	54.6%	95.6%	93.7%	93.3%	94.2%	94.6%	94.5%	94.8%	94.7%	100.0%	94.0%
M4E - Fibric Acids	90.9%	95.4%	95.2%	98.7%	90.9%	72.2%	95.1%	98.1%	92.9%	91.3%	98.9%
R1A - Urinary Tract Antispasmodic/Anti Incontinence Agent	75.7%	98.3%	97.7%	97.9%	97.6%	96.6%	95.3%	95.3%	97.2%	98.6%	98.9%

Table continues on next page.

Exhibit 3-continued- Percent Preferred of PDL Therapeutic Class

PREFERRED DRUGS	Jan-02 (Before PDL by 7 months)	Oct 03 to Mar 04	Apr 04 to Sept 04	Oct 04 to Mar 05	Apr 05 to Mar 06	Oct 05 to Mar 06	Apr 06 to Sept 06	Oct 06 to Mar 07	Apr 07 to Sept 07	Oct 07 to Mar 08	Apr 08 to Sept 08
	% Pre-ferred	% Pre-ferred	% Pre-ferred	% Pre-ferred	% Pre-ferred	% Pre-ferred	% Pre-ferred	% Pre-ferred	% Pre-ferred	% Pre-ferred	% Pre-ferred
J3A - Smoking Cessation	69.8%	85.1%	84.8%	99.9%	100.0%	99.7%	99.8%	100.0%	84.4%	90.3%	98.8%
L1B/L5H/L9B - Acne Agents (Age 25 and under)			88.8%	86.0%	89.6%	95.7%	94.5%	95.6%	96.3%	51.4%	49.9%
L1B/L5H/L9B - Acne Agents (over 25)			0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
L5F - Antipsoriatics	55.1%	62.3%	100.0%	98.6%	99.4%	100.0%	100.0%	95.2%	100.0%	100.0%	100.0%
N1B - Hematinics	100.0%	93.8%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
N1C - Leukocyte Stimulants	80.0%	95.7%	83.9%	83.0%	83.3%	100.0%	95.5%	92.9%	82.1%	97.5%	93.0%
P4B - Bone Formation Stimulating Agents	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Q6G - Miotics/Other intraocular Pressure Reducers	64.7%	75.5%	79.6%	81.3%	82.7%	87.3%	86.7%	89.0%	87.9%	86.4%	88.2%
Q6I - Eye Antibiotic/Corticosteroid Combos	14.4%	70.4%	76.0%	77.0%	77.0%	85.2%	90.2%	83.3%	80.3%	98.5%	80.3%
Q6R - Eye Antihistamines	99.8%	100.0%	98.9%	98.8%	95.9%	98.4%	99.1%	96.2%	94.5%	97.9%	81.0%
Q6U - Ophthalmic Mast Cell Stabilizers	20.7%	40.7%	42.4%	93.5%	94.0%	94.1%	94.7%	95.2%	95.6%	95.1%	97.2%
Q6W - Ophthalmic Antibiotics	94.3%	83.7%	98.2%	98.0%	94.9%	98.6%	97.7%	97.7%	99.4%	86.3%	98.1%
Q8F/W - Otic Antibiotics	97.6%	97.9%	99.2%	92.4%	94.7%	95.4%	94.0%	98.5%	96.7%	98.8%	96,5%
D4F- Anti-ulcer/H.Pylori Agents			0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	85.4%	0.0%	0.0%
Q4F - Vaginal Antimicrobials	8.7%	59.3%	67.1%	84.0%	92.6%	90.2%	85.3%	93.3%	79.0%	85.3%	89.9%
Q4K - Topical Estrogen Agents	100.0%	100.0%	82.0%	86.8%	88.5%	97.4%	93.4%	96.8%	96.0%	81.1%	87.6%
Q5F - Topical Antifungal Agents	64.0%	92.6%	83.6%	97.3%	98.7%	99.1%	99.3%	99.3%	99.2%	91.0%	99.8%
W5A - Anti-Herpetic Agents	41.7%	51.6%	96.0%	97.1%	75.7%	97.6%	97.7%	97.6%	97.6%	82.9%	98.8%
W5A - Influenza Agents	0.0%	0.0%	0.0%		99.8%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
D4K-H2RA H-2 Antagonists - Rx				95.2%	96.0%	91.5%	90.7%	99.3%	71.7%	70.2%	58.9%
D4K-H2RA H-2 Antagonists - OTC				100.0%	100.0%	100.0%	100.0%	100.0%	96.7%	96.0%	94.3%
S2B - Cox II's & Cox II/NSAID Combo	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	94.5%	0.0%	0.0%
M4E Other Lipotropic Agents				100.0%	100.0%	100.0%	100.0%	100.0%	92.9%	91.3%	93.7%
R1H - Inspra (Step Edit: Requires prev.tx w/ spironolactone)	N/A	N/A	100.0%	98.2%	98.8%	98.3%	100.0%	100.0%	1.7%	99.9%	46.4%
A1D - Agents to treat COPD				95.4%	96.5%	97.0%	97.1%	97.3%	99.9%	99.9%	99.9%
M4I - CCB w/HMGs				100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
W9A - Ketolides				0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
L0B,L0C - Wound Care							38.3%	52.9%	47.8%	71.4%	87.9%
C4G - Insulins (Rapid, Short, Intermediate, Long-Acting)								95.2%	72.2%	94.1%	95,6%
C4H - Amylin Analog (ANTI-DIABETIC AGENTS)								100.0%	100.0%	100.0%	100.0%
C4I - Incretin Mimetic (ANTI-DIABETIC AGENTS)								100.0%	100.0%	100.0%	100.0%
A4B- Antihypertensives, Sympatholytics										99.8%	98.9%
TOTAL ALL PDL PROGRAMS	**75.2%**	**95.8%**	**93.8%**	**98.7%**	**95.4%**	**95.8%**	**95.8%**	**95.8%**	**94.8%**	**92.30%**	**95.7%**