



BASELINE EVALUATION OF THE UTILIZATION AND COST PATTERNS OF COMPOUNDED DRUGS

Texas Department of Insurance
Workers' Compensation Research and Evaluation Group
May 2017

DATA AND METHODS

- ★ “Traditional” compounding: combines, mixes, or alters ingredients to meet specific needs
- ★ Data issues:
 - ★ Bill line does not indicate if one is a compounded drug.
 - ★ Unknown as to what the final route of administration will be.
 - ★ Bulk ingredients have different NDC codes from manufactured drugs of same ingredient.
- ★ Identification of compounded drugs: Bill lines containing:
 - ★ Pharmaceutical adjuvants
 - ★ Bulk chemicals
 - ★ Powder-form of NSAIDs and muscle relaxants

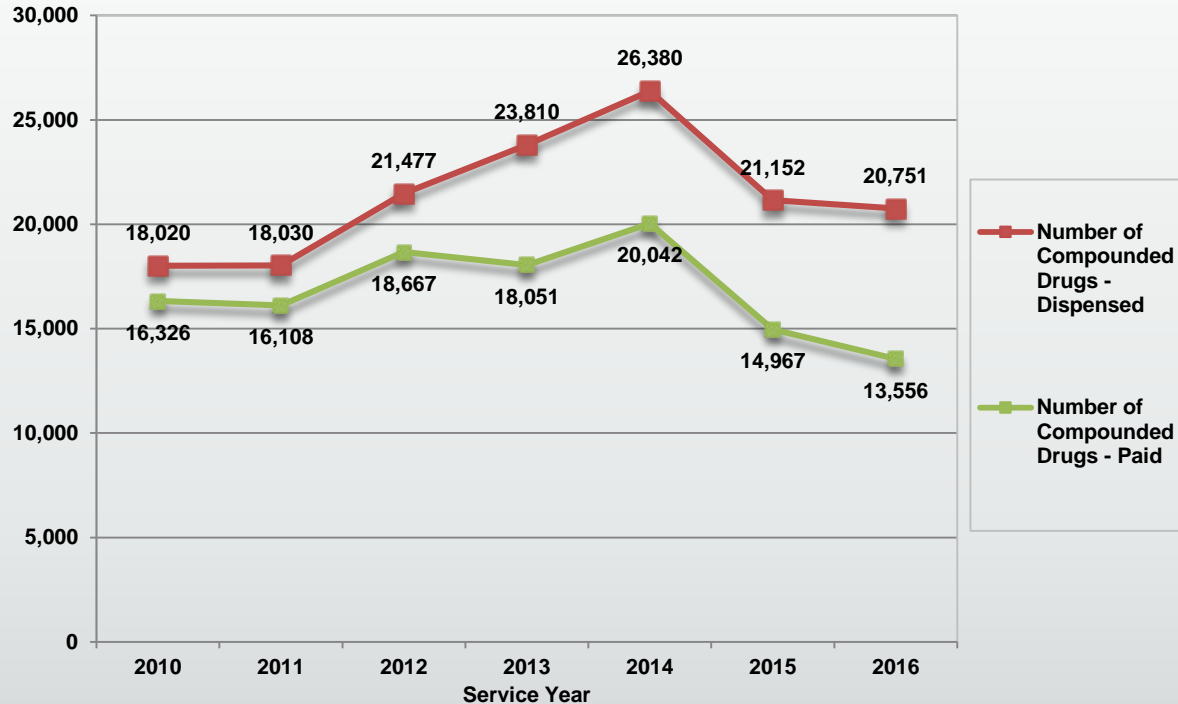


TOTAL NUMBER AND COST OF COMPOUNDED DRUGS



NUMBER OF COMPOUNDED DRUGS

- From 1.6% of total pharmacy prescriptions dispensed in 2010 to 3.2% of the pharmacy prescriptions dispensed in 2016

