

# **STATE OF WEST VIRGINIA**



# PUBLIC EMPLOYEES INSURANCE AGENCY

Fiscal Year 2018

Detailed Medical and Prescription Drugs Claim Trend Report

January 2019

OVERVIEW1
Key Findings
METHODOLOGY
TREND COMPARISON USING ALLOWED VERSUS PAID METHODOLOGY
TOP 5 CATEGORIES
SUMMARY
TOTAL NON-MEDICARE TREND10
Non-Medicare 24-month Trend11
Non-Medicare 36-month Trend12
Non-Medicare 48-month Trend13
NON-MEDICARE 12-MONTH IN STATE VERSUS OUT OF STATE CLAIMS14
NON-MEDICARE PRESCRIPTION DRUGS TREND
Appendix A: Non-Medicare Medical Coverages – Cost Per Service, Utilization, Incurred PMPM Trends
Appendix B Non-Medicare Prescription Drugs Coverages - Cost Per Service, Utilization, Incurred PMPM Trends

Appendix C: Analysis of Top Forty Drugs Indicators

# West Virginia Public Employees Insurance Agency Report of Independent Actuary

# Fiscal Year 2018 Detailed Medical & Prescription Drugs Claim Trend Report

# **OVERVIEW**

Continuing Care Actuaries was engaged by the West Virginia Public Employees Insurance Agency ("PEIA") to assist the Finance Board in monitoring the plan experience for fiscal year ending June 30, 2018 on a quarterly basis and the forecasting of Fiscal Years 2019 through 2023. This annual trend report to the Finance Board generally serves as the basis for projecting medical and drugs claims through Fiscal Year 2023 in the development of the Financial Plan to be approved the PEIA Finance Board in December 2018. This report is intended for the sole use of the Finance Board and management team. Any other use requires written approval by Continuing Care Actuaries.

Continuing Care Actuaries has collected and reviewed the medical and drugs claims experience using Allowed Non-Medicare claims incurred and paid through August 2018. Effective July 1, 2012, West Virginia Retiree Health Benefit Trust Fund ("Trust Fund" or "RHBT") had contracted with Humana to provide a Medicare Advantage Plan ("Humana MAPD") benefit to Medicareeligible retired employees and their Medicare-eligible dependents. Under this arrangement, Humana has assumed the financial risk of providing comprehensive medical and drugs coverage with limited copayments. Non-Medicare retirees will continue enrollment in PEIA's Preferred Provider Benefit or the Managed Care Option.

While the majority of Medicare coverages are transferred to Humana, all newly eligible Medicare enrollees are initially covered by the RHBT on a secondary self-insured basis with Medicare being the primary coverage. These Medicare coverages are transferred on the following January from a self-insured secondary basis by RHBT to the Humana MAPD plan. While Continuing Care Actuaries monitors the cost trends of these Medicare coverages, for the purposes of this report we have not reviewed the Medicare claims experience in this report due to relatively small number of these coverages and the resulting lack of credibility of Medicare claims where RHBT is secondary.

Since July 1, 2000, HealthSmart Holding Inc. ("HealthSmart"), has been the administrator of the plan's medical claims and has provided reports for both medical and prescription drugs claims. The analysis utilized claim data supplied from HealthSmart as a primary source of claims data for this report and PEIA has separately provided enrollment information.

Trends were developed by category for the 24-month, 36-month and 48-month credible periods ending June 2018. Our analysis for medical claims do not include incurred claims for the months after June 2018, since the claim experience for these months is largely non-credible with substantial reserves as part of the projected monthly incurred amount. The claim information supplied by HealthSmart for the purposes of this analysis was compared to PEIA's general ledger system to ensure accuracy of aggregate reporting. In an effort to assure accuracy, the claim information provided by HealthSmart and used in this analysis was reconciled and balanced to the PEIA general ledger amounts as of August 2018.

# **KEY FINDINGS - MEDICAL**

• The 24-month, 36-month and 48-month methodologies had comparable utilization and unit cost trends. CCA chose the 24-month results as the methodology that is most likely to produce accurate future trends that will allow PEIA to develop a financially solvent Financial Plan over the required five-year projection period. It is noteworthy that the overall medical trend increased from 2.8% in last year's analysis to 6.9% in Fiscal Year 2018 using a 24-month study period. Using the 24-month analysis, PEIA experienced a 4.4% utilization increase and a 2.4% unit cost increase, resulting in an aggregate trend of 6.9%. The 36-month method resulted in a lower trend of 1.3% and the 48-month method resulted in a lower trend of 2.5%.

	West Virginia PEIA Non-Medicare Total 24-Month Trend Analysis-Allowed Claims				
	Utilization	Cost/Service	Total Trend		
2002	4.1%	3.6%	7.8%		
2003	9.8%	-3.0%	6.5%		
2004	11.7%	-6.8%	4.0%		
2005	2.8%	-1.1%	1.7%		
2006	2.9%	1.0%	4.0%		
2007	7.2%	-2.0%	5.1%		
2008	2.9%	3.9%	6.9%		
2009	2.5%	2.6%	5.1%		
2010	2.5%	1.8%	4.4%		
2011	4.2%	3.5%	7.8%		
2012	5.1%	0.1%	5.3%		
2013	2.6%	-1.6%	0.9%		
2014	-0.4%	4.5%	4.1%		
2015	0.7%	5.6%	6.3%		
2016	8.6%	-0.7%	7.9%		
2017	3.9%	-1.1%	2.8%		
2018	4.4%	2.4%	6.9%		

The results below illustrate the 24-month trend calculated since Fiscal Year 2002.

• Overall PEIA and RHBT Fiscal Year 2018 24-month detail trends are summarized below. Note that these trend have not been adjusted for changes in benefit design:

Fiscal Year 2018 Claim Type	Medical	Drugs
PEIA – Active Local <u>PEIA – State</u> PEIA – Total	4.7% <u>7.3%</u> 6.9%	9.3% 8.4% 8.6%
RHBT – Non-Medicare	14.8%	7.7%
Grand Total	7.9%	8.4%

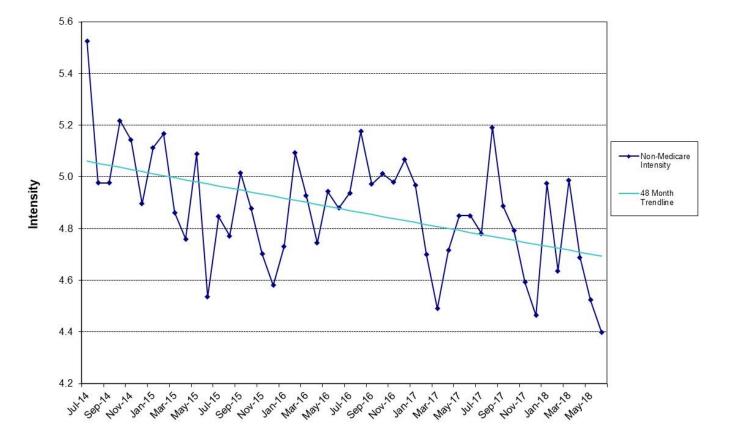
• In-State services have experienced higher trends than Out-of-State services for Non-Medicare coverages in the 24-month analysis for three categories: HI, HO, and PS. A comparison of Non-Medicare medical trends for In-State claims versus Out-of-State claims over the 24-month period analysis reveals an aggregate In-State trend of 7.5% and an Out-of-State trend of 4.9%.

The In-State utilization trend has been higher while the In-State cost per service trend has been lower compared to Out-of-State trends. The In-State utilization trend for Non-Medicare was 4.4%, while the Out-of-State trend was 1.2%. The In-State cost per service trend for Non-Medicare was 3.0%, while the Out-of-State trend was 3.7%.

Within the In-State medical categories, the 3 highest trend subcategories were observed for Hospital Inpatient's Medical/Surgical, Hospital Outpatient's Medical/Surgical, and Physician Services' Inpatient Surgery categories. These categories experienced unfavorable trends of 12.6%, 14.9% and 11.0%, respectively.

- Using the 24-month analysis, Hospital Inpatient services ("HI") represent approximately 19% of all medical services and experienced a total trend of 9.2%. The overall trend was the product of a 7.3% increase in utilization and a 1.7% increase in unit cost. It is noteworthy that In-State HI claims had a 12.3% overall trend, while Out-of-State HI claims experienced a 5.2% overall trend.
- Using the 24-month analysis, Hospital Outpatient services ("HO") represent approximately 34% of all medical services and experienced a total trend of 7.6%. The overall trend was the product of a 4.0% increase in utilization and a 3.5% increase in unit cost. It is noteworthy that In-State HO claims had a 11.8% overall trend, while Out-of-State HO claims experienced a 6.0% overall trend.
- Using the 24-month analysis, Physician Services ("PS") represent approximately 42% of all medical services and experienced a total trend of 3.7%. The overall trend was the product of a 3.2% increase in utilization of these services and a 0.5% increase in unit cost. It is noteworthy that In-State PS claims had a 3.8% overall trend, while Out-of-State PS claims experienced a 3.2% overall trend.
- Using the 24-month analysis, Other services ("O"), which are services that are principally Durable Medical Services and Ambulance, represent only 5% of all medical services and experienced the least favorable trend of the broader claim categories with a total trend of 21.4%. The overall trend was the product of a 5.5% increase in utilization of these services and a 15.1% increase in unit cost. It is noteworthy that In-State O claims showed a -3.3% overall trend, while Out-of-State O claims experienced a 63.9% overall trend.
- As noted above, the Out-of-State trends were generally more favorable than the In-State trends. This is similar to last year's report, but contrary to the trend reports produced in the past several years prior.

• A component of the cost per service trend for hospital inpatient is the length of stay, or intensity. The chart below shows the average length of stay by number of days over the last four years. Over the 48-month analysis, the intensity for Non-Medicare hospital stays has an annual trend of -2.1%, which is comparable to -3.9% last year. The historical data is illustrated in the chart below.



# **Hospital Inpatient Intensity**

The table below presents the overall Non-Medicare Hospital Inpatient trend showing the three components of visits, days per visit, and cost per day.

West Virginia PEIA Non-Medicare Hospital Inpatient Trend Analysis						
24-Month 36-Month 48-Month						
Visits	0.7%	-3.6%	-0.5%			
Intensity	-4.6%	-4.0%	-2.1%			
<u>Cost/Day 13.7% 7.9% 6.5%</u>						
Total						

Continuing Care Actuaries has included an additional analysis of utilization and cost on an incurred basis over the last 12 months. This analysis can be found on Page 14 and analyzes the distribution of services based on services provided in West Virginia and services provided elsewhere.

In the 12-month period ending June 2018, approximately 82.1% of medical services were provided in the State of West Virginia and 17.9% of services were provided outside the State. From a cost perspective 70.9% of allowed charges were incurred in the State of West Virginia and 29.1% of allowed charges were provided outside the State, illustrating the higher cost and intensity of out-of-state services.

By major medical category, approximately 86.1% of Hospital Inpatient services were provided in the State of West Virginia representing approximately 46.1% of the total allowed charges for Hospital Inpatient. Conversely, approximately 13.9% of Hospital Inpatient services were provided out of the State of West Virginia and those charges represented 53.9% of the total allowed charges for Hospital Inpatient.

By major medical category, approximately 93.4% of Hospital Outpatient services were provided in the State of West Virginia representing approximately 76.9% of the total allowed charges for Hospital Outpatient. Conversely, approximately 6.6% of Hospital Outpatient services were provided out of the State of West Virginia and those charges represented 23.1% of the total allowed charges for Hospital Outpatient.

By major medical category, approximately 82.0% of Physician Services were provided in the State of West Virginia representing approximately 80.1% of the total allowed charges for Physician Services. Conversely, approximately 18.0% of Physician Services were provided out of the State of West Virginia and those charges represented 19.9% of the total allowed charges for Physician Services.

By major medical category, approximately 47.4% of Other Services were provided in the State of West Virginia representing approximately 49.8% of the total allowed charges for Other Services. Conversely, approximately 49.8% of Other Services were provided out of the State of West Virginia and those charges represented 50.2% of the total allowed charges for Other Services.

# **KEY FINDINGS - DRUGS**

Overall, prescription drugs trends for Non-Medicare coverages have decreased significantly compared to 15.5% last year. Using the 24-month analysis, we observed a -23.8% utilization decrease and a 42.4% prescription cost increase, resulting in an aggregate trend of 8.6%. The 24-month overall trend is lower than both the 36-month and 48-month analysis, reflecting the new 90day drug policy put in place by the PEIA Financial Board.

West Virginia PEIA Prescription Drugs Total 24-Month Trend Analysis-Allowed Claims				
UtilizationCost/PrescriptionTotal TrendFY 2018-23.8%42.4%8.6%				

# **METHODOLOGY**

HealthSmart provided allowed and paid claim information for Non-Medicare and Medicare eligibility from July 2001 through August 2018. This data set was analyzed on Non-Medicare claims that were incurred from July 2014 through June 2018 for the 48-month credible period. This claim data was consolidated into 24 categories for Hospital Inpatient, Hospital Outpatient, Physician Services and Other. In addition, claim experience was analyzed based on the state of service as defined by HealthSmart. HealthSmart provides the information based on the location that the service was performed, rather than the billing location of the provider. Continuing Care Actuaries verified that the HealthSmart information balanced in total to previously produced claim lag reports that PEIA personnel have balanced to the PEIA ledger accounts.

The trend analysis includes assumptions with respect to the completeness of the claim information to reflect and adjust for unreported claims. There was no adjustment to reflect the various reductions and changes in benefit design as affected by the Finance Board over the analysis period, such as the reduction in hospital inpatient reimbursement rates. In developing aggregate claim trends, individual claim categories were weighted by claims paid for each category over the last 24, 36 and 48 months, respectively depending on the analysis. The following chart summarizes the amount of allowed dollars by category for each paid fiscal year.

The calculated trends for utilization, unit cost and in aggregate were based on a least squares methodology in defining the regression trend line. We manually adjusted these trend lines where the results appeared to be less credible.

Consistent with prior reports, the trends published in this report for Non-Medicare medical claims are based on the allowed amount in order to neutralize the impact of deductibles and copayments that have a varying impact on paid amounts depending on the month of the year. Paid claim trends are lower over the study period, since cost-sharing provisions of the plan increased in Plan Year 2018.

A summary of the annual Non-Medicare data provided by HealthSmart by Hospital Inpatient (HI), Hospital Outpatient (HO), Physician Services (PS), and Other Services (O) is detailed below.

Non-Medicare Claims	FY 2015	<u>FY 2016</u>	FY 2017	<b>FY 2018</b>
Hospital Inpatient	\$120,008,748	\$114,577,039	\$114,226,097	\$109,169,193
Hospital Outpatient	199,229,458	211,164,805	194,538,354	193,506,099
Physician Services	248,388,337	258,978,118	243,200,920	232,700,043
Other Services	23,036,938	21,930,260	23,308,399	27,108,430
Total	\$590,663,482	\$606,650,221	\$575,273,769	\$562,483,764

	Non-Medicare Claims	FY 2015	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>
HI	Maternity	\$4,904,265	\$3,427,634	\$2,880,122	\$2,725,294
HI	Medical/Surgical	110,979,882	107,873,573	108,653,554	103,981,000
HI	Psychiatric/Substance Abuse	4,124,601	3,275,833	2,692,421	2,462,899
НО	Emergency Room	33,776,942	31,301,001	29,858,617	30,566,725
HO	Medical/Surgical	97,543,341	106,685,736	97,857,171	97,376,746
HO	Other Services	65,657,210	70,140,284	65,101,916	63,968,948
HO	Psychiatric/Substance Abuse	2,251,965	3,037,784	1,720,650	1,593,680
PS	Anesthesia	12,102,675	12,545,196	11,907,626	11,410,831
PS	Chemotherapy/Radiation	3,483,499	3,900,335	3,410,396	3,924,348
PS	Emergency Room	6,510,917	6,533,380	6,128,316	5,860,378
PS	Immunizations/Allergy	7,793,884	8,481,099	8,645,156	8,715,336
PS	Inpatient Surgery	8,691,805	8,262,131	7,985,248	8,142,524
PS	Inpatient Visits	6,745,773	6,774,844	7,021,608	7,015,877
PS	Lab & Pathology	18,778,349	18,916,974	16,942,102	15,755,289
PS	Maternity	5,447,950	5,090,504	4,850,574	4,697,420
PS	Office Visits	67,266,422	68,086,970	66,638,665	60,930,927
PS	Other Services	56,952,433	65,988,208	57,563,333	54,750,781
PS	Outpatient Surgery	18,144,616	18,307,462	17,609,263	17,385,677
PS	Psychiatric/Substance Abuse	12,733,092	13,432,926	12,746,429	12,828,500
PS	Radiology	14,989,065	13,628,411	12,880,263	12,288,315
PS	Therapy/Rehab	8,747,859	9,029,675	8,871,942	8,993,841
0	Ambulance	4,362,153	4,612,013	4,559,270	3,763,747
0	Durable Medical Equipment	8,886,269	9,071,892	8,511,576	9,610,017
0	Other Services	9,788,516	8,246,354	10,237,553	13,734,666

Certain categories in the data provided by HealthSmart were consolidated to provide the following summary table for Non-Medicare claims.

## TREND COMPARISON USING ALLOWED VERSUS PAID METHODOLOGY

The trend analysis has been developed throughout the report on an allowed basis for Non-Medicare claims to neutralize the impact of deductibles and co-payments that have a varying impact on paid amounts depending on the month of the year. However, the employees' annual deductible and cost sharing for medical expenses changed significantly in Plan Year 2018.

We have examined the trends utilizing paid claims as opposed to allowed claims. The following table summarizes the trends on a paid basis for the Fiscal Years 2015 through 2018 and on an allowed basis for Non-Medicare medical claims. This exercise is important since interim monthly trend updates provided to PEIA throughout the year are based on paid claims.

West Virginia PEIA Non-Medicare Medical Total Trend Analysis					
Paid Basis Allowed Basis					
24-Month Trend	6.4%	6.9%			
36-Month Trend	0.9%	1.3%			
48-Month Trend	0.3%	2.5%			

# **TOP 5 CATEGORIES**

The following tables give detail on the top 5 increases by utilization, cost per service, and cost per capita using the 24-month analysis. Notably, O-Appliances (DME) experienced the highest increase in utilization. O-Other Services experienced the highest increase in cost per service and in cost per capita.

Top 5 Highest Percentage in Utilization Increases					
2017 Average 2018 Average Top 5					
Category	Utilization	Utilization	Highest %		
O-Appliances (DME)	0.03624	0.03984	9.9%		
PS-Therapies	0.08732	0.09531	9.2%		
PS-Other Services	0.29336	0.32021	9.2%		
PS-Inpatient Surgery	0.00546	0.00589	7.9%		
HI-Medical / Surgical	0.00505	0.00543	7.6%		

<b>Top 5 Highest Percentage in Cost / Service Increases</b>					
2017 Average 2018 Average Top 5					
Category	Cost / Service	Cost / Service	Highest %		
O-Other Services	\$365.42	\$475.16	30.0%		
PS-Radiology	52.63	63.14	20.0%		
PS- Chemotherapy / Radiation	320.17	355.43	11.0%		
O-Appliances (DME)	113.73	123.73	8.8%		
HO- Emergency Room	707.93	766.62	8.3%		

Top 5 Highest Percentage in Cost / Capita Increases					
2017 Average 2018 Average Top 5					
Category	Cost / Capita	Cost / Capita	Highest %		
O-Other Services	\$5.10	\$6.91	35.4%		
O-Appliances (DME)	4.12	4.93	19.6%		
PS- Chemotherapy / Radiation	1.68	1.98	18.2%		
PS-Inpatient Surgery	3.78	4.24	12.3%		
HO-Medical / Surgical	46.23	50.88	10.1%		

# **SUMMARY**

The following tables and sections summarize the information and findings of the trend analysis. The tables and charts on the next several pages include separate analysis of utilization and unit cost trends for Non-Medicare coverages. The charts show the breakdown between the different study periods and for In-State and Out-of-State charges.

