HEALTH INFORMATION DESIGNS

Kansas Department of Health and Environment – Division of Healthcare Finance

Kansas Medical Assistance Programs

Program Assessment for State Fiscal Year 2011

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10/12/2011

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Yearly Totals

TABLE 1: YEARLY PROGRAM SUMMARY FOR SFY2009 THROUGH SFY2011

	SFY2011	SFY2010	SFY2009
Period Covered	07/01/10 - 06/30/11	07/01/09 - 06/30/10	07/01/08 - 06/30/09
Total Claims Cost	$172,203,020	$161,806,369	$175,085,302
Total Number of Claims	2,173,647	2,093,279	2,037,193
Total Members	292,522	274,249	270,497
Total Users	126,192	118,942	116,220
Average Members Per Month	158,846	147,886	142,494
Average Users Per Month	50,579	48,525	47,414
Average Cost Per Member Per Year	$588.68	$590.01	$647.27
Average Cost Per User Per Year	$1,365	$1,360	$1,507
Average Cost Per Member Per Month	$90.34	$91.31	$102.39
Average Cost Per User Per Month	$283.72	$277.97	$307.73
Average Cost Per Claim	$79.22	$77.30	$85.94

Table 1 contains a yearly program summary comparing the past three years.

During the State Fiscal Year (SFY) of 2011 (dates of service: July 1, 2010 through June 30, 2011), the Kansas Department of Health and Environment, Division of Health Care Finance (KDHE-DHCF) paid for over 2.1 million prescription claims for Kansas Medical Assistance Programs (KMAP) fee-for-service (FFS) members, an increase of approximately 80,000 prescriptions since SFY2010 and nearly 140,000 more than SFY2009. While the total number of prescription claims has increased steadily over the past three state fiscal years, the total prescription claims cost has fluctuated. During SFY2011 KDHE-DHCF paid over $172 million (rebates not included). This is an over $10 million increase in prescription expenditures from SFY2010, when KDHE-DHCF paid nearly $162 million on prescription claims. However, SFY2011 claim costs are still nearly $3 million less than what KDHE-DHCF paid in SFY2009.

The average number of members has increased steadily over the past few years. During SFY2011 Kansas Medical Assistance Programs averaged 158,846 members per month, an increase of over 10,000 from the average of 147,886 for SFY2010. Member eligibility types include not only Title 19 (TXIX), but also Medically Needy, MediKan, the AIDS Drug Assistance Program (ADAP), and Presumptive Eligibility. Kansas Medical Assistance Programs cover additional beneficiary lives through their Managed Care choices; however, prescription drug expenditures for members enrolled in the Managed Care plans are part of the capitated rate paid to the two Managed Care Organizations (UniCare and Children's Mercy Family Health Partners) and are not included in this report.

Members vs. Users
Member: a beneficiary eligible for pharmacy services under KDHE-DHCF Medical Programs, excluding Managed Care choices.
User: a member who received at least one prescription.

The average number of users per month has also increased steadily since SFY2009—from 47,414 in SFY2009 to 50,579 in SFY2011. While the average number of members per month was over 158,000 in SFY2011, the average number of users was much lower. By distinguishing between members and users, we can see a better picture of what KDHE-DHCF pays per user for drug expenditures—a cost that is typically much higher than the per member cost.

Over the past several years the average cost per member per month has decreased, likely due to the increase of members. In SFY2009, KDHE-DHCF paid an average per member per month cost of $102.39 compared to $90.34 in SFY2011. The average cost per claim has fluctuated slightly over the past several years, but has decreased from SFY2009. In SFY2009 the average cost per claim was $85.94 compared to $77.30 in SFY2010, a decrease of nearly $9. In SFY2011 the average cost per claim increased to $79.22, still nearly $7 less than SFY2009.

From SFY2009 to SFY2010 we saw an increase in the number of prescriptions and users while the total prescription claims cost and average cost per claim decreased. From SFY2010 to SFY2011 we saw an increase in total prescription expenditures as well as an increase in total prescription claims, users and members. The increase from SFY2010 to SFY2011 may be attributed to the increased expenditures in mental health drug classes which, by statute, are exempt from management and drug classes such as the biologic response modifiers and monoclonal antibodies which do not contain generic products.

During SFY2011, while generic products like risperidone were available, there was a significant increase in the expenditures for newer, more expensive products such as Invega Sustenna® (a metabolite of risperidone) and Intuniv® (a new formulation of an older, generically available drug indicated for blood pressure, guanfacine).

From SFY2010 to SFY2011 the utilization of Synagis® (palivizumab), a monoclonal antibody, decreased from 710 claims to 680 while the total claims cost increased from approximately $1 million to nearly $1.2 million during the same time period. While total utilization of monoclonal antibodies decreased, the utilization for biologic response modifiers increased, from 414 claims in SFY2010 to 467 claims in SFY2011.

Even though the total prescription expenditures increased between SFY2010 to SFY2011 they were still less than the expenditures in SFY2009. This can be attributed to:

- Continued management of State Maximum Allowable Cost (SMAC)
    - SMAC is a limit on what KDHE-DHCF will pay for a drug when there are multiple manufacturers available.
    - During SFY2011 there were SMAC price updates on over 2,100 NDCs and nearly 50% of claims were paid using SMAC pricing.
- Continued savings from TPL (Third Party Liability) Cost Avoidance
    - TPL Cost Avoidance denies claims for beneficiaries who have primary insurance if payment or denial from the primary insurance is not indicated on the claim.
    - TPL Cost Avoidance was implemented in January 2009.

Eligibility Totals

FIGURE 1: ELIGIBILITY PER MONTH FOR SFY2009 THROUGH SFY2011

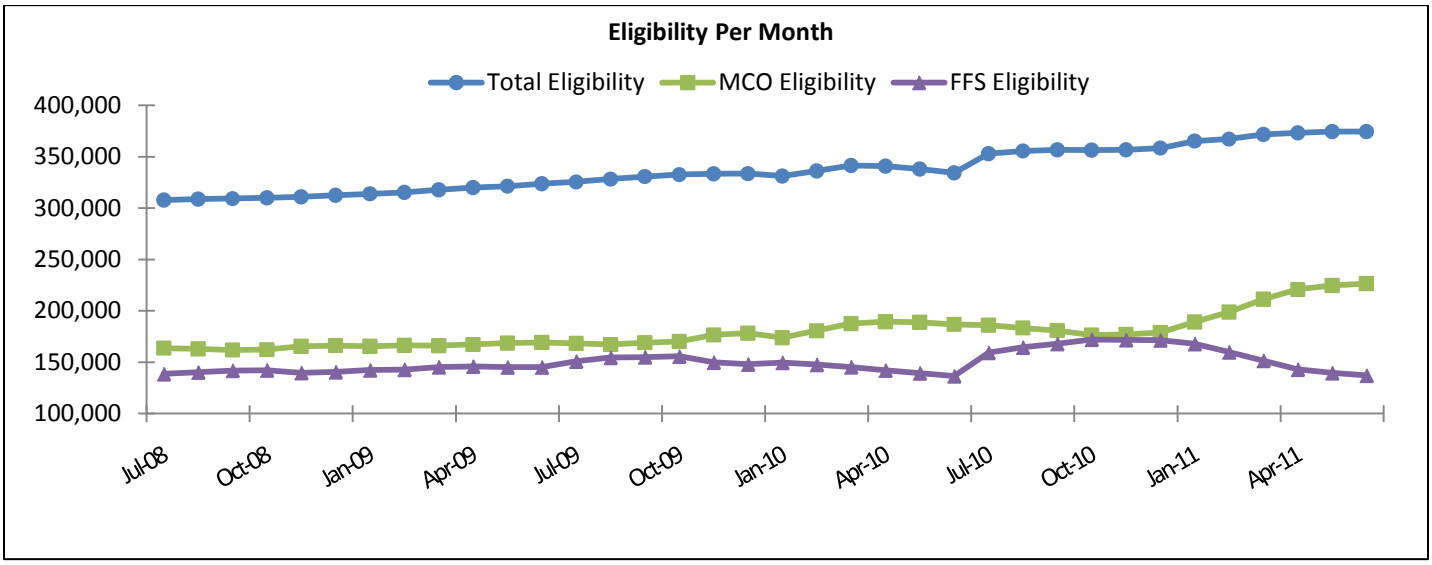

Figure 1 is a graphical representation of total beneficiaries eligible for services, including MCO eligibility and FFS members; this shows the overall trend for KDHE-DHCF Medical Programs enrollment over the past three state fiscal years.

The total number of beneficiaries eligible for services for all Kansas Medical Assistance Programs (including the Managed Care Plans) has steadily increased from just over 307,000 in July 2008 to nearly 375,000 in June 2011, an increase of nearly 67,000.

The number of FFS members remained nearly unchanged from SFY2009 through SFY2010. During SFY2011 FFS members peaked in the fall of 2010 at 172,000 and then steadily decreased to 137,000, nearly the same number of members at the end of SFY2010.

The number of MCO eligible beneficiaries has increased over the past two state fiscal years. In SFY2011 while the number of FFS members decreased from December 2010 through June 2011, the number of MCO eligible beneficiaries increased from nearly 179,000 in December 2010 to over 226,000 in June 2011, an increase of over 47,000.

Monthly Totals

FIGURE 2: USERS PER MONTH FOR SFY2009 THROUGH SFY2011

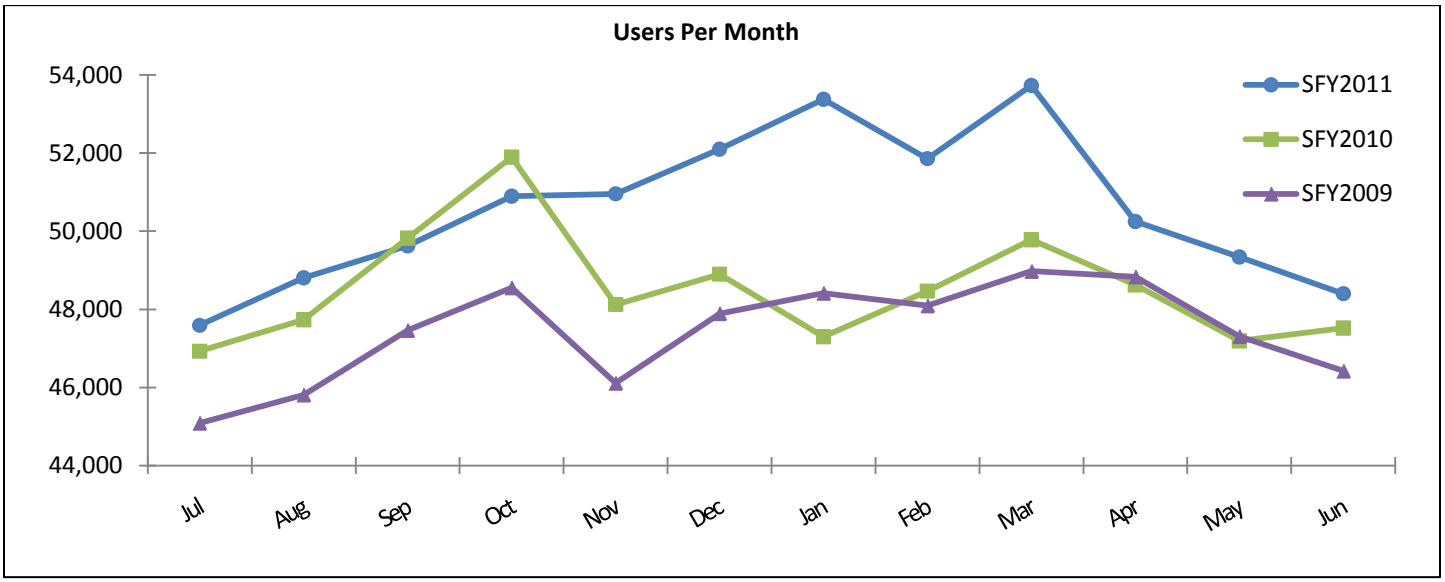

Figure 2 shows the monthly totals for users from SFY2009 through SFY2011.

Overall the number of users has increased from SFY2009 to SFY2011. There are several spikes which are somewhat consistent each year. The number of users typically peaks around October and March each year. In SFY2011 the number of users per month peaked in March 2011 at nearly 54,000, followed by a steep decrease.

FIGURE 3: TOTAL CLAIMS PER MONTH FOR SFY2009 THROUGH SFY2011

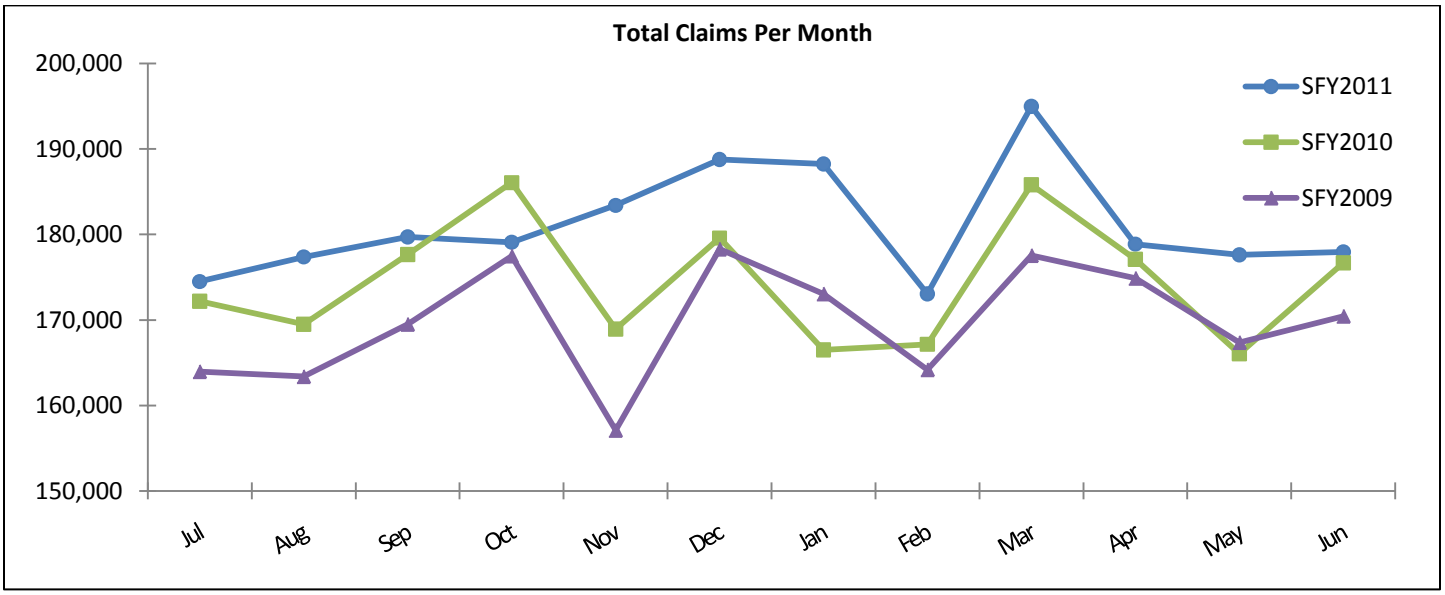

Figure 3 shows the monthly totals of claims from SFY2009 through SFY2011.

The total claims have steadily increased from SFY2009 to SFY2011. Each year there is a dip in prescriptions from January to February; this matches what typically happens with total users and total claims costs as well. In SFY2011 the total claims peaked in March 2011 at nearly 195,000, following the same trend as the number of users per month.

FIGURE 4: TOTAL CLAIMS COST PER MONTH FOR SFY2009 THROUGH SFY2011

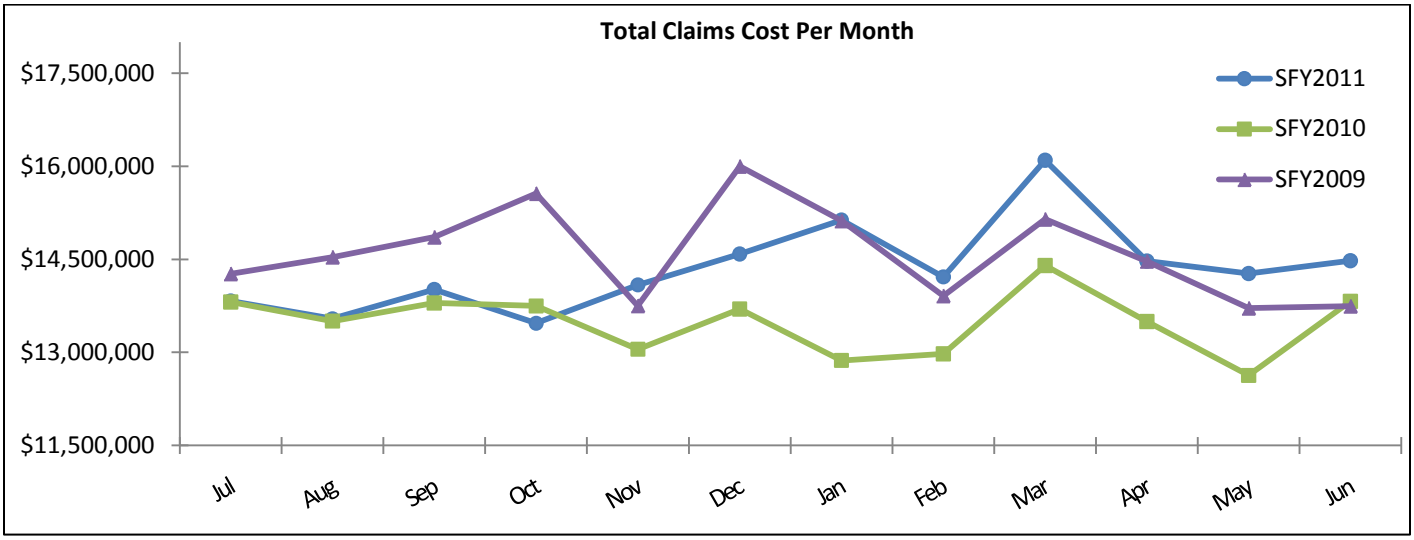

Figure 4 shows the monthly totals of claims cost from SFY2009 through SFY2011.

