



Utah Department of Health and University of Utah College of Pharmacy
UTAH MEDICAID DRUG REGIMEN REVIEW CENTER

ANNUAL REPORT:
OCTOBER 2013 - SEPTEMBER 2014

The Utah Medicaid Drug Regimen Review Center
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INTRODUCTION

The College of Pharmacy at the University of Utah began operating its Drug Regimen Review Center (DRRC) in May 2002 to fulfill the terms of a contract with the Utah State Department of Health. The contract supports the Utah Medicaid prescription drug program and its drug utilization review process. The emphasis of the program is to improve the safety and efficacy of drug use in Medicaid patients, reduce the number of prescriptions and drug costs for frequent utilizers of the Medicaid drug program, and to support and educate the medical professionals who prescribe to utilizers of the program.

Each month, a group of patients is selected for review by a team of clinically trained pharmacists. These reviews result in recommendations made to prescribers, which are described later in this report. Recommendations are sent, primarily via fax, to all prescribers of medications related to identified drug therapy problems, and include a list of drugs dispensed during the month of review. The DRRC also provides information and consultation by telephone with prescribers and pharmacists.

STAFF

The DRRC utilizes a staff of professionals to run the program including:

Pharmacists

Melissa Archer, Pharm.D.
Joanne LaFleur, Pharm.D., MSPH
Joanita Lake, B.Pharm., M.Sc. EBHC (Oxon)
Bryan Larson, Pharm.D., BCPS
Gary M. Oderda, Pharm.D., MPH
Carin Steinvooort, Pharm.D.

Data Management

Lisa Angelos
Brian Oberg, MBA
David Servatius

MISSION

The two primary missions of the DRRC are:

- 1) To support the Utah Medicaid Drug Utilization Review (DUR) Board and Pharmacy & Therapeutics (PT) Committee by researching and reviewing targeted drug classes and individual agents, and
- 2) To review the drug therapy of Medicaid patients who are frequent utilizers of the Medicaid prescription drug program, or who are otherwise determined to be at high risk for drug related problems and high medical costs, and to work with the individual prescribers to provide the safest, highest-quality pharmacotherapy at the lowest cost possible.

REVIEW METHODOLOGY

From the program's inception in 2002 through October 2008, the criteria for patient selection for review was relatively simple and straightforward. Patients who exceeded seven prescriptions per month were ranked by the number of prescriptions they received in that month, and the top 300 were selected after excluding children and patients who had been reviewed in the previous 12 months.

In 2008 the method of patient selection was modified significantly.

The number of patients selected for review each month was reduced from 300 to 150, and three distinct rules for selection were implemented. Each of these new rules was used to select about 50 patients per month:

1. Prescription Drug Counts

An average 50 patients per month selected on the basis of the number of prescriptions per month. This is the same mechanism that had been used in the past. In each month, patients who received any prescription are ranked according to the number of prescriptions they received in that month, and those with the highest number of prescriptions who had not been reviewed in the previous 12 months are selected.

2. RxRisk® Comorbidity Scores

An average 50 patients per month selected on the basis of RxRisk® comorbidity scores. RxRisk® is an instrument used for risk adjustment based on degree of comorbidity. It is based on prescriptions filled by patients in the entire 1-year period prior to the month of the review. The RxRisk® comorbidity scale is validated to identify patients at risk of having high medical expenditures in the subsequent year.

3. RxRisk® Chronic Diseases

An average 50 patients per month selected on the basis of the sum of chronic diseases they had, according to the RxRisk® comorbidity scale. Patients are ranked according to the number of comorbid conditions they had, and those with the highest count who had not been reviewed in the previous 12 months were selected.

In 2011 the method of patient selection was modified again.

The RxRisk® Chronic Diseases rule was eliminated and an average 50 of the 150 patients have been selected each month since that time using a single variable rule or combination of rules, created by the team of pharmacists, designed to target and address specific and prevalent problems they have observed in the general Medicaid population.

Table 1 summarizes the variable rules that have been used each month during the current reporting period.

Table 1 – Criteria Used for Targeted Patient Interventions between October 2013 and September 2014

OCT 13

DEFINITION	Patients who received three fills with a minimum quantity of 30 tablets for a skeletal muscle relaxant within the most recent four-month period.
PURPOSE	To identify all patients who have been receiving long-term treatment with a skeletal muscle relaxant. Skeletal muscle relaxants are not generally recommended for long-term use due to the risk of extrapyramidal adverse effects associated with dopamine-antagonism. Therapy should be limited to two to three weeks, as efficacy has not been established for longer periods of use.

NOV 13

DEFINITION	Patients who received three fills with a minimum quantity of 30 tablets for a skeletal muscle relaxant within the most recent four-month period.
PURPOSE	To identify all patients who have been receiving long-term treatment with a skeletal muscle relaxant. Skeletal muscle relaxants are not generally recommended for long-term use due to the risk of extrapyramidal adverse effects associated with dopamine-antagonism. Therapy should be limited to two to three weeks, as efficacy has not been established for longer periods of use.

DEC 13

DEFINITION	Patients who received no metformin in the month of initial GLP-1 fill or the six months prior to that.
PURPOSE	To identify all patients who are receiving treatment with a GLP-1 receptor agonist without first receiving metformin.

JAN 14

DEFINITION	Patients who received a triptan in the month of review and three others in the six months prior, but had no migraine prophylaxis drug on the pharmacy profile during the same six-month period.
PURPOSE	To identify patients who received treatment with a triptan on a fairly regular basis and could benefit from a prophylactic to prevent monthly migraines.

FEB 14

DEFINITION	Patients who received benzotropine at least five times in a six-month period, without a corresponding diagnosis for its use.
PURPOSE	To identify patients who may be receiving inappropriate treatment with benzotropine.

MAR 14

DEFINITION	Patients who received 5 mg or more daily of 90 or more prednisone tablets in the past six months, or who received 4 mg or more daily of 90 or more methylprednisolone tablets in the past six months, with no bisphosphonate during the most recent three months.
PURPOSE	To identify patients who receive treatment with an oral steroid but who do not receive treatment for possible long term side effects of the steroid.

APR 14

DEFINITION	Patients who have diabetes as indicated by a diabetes prescription in the month of the review, are age 40 or older, were continuously eligible for benefits for the past six months, and who did not receive a statin in the most recent six months.
PURPOSE	To identify all diabetes patients age 40 and older who are not receiving regular treatment with a statin. Statins are recommended in all patients with diabetes, and there is an additional cardiovascular risk factor in those who are age 40 and older per the American Diabetes Association (ADA) guidelines.

MAY 14

DEFINITION	Patients who have diabetes as indicated by a diabetes prescription in the month of the review, are age 40 or older, were continuously eligible for benefits for the past six months, and who did not receive a statin in the most recent six months.
PURPOSE	To identify all diabetes patients age 40 and older who are not receiving regular treatment with a statin. Statins are recommended in all patients with diabetes, and there is an additional cardiovascular risk factor in those who are age 40 and older per the American Diabetes Association (ADA) guidelines.

JUN 14

DEFINITION	Patients who are receiving gabapentin at a daily dose of less than 900 mg, or at a daily dose of more than 3600 mg, during the most recent two-month period.
PURPOSE	To identify patients who are receiving gabapentin at a daily dose of less than 900 mg, or at a daily dose of more than 3600 mg, during a two-month period.

JUL 14

DEFINITION	Patients who receive more than one non-steroidal anti-inflammatory drug (NSAID) concomitantly.
PURPOSE	To identify patients who are receiving concomitant treatment with more than one NSAID.

AUG 14A

DEFINITION	Patients on simvastatin over 20 mg and on amlodipine or ranolazine during the most recent two months.
PURPOSE	To make providers aware of the stricter FDA dosing regulations and decrease the possibility of rhabdomyolysis due to a drug interaction.

AUG 14B

DEFINITION	Patients over the age of 60 years and on an NSAID without a PPI during the most recent two months.
PURPOSE	To prevent the possibility of GI insult due to traditional NSAIDs or Cox-2 inhibitors with aspirin.

AUG 14C

DEFINITION	Patients who received a prescription for a statin and gemfibrozil for at least two separate months during the most recent three-month period.
PURPOSE	Recent recommendations from the Guideline on the Treatment of Blood Cholesterol to Reduce Atherosclerotic Cardiovascular Risk in Adults state not to use gemfibrozil and a statin together because the benefits do not outweigh the risks.

SEP 14A

DEFINITION	Patients who filled a prescription for linaclotide, brand name Linzess, during the month of review.
PURPOSE	To identify patients who filled prescriptions for linaclotide where the cause of constipation appeared to be overlooked, where prescribers were not aware of other medications, or where less expensive alternatives had not been tried first.

SEP 14B

DEFINITION	Patients who filled a prescription for both venlafaxine 150 mg and venlafaxine 75 mg for two months in row, including the month of review.
PURPOSE	To suggest a single 225 mg tablet to replace the two pills.

SEP 14C

DEFINITION	Senior patients who received a minimum of 90 tablets and three fills for zolpidem 10 mg or zolpidem ER 12.5 mg during the past 120 days, and who were continuously eligible for benefits during the past 120 days.
PURPOSE	To identify elderly patients who are receiving regular prescriptions of zolpidem above the new recommended dosing guidelines because of the risks associated with impaired morning alertness.

The patients who are selected using the targeted intervention criteria each month undergo a six month re-evaluation to determine if the targeted drug related problems are still prevalent.

In January 2013 the method of patient selection was modified once again.

Under a new Utah State Department of Health policy, effective January 1, 2013, all Medicaid patients living in the state's four urban counties – Salt Lake, Utah, Davis and Weber – were required to enroll in one of four private-sector Alternative Care Organizations (ACOs) and most pharmacy claims were processed and paid through those organizations. Patients living in rural counties were able to voluntarily enroll in an ACO. Given that each of the ACOs conduct their own drug utilization review programs, patient reviews completed by the DRRC program were limited to traditional fee for service (FFS) Medicaid patients – those not enrolled in an ACO, and living primarily in the state's 25 rural counties.

To date, using all methods of patient selection, the Drug Regimen Review Center has mailed or faxed 55,898 reports to 17,464 prescribers, with recommendations concerning 21,191 Medicaid patients.

PRESENTATIONS AND REPORTS

Tables 2 and 3 summarize the research done for Drug Utilization Review (DUR) Board presentations and Pharmacy & Therapeutics (PT) Committee reports between October 2013 and September 2014. All Pharmacy & Therapeutics (PT) Committee reports consisted of a class review, utilization data and list of available agents and dosage forms.

Table 2 – Drug Utilization Review (DUR) Board Presentations Produced by the Utah Medicaid Drug Regimen Review Center

Month	Topic	Description
OCT 13	SGLT-2 Inhibitors: Canagliflozin	Reviewed the role of SGLT-2 inhibitors among other hypoglycemic drugs; and reviewed the utilization of canagliflozin in the Utah Medicaid population to ensure appropriate, medically necessary use of this drug class while considering potential safety issues.
NOV 13	Long-Acting Anticholinergics: Tudorza versus Spiriva	Reviewed the role of the new long-acting anticholinergic, aclidinium, compared to tiotropium and among other COPD drugs; and reviewed the utilization of aclidinium in the Utah Medicaid population to ensure appropriate, medically necessary use of this drug class while considering potential safety issues.
FEB 14	Tamiflu	Reviewed the effect of a prior authorization requirement on the utilization of Tamiflu in the Utah Medicaid population, and whether or not the absence of a prior authorization requirement is associated with utilization that does not track with state epidemiological trends, to ensure appropriate and medically necessary use of this drug.
APR 14	COPD Phosphodiesterase-4 Inhibitors: Roflumilast	Reviewed the role of the new selective PDE-4 inhibitor, roflumilast, among other COPD drugs; and reviewed the utilization of roflumilast in the Utah Medicaid population to ensure appropriate, medically necessary use of this drug class while considering potential safety issues.
MAY 14	Lipid-Lowering Agents: Lomitapide Oral Capsules and Mipomersen Subcutaneous injection	Reviewed the utilization of lipid-lowering agents in the Utah Medicaid population to ensure appropriate drug use, and to limit use to patient populations in which lomitapide and mipomersen have been shown to be effective and safe.
AUG 14	Proton Pump Inhibitors: Oral BID Dosing	Determined whether proton pump inhibitors are being overprescribed in terms of twice daily dosing, whether there are indications when twice daily dosing could be appropriate or whether twice daily dosing is always excessive, and whether limitations needed to be put in place to ensure appropriate use.
SEP 14	Topical Calcineurin Inhibitors: Pimecrolimus Cream and Tacrolimus Ointment	Reviewed the role of the topical calcineurin inhibitors, tacrolimus and pimecrolimus, among other atopic dermatitis treatment options and reviewed the utilization of these topical agents in the Utah Medicaid population to ensure appropriate, medically necessary use of this drug class while considering potential safety issues.

