Prescription Drug Pricing Overview February 2, 2017

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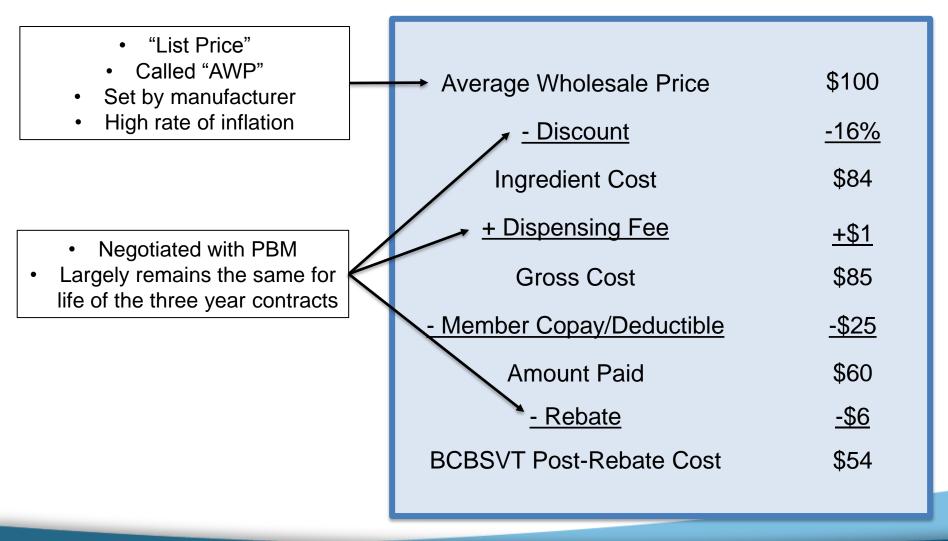


- How are prescription drugs priced?
- What are Pharmacy Benefit Managers (PBMs)?
- Specialty Drug Increases
- Generic Drug Increases





Pharmacy Pricing 101





Drug Definitions

Brand Drugs

Drugs with patent protection and there is one manufacturer

 $_{\odot}$ About 12% of all prescriptions but about 32% of the cost

Generic Drugs

- Drugs without patent protection and there are multiple manufacturers
- $_{\odot}$ About 87% of all prescriptions but only about 27% of the cost

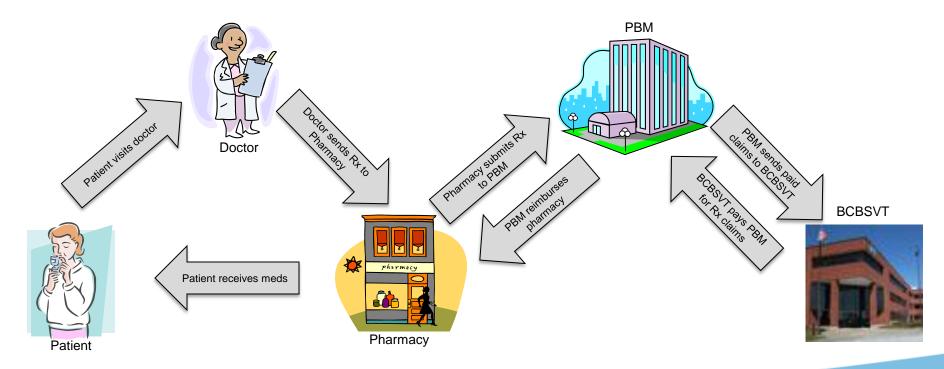
Specialty Drugs

- Type of brand drugs that are high cost and require special handling and care to treat rare conditions.
- $_{\odot}$ About 1% of all prescriptions but about 41% of the cost



What is a Pharmacy Benefit Manager?

 Pharmacy Benefit Managers are the circuitry through which we provide our members widespread access to affordable prescription drugs in a safe manner.



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Why Do We Contract with PBMs?