Monthly claims costs decreased from SFY2009 to SFY2010 and increased from SFY2010 to SFY2011. Several spikes are seen each year, from February to March there is consistently a steep increase in claims cost – possibly due to the increased use of acute medications. In March 2011 total claims cost peaked at over $16 million.

FIGURE 5: COSTS PER MONTH FOR SFY2009 THROUGH SFY2011

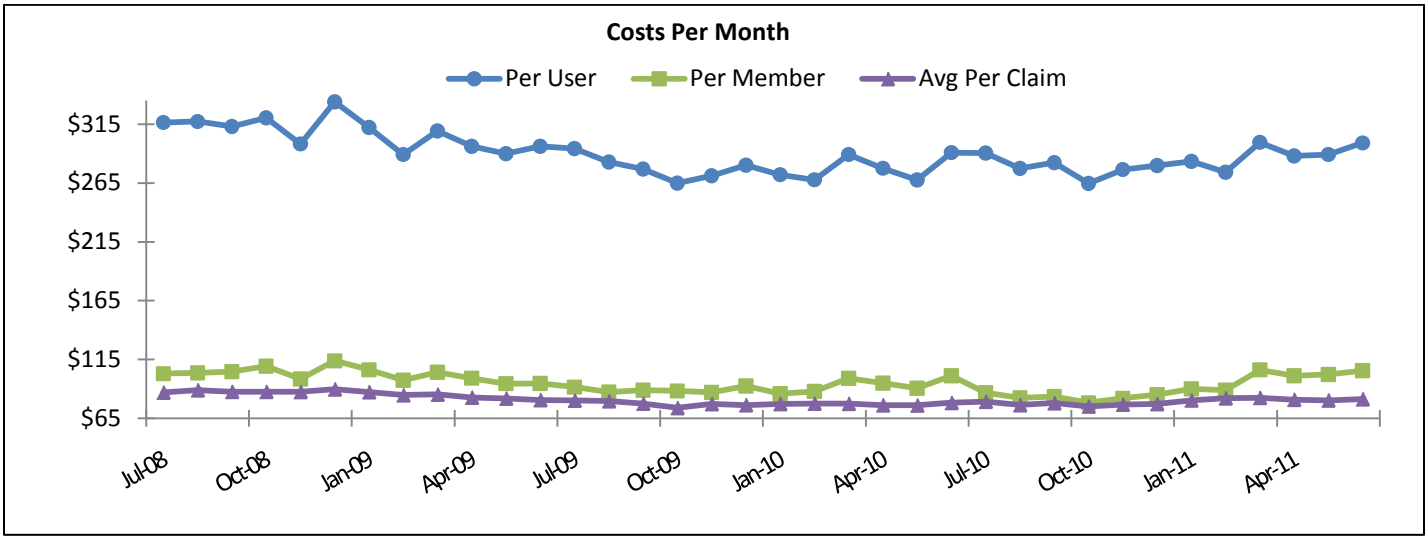

Figure 5 shows the monthly costs from SFY2009 through SFY2011, including cost per user per month, cost per member per month and average cost per prescription claim.

Overall, costs decreased from SFY2009 to SFY2010 and increased from SFY2010 to SFY2011. The average cost per claim peaked at nearly $90 in December 2008 and was as low as $74 in October 2009. During SFY2011 the average cost per claim increased from $79 in July 2010 to $81 in June 2011.

The cost per member per month peaked in December 2008 at nearly $114 and was as low as $82 in August 2010. During SFY2011 the cost per member per month increased from $87 to $106 – due to the increase in claims cost while the number of members decreased. The cost per user per month followed the same trend in SFY2011 increasing from $291 in July 2010 to $299 in June 2011.

Drug Classification Reporting

It is important to not only report drug expenditures according to beneficiary lives, claim numbers, paid amounts, and so forth, but to also review the drug expenditures by varying degrees of drug classifications, from therapeutic classes, to generic ingredient level, to drug level. Below is an example of how a specific drug is reported within each level, using lansoprazole as an example:

Reporting Level	Agents Reported (Example)
Therapeutic Classes:	Proton Pump Inhibitors (all agents)
Generic Ingredient Level:	Lansoprazole (includes all generic lansoprazole and Prevacid products together)
Drug Level:	Lansoprazole generic products and Prevacid branded products reported separately

Data is reported at each drug classification level two ways to help determine where there is a potential for clinically significant interventions or cost savings:

- Total Claims – identifies the most commonly prescribed medications
- Total Claims Cost – identifies which classes or drugs constitute the largest expenditures

Therapeutic Classes

The therapeutic classes are reported by the top 25 classes based on total number of claims, along with the top 25 classes based on the total claims cost. Therapeutic class reporting is based on the American Hospital Formulary Service (AHFS) Pharmacologic-Therapeutic Classification third hierarchy level. An example for the AHFS classification of Central Nervous System Agents is shown below. Reporting is done at the third hierarchy level (antipsychotics in the table below), which for this drug class contains several subclasses including atypical antipsychotics, butyrophenones, phenothiazines, thioxanthenes, and miscellaneous agents.

AHFS Pharmacologic-Therapeutic Classification Hierarchy Example
28:00 Central Nervous System Agents
28:16 Psychotherapeutic Agents
28:16:08 Antipsychotics*
28:16:08:04 Atypical Antipsychotics

*Therapeutic classes are reported at this level.

Reporting the top therapeutic classes based on both number of claims and total claims cost shows where therapeutic classes overlap, and which classes would be lost if only one reporting method was used. Hemostatics and antiretrovirals are examples of drug classes that would potentially be lost if only reported by total number of claims. Both represent a high expenditure for Kansas Medical Assistance Programs—together they account for over 12% of total claims cost, though they represent less than one percent of total claims. This is due to the high cost of these agents. One example is NovoSeven®, a hemostatic agent, which in SFY2011 cost as much as $366,000 per claim depending on a beneficiary's specific needs.

Several drug classes would be lost if the top therapeutic classes were only reported by the total claims cost and not total claims. Examples are the Benzodiazepine and 2nd Generation Antihistamine classes. Combined, these classes represent nearly 11% of all claims but just over 1% of total claims cost.

Out of the top 25 therapeutic classes, the top ten largest percent changes from SFY2011 to SFY2010 by total claims and total claims cost are also reported. This shows drug classes that had a significant change in total claims or total claims costs from the previous year.

Therapeutic Classes by Total Claims

TABLE 2: TOP 25 THERAPEUTIC CLASSES BY TOTAL CLAIMS

AHFS Therapeutic Class	Total Claims	Total Users	Total Claims Cost	Average Cost/Claim	% of Total Claims
Antidepressants	162,548	23,467	$7,045,902	$43.35	7.48%
Opiate Agonists	150,597	27,041	$6,790,884	$45.09	6.93%
Antipsychotic Agents	138,761	14,888	$45,403,766	$327.21	6.38%
Anticonvulsants, Misc	113,098	12,843	$6,094,030	$53.88	5.20%
Benzodiazepines (Anxiolytic, Sedatives & Hypnotics)	105,923	17,856	$994,180	$9.39	4.87%
2nd Generation Antihistamines	74,477	17,097	$621,266	$8.34	3.43%
Non-Steroidal Anti-Inflammatory Agents	70,063	18,927	$1,099,330	$15.69	3.22%
Beta-Adrenergic Agonists	56,532	18,853	$2,991,886	$52.92	2.60%
Proton-Pump Inhibitors	54,352	10,433	$3,637,130	$66.92	2.50%
Benzodiazepines (Anticonvulsants)	47,153	6,702	$250,949	$5.32	2.17%
Adrenals	46,975	17,091	$4,808,543	$102.36	2.16%
Anorexigenic, Respiratory & Cerebral Stimulants, Misc	41,525	6,162	$5,956,593	$143.45	1.91%
HMG-CoA Reductase Inhibitors	40,368	6,233	$2,364,324	$58.57	1.86%
Beta-Adrenergic Blocking Agents	40,313	6,720	$479,153	$11.89	1.85%
Angiotensin-Converting Enzyme Inhibitors	40,264	7,004	$160,866	$4.00	1.85%
Amphetamines	39,088	6,385	$4,650,054	$118.96	1.80%
Penicillins	38,081	26,605	$498,330	$13.09	1.75%
Anxiolytics, Sedatives & Hypnotics, Misc	32,561	7,399	$1,054,492	$32.39	1.50%
Central Nervous System Agents, Misc	30,989	4,697	$4,649,639	$150.04	1.43%
Thyroid Agents	30,744	4,228	$169,208	$5.50	1.41%
Central Alpha-Agonists	28,429	4,661	$394,302	$13.87	1.31%
Insulins	27,665	3,055	$4,872,490	$176.12	1.27%
Macrolides	26,517	18,418	$409,058	$15.43	1.22%
Leukotriene Modifiers	26,099	6,332	$3,103,605	$118.92	1.20%
Centrally Acting Skeletal Muscle Relaxants	23,370	6,552	$206,635	$8.84	1.08%
Totals	***1,486,492***	***299,649***	***$108,706,615***	***$73.13***	***68%***

Table 2 contains the top 25 therapeutic classes based on the total number of claims. See **Appendix A** for a list of drugs included in each therapeutic class.

The top therapeutic classes by total number of claims remained nearly unchanged from SFY2010. The ranking of the top 10 classes remained unchanged. The main difference was in the list of drugs, with the addition of the miscellaneous central nervous system (CNS) agents to the top therapeutic classes by claims, which pushed biguanides out of the top 25.

FIGURE 6: THERAPEUTIC CLASSES WITH THE MOST SIGNIFICANT PERCENT CHANGES OF TOTAL CLAIMS FROM SFY2010 TO SFY2011

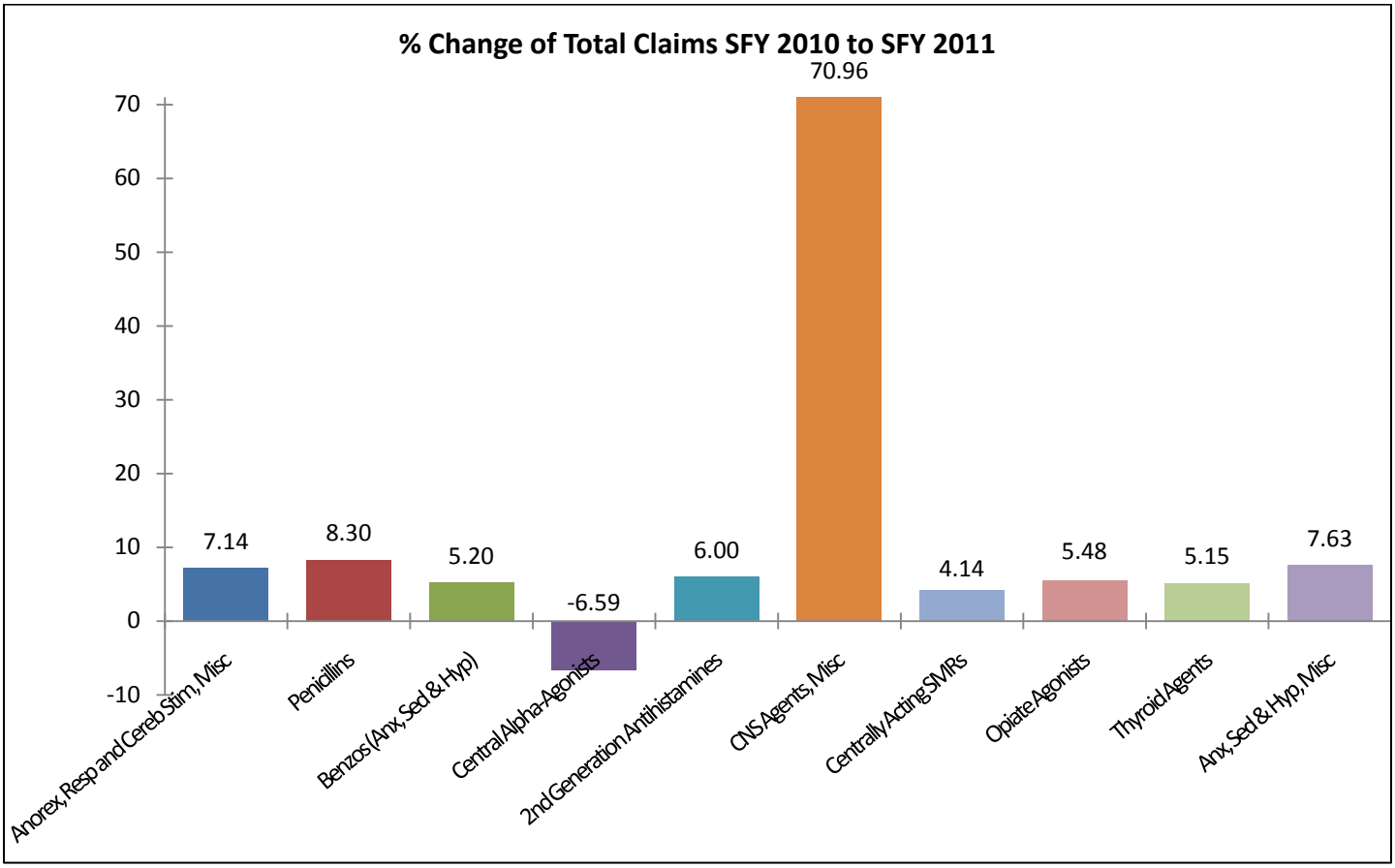

Figure 6 shows the most significant percentage changes of the total claims from SFY2010 to SFY2011.

The miscellaneous CNS agents had the most significant change in total claims—from 18,126 in SFY2010 to 30,989 in SFY2011. Many agents included in the miscellaneous CNS class are considered mental health medications; this class includes drugs such as Strattera® (atomoxetine) and Intuniv (guanfacine extended-release). Intuniv was approved in the fall of 2009, and the average cost per claim in SFY2011 was $141. Central alpha-agonists, which include generic guanfacine, had the most significant decrease in total claims from over 30,000 in SFY2010 to around 28,000 in SFY2011.

Therapeutic Classes by Total Claims Cost

TABLE 3: TOP 25 THERAPEUTIC CLASSES BY TOTAL CLAIMS COST

AHFS Therapeutic Class	Total Claims	Total Users	Total Claims Cost	Average Cost/Claim	% of Total Claims Cost
Antipsychotic Agents	138,761	14,888	$45,403,766	$327.21	26.37%
Antiretrovirals	15,539	1,004	$11,848,554	$762.50	6.88%
Hemostatics	403	65	$9,202,896	$22,835.97	5.34%
Antidepressants	162,548	23,467	$7,045,902	$43.35	4.09%
Opiate Agonists	150,597	27,041	$6,790,884	$45.09	3.94%
Anticonvulsants, Misc	113,098	12,843	$6,094,030	$53.88	3.54%
Anorexigenic, Respiratory & Cerebral Stimulants, Misc	41,525	6,162	$5,956,593	$143.45	3.46%
Insulins	27,665	3,055	$4,872,490	$176.12	2.83%
Adrenals	46,975	17,091	$4,808,543	$102.36	2.79%
Amphetamines	39,088	6,385	$4,650,054	$118.96	2.70%
Central Nervous System Agents, Misc	30,989	4,697	$4,649,639	$150.04	2.70%
Proton-Pump Inhibitors	54,352	10,433	$3,637,130	$66.92	2.11%
Leukotriene Modifiers	26,099	6,332	$3,103,605	$118.92	1.80%
Beta-Adrenergic Agonists	56,532	18,853	$2,991,886	$52.92	1.74%
Antineoplastic Agents	5,138	1,014	$2,512,226	$488.95	1.46%
HMG-CoA Reductase Inhibitors	40,368	6,233	$2,364,324	$58.57	1.37%
Pituitary	5,428	843	$1,895,341	$349.18	1.10%
Biologic Response Modifiers	467	69	$1,491,899	$3,194.64	0.87%
Platelet-Aggregation Inhibitors	7,962	1,216	$1,287,789	$161.74	0.75%
Vasodilating Agents, Misc	893	128	$1,262,967	$1,414.30	0.73%
Thiazolidinediones	6,043	873	$1,255,685	$207.79	0.73%
Monoclonal Antibodies	680	159	$1,194,819	$1,757.09	0.69%
Antimuscarinics/Antispasmodics	11,112	2,655	$1,188,260	$106.93	0.69%
Non-Steroidal Anti-Inflammatory Agents	70,063	18,927	$1,099,330	$15.69	0.64%
Enzymes	503	100	$1,079,433	$2,145.99	0.63%
Totals	***1,052,828***	***184,533***	***$137,688,047***	***$130.78***	***79.96%***

Table 3 reports the top 25 therapeutic classes based on the total claims cost.

The list of top therapeutic classes by total claims cost remained nearly unchanged from SFY2010 to SFY2011 except for the addition of three classes—miscellaneous vasodilating agents, antimuscarinics/antispasmodics, and non-steroidal anti-inflammatory (NSAIDs) agents—which pushed the anxiolytic, sedative and hypnotic benzodiazepines, angiotensin II receptor antagonists and the anticoagulants off of the top 25 list.

The NSAIDs and antimuscarinics/antispasmodics increased in both claims and claims cost between SFY2010 and SFY2011. The miscellaneous vasodilating agents number of claims remained nearly unchanged while the claims cost increased by over 42%.