Table 3 – Pharmacy & Therapeutics (PT) Committee Reports Produced by the Utah Medicaid Drug Regimen Review Center

Month	Drug Class	Agents
OCT 13	5-Aminosalicylic Acid Derivatives	Balsalazide, mesalamine, olsalazine and sulfasalazine.
NOV 13	Phosphate Binding Agents	Calcium acetate, lanthanum and sevelamer.

DEC 13	Topical Analgesic and Anesthetic Agents	Benzocaine, benzyl alcohol, capsaicin, dibucaine, diclofenac, dyclonine, ethyl chloride, hexylresorcinol, lidocaine, pramoxine, proparacaine, tetracaine and trolamine.
DEC 13	Topical Immune Modulators	Pimecrolimus and tacrolimus.
JAN 14	Pediculicides and Scabicides	Benzyl alcohol, crotamiton, ivermectin, lindane, malathion, permethrin, piperonylbutoxide/pyrethrins and spinosad.
FEB 14	Short-Acting Opioid Agents	Codeine products, tramadol products, hydrocodone products, oxycodone products, hydromorphone, levorphanol, meperidine, tapentadol IR and paregoric.
MAR 14	Antiemetics	Meclizine, metoclopramide, mabilone, prochlorperazine, promethazine, scopolamine and trimethobenzamide.
MAR 14	Appetite Stimulants	Dronabinol, megestrol and oxandrolone.
APR 14	Epinephrine Devices	AdrenaClick, Auvi-Q, EpiPen, EpiPen Jr. and epinephrine.
MAY 14	First Generation Antihistamine Agents	Brompheniramine, carbinoxamine, chlorpheniramine, clemastine, cyproheptadine, dexchlorpheniramine, dimenhydrinate, diphenhydramine, doxylamine, hydroxyzine and any combination agents.
MAY 14	Second Generation Antihistamine Agents	Acrivastine, cetirizine, desloratadine, fexofenadine, levocetirizine, loratadine and any combination agents.
JUL 14	Vitamin D Analogs	Calcipotriene, calcitriol, cholecalciferol, doxercalciferol, ergocalciferol, paricalcitol and any combination agents.
JUL 14	Bile Acid Sequestrants	Cholestyramine resin, colesevelam and colestipol.
AUG 14	New Hepatitis C Agents	Simeprevir and sofosbuvir.
SEP 14	Macrolide Antibiotics	Azithromycin, clarithromycin, erythromycin, telithromycin and any combination agents.

PROGRAM BACKGROUND

Utah Medicaid drug claim costs have been increasing dramatically during the past two decades. The total increase in these costs from January 2002 to January 2006, when the Medicare Part D prescription drug benefit went into effect, was approximately 75.8%. In January 2006 these costs dropped sharply, and have been trending upward again since that time.

Most recently, the total number of claims decreased slightly among all Medicaid patients from 230,506 to 228,771 per month (0.75%) during the period from October 2013 to September 2014. Drug costs, however, increased dramatically from \$14,970,716 to \$17,128,867 per month (14.42%) among all patients during this same period.

The total number of claims increased among fee for service (FFS) Medicaid patients – those not enrolled in an ACO – from 79,634 to 81,174 per month (1.93%) during the period from October 2013 to September 2014. Drug costs increased even more dramatically, from \$4,863,905 to \$5,832,826 per month (19.92%) among FFS patients during this same period.

Figures 1a, 1b, 2a and 2b show the total number of Medicaid pharmacy claims and the total cost of these claims for each month during the reporting period from October 2013 to September 2014, for all patients and for FFS patients. Figure 3a shows the trend in total drug claim costs for all patients during the entire project period from January 2002 to September 2014. Figure 3b shows the trend in total drug claim costs for FFS patients during the period from January 2013, when ACO enrollment began, to September 2014.

Figure 1a – Total Medicaid Drug Claims by Month from October 2013 to September 2014 (All Medicaid Patients)

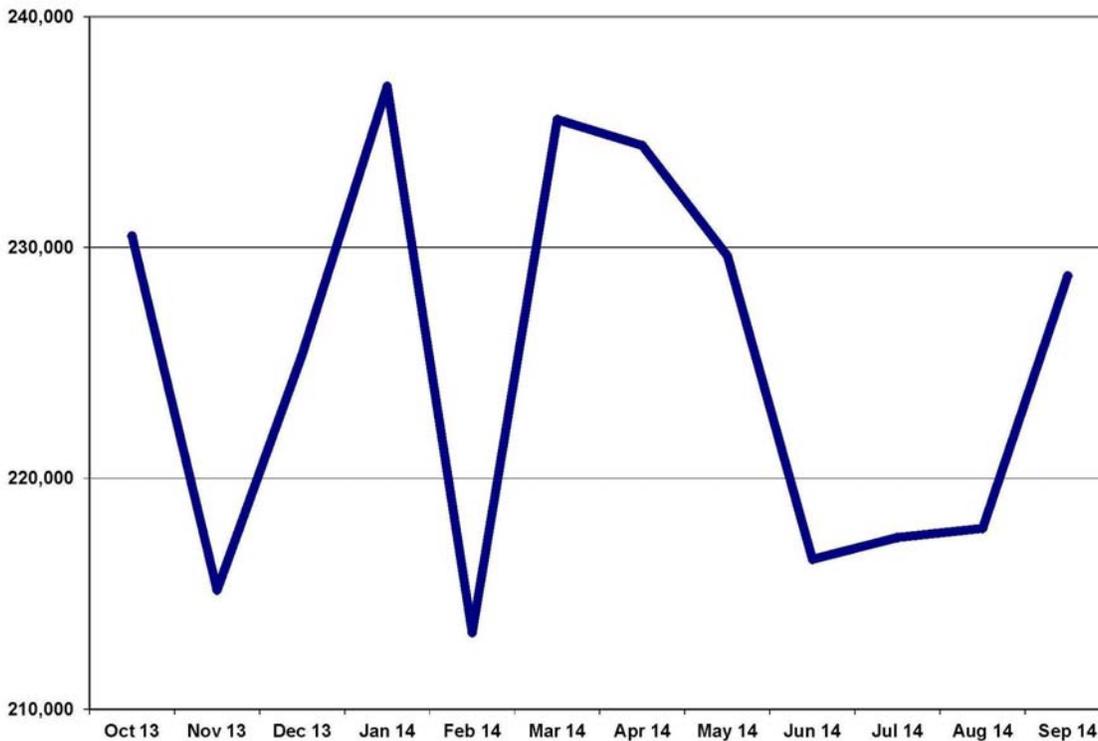


Figure 1b – Total Medicaid Drug Claims by Month from October 2013 to September 2014 (FFS Patients)

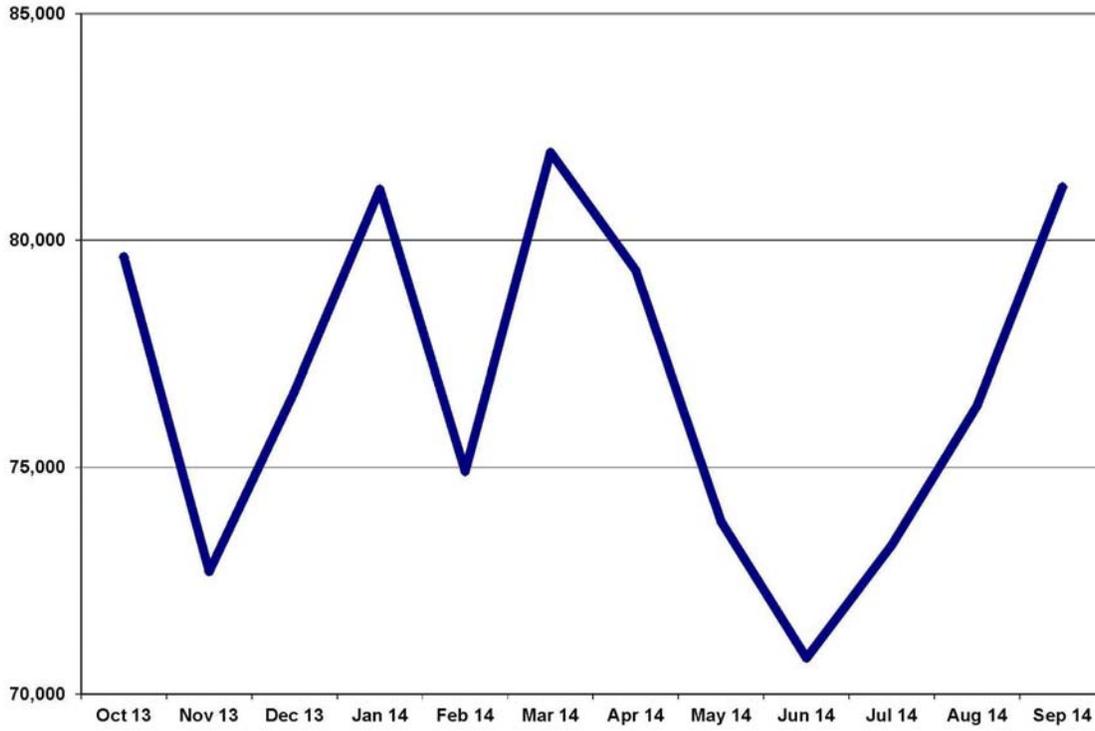


Figure 2a – Total Medicaid Drug Claim Costs by Month from October 2013 to September 2014 (All Medicaid Patients)

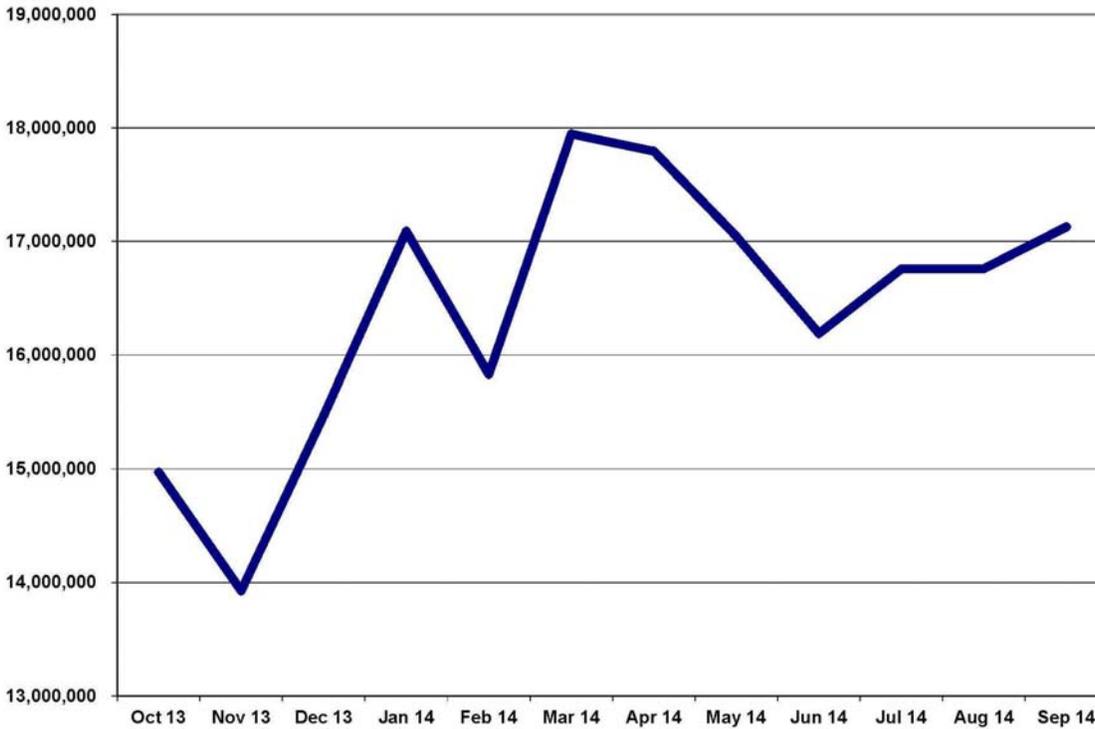


Figure 2b – Total Medicaid Drug Claim Costs by Month from October 2013 to September 2014 (FFS Patients)