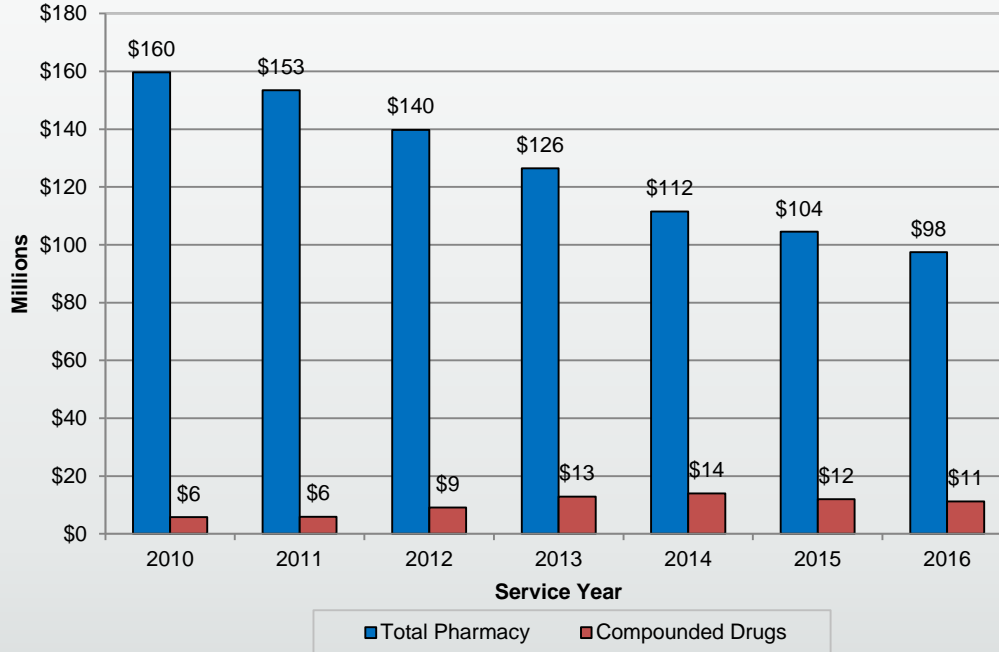


Source: Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, 2017.



TOTAL COST OF COMPOUNDED DRUGS

- From 4% of total pharmacy cost in 2010 to 11% in 2016

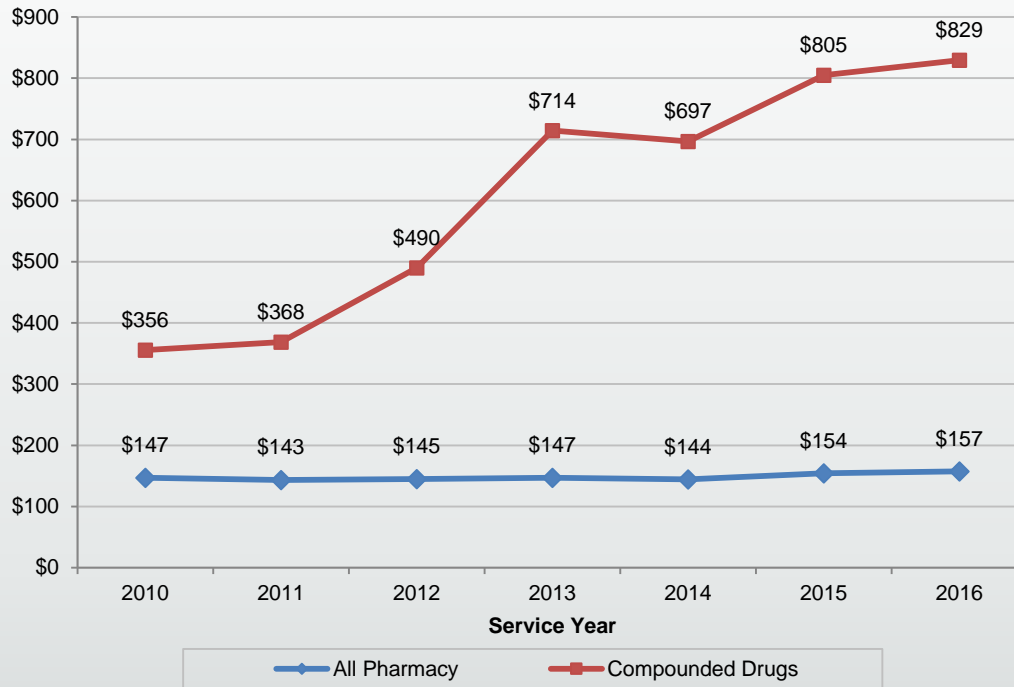


Source: Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, 2017.



AVERAGE COST PER COMPOUNDED DRUG PRESCRIPTION

- 133% increase from 2010 to 2016



Source: Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, 2017.



PAYMENT ADJUSTMENT REASONS FOR DENIED COMPOUNDED DRUG RX

Service Year	Number of Denied Rx	Total Associated Bill Lines	Payment Adjustment Reasons								Share of 8 Codes in Total Bill Lines
			197	16	216	W3	50	29	W1/P12	45	
2010	1,694	6,352	313	189	510	6	988	1,674	301	12	62.9%
2011	1,922	7,840	368	175	711	62	1,342	2,276	334	769	77.0%
2012	2,810	12,372	1,277	1,354	1,690	76	2,698	2,217	490	37	79.5%
2013	5,759	21,686	6,040	4,248	1,317	1,096	1,507	2,366	835	505	82.6%
2014	6,338	27,251	9,909	951	2,934	2,953	1,144	2,204	2,178	1,300	86.5%
2015	6,185	31,376	10,024	2,137	3,626	2,282	2,636	2,098	1,532	1,720	83.0%
2016	7,195	31,875	8,941	2,116	6,386	1,276	4,191	879	1,015	1,256	81.8%

Note: Denial codes (Claim Adjustment Reason Codes) are as follows:

197	Precertification/authorization/notification absent
16	Lack info/billing error
216	Based on findings of a review organization
W3	Adjustment on Appeal/reconsideration
50	Not deemed a medical necessity by the payer
29	Time limit for filing expired
W1/P12	Fee schedule adjustment
45	Exceed fee schedule/maximum allowed

Source: Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, 2017.