Recent experience has shown that the Non-Medicare medical claim trends are lower than the current trend assumption of 8.0% for FY 2019. Additionally, the 24-Month trend has reflected a more modest 6.9% trend. CCA believes that it is appropriate to lower the FY 2019 medical claim trend assumption for Non-Medicare medical to 7.5%. Similarly, recent experience has also shown that Non-Medicare drugs claim trends are lower than the current trend assumption. CCA believes it is appropriate to lower the FY 2019 drugs claim trend assumption to 11.5% for Non-Medicare drugs.

The update of the trend assumptions for FY 2019 is shown below.

	Fiscal Year 2019 Trends				
	Previous Updated				
Claim Type	Assumption Assumption Change				
Non-Medicare – Medical	8.0%	7.5%	-0.5%		
<b>Non-Medicare – Prescription Drugs</b>	12.0%	11.5%	-0.5%		

In the past, claim trends for the financial plan included a 0.5% margin in future years. CCA has assumed the medical and drugs claim trends for the financial projection will increase by 0.5% in FY 2020 and in each successive fiscal year. We will continue to monitor the claim trend experience and incorporate changes as necessary throughout the fiscal year based on the relatively volatile nature of recent trend experience at PEIA.

Respectfully,

Dave Bond

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### West Virginia PEIA Non-Medicare Total Study Period of July 2014 to June 2018 (Allowed Claims)

#### Trends Summary - Excludes Drugs

		24 Month Tren	nds Summarv			36 Month Trend	s Summarv			48 Month Trends	s Summarv	
	Utilization	Cost / Service	Total Trend	Weight	Utilization	Cost / Service	•	Weight	Utilization	Cost / Service		Weight
HOSPITAL INPATIENT			<u></u>	<u></u>					<u></u>		- <u></u>	<u></u>
Maternity	7.0%	1.3%	8.3%	0.5%	-9.8%	1.1%	-8.8%	0.5%	-15.9%	-0.6%	-16.4%	0.6%
Medical / Surgical	7.6%	1.8%	9.5%	18.4%	3.4%	-3.1%	0.2%	18.2%	4.3%	0.5%	4.9%	18.3%
Psychiatric / Substance Abuse	-3.4%	-0.7%	-4.1%	0.4%	-11.6%	1.2%	-10.6%	0.5%	-16.9%	2.0%	-15.3%	0.5%
TOTAL	7.3%	1.7%	9.2%	19.3%	2.7%	-2.8%	-0.2%	19.2%	3.1%	0.5%	3.7%	19.5%
HOSPITAL OUTPATIENT												
Emergency Room	-3.3%	8.3%	4.7%	5.3%	-3.4%	5.2%	1.6%	5.3%	-3.2%	2.6%	-0.7%	5.4%
Medical / Surgical	5.5%	4.3%	10.1%	17.2%	3.0%	-0.8%	2.2%	17.3%	4.9%	-1.5%	3.4%	17.1%
Other Services	5.4%	0.2%	5.6%	11.4%	4.5%	-3.6%	0.8%	11.4%	5.1%	-2.6%	2.4%	11.4%
Psychiatric / Substance Abuse	-6.1%	-2.6%	-8.5%	0.3%	-13.2%	-12.0%	-23.6%	0.4%	-8.9%	-2.9%	-11.5%	0.4%
TOTAL	4.0%	3.5%	7.6%	34.2%	2.3%	-0.9%	1.4%	34.4%	3.6%	-1.2%	2.3%	34.2%
PHYSICIAN SERVICES												
Anesthesia	5.2%	1.4%	6.7%	2.1%	0.5%	1.4%	1.9%	2.1%	1.6%	0.6%	2.2%	2.1%
Chemotherapy / Radiation	6.4%	11.0%	18.2%	0.6%	-1.9%	5.9%	3.9%	0.6%	-0.7%	5.9%	5.2%	0.6%
Emergency Room	-0.7%	-0.8%	-1.5%	1.1%	-2.2%	0.0%	-2.3%	1.1%	-1.4%	0.4%	-1.0%	1.1%
Immunizations / Injections / Allergy	-14.6%	5.4%	-10.0%	1.5%	-6.8%	4.8%	-2.2%	1.5%	-2.9%	4.4%	1.3%	1.4%
Inpatient Surgery	7.9%	4.1%	12.3%	1.4%	3.7%	3.9%	7.7%	1.4%	3.9%	-2.2%	1.7%	1.4%
Inpatient Visits	-0.2%	2.7%	2.6%	1.2%	0.5%	4.6%	5.1%	1.2%	-0.6%	4.9%	4.3%	1.2%
Lab & Pathology	3.7%	1.1%	4.9%	2.9%	-1.6%	-0.3%	-1.9%	3.0%	-0.4%	-1.6%	-1.9%	3.0%
Maternity	-4.5%	3.6%	-1.2%	0.8%	-1.8%	-0.2%	-2.0%	0.8%	-0.9%	-1.5%	-2.4%	0.9%
Office Visits	2.3%	0.1%	2.5%	11.3%	0.3%	0.7%	1.0%	11.3%	0.2%	0.7%	0.9%	11.3%
Other Services	9.2%	-7.0%	1.5%	9.9%	5.2%	-8.6%	-3.8%	10.3%	4.9%	-3.2%	1.6%	10.1%
Outpatient Surgery	6.9%	2.5%	9.5%	3.1%	3.2%	1.1%	4.3%	3.1%	4.0%	-1.2%	2.7%	3.1%
Psychiatric / Substance Abuse	3.7%	1.5%	5.2%	2.3%	-1.3%	3.2%	1.8%	2.2%	-1.3%	4.0%	2.6%	2.2%
Radiology	-15.8%	20.0%	1.0%	2.2%	-11.8%	14.0%	0.5%	2.2%	-8.0%	6.7%	-1.8%	2.3%
Therapies	9.2%	-0.5%	8.6%	1.6%	4.5%	0.6%	5.2%	1.5%	4.0%	0.4%	4.4%	1.5%
TOTAL	3.2%	0.5%	3.7%	42.1%	0.7%	-0.3%	0.4%	42.3%	1.2%	0.1%	1.3%	42.2%
OTHER												
Ambulance	-0.2%	-14.3%	-14.5%	0.7%	-3.1%	-3.6%	-6.6%	0.7%	-0.1%	-1.7%	-1.8%	0.7%
Appliances (DME)	9.9%	8.8%	19.6%	1.6%	9.2%	-1.4%	7.6%	1.6%	9.3%	-3.7%	5.3%	1.5%
Other Services	4.2%	30.0%	35.4%	2.1%	-2.6%	35.1%	31.6%	1.8%	-5.8%	26.9%	19.5%	1.8%
TOTAL	5.5%	15.1%	21.4%	4.4%	1.7%	14.4%	16.4%	4.2%	0.9%	10.1%	11.1%	4.1%
GRAND TOTAL	4.4%	2.4%	6.9%	100.0%	1.7%	-0.4%	1.3%	100.0%	2.4%	0.2%	2.5%	100.0%

#### West Virginia PEIA Non-Medicare Total Study Period of July 2016 to June 2018 (Allowed Claims)

#### 24 Month Trends Summary - Excludes Drugs

		In State			Out of State			Total		In State	Out of State	Total
	Utilization	Cost / Service	Total Trend	Utilization	Cost / Service	Total Trend	Utilization	Cost / Service	Total Trend	Weight	Weight	Weight
HOSPITAL INPATIENT												
Maternity	6.6%	1.3%	7.9%	7.2%	-3.6%	3.4%	7.0%	1.3%	8.3%	0.5%	0.6%	0.5%
Medical / Surgical	9.0%	3.3%	12.6%	0.0%	5.0%	4.9%	7.6%	1.8%	9.5%	11.3%	35.3%	18.4%
Psychiatric / Substance Abuse	8.5%	1.1%	9.7%	7.9%	25.7%	35.7%	-3.4%	-0.7%	-4.1%	0.5%	0.4%	0.4%
TOTAL	8.9%	3.2%	12.3%	0.2%	5.0%	5.2%	7.3%	1.7%	9.2%	12.2%	36.3%	19.3%
HOSPITAL OUTPATIENT												
Emergency Room	-2.8%	11.4%	8.3%	-8.9%	10.8%	0.9%	-3.3%	8.3%	4.7%	5.7%	4.5%	5.3%
Medical / Surgical	-2.8% 6.2%	8.2%	8.3% 14.9%	-8.9% -1.8%	-7.9%	-9.6%	-3.3% 5.5%	8.3% 4.3%	4.7% 10.1%	5.7% 18.2%	4.5% 14.3%	5.3% 17.2%
Other Services	5.7%	2.7%	8.6%	0.7%	-3.8%	-3.2%	5.4%	0.2%	5.6%	12.3%	9.1%	11.4%
Psychiatric / Substance Abuse	1.2%	8.1%	9.3%	-27.2%	0.4%	-26.9%	-6.1%	-2.6%	-8.5%	0.2%	9.1 <i>%</i> 0.5%	0.3%
r sychiatric / Substance Abuse	1.2 /0	0.170	3.378	-27.270	0.470	-20.376	-0.170	-2.070	-0.078	0.270	0.570	0.570
TOTAL	4.6%	6.8%	11.8%	-2.6%	-3.5%	-6.0%	4.0%	3.5%	7.6%	36.4%	28.4%	34.2%
PHYSICIAN SERVICES												
Anesthesia	5.3%	0.0%	5.3%	4.8%	6.2%	11.3%	5.2%	1.4%	6.7%	2.3%	1.7%	2.1%
Chemotherapy / Radiation	4.3%	3.4%	7.9%	15.7%	14.1%	32.1%	6.4%	11.0%	18.2%	0.5%	1.0%	0.6%
Emergency Room	-0.7%	-4.3%	-5.0%	-0.1%	13.4%	13.3%	-0.7%	-0.8%	-1.5%	1.2%	0.8%	1.1%
Immunizations / Injections / Allergy	-15.1%	6.0%	-10.0%	-8.3%	1.6%	-6.8%	-14.6%	5.4%	-10.0%	1.9%	0.5%	1.5%
Inpatient Surgery	7.2%	3.5%	11.0%	10.4%	5.2%	16.2%	7.9%	4.1%	12.3%	1.4%	1.4%	1.4%
Inpatient Visits	-1.2%	1.6%	0.4%	5.1%	3.9%	9.2%	-0.2%	2.7%	2.6%	1.3%	1.1%	1.2%
Lab & Pathology	4.7%	1.3%	6.1%	2.7%	1.2%	3.9%	3.7%	1.1%	4.9%	1.8%	5.6%	2.9%
Maternity	-2.8%	3.6%	0.7%	-11.2%	-3.6%	-14.4%	-4.5%	3.6%	-1.2%	1.0%	0.4%	0.8%
Office Visits	2.6%	0.1%	2.8%	-1.2%	1.3%	0.1%	2.3%	0.1%	2.5%	14.4%	4.1%	11.3%
Other Services	9.9%	-6.0%	3.2%	1.9%	-6.0%	-4.2%	9.2%	-7.0%	1.5%	11.2%	7.7%	9.9%
Outpatient Surgery	8.0%	2.6%	10.8%	-0.8%	5.3%	4.4%	6.9%	2.5%	9.5%	3.5%	2.1%	3.1%
Psychiatric / Substance Abuse	4.0%	2.5%	6.6%	0.0%	-9.8%	-9.8%	3.7%	1.5%	5.2%	2.9%	0.6%	2.3%
Radiology	-16.1%	18.4%	-0.6%	-13.9%	24.7%	7.4%	-15.8%	20.0%	1.0%	2.5%	1.6%	2.2%
Therapies	10.1%	-0.6%	9.4%	-4.4%	-2.5%	-6.8%	9.2%	-0.5%	8.6%	2.1%	0.2%	1.6%
TOTAL	3.5%	0.4%	3.8%	1.3%	1.9%	3.2%	3.2%	0.5%	3.7%	48.0%	28.7%	42.1%
OTHER												
		10.00/			10.001							
Ambulance	1.9%	-13.2%	-11.5%	-23.8%	-13.3%	-33.9%	-0.2%	-14.3%	-14.5%	0.9%	0.3%	0.7%
Appliances (DME)	-5.4%	-6.5%	-11.6%	17.2%	12.5%	31.8%	9.9%	8.8%	19.6%	0.7%	4.1%	1.6%
Other Services	-0.7%	5.0%	4.4%	36.1%	76.4%	140.1%	4.2%	30.0%	35.4%	1.7%	2.4%	2.1%
TOTAL	-0.9%	-2.4%	-3.3%	22.3%	34.1%	63.9%	5.5%	15.1%	21.4%	3.3%	6.7%	4.4%
GRAND TOTAL	4.4%	3.0%	7.5%	1.2%	3.7%	4.9%	4.4%	2.4%	6.9%	100.0%	100.0%	100.0%

#### West Virginia PEIA Non-Medicare Total Study Period of July 2015 to June 2018 (Allowed Claims)

#### 36 Month Trends Summary - Excludes Drugs

		In State			Out of State			Total		In State	Out of State	Total
	Utilization	Cost / Service	Total Trend	Utilization	Cost / Service	Total Trend	Utilization	Cost / Service	Total Trend	Weight	Weight	Weight
HOSPITAL INPATIENT	<u></u>		<u></u>		<u></u>	<u></u>		<u></u>			<u></u>	
Maternity	-9.7%	3.6%	-6.4%	-12.2%	-1.1%	-13.2%	-9.8%	1.1%	-8.8%	0.5%	0.6%	0.5%
Medical / Surgical	4.5%	2.1%	6.7%	-2.6%	3.2%	0.6%	3.4%	-3.1%	0.2%	11.3%	34.0%	18.2%
Psychiatric / Substance Abuse	-0.2%	1.4%	1.2%	-48.3%	8.9%	-43.7%	-11.6%	1.2%	-10.6%	0.5%	0.5%	0.5%
TOTAL	3.8%	2.2%	6.0%	-3.4%	3.2%	-0.3%	2.7%	-2.8%	-0.2%	12.2%	35.1%	19.2%
HOSPITAL OUTPATIENT												
Emergency Room	-2.7%	5.6%	2.7%	-9.7%	7.3%	-3.1%	-3.4%	5.2%	1.6%	5.7%	4.3%	5.3%
Medical / Surgical	4.1%	3.9%	8.1%	-9.7%	-8.4%	-15.3%	-3.4 %	-0.8%	2.2%	18.2%	4.3 %	17.3%
Other Services	5.2%	-1.1%	4.0%	-6.7%	-2.5%	-9.0%	4.5%	-3.6%	0.8%	12.3%	9.4%	11.4%
Psychiatric / Substance Abuse	6.5%	2.2%	8.9%	-42.0%	0.6%	-41.7%	-13.2%	-12.0%	-23.6%	0.2%	0.7%	0.4%
	0.570	2.270	0.378	-42.070	0.070	-41.776	-13.270	-12.070	-23.076	0.270	0.170	0.470
TOTAL	3.4%	2.4%	5.9%	-8.4%	-4.0%	-12.1%	2.3%	-0.9%	1.4%	36.4%	29.8%	34.4%
PHYSICIAN SERVICES												
Anesthesia	1.3%	0.2%	1.5%	-5.2%	8.4%	2.8%	0.5%	1.4%	1.9%	2.3%	1.6%	2.1%
Chemotherapy / Radiation	1.9%	-0.6%	1.2%	-16.0%	18.8%	-0.2%	-1.9%	5.9%	3.9%	0.5%	1.0%	0.6%
Emergency Room	-1.7%	-3.0%	-4.6%	-8.6%	17.1%	7.0%	-2.2%	0.0%	-2.3%	1.2%	0.7%	1.1%
Immunizations / Injections / Allergy	-7.1%	5.3%	-2.2%	-1.6%	1.0%	-0.6%	-6.8%	4.8%	-2.2%	1.9%	0.5%	1.5%
Inpatient Surgery	4.0%	-0.1%	3.9%	2.2%	-0.2%	2.0%	3.7%	3.9%	7.7%	1.4%	1.3%	1.4%
Inpatient Visits	0.0%	2.9%	2.9%	2.8%	9.0%	12.0%	0.5%	4.6%	5.1%	1.3%	1.0%	1.2%
Lab & Pathology	1.1%	1.7%	2.9%	-4.2%	-1.1%	-5.2%	-1.6%	-0.3%	-1.9%	1.8%	5.7%	3.0%
Maternity	-5.0%	3.9%	-1.3%	12.9%	-23.4%	-13.5%	-1.8%	-0.2%	-2.0%	1.0%	0.4%	0.8%
Office Visits	0.9%	0.8%	1.6%	-5.7%	1.7%	-4.1%	0.3%	0.7%	1.0%	14.4%	4.1%	11.3%
Other Services	6.1%	-7.0%	-1.3%	-3.4%	-8.6%	-11.8%	5.2%	-8.6%	-3.8%	11.2%	8.2%	10.3%
Outpatient Surgery	4.7%	1.7%	6.4%	-6.1%	3.1%	-3.2%	3.2%	1.1%	4.3%	3.5%	2.1%	3.1%
Psychiatric / Substance Abuse	4.5%	1.0%	5.6%	-39.6%	6.7%	-35.6%	-1.3%	3.2%	1.8%	2.9%	0.7%	2.2%
Radiology	-11.4%	13.9%	0.9%	-15.4%	16.6%	-1.4%	-11.8%	14.0%	0.5%	2.5%	1.6%	2.2%
Therapies	5.2%	0.6%	5.8%	-4.8%	-1.2%	-6.0%	4.5%	0.6%	5.2%	2.1%	0.2%	1.5%
TOTAL	1.7%	-0.1%	1.6%	-5.6%	0.4%	-5.2%	0.7%	-0.3%	0.4%	48.0%	29.1%	42.3%
OTHER												
Anshalan a	4.004	0.101	• • • • •	10.101			0.101	0.634		0.001	0.001	0 -0/
Ambulance	-1.6%	-0.4%	-2.0%	-19.4%	-15.4%	-31.8%	-3.1%	-3.6%	-6.6%	0.9%	0.3%	0.7%
Appliances (DME)	-21.6%	-3.7%	-24.6%	32.4%	-17.5%	9.2%	9.2%	-1.4%	7.6%	0.7%	3.6%	1.6%
Other Services	-4.3%	29.8%	24.2%	9.1%	33.0%	45.1%	-2.6%	35.1%	31.6%	1.7%	2.1%	1.8%
TOTAL	-7.2%	14.5%	6.3%	21.3%	0.6%	22.0%	1.7%	14.4%	16.4%	3.3%	6.0%	4.2%
GRAND TOTAL	2.3%	1.6%	3.9%	-4.0%	0.1%	-4.0%	1.7%	-0.4%	1.3%	100.0%	100.0%	100.0%