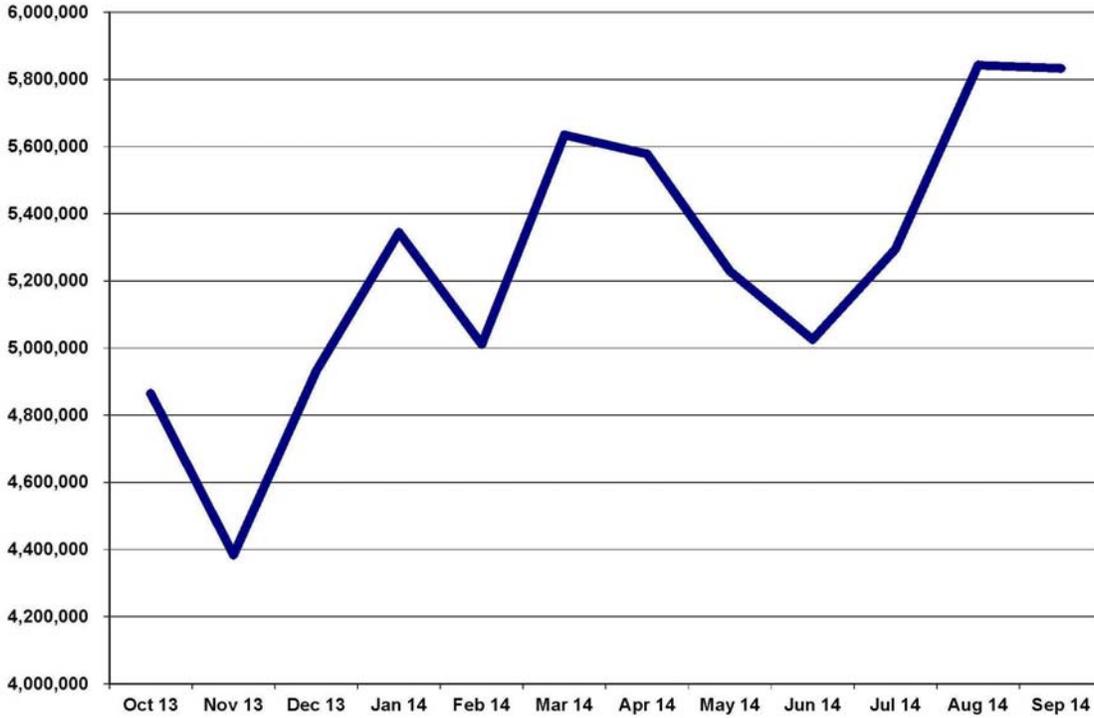
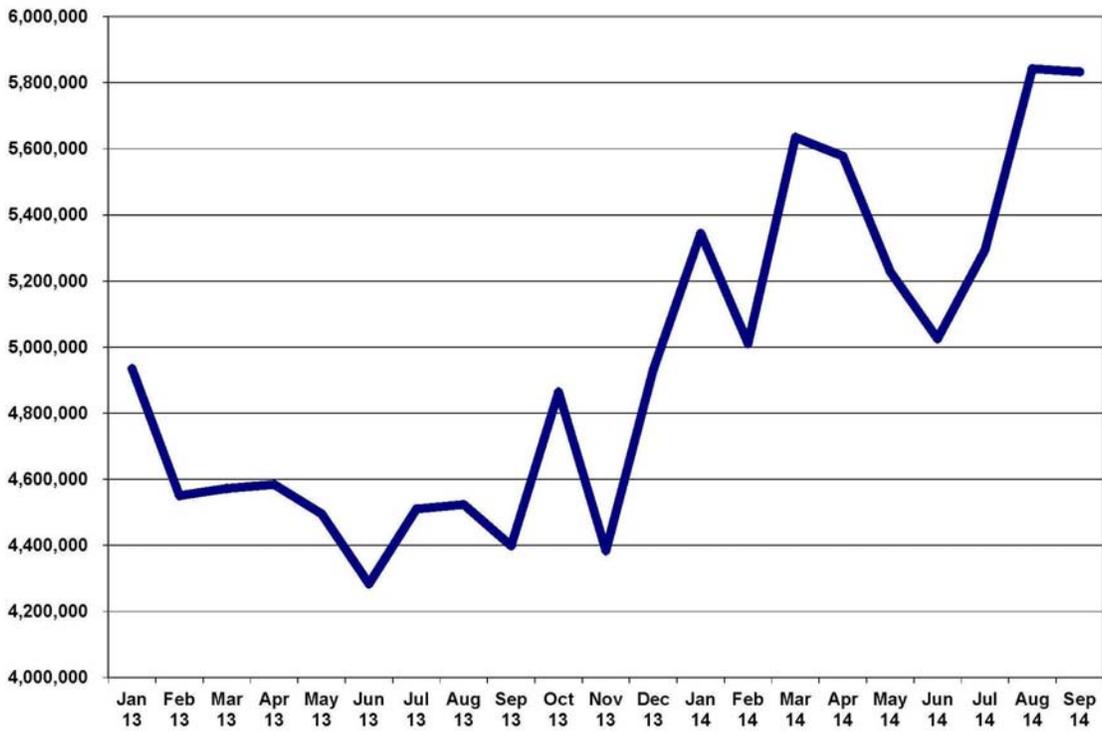


Figure 3a – Medicaid Drug Program Costs from January 2002 to September 2014 (All Medicaid Patients)



Figure 3b – Medicaid Drug Program Costs from January 2013 to September 2014 (FFS Patients)



Increases in total drug spending during the three reporting periods that ended in June 2012 were 2.7% (July 2009 to June 2010), 16.1% (July 2010 to June 2011), and 6.9% (July 2011 to June 2012).

However, between July 2012 and September 2013, a decrease of 2.5% was seen among all Medicaid patients, and between January 2013 and September 2013 a decrease of 10.9% was seen among traditional fee for service (FFS) patients not enrolled in an ACO.

Most recently, between October 2013 and September 2014, an increase of 14.4% was seen among all Medicaid patients and an increase of 19.9% was seen among traditional fee for service (FFS) patients not enrolled in an ACO

Several factors are responsible for fluctuating costs, including changes in Medicaid enrollment numbers.

PROGRAM SUMMARY

Table 4 defines the different drug-related problems (DRP) included in reports that have been sent to prescribers since the inception of the program.

Table 4 – Definitions of Drug-Related Problems

DRP	Description
Adherence	A pattern of refills that indicates that a patient is not adherent to a prescribed regimen that is intended to be used on an ongoing basis to treat a chronic disease.
Additive Toxicity	The concomitant use of medications with similar pharmacodynamic actions that may produce excessive pharmacologic or toxic effects when given together. To minimize additive toxicity, a patient's drug regimen may need to be adjusted to include a decreased number of medications that cause a given toxicity.
Brand Name Dispensed	The use of a brand-name medication when a less costly bioequivalent alternative is available.
Consider Alternative	The use of a medication with no bioequivalent generic but with a less costly alternative agent in the same class. For some medications, different agents within the same class are therapeutically interchangeable and another drug can be selected without negatively impacting the patient's drug therapy.
Coordinate Care	The prescribing of multiple medications for the same disease state by multiple providers. Uncoordinated care may result in insufficient monitoring of a patient's disease states and could lead to other drug-related problems such as drug-drug interactions, drug-disease interactions and therapeutic duplications.
Dose Exceeds Usual Recommendations	The use of a medication above the recommended dosage range for a patient's age or condition.
Drug Available Over the Counter	The receipt of a medication by prescription when it is available over-the-counter (OTC). Although many OTC medications are clinically useful and less costly alternatives to prescription drugs, we ask providers to use their judgment as to whether or not patients can purchase the item themselves.
Drug-Disease Interaction	The use of a medication that is contraindicated due to the patient's age, gender, or disease state(s).
Drug-Drug Interaction	Increased toxicity or decreased therapeutic activity of one or more medications due to the concomitant use of another drug that affects its activity. Drugs that induce or inhibit hepatic metabolism, drugs that are highly protein-bound or drugs that affect the renal clearance of another are frequently involved in drug-drug interactions.
Duration Exceeds Usual Recommendations	The use of a medication for longer than recommended for the patient's age or condition. Excessive duration of therapy may lead to additional adverse effects and toxicity.

Medication Over-Utilization	The frequent use of a medication or class of medications that are intended for acute treatment and not at frequent intervals.
Streamline Therapy	The use of more tablets or capsules than necessary to achieve a desired dose or the receipt of separate dosage forms for two agents that are available in a combination product. Streamlining therapy could result in improved patient compliance and clinical outcomes.
Sub-Therapeutic Dose	The use of a medication below the recommended dosage range for the patient's age or condition. Sub-therapeutic dosing may cause patients to experience adverse effects without therapeutic benefit or may require the addition of other medications to control a disease state that could be controlled by the use of a single medication at an appropriate dosage level.
Therapeutic Duplication	The inappropriate use of multiple medications for the same indication.
Treatment Without an Indication	The use of a medication without an apparent indication. Unnecessary exposure to medications may lead to increased risks of adverse events and toxicity.
Untreated Indication	The absence of a medication that appears to be needed based on usual best practices or guidelines. Untreated indications could result in increased morbidity and mortality for a patient.

Table 5 and Figure 4 summarize the drug-related problems identified in the reports sent to prescribers between October 2013 and September 2014.

Total Letters Sent: **2,043**

Total Identified Drug-Related Problems (DRP): **2,933**

Table 5 – Drug-Related Problems Identified between October 2013 and September 2014

Untreated Indication	647
Medication Over-Utilization	545
Additive Toxicity	300
Therapeutic Duplication	265
Consider Alternative	179
Treatment with No Indication	165
Drug-Drug Interaction	145
Dose Excessive	143
Coordinate Care	126
Drug-Disease Interaction	125
Streamline	111
Adherence	87
Sub-Therapeutic Dose	65
Other Issues	18
Brand Name Dispensed	12

Figure 4 – Drug-Related Problems Identified: October 2013 and September 2014

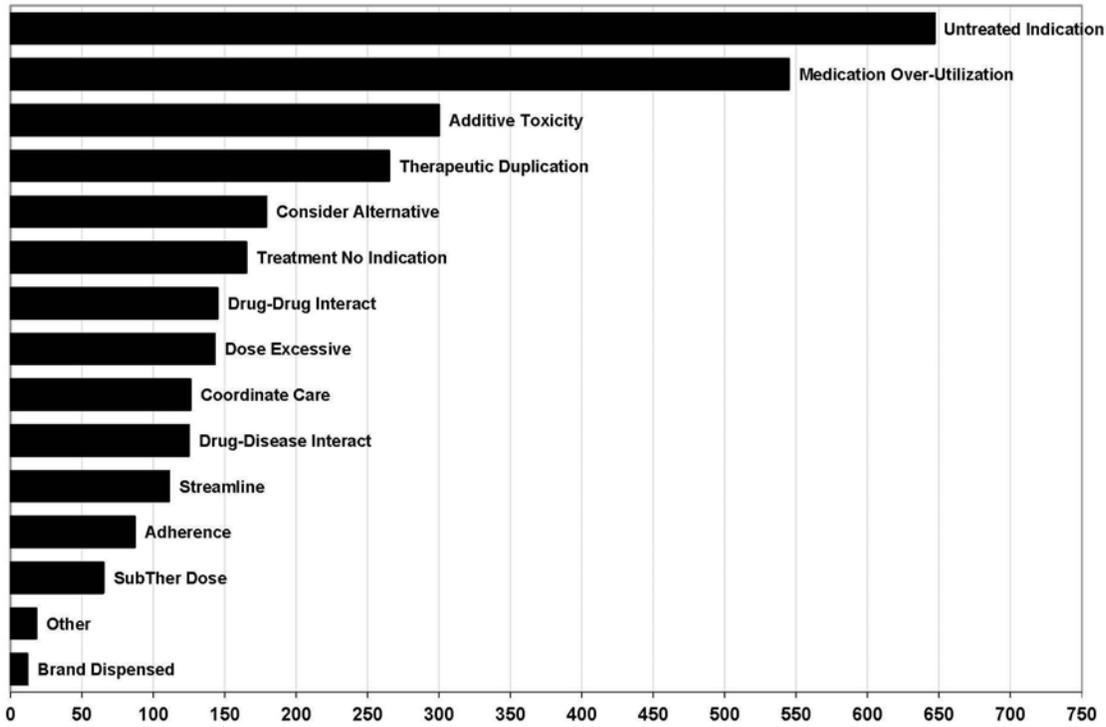
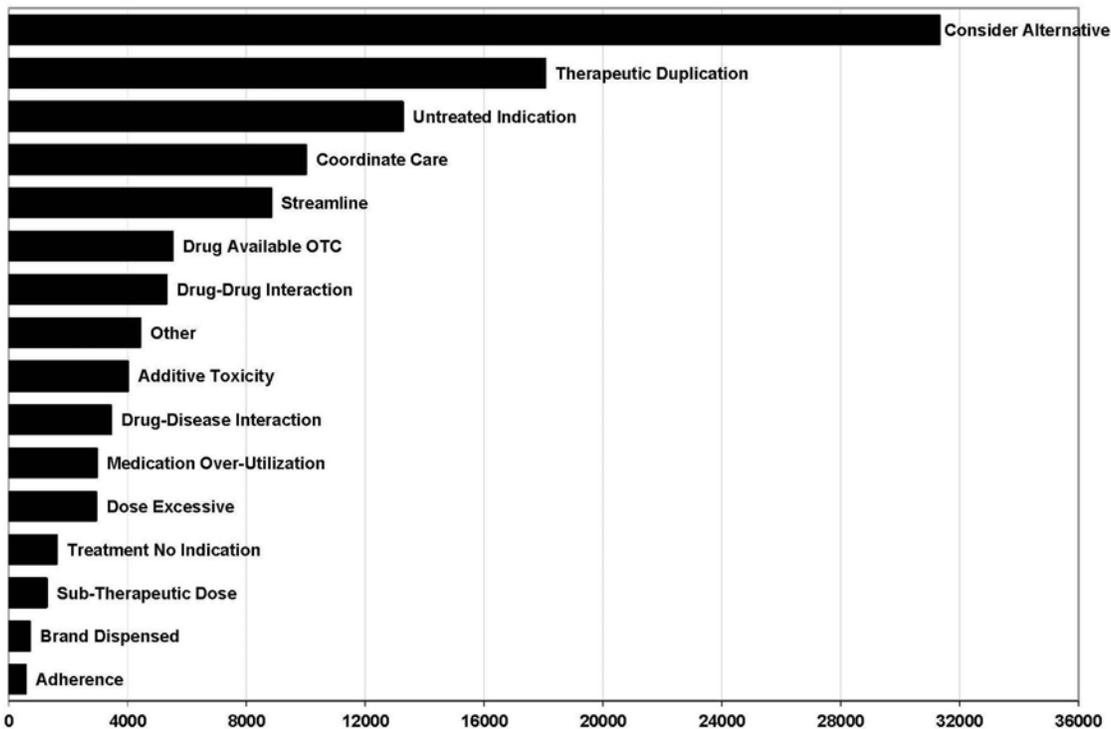