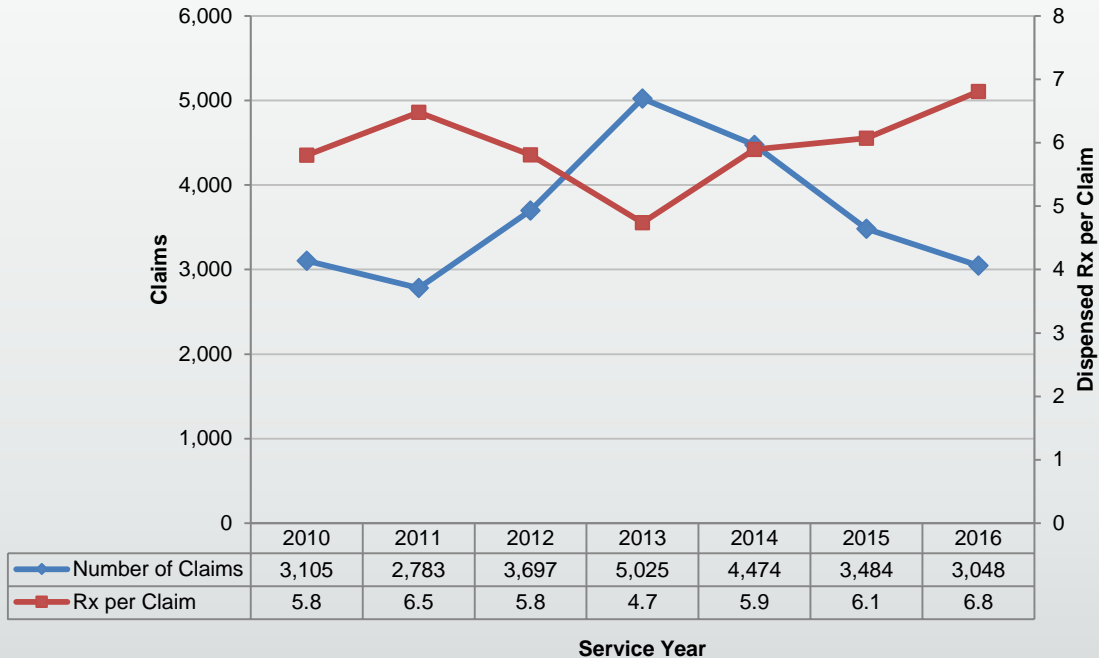


COMPOUNDED DRUGS BY CLAIM



UTILIZATION BY CLAIM

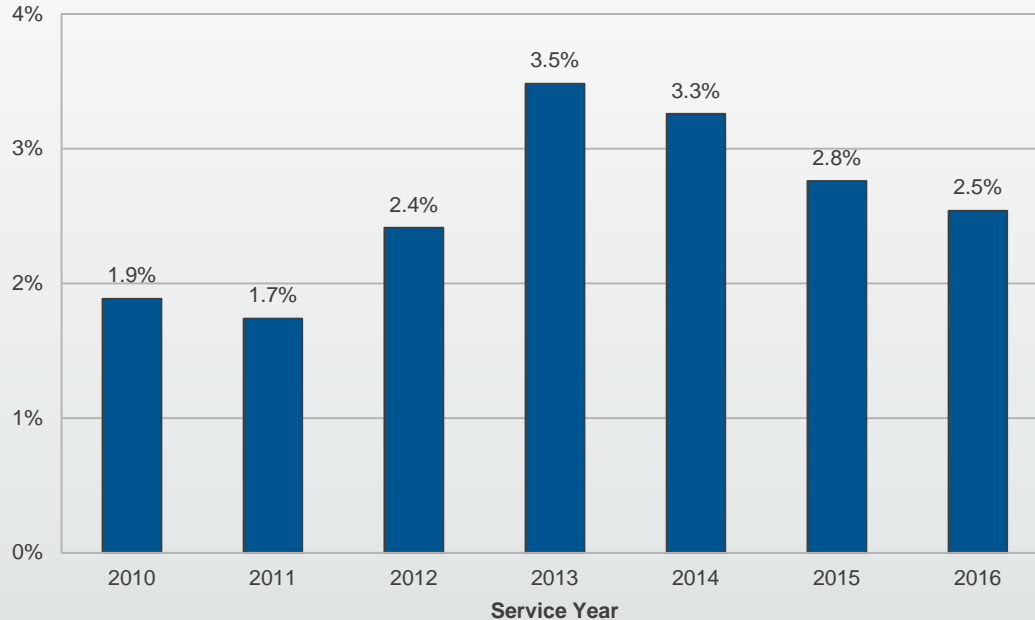
- Average number of prescription per claim increased since 2013 while the number of claims receiving compounded drugs decreased.