#### West Virginia PEIA Non-Medicare Total Study Period of July 2014 to June 2018 (Allowed Claims)

#### 48 Month Trends Summary - Excludes Drugs

		In State			Out of State			Total		In State	Out of State	Total
	Utilization	Cost / Service	Total Trend	Utilization	Cost / Service	Total Trend	Utilization	Cost / Service	Total Trend	Weight	Weight	Weight
HOSPITAL INPATIENT	othization		<u>rotur rrenu</u>	<u>otimzation</u>		<u>Total Hend</u>	ounzation		<u>rotar riena</u>	weight	weight	weight
Maternity	-15.2%	3.4%	-12.3%	-20.9%	-1.7%	-22.2%	-15.9%	-0.6%	-16.4%	0.5%	0.8%	0.6%
Medical / Surgical	5.1%	1.3%	6.5%	0.0%	7.0%	6.9%	4.3%	0.5%	4.9%	11.2%	34.0%	18.3%
Psychiatric / Substance Abuse	-11.5%	1.7%	-10.0%	-29.5%	9.6%	-22.7%	-16.9%	2.0%	-15.3%	0.5%	0.6%	0.5%
TOTAL	3.6%	1.4%	5.0%	-1.0%	6.8%	5.8%	3.1%	0.5%	3.7%	12.3%	35.3%	19.5%
HOSPITAL OUTPATIENT												
Emergency Room	-2.7%	3.1%	0.3%	-8.1%	8.5%	-0.3%	-3.2%	2.6%	-0.7%	5.8%	4.3%	5.4%
Medical / Surgical	5.7%	2.3%	8.2%	-2.4%	-3.4%	-5.7%	4.9%	-1.5%	3.4%	17.9%	15.4%	17.1%
Other Services	5.7%	-0.3%	5.4%	-4.0%	-0.3%	-4.3%	5.1%	-2.6%	2.4%	12.2%	9.4%	11.4%
Psychiatric / Substance Abuse	4.3%	2.4%	6.8%	-25.1%	7.4%	-19.6%	-8.9%	-2.9%	-11.5%	0.2%	0.7%	0.4%
TOTAL	4.3%	1.6%	6.0%	-4.3%	-0.4%	-4.7%	3.6%	-1.2%	2.3%	36.2%	29.9%	34.2%
PHYSICIAN SERVICES												
Anesthesia	2.2%	0.2%	2.4%	-2.7%	4.6%	1.8%	1.6%	0.6%	2.2%	2.3%	1.6%	2.1%
Chemotherapy / Radiation	-0.1%	-4.6%	-4.7%	-2.8%	21.4%	18.1%	-0.7%	5.9%	5.2%	0.5%	0.8%	0.6%
Emergency Room	-0.9%	-1.5%	-2.4%	-7.3%	13.5%	5.2%	-1.4%	0.4%	-1.0%	1.3%	0.7%	1.1%
Immunizations / Injections / Allergy	-3.2%	4.7%	1.4%	0.3%	1.7%	2.0%	-2.9%	4.4%	1.3%	1.9%	0.4%	1.4%
Inpatient Surgery	4.5%	-0.1%	4.4%	1.6%	-7.0%	-5.5%	3.9%	-2.2%	1.7%	1.4%	1.4%	1.4%
Inpatient Visits	-1.6%	3.1%	1.5%	4.7%	8.9%	14.1%	-0.6%	4.9%	4.3%	1.3%	0.9%	1.2%
Lab & Pathology	1.6%	1.4%	3.0%	-2.1%	-3.2%	-5.2%	-0.4%	-1.6%	-1.9%	1.8%	5.7%	3.0%
Maternity	-3.7%	1.0%	-2.7%	13.8%	-10.3%	2.1%	-0.9%	-1.5%	-2.4%	1.1%	0.4%	0.9%
Office Visits	0.6%	1.0%	1.6%	-4.6%	0.2%	-4.4%	0.2%	0.7%	0.9%	14.6%	4.1%	11.3%
Other Services	5.8%	-2.3%	3.3%	-2.4%	-1.8%	-4.2%	4.9%	-3.2%	1.6%	11.1%	7.9%	10.1%
Outpatient Surgery	5.0%	0.8%	5.8%	-2.1%	-5.6%	-7.6%	4.0%	-1.2%	2.7%	3.5%	2.2%	3.1%
Psychiatric / Substance Abuse	4.4%	1.4%	5.8%	-29.3%	11.4%	-21.2%	-1.3%	4.0%	2.6%	2.9%	0.8%	2.2%
Radiology	-7.5%	7.9%	-0.3%	-11.5%	5.4%	-6.7%	-8.0%	6.7%	-1.8%	2.6%	1.7%	2.3%
Therapies	4.4%	0.9%	5.3%	-1.7%	-9.9%	-11.4%	4.0%	0.4%	4.4%	2.1%	0.3%	1.5%
TOTAL	1.9%	0.6%	2.6%	-3.3%	0.0%	-3.3%	1.2%	0.1%	1.3%	48.3%	28.9%	42.2%
OTHER												
Ambulance	0.7%	2.5%	3.2%	-8.6%	-13.1%	-20.5%	-0.1%	-1.7%	-1.8%	0.9%	0.4%	0.7%
Appliances (DME)	-8.9%	-6.6%	-14.9%	25.4%	-6.5%	17.3%	9.3%	-3.7%	5.3%	0.8%	3.3%	1.5%
Other Services	-6.4%	32.9%	24.3%	-1.9%	-2.2%	-4.0%	-5.8%	26.9%	19.5%	1.6%	2.3%	1.8%
TOTAL	-5.0%	15.2%	9.4%	12.9%	-5.2%	7.0%	0.9%	10.1%	11.1%	3.2%	5.9%	4.1%
GRAND TOTAL	2.8%	1.5%	4.4%	-1.8%	2.0%	0.1%	2.4%	0.2%	2.5%	100.0%	100.0%	100.0%

#### West Virginia PEIA Non-Medicare Total Study Period of July 2017 to June 2018 (Allowed Claims)

#### 12 Month Summary - Excludes Drugs

		Nu	mber of Visits				Tot	Total Allowed Cost				
	In State	Out of State	Total	In State %	Out of State %	In State	Out of State	Total	In State %	Out of State %		
HOSPITAL INPATIENT												
h fasta un itu e	001	100	4 000	89.9%	10.1%	1 055 000	011 100	0 700 444	07.4%	32.9%		
Maternity Medical / Surgical	961 9,062	108 1,490	1,069 10,553	85.9%	10.1% 14.1%	1,855,220 47,113,292	911,193 57,978,233	2,766,414 105,091,526	67.1% 44.8%	55.2%		
Psychiatric / Substance Abuse	9,062	72	368	80.5%	14.1%	1,896,832	57,978,233	2,448,416	44.8% 77.5%	22.5%		
P sychiatric / Substance Abuse	290	12	300	00.5%	19.5%	1,090,032	551,564	2,440,410	11.5%	22.376		
TOTAL	10,320	1,670	11,990	86.1%	13.9%	50,865,345	59,441,011	110,306,355	46.1%	53.9%		
HOSPITAL OUTPATIENT												
Emergency Room	36,212	3,281	39,493	91.7%	8.3%	23,198,961	7,329,118	30,528,079	76.0%	24.0%		
Medical / Surgical	103,321	9,051	112,372	91.9%	8.1%	75,161,527	22,359,528	97,521,055	77.1%	22.9%		
Other Services	258,860	14,827	273,686	94.6%	5.4%	49,581,882	14,410,351	63,992,233	77.5%	22.5%		
Psychiatric / Substance Abuse	5,549	1,488	7,037	78.9%	21.1%	936,162	655,300	1,591,463	58.8%	41.2%		
TOTAL	403,942	28,647	432,589	93.4%	6.6%	148,878,533	44,754,297	193,632,829	76.9%	23.1%		
PHYSICIAN SERVICES												
Anesthesia	38,585	5,000	43,585	88.5%	11.5%	8,676,031	2,749,594	11,425,625	75.9%	24.1%		
Chemotherapy / Radiation	8,838	2,293	11,130	79.4%	20.6%	2,057,826	1,873,616	3,931,442	52.3%	47.7%		
Emergency Room	34,844	2,926	37,769	92.3%	7.7%	4,539,330	1,319,360	5,858,690	77.5%	22.5%		
Immunizations / Injections / Allergy	206,081	15,726	221,807	92.9%	7.1%	7,985,900	733,657	8,719,556	91.6%	8.4%		
Inpatient Surgery	9,074	2,264	11,338	80.0%	20.0%	5,742,383	2,407,525	8,149,908	70.5%	29.5%		
Inpatient Visits	46,806	9,742	56,548	82.8%	17.2%	5,085,606	1,926,130	7,011,737	72.5%	27.5%		
Lab & Pathology	321,536	324,872	646,409	49.7%	50.3%	6,870,965	8,890,770	15,761,735	43.6%	56.4%		
Maternity	3,682	812	4,494	81.9%	18.1%	4,082,843	613,060	4,695,902	86.9%	13.1%		
Office Visits	580,258	49,309	629,566	92.2%	7.8%	54,503,207	6,450,872	60,954,078	89.4%	10.6%		
Other Services	569,726	53,135	622,861	91.5%	8.5%	42,779,207	11,978,058	54,757,265	78.1%	21.9%		
Outpatient Surgery	45,790	6,107	51,897	88.2%	11.8%	13,995,056	3,415,467	17,410,523	80.4%	19.6%		
Psychiatric / Substance Abuse	121,500	11,299	132,799	91.5%	8.5%	11,928,801	902,609	12,831,410	93.0%	7.0%		
Radiology	177,883	19,874	197,757	90.0%	10.0%	9,692,814	2,591,839	12,284,653	78.9%	21.1%		
Therapies	176,305	10,509	186,814	94.4%	5.6%	8,615,529	381,652	8,997,181	95.8%	4.2%		
TOTAL	2,340,908	513,867	2,854,775	82.0%	18.0%	186,555,497	46,234,208	232,789,706	80.1%	19.9%		
OTHER												
Ambulance	10,456	676	11,133	93.9%	6.1%	3,426,433	327,536	3,753,969	91.3%	8.7%		
Appliances (DME)	21,774	55,998	77,771	28.0%	72.0%	2,092,587	7,537,818	9,630,405	21.7%	78.3%		
Other Services	23,235	4,886	28,120	82.6%	17.4%	7,992,483	5,754,391	13,746,874	58.1%	41.9%		
TOTAL	55,465	61,560	117,025	47.4%	52.6%	13,511,503	13,619,745	27,131,248	49.8%	50.2%		
GRAND TOTAL	2,835,766	619,143	3,454,910	82.1%	17.9%	399,810,878	164,049,261	563,860,139	70.9%	29.1%		

# West Virginia PEIA Non-Medicare Prescription Drugs Total Study Period of July 2014 to June 2018 (Paid Claims)

# **<u>24 Month Trends Summary</u>**

	<u>Utilization</u>	<b>Cost / Prescription</b>	<u>Total Trend</u>
Non-Medicare	-23.8%	42.4%	8.6%

# **<u>36 Month Trends Summary</u>**

	<b>Utilization</b>	<u>Cost / Prescription</u>	<u>Total Trend</u>
Non-Medicare	-12.4%	31.6%	15.3%

# **48 Month Trends Summary**

	<u>Utilization</u>	<u>Cost / Prescription</u>	<u>Total Trend</u>
Non-Medicare	-7.1%	22.1%	13.5%

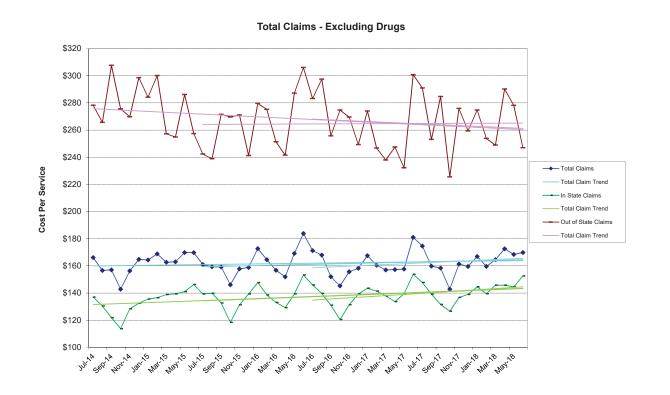
# Appendix A

#### **GRAND TOTAL**

24-Month Trends Summary							
Utilization	Cost / Service	Total Trend					
4.4%	2.4%	6.9%					

36-Month Trends Summary							
<u>Utilization</u>	Cost / Service	Total Trend					
1.7%	-0.4%	1.3%					

48-Month Trends Summary						
<u>Utilization</u>	Utilization Cost / Service					
2.4%	0.2%	2.5%				



**Total Claims - Excluding Drugs** 

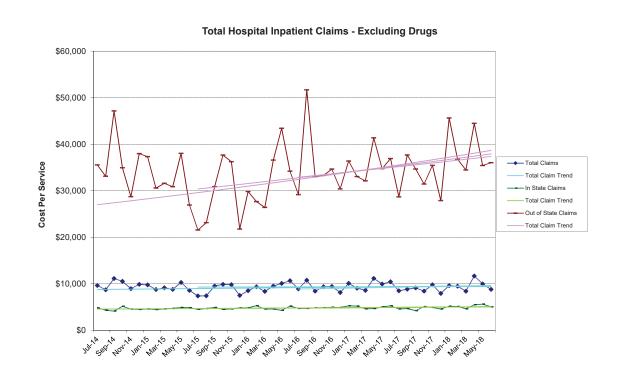


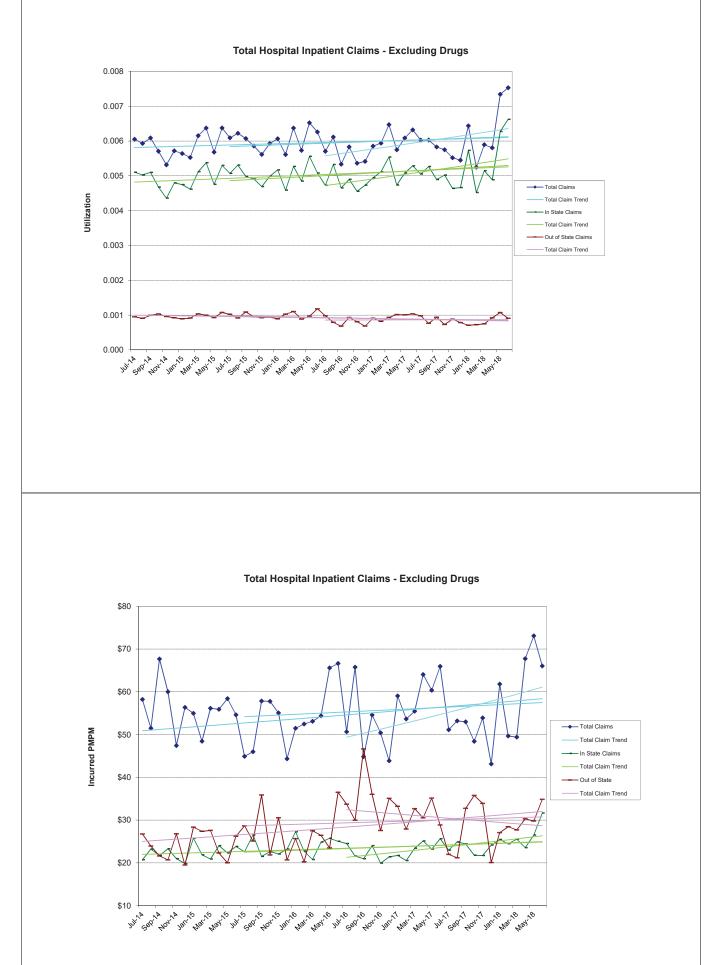
#### HOSPITAL INPATIENT

24-Month Trends Summary							
Utilization	Cost / Service	<u>Total Trend</u>					
7.3%	1.7%	9.2%					

36-Month Trends Summary		
<b>Utilization</b>	Cost / Service	Total Trend
2.7%	-2.8%	-0.2%

48-Month Trends Summary		
<b>Utilization</b>	Cost / Service	Total Trend
3.1%	0.5%	3.7%



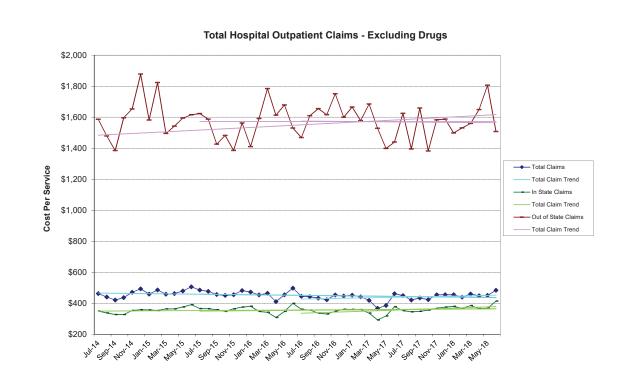


#### HOSPITAL OUTPATIENT

24-Month Trends Summary		
Utilization	Cost / Service	Total Trend
4.0%	3.5%	7.6%

36-Month Trends Summary		
<b>Utilization</b>	Cost / Service	Total Trend
2.3%	-0.9%	1.4%

48-Month Trends Summary		
<u>Utilization</u>	Cost / Service	<u>Total Trend</u>
3.6%	-1.2%	2.3%



Total Hospital Outpatient Claims - Excluding Drugs

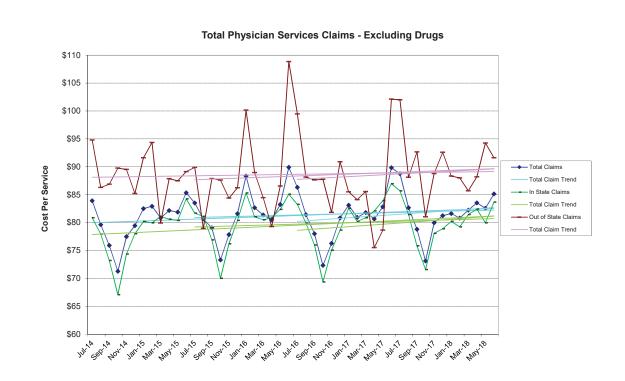


#### PHYSICIAN SERVICES

24-Month Trends Summary		
Utilization	Cost / Service	Total Trend
3.2%	0.5%	3.7%

36-Month Trends Summary		
<b>Utilization</b>	Cost / Service	Total Trend
0.7%	-0.3%	0.4%

48-Month Trends Summary		
<u>Utilization</u>	Cost / Service	<u>Total Trend</u>
1.2%	0.1%	1.3%



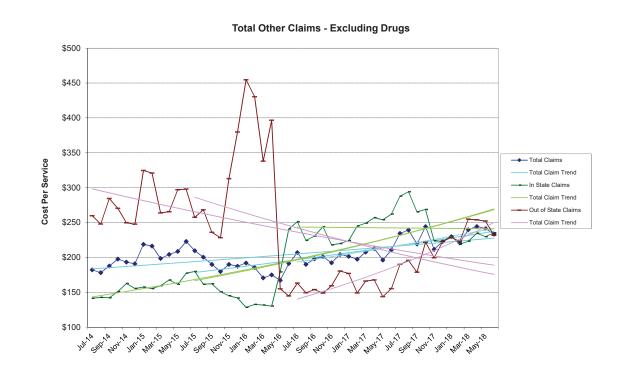


#### OTHER

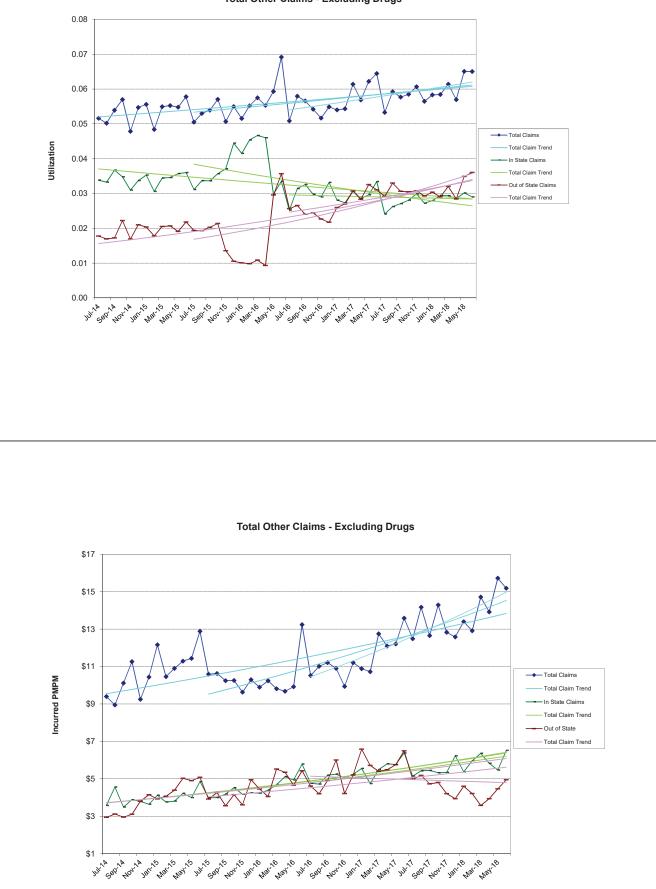
24-Month Trends Summary		
Utilization	Cost / Service	Total Trend
5.5%	15.1%	21.4%