Figure 5 summarizes the drug-related problems identified in the reports that have been sent to prescribers since the inception of the program in May 2002.

Figure 5 – Drug-Related Problems Identified and Reported: Program Life



Drug-related problems and recommendations are explained in Table 4 above.

The most common recommendation made to prescribers since the beginning of the program has been to consider alternative therapy, or to consider the use of a medication with no bioequivalent generic but with a less costly alternative agent in the same class. The most common drug therapy problem identified in the current reporting period was an untreated indication, or the absence of a medication that appears to be needed based on usual best practices or guidelines.

RESTRICTION PROGRAM REFERRAL

From time to time when reviewing a patient's drug regimen, the DRRC pharmacists will notice a pattern of prescription fills that suggests inappropriate utilization of health care services on the part of that patient. The most common warning signs are utilization of multiple physicians, pharmacies, emergency rooms or controlled substances in patterns that indicate likely abuse, uncoordinated care or a lack of primary care. Patients displaying these patterns are flagged by DRRC pharmacists for referral to, and possible enrollment in, the Medicaid Restriction Program. The Medicaid Restriction Program provides safeguards against inappropriate and excessive use of Medicaid services, as well as the means for pharmacists, prescribers and other health care providers to report suspicious behavior.

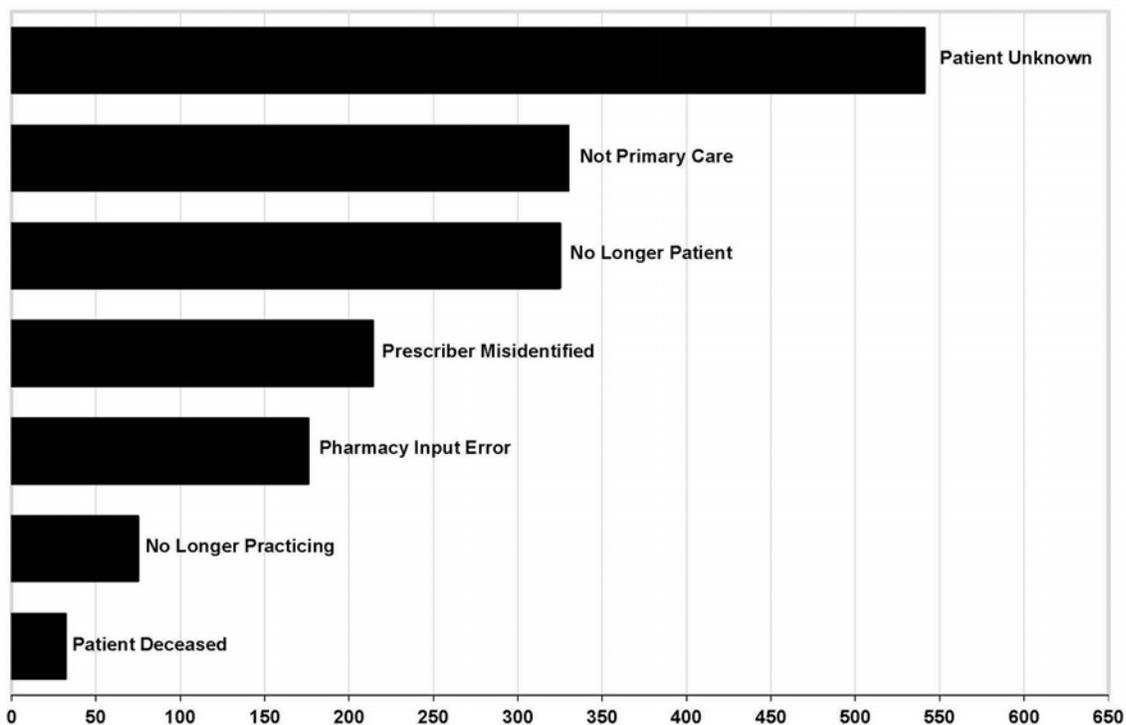
PROGRAM FEEDBACK

Logistical Feedback

When the Utah Medicaid Drug Regimen Review Center began operating in May 2002, administrative efforts were focused primarily on soliciting logistical feedback from the prescribers we contacted. Information was collected regarding incorrectly identified patients and drugs, prescriber changes of practice, pharmacy input errors, incorrect addresses on file and patients not being treated by the prescriber identified.

Figure 6 summarizes the responses of the 1,693 individuals who have contacted the DRRC about one of these logistical issues after receiving an intervention letter since the program's inception in May 2002.

Figure 6 – Summary of Logistical Feedback Received from Prescribers



Using this feedback, the DRRC implemented a variety of verification procedures, made necessary adjustments to patient selection and prescriber identification processes and began compiling a propriety database of personally verified information on doctors who prescribe drugs to Utah Medicaid patients.

This propriety database now contains accurate contact, practice, background and prescribing information for several thousand Utah prescribers.

Quality Feedback

By the end of 2009, these administrative efforts had reduced the incidence of these types of logistical issues to practically none and the program began to focus on quality feedback.

Beginning in October 2009, every recommendation sent to a prescriber in a patient report has included a section asking that prescriber to provide his or her opinion about the general usefulness of the recommendation and the likelihood of implementation into the patient's existing drug regimen.

Following is an example of the feedback solicitation included with every DRRC recommendation:

ADHERENCE--HYPERTENSION AND HYPERLIPIDEMIA

ASSESSMENT: This patient has diagnoses of hypertension and hyperlipidemia but appears to be poorly adherent to the prescribed medications. In the past six months she has refilled prescriptions for a statin three times (once in Aug. '09 and twice in Jan '10) and lisinopril once (Jan '10).

RECOMMENDATION: Consider non-adherence as a factor if treatment failure occurs. You may wish to encourage adherence to the medication regimen at her next appointment.

	Not at all		Very			Comment
How useful did you find this information?	1	2	3	4	5	_____
How likely are you to implement this recommendation	1	2	3	4	5	_____

This recommendation does not apply to my experience with the patient.

The average rating received since October 2009 on the general usefulness of pharmacist recommendations has been 4.1 on a scale of 1 to 5.

The average rating received since October 2009 on the likelihood of implementation into the patient's existing drug regimen has been 3.7 on a scale of 1 to 5.

All feedback and prescriber comments are compiled into a report for the DRRC pharmacists to review at monthly Quality Assurance meetings, where specific recommendations and general intervention protocols are reviewed and revised as needed.

Testimonials: A sample of the prescriber comments that have been received to date:

"I'll try to remember this next time she has an infection. Thanks!"

"Thank you. Not sure if she will change, but worth a try."

"I didn't know she stopped taking her simvastatin. I called and reminded her."

"Reminder of QT prolongation is welcome."

"I agree she is getting an excessive number of prescriptions from a lot of doctors without knowing what each other is prescribing."

"I adjusted her meds but did not use Serevent. I appreciate your help."

"I will contact pharmacies and cancel remaining refills."

"Excellent policy. There were special circumstances but this system is a good safety net."

"Addressed with patient."

"I was unaware that she was seeing another provider."

"I would be happy to have one physician manage her medications. Her pain management specialist would be a good choice."

"Patient is doctor shopping. Will address at next visit."

"Will start tapering. Thank you."

"Patient is being monitored. Thanks."

"She received one post-op prescription and will have no others from our clinic. Thank you for the note."

"Patient has been told to only take 2 per day if needed."

"Patient does have IBS. This was included in patient history discussion, but left out from coding. This will be corrected."

"This patient has not been compliant with medication and he apparently is not filling the metformin prescription that I am giving him. It is interesting that he is filling his pain medications but not his metformin."

DEMOGRAPHICS

Patients were selected for review based on three different criteria: Risk score, total number of fills and a variable rule or rules used each month to target commonly recurring drug therapy issues seen in the general Medicaid population. These rules were described in detail in Table 1 above.

Table 6 – Patient Selection between October 2013 and September 2014

	Total	Fill Value	Fill Count	Score Value	Rx Risk® Score	Variable Rule
Oct 13	159	12	54	10	46	67
Nov 13	134	12	65	10	64	23
Dec 13	92	12	58	10	47	2
Jan 14	180	17	60	12	91	51
Feb 14	141	16	44	13	39	66
Mar 14	152	15	68	11	87	17
Apr 14	192	14	61	12	27	108
May 14	149	14	55	11	62	47
Jun 14	98	15	23	12	30	49
Jul 14	173	12	130	11	58	4
Aug 14	143	13	61	11	44	53
Sep 14	146	18	10	11	47	95
TOTAL	1759		689		642	582

The first column shows the total number of patients selected for review by all three methods for the month. The period total of 1,759 is less than the sum of the three selection methods during each period because some patients fell under selection criteria for more than one of the methods.

The next five columns show:

- The minimum prescription fill count set for the month at which a patient qualified for review.
- The number of patients who met or exceeded the fill count minimum and were selected for review.
- The minimum risk score set for the month at which a patient qualified for review.
- The number of patients who met or exceeded the risk score minimum and were selected for review.
- The number of patients who were flagged using targeted intervention criteria and selected for review.

The variability seen each month in the number of patients reviewed occurs primarily because the criteria for selection are set at a specific threshold each month and *all* patients who exceed that threshold are reviewed.

The 1,759 patients reviewed from October 2013 to September 2014 were separated into cohorts based on the month they were reviewed. Figures 7 and 8 summarize and categorize the number of patients reviewed each month during this period. The average was 147 patients reviewed per month.