Source: Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, 2017.



SHARE OF CLAIMS RECEIVING COMPOUNDED DRUGS

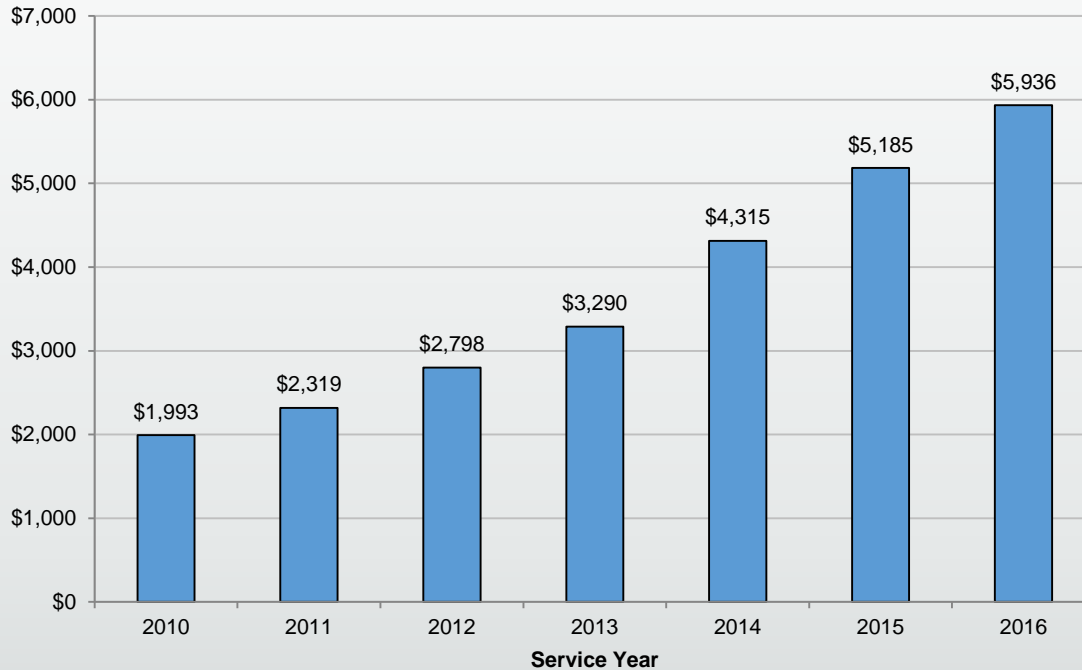


Source: Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, 2017.