36-Month Trends Summary		
<u>Utilization</u>	Cost / Service	Total Trend
1.7%	14.4%	16.4%

48-Month Trends Summary		
<u>Utilization</u>	Cost / Service	<u>Total Trend</u>
0.9%	10.1%	11.1%



**Total Other Claims - Excluding Drugs** 



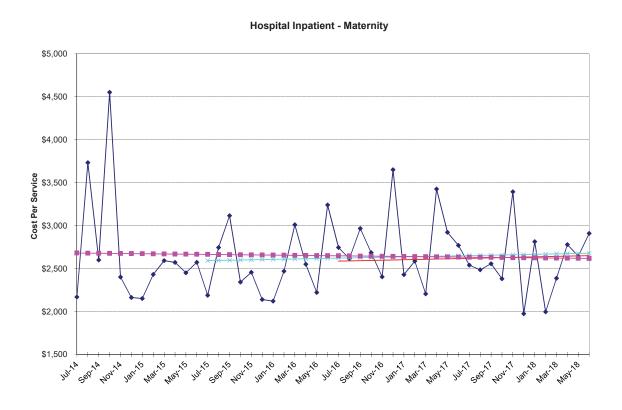
#### HOSPITAL INPATIENT

#### Maternity

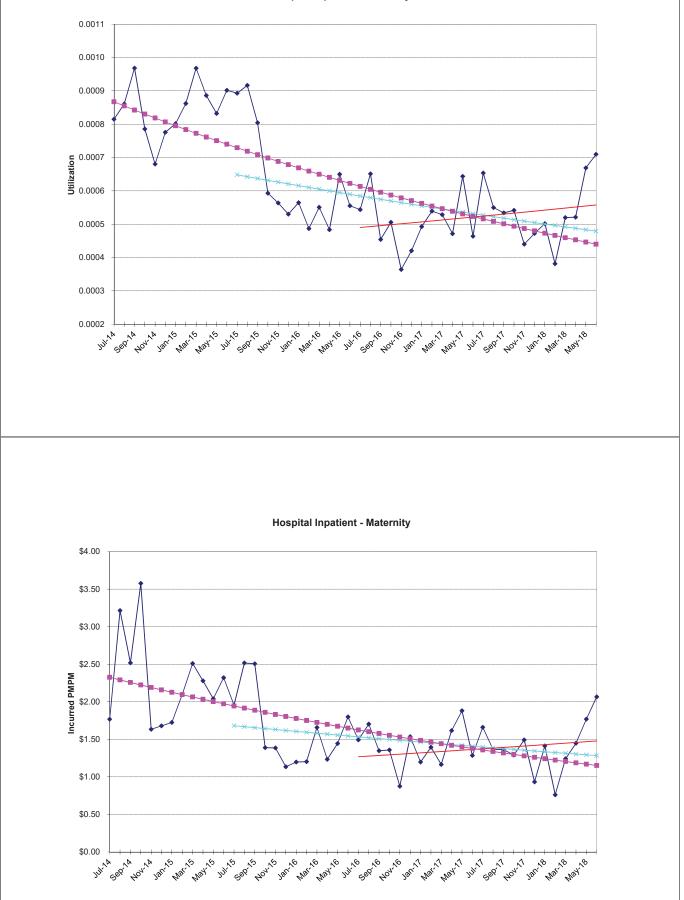
24-Month Trends Summary		
<b>Utilization</b>	Cost / Service	Total Trend
7.0%	1.3%	8.3%

36-Month Trends Summary			
Utilization Cost / Service Total Trend			
-9.8% 1.1% <b>-8.8%</b>			

48-Month Trends Summary			
Utilization Cost / Service Total Trend			
-15.9% -0.6% <b>-16.4%</b>			



**Hospital Inpatient - Maternity** 



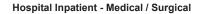
#### HOSPITAL INPATIENT

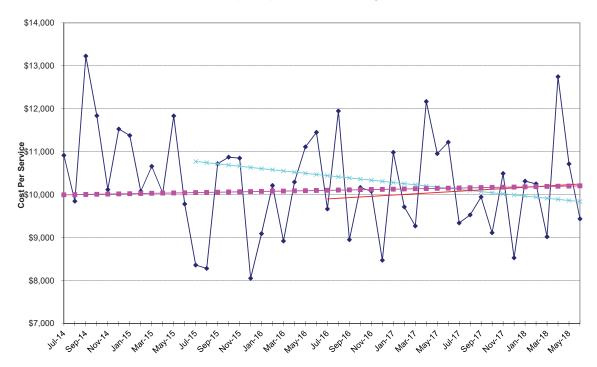
#### Medical / Surgical

24-Month Trends Summary		
<u>Utilization</u>	Cost / Service	Total Trend
7.6%	1.8%	9.5%

36-Month Trends Summary			
Utilization Cost / Service Total Trend			
3.4%	-3.1%	0.2%	

48-Month Trends Summary			
Utilization Cost / Service Total Trend			
4.3%	0.5%	4.9%	





#### Hospital Inpatient - Medical / Surgical



**Continuing Care Actuaries** 

A - 14

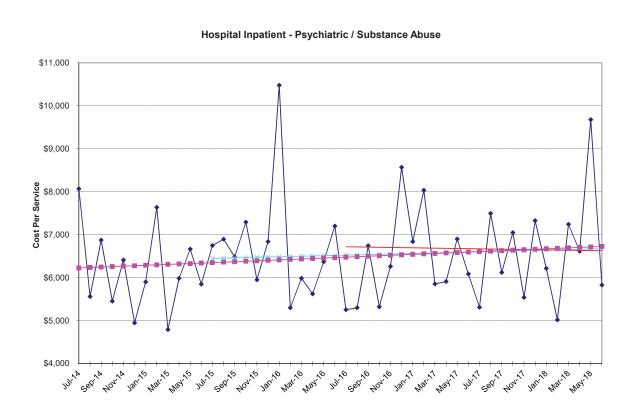
#### HOSPITAL INPATIENT

Psychiatric / Substance Abuse

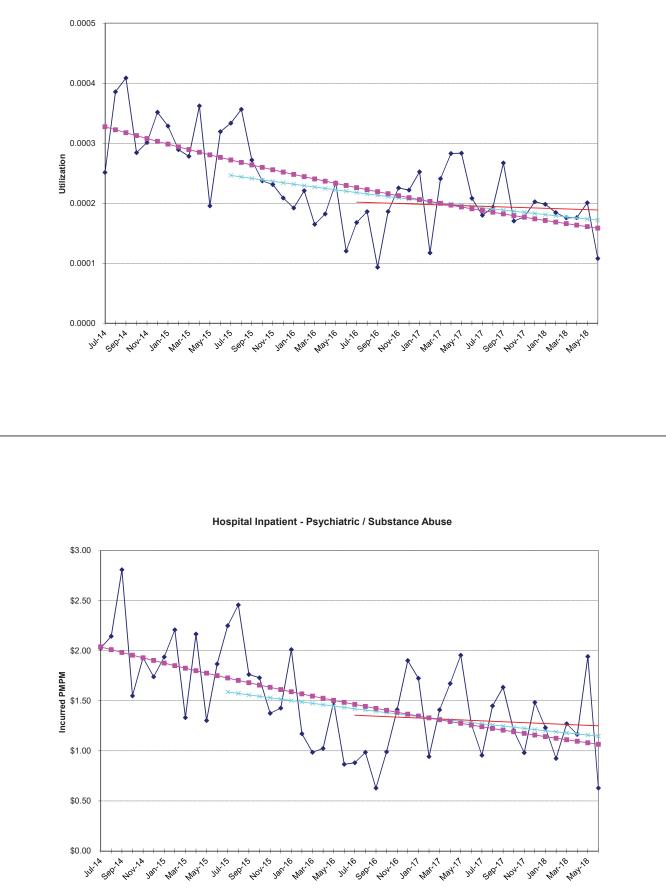
24-Month Trends Summary			
Utilization Cost / Service Total Trend			
-3.4% -0.7% <b>-4.1%</b>			

36-Month Trends Summary			
Utilization Cost / Service Total Trend			
-11.6%	1.2%	-10.6%	

48-Month Trends Summary			
Utilization Cost / Service Total Trend			
-16.9% 2.0% <b>-15.3%</b>			



#### Hospital Inpatient - Psychiatric / Substance Abuse



#### HOSPITAL OUTPATIENT

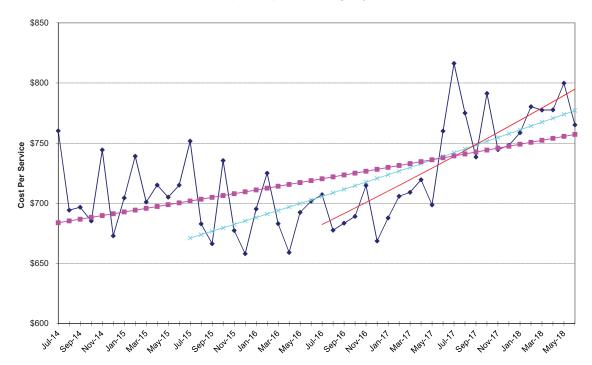
#### Emergency Room

24-Month Trends Summary		
<b>Utilization</b>	Cost / Service	Total Trend
-3.3%	8.3%	4.7%

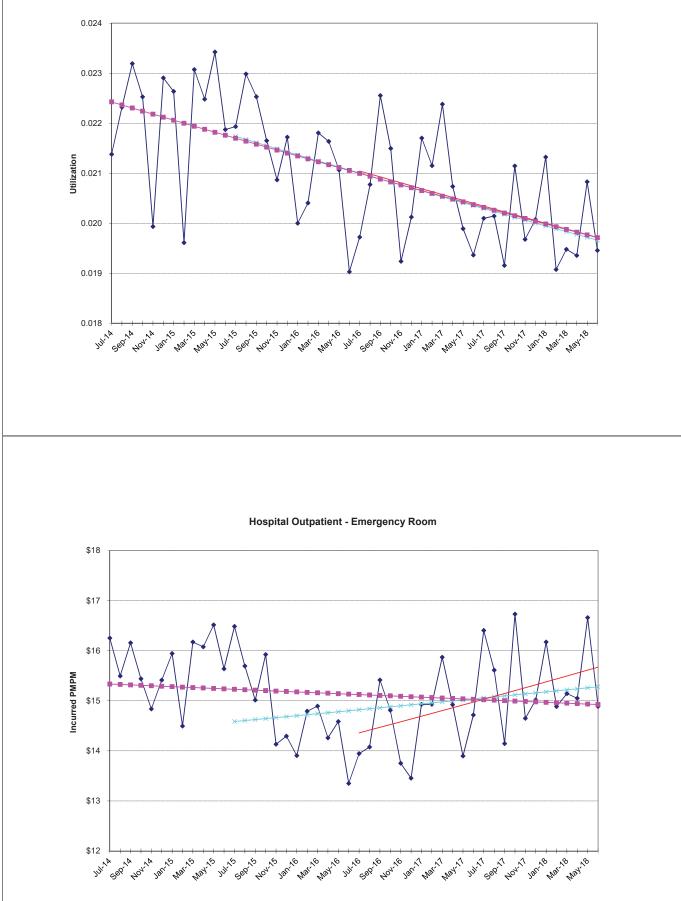
36-Month Trends Summary			
Utilization Cost / Service Total Trend			
-3.4%	5.2%	1.6%	

48-Month Trends Summary			
Utilization Cost / Service Total Trend			
-3.2%	2.6%	-0.7%	

#### **Hospital Outpatient - Emergency Room**



#### Hospital Outpatient - Emergency Room



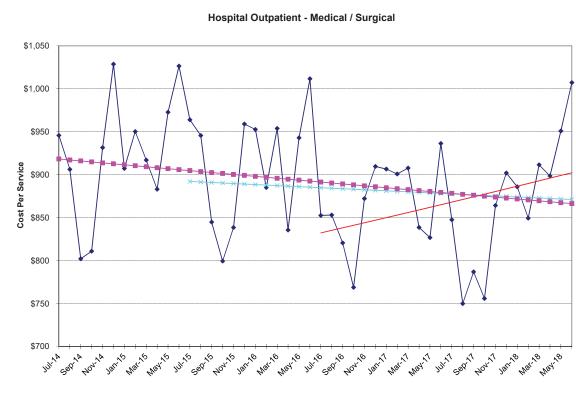
### HOSPITAL OUTPATIENT

Medical / Surgical

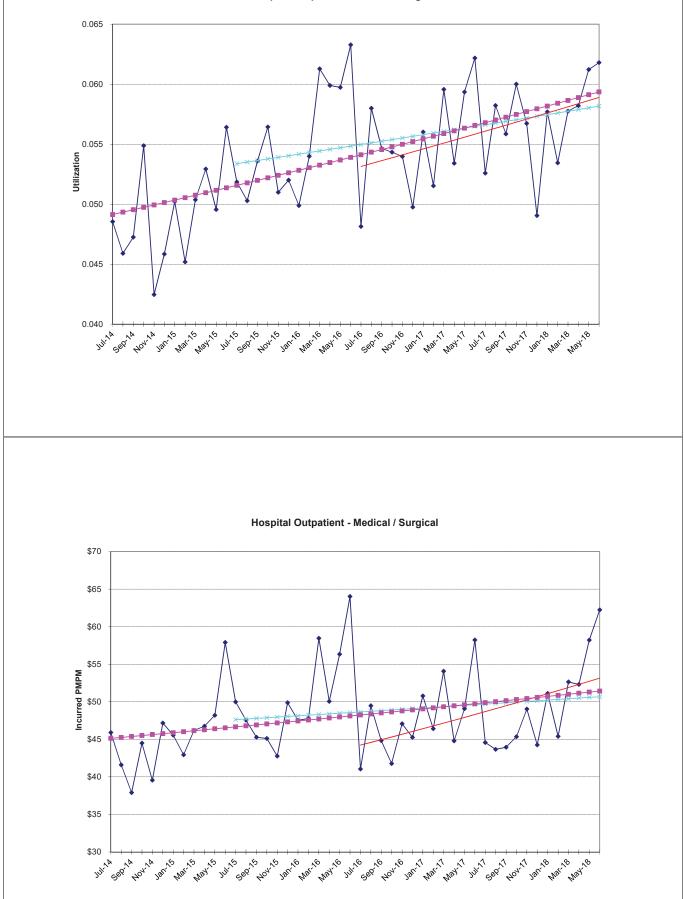
24-Month Trends Summary		
<b>Utilization</b>	Cost / Service	Total Trend
5.5%	4.3%	10.1%

36-Month Trends Summary		
<u>Utilization</u>	Cost / Service	Total Trend
3.0%	-0.8%	2.2%

48-Month Trends Summary		
<u>Utilization</u>	Cost / Service	Total Trend
4.9%	-1.5%	3.4%



# Hospital Outpatient - Medical / Surgical



**Continuing Care Actuaries** 

A - 20

### HOSPITAL OUTPATIENT

#### Other Services

24-Month Trends Summary		
Utilization	Cost / Service	Total Trend
5.4%	0.2%	5.6%

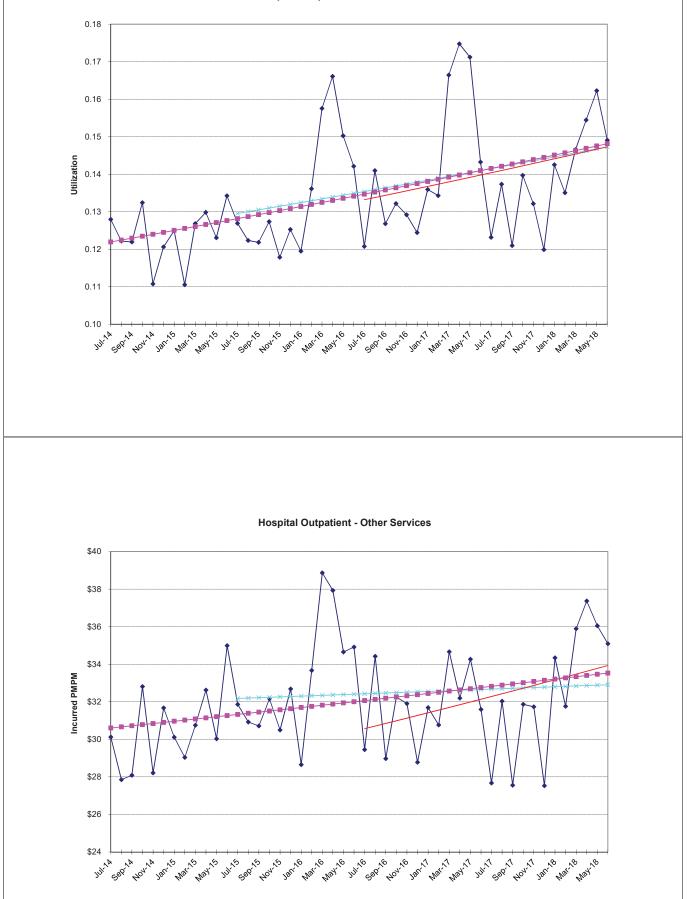
36-Month Trends Summary		
Utilization	Cost / Service	Total Trend
4.5%	-3.6%	0.8%

48-Month Trends Summary		
<u>Utilization</u>	Cost / Service	Total Trend
5.1%	-2.6%	2.4%





### **Hospital Outpatient - Other Services**



**Continuing Care Actuaries** 

A - 22

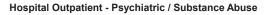
### HOSPITAL OUTPATIENT

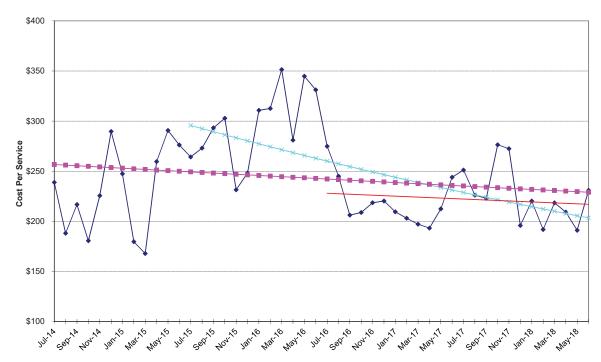
Psychiatric / Substance Abuse

24-Month Trends Summary		
<u>Utilization</u>	Cost / Service	Total Trend
-6.1%	-2.6%	-8.5%
-0.170	-2.0 /0	-0.5 /0