FIGURE 7: THERAPEUTIC CLASSES WITH THE MOST SIGNIFICANT PERCENT CHANGES OF TOTAL CLAIMS COST FROM SFY2010 TO SFY2011

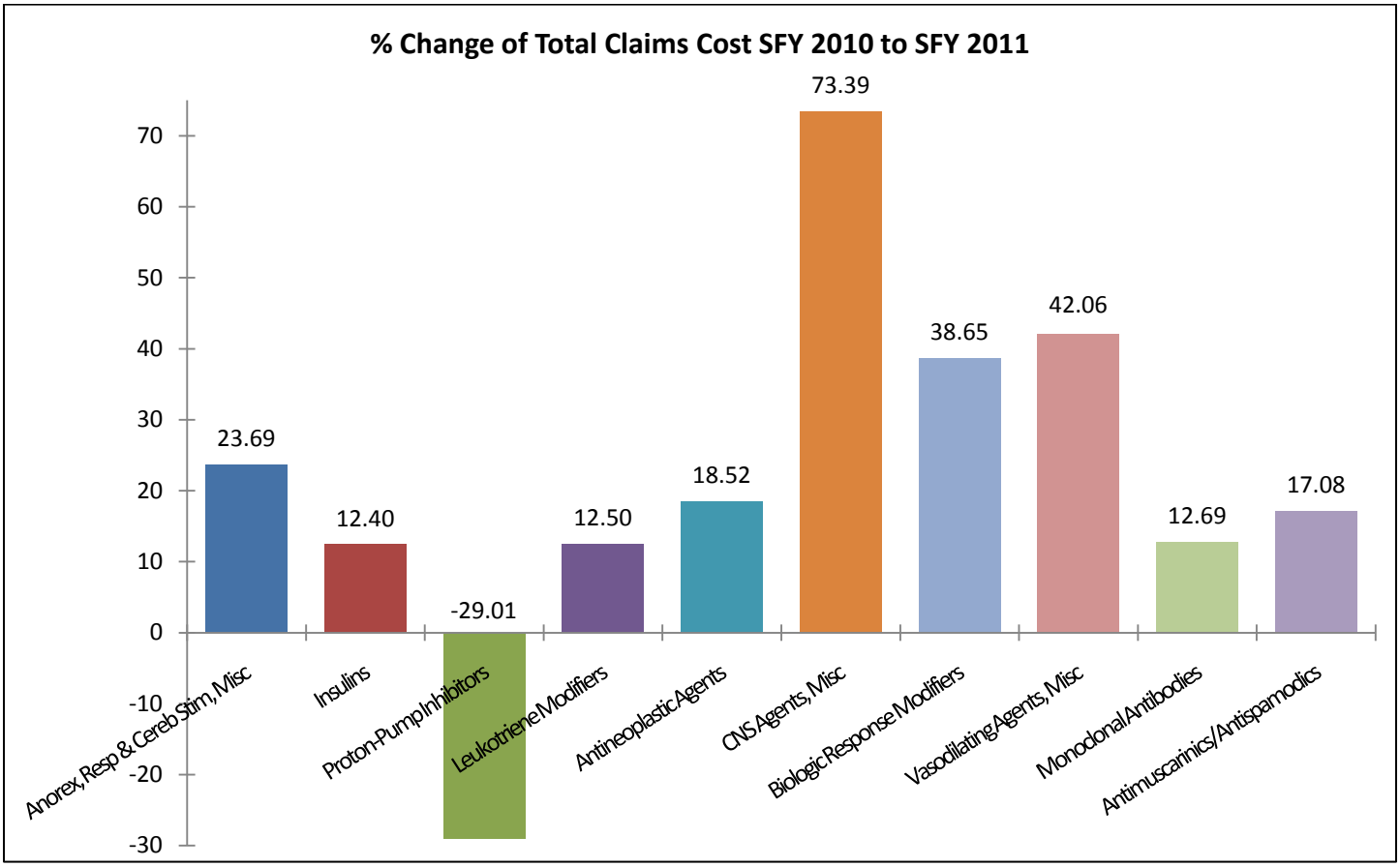

Figure 7 shows the most significant percentage changes of total claims cost from SFY2010 to SFY2011.

One of the main differences in total claims cost from last year was an increase of nearly $2 million in spending on miscellaneous CNS agents, from nearly $2.7 million in SFY2010 to over $4.6 million in SFY2011. This was a continuation of what was seen from SFY2009 to SFY2010 when the total claims cost for miscellaneous CNS agents went from $1.9 million in SFY2009 to nearly $2.7 million in SFY2010. This trend will continue to be seen throughout the rest of the report, mainly due to one drug in this therapeutic class, Intuniv (guanfacine extended-release).

The main decrease in total claims cost from last year was in the proton-pump inhibitor class, from $5.1 million in SFY2010 to $3.6 million in SFY2011. This was most likely due to the availability of generic products such as lansoprazole.

Therapeutic Classes Trend Summary Analysis

Within the top 25 therapeutic classes by total number of claims and total claims cost there are several drug classes that are of interest due to dramatic changes from SFY2010 to SFY2011 in utilization, cost or both. These drug classes include the central alpha-agonists, miscellaneous CNS agents, proton-pump inhibitors, biologic response modifiers.

Central Alpha-Agonists Trend Summary

TABLE 4: CENTRAL ALPHA-AGONISTS TREND SUMMARY

	Total Users	Total Claims	Total Claims Cost	Average Cost/Claim
1st Quarter SFY2010	6,964	7,832	$105,213	$13.43
2nd Quarter SFY2010	7,140	7,996	$100,953	$12.63
3rd Quarter SFY2010	6,723	7,456	$96,841	$12.99
4th Quarter SFY2010	6,397	7,152	$95,923	$13.41
1st Quarter SFY2011	6,326	7,017	$92,430	$13.17
2nd Quarter SFY2011	6,425	7,110	$93,724	$13.18
3rd Quarter SFY2011	6,464	7,219	$96,362	$13.35
4th Quarter SFY2011	6,399	7,083	$111,787	$15.78

Table 4 shows the quarterly percent change by number of users, number of prescriptions, total claims cost, and average cost per claim for central alpha-agonists.

FIGURE 8: CENTRAL ALPHA-AGONISTS TOTAL CLAIMS COST COMPARED TO TOTAL CLAIMS

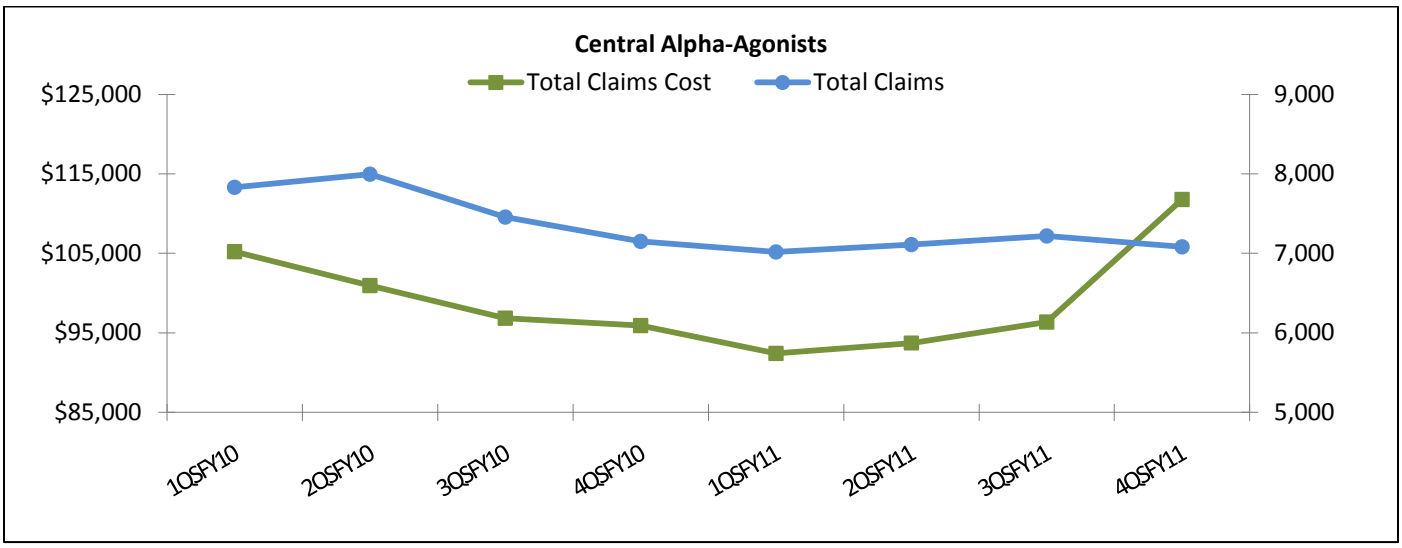

Figure 8 show total claims cost compared to total claims for central alpha-agonists.

During SFY2010 the total number of claims and total claims cost decreased for central alpha-agonists; in SFY2011 the total number of claims remained steady while the total claims cost increased. This caused the average cost per claim to increase from around $13 in the first quarter to nearly $16 in the last quarter of SFY2011.

Miscellaneous Central Nervous System Agents Trend Summary

TABLE 5: MISCELLANEOUS CENTRAL NERVOUS SYSTEM AGENTS TREND SUMMARY

	Total Users	Total Claims	Total Claims Cost	Average Cost/Claim
1st Quarter SFY2010	2,862	3,274	$510,540	$155.94
2nd Quarter SFY2010	3,147	3,686	$554,773	$150.51
3rd Quarter SFY2010	4,232	5,005	$727,386	$145.33
4th Quarter SFY2010	5,138	6,161	$888,904	$144.28
1st Quarter SFY2011	5,921	7,092	$1,001,110	$141.16
2nd Quarter SFY2011	6,479	7,686	$1,127,533	$146.70
3rd Quarter SFY2011	6,770	7,953	$1,195,016	$150.26
4th Quarter SFY2011	7,035	8,258	$1,325,981	$160.57

Table 5 shows the quarterly percent change by number of users, number of prescriptions, total claims cost, and average cost per claim for miscellaneous CNS agents.

FIGURE 9: MISCELLANEOUS CENTRAL NERVOUS SYSTEM AGENTS TOTAL CLAIMS COST COMPARED TO TOTAL CLAIMS

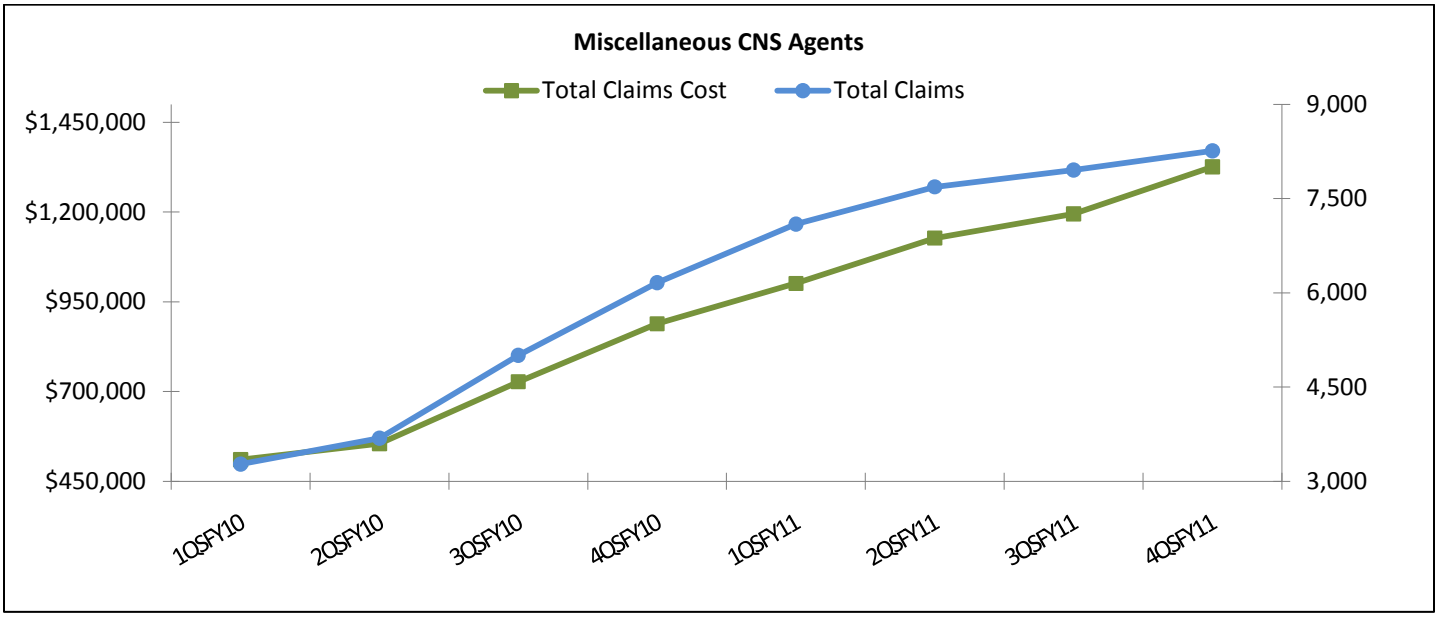

Figure 9 show claims cost compared to the number of claims per quarter for miscellaneous CNS agents.

From SFY2010 to SFY2011 both total claims cost and total claims for miscellaneous CNS agents increased significantly. This is due to the release of Intuniv. It became available in October 2009 (the second quarter of SFY2010) and its use has steadily increased since that time. The total number of users for this drug class also increased, from around 2,800 in the first quarter of SFY2010 to over 7,000 users in the last quarter of SFY2011.

Proton-Pump Inhibitors Trend Summary

TABLE 6: PROTON-PUMP INHIBITORS TREND SUMMARY

	Total Users	Total Claims	Total Claims Cost	Average Cost/Claim
1st Quarter SFY2010	12,499	13,304	$1,777,089	$133.58
2nd Quarter SFY2010	12,586	13,400	$1,491,714	$111.32
3rd Quarter SFY2010	12,712	13,370	$960,684	$71.85
4th Quarter SFY2010	12,680	13,406	$894,109	$66.69
1st Quarter SFY2011	12,663	13,464	$928,228	$68.94
2nd Quarter SFY2011	12,863	13,674	$929,926	$68.01
3rd Quarter SFY2011	12,828	13,551	$904,145	$66.72
4th Quarter SFY2011	12,854	13,663	$874,830	$64.03

Table 6 shows the quarterly percent change by number of users, number of prescriptions, total claims cost, and average cost per claim for proton-pump inhibitors.

FIGURE 10: PROTON-PUMP INHIBITORS TOTAL CLAIMS COST COMPARED TO TOTAL CLAIMS

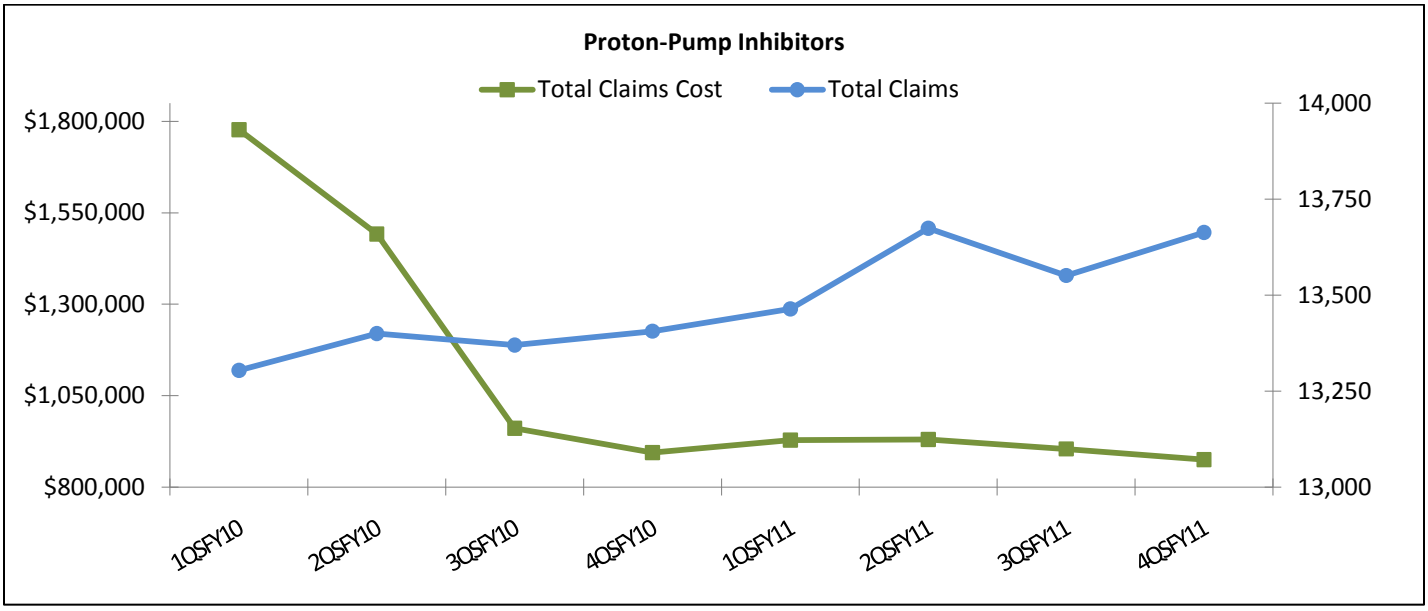

Figure 10 show claims cost compared to the number of claims per quarter for proton-pump inhibitors.

The total claims for proton-pump inhibitors continued to increase from SFY2010 through SFY2011 while the total claims cost decreased during that same time period. The average cost per claim went from over $130 in the first quarter of SFY2010 to less than $65 in the last quarter of SFY2011, a decrease of nearly 50%. This decrease in cost can most likely be attributed to the generic availability of agents in this class, including lansoprazole in the second quarter SFY2010 (November 2009).