COST OF COMPOUNDED DRUGS PER CLAIM

- 198% increase from 2010 to 2016

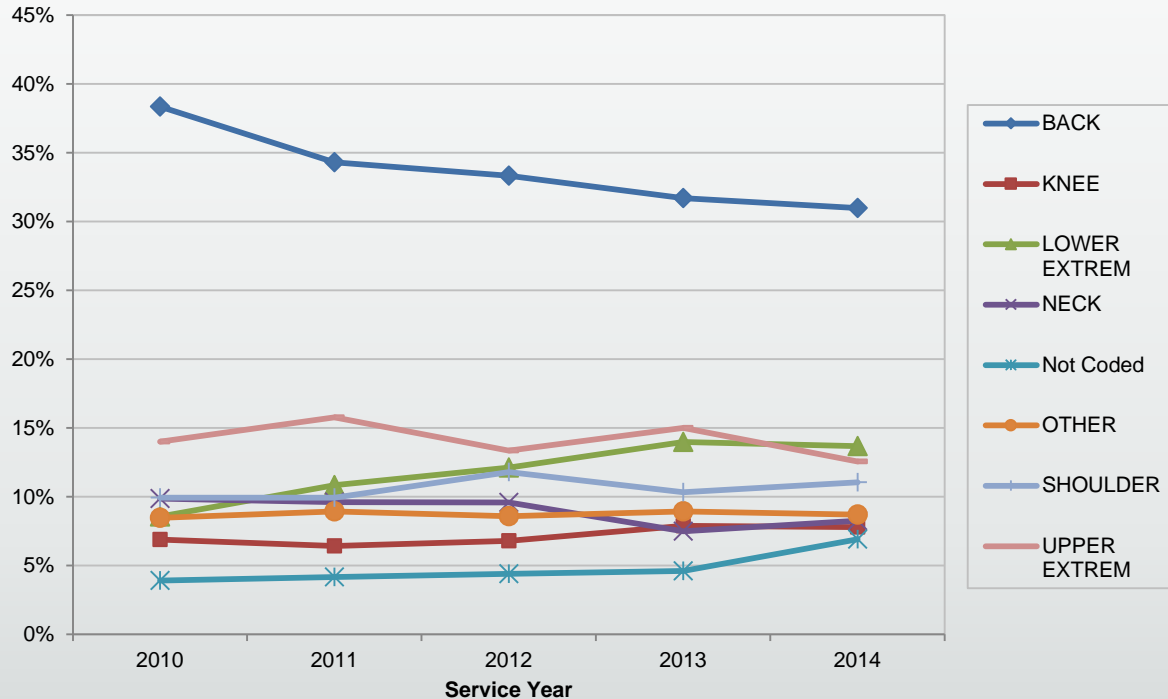


Source: Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, 2017.



COMPOUNDED DRUGS BY INJURY TYPE

- 31% of compounded drug users have back injuries in 2014 while back injuries accounted for 13% of all medical claims.



Note: Numbers for 2015 and 2016 are not obtainable until a crosswalk between ICD-9 and ICD-10 codes becomes available. Claims without injury type information are removed from analysis.

Source: Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, 2017.



COMPOUNDED DRUGS BY INJURY YEAR



NUMBER OF DISPENSED RX AND CLAIMS, COMPOUNDED DRUGS BY INJURY YEAR AT 6, 12, AND 24 MONTHS OF MATURITY

Number of Dispensed Prescriptions

Injury Year	6 Months	12 Months	24 Months
2010	2,414	5,003	9,708
2011	2,959	5,965	9,806
2012	3,444	6,932	11,188
2013	4,245	7,666	12,334
2014	5,391	9,295	14,002
2015	4,025	8,063	

Source: Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, 2017.

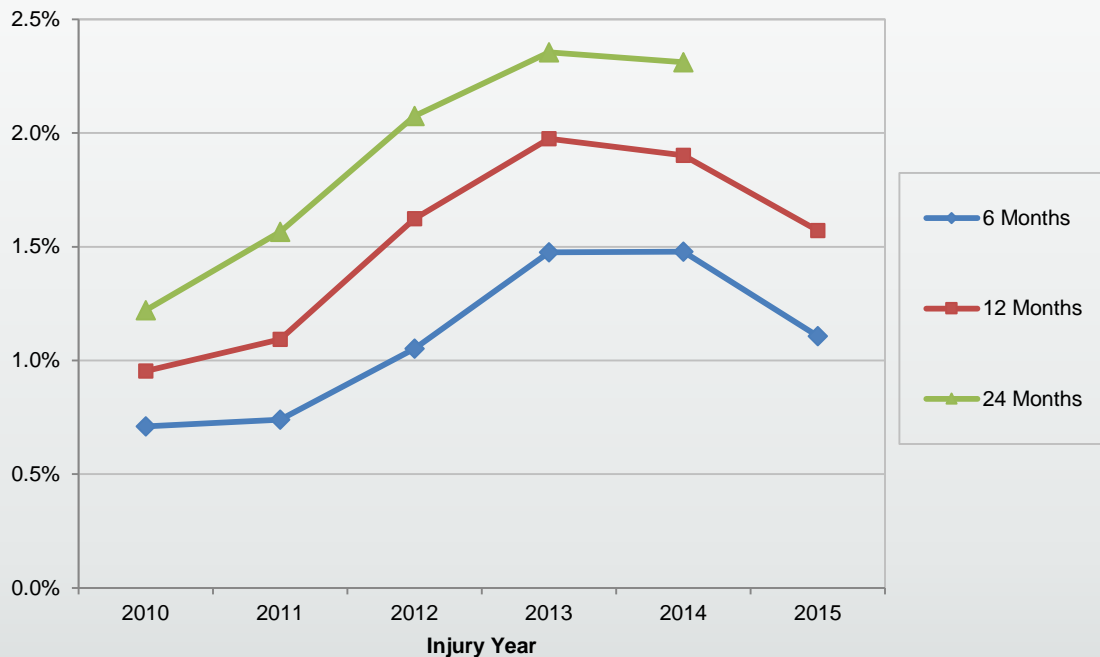
Number of Claims

Injury Year	6 Months	12 Months	24 Months
2010	745	1,016	1,311
2011	772	1,159	1,673
2012	1,060	1,661	2,138
2013	1,409	1,918	2,301
2014	1,367	1,787	2,187
2015	938	1,355	

Source: Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, 2017.