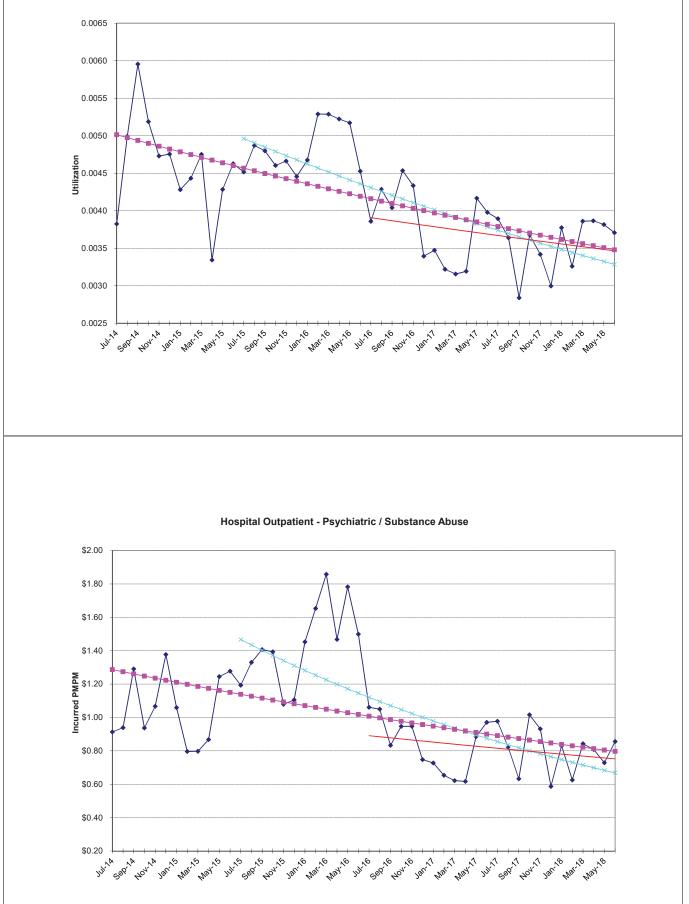
36-Month Trends Summary		
<b>Utilization</b>	Cost / Service	Total Trend
-13.2%	-12.0%	-23.6%

48-Month Trends Summary		
<u>Utilization</u>	Cost / Service	Total Trend
-8.9%	-2.9%	-11.5%





Hospital Outpatient - Psychiatric / Substance Abuse



# PHYSICIAN SERVICES

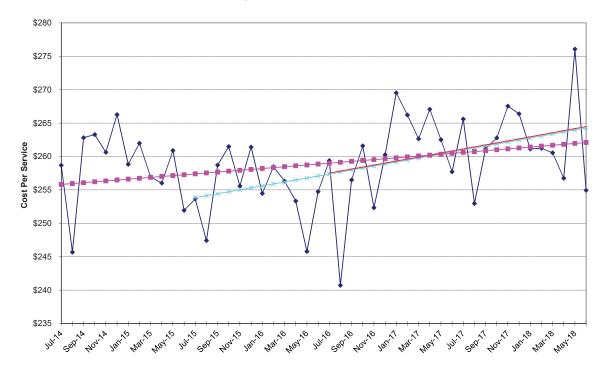
#### Anesthesia

24-Month Trends Summary		
Utilization	Cost / Service	Total Trend
5.2%	1.4%	6.7%

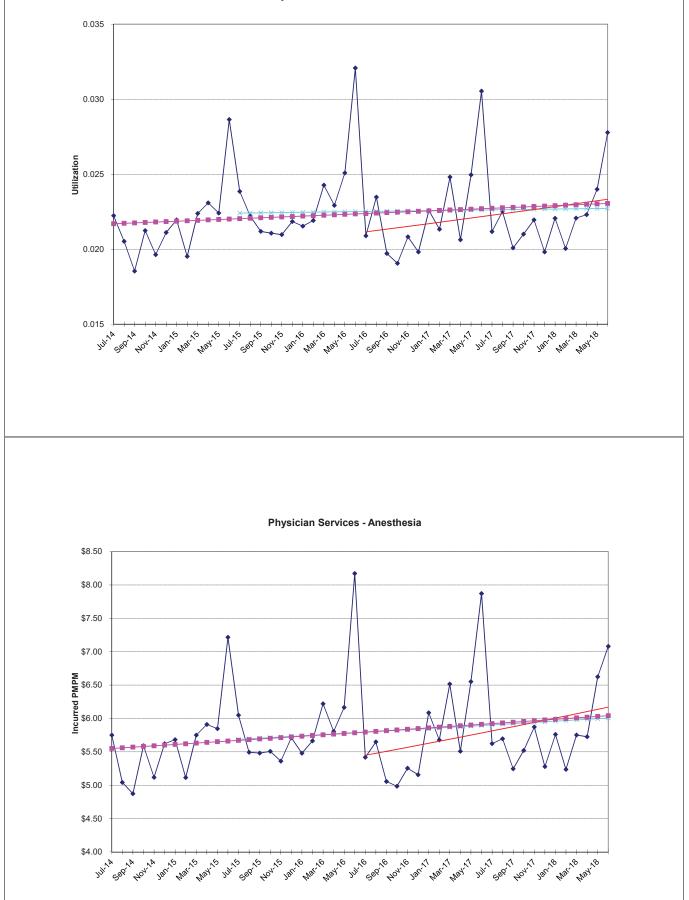
36-Month Trends Summary		
<b>Utilization</b>	Cost / Service	Total Trend
0.5%	1.4%	1.9%

48-Month Trends Summary		
<b>Utilization</b>	Cost / Service	Total Trend
1.6%	0.6%	2.2%





#### **Physician Services - Anesthesia**

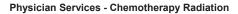


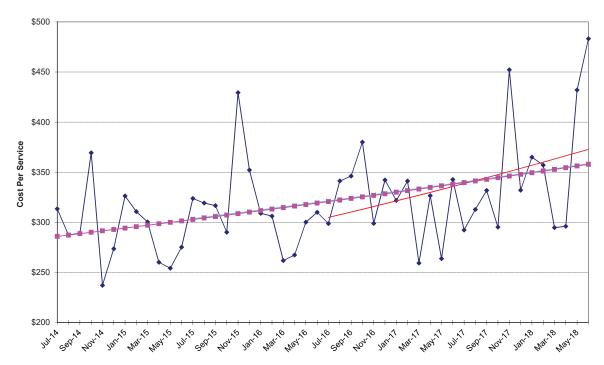
### PHYSICIAN SERVICES

24-Month Trends Summary		
<u>Utilization</u>	Cost / Service	<u>Total Trend</u>
6.4%	11.0%	18.2%

36-Month Trends Summary		
<u>Utilization</u>	Cost / Service	Total Trend
-1.9%	5.9%	3.9%

48-Month Trends Summary		
<b>Utilization</b>	Cost / Service	Total Trend
-0.7%	5.9%	5.2%





**Physician Services - Chemotherapy Radiation** 



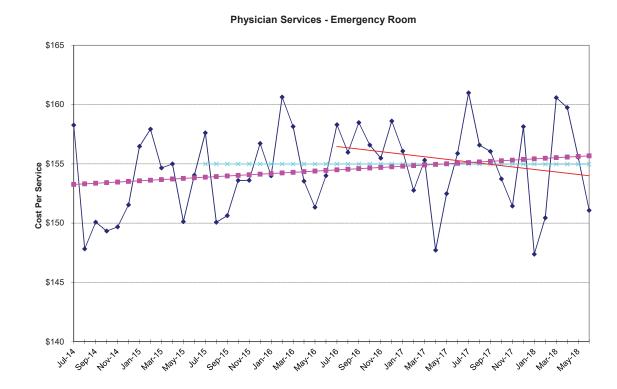
### PHYSICIAN SERVICES

### Emergency Room

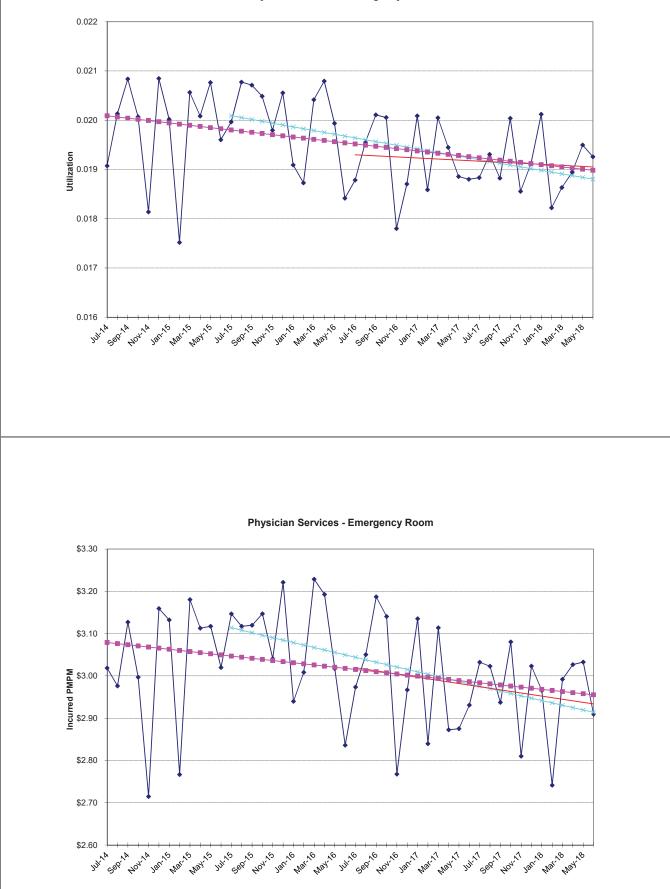
24-Month Trends Summary		
<b>Utilization</b>	Cost / Service	Total Trend
-0.7%	-0.8%	-1.5%

36-Month Trends Summary		
<u>Utilization</u>	Cost / Service	Total Trend
-2.2%	0.0%	-2.3%

48-Month Trends Summary		
Utilization	Cost / Service	Total Trend
-1.4%	0.4%	-1.0%



#### **Physician Services - Emergency Room**



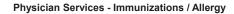
### PHYSICIAN SERVICES

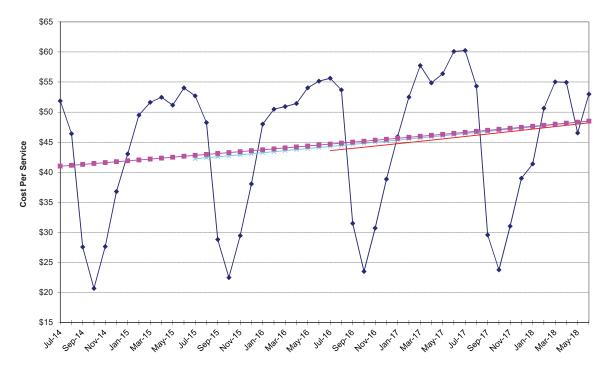
Immunizations / Injections / Allergy

24-Month Trends Summary		
<u>Utilization</u>	Cost / Service	<u>Total Trend</u>
44.004	E 40/	40.00/
-14.6%	5.4%	-10.0%

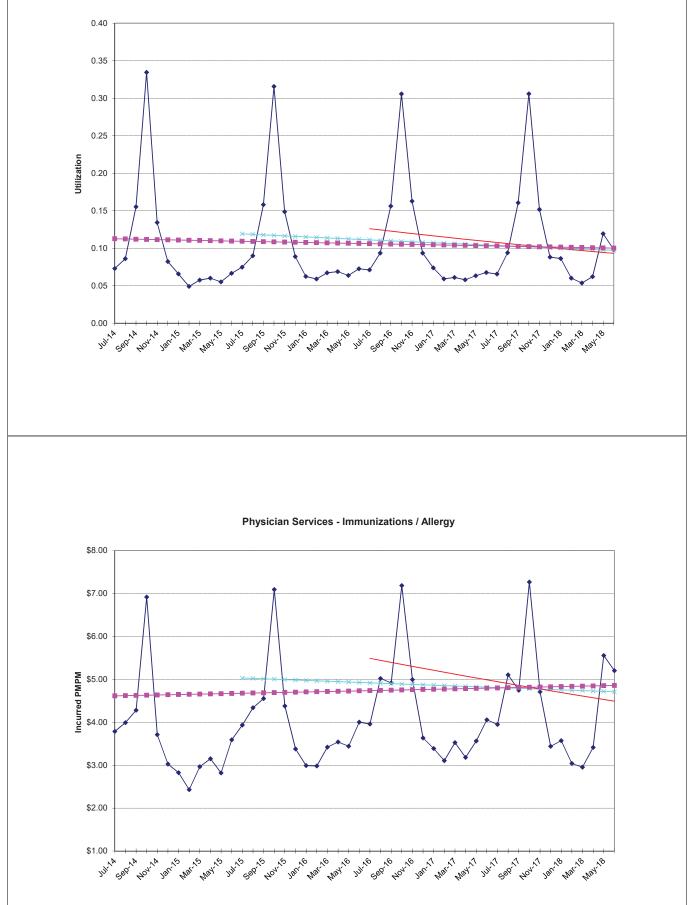
36-Month Trends Summary		
<u>Utilization</u>	Cost / Service	Total Trend
-6.8%	4.8%	-2.2%

48-Month Trends Summary		
<b>Utilization</b>	Cost / Service	Total Trend
-2.9%	4.4%	1.3%





Physician Services - Immunizations / Allergy



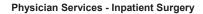
### PHYSICIAN SERVICES

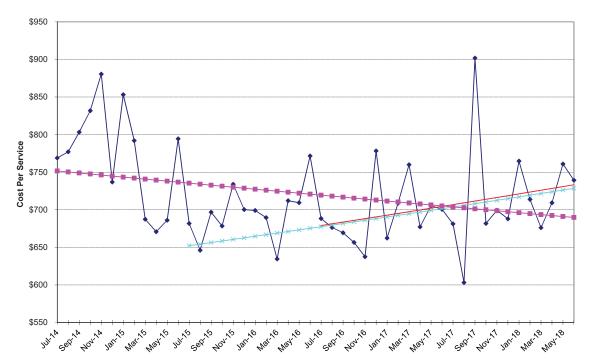
### Inpatient Surgery

24-Month Trends Summary		
<b>Utilization</b>	Cost / Service	Total Trend
7.9%	4 1%	12.3%
1.9%	4.1%	12.3%

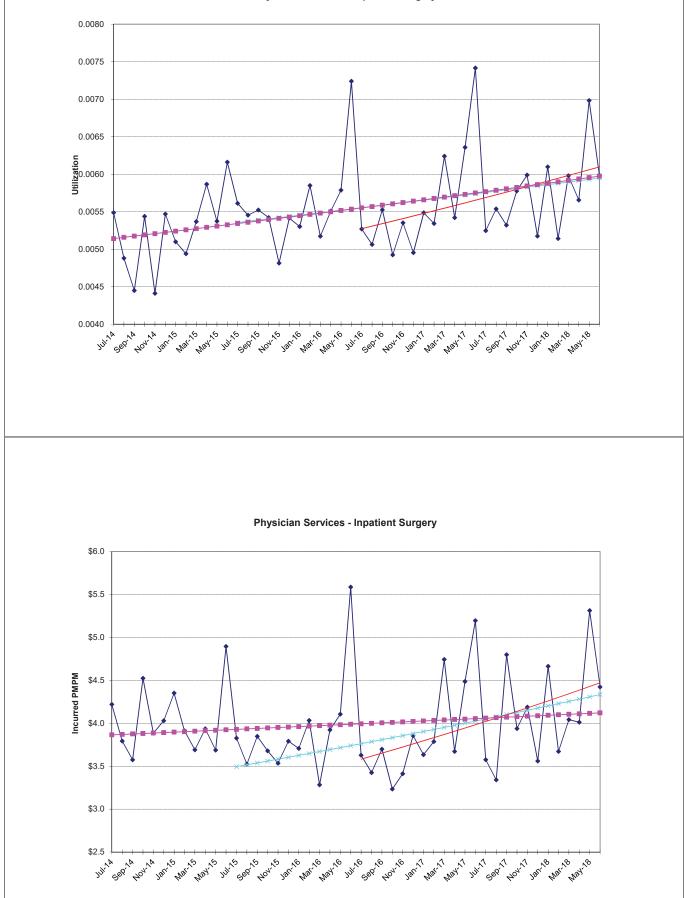
36-Month Trends Summary		
<u>Utilization</u>	Cost / Service	Total Trend
3.7%	3.9%	7.7%

48-Month Trends Summary		
<u>Utilization</u>	Cost / Service	<u>Total Trend</u>
3.9%	-2.2%	1.7%





#### **Physician Services - Inpatient Surgery**



### PHYSICIAN SERVICES

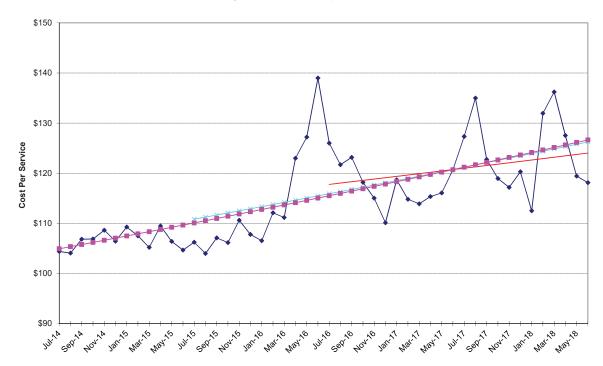
### Inpatient Visits

24-Month Trends Summary		
<b>Utilization</b>	Cost / Service	Total Trend
-0.2%	2.7%	2.6%

36-Month Trends Summary		
<u>Utilization</u>	Cost / Service	Total Trend
0.5%	4.6%	5.1%

48-Month Trends Summary		
<u>Utilization</u>	Cost / Service	<u>Total Trend</u>
-0.6%	4.9%	4.3%





#### **Physician Services - Inpatient Visits**



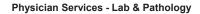
### PHYSICIAN SERVICES

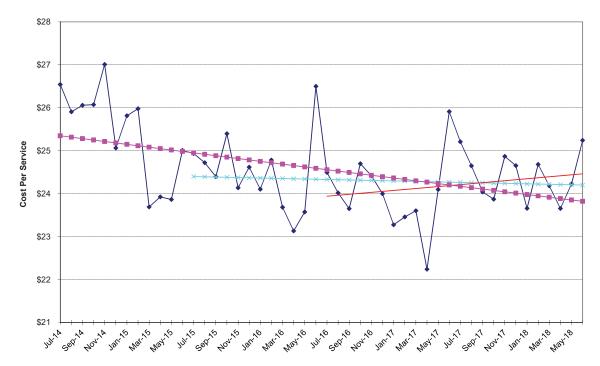
### Lab & Pathology

24-Month Trends Summary		
<u>Utilization</u>	Cost / Service	Total Trend
3 7%	1 1%	4.0%
3.1%	1.1%	4.9%

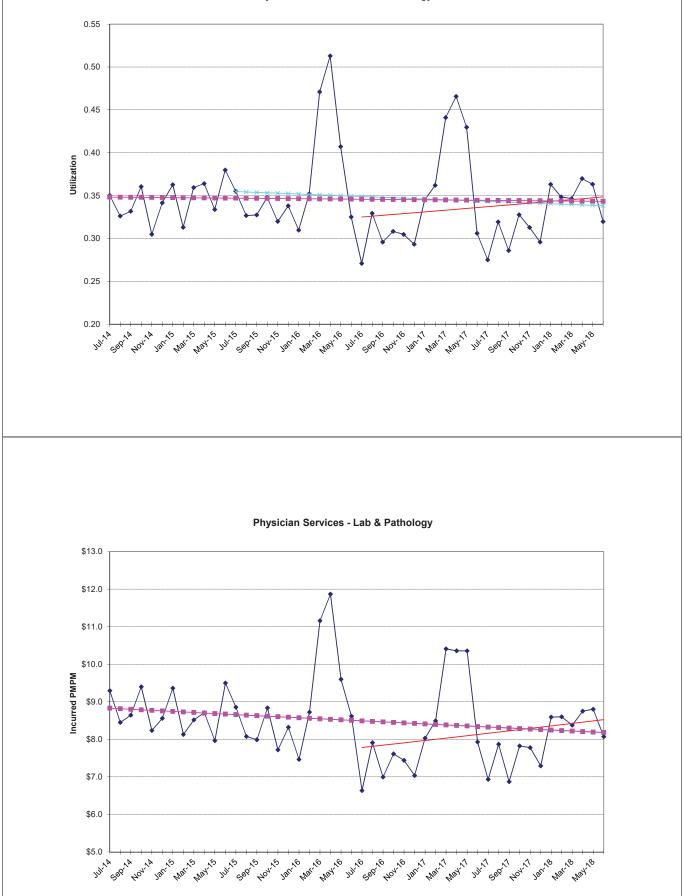
36-Month Trends Summary		
Utilization	Cost / Service	Total Trend
-1.6%	-0.3%	-1.9%