BCBSVT's Volume (158,000 members)

- 8,592 pharmacies used 1.3 Million Rx claims
- \$158 Million in drug spend
- Express Scripts' Volume (105,000,000 members)
 - 1.5 Billion Rx claims
 - \$104 Billion in drug spend
- Caremark's Volume (63,000,000 members)
 - 880 Million Rx claims
 - \$62 Billion in drug spend
- Optum Rx's Volume (60,000,000 members)
 - 850 Million Rx claims
 - \$57 Billion in drug spend

- 14,141 unique drugs processed
- 67,000 pharmacies used

67,000 pharmacies used

140,000 unique drugs processed

140,000 unique drugs processed

- 67,000 pharmacies used
- 140,000 unique drugs processed





What Services Do PBMs Provide?

- Claims Processing
- Patient Safety Edits
- Formulary Management
- Nationwide Pharmacy Network Contracting
- Manufacturer Rebate Contracting
- ePrescribing Hub
- Mail Order Pharmacy
- Specialty Drug Pharmacy

- Customer Service
- Prior Approval Processing
- Academic Detailing
- Data Integration
- Account Management
- Market Development
- Fraud, Waste & Abuse Review
- Trend Analysis



How Do Pharmacy Benefit Managers Make Money?

Discount Spread

• Example: PBM negotiates a 16.6% discount with the pharmacies and then negotiates a 16.5% discount with the plan sponsor.

Pass-through + Fee

• Example: PBM negotiates a 16.5% discount with the pharmacies and then passes the full discount onto the plan sponsor. PBM charges the plan sponsor a fee on each claim.

Rebates

 Example: PBM keeps a portion of the rebates it collects from manufacturers.

Float

• Example: PBM collects from the plan sponsor on the 1st and reimburses the pharmacies on the 3rd of the month.



Pharmacy Industry Margins

 Pharmacy Benefit Managers have the smallest margins in the pharmacy delivery pipeline.

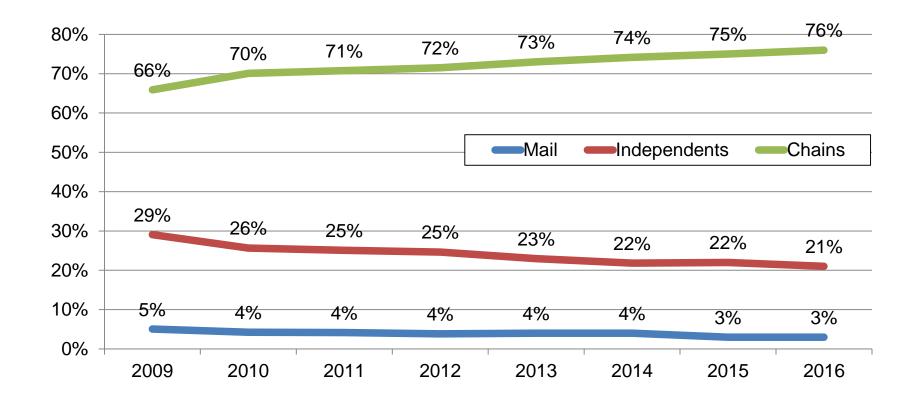
(as a % of revenue)	Express Scripts	Rite Aid	Pfizer	
Gross Margin %	oss Margin % 7.7%		81.3%	
Net Income %	1.7%	2.0%	21.7%	
Note: Data from 2014 SEC filings.				

 As a not-for-profit company, BCBSVT contributes about 0.5% to our reserves each year.

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BCBSVT Pharmacy Market Share



Vermont independent pharmacies are losing market share to the chain stores; not the mail order pharmacies.