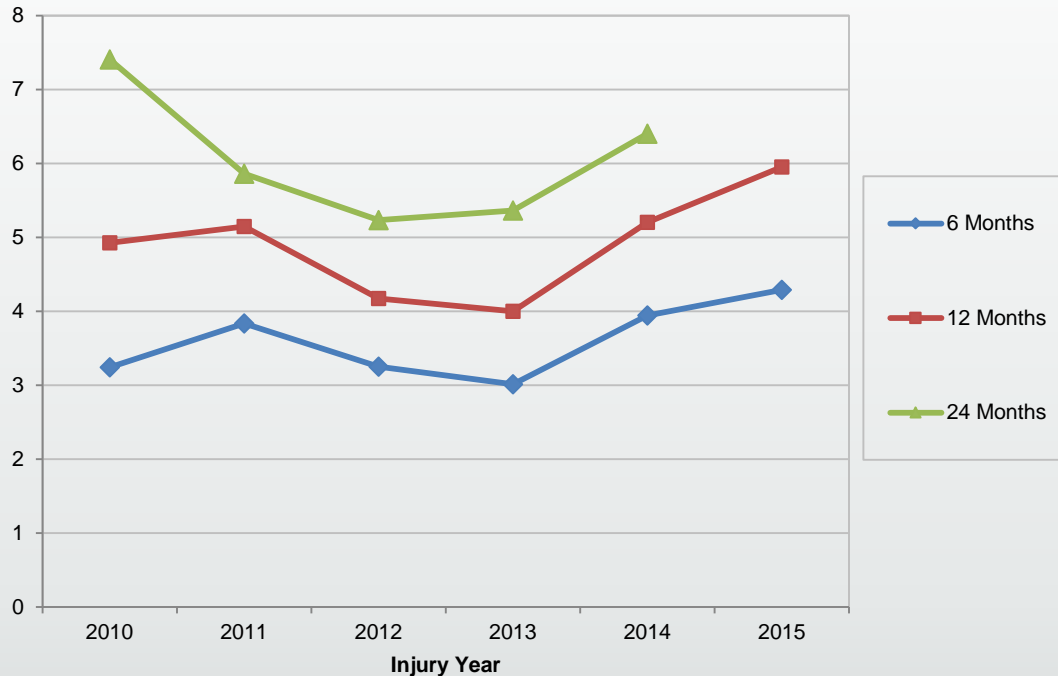
SHARE OF CLAIMS RECEIVING COMPOUNDED DRUGS BY INJURY YEAR AT 6, 12, AND 24 MONTHS OF MATURITY



Source: Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, 2017.



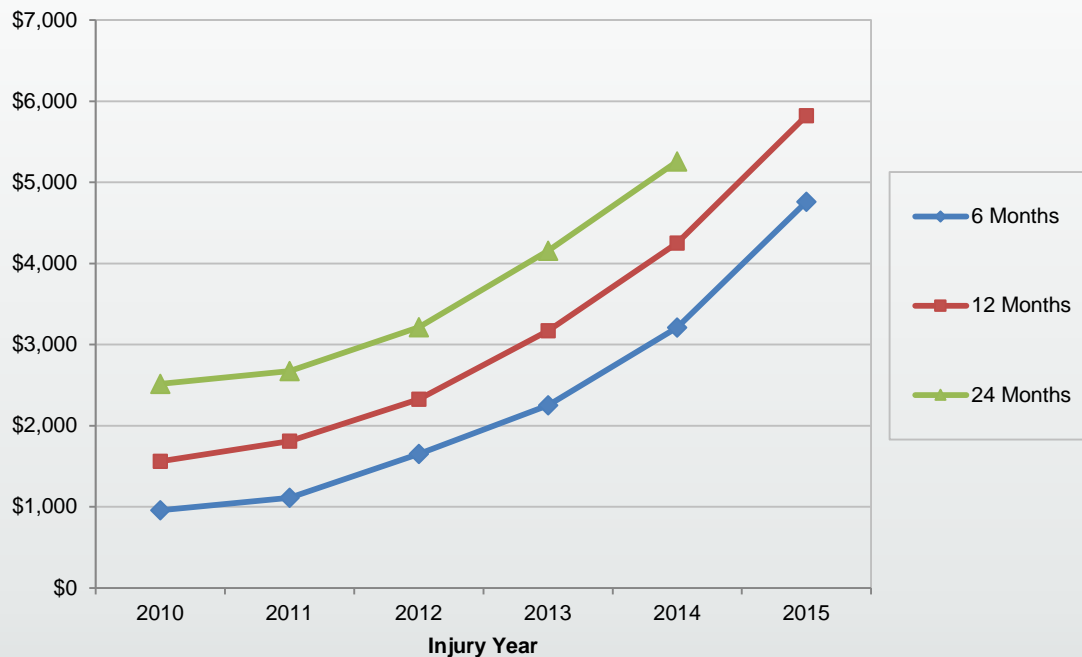
AVERAGE RX PER CLAIM, COMPOUNDED DRUGS BY INJURY YEAR AT 6, 12, AND 24 MONTHS OF MATURITY



Source: Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, 2017.