Biologic Response Modifiers Trend Summary

TABLE 7: BIOLOGIC RESPONSE MODIFIERS TREND SUMMARY

	Total Users	Total Claims	Total Claims Cost	Average Cost/Claim
1st Quarter SFY2010	89	98	$246,856	$2,518.94
2nd Quarter SFY2010	91	101	$265,461	$2,628.33
3rd Quarter SFY2010	88	93	$253,396	$2,724.69
4th Quarter SFY2010	98	104	$310,319	$2,983.84
1st Quarter SFY2011	112	118	$350,743	$2,972.40
2nd Quarter SFY2011	109	113	$354,672	$3,138.69
3rd Quarter SFY2011	115	120	$412,476	$3,437.30
4th Quarter SFY2011	111	116	$374,008	$3,224.21

Table 7 shows the quarterly percent change by number of users, number of prescriptions, total claims cost, and average cost per claim for biologic response modifiers.

FIGURE 11: BIOLOGIC RESPONSE MODIFIERS TOTAL CLAIMS COST COMPARED TO TOTAL CLAIMS

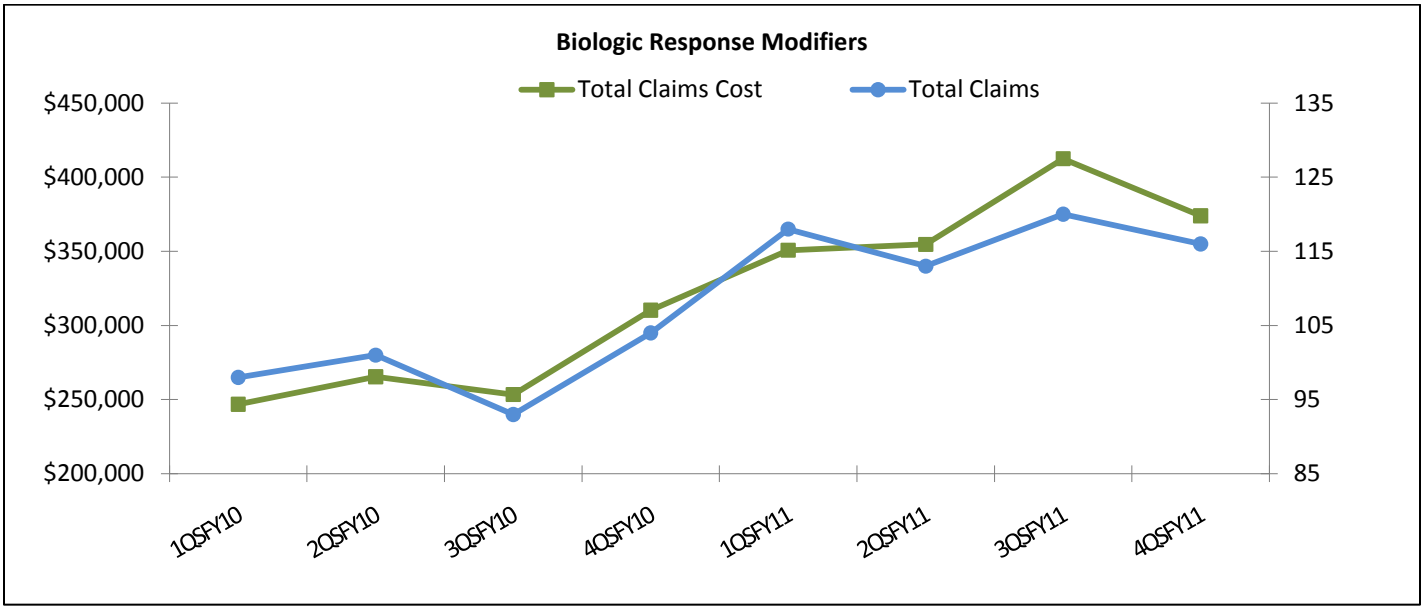

Figure 11 shows claims cost compared to the number of claims per quarter for biologic response modifiers.

From SFY2010 through SFY2011 the total claims and total claims cost for the biologic response modifiers increased. The average cost per claim also increased from around $2,500 in the first quarter of SFY2010 to over $3,200 in the last quarter of SFY2011, an increase of 28%.

Generic Ingredient Level Reporting

Generic ingredient level reporting includes all claims classified under a generic name. For example, risperidone includes all manufacturers and strengths of brand and generic Risperdal®, Risperdal Consta®, and risperidone.

This level is reported as the top 25 generic ingredients based on total number of claims and total claims cost. Reporting based on total number of claims shows the most commonly prescribed generic ingredients. Some of these agents represent a smaller expenditure for Kansas Medical Assistance Programs making them unique to this list, including several benzodiazepines, second generation antihistamines, and antibiotics. All of these agents are available in generic formulations, reducing the cost to Kansas Medical Assistance Programs.

Generic Ingredients by Total Claims

TABLE 8: TOP 25 GENERIC INGREDIENTS BY TOTAL CLAIMS

Generic Name	AHFS Therapeutic Class	Total Claims	Total Users	Total Claims Cost	Average Cost/Claim	% of Total Claims
Hydrocodone/APAP	Opiate Agonists	70,061	17,593	$745,093	$10.63	3.22%
Clonazepam	Benzodiazepines (Anticonvulsants)	47,153	6,702	$250,949	$5.32	2.17%
Alprazolam	Benzodiazepines (Anxiolytic, Sed/Hyp)	45,689	7,480	$211,737	$4.63	2.10%
Loratadine	2nd Generation Antihistamines	45,270	9,607	$227,509	$5.03	2.08%
Albuterol	Beta-Adrenergic Agonists	45,098	17,060	$1,483,380	$32.89	2.07%
Lorazepam	Benzodiazepines (Anxiolytic, Sed/Hyp)	35,163	7,280	$191,953	$5.46	1.62%
Risperidone	Antipsychotic Agents	34,138	4,805	$2,743,766	$80.37	1.57%
Quetiapine	Antipsychotic Agents	32,700	4,456	$11,215,412	$342.98	1.50%
Lansoprazole	Proton-Pump Inhibitors	31,639	5,140	$2,390,189	$75.55	1.46%
Levothyroxine	Thyroid Agents	30,253	4,160	$161,910	$5.35	1.39%
Methylphenidate	Anorex, Resp, & Cereb Stim, Misc	30,199	4,786	$3,963,070	$131.23	1.39%
Aspirin	NSAIDs	28,128	3,738	$104,268	$3.71	1.29%
Lisinopril	ACE Inhibitors	27,044	4,887	$97,361	$3.60	1.24%
Aripiprazole	Antipsychotic Agents	27,004	4,465	$14,637,047	$542.03	1.24%
Amoxicillin	Penicillins	26,988	20,609	$169,419	$6.28	1.24%
Montelukast	Leukotriene Modifiers	25,848	6,299	$3,077,764	$119.07	1.19%
Divalproex	Anticonvulsants, Misc	25,812	3,230	$1,174,688	$45.51	1.19%
Cetirizine	2nd Generation Antihistamines	25,181	7,446	$207,062	$8.22	1.16%
Guanfacine	Central Alpha-Agonists/CNS Agents, Misc	24,708	3,774	$2,681,685	$108.54	1.14%
Azithromycin	Macrolides	24,536	17,612	$365,779	$14.91	1.13%
Trazodone	Antidepressants	24,210	5,121	$157,339	$6.50	1.11%
Sertraline	Antidepressants	24,132	4,504	$157,656	$6.53	1.11%
Metformin	Biguanides	22,720	4,008	$101,279	$4.46	1.05%
Simvastatin	HMG-CoA Reductase Inhibitors	22,486	3,895	$81,365	$3.62	1.03%
Clonidine	Central Alpha-Agonists	21,187	3,522	$167,436	$7.90	0.97%
Totals		***797,347***	***182,179***	***$46,765,117***	***$58.65***	***36.68%***

Table 8 contains the top 25 generic ingredients by total number of claims.

In SFY2011 nearly all of the top 25 generic ingredients by total number of claims were the same as SFY2010. The only change was the addition of guanfacine, which includes generic guanfacine as well as Intuniv. Claims for the generic ingredient guanfacine increased from 12,702 claims in SFY2010 to 24,708 claims in SFY2011, due mostly to Intuniv.

Hydrocodone/acetaminophen, clonazepam, alprazolam and loratadine appear at the top based on the total number of claims again this year. These drugs are commonly prescribed and represent nearly 10% of total claims but less than one percent of total claims cost for SFY2011.

FIGURE 12: GENERIC INGREDIENTS WITH THE MOST SIGNIFICANT PERCENT CHANGES FOR TOTAL CLAIMS FROM SFY2010 TO SFY2011

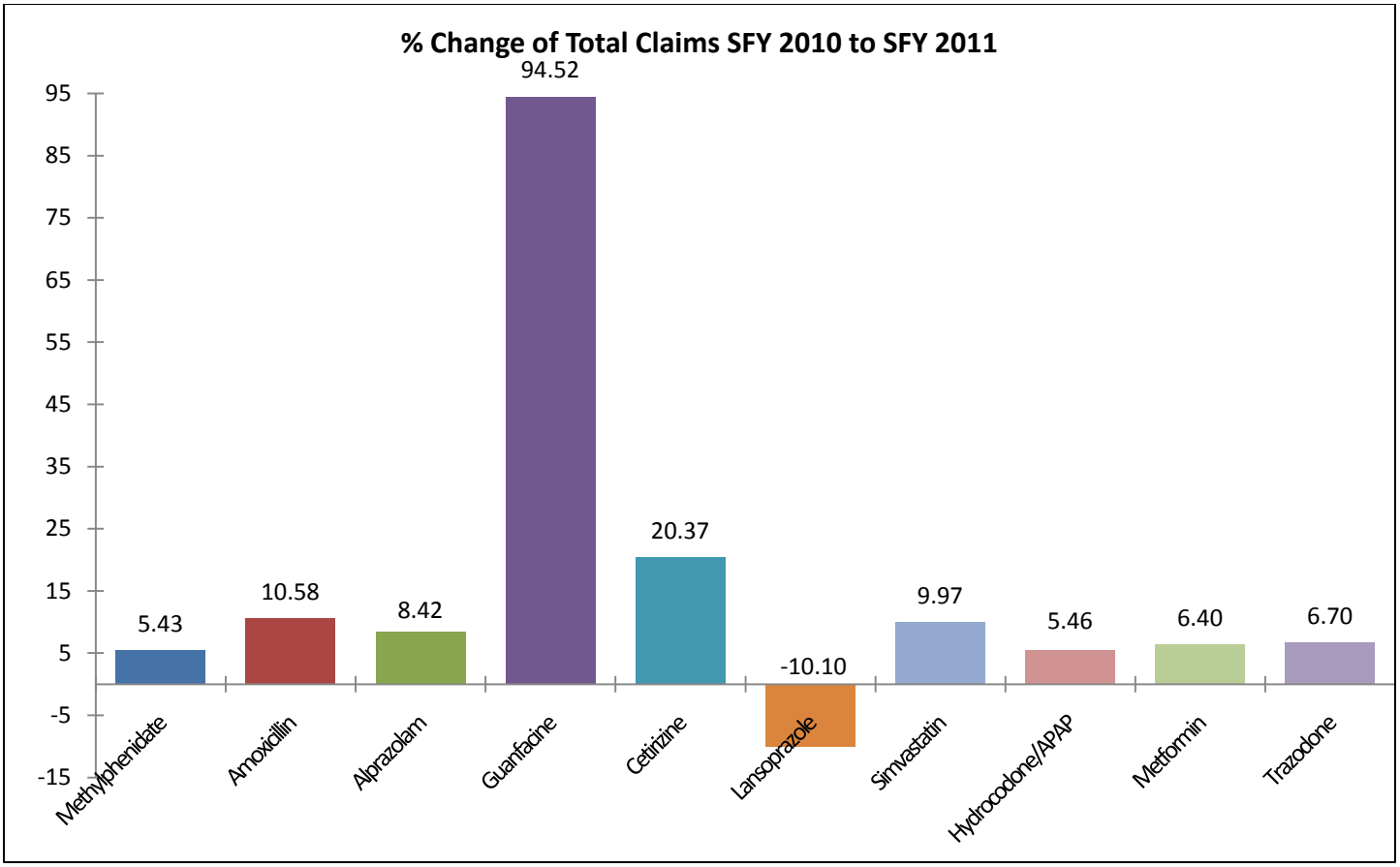

Figure 12 shows the most significant percentage changes of total claims from SFY2010 to SFY2011.

The drug with the most significant percent change was guanfacine. After guanfacine, cetirizine had the next highest increase in percentage of total claims from last year; this was a continuation of what was seen from SFY2009 and SFY2010. In SFY2009 there were 16,838 claims compared to 20,867 claims in SFY2010. In SFY2011 there were 25,181 claims, an increase of nearly 50% since SFY2009.

Lansoprazole had the highest decrease in the number of claims, from just over 35,000 claims in SFY2010 to less than 32,000 claims in SFY2011, a decrease of around 10%.

Generic Ingredients by Total Claims Cost

TABLE 9: TOP 25 GENERIC INGREDIENTS BY TOTAL CLAIMS COST

Generic Name	AHFS Therapeutic Class	Total Claims	Total Users	Total Claims Cost	Average Cost/Claim	% of Total Claims Cost
Aripiprazole	Antipsychotic Agents	27,004	4,465	$14,637,047	$542.03	8.50%
Quetiapine	Antipsychotic Agents	32,700	4,456	$11,215,412	$342.98	6.51%
Olanzapine	Antipsychotic Agents	9,574	1,453	$6,024,708	$629.28	3.50%
AHF/vWF	Hemostatics	186	15	$5,222,831	$28,079.74	3.03%
Paliperidone	Antipsychotic Agents	7,640	1,186	$4,744,651	$621.03	2.76%
Ziprasidone	Antipsychotic Agents	12,600	1,707	$4,626,268	$367.16	2.69%
Methylphenidate	Anorex, Resp, & Cereb Stim, Misc	30,199	4,786	$3,963,070	$131.23	2.30%
Efavirenz/Emtricitabine/Tenofovir	Antiretrovirals	2,816	377	$3,846,557	$1,365.97	2.23%
Oxycodone	Opiate Agonists	16,238	2,486	$3,433,208	$211.43	1.99%
Montelukast	Leukotriene Modifiers	25,848	6,299	$3,077,764	$119.07	1.79%
Risperidone	Antipsychotic Agents	34,138	4,805	$2,743,766	$80.37	1.59%
Lisdexamfetamine	Amphetamines	20,526	3,657	$2,703,804	$131.73	1.57%
Guanfacine	Central Alpha-Agonists/CNS Agents, Misc	24,708	3,774	$2,681,685	$108.54	1.56%
Fluticasone/Salmeterol	Adrenals	11,800	3,157	$2,474,606	$209.71	1.44%
Lansoprazole	Proton-Pump Inhibitors	31,639	5,140	$2,390,189	$75.55	1.39%
Emtricitabine/Tenofovir	Antiretrovirals	2,649	378	$2,354,950	$889.00	1.37%
Duloxetine	Antidepressants	11,578	1,963	$2,115,364	$182.71	1.23%
Escitalopram	Antidepressants	19,554	3,717	$2,036,577	$104.15	1.18%
Factor VIII	Hemostatics	90	19	$1,951,546	$21,683.84	1.13%
Insulin Glargine	Insulins	11,348	2,056	$1,913,812	$168.65	1.11%
Amphetamines Mixed Salts	Amphetamines	16,009	2,872	$1,795,934	$112.18	1.04%
Atomoxetine	CNS Agents, Misc	11,053	1,844	$1,783,111	$161.32	1.04%
Atorvastatin	HMG-CoA Reductase Inhibitors	13,131	1,781	$1,705,607	$129.89	0.99%
Albuterol	Beta-Adrenergic Agonists	45,098	17,060	$1,483,380	$32.89	0.86%
Somatropin	Pituitary	913	119	$1,444,640	$1,582.30	0.84%
Totals		***419,039***	***79,572***	***$92,370,487***	***$220.43***	***53.64%***

Table 9 contains the top 25 generic ingredients by total claims cost.

The top 25 drugs by total claims cost shows which ingredients have a high cost. The list includes hemostatics, antiretrovirals, antipsychotics, antidepressants, and amphetamines. The majority of these agents are only available in a brand name formulation, which contributes to their high cost.

The top 25 generic ingredients by total claims cost remained nearly unchanged from SFY2010. The only changes were the addition of guanfacine and somatropin, while divalproex and venlafaxine dropped off the list, most likely due to lower cost generic products becoming available.

Drugs used to treat mental health conditions made up the majority of the top generic ingredients based on total claims cost, representing over 35% of total claims cost and less than 12% of total claims.