Figure 7 – Summary of Patients Reviewed Each Month from October 2013 to September 2014

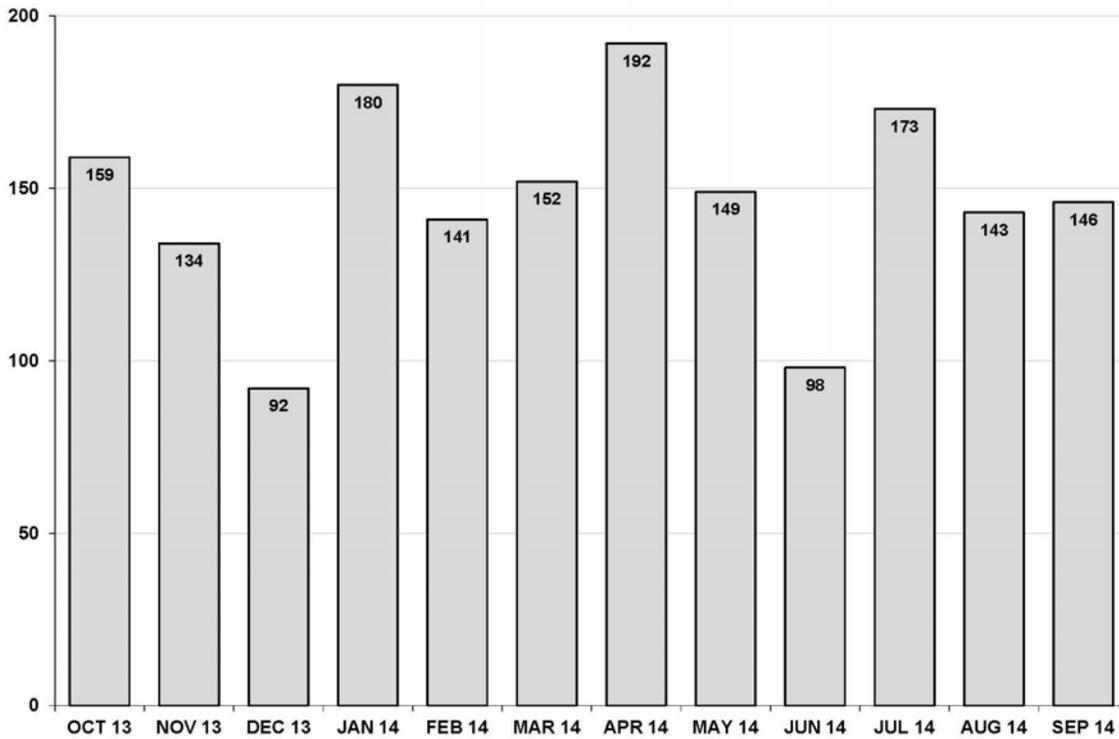
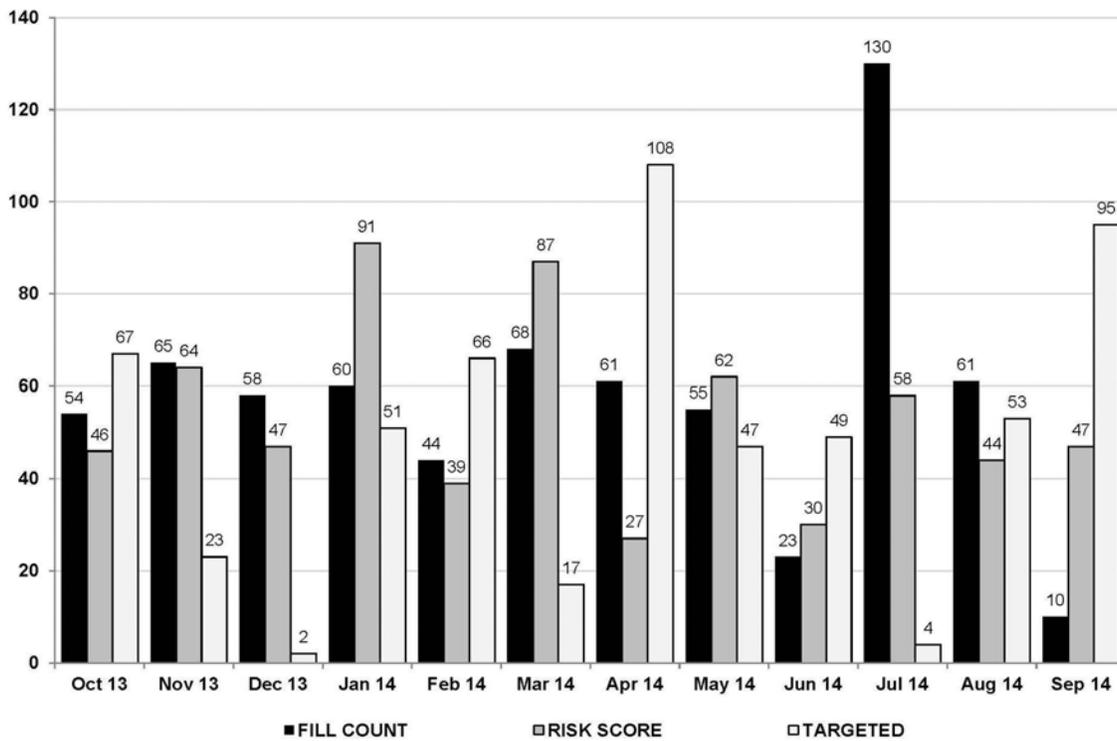


Figure 8 – Patients Reviewed by Selection Method between October 2013 and September 2014



Demographics for all review cohorts are displayed in Table 7 and include gender, average age, average number of prescriptions dispensed and average cost per prescription. Nursing home and assisted living facility patients are not included in these tables.

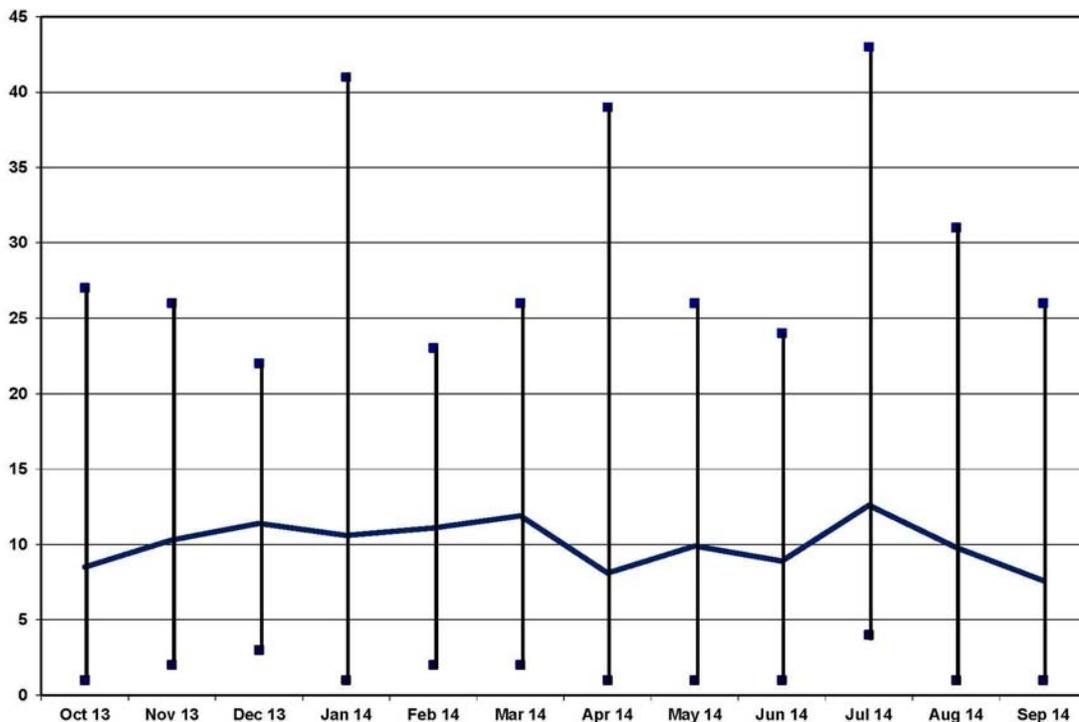
Reviewed patients who were not receiving care in an assisted living facility during the reporting period were predominantly females in their mid-40s who filled about 10 prescriptions per month.

Table 7 – Cohort Demographics: Reviewed Patients

MONTH	Female				Male			
	Percent	Mean Age	Mean Fill Count	Mean Cost Per Fill	Percent	Mean Age	Mean Fill Count	Mean Cost Per Fill
Oct 13	74	43.5	8.8	54.21	26	43.1	7.7	66.46
Nov 13	76	45.4	10.7	57.56	24	46.9	9.1	77.50
Dec 13	75	41.6	11.4	66.08	25	44.9	11.4	76.63
Jan 14	73	48.3	10.2	56.99	27	44.3	11.8	58.49
Feb 14	67	48.3	11.5	76.53	33	34.6	10.1	89.02
Mar 14	63	47.8	12.5	74.80	37	41.2	11.0	63.87
Apr 14	69	50.1	9.1	64.62	31	50.6	6.2	66.65
May 14	69	46.5	10.5	82.75	31	48.1	8.5	103.83
Jun 14	69	42.9	9.4	62.49	31	42.2	7.9	122.16
Jul 14	69	46.8	12.8	62.18	31	44.7	12.3	65.22
Aug 14	70	50.9	10.1	78.14	30	48.8	9.2	66.16
Sep 14	68	50.1	7.2	71.98	32	49.8	8.3	79.90
ALL	70	47.1	10.2	67.07	30	45.4	9.3	75.19

Figure 9 shows the average and range of the number of prescriptions for each of the reviewed cohorts. The mean number of prescriptions for a patient selected for review generally ranged from 8 to 12, while the maximum number of prescriptions for a reviewed patient exceeded 40.

Figure 9 – Average, Minimum and Maximum Number of Prescriptions: Reviewed Patients



PROGRAM EFFECTIVENESS: PATIENTS

One of the DRRC's primary missions is to work with individual prescribers to ensure the safest, highest-quality pharmacotherapy for Medicaid patients at the lowest cost possible. As the review process has matured we have increased the number of telephone calls to individual prescribers to discuss their patient's drug-related problems. As a result, we have more information on the impact of our reviews.

The following patient presentations are representative examples of the types of patients being reviewed and the outcomes of those reviews:

PATIENT 1

A 58-year-old male with diagnoses of obsessive compulsive disorder and schizophrenia was flagged for review by the DRRC because he was receiving five medications to treat his psychiatric disease, and another medication to treat the side effects of his antipsychotic medications. He had been in the emergency department four times and had recently been started on lithium.

It was evident that the patient was suffering from a significant drug interaction between the lithium and his antipsychotic medications, as well as toxic levels of medication in his blood, which had caused the trips to the emergency department.

The DRRC intervention pointed out the drug interaction and also noted that the antipsychotic medication was dosed at 20 percent above the recommended maximum. Drug regimen changes were initiated the month after the DRRC intervention and took place over the next six weeks.

Eight months later, the patient's psychiatric medications had been reduced to two, at a level well within dosing recommendations. Both the lithium and the medication used to treat side effects had been discontinued, and there had been no more visits to the emergency department.

PATIENT 2

A 35-year-old male with complex medical issues was flagged for review by the DRRC because he was receiving two benzodiazepines, too much metoclopramide, and a tri-cyclic antidepressant. The patient was getting drugs from eight different prescribers and was at high risk of QT prolongation.

A few months after the DRRC intervention, the patient was only receiving one benzodiazepine, less metoclopramide and only for the treatment of gastroparesis, and the tri-cyclic antidepressant had been discontinued, reducing the risk of QT prolongation. The number of prescribers had been reduced to six.