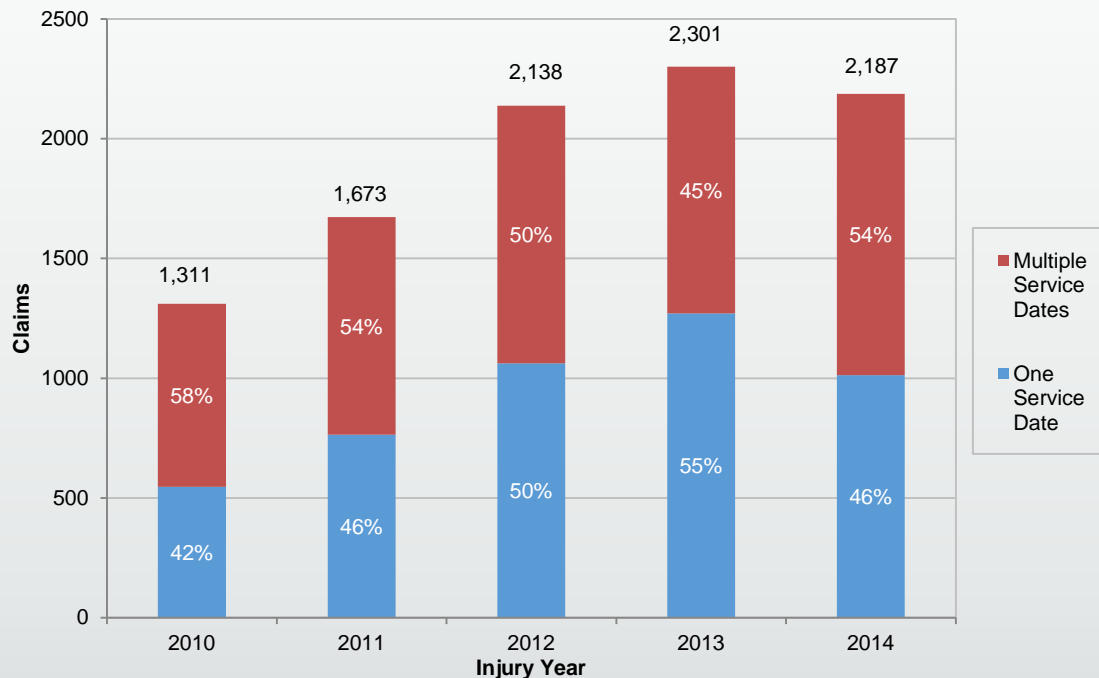
AVERAGE COST PER CLAIM, COMPOUNDED DRUGS BY INJURY YEAR AT 6, 12, AND 24 MONTHS OF MATURITY



Source: Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, 2017.



NUMBER OF CLAIMS WITH MULTIPLE COMPOUNDED DRUG SERVICE DATES BY INJURY YEAR (24 MONTHS MATURITY)