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Specialty Drug Price Increases

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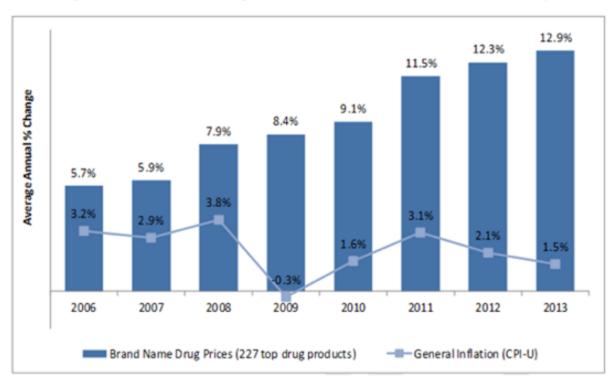


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Brand Drug Inflation

Driven by increases in specialty drug prices, the prices for brand drugs across the U.S. have been growing much faster than inflation

Average Brand Name Drug Prices vs General Inflation Rate by Year



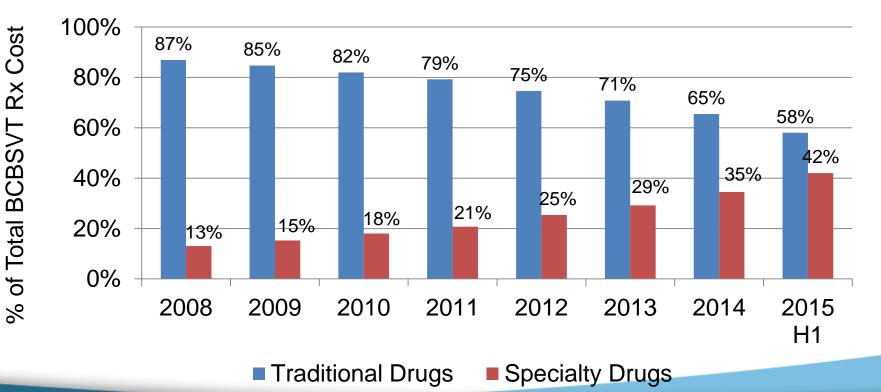
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Increasing Impact of Specialty Drugs

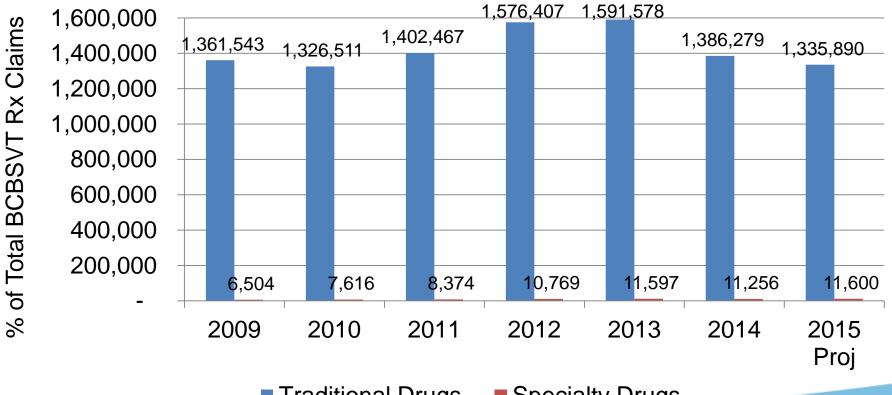
- BCBSVT's Rx trend is significantly higher than its medical trend due to historically high specialty drug trends.
- Specialty drugs have gone from being 13% of BCBSVT's Rx cost in 2008 to 42% in 2015.





Distribution of Scripts

While the number of specialty scripts has doubled over the years, they are still a very small portion of the total.