48-Month Trends Summary		
<u>Utilization</u>	Cost / Service	Total Trend
-0.4%	-1.6%	-1.9%





Physician Services - Lab & Pathology



# PHYSICIAN SERVICES

#### Maternity

24-Month Trends Summary		
<b>Utilization</b>	Cost / Service	Total Trend
-4.5%	3.6%	-1.2%

36-Month Trends Summary		
Utilization	Cost / Service	Total Trend
-1.8%	-0.2%	-2.0%

48-Month Trends Summary		
<b>Utilization</b>	Cost / Service	Total Trend
-0.9%	-1.5%	-2.4%





**Physician Services - Maternity** 



# PHYSICIAN SERVICES

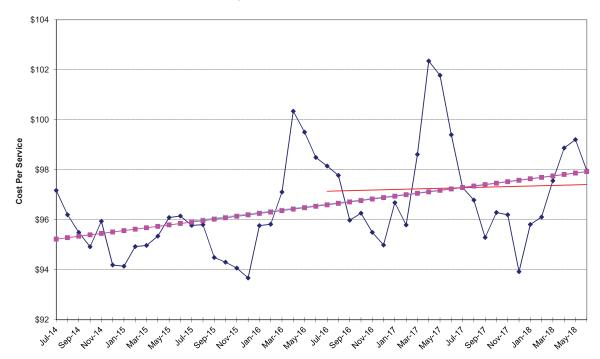
#### Office Visits

24-Month Trends Summary		
Utilization	Cost / Service	Total Trend
2.3%	0.1%	2.5%

36-Month Trends Summary		
Utilization	Cost / Service	Total Trend
0.3%	0.7%	1.0%

48-Month Trends Summary		
<b>Utilization</b>	Cost / Service	Total Trend
0.2%	0.7%	0.9%





**Physician Services - Office Visits** 



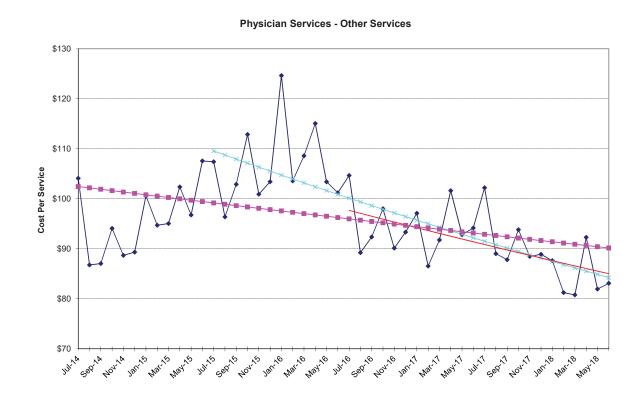
# PHYSICIAN SERVICES

#### Other Services

24-Month Trends Summary		
Utilization	Cost / Service	Total Trend
9.2%	-7.0%	1.5%

36-Month Trends Summary		
Utilization	Cost / Service	Total Trend
5.2%	-8.6%	-3.8%

48-Month Trends Summary		
<u>Utilization</u>	Cost / Service	<u>Total Trend</u>
4.9%	-3.2%	1.6%



**Physician Services - Other Services** 



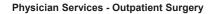
### PHYSICIAN SERVICES

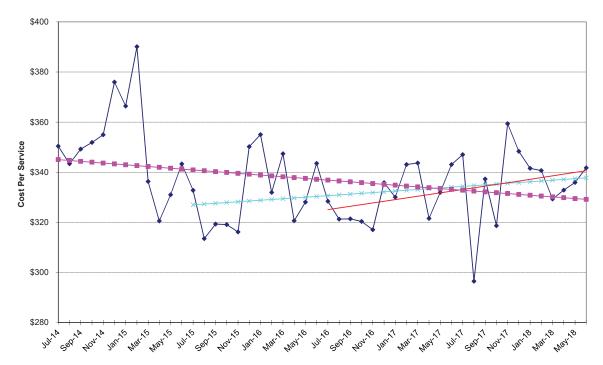
### **Outpatient Surgery**

24-Month Trends Summary		
<u>Utilization</u>	Cost / Service	Total Trend
6.9%	2.5%	9.5%

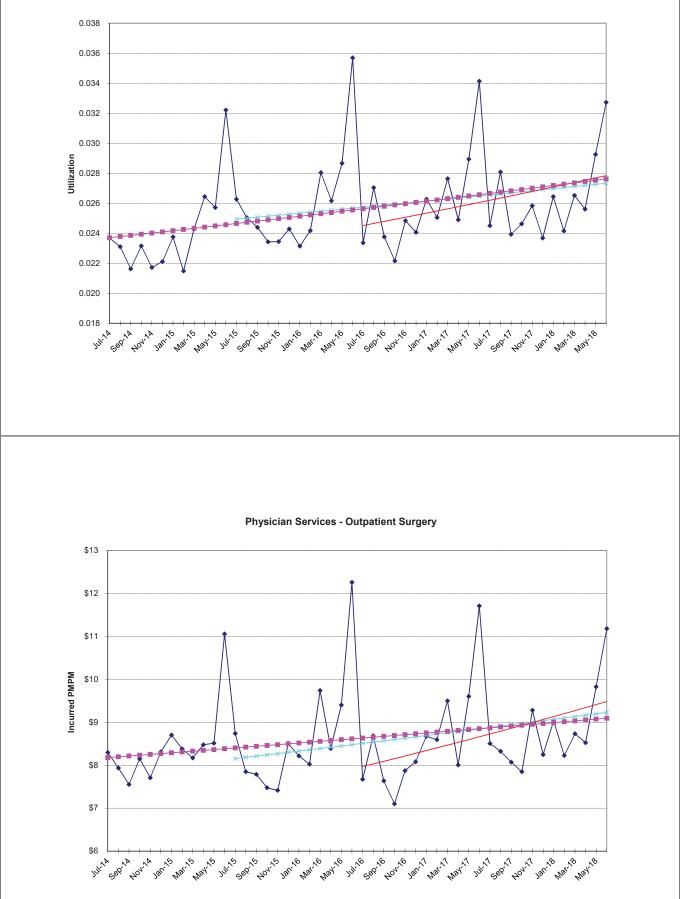
36-Month Trends Summary		
Utilization	Cost / Service	Total Trend
3.2%	1.1%	4.3%

48-Month Trends Summary		
<b>Utilization</b>	Cost / Service	Total Trend
4.0%	-1.2%	2.7%





#### **Physician Services - Outpatient Surgery**



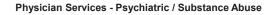
### PHYSICIAN SERVICES

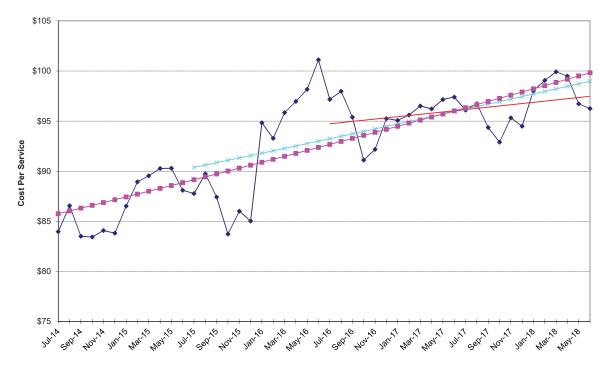
Psychiatric / Substance Abuse

24-Month Trends Summary		
<b>Utilization</b>	Cost / Service	Total Trend
3.7%	1.5%	5.2%

36-Month Trends Summary		
<u>Utilization</u>	Cost / Service	Total Trend
-1.3%	3.2%	1.8%

48-Month Trends Summary		
<u>Utilization</u>	Cost / Service	Total Trend
-1.3%	4.0%	2.6%





Physician Services - Psychiatric / Substance Abuse



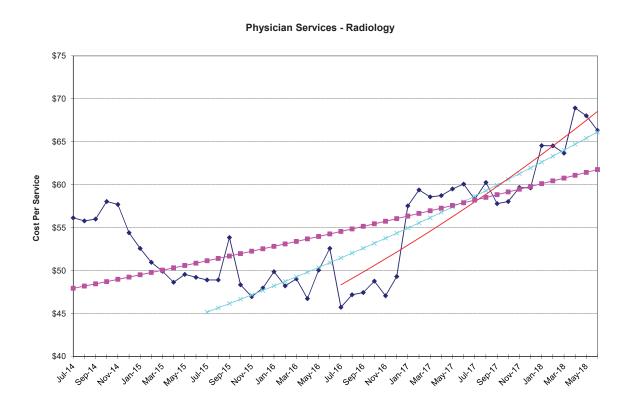
# PHYSICIAN SERVICES

### Radiology

24-Month Trends Summary		
Utilization	Cost / Service	Total Trend
-15.8%	20.0%	1.0%

36-Month Trends Summary		
<u>Utilization</u>	Cost / Service	Total Trend
-11.8%	14.0%	0.5%

48-Month Trends Summary		
<b>Utilization</b>	Cost / Service	Total Trend
-8.0%	6.7%	-1.8%



**Physician Services - Radiology** 



# PHYSICIAN SERVICES

#### Therapies

24-Month Trends Summary		
<b>Utilization</b>	Cost / Service	Total Trend
9.2%	-0.5%	8.6%

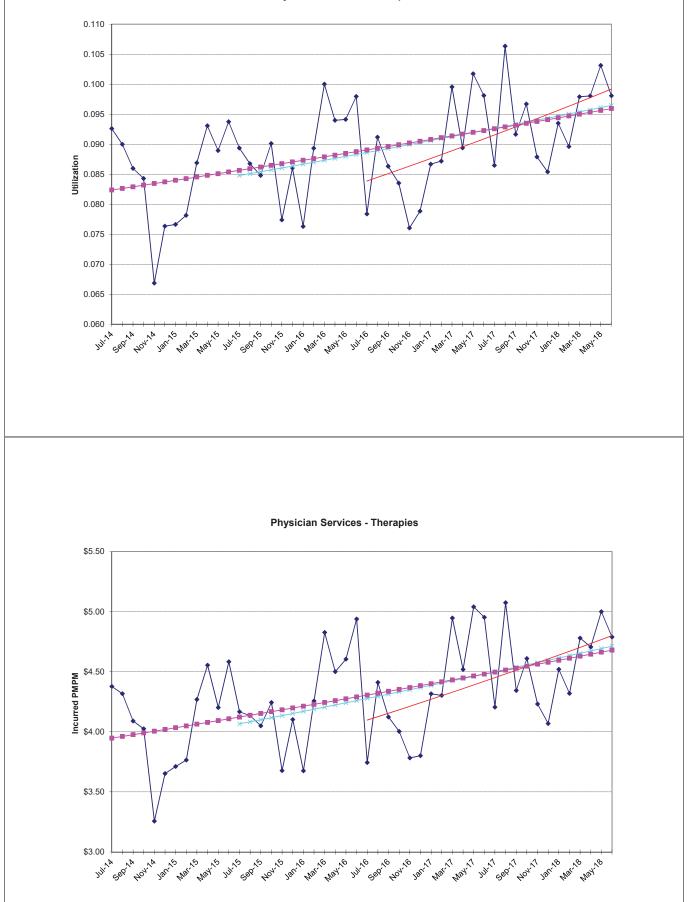
36-Month Trends Summary		
<b>Utilization</b>	Cost / Service	Total Trend
4.5%	0.6%	5.2%

48-Month Trends Summary		
<b>Utilization</b>	Cost / Service	Total Trend
4.0%	0.4%	4.4%





**Physician Services - Therapies** 



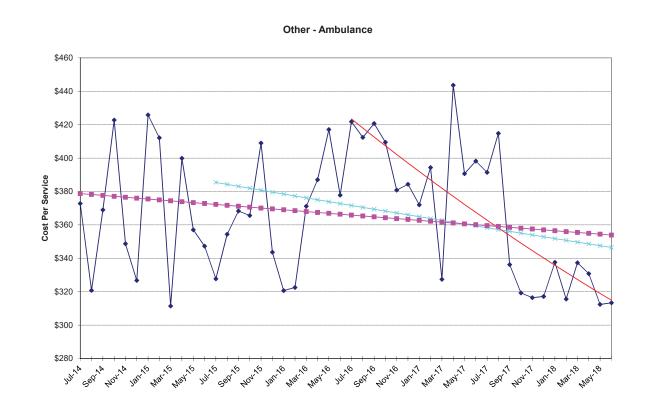
## OTHER

#### Ambulance

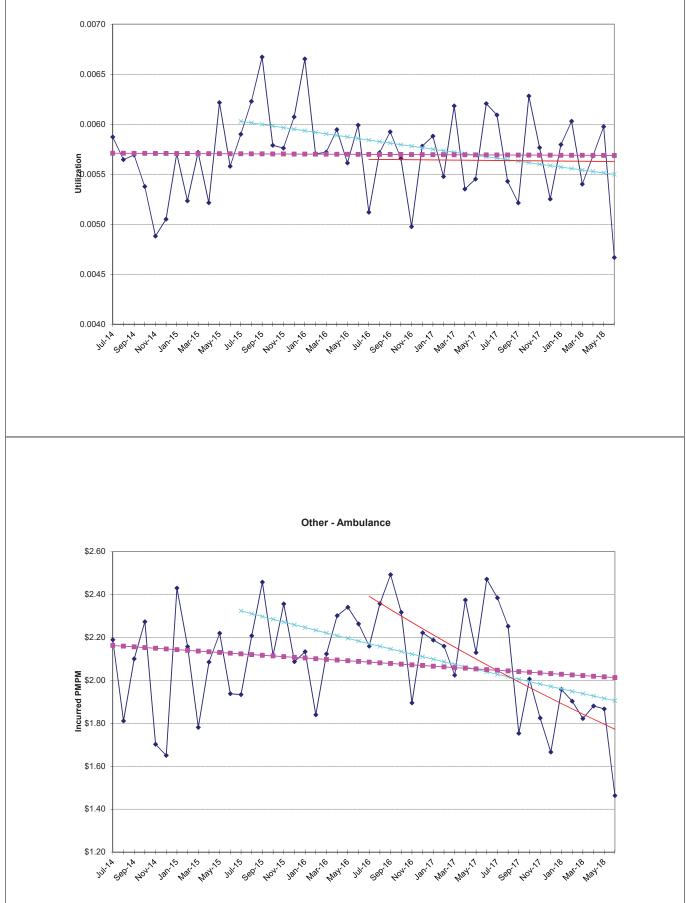
24-Month Trends Summary		
Utilization	Cost / Service	Total Trend
-0.2%	-14.3%	-14.5%

36-Month Trends Summary		
<u>Utilization</u>	Cost / Service	Total Trend
-3.1%	-3.6%	-6.6%

48-Month Trends Summary		
<u>Utilization</u>	Cost / Service	Total Trend
-0.1%	-1.7%	-1.8%



Other - Ambulance



#### NON-MEDICARE CLAIMS Excluding Drugs

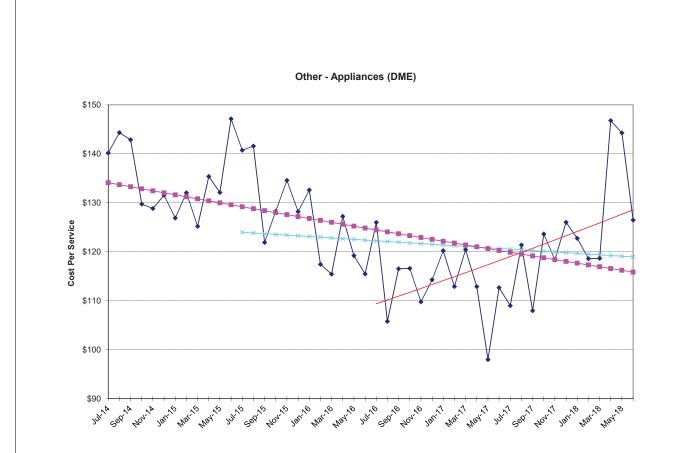
#### OTHER

#### Appliances (DME)

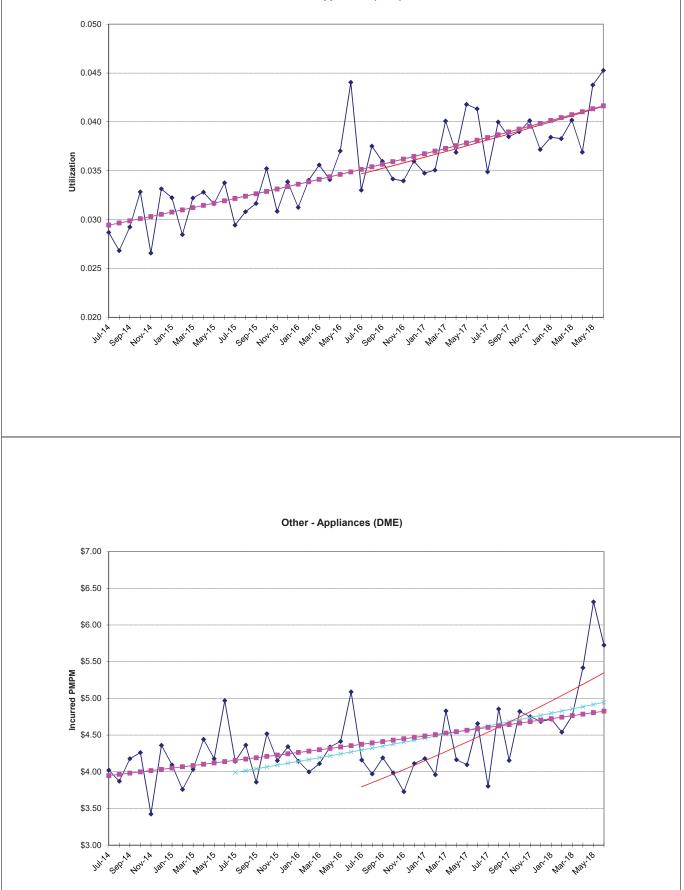
24-Month Trends Summary				
Utilization Cost / Service Total Trend				
9.9%	8.8%	19.6%		

36-Month Trends Summary					
Utilization Cost / Service Total Trend					
9.2%	-1.4%	7.6%			

48-Month Trends Summary				
Utilization Cost / Service Total Trend				
9.3%	-3.7%	5.3%		



Other - Appliances (DME)



#### NON-MEDICARE CLAIMS Excluding Drugs

#### OTHER

#### Other Services

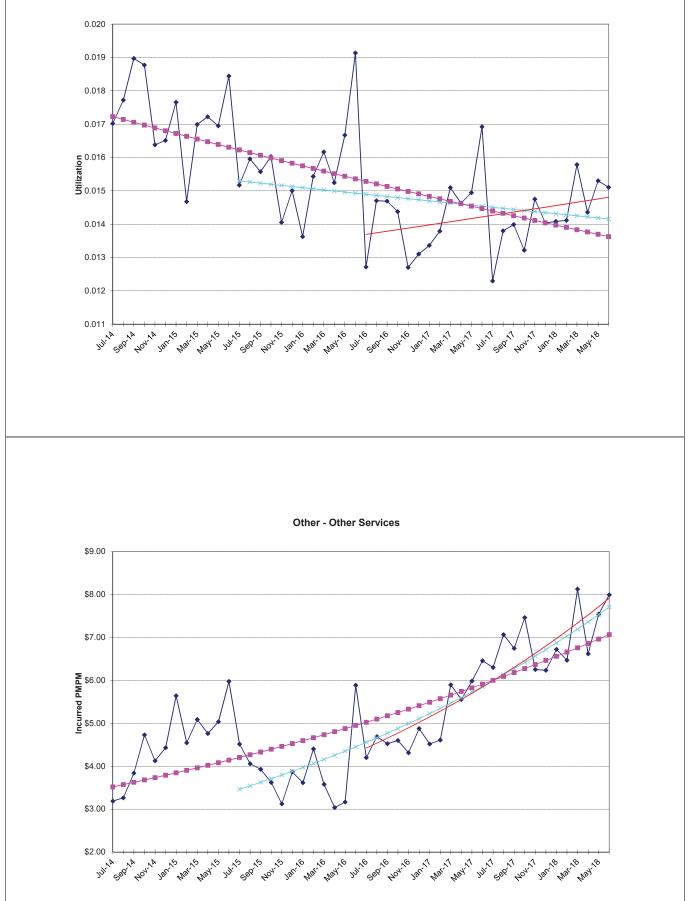
24-Month Trends Summary				
<u>Utilization</u>	Cost / Service	Total Trend		
4.2%	30.0%	35.4%		