PATIENT 3

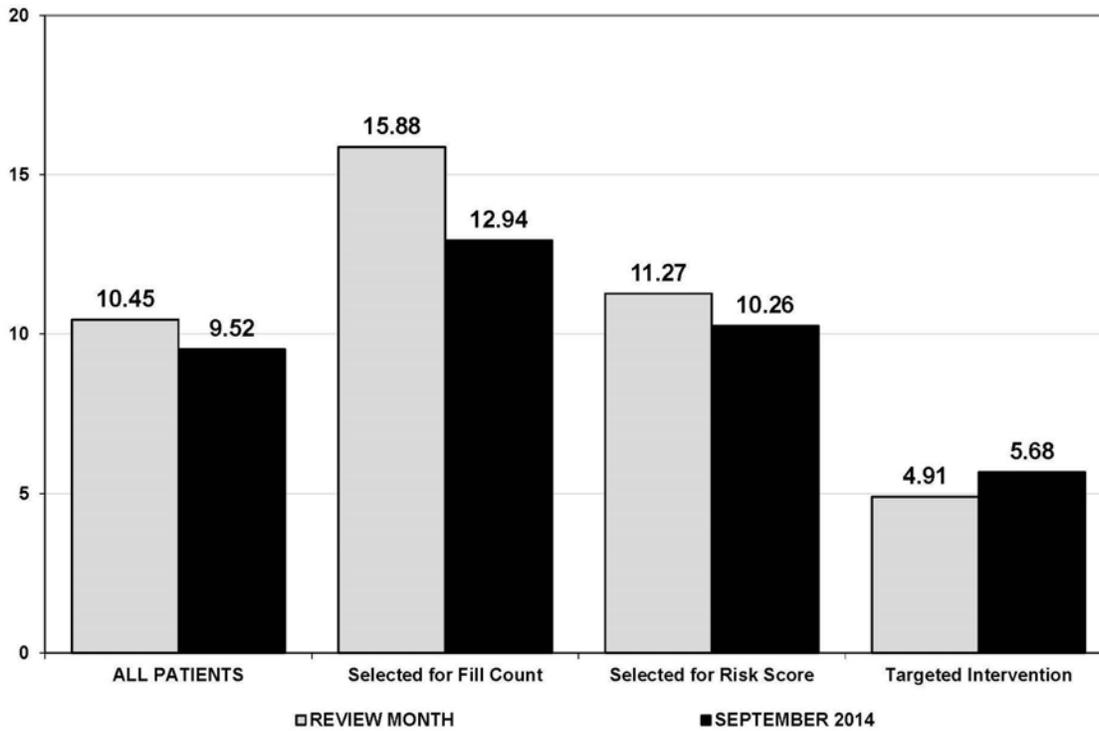
A 50-year-old male with diagnoses for hyperlipidemia, hypothyroidism, depression, bipolar disorder and schizophrenia was flagged for review by the DRRC because he had been receiving a proton pump inhibitor regularly for more than three years, putting him at increased risk of Clostridium difficile-associated diarrhea and osteoporosis-related bone fractures of the hip, spine or wrist.

The DRRC intervention recommended that the prescriber consider a trial discontinuation of the proton pump inhibitor and, when a follow up review was completed several months later, the patient was no longer receiving it.

PROGRAM EFFECTIVENESS: PRESCRIPTIONS

Figure 10 shows the average number of prescription fills per patient, by selection method, for all reviews done between October 2013 and September 2014 compared to the average number of prescriptions filled by the same patients at the end of the current reporting period in September 2014.

Figure 10 – Average Fills by Selection Method: Month of Review Compared with September 2014



The largest reduction in the average number of monthly prescription fills was seen in patients selected on the basis of fill count.

Figures 11 and 12 show the average number of prescriptions per reviewed patient for each month between October 2013 and September 2014 compared to the average number of prescriptions for the same patients at the end of the current reporting period in September 2014.

Figure 11 – Average Fills during Review Month Compared with September 2014: Reviewed Patients Selected for Any Reason

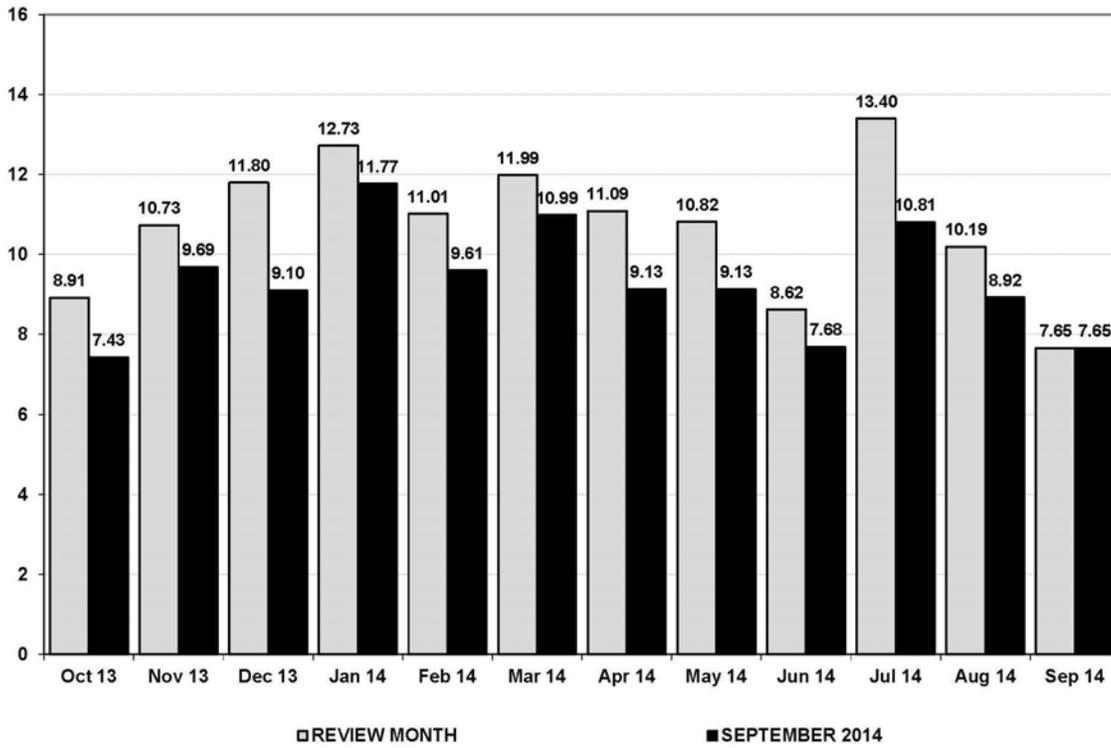
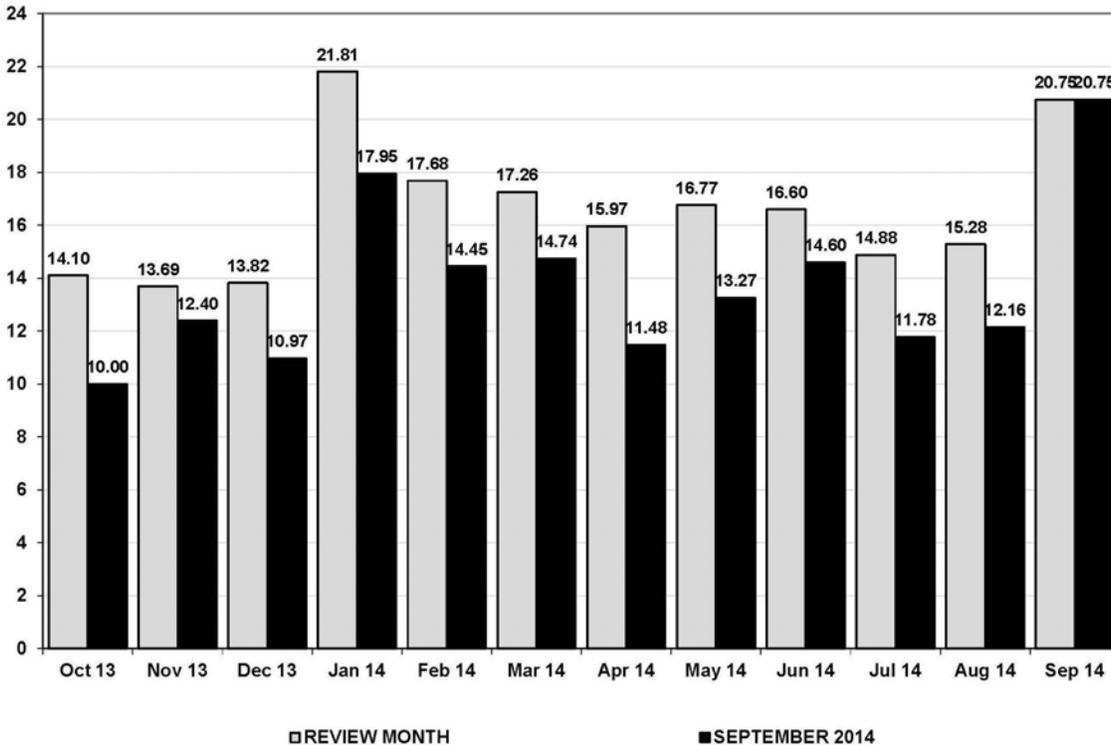


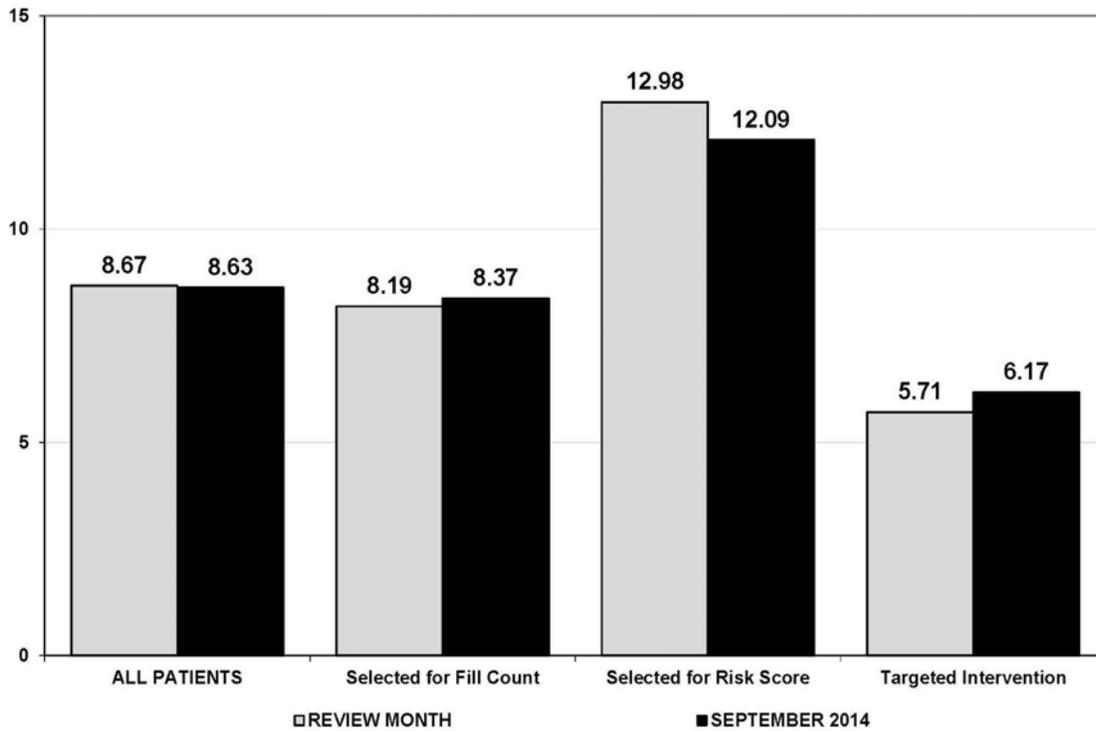
Figure 12 – Average Fills during Review Month Compared with September 2014: Reviewed Patients Selected for Fill Count



PROGRAM EFFECTIVENESS: RISK

Figure 13 shows the average risk score per patient, by selection method, for all reviews done between October 2013 and September 2014 compared to the average risk score for the same patients at the end of the current reporting period in September 2014.

Figure 13 – Average Risk Score by Selection Method: Month of Review Compared with September 2014



The only overall reduction in risk scores was seen in patients selected on the basis of risk score.

Figures 14 and 15 show the average risk score per reviewed patient for each month between October 2013 and September 2014 compared to the average risk score for the same patients at the end of the current reporting period in September 2014.