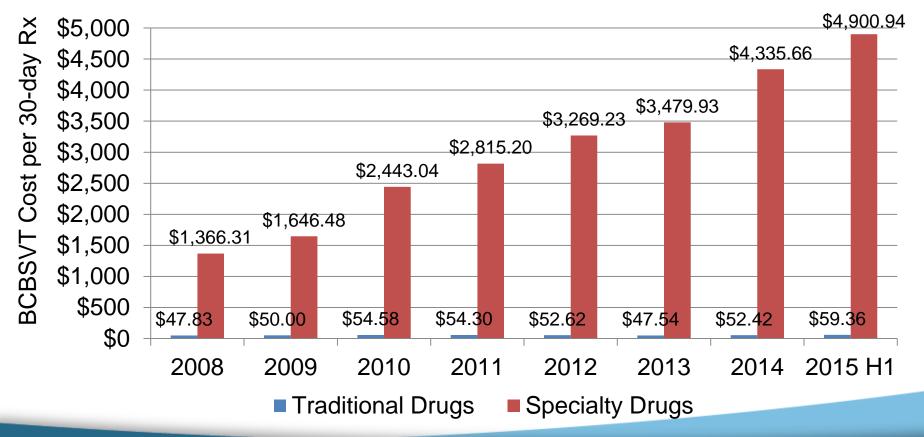


Traditional Drugs Specialty Drugs



Specialty Drug Price Inflation

 The cost per script for specialty drugs has tripled over the last seven.





Common BCBSVT Specialty Drugs



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BCBSVT Specialty Drug Inflation

- Humira & Enbrel are seeing large price increases due to expected biosimilar competition
- Tecfidera, Gilenya and Viagra all took large price increases ahead of competition from upcoming generic versions.

		Drug In	flation -	Top In	pacted	Drugs*			\wedge	
			1-16 - 9-16			1	-15 - 9-15		% 0	hange
Drug Name/ Strength	Specialty Flag	Scheduled Release	AWP	QTY	AWP/ QTY	AWP	QTY	AWP/ QTY	AWP/ QTY	Inflation Impact on AWP
HUMIRA PEN 40MG/0.8ML	Yes	2016	\$7,929,497	3,407	\$2,327.41	\$5,884,405	3,136	\$1,876.64	24.0%	\$1,535,770
ENBREL 50 MG/ML	Yes	N/A	\$5,588,422	4,741	\$1,178.74	\$4,365,036	4,606	\$947.61	24.4%	\$1,095,820
METFORMIN HCL ER 1000 MG	No	N/A	\$1,377,291	64,633	\$21.31	\$462,697	42,524	\$10.88	95.8%	\$674,029
TECFIDERA 240 MG	Yes	N/A	\$2,485,882	20,205	\$123.03	\$2,407,752	22,200	\$108.46	13.4%	\$294,503
PANTOPRAZOLE SODIUM 40 MG	No	2007	\$1,848,280	378,421	\$4.88	\$1,631,194	390,904	\$4.17	17.0%	\$269,177
EPIPEN 2-PAK 0.3MG/0.3	No	N/A	\$1,122,324	3,241	\$346.29	\$826,840	3,123	\$264.76	30.8%	\$264,242
GILENYA 0.5 MG	Yes	2019	\$2,391,836	9,144	\$261.57	\$802,375	3,440	\$233.25	12.1%	\$259,011
HUMIRA 40MG/0.8ML	Yes	2016	\$1,060,115	456	\$2,324.81	\$968,496	516	\$1,876.93	23.9%	\$204,235
VIAGRA 100 MG	No	2017	\$706,850	13,022	\$54.28	\$634,752	14,642	\$43.35	25.2%	\$142,328
NOVOLOG FLEXPEN 100/ML	No	N/A	\$1,129,557	30,060	\$37.58	\$885,428	26,913	\$32.90	14.2%	\$140,594



Orphan Drugs

 Intended to treat diseases so rare that companies are reluctant to develop them under usual marketing conditions

 Pharma gets tax credits on clinical trials, FDA fast tracking, reduced registration fees and 7 years of marketing exclusivity.