FIGURE 13: GENERIC INGREDIENTS WITH THE MOST SIGNIFICANT PERCENT CHANGES FOR TOTAL CLAIMS COST FROM SFY2010 TO SFY2011

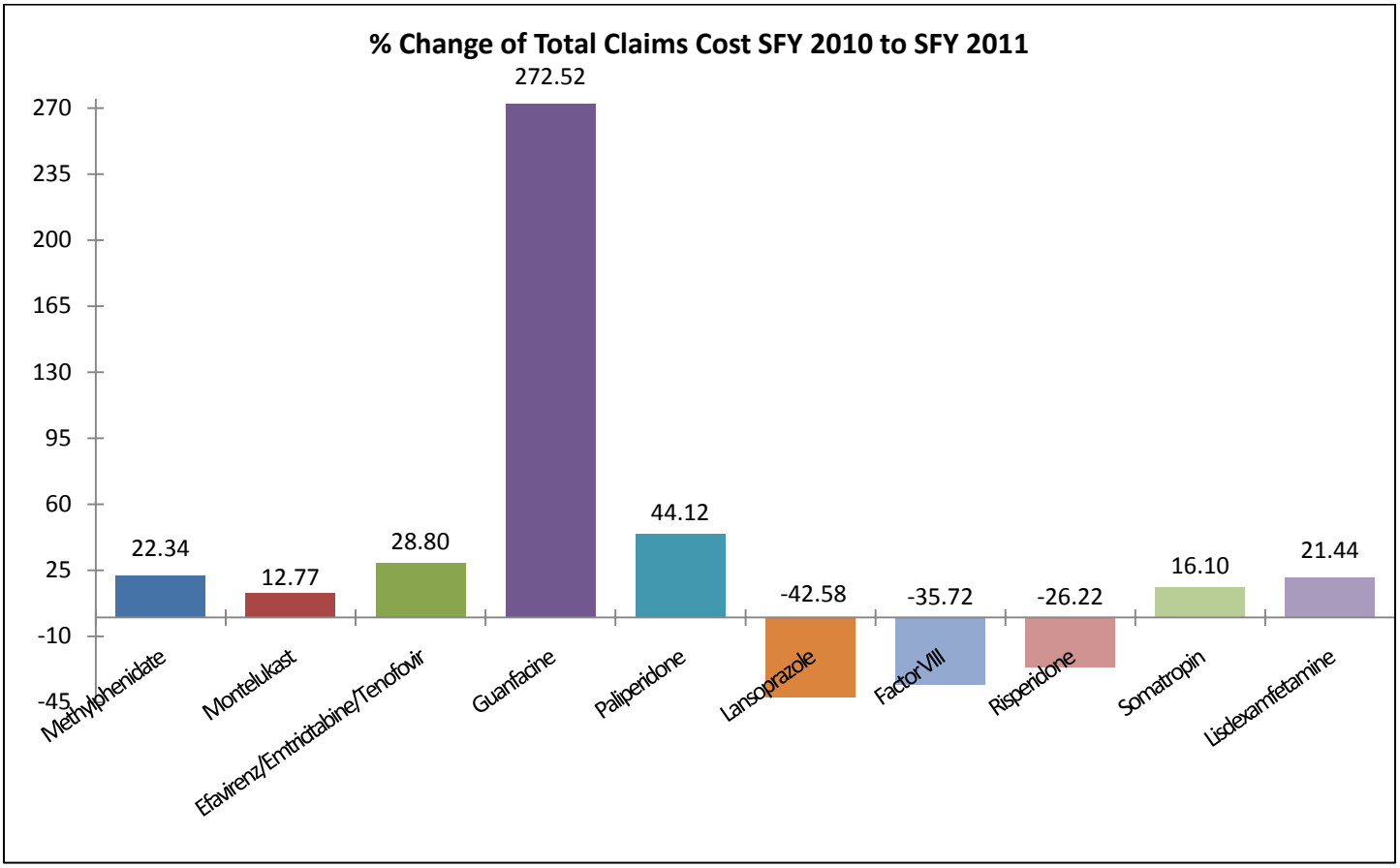

Figure 13 show the most significant percentage of changes of total claims cost from SFY2010 to SFY2011.

Two of the generic ingredients with the most significant percent change were risperidone and paliperidone. The total claims cost for risperidone decreased from nearly $4 million in SFY2010 to just under $3 million in SFY2011, a decrease of 26%. This significant decrease in claims cost was due to the generic availability of many risperidone products. This decrease was countered by the increase in total claims cost for paliperidone which is only available as branded products. Total claims cost for paliperidone increased from around $2.6 million in SFY2010 to over $4.7 million in SFY2011, an increase of 44%.

Generic Ingredient Trend Summary Analysis

Within the top 25 generic ingredients by total claims cost and total number of claims, there are several ingredients that are of interest due to the dramatic changes from SFY2010 to SFY2011 in utilization, cost or both. These ingredients include guanfacine, cetirizine, paliperidone and risperidone.

Generic Ingredient – Guanfacine Trend Summary

TABLE 10: GUANFACINE TREND SUMMARY

	Total Users	Total Claims	Total Claims Cost	Average Cost/Claim
1st Quarter SFY2010	1,871	2,023	$18,362	$9.08
2nd Quarter SFY2010	2,198	2,494	$65,165	$26.13
3rd Quarter SFY2010	3,108	3,521	$235,847	$66.98
4th Quarter SFY2010	4,021	4,662	$400,494	$85.91
1st Quarter SFY2011	4,836	5,585	$539,021	$96.51
2nd Quarter SFY2011	5,369	6,115	$649,879	$106.28
3rd Quarter SFY2011	5,627	6,324	$693,660	$109.69
4th Quarter SFY2011	5,932	6,684	$799,125	$119.56

Table 10 shows the quarterly percent change by number of users, number of prescriptions, total claims cost, and average cost per claim for guanfacine.

FIGURE 14: GUANFACINE TOTAL CLAIMS COST COMPARED TO TOTAL CLAIMS

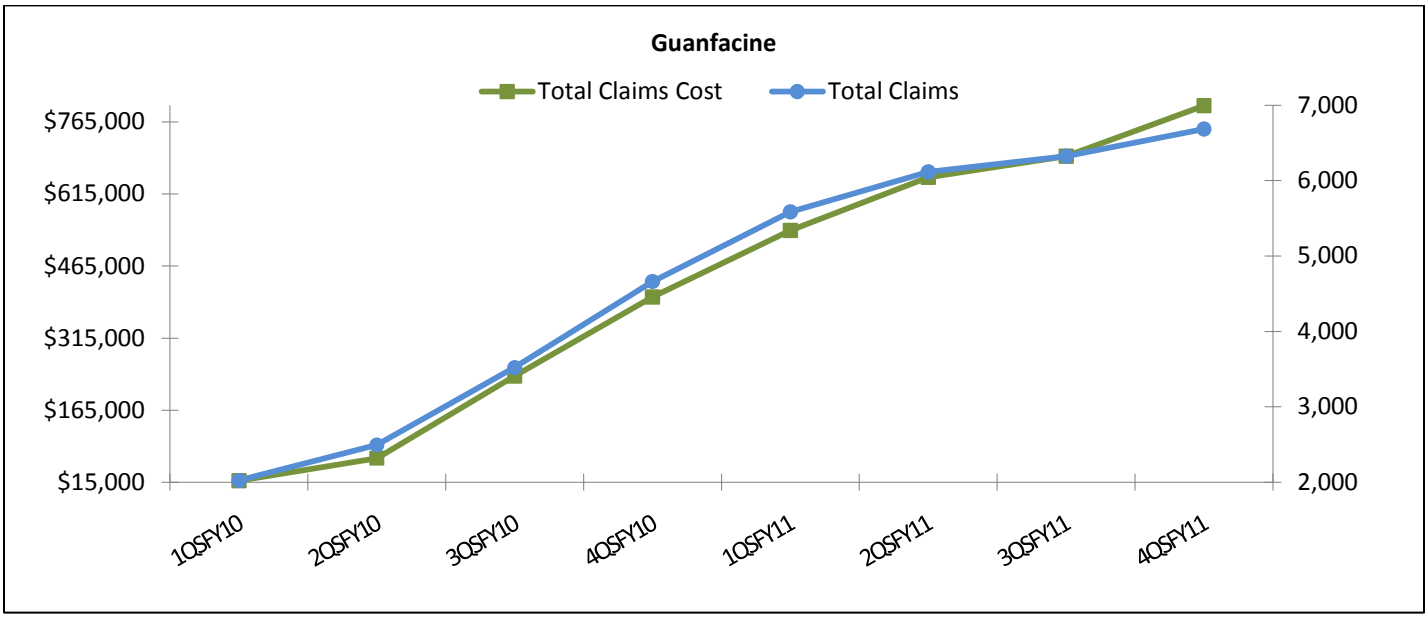

Figure 14 show claims cost compared to the number of claims per quarter for guanfacine.

During the second quarter of SFY2010 Intuniv entered the market, dramatically increasing the overall utilization and claims cost for the generic ingredient guanfacine. In the first quarter of SFY2010 the average cost per claim of guanfacine was around $9 and by the end of SFY2011 it increased to nearly $120 per claim. Total users also increased dramatically from just over 1,800 to nearly 6,000 in the fourth quarter of SFY2011.

Generic Ingredient – Cetirizine Trend Summary

TABLE 11: CETIRIZINE TREND SUMMARY

	Total Users	Total Claims	Total Claims Cost	Average Cost/Claim
1st Quarter SFY2010	4,537	4,741	$38,420	$8.10
2nd Quarter SFY2010	4,404	4,647	$39,840	$8.57
3rd Quarter SFY2010	4,280	4,435	$38,555	$8.69
4th Quarter SFY2010	5,303	5,552	$44,688	$8.05
1st Quarter SFY2011	5,607	5,853	$47,663	$8.14
2nd Quarter SFY2011	5,781	6,050	$50,882	$8.41
3rd Quarter SFY2011	5,526	5,783	$47,925	$8.29
4th Quarter SFY2011	6,033	6,345	$52,414	$8.26

Table 11 shows the quarterly percent change by number of users, number of prescriptions, total claims cost, and average cost per claim for cetirizine.

FIGURE 15: CETIRIZINE TOTAL CLAIMS COST COMPARED TO TOTAL CLAIMS

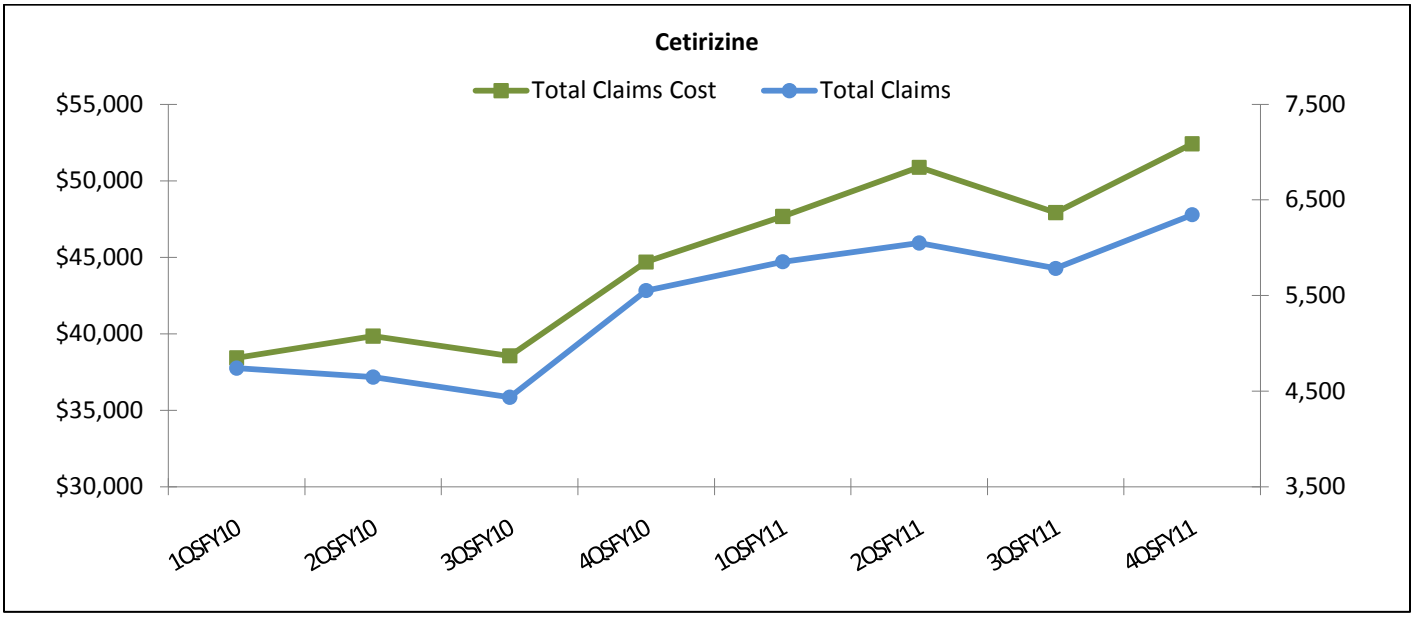

Figure 15 show claims cost compared to the number of claims per quarter for cetirizine.

The overall utilization of cetirizine increased from around 4,700 claims in the first quarter of SFY2010 to over 6,300 claims in the last quarter of SFY2011; the total claims cost also increased while the average cost per claim remained steady. The total users increased from approximately 4,500 to over 6,000 during the same time period.

Generic Ingredient – Paliperidone Trend Summary

TABLE 12: PALIPERIDONE TREND SUMMARY

	Total Users	Total Claims	Total Claims Cost	Average Cost/Claim
1st Quarter SFY2010	1,452	1,646	$670,089	$407.10
2nd Quarter SFY2010	1,539	1,723	$771,537	$447.79
3rd Quarter SFY2010	1,580	1,800	$858,530	$476.96
4th Quarter SFY2010	1,650	1,875	$991,966	$529.05
1st Quarter SFY2011	1,611	1,827	$1,029,906	$563.71
2nd Quarter SFY2011	1,644	1,855	$1,126,201	$607.12
3rd Quarter SFY2011	1,702	1,956	$1,219,362	$623.40
4th Quarter SFY2011	1,745	2,002	$1,369,183	$683.91

Table 12 shows the quarterly percent change by number of users, number of prescriptions, total claims cost, and average cost per claim for paliperidone.

FIGURE 16: PALIPERIDONE TOTAL CLAIMS COST COMPARED TO TOTAL CLAIMS

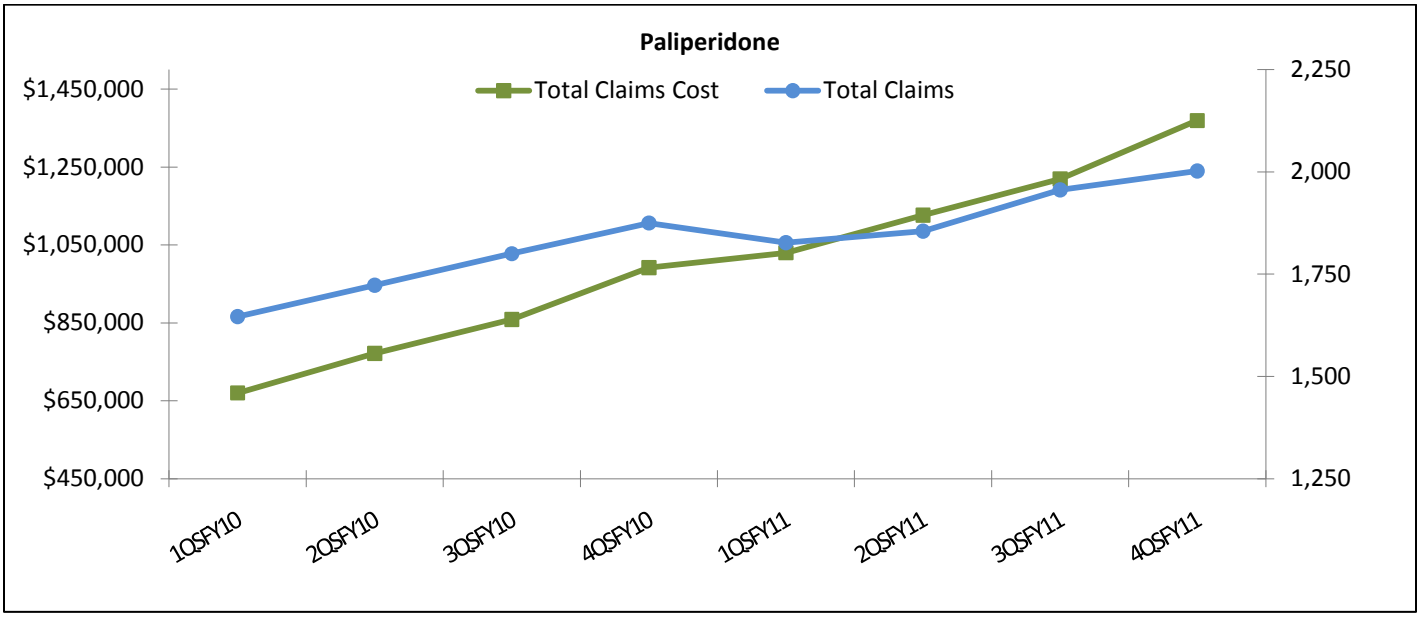

Figure 16 show claims cost compared to the number of claims per quarter for paliperidone.

Paliperidone has been available since 2007 and has seen a steady increase in utilization since its availability on the market. From the beginning of SFY2010 to the end of SFY2011 the total number of claims increased by 22% while the total claims cost increased by 104%. This increase in claims cost compared to total claims can be seen in the increase of the average cost per claim. In the first quarter of SFY2010 the average cost per claim was $407 and by the end of SFY2011 the average cost per claim increased to $684, an increase of 68%.

Generic Ingredient – Risperidone Trend Summary

TABLE 13: RISPERIDONE TREND SUMMARY

	Total Users	Total Claims	Total Claims Cost	Average Cost/Claim
1st Quarter SFY2010	6,715	8,223	$1,079,087	$131.23
2nd Quarter SFY2010	6,787	8,331	$1,000,529	$120.10
3rd Quarter SFY2010	6,851	8,187	$861,593	$105.24
4th Quarter SFY2010	6,796	8,293	$777,480	$93.75
1st Quarter SFY2011	6,875	8,416	$697,890	$82.92
2nd Quarter SFY2011	7,025	8,529	$688,123	$80.68
3rd Quarter SFY2011	7,128	8,579	$687,423	$80.13
4th Quarter SFY2011	7,041	8,614	$670,330	$77.82

Table 13 shows the quarterly percent change by number of users, number of prescriptions, total claims cost, and average cost per claim for risperidone.