36-Month Trends Summary					
<u>Utilization</u>	Utilization Cost / Service Total Trend				
-2.6%	35.1%	31.6%			

48-Month Trends Summary					
Utilization Cost / Service Total Trend					
-5.8%	26.9%	19.5%			



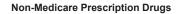
Other - Other Services

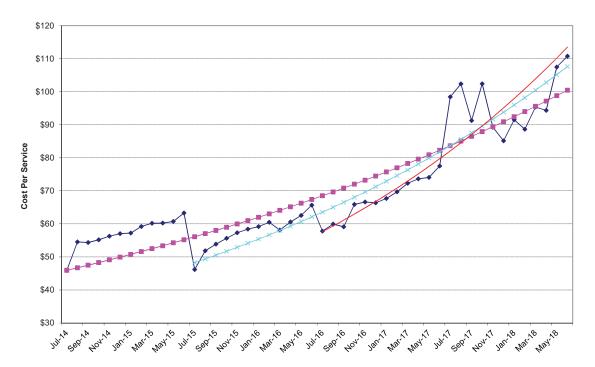


# **Appendix B**

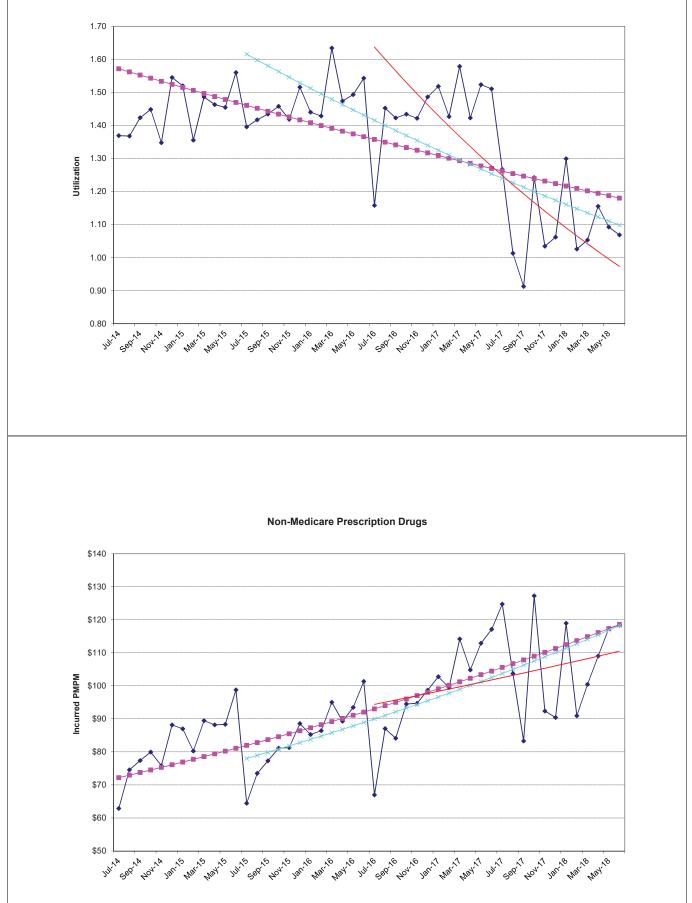
#### Non-Medicare Prescription Drugs

	<b>Utilization</b>	Cost / Prescription	Total Trend
24-Month Trend	-23.8%	42.4%	8.6%
36-Month Trend	-12.4%	31.6%	15.3%
48-Month Trend	-7.1%	22.1%	13.5%





#### **Non-Medicare Prescription Drugs**



# <u>Appendix C – Prescription Drug Trends</u>

# **Overview**

Continuing Care Actuaries analyzed prescription drug experience in aggregate, by major indicator and in particular, specialty drugs. We analyzed the prescription drug trends using a 24, 36, and 48 month actuarial basis. We found the 24 month basis as the methodology that is most likely to produce accurate future trends. Under this methodology, utilization had a -29.0% trend and unit cost had a 44.0% trend, resulting in a composite trend of 2.3% on an unadjusted basis. The extraordinary decrease in utilization and corresponding increase in unit cost was largely due to the PEIA Finance Board's new 90-day drug supply policy. The new 90-day drug supply policy resulted in fewer prescriptions and higher unit cost, with the combined impact reducing drug trends in 2018. The chart below summarizes components of the unadjusted prescription drug trend for the past 7 years

Year	Utilization	Unit Cost	Composite Trend
2012	-0.5%	5.4%	5.6%
2013	0.0%	-5.8%	-5.5%
2014	-1.5%	6.2%	4.5%
2015	3.9%	7.9%	11.5%
2016	-0.7%	8.7%	6.9%
2017	-2.4%	12.2%	7.1%
2018	-29.0%	44.0%	2.3%

Prior to this analysis, the financial plan was developed using a 12.0% trend for fiscal year 2019. Based on results and future expectations, Continuing Care Actuaries has chosen to use a drug trend assumption of 11.5% for fiscal year 2019 in the financial plan.

### **Brand Patent Expirations**

This drug trend assumption has been made in consideration of recent drug experience, as well as future blockbuster drugs that are expected to lose their patent in the upcoming years. Overall, we can expect fewer expirations than PEIA has experienced in the past. Examples of these drugs include:

Drug	Patent Expiration	2017 Ingredient Cost		2018 Ingredien	t Cost
_		Amount	%	Amount	%
Eliquis	2019	1,921,766	0.8%	2,596,583	1.0%
Gilenya	2019	1,916,699	0.8%	1,962,644	0.8%
Xyrem	2019	2,114,824	0.9%	2,281,496	0.9%
Chantix	2020	86,011	0.0%	105,268	0.0%
Dexilant	2020	267,904	0.1%	375,956	0.1%
Sprycel	2020	719,076	0.3%	805,680	0.3%
Total		\$7,026,280	2.9%	\$8,127,627	3.2%

### **Specialty Drugs**

Specialty drugs have continued to be a concern for PEIA due to the relatively rapid growth in utilization and unit cost. Nationally, specialty drug spend is approximately 40% of all drug spend. For PEIA, it is approximately 31% of all drug spend. The following chart shows the percent of plan drug expenditures in specialty drugs in the past few years. The drop in the number of prescriptions is due to the PEIA Finance Board's new 90-day drug supply policy. The days supply increased by 4.5% in 2018, which is a better measure of utilization under the new 90-day drug policy.

	Specialty Drugs					
Period	Total Specialty Cost (\$M)	Percent of Total Cost	Specialty Cost Growth	Number of Specialty Rx	Specialty Rx Growth	
FY 2013	\$34.0	18.00%	24.30%	11,167	5.50%	
FY 2014	\$35.8	18.60%	5.30%	10,938	-2.10%	
FY 2015	\$40.2	18.70%	12.40%	11,028	0.80%	
FY 2016	\$48.5	21.10%	20.70%	11,128	0.90%	
FY 2017	\$73.6	29.90%	51.50%	17,731	59.30%	
FY 2018	\$78.3	31.30%	6.50%	16,153	-8.90%	

The following chart shows the top 10 brand name specialty drugs and their total cost in 2018:

Rank	2018 Brand Name	2018 Cost	2017 Cost	Total Growth
1	HUMIRA	\$19,222,735	\$17,103,300	12.4%
2	ENBREL	\$7,237,742	\$8,109,509	-10.7%
3	COPAXONE	\$3,788,414	\$4,819,496	-21.4%
4	TECFIDERA	\$2,933,218	\$2,256,391	30.0%
5	XYREM	\$2,281,496	\$2,114,824	7.9%
6	GILENYA	\$1,962,644	\$1,916,699	2.4%
7	NORDITROPIN	\$1,925,714	\$2,054,809	-6.3%
8	REVLIMID	\$1,865,012	\$1,775,942	5.0%
9	OTEZLA	\$1,824,302	\$1,483,387	23.0%
<u>10</u>	AUBAGIO	\$1,470,629	<u>\$1,145,709</u>	<u>28.4%</u>
	Total	\$44,511,907	\$42,780,066	4.0%
	Percent of Specialty Cost	56.8%	58.2%	

### **Indicator Categories**

Continuing Care Actuaries reviewed the individual prescription data items for Fiscal Years 2017 and 2018. A total of 1,986,158 scripts were written for approximately 2,713 different kinds of prescriptions in 2018. The prescriptions were grouped by indicator codes, providing a basis to develop the Fiscal Year 2018 trend by indicator code. The top 40 indicator codes were analyzed, which accounted for 83.8% of PEIA's prescription drug expenditures.

The top 5 indicators from 2018 were the same as the top 5 in 2017, except for Incretin Mimetic Drugs. PEIA members continue to spend the most on Antirheumatic Drugs. The following chart lists the top 5 and the total drug spend each year.

Rank	2017 Indicator	2017 Cost	2018 Indicator	2018 Cost
1	ANTIRHEUMATIC	\$30,252,869	ANTIRHEUMATIC	\$31,208,503
2	INSULINS	27,935,472	INSULINS	30,007,844
3	IMMUNOMOD AGNTS	12,801,454	INCRETIN MIMETI	13,803,603
4	ANTINEOPLASTIC	11,796,523	IMMUNOMOD AGNTS	12,888,745
5	DDP-4 INHIBITOR	10,138,273	ANTINEOPLASTIC	11,621,670

The charts on the next few pages summarize the utilization and cost per service for formulary and non-formulary drugs for each indicator code. The "Top Five Increases in Drug Trends" chart is calculated with indicators which grossed at least \$200,000 in ingredient cost in 2018.

# **Indicators with the Largest Dollar Increase**

	2017 Total	2018 Total	
Indication	Ingredient Cost	Ingredient Cost	Total Increase
INCRETIN MIMETI	\$8,803,805	\$13,803,603	\$4,999,798
ANTIDIABETIC	\$6,635,300	\$8,729,202	2,093,902
INSULINS	\$27,935,472	\$30,007,844	2,072,372
CORTICOSTEROIDS	\$1,792,458	\$3,202,910	1,410,452
ADRENALS	\$4,571,443	\$5,610,830	1,039,387

# **Indicators with the Largest Increase as a Percentage**

Indication	2017 Total Ingredient Cost	2018 Total Ingredient Cost	Total Increase
RENIN-ANGIOTENSIN-ALDOSTERONE			
SYSTEM INHIBITORS, M	\$146,242	\$446,365	205.2%
PROPROTEIN CONVERTASE SUBTILISIN			
KEXIN TYPE 9 (PCS	\$219,174	\$557,074	154.2%
PITUITARY	\$559,678	\$1,340,347	139.5%
KERATOLYTIC	\$111,919	\$251,244	124.5%
CARDIAC MISC,	\$356,991	\$667,194	86.9%

# **Indicators with the Largest Increase in Claim Numbers**

Indication	2017 Prescriptions	2018 Prescriptions	Utilization Increase
CORTICOSTEROIDS	55,427	67,748	12,321
NEURAMINID INHI	6,361	10,446	4,085
TETRACYCLINES	18,518	19,202	684
PROPROTEIN CONVERTASE SUBTILISIN			
KEXIN TYPE 9 (PCS	197	505	308
RENIN-ANGIOTENSIN-ALDOSTERONE			
SYSTEM INHIBITORS, M	285	485	200

# **Indicators with the Largest Utilization Increase Percentage**

Indication	2017 Prescriptions	2018 Prescriptions	Utilization Increase
PROPROTEIN CONVERTASE			
SUBTILISIN KEXIN TYPE 9 (PCS	197	505	156.3%
RENIN-ANGIOTENSIN-ALDOSTERONE			
SYSTEM INHIBITORS, M	285	485	70.2%
NEURAMINID INHI	6,361	10,446	64.2%
HEMATOPOIETIC	109	142	30.3%
KERATOLYTIC	567	732	29.1%

# **Indicators with the Largest Increase in Cost per Prescription**

	2017 Ingredient Cost	2018 Ingredient Cost	Ingredient Cost
			Per Prescription
Indication	Per Prescription	Per Prescription	Increase
PITUITARY	\$798.40	\$3,733.56	\$2,935.16
ANTIRETROVIRALS	\$1,840.49	\$4,250.95	\$2,410.46
DIGESTANTS	\$1,439.65	\$3,271.63	\$1,831.98
OTHER MISC THER	\$2,323.45	\$3,928.74	\$1,605.29
HEMATOPOIETIC	\$4,948.72	\$6,160.01	\$1,211.29

### **Indicators with the Largest Percentage Increase in Cost per Prescription**

	2017 Ingredient Cost	2018 Ingredient Cost	Ingredient Cost Per Prescription
Indication	Per Prescription	Per Prescription	Increase
PITUITARY	\$798.40	\$3,733.56	367.6%
ANTI-INFLAMMATO	\$182.54	\$822.31	350.5%
DOPAM REC AGON	\$33.66	\$79.17	135.2%
ANTIRETROVIRALS	\$1,840.49	\$4,250.95	131.0%
DIGESTANTS	\$1,439.65	\$3,271.63	127.3%

# **Drug Indicators by Highest Cost**

Number of RankCost Per PrescriptionsProgram CostsPercent (cost)	) <u>(Scripts)</u> 6 100.0%
RankIndicatorPrescriptionsPrescriptionCosts(costs)	6 100.0%
1 ANTIRHEUMATIC 6,829 \$4,570.00 \$31,208,503 100.09	
2 INSULINS 19,717 1,521.93 30,007,844 100.09	6 100.0%
3 INCRETIN MIMETI 8,204 1,682.55 13,803,603 100.09	б <u>100.0</u> %
4 IMMUNOMOD AGNTS 2,074 6,214.44 12,888,745 80.49	ó 78.2%
5 ANTINEOPLASTIC 6,440 1,804.61 11,621,670 98.89	<b>6</b> 99.8%
6 DDP-4 INHIBITOR 10,437 1,040.29 10,857,508 100.09	б <u>100.0</u> %
7 ANTIDIABETIC 7,890 1,106.36 8,729,202 100.09	ю́ 100.0%
8 ADRENALS 66,695 84.13 5,610,830 99.89	<b>6</b> 99.9%
9 ANTICOAGULANTS 9,883 537.80 5,315,057 99.99	<b>6</b> 99.6%
10 ANTIDEPRESSANTS 140,636 37.49 5,272,466 96.19	<b>6</b> 99.9%
11 MISC ANTICONVUL 46,048 104.92 4,831,207 93.79	<b>6</b> 99.6%
12 B-ADREN AGON 25,631 186.97 4,792,150 100.09	ю́ 100.0%
13 SKIN AND MUCOUS 7,485 535.83 4,010,679 97.49	6
14 CONTRACEPTIVES 45,199 83.08 3,755,325 98.89	<b>6</b> 99.4%
15 PPI 69,924 50.98 3,564,604 99.99	ю́ 100.0%
16 AMPHETAMINES 23,566 139.99 3,299,113 99.49	<b>6</b> 99.6%
17 CORTICOSTEROIDS 67,748 47.28 3,202,910 99.59	<b>6</b> 99.9%
18 ANTIPSYCHOTICS 8,818 331.60 2,924,057 99.39	<b>6</b> 99.8%
19 NERVOUS SYS AGT 2,814 1,016.37 2,860,061 99.69	<b>98.6%</b>
20 DIABETES MELLIT 14,966 180.16 2,696,345 100.09	<i>б</i> 100.0%

# **Drug Indicators by Highest Cost (continued)**

					<u>Formulary</u>	<u>Formulary</u>
D 1	T 1' /	Number of	<u>Cost Per</u>	Program	Percent	Percent
<u>Rank</u>	Indicator	Prescriptions	Prescription	<u>Costs</u>	<u>(cost)</u>	(Scripts)
			000 01	0 (00 001	00.40/	00.70/
21	ANTI-INFLAMMATO	3,262	822.31	2,682,381	98.4%	98.7%
22	GI DRUGS, MISCE	2,533	1,022.92	2,591,065	100.0%	100.0%
23	ESTROGENS	13,378	187.11	2,503,152	97.2%	98.4%
24	BETA BLOCKERS	65,467	38.19	2,500,137	98.6%	99.7%
25	ANTIRETROVIRALS	588	4,250.95	2,499,558	99.9%	99.7%
26	ANTIMUSCARINICS	13,937	176.84	2,464,587	99.1%	99.8%
27	THYROID AGENTS	58,294	37.55	2,188,903	58.9%	80.6%
	CYSTIC FIBROSIS TRANSMEMBRANE					
28	CONDUCTANCE REGULATO	100	21,773.52	2,177,352	100.0%	100.0%
29	HMG-COA RED INH	88,785	24.05	2,135,520	99.1%	100.0%
30	EENT ANTI-INFL	1,945	1,095.57	2,130,877	100.0%	100.0%
31	SOMATOTROP AGON	412	5,010.52	2,064,334	100.0%	100.0%
32	OTHER MISC THER	477	3,928.74	1,874,010	100.0%	100.0%
33	RESP AND CNS	11,333	150.63	1,707,037	94.8%	96.8%
34	VASODILAT AGT	183	9,315.35	1,704,709	100.0%	100.0%
35	PROTEASE INH	58	26,994.20	1,565,663	100.0%	100.0%
36	NONSTEROIDAL AN	59,565	23.52	1,400,914	99.4%	100.0%
37	NEURAMINID INHI	10,446	132.21	1,381,025	90.3%	94.3%
38	PITUITARY	359	3,733.56	1,340,347	100.0%	100.0%
39	PLATELET-AGG IN	9,447	140.85	1,330,640	97.9%	99.6%
		,				
40	FIBRIC ACID DER	10,737	119.59	1,284,080	99.7%	99.9%
	All Other Indicators	<u>1,043,848</u>	<u>39.17</u>	<u>40,886,386</u>	<u>97.8%</u>	<u>99.7%</u>
	Total	1,986,158	\$126.71	\$251,664,558	97.7%	99.1%

# **Drug Indicators by Highest Cost Analysis of Formulary Distribution**

			Formulary		N	Ion-Formula	ry
			Ingredient	Cost Per		Ingredient	Cost Per
Rank	Indicator	Scripts	Cost	Script	Scripts	Cost	Script
1	ANTIRHEUMATIC	6,829	\$31,208,503	\$4,570.00	0	\$0	\$0.00
2	INSULINS	19,717	30,007,844	1,521.93	0	0	0.00
3	INCRETIN MIMETI	8,204	13,803,603	1,682.55	0	0	0.00
4	IMMUNOMOD AGNTS	1,622	10,357,628	6,385.71	452	2,531,117	5,599.82
5	ANTINEOPLASTIC	6,425	11,480,581	1,786.86	15	141,089	9,405.95
6	DDP-4 INHIBITOR	10,437	10,857,508	1,040.29	0	0	0.00
7	ANTIDIABETIC	7,890	8,729,202	1,106.36	0	0	0.00
8	ADRENALS	66,656	5,601,383	84.03	39	9,447	242.22
9	ANTICOAGULANTS	9,846	5,308,192	539.12	37	6,865	185.53
10	ANTIDEPRESSANTS	140,476	5,065,808	36.06	160	206,658	1,291.61
11	MISC ANTICONVUL	45,882	4,525,088	98.62	166	306,119	1,844.09
12	B-ADREN AGON	25,624	4,791,252	186.98	7	898	128.33
13	SKIN AND MUCOUS	7,330	3,907,438	533.07	155	103,241	666.07
14	CONTRACEPTIVES	44,942	3,710,030	82.55	257	45,296	176.25
15	PPI	69,915	3,560,407	50.92	9	4,197	466.30
16	AMPHETAMINES	23,466	3,280,732	139.81	100	18,381	183.81
17	CORTICOSTEROIDS	67,685	3,186,623	47.08	63	16,287	258.53
18	ANTIPSYCHOTICS	8,802	2,903,390	329.86	16	20,667	1,291.67
19	NERVOUS SYS AGT	2,775	2,848,893	1,026.63	39	11,168	286.36
20	DIABETES MELLIT	14,966	2,696,345	180.16	0	0	0.00