2014 Specialty Drug Approvals

Drug	Indication*	Drug	Indication*
Hetlioz (tasimelteon)	Non-24H	Ruconest (rC1 esterase-X)	HAE
Vimizim (elosulfase alfa)	MPS IVA	Zydelig (idelalisib)	CLL, FL and SLL
Northera (droxidopa)	NOH	Plegridy (peginterferon beta-1a)	MS
Myalept (metreleptin)	Lipodystrophy	Cerdelga (eliglustat)	Gaucher Disease
Otezla (apremilast)	PsA	Keytruda (pembrolizumab)	Melanoma
Alprolix (factor IX Fc)	Hemophilia B	HyQvia (immune globulin)	PID
Oralair (grass pollen allergens)	Grass Allergies	Harvoni (ledipasvir/sofos.)	Hepatitis C
Cyramza (ramucirumab)	Stomach Cancer	Ofev (nintedanib)	IPF
Sylvant (siltuximab)	MCD	Esbriet (pirfenidone)	IPF
Zykadia (ceritinib)	ALK+ NSCLC	Obizur (antihemo. factor)	Hemophilia A
Entyvio (vedolizumab)	UC and CD	Blincyto (blinatumomab)	ALL
Eloctate (factor VIII Fc)	Hemophilia A	Lynparza (olaparib)	Ovarian Cancer
Beleodaq (belinostat)	PTCL	Viekira Pak (par/r/omb/das)	Hepatitis C
		Opdivo (nivolumab)	Melanoma



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Biosimilars: Potential Price Solution

- A biopharmaceutical drug designed to have active properties similar to one that has previously been licensed
 - "Generic Drug :: Brand Drug" as "Biosimilar :: Specialty Drug"
- New to the U.S. via the Affordable Care Act
- Expected to cost 25%-30% less than specialty drugs
- First biosimilar (Zarzio) was approved in March 2015 and reached the market in late summer.



Biosimilars Timeline

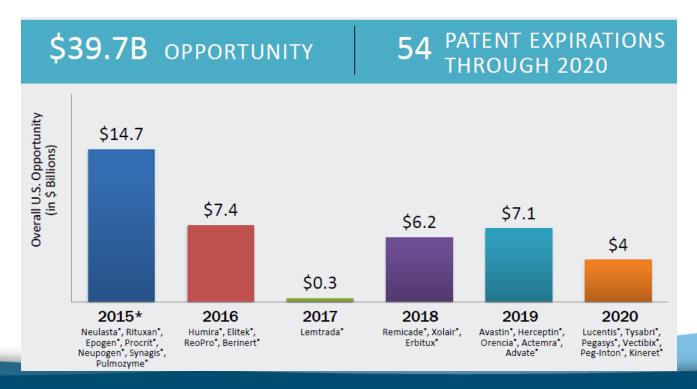
- It took a while for biosimilars to get a pathway to approval in the U.S.
- Pathway created by the ACA; passed in 2010





Biosimilar Opportunities

- Biosimilar drugs available in Europe are 15%-75% less expensive than specialty equivalent.
 - Average = ~25%-30% less expensive than specialty versions



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Generic Drug Price Increases

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Overview

 Generic drugs, overall, are growing at a much slower pace than brand drugs.

- 2014 generic drug inflation = 3.5%
- 2015 generic drug inflation = 3.2%

2016 generic drug inflation = 2.1%

Some generic drugs have seen massive price increases

- Doxycyline \$1.97 per day in 2012 \$10.16 per day in 2015
- Daraprim \$11.00 per day in 2012 \$750 per day in 2015
- Thiola \$50.40 per day in 2012 \$797.98 per day in 2015



Doxycycline

- In 2013, Teva, Mylan, Actavis, and Hikma Pharmaceuticals all ceased production of doxycycline.
- This occurred at the same time there was a shortage of tetracycline.
- This resulted in an increased demand for doxycycline just as supplies were dropping.
- The result was large price increases.

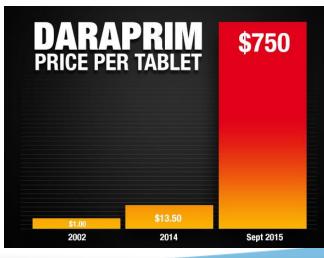


Daraprim



- Treats toxoplasmosis which is a deadly parasite to patients with a compromised immune system such as cancer and AIDS patients.
- Released in 1953 and has been a generic drug since the 1970s.
- Turing Pharmaceuticals, headed by Martin Shkreli raised the price 5,000% in Sept.