FIGURE 17: RISPERIDONE TOTAL CLAIMS COST COMPARED TO TOTAL CLAIMS

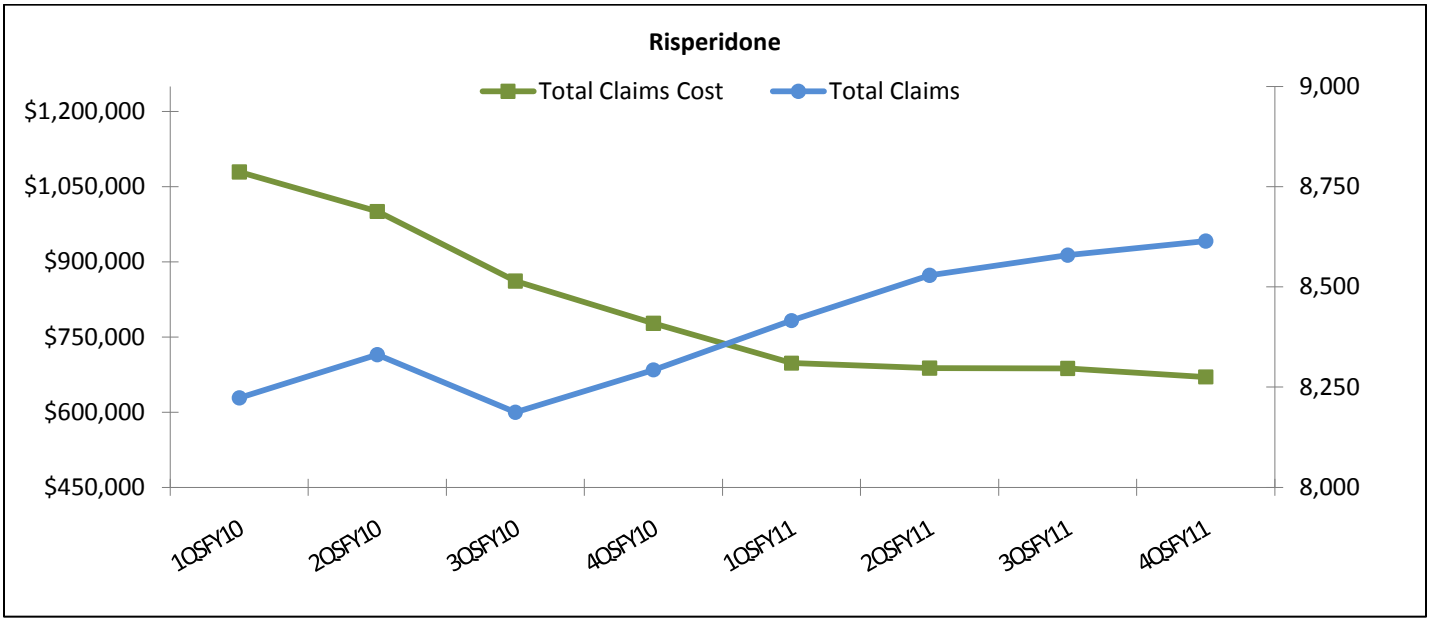

Figure 17 shows claims cost compared to the number of claims per quarter for risperidone.

The total claims for risperidone increased from 6,700 in the beginning of SFY2010 to over 7,000 at the end of SFY2011, an increase of nearly 5%. The total claims cost for risperidone decreased while the total claims cost for paliperidone—an active metabolite of risperidone—increased. The total claims cost decreased from over $1 million in the first quarter of SFY2010 to $670,000 in the last quarter of SFY2011, a decrease of 38%.

Drug Level Reporting

Specific drug level is reported using the top 25 drugs based on number of claims and the top 25 drugs based on total claims cost. This level is more specific than the generic ingredient level since it reports on one agent. Generic products are reported separately from branded products at this level. For example, Prevacid® and lansoprazole are reported as lansoprazole at the generic ingredient level, whereas they are reported separately here. Risperdal and Risperdal Consta are another example; they are reported as risperidone at the generic ingredient level, and separately here.

Again, it is important to review this level both by number of claims and total claims cost to see the drugs that are most costly as well as those drugs that are most commonly-prescribed. Several agents would be lost if these were reported using only one method. For example, several benzodiazepines appear on the top 25 drugs based on number of claims and, while these drugs are frequently prescribed, they represent a smaller cost to Kansas Medical Assistance Programs compared to other agents.

Drugs by Total Claims

TABLE 14: TOP 25 DRUGS BY TOTAL CLAIMS

Drug Name	AHFS Therapeutic Class	Total Claims	Total Users	Total Claims Cost	Average Cost/Claim	% of Total Claims
Hydrocodone/APAP	Opiate Agonists	70,030	17,588	$743,309	$10.61	3.22%
Clonazepam	Benzodiazepines (Anticonvulsants)	47,063	6,693	$249,022	$5.29	2.17%
Alprazolam	Benzodiazepines (Anxiolytic, Sed/Hyp)	45,681	7,477	$211,719	$4.63	2.10%
Loratadine	2nd Generation Antihistamines	42,623	8,984	$205,226	$4.81	1.96%
Lorazepam	Benzodiazepines (Anxiolytic, Sed/Hyp)	34,789	7,107	$178,669	$5.14	1.60%
Lansoprazole	Proton-Pump Inhibitors	29,665	4,906	$2,132,628	$71.89	1.36%
Risperidone	Antipsychotic Agents	29,315	4,308	$623,017	$21.25	1.35%
Levothyroxine	Thyroid Agents	27,214	3,844	$142,713	$5.24	1.25%
Lisinopril	ACE Inhibitors	27,044	4,887	$97,361	$3.60	1.24%
Amoxicillin	Penicillins	26,949	20,584	$168,816	$6.26	1.24%
Abilify	Antipsychotic Agents	26,753	4,438	$14,455,055	$540.32	1.23%
Singulair	Leukotriene Modifiers	25,848	6,299	$3,077,764	$119.07	1.19%
Azithromycin	Macrolides	24,353	17,525	$354,411	$14.55	1.12%
Trazodone	Antidepressants	24,161	5,109	$151,899	$6.29	1.11%
Sertraline	Antidepressants	24,068	4,498	$157,360	$6.54	1.11%
Cetirizine	2nd Generation Antihistamines	24,031	7,169	$198,883	$8.28	1.11%
Seroquel	Antipsychotic Agents	23,004	3,380	$7,891,020	$343.03	1.06%
Simvastatin	HMG-CoA Reductase Inhibitors	22,485	3,895	$81,360	$3.62	1.03%
Clonidine	Central Alpha-Agonists	20,930	3,486	$136,210	$6.51	0.96%
ProAir HFA	Beta-Adrenergic Agonists	20,642	8,535	$856,707	$41.50	0.95%
Metformin	Biguanides	20,558	3,664	$87,085	$4.24	0.95%
Vyvanse	Amphetamines	20,526	3,657	$2,703,804	$131.73	0.94%
Lexapro	Antidepressants	19,554	3,717	$2,036,577	$104.15	0.90%
Furosemide	Loop Diuretics	19,185	3,447	$79,394	$4.14	0.88%
Intuniv	CNS Agents, Misc	18,561	2,922	$2,626,260	$141.49	0.85%
Totals		***715,032***	***168,119***	***$39,646,270***	***$55.45***	***32.90%***

Table 14 contains the top 25 drugs based on number of claims.

Like the top 25 generic ingredients by total claims, the main change to the top 25 drugs by total number of claims was the addition of Intuniv.

FIGURE 18: DRUGS WITH THE MOST SIGNIFICANT PERCENT CHANGES FOR TOTAL CLAIMS FROM SFY2010 TO SFY2011

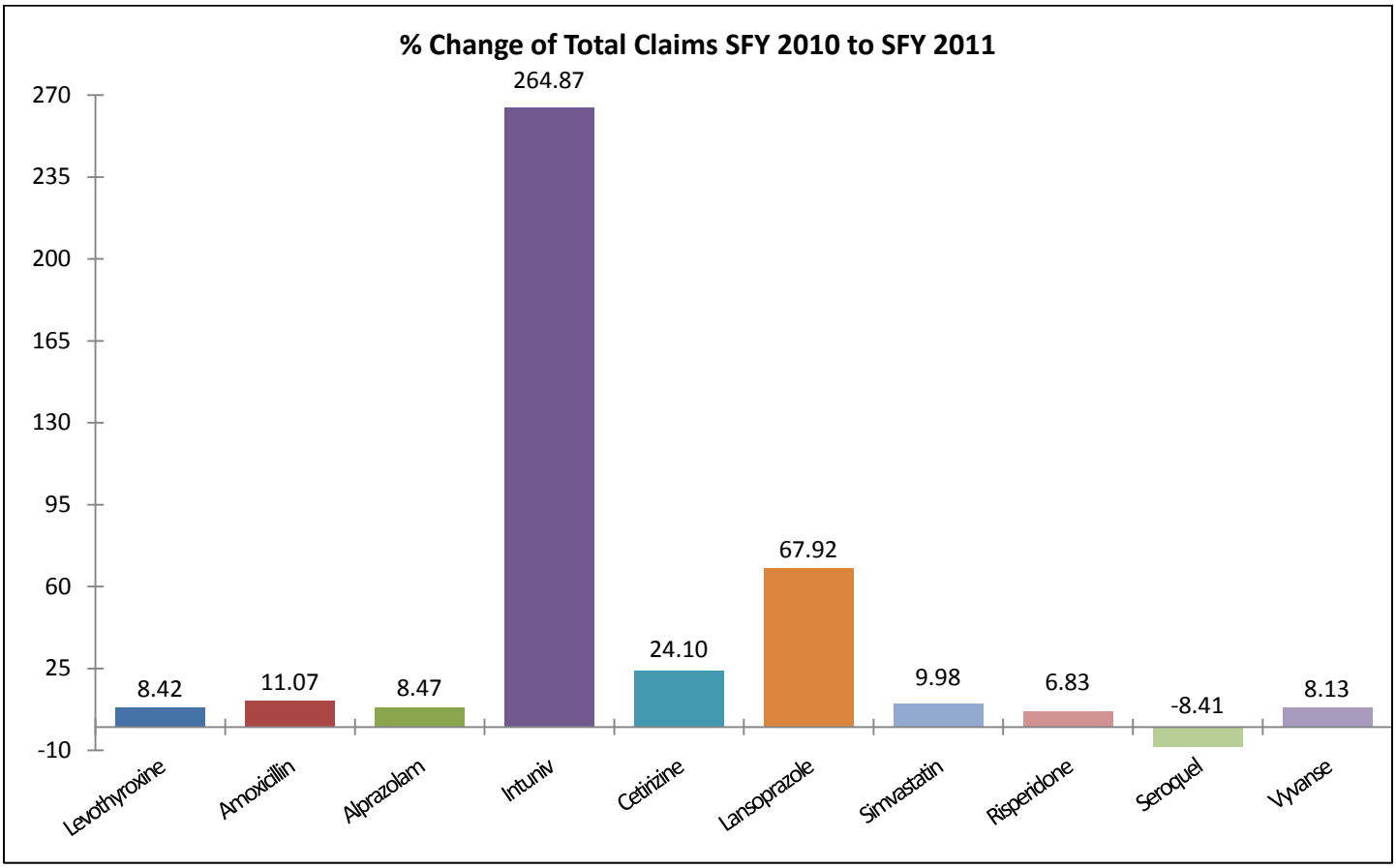

Figure 18 shows the most significant percentage changes for total claims from SFY2010 to SFY2011.

In SFY2010 there were just over 5,000 claims for Intuniv compared to over 18,000 claims in SFY2011, an increase of over 260%. Under the top 25 generic ingredients by total claims Intuniv is reported with generic guanfacine whereas here it is reported alone.

The total claims for lansoprazole (includes only generic lansoprazole) increased from nearly 18,000 claims in SFY2010 to almost 30,000 claims in SFY2011. Lansoprazole became available in the second quarter of SFY2010, making SFY2011 the first full year in which lansoprazole was available.

Drugs by Total Claims Cost

TABLE 15: TOP 25 DRUGS BY TOTAL CLAIMS COST

Drug Name	AHFS Therapeutic Class	Total Claims	Total Users	Total Claims Cost	Average Cost/Claim	% of Total Claims Cost
Abilify	Antipsychotic Agents	26,753	4,438	$14,455,055	$540.32	8.39%
Seroquel	Antipsychotic Agents	23,004	3,380	$7,891,020	$343.03	4.58%
Alphanate	Hemostatics	182	12	$5,218,294	$28,671.94	3.03%
Zyprexa	Antipsychotic Agents	7,788	1,136	$4,891,380	$628.07	2.84%
Geodon	Antipsychotic Agents	12,676	1,726	$4,629,504	$365.22	2.69%
Atripla	Antiretrovirals	2,816	377	$3,846,557	$1,365.97	2.23%
Seroquel XR	Antipsychotic Agents	9,696	1,749	$3,324,392	$342.86	1.93%
Singulair	Leukotriene Modifiers	25,848	6,299	$3,077,764	$119.07	1.79%
OxyContin	Opiate Agonists	7,465	1,172	$2,973,113	$398.27	1.73%
Invega	Antipsychotic Agents	5,879	922	$2,812,706	$478.43	1.63%
Concerta	Anorex, Resp, & Cereb Stim, Misc	17,181	2,924	$2,776,620	$161.61	1.61%
Vyvanse	Amphetamines	20,526	3,657	$2,703,804	$131.73	1.57%
Intuniv	CNS Agents, Misc	18,561	2,922	$2,626,260	$141.49	1.53%
Truvada	Antiretrovirals	2,649	378	$2,354,950	$889.00	1.37%
Advair Diskus	Adrenals	10,666	2,832	$2,247,267	$210.69	1.31%
Lansoprazole	Proton-Pump Inhibitors	29,665	4,906	$2,132,628	$71.89	1.24%
Cymbalta	Antidepressants	11,578	1,963	$2,115,364	$182.71	1.23%
Lexapro	Antidepressants	19,554	3,717	$2,036,577	$104.15	1.18%
Invega Sustenna	Antipsychotic Agents	1,761	264	$1,931,945	$1,097.07	1.12%
Risperdal Consta	Antipsychotic Agents	2,839	295	$1,874,804	$660.37	1.09%
Strattera	CNS Agents, Misc	11,053	1,844	$1,783,111	$161.32	1.04%
Lipitor	HMG-CoA Reductase Inhibitors	13,131	1,781	$1,705,607	$129.89	0.99%
Lantus	Insulins	8,800	1,569	$1,366,970	$155.34	0.79%
Amphetamine Mixed Salts	Amphetamines	8,978	1,872	$1,363,787	$151.90	0.79%
Focalin XR	Anorex, Resp, & Cereb Stim, Misc	8,434	1,420	$1,311,013	$155.44	0.76%
Totals		***307,483***	***53,555***	***$83,450,494***	***$271.40***	***48.46%***

Table 15 contains the top 25 drugs based on total claims cost.

The top 25 drugs by total claims cost changed slightly from SFY2010, with the addition of three agents: Intuniv, Invega Sustenna and Focalin XR®. These agents are branded products which contribute to their cost.

FIGURE 19: DRUGS WITH THE MOST SIGNIFICANT PERCENT CHANGES FOR TOTAL CLAIMS COST FROM SFY2010 TO SFY2011

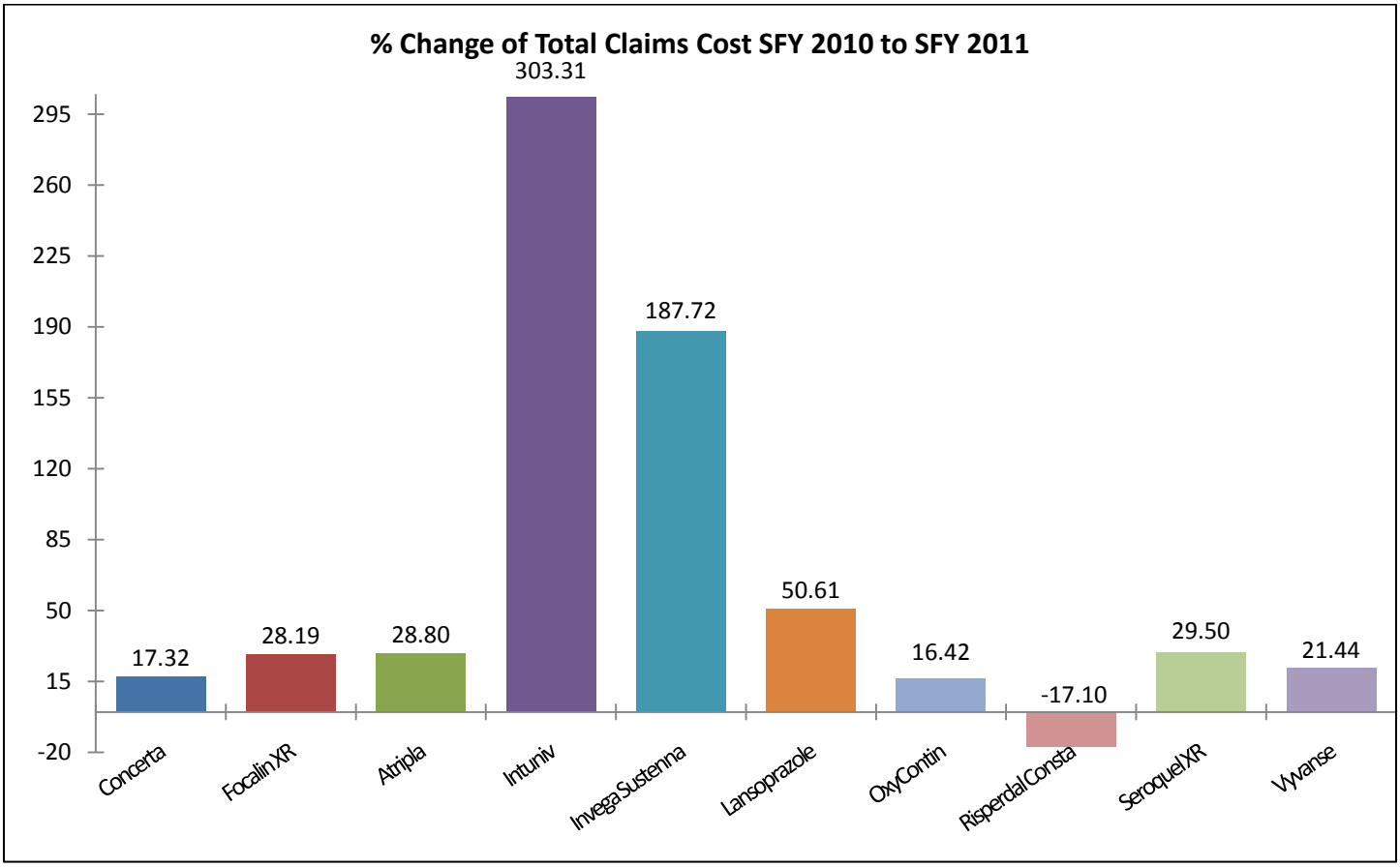

Figure 19 shows the most significant percentage changes for total claims cost from SFY2010 to SFY2011.