<b>Drug Indicators by Highest Cost</b>
Analysis of Formulary Distribution (continued)

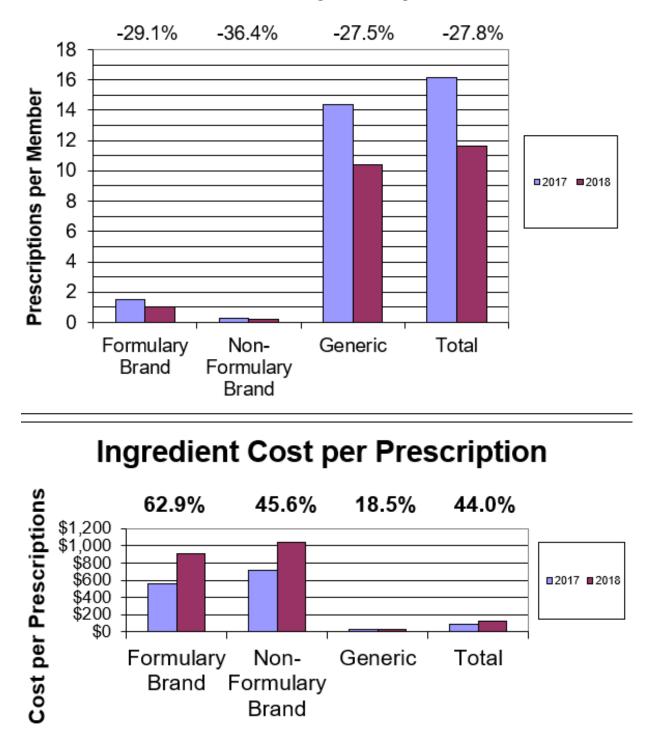
			Formulary		Ν	Ion-Formula	ry
			Ingredient	Cost Per		Ingredient	Cost Per
Rank	Indicator	Scripts	Cost	Script	Scripts	Cost	Script
21	ANTI-INFLAMMATO	3,218	2,640,088	820.41	44	42,293	961.21
22	GI DRUGS, MISCE	2,533	2,591,065	1,022.92	0	0	0.00
23	ESTROGENS	13,162	2,433,911	184.92	216	69,240	320.56
24	BETA BLOCKERS	65,294	2,464,381	37.74	173	35,755	206.68
25	ANTIRETROVIRALS	586	2,495,936	4,259.28	2	3,622	1,810.94
26	ANTIMUSCARINICS	13,910	2,443,517	175.67	27	21,070	780.37
27	THYROID AGENTS	46,991	1,290,072	27.45	11,303	898,831	79.52
	CYSTIC FIBROSIS						
28	TRANSMEMBRANE CONDUCTANCE REGULATO	100	2,177,352	21,773.52	0	0	0.00
28 29		88,756	2,116,908	23.85	29	18,613	641.82
30	HMG-COA RED INH EENT ANTI-INFL	1,945	2,110,908	1,095.57	29 0	18,015	0.00
30	SOMATOTROP AGON	412	2,064,334	5,010.52	0	0	0.00
31	OTHER MISC THER	477	1,874,010	3,928.74	0	0	0.00
33	RESP AND CNS	10,974	1,617,751	147.42	359	89,286	248.71
33 34	VASODILAT AGT	10,974	1,704,709	9,315.35	0	09,200	0.00
34	PROTEASE INH	58	1,565,663	26,994.20	0	0	0.00
36	NONSTEROIDAL AN	59,553	1,393,104	23.39	12	7,810	650.82
37	NEURAMINID INHI	9,849	1,247,710	126.68	597	133,315	223.31
38	PITUITARY	359	1,340,347	3,733.56	0	155,515	0.00
38 39	PLATELET-AGG IN	9,410	1,302,201	138.38	37	28,440	768.64
40	FIBRIC ACID DER	10,723	1,279,620	138.38	14	28,440 4,460	318.60
40		1,040,862	<u>39,992,991</u>		<u>2,986</u>	<u>893,395</u>	<u>299.19</u>
	All Other Indicators	· · · · · · · · · · · · · · · · · · ·		<u>38.42</u>			
	Total	1,968,844	\$245,996,998	\$124.94	17,314	\$5,667,560	\$327.34

# **Drug Indicators by Highest Script Increase**

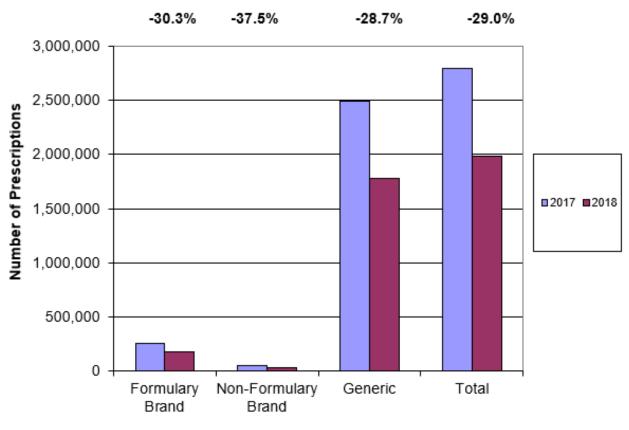
		Formulary Cost	Non-Formulary Cost	Increase/
Rank	Indicator	Per Script	Per Script	Decrease
		<b>*</b>	•	
71	ACEI	\$7.00	\$532.70	7511%
72	BENZODIAZEPINES	7.00	441.99	6213%
87	A-ADRENRGC BLKR	36.17	1,856.04	5031%
10	ANTIDEPRESSANTS	36.06	1,291.61	3482%
149	QUINOLONES	3.47	114.96	3213%
60	DIHYDROPYRIDINE	19.29	620.52	3117%
56	LEUKOTRI MDF	25.10	725.14	2789%
36	NONSTEROIDAL AN	23.39	650.82	2682%
29	HMG-COA RED INH	23.85	641.82	2591%
88	ANXIOLYTICS, SE	10.01	251.92	2416%
46	ANGIOTEN 2 ANTG	23.52	502.02	2034%
53	TETRACYCLINES	42.51	904.22	2027%
148	2ND GEN ANTIHIS	10.79	220.41	1943%
11	MISC ANTICONVUL	98.62	1,844.09	1770%
140	5-ALPHA-REDUCT	25.30	448.57	1673%
49	OPIATE AGONISTS	12.84	214.08	1567%
78	BIGUANIDES	10.36	133.74	1191%
118	URINARY ANTI-IN	17.61	227.14	1190%
115	ANTIESTROGENS	60.84	727.21	1095%
62	CA SKE MUS RELA	19.53	230.96	1083%

		Formulary Cost	Non-Formulary Cost	Increase/
Rank	Indicator	Per Script	Per Script	Decrease
65	SSRI AGONISTS	42.01	478.17	1038%
98	SULFONYLUREAS	18.42	204.94	1013%
130	LOOP DIURETICS	7.81	82.63	959%
154	B-ADREN BLK AGT	57.15	593.33	938%
108	PROSTAGLAND ANA	58.47	606.56	937%
15	PPI	50.92	466.30	816%
181	ANTITHYROID AGE	19.65	160.67	718%
112	CENTRL ALPH-AGO	29.35	236.80	707%
102	ALDOST REC ANTA	29.76	204.83	588%
129	POT-SPAR DIUR	17.97	115.26	541%
220	ROENTGENOGRAPHY	4.07	24.28	497%
39	PLATELET-AGG IN	138.38	768.64	455%
17	CORTICOSTEROIDS	47.08	258.53	449%
24	BETA BLOCKERS	37.74	206.68	448%
5	ANTINEOPLASTIC	1,786.86	9,405.95	426%
44	IMMUNOSU AGENT	422.79	1,902.07	350%
26	ANTIMUSCARINICS	175.67	780.37	344%
82	PROGESTINS	67.14	292.03	335%
80	NUCLEO SID-TID	29.40	117.09	298%
18	ANTIPSYCHOTICS	329.86	1,291.67	292%
	All Other Indicators	232.53	<u>272.79</u>	17%
	Total	\$124.94	\$327.34	162%

# **Drug Indicators by Highest Script Increase (continued)**



# Number of Prescriptions per Member



#### **Total Ingredient Cost** 13.5% -8.9% -15.5% 2.3% \$300,000,000 \$250,000,000 Ingredient Cost \$200,000,000 ■2017 ■2018 \$150,000,000 \$100,000,000 \$50,000,000 \$0 Formulary Generic Non-Total Brand Formulary Brand

# Utilization

#### 1 – Antirheumatic Drugs

In FY 2018, the Antirheumatic Drugs category was first in cost to PEIA with expenditure of \$31,208,503, which accounted for 12.4% of total expenditures. Formulary expenditures were \$28,692,674 or 88.7% of Antirheumatic Drugs expenditures and total expenditures had a 3.4% trend from 2017 to 2018.

	Current Formulary	Current Brand/	Number of Prescriptions			Ingredient Cost Per Prescription			Total Ingredient Cost		
Drug	Status	Generic	2017	2018	Growth	2017	2018	Growth	2017	2018	Growth
HUMIRA	PREF	SSB	3,545	3,689	4.1%	\$4,824.63	\$5,210.83	8.0%	\$17,103,300	\$19,222,735	12.4%
ENBREL	PREF	SSB	1,826	1,546	-15.3%	4,441.13	4,681.59	5.4%	8,109,509	7,237,742	-10.7%
OTEZLA	PREF	SSB	0	334	NA	NA	3,105.35	NA	0	1,037,187	#DIV/0!
OTEZLA	N-FORM	SSB	541	261	-51.8%	2,741.93	3,015.77	10.0%	1,483,387	787,115	-46.9%
XELJANZ	NFRM-NCVRD	SSB	59	181	206.8%	3,790.51	3,949.36	4.2%	223,640	714,834	219.6%
<u>Subtotals</u>											
Generic	Y	GEN	526	262	-50.2%	\$154.27	\$259.66	68.3%	\$81,145	68,032	-16.2%
Formulary Brand	Y	Brand	5,392	5,627	4.4%	4,680.74	4,909.30	4.9%	25,238,543	27,624,642	9.5%
Non-Formulary Brand	<u>N</u>	Brand	<u>1,430</u>	<u>940</u>	<u>-34.3%</u>	<u>3,449.78</u>	3,740.24	<u>8.4%</u>	<u>4,933,181</u>	<u>3,515,828</u>	<u>-28.7%</u>
Total			7,348	6,829	-7.1%	\$4,117.16	\$4,570.00	11.0%	\$30,252,869	\$31,208,503	3.2%
Trends Adjusted for Exposure					-6.8%			11.0%			3.4%

### 2 - Insulins

In FY 2018, the Insulins category was second in cost to PEIA with expenditure of \$30,007,844, which accounted for 11.9% of total expenditures overall. Formulary expenditures were \$29,897,461 or 99.6% of Insulins expenditures and total ingredient cost had a positive 10.4% trend.

	Current Formulary	Current Brand/	Number of Prescriptions			Ingredient	Cost Per Pres	cription	Total Ingredient Cost			
Drug	Status	Generic	2017	2018	Growth	2017	2018	Growth	2017	2018	Growth	
NOVOLOG FLEXPEN	PREF	SSB	7,430	4,516	-39.2%	\$905.69	\$1,644.11	81.5%	\$6,729,305	\$7,424,792	10.3%	
TRESIBA FLEXTOUCH	PREF	SSB	4,603	4,684	1.8%	837.53	1,539.76	83.8%	3,855,161	7,212,239	87.1%	
LEVEMIR FLEXTOUCH	PREF	SSB	6,496	3,619	-44.3%	777.64	1,364.55	75.5%	5,051,543	4,938,299	-2.2%	
NOVOLOG	PREF	SSB	3,810	2,224	-41.6%	999.13	1,927.22	92.9%	3,806,687	4,286,127	12.6%	
BASAGLAR KWIKPEN	PREF	SSB	1,895	2,500	31.9%	531.29	935.93	76.2%	1,006,800	2,339,819	132.4%	
Subtotals												
Generic	Y	GEN	0	0	NA	NA	NA	NA	\$0	0	NA	
Formulary Brand	Y	Brand	34,210	19,622	-42.6%	812.77	1,523.67	87.5%	27,804,929	29,897,461	7.5%	
Non-Formulary Brand	<u>N</u>	<b>Brand</b>	<u>255</u>	<u>95</u>	<u>-62.7%</u>	<u>511.93</u>	<u>1,161.93</u>	<u>127.0%</u>	<u>130,543</u>	<u>110,383</u>	<u>-15.4%</u>	
Total			34,465	19,717	-42.8%	\$810.55	\$1,521.93	87.8%	\$27,935,472	\$30,007,844	7.4%	
Trends Adjusted for Exposure					-41.2%			87.8%			10.4%	

### **3 - Incretin Mimetic Drugs**

In FY 2018, the Incretin Mimetic Drugs indicator category was third in cost to PEIA with expenditure of \$13,803,603, which accounted for 5.5% of total expenditures. Formulary expenditures were \$13,782,600 or 99.8% of Incretin Mimetic Drugs' expenditures. Total expenditures had a 59.0% trend.

	Current Formulary	Current Brand/	Numb	er of Prescrip	otions	Ingredient Cost Per Prescription			Total Ingredient Cost		
Drug	Status	Generic	2017	2018	Growth	2017	2018	Growth	2017	2018	Growth
TRULICITY	PREF	SSB	6,805	5,188	-23.8%	\$779.94	\$1,678.48	115.2%	\$5,307,479	\$8,707,971	64.1%
VICTOZA	PREF	SSB	4,314	2,942	-31.8%	788.41	1,702.56	115.9%	3,401,217	5,008,934	47.3%
OZEMPIC	PREF NFRM-	SSB	0	55	NA	NA	1,128.67	NA	0	62,077	NA!
BYDUREON PEN	NCVRD	SSB	3	7	133.3%	626.36	1,747.77	179.0%	1,879	12,234	551.1%
TANZEUM	N-FORM	SSB	161	6	-96.3%	495.52	1,127.11	127.5%	79,779	6,763	-91.5%
Subtotals											
Generic	Y	GEN	0	0	NA	NA	NA	NA	\$0	0	NA
Formulary Brand	Y	Brand	11,119	8,188	-26.4%	783.23	1,683.27	114.9%	8,708,695	13,782,600	58.3%
Non-Formulary Brand	<u>N</u>	Brand	<u>187</u>	<u>16</u>	<u>-91.4%</u>	<u>508.61</u>	1,312.72	<u>158.1%</u>	<u>95,110</u>	21,004	<u>-77.9%</u>
Total			11,306	8,204	-27.4%	\$778.68	\$1,682.55	116.1%	\$8,803,805	\$13,803,603	56.8%
Trends Adjusted for Exposure				-26.4%			116.1%			59.0%	

### 4 - ImmunoMod Agents

In FY 2018, the ImmunoMod Agents indicator category was fourth in cost to PEIA with expenditure of \$12,888,745, which accounted for 5.1% of total expenditures. Formulary expenditures were \$11,332,360 or 87.9% of ImmunoMod Agents expenditures and total expenditures had a 0.8% trend.

	Current Current Formulary Brand/		Number of Prescriptions			Ingredient Cost Per Prescription			Total Ingredient Cost		
Drug	Status	Generic	2017	2018	Growth	2017	2018	Growth	2017	2018	Growth
TECFIDERA	PREF	SSB	352	423	20.2%	\$6,410.20	\$6,934.32	8.2%	\$2,256,391	\$2,933,218	30.0%
COPAXONE	PREF	MSB	28	423	1410.7%	6,586.95	5,524.30	-16.1%	184,435	2,336,778	1167.0%
GILENYA	PREF	SSB	283	279	-1.4%	6,772.79	7,034.57	3.9%	1,916,699	1,962,644	2.4%
AUBAGIO	PREF	SSB	186	237	27.4%	6,159.73	6,205.19	0.7%	1,145,709	1,470,629	28.4%
COPAXONE	PREF	SSB	852	225	-73.6%	5,440.21	5,587.99	2.7%	4,635,061	1,257,298	-72.9%
Subtotals		ļ									
Generic	Y	GEN	21	116	452.4%	\$4,739.46	\$4,307.12	-9.1%	\$99,529	499,625	402.0%
Formulary Brand	Y	Brand	1,836	1,717	-6.5%	5,979.09	6,309.11	5.5%	10,977,611	10,832,734	-1.3%
Non-Formulary Brand	<u>N</u>	Brand	288	<u>241</u>	-16.3%	<u>5,987.20</u>	6,458.03	<u>7.9%</u>	<u>1,724,315</u>	1,556,385	<u>-9.7%</u>
Total		ļ	2,145	2,074	-3.3%	\$5,968.04	\$6,214.44	4.1%	\$12,801,454	\$12,888,745	0.7%
Trends Adjusted for Exposure		ļ			-3.2%			4.1%			0.8%

### 5 – Antineoplastic Drugs

In FY 2018, the Antineoplastic indicator category was fifth in cost to PEIA with expenditure of \$11,621,670, which accounted for 4.6% of total expenditures. Formulary expenditures were \$3,819,185 or 32.9% of Antineoplastic expenditures and total expenditures had a 1.6% trend. Antineoplastic formulary utilization increased 154.9% in fiscal year 2018 while the cost per formulary brand prescriptions rose 9.5%.

	Current Current Formulary Brand/		Number of Prescriptions			Ingredient Cost Per Prescription			Total Ingredient Cost		
Drug	Status	Generic	2017	2018	Growth	2017	2018	Growth	2017	2018	Growth
REVLIMID	NEUT	SSB	161	145	-9.9%	\$11,030.69	\$12,862.15	16.6%	\$1,775,942	\$1,865,012	5.0%
SPRYCEL	PREF	SSB	66	66	0.0%	10,895.09	12,207.27	12.0%	719,076	805,680	12.0%
IBRANCE	PREF	SSB	88	73	-17.0%	10,882.61	10,821.71	-0.6%	957,670	789,985	-17.5%
IMATINIB MESYLATE	PREF	GEN	87	177	103.4%	5,693.37	4,170.61	-26.7%	495,323	738,197	49.0%
JAKAFI	N-FORM	SSB	24	52	116.7%	10,835.45	10,659.60	-1.6%	260,051	554,299	113.2%
Subtotals											
Generic	Y	GEN	10,655	5,469	-48.7%	\$124.83	\$223.00	78.6%	\$1,330,030	1,219,595	-8.3%
Formulary Brand	Y	Brand	91	232	154.9%	10,229.63	11,205.13	9.5%	930,897	2,599,590	179.3%
Non-Formulary Brand	<u>N</u>	Brand	<u>1,079</u>	<u>739</u>	-31.5%	8,837.44	10,558.17	19.5%	<u>9,535,596</u>	7,802,485	-18.2%
Total			11,825	6,440	-45.5%	\$997.59	\$1,804.61	80.9%	\$11,796,523	\$11,621,670	-1.5%
Trends Adjusted for Exposure				-43.9%			80.9%			1.6%	