The media finally caught onto the story of pharmaceutical price inflation.





Impact to Employers

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Impact on Local Hospital

• 2 Harvoni patients and 1 Thiola patient = \$528,000 increase

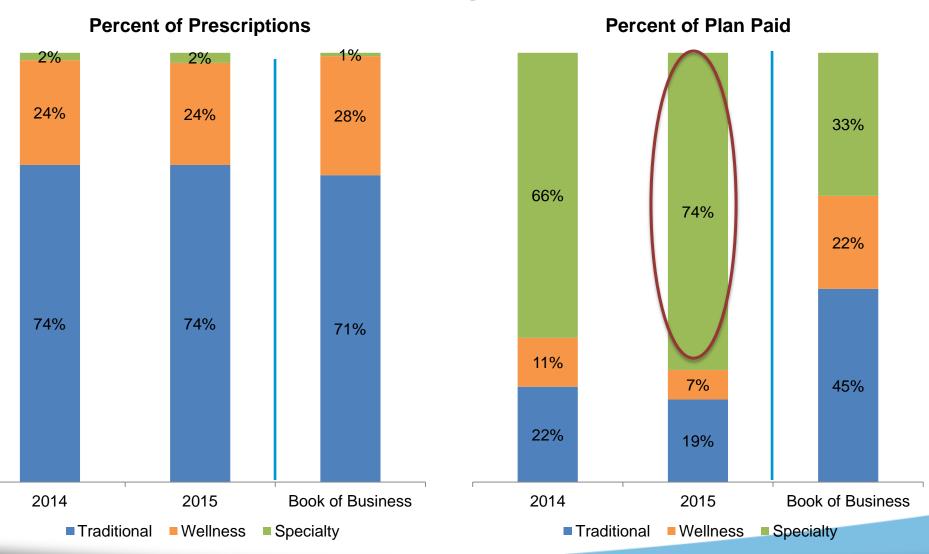
OBSERVATIONS

Total employer cost increase was \$453,000

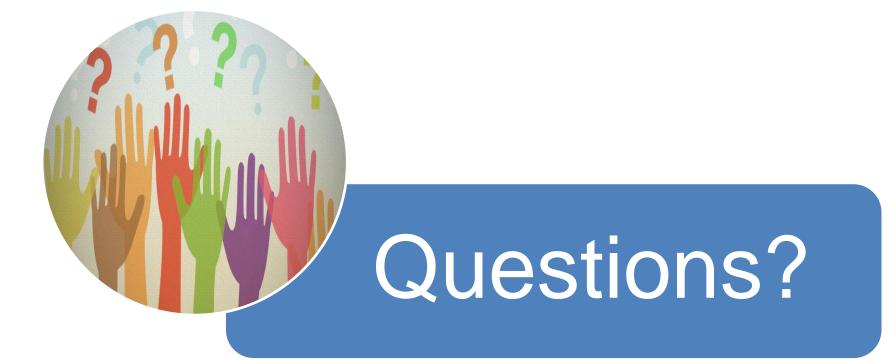
Description	7-14 - 6-15	7-13 - 6-14	Change
Avg Members per Month	1,056	1,057	-0.1%
Total Plan Cost	\$1,587,749	\$1,134,998	39.9%
Total Days	489,199	477,832	2.4%
Total Rxs	10,958	11,020	-0.6%
Plan Cost PMPM	\$125.30	\$89.48	40.0%
Plan Cost per Day	\$3.25	\$2.38	36.6%
Plan Cost per Rx	\$144.89	\$102.99	40.7%
Nbr Rxs PMPM	0.86	0.87	-0.5%
Generic Fill Rate	83.0%	80.8%	2.2
Home Delivery Utilization	5.8%	6.4%	-0.6
Member Cost %	7.7%	10.9%	-3.2
Specialty Percent of Plan Cost	44.8%	24.4%	20.4
Specialty Plan Cost PMPM	\$56.13	\$21.86	156.7%



Impact on Local Savings Bank







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