Like the top 25 drugs by total claims, Intuniv had the largest percent change from SFY2010 to SFY2011. Other drugs of note include Invega Sustenna and Risperdal Consta. The total claims cost for Risperdal Consta decreased from over $2.2 million in SFY2010 to $1.8 million in SFY2011, a decrease of 17%. During the same time the total claims cost for Invega Sustenna increased from just over $670,000 to over $1.9 million, an increase of over 187%. In the Drug Trend Summary Analysis more detail is provided about the total claims and total claims cost changes for Invega Sustenna and Risperdal Consta.

Drug Trend Summary Analysis

Within the top 25 drugs by total claims cost and total number of claims there are several drugs that are of interest, especially when compared to similar agents. These include Invega Sustenna versus Risperdal Consta, Prevacid versus lansoprazole and Intuniv versus guanfacine.

Invega Sustenna vs. Risperdal Consta Trend Summary

FIGURE 20: TOTAL CLAIMS FOR INVEGA SUSTENNA COMPARED TO RISPERDAL CONSTA

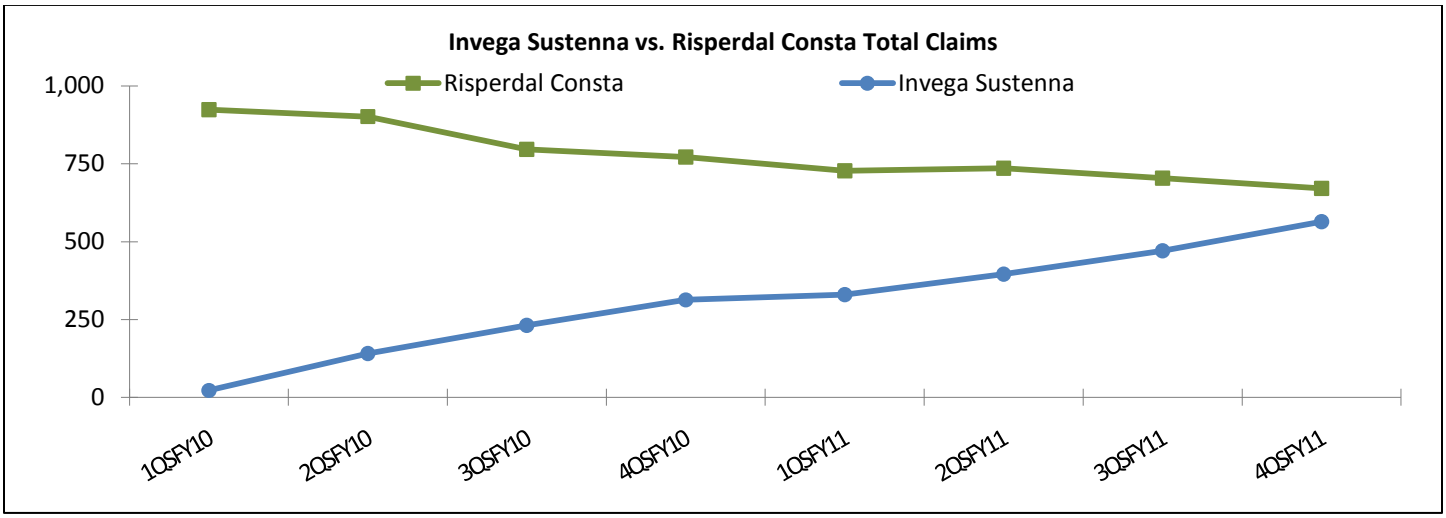

Figure 20 shows the total claims per quarter of Invega Sustenna compared to Risperdal Consta.

During SFY2010 and SFY2011 the utilization of Risperdal Consta decreased steadily as the utilization increased for Invega Sustenna, an active metabolite of Risperdal. Total claims for Risperdal Consta went from 924 in the first quarter of SFY2010 to 671 in the fourth quarter of SFY2011, a decrease of 27%; during this same time period the claims for Invega Sustenna increased from 22 to 564, an increase of nearly 2,500%.

FIGURE 21: TOTAL CLAIMS COST FOR INVEGA SUSTENNA COMPARED TO RISPERDAL CONSTA

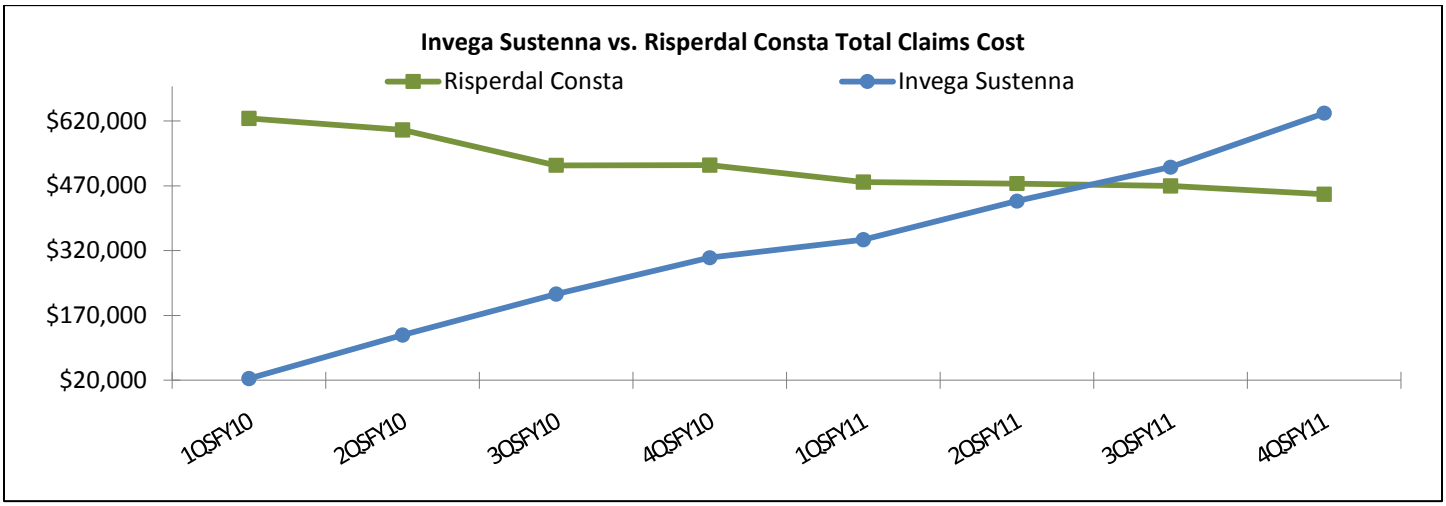

Figure 21 shows the total claims cost per quarter of Invega Sustenna compared to Risperdal Consta.

While the total claims cost for Risperdal Consta decreased, the claims cost for Invega Sustenna increased. This is the same trend we saw with the total claims. Over $626,000 was spent on Risperdal Consta in the first quarter of SFY2010 compared to just over $450,000 in the fourth quarter of SFY2011, a decrease of 28%. During this same time period Invega Sustenna claims cost increased from just over $23,000 to over $638,000, an increase of over 2,500%.

Prevacid vs. Lansoprazole Trend Summary

FIGURE 22: TOTAL CLAIMS FOR PREVACID COMPARED TO LANSOPRAZOLE

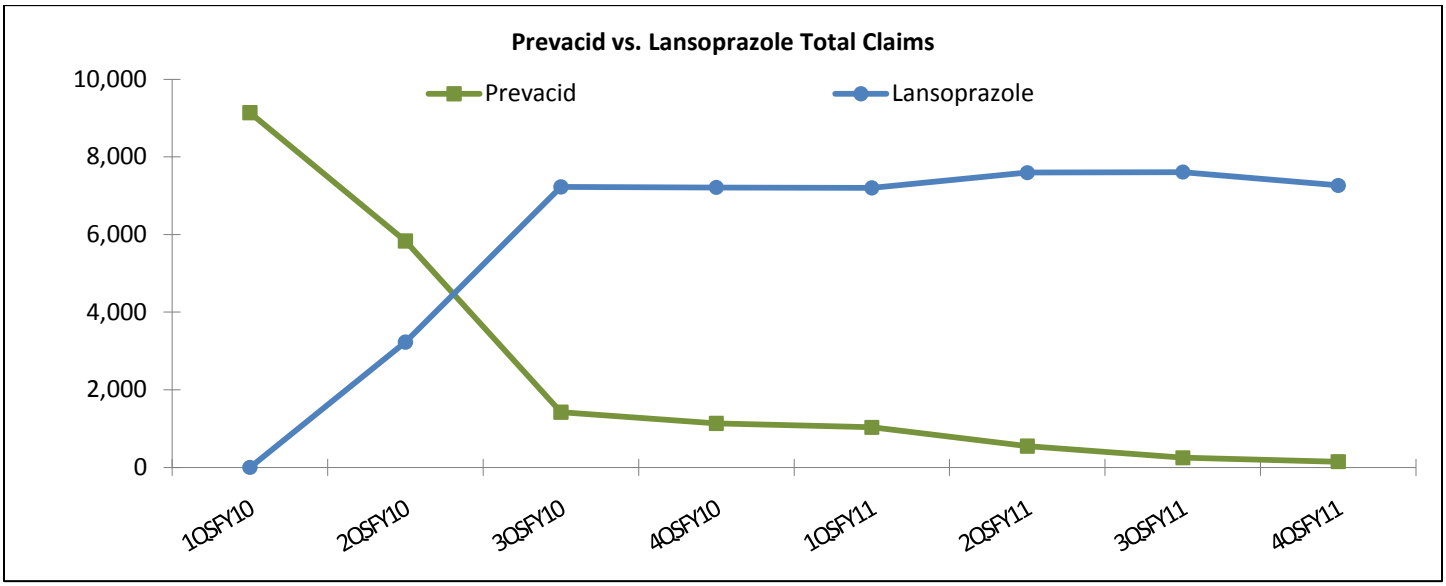

Figure 22 shows the total claims per quarter of Prevacid compared to lansoprazole.

During the second quarter of SFY2010 generic Prevacid, lansoprazole, became available. The number of Prevacid claims went from 9,137 in the first quarter SFY2010 to 148 in the final quarter of SFY2011, a decrease of 98%. During this same time period lansoprazole claims grew to 7,264.

FIGURE 23: TOTAL CLAIMS COST FOR PREVACID COMPARED TO LANSOPRAZOLE

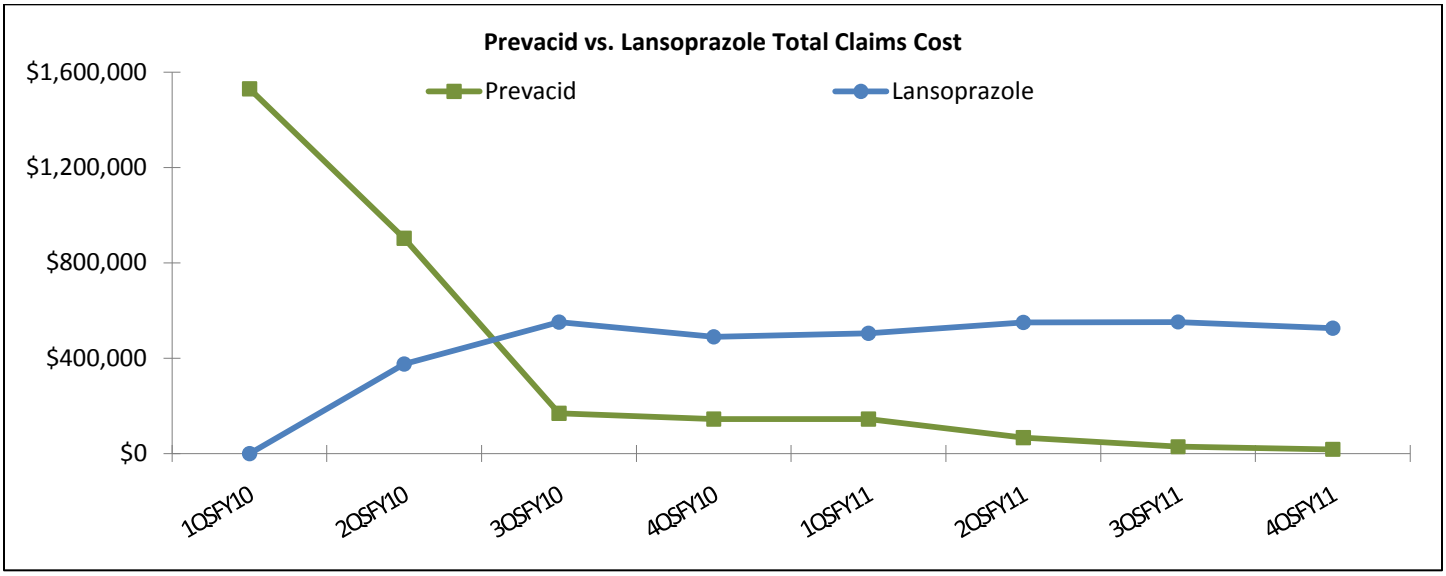

Figure 23 shows the total claims cost per quarter of Prevacid compared to lansoprazole.

Due to generic availability, the total claims cost dropped significantly. In the first quarter of SFY2010 the total claims cost for all lansoprazole products was over $1.5 million compared to the fourth quarter of SFY2011 when the total claims cost was less than $18,000 for Prevacid and just over $525,000 for lansoprazole. There was an overall decrease of over $900,000 in total claims cost for all lansoprazole products from SFY2010.

Intuniv vs. Guanfacine Trend Summary

FIGURE 24: TOTAL CLAIMS FOR INTUNIV COMPARED TO GUANFACINE

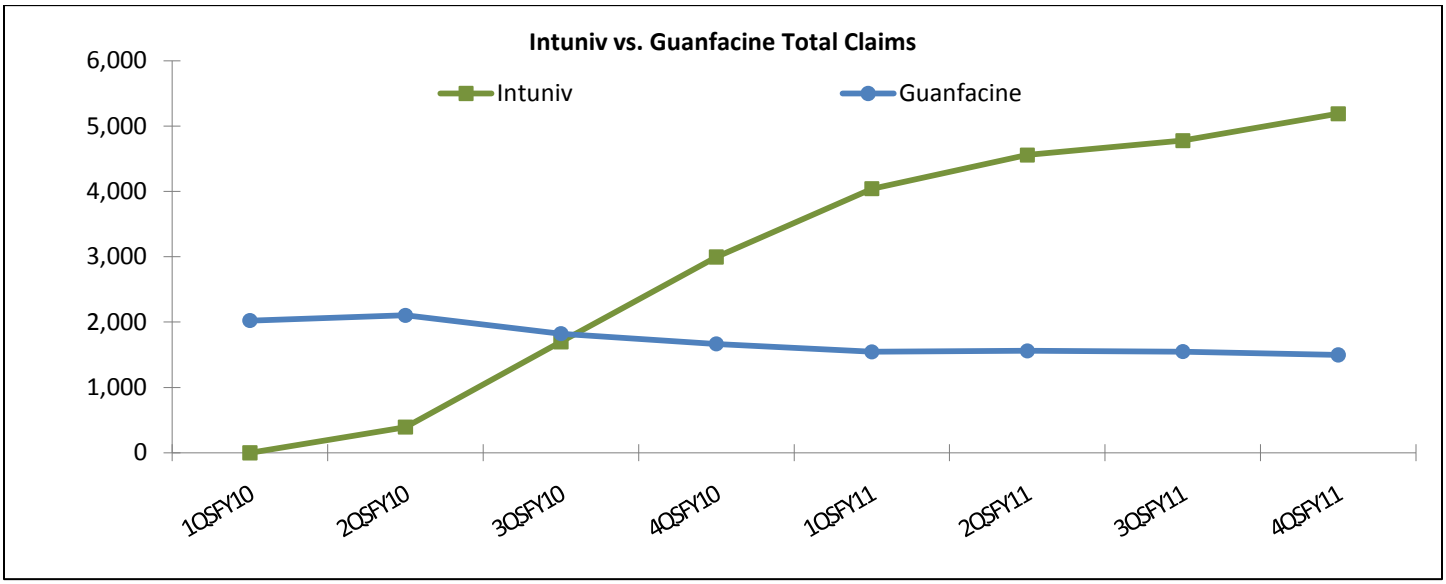

Figure 24 shows the total claims per quarter of Intuniv compared to guanfacine.

The total claims for guanfacine decreased slightly from SFY2010 to SFY2011, while the utilization for Intuniv increased significantly. Intuniv entered the market in the second quarter of SFY2010; utilization quickly grew to 5,188 claims in the fourth quarter of SFY2011.