Figure 14 – Average Risk Score during Review Month Compared with September 2014: Reviewed Patients Selected for Any Reason

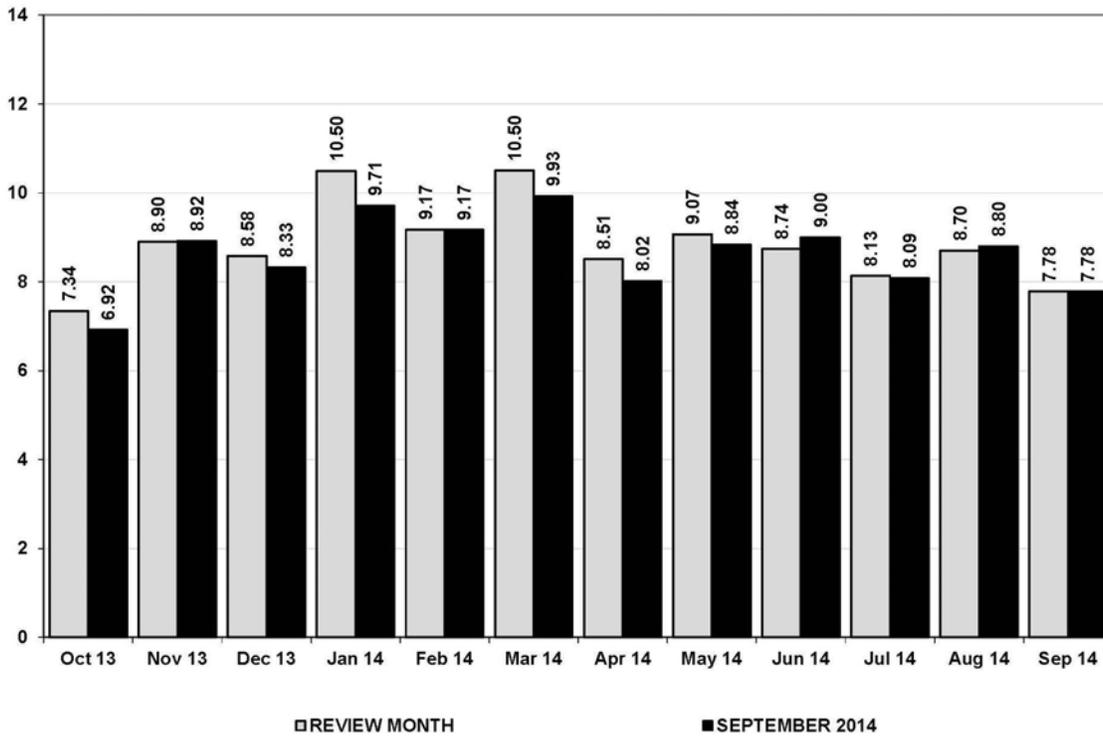
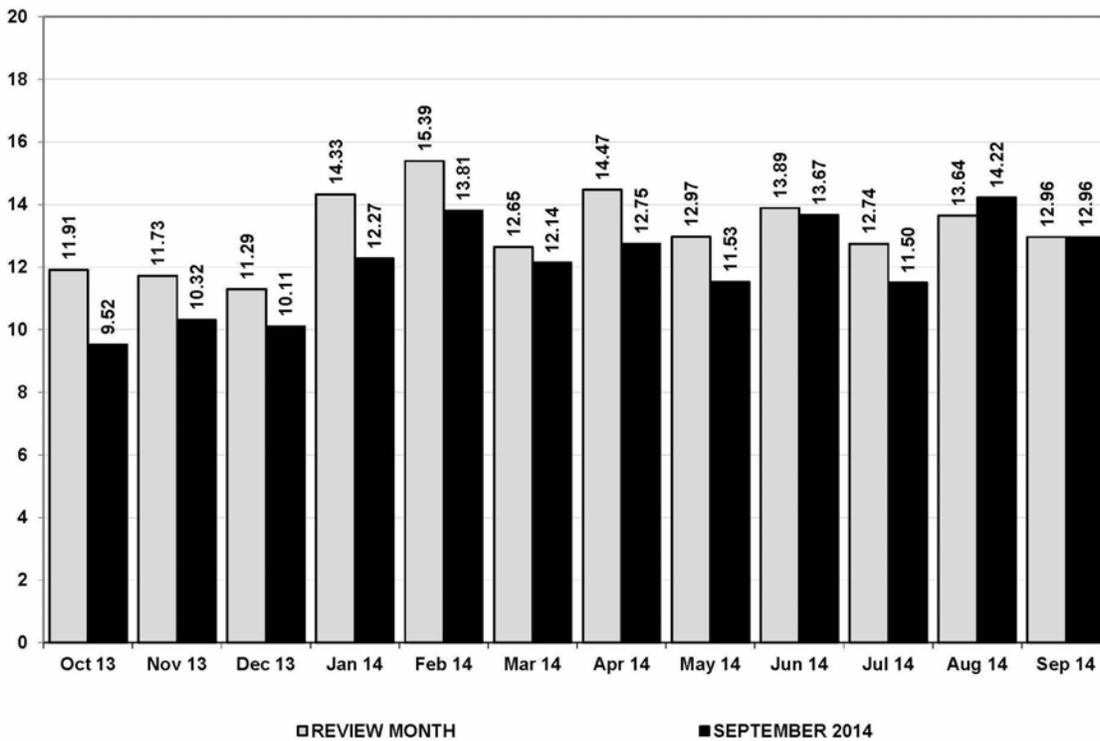


Figure 15 – Average Risk Score during Review Month Compared with September 2014: Reviewed Patients Selected for Risk Score



PROGRAM EFFECTIVENESS: TARGETED INTERVENTION

The patients who are selected using the targeted intervention criteria each month undergo a six month re-evaluation to determine if the targeted drug related problems are still prevalent.

Table 8 shows the number of patients selected for targeted intervention each month that this method of selection has been used to date; along with the number of patients eligible for and utilizing benefits during the entire six-month follow-up period, and the number and percentage of those patients still meeting the criteria for a targeted intervention.

There has been a consistent reduction in the number of patients still meeting the criteria for intervention six months after review.

Table 8 – Targeted Intervention Six-Month Follow-Up Reviews

Review Month	Patients	Follow Up Month	Remaining Eligible	Meeting Criteria	Percentage
JAN 11	54	SEP 11	49	31	63.27%
FEB 11	40	OCT 11	31	18	58.06%
MAR 11	40	NOV 11	33	19	57.58%
APR 11	20	DEC 11	16	9	56.25%
MAY 11	66	JAN 12	61	42	68.85%
JUN 11	67	FEB 12	59	36	61.02%
JUL 11	28	MAR 12	24	18	75.00%
AUG 11	69	APR 12	62	38	61.29%
SEP 11	46	MAY 12	40	30	75.00%
OCT 11	22	JUN 12	19	14	73.68%
NOV 11	40	JUL 12	36	21	58.33%
DEC 11	69	AUG 12	64	23	35.94%
JAN 12	60	SEP 12	53	19	35.85%
FEB 12	26	OCT 12	22	7	31.82%
MAR 12	67	NOV 12	61	35	57.38%
APR 12	64	DEC 12	58	37	63.79%
MAY 12	63	JAN 13	59	48	81.36%

JUN 12	22	FEB 13	18	14	77.78%
JUL 12	13	MAR 13	11	8	72.73%
AUG 12	9	APR 13	6	5	83.33%
SEP 12	66	MAY 13	59	42	71.19%
OCT 12	29	JUN 13	23	14	60.87%
NOV 12	63	JUL 13	58	38	65.52%
DEC 12	47	AUG 13	40	29	72.50%
JAN 13	13	SEP 13	10	7	70.00%
FEB 13	6	OCT 13	5	4	80.00%
MAR 13	10	NOV 13	7	4	57.14%
APR 13	38	DEC 13	31	19	61.29%
MAY 13	61	JAN 14	49	33	67.35%
JUN 13	126	FEB 14	105	74	70.48%
JUL 13	68	MAR 14	51	24	47.06%
AUG 13	53	APR 14	42	22	52.38%
SEP 13	32	MAY 14	26	17	65.38%
OCT 13	67	JUN 14	54	25	46.30%
NOV 13	21	JUL 14	16	9	56.25%
DEC 13	2	AUG 14	1	0	0.00%
JAN 14	51	SEP 14	39	21	53.85%
FEB 14	59	OCT 14	48	33	68.75%
MAR 14	17	NOV 14	12	10	83.33%
APR 14	105	DEC 14	81	46	56.79%

PROGRAM EFFECTIVENESS: COST

Tracking the Drug Costs of Reviewed Medicaid Patients

We have tracked drug cost reimbursements to review cohorts selected using all mechanisms for the remainder of the reporting period following the month they were reviewed. We have only tracked costs for patients within each review cohort who remained eligible during the entire reporting period and who accessed their drug benefit at least one time during each of the months in the reporting period. Patients selected from the FFS Medicaid population were only tracked if they did not subsequently enroll in an ACO prior to September 2014.

Decreases were seen in drug costs for these selected patients. Because we eliminated patients who did not receive subsequent prescriptions, these estimates are conservative.

For each patient reviewed between October 2013 and September 2014, total drug cost during the review month was used as the baseline amount for comparison. These baseline amounts were compared with the drug costs for each subsequent month up until September 2014. For example, costs in May 2014 were compared with costs in June 2014, July 2014, August 2014 and September 2014 for those patients reviewed during May 2014. Additional cost savings for patients reviewed before October 2013 are not included, nor are additional savings that would be expected after September 2014 for patients included in this report.

Assuming total Medicaid drug costs should remain constant after the month of review, drug costs for patients reviewed from October 2013 through September 2014 decreased by \$296,613.

Table 9 – Drug Cost Savings in DRRC Reviewed Patients: Total and by Individual Selection Method

TOTAL SAVINGS	\$296,613
Selected for Fill Count	\$456,423
Selected for Risk Score	(\$108,906)
Selected for Targeted Intervention	(\$57,914)

Therapeutic Benefit versus Cost Benefit

Looking at changes over time in total drug costs for reviewed patients, broken down by selection method, varying levels of savings were seen.

Patients Selected for Fill Count - Significant short-term savings were seen in patients selected by this method, as would be expected. Recommendations made for these patients are more likely to be for cost-related problems such as therapeutic duplication and availability of cheaper alternatives. If all patients were selected for review by this method, a rough extrapolation suggests that more than \$1 million in total savings could be expected.

Patients Selected for Risk Score – A modest increase in short-term costs was seen in patients selected by this method, as would also be expected. The RX Risk Score algorithm identifies patients who are likely to be the sickest and have the most clinical complications.

Whereas a patient selected for fill count will have more cost-related problems identified, a patient selected for risk score tends to have problems identified that are clinical in nature -- such as potential drug interactions and untreated indications. The primary benefits of this type of intervention tend to be longer-term savings and increased quality of care.

Patients Selected for Targeted Intervention - A slight increase in short-term costs was seen in patients selected by this method. As with patients selected for risk score, the primary benefits of this type of intervention also tend to be longer-term savings and increased quality of care.

For example, one of the targeted interventions that identified the largest number of patients was "diabetic patients who are not on a statin." This type of patient has a likelihood of high future medical costs, because of the diabetes, and the intervention is clinical because we are suggesting adding a medication rather than removing one. Savings for this patient won't likely show in the short term, but would theoretically show up long-term.

As shown in Table 8 above, there has been a consistent reduction in the number of patients still meeting the criteria for intervention six months after review.

There are benefits of a drug utilization review program that go beyond immediate savings, and at the DRRC we try to maximize those types of benefits as well, using a balanced mix of selection methods that address long-term savings and immediate quality of life and care for patients, in addition to short-term savings.

Limitations

In considering this information it is important to understand that we cannot determine what the reviewed patients' drug costs would have been if they had not been reviewed. It is possible that without a review their costs would have increased, remained the same or declined. To effectively address this we would need to compare changes in prescription drug costs over the same period with a suitable control group. This is not possible with our current patient selection process.

Drug Cost Inflation

Over the course of the cost-tracking period for reviewed patients, there were several double-digit increases seen in the average re-imburement amount for the ten most common products prescribed to DRRC-reviewed patients ... and some sort of increase seen for all ten products. This type of underlying inflation in drug costs would likely have a mitigating effect on the total savings seen over the course of the tracking period.

Table 10 – Average Re-Imbursement for the Most-Utilized Products (Reviewed Patients)

Generic	Product	Average Reimbursement September 2013	Average Reimbursement September 2014	Change
Albuterol Sulfate	VENTOLIN HFA AER	44.54	46.04	3.38%
Duloxetine HCl	CYMBALTA CAP 60MG	227.83	234.97	3.13%
Fluticasone Propionate	FLUTICASONE SPR 50MCG	19.34	22.93	18.61%
Fluticasone-Salmeterol	ADVAIR DISKU AER 250/50	267.49	281.95	5.41%
Glucose Blood	FREESTYLE TES LITE	133.63	154.41	15.55%
Ibuprofen	IBUPROFEN TAB 800MG	11.53	12.79	10.92%
Insulin Glargine	LANTUS INJ 100/ML	265.88	351.25	32.11%
Insulin Lispro	HUMALOG INJ 100/ML	291.93	337.87	15.74%
Omeprazole	OMEPRAZOLE CAP 20MG	7.87	8.30	5.42%
Tiotropium Bromide Monohydrate	SPIRIVA CAP HANDIHLR	282.59	289.13	2.31%

SEE APPENDIX A

Note: A single patient from the October 2013 review cohort who was selected on the basis of risk score has been removed as an outlier from the analysis presented in this appendix. The patient, a 49-year-old male, was receiving medications costing from a few hundred dollars to a couple thousand dollars per month, from the month of review until June 2014, when his costs ballooned by \$150,000 over a three-month period due to prescription fills for Sofosbuvir and Simeprevir at a cost of approximately \$25,000 each per month. This single cost increase was significantly skewing the savings tracking.