FIGURE 25: TOTAL CLAIMS COST FOR INTUNIV COMPARED TO GUANFACINE

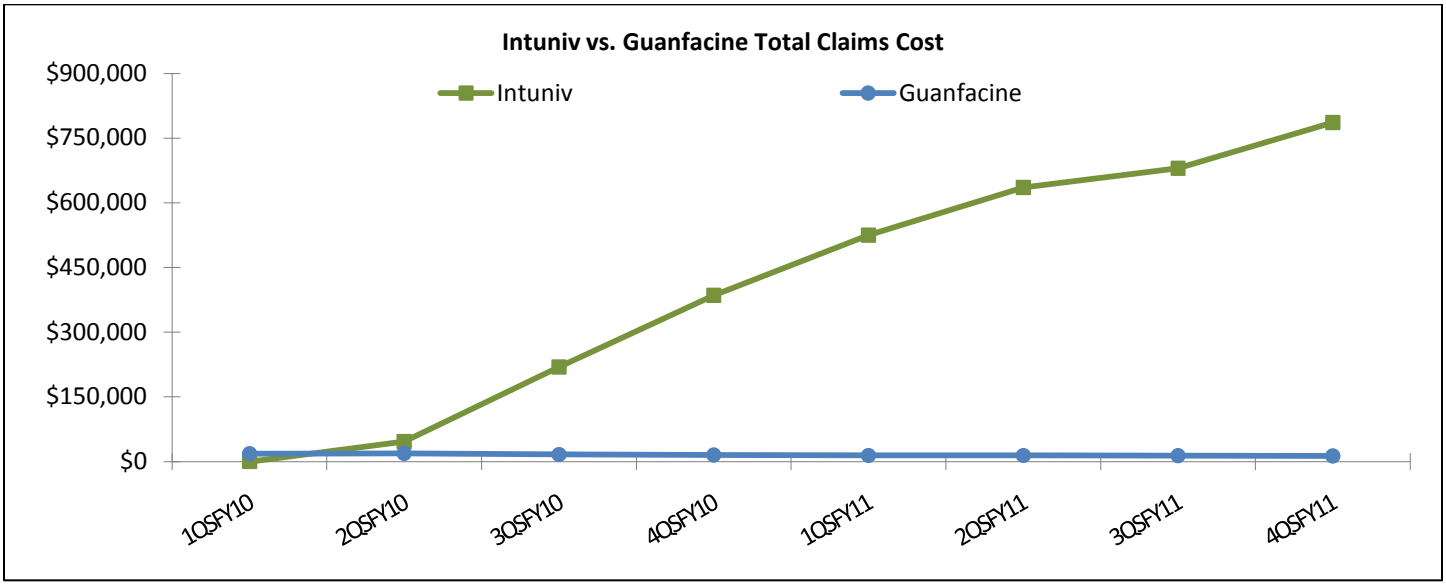

Figure 25 shows the total claims cost per quarter of Intuniv compared to guanfacine.

While total claims for guanfacine remained nearly steady from SFY2010 to SFY2011 the total claims cost decreased from just over $18,000 in the first quarter of SFY2010 to just over $13,000 in the final quarter of SFY2011, a decrease of 27%. The total claims cost for Intuniv grew to over $785,000 in the fourth quarter of SFY2011.

Conclusion

In SFY2011, there was growth in the number of members covered by Kansas Medical Assistance Programs and in total expenditures. KDHE-DHCF paid over $172 million in SFY2011 compared to nearly $162 million in SFY2010—an increase of over $10 million in prescription expenditures.

TABLE 16: PAST YEARS' TOTALS

Period Covered	Prescription Claims Cost	Prescription Claims	Average Members Per Month
SFY2011	$172,203,020	2,173,647	158,846
SFY2010	$161,809,369	2,093,279	147,886
SFY2009	$175,085,302	2,037,193	142,494
SFY2008	$158,877,070	1,938,007	137,733
SFY2007*	$153,419,466	2,395,348	294,590
SFY2006*	$251,543,689	4,372,001	297,729
SFY2005*	$280,443,262	4,562,932	300,435
SFY2004*	$265,258,972	4,580,713	270,777

*Annual Reports were prepared using data from Managed Care Options.

Table 16 shows the total prescription cost, number of prescription claims, and average members per month for the past eight years.

Between SFY2006 and SFY2007, there was a dramatic decrease in prescription costs and prescription claims. This decrease was primarily attributed to the shift of members into Medicare Part D.

Several of the top therapeutic classes have continued to be top expenditures for Kansas Medical Assistance Programs over the past years. These include antipsychotic agents, antidepressants, anticonvulsants, hemostatics, antiretrovirals, opiate agonists, and proton-pump inhibitors. Hemostatics and antiretrovirals represent a small number of claims, but the cost of these medications can be tremendous, with a single claim costing over $300,000.

Proton-pump inhibitors have traditionally represented a large expenditure for Kansas Medical Assistance Programs. In SFY2011 Kansas Medical Assistance Programs spent $3.6 million on this therapeutic class, a decrease of approximately $1.5 million from SFY2010. The main reason for this decrease was the availability of generic drugs within this therapeutic class during SFY2010 and SFY2011.

Lansoprazole (Prevacid) has remained in the list of top drugs both by total claims cost and total number of claims over the past several years. This is most likely due to it having been a preferred proton-pump inhibitor since the inception of the PDL in 2002. In November 2009 Prevacid became generically available; since that time expenditures for the proton-pump inhibitor therapeutic class have been reduced from nearly $6.8 million in SFY2009 to $3.6 million in SFY2011, a decrease of over 46%.

The majority of the agents that appear on both the top drugs by claims cost and total claims lists are used to treat mental health conditions. This has been a trend for the past several years. Kansas Medical Assistance Programs are not able to directly manage these agents due to Kansas law (Kansas Statute 39-7, 121b).

Perhaps the most important trend in the data is the increased availability of generic products significantly decreasing claims cost. This has held true in multiple therapeutic classes. For example, risperidone, a generic drug, had an average cost per claim of $21.25 in SFY2011. A similar brand-name drug, Invega, had an average cost per claim of $141.49, which made it almost 7 times more expensive. KDHE-DHCF paid just over $600,000 for 29,000 claims for generic risperidone, compared to $2.8 million for 5,800 claims for Invega. Time will tell if this trend continues, especially with the upcoming generic availability of blockbuster drugs such as Lipitor and Seroquel in 2012 and beyond.

Appendix A

Adrenals
- Beclomethasone
- Betamethasone
- Budesonide
- Budesonide/Formoterol
- Ciclesonide
- Cortisone
- Dexamethasone
- Fludrocortisone
- Flunisolide
- Fluticasone
- Hydrocortisone
- Methylprednisolone
- Mometasone
- Prednisolone
- Prednisone
- Triamcinolone

Amphetamines
- Amphetamine Mixed Salts
- Dextroamphetamine
- Lisdexamfetamine

Angiotensin II Receptor Antagonists
- Candesartan
- Candesartan/Hydrochlorothiazide
- Irbesartan
- Irbesartan/Hydrochlorothiazide
- Losartan
- Losartan/Hydrochlorothiazide
- Olmesartan
- Olmesartan/Hydrochlorothiazide
- Telmesartan
- Telmesartan/Hydrochlorothiazide
- Valsartan
- Valsartan/Hydrochlorothiazide

Angiotensin-Converting Enzyme Inhibitors
- Benazepril
- Benazepril/Hydrochlorothiazide
- Captopril
- Enalapril
- Enalapril/Hydrochlorothiazide
- Fosinopril
- Fosinopril/Hydrochlorothiazide
- Lisinopril
- Lisinopril/Hydrochlorothiazide
- Quinapril
- Quinapril/Hydrochlorothiazide
- Ramipril
- Trandolapril
- Trandolapril/Verapamil

Anorexigenic, Respiratory and Cerebral Stimulants, Misc
- Armodafinil
- Caffeine
- Dexmethylphenidate
- Methylphenidate
- Modafinil
- Phentermine
- Sibutramine

Anticoagulants
- Dalteparin
- Enoxaparin
- Fondaparinux
- Heparin
- Warfarin

Anticonvulsants, Misc
- Carbamazepine
- Divalproex
- Felbamate
- Gabapentin
- Lacosamide
- Lamotrigine
- Levetiracetam
- Magnesium Sulfate
- Oxcarbazepine
- Pregabalin
- Rufinamide
- Tiagabine
- Topiramate
- Valproic Acid
- Vigabatrin
- Zonisamide

Antidepressants
- Amitriptyline
- Amitriptyline/Chlordiazepoxide
- Amitriptyline/Perphenazine
- Amoxapine
- Buproprion
- Citalopram
- Clompiramine
- Desipramine
- Desvenlafaxine
- Doxepin
- Duloxetine
- Escitalopram
- Fluoxetine
- Fluoxetine/Olanzapine
- Fluvoxamine
- Imipramine
- Maprotiline
- Mirtazapine
- Nefazodone
- Nortriptyline
- Paroxetine
- Phenelzine
- Protriptyline
- Sertraline
- Trazodone
- Venlafaxine

Antimuscarinics/Antispasmodics
- Atropine
- Chlordiazepoxide/Clindinium
- Dicyclomine
- Glycopyrrolate
- Hyonatal
- Hyoscyamine
- Ipratropium
- Methscopolamine
- Propantheline
- Scopolamine
- Tiotropium

AntineoplasticAgents
- Alemtuzumab
- Altretamine
- Aminoglutethimide
- Anastrozole
- Bevacizumab
- Bicalutamide
- Bleomycin
- Brentuximab Vedotin
- Busulfan
- Capecitabine
- Carboplatin
- Carmustine
- Chlorambucil
- Cisplatin
- Cladribine
- Clofarabine
- Cyclophosphamide
- Cytarabine
- Dactinomycin
- Dasatinib
- Daunorubicin
- Doxorubicin
- Erlotinib
- Etoposide
- Everolimus
- Exemestane
- Fluorouracil
- Flutamide

Hydroxyurea
Imatinib
Irinotecan
Lapatinib
Lenalidomide
Letrozole
Leuprolide
Lomustine
Megestrol
Melphalan
Mercaptopurine
Methotrexate
Nelarabine
Nilotinib
Ofatumumab
Paclitaxel
Pazopanib
Pemetrexed
Procarbazine
Sorafenib
Sunitinib
Tamoxifen
Temozolomide
Thioguanine
Topotecan
Tositumomab
Tretinoin
Vandetanib
Vincristine
Vorinostat

Antipsychotic Agents

Aripiprizole
Asenapine
Chlorpromazine
Clozapine
Fluphenazine
Haloperidol
Iloperidone
Loxapine
Lurasidone
Molindone
Olanzapine
Paliperidone
Perphenazine
Pimozide
Quetiapine
Risperidone
Thioridazine
Thiothixene
Trifluoperazine
Ziprasidone

Antiretrovirals

Abacavir
Abacavir/Lamivudine
Abacavir/Lamivudine/Zidovudine
Amprenavir
Atazanavir
Darunavir
Delavirdine
Didanosine
Efavirenz
Efavirenz/Tenofovir/Emtricitabine
Emtricitabine
Emtricitabine/Tenofovir
Emtricitabine/Tenofovir/
Rilpivirine
Enfuvirtide
Etravirine
Fosamprenavir
Indinavir
Lamivudine
Lamiviudine/Zidovudine
Lopinavir/Ritonavir
Maraviroc
Nelfinavir
Nevirapine
Raltegravir
Raltegravir
Rilpivirine
Ritonavir
Saquinavir
Stavudine
Tenofovir
Tipranavir
Zalcitabine
Zidovudine

Anxiolytics, Sedative & Hypnotics, Misc

Buspirone
Chloral Hydrate
Eszopiclone
Hydroxyzine
Meprobamate
Ramelteon
Zaleplon
Zolpidem

Benzodiazepines (Anticonvulsants)

Clonazepam

Benzodiazepines (Anxiolytic, Sedatives & Hypnotics)

Alprazolam
Clorazepate
Diazepam
Lorazepam
Midazolam
Temazepam

Beta-Adrenergic Agonists

Albuterol
Albuterol/Ipratropium
Arformoterol
Formoterol
Levalbuterol
Metaproterenol
Pirbuterol
Salmeterol
Salmeterol/Fluticasone
Terbutaline

Beta-Adrenergic Blocking Agents

Acebutolol
Atenolol
Atenolol/Chlorthalidone
Betaxolol
Bisoprolol
Bisoprolol/Hydrochlorothiazide
Carvedilol
Labetalol
Metoprolol
Metoprolol/Hydrochlorothiazide
Nadolol
Nebivolol
Pindolol
Propranolol
Propranolol/Hydrochlorothiazide
Sotalol

Biguanides

Metformin

Biologic Response Modifiers

Fingolimod
Glatiramer
Interferon Beta-1A
Interferon Beta-1B
Interferon Gamma-1B
Natalizumab
Thalidomide

Central Alpha Agonists

Clonidine
Guanfacine (Tenex)
Methyldopa

Central Nervous System Agents, Misc

Acamprosate
Atomoxetine
Carbidopa
Guanfacine (Intuniv)
Memantine
Riluzole
Sodium Oxybate

Centrally Acting Skeletal Muscle Relaxants
- Carisoprodol
- Carisoprodol/Aspirin
- Carisoprodol/Aspirin/Codeine
- Chlorzoxazone
- Cyclobenzaprine
- Metaxalone
- Methocarbamol
- Tizanidine

Enzymes
- Agalsidase Beta
- Alglucerase
- Algucosidase Alfa
- Collagenase Clostridium Histolyticum
- Dornase Alfa
- Galsulfase
- Hydraluronidase
- Idursulfase
- Imiglucerase
- Pegademase Bovine
- Rasburicase
- Sacrosidase
- Velaglucerase Alfa

Hemostatics
- AHF
- AHF, Plasma/Albumin-Free
- AHF/vWF
- Aminocaproic Acid
- Anti-Inhibitor Coagulant Complex
- Coagulation Factor IX
- Coagulation Factor VIIa
- Tranexamic Acid

HMG-CoA Reductase Inhibitors
- Atorvastatin
- Atorvastatin/Amlodipine
- Fluvastatin
- Lovastatin
- Lovastatin/Niacin
- Pravastatin
- Rosuvastatin
- Simvastatin
- Simvastatin/Niacin

Insulins
- Insulin
- Insulin Aspart
- Insulin Detemir
- Insulin Glargine
- Insulin Glulisine
- Insulin Lispro
- Insulin Susp Isophane
- Insulin/Insulin Susp Isophane

Leukotriene Modifiers
- Montelukast
- Zafirlukast
- Zileuton

Macrolides
- Azithromycin
- Clarithromycin
- Erythromycin
- Telithromycin

Monoclonal Antibodies
- Palivizumab

Non-Steroidal Anti-Inflammatory Agents
- Aspirin
- Aspirin/Acetaminophen/Caffeine
- Aspirin/Butalbital/Caffeine
- Celecoxib
- Choline Magnesium Trisalicylate
- Diclofenac
- Diclofenac/Misoprostol
- Diflunisal
- Etodolac
- Flurbiprofen
- Ibuprofen
- Indomethacin
- Ketoprofen
- Ketorolac
- Meclofenamate
- Mefenamic Acid
- Meloxicam
- Nabumetone
- Naproxen
- Oxaprozin
- Piroxicam
- Salsalate
- Sulindac
- Tolmetin

Opiate Agonists
- Codeine
- Codeine/Acetaminophen
- Codeine/Butalbital/Caffeine/ Acetaminophen
- Fentanyl
- Hydrocodone/Acetaminophen
- Hydrocodone/Ibuprofen
- Hydromorphone
- Levorphanol
- Meperidine
- Methadone
- Morphine
- Morphine/Naltrexone
- Opium/Belladonna
- Oxycodone
- Oxycodone/Acetaminophen
- Oxycodone/Aspirin
- Oxycodone/Ibuprofen
- Oxymorphone
- Propoxyphene
- Propoxyphene/Acetaminophen
- Tapentadol
- Tramadol

Penicillins
- Amoxicillin
- Amoxicillin/Clavulanate
- Ampicillin
- Ampicillin/Sulbactam
- Dicloxacillin
- Nafcillin
- Oxacillin
- Penicillin
- Piperacillin/Tazobactam

Pituitary
- Desmopressin
- Sermorelin
- Somatrem
- Somatropin
- Vasopressin

Platelet-Aggregation Inhibitors
- Abciximab
- Cilostazol
- Clopidogrel
- Eptifibatide
- Prasugrel
- Ticagrelor
- Ticlopidine
- Tirofiban

Proton-Pump Inhibitors
- Dexlansoprazole
- Esomeprazole
- Lansoprazole
- Lansoprazole/Amoxicillin/ Clarithromycin
- Omeprazole
- Omeprazole/Sodium Bicarbonate
- Pantoprazole
- Rabeprazole

Thiazolidinediones
- Pioglitazone
- Pioglitazone/Glimepiride
- Pioglitazone/Metformin
- Rosiglitazone
- Rosiglitazone/Glimepiride
- Rosiglitazone/Metformin
- Troglitazone

Thyroid Agents
- Levothyroxine
- Liothyronine
- Thyroid

Vasodilating Agents, Misc
- Alprostadil
- Ambrisentan
- Aspirin/Dipyridamole
- Bosentan
- Dipyridamole
- Epoprostenol
- Iloprost
- Isoxsuprine
- Nesiritide
- Papaverine
- Prostaglandin
- Tolazoline
- Treprostinil

2nd Generation Antihistamines
- Cetirizine
- Cetirizine/Pseudoephedrine
- Desloratadine
- Desloratadine/Pseudoephedrine
- Fexofenadine
- Fexofenadine/Pseudoephedrine
- Levocetirizine
- Loratadine
- Loratadine/Pseudoephedrine