APPENDIX A

TOTAL FOR ALL REVIEWED PATIENTS ELIGIBLE AND UTILIZING RX BENEFITS ENTIRE REPORTING PERIOD - NO INCREASE IN COSTS ASSUMED

	Oct 13	Nov 13	Dec 13	Jan 14	Feb 14	Mar 14	Apr 14	May 14	Jun 14	Jul 14	Aug 14	Sep 14	TOTAL	PROJECTED	SAVINGS
Oct 13	55,318	34,823	32,098	37,043	30,811	33,439	34,403	38,160	34,052	38,236	39,708	35,953	444,044	663,813	219,769
Nov 13		49,724	50,474	55,235	41,337	42,683	49,129	38,161	39,676	36,716	42,918	45,930	491,983	546,964	54,981
Dec 13			51,338	56,665	78,577	61,916	66,699	62,443	55,886	40,531	38,816	38,669	551,540	513,380	-38,160
Jan 14				128,058	107,605	120,197	111,895	119,461	126,085	135,760	134,501	158,867	1,142,429	1,152,522	10,093
Feb 14					91,801	85,324	86,689	85,324	85,553	119,882	76,794	114,067	745,434	734,408	-11,026
Mar 14						114,115	97,306	111,401	130,834	117,937	126,051	131,890	829,534	798,805	-30,729
Apr 14							62,649	57,377	57,635	63,111	57,696	51,034	349,502	375,894	26,392
May 14								77,918	64,213	74,963	73,650	79,106	369,850	389,590	19,740
Jun 14									54,616	56,874	45,428	55,925	212,843	218,464	5,621
Jul 14										141,867	114,227	134,194	390,288	425,601	35,313
Aug 14											74,914	70,295	145,209	149,828	4,619
Sep 14												59,357			
													5,672,656	5,969,269	296,613

PATIENTS

81	70	52	109	99	88	68	112	88	92
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*Total number from each monthly review cohort remaining eligible for AND utilizing prescription drug benefits during the entire 12 month reporting period.

AVERAGE PER PATIENT

	Oct 13	Nov 13	Dec 13	Jan 14	Feb 14	Mar 14	Apr 14	May 14	Jun 14	Jul 14	Aug 14	Sep 14	TOTAL	PROJECTED	SAVINGS
Oct 13	683	430	396	457	380	413	425	471	420	472	490	444	5,482	8,195	2,713
Nov 13		710	721	789	591	610	702	545	567	525	613	656	7,028	7,814	786
Dec 13			987	1,090	1,511	1,191	1,283	1,201	1,075	779	746	744	10,607	9,873	-734
Jan 14				1,175	987	1,103	1,027	1,096	1,157	1,246	1,234	1,457	10,481	10,574	93
Feb 14					927	889	1,097	970	1,258	1,070	873	1,240	8,324	7,418	-906
Mar 14						1,189	1,014	1,160	1,363	1,229	1,313	1,374	8,641	8,321	-320
Apr 14							793	726	730	799	730	646	4,424	4,758	334
May 14								885	730	852	837	899	4,203	4,427	224
Jun 14									803	836	668	822	3,130	3,213	83
Jul 14										1,267	1,020	1,198	3,485	3,800	315
Aug 14											851	799	1,650	1,703	52
Sep 14												645			

TOTAL FOR FILL COUNT PATIENTS ELIGIBLE AND UTILIZING RX BENEFITS ENTIRE REPORTING PERIOD - NO INCREASE IN COSTS ASSUMED

	Oct 13	Nov 13	Dec 13	Jan 14	Feb 14	Mar 14	Apr 14	May 14	Jun 14	Jul 14	Aug 14	Sep 14	TOTAL	PROJECTED	SAVINGS
Oct 13	41,601	19,999	18,592	19,802	13,995	15,494	17,207	20,109	16,138	19,615	21,775	19,392	243,721	499,212	255,491
Nov 13		33,199	32,818	28,962	26,022	27,652	29,374	26,291	27,765	25,757	28,942	28,869	315,649	365,186	49,536
Dec 13			43,641	40,648	39,837	34,295	39,571	35,210	38,068	35,013	31,383	33,604	371,270	436,407	65,136
Jan 14				81,288	69,701	72,776	68,702	76,311	74,864	84,494	81,276	100,748	710,160	731,589	21,429
Feb 14					42,234	50,344	39,747	36,274	35,472	42,174	30,943	33,950	311,137	337,873	26,736
Mar 14						66,355	59,807	62,528	90,611	73,783	83,255	88,568	524,907	464,487	-60,420
Apr 14							40,075	39,143	36,833	42,970	38,312	30,742	228,076	240,449	12,373
May 14								53,529	38,087	47,353	46,349	47,764	233,081	267,643	34,563
Jun 14									17,538	14,575	14,665	18,527	65,305	70,150	4,846
Jul 14										129,718	97,334	121,410	348,461	389,153	40,692
Aug 14											54,156	48,114	102,270	108,311	6,041
Sep 14												12,586			
													3,454,037	3,910,459	456,423

PATIENTS

29 38 36 43 29 45 39 37 13 97 38 5

*Total number from each monthly review cohort remaining eligible for AND utilizing prescription drug benefits during the entire 12 month reporting period.

AVERAGE PER PATIENT

	Oct 13	Nov 13	Dec 13	Jan 14	Feb 14	Mar 14	Apr 14	May 14	Jun 14	Jul 14	Aug 14	Sep 14	TOTAL	PROJECTED	SAVINGS
Oct 13	1,435	690	641	683	483	534	593	693	556	676	751	669	8,404	17,214	8,810
Nov 13		874	864	762	685	728	773	692	731	678	762	760	8,307	9,610	1,304
Dec 13			1,212	1,129	1,107	953	1,099	978	1,057	973	872	933	10,313	12,122	1,809
Jan 14				1,890	1,621	1,692	1,598	1,775	1,741	1,965	1,890	2,343	16,515	17,014	498
Feb 14					1,456	1,119	1,019	980	2,729	435	814	6,790	15,342	11,651	-3,692
Mar 14						1,475	1,329	1,390	2,014	1,640	1,850	1,968	11,665	10,322	-1,343
Apr 14							1,028	1,004	944	1,102	982	788	5,848	6,165	317
May 14								1,447	1,029	1,280	1,253	1,291	6,299	7,234	934
Jun 14									1,349	1,121	1,128	1,425	5,023	5,396	373
Jul 14										1,337	1,003	1,252	3,592	4,012	420
Aug 14											1,425	1,266	2,691	2,850	159
Sep 14												2,517			

TOTAL FOR RISK SCORE PATIENTS ELIGIBLE AND UTILIZING RX BENEFITS ENTIRE REPORTING PERIOD - NO INCREASE IN COSTS ASSUMED

	Oct 13	Nov 13	Dec 13	Jan 14	Feb 14	Mar 14	Apr 14	May 14	Jun 14	Jul 14	Aug 14	Sep 14	TOTAL	PROJECTED	SAVINGS
Oct 13	15,563	10,732	8,305	10,332	9,321	10,151	9,426	13,546	9,614	12,708	14,739	8,822	133,259	186,761	53,502
Nov 13		22,340	23,013	25,991	20,706	18,872	21,206	17,225	18,003	15,633	20,203	20,735	223,928	245,745	21,818
Dec 13			17,894	24,515	46,383	34,909	35,676	36,379	27,256	14,569	15,203	13,311	266,096	178,940	-87,156
Jan 14				74,201	63,052	71,873	71,826	70,917	81,433	85,528	85,785	84,372	688,987	667,809	-21,179
Feb 14					21,680	21,855	20,275	20,875	19,474	23,187	22,111	19,242	168,699	173,442	4,742
Mar 14						47,161	58,131	62,749	59,800	56,854	61,749	68,667	415,111	330,127	-84,984
Apr 14							13,499	13,062	13,382	10,558	11,450	11,085	73,036	80,994	7,958
May 14								29,346	26,727	29,173	26,925	33,888	146,059	146,729	670
Jun 14									31,685	35,426	26,112	34,376	127,599	126,739	-860
Jul 14										26,660	32,255	24,072	82,987	79,981	-3,006
Aug 14											23,007	23,418	46,424	46,014	-411
Sep 14												29,134			
													2,372,187	2,263,280	-108,906

PATIENTS

22 33 24 58 17 38 27 31 25 29

*Total number from each monthly review cohort remaining eligible for AND utilizing prescription drug benefits during the entire 12 month reporting period.

AVERAGE PER PATIENT

	Oct 13	Nov 13	Dec 13	Jan 14	Feb 14	Mar 14	Apr 14	May 14	Jun 14	Jul 14	Aug 14	Sep 14	TOTAL	PROJECTED	SAVINGS
Oct 13	707	488	378	470	424	461	428	616	437	578	670	401	6,057	8,489	2,432
Nov 13		677	697	788	627	572	643	522	546	474	612	628	6,786	7,447	661
Dec 13			746	1,021	1,933	1,455	1,486	1,516	1,136	607	633	555	11,087	7,456	-3,631
Jan 14				1,279	1,087	1,239	1,238	1,223	1,404	1,475	1,479	1,455	11,879	11,514	-365
Feb 14					943	383	1,193	549	721	748	884	664	6,085	7,541	1,456
Mar 14						827	1,020	1,101	1,049	997	1,083	1,205	7,283	5,792	-1,491
Apr 14							794	768	787	621	674	652	4,296	4,764	468
May 14								772	703	768	709	892	3,844	3,861	18
Jun 14									1,174	1,312	967	1,273	4,726	4,694	-32
Jul 14										860	1,040	777	2,677	2,580	-97
Aug 14											920	937	1,857	1,841	-16
Sep 14												1,005			

TOTAL FOR TARGETED PATIENTS ELIGIBLE AND UTILIZING RX BENEFITS ENTIRE REPORTING PERIOD - NO INCREASE IN COSTS ASSUMED

	Oct 13	Nov 13	Dec 13	Jan 14	Feb 14	Mar 14	Apr 14	May 14	Jun 14	Jul 14	Aug 14	Sep 14	TOTAL	PROJECTED	SAVINGS
Oct 13	7,959	9,790	9,493	11,406	9,744	10,480	10,354	9,980	11,287	10,006	9,384	10,865	120,749	95,506	-25,243
Nov 13		2,584	2,336	7,840	1,754	3,271	8,115	2,864	2,340	2,490	2,732	3,743	40,069	28,422	-11,647
Dec 13			1,479	1,399	707	1,201	1,785	1,378	1,629	1,539	2,778	1,915	15,809	14,788	-1,021
Jan 14				10,408	7,749	8,905	8,245	8,615	7,103	8,825	8,969	11,067	79,887	93,670	13,784
Feb 14					39,697	40,225	39,725	40,256	42,750	67,486	34,755	71,546	376,440	317,576	-58,865
Mar 14						7,105	3,002	2,503	1,961	2,997	4,166	3,122	24,855	49,736	24,880
Apr 14							10,329	7,707	11,134	10,213	8,796	10,013	58,192	61,972	3,780
May 14								6,095	6,233	7,237	8,001	6,892	34,459	30,477	-3,982
Jun 14									10,501	13,204	9,251	8,748	41,704	42,005	301
Jul 14										981	755	1,189	2,924	2,942	18
Aug 14											11,084	11,005	22,089	22,169	80
Sep 14												19,391			
													817,176	759,262	-57,914

PATIENTS

36 10 2 25 53 10 24 21 32 2 33 62

*Total number from each monthly review cohort remaining eligible for AND utilizing prescription drug benefits during the entire 12 month reporting period.

AVERAGE PER PATIENT

	Oct 13	Nov 13	Dec 13	Jan 14	Feb 14	Mar 14	Apr 14	May 14	Jun 14	Jul 14	Aug 14	Sep 14	TOTAL	PROJECTED	SAVINGS
Oct 13	221	272	264	317	271	291	288	277	314	278	261	302	3,354	2,653	-701
Nov 13		258	234	784	175	327	811	286	234	249	273	374	4,007	2,842	-1,165
Dec 13			739	699	353	601	892	689	815	769	1,389	957	7,905	7,394	-511
Jan 14				416	310	356	330	345	284	353	359	443	3,195	3,747	551
Feb 14					749	4,023	1,655	1,917	1,336	33,743	1,053	1,154	45,630	5,992	-39,638
Mar 14						711	300	250	196	300	417	312	2,486	4,974	2,488
Apr 14							430	321	464	426	366	417	2,425	2,582	158
May 14								290	297	345	381	328	1,641	1,451	-190
Jun 14									328	413	289	273	1,303	1,313	9
Jul 14										490	378	594	1,462	1,471	9
Aug 14											336	333	669	672	2
Sep 14												313			