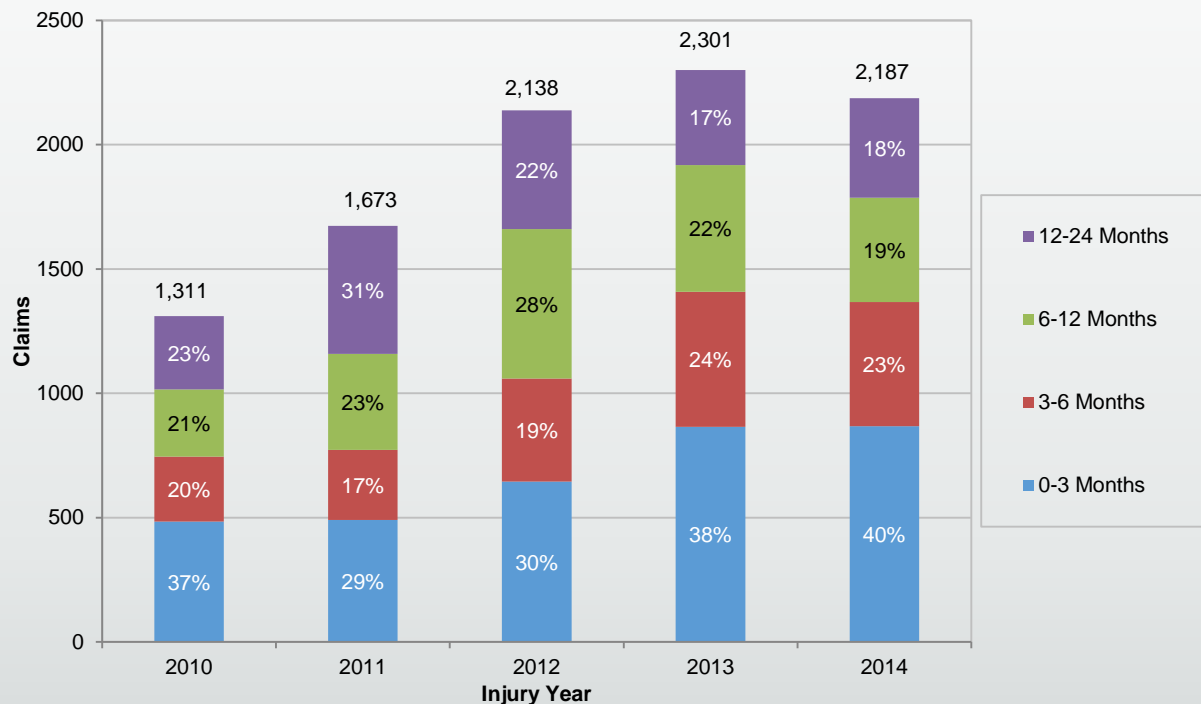


Source: Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, 2017.



FIRST USE DATES BY INJURY YEAR (24 MONTHS MATURITY)

- Time between injury and first service date of compounded drug prescription

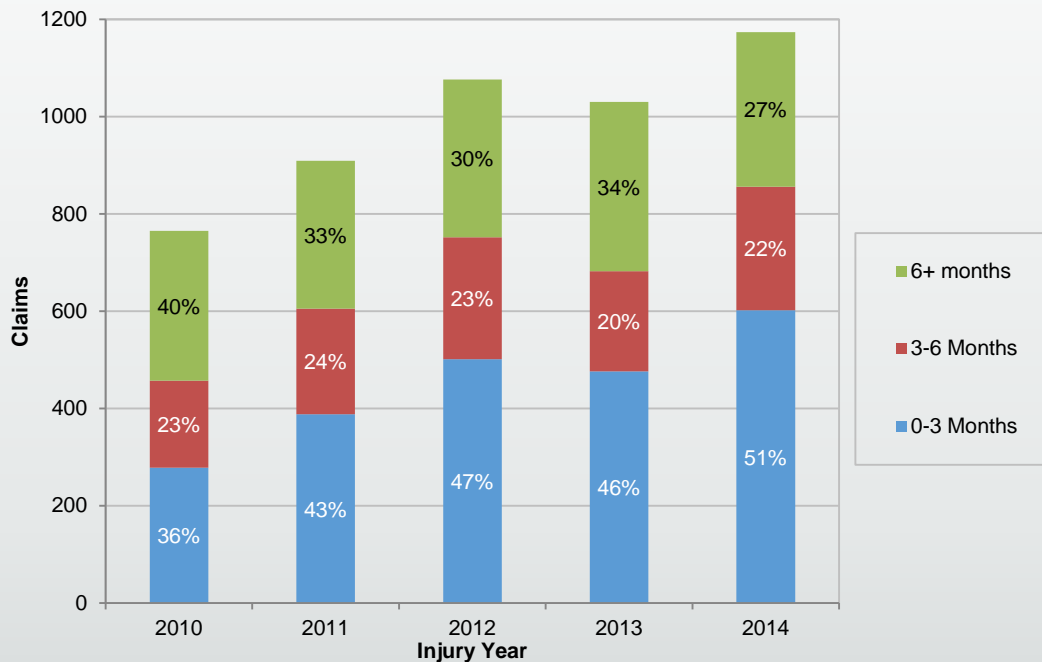


Source: Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, 2017.



DURATION OF COMPOUNDED DRUG USE BY INJURY YEAR (24 MONTHS MATURITY)

- Claims with multiple service dates
- Time between first and last compounded drug prescription service dates



Source: Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, 2017.



USE OF OTHER DRUGS BY INJURY YEAR (24 MONTHS MATURITY)

- Share of claims having other (non-compounded) drugs prior to using compounded drugs
- 40 percent of IY 2014 claims who received compounded drugs within 3 months of injury did not use any other drugs.

Injury Year	Time of First Use			
	0-3 Months	3-6 Months	6-12 Months	12-24 Months
2010	66%	89%	90%	94%
2011	63%	85%	93%	95%
2012	61%	85%	89%	95%
2013	63%	80%	85%	92%
2014	60%	83%	87%	92%

Source: Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, 2017.



BASE AND ACTIVE INGREDIENTS OF COMPOUNDED DRUGS



BASES OF COMPOUNDED DRUGS (2010–2016)

- Top 20 accounted for 89% of bill lines and 77% of total cost of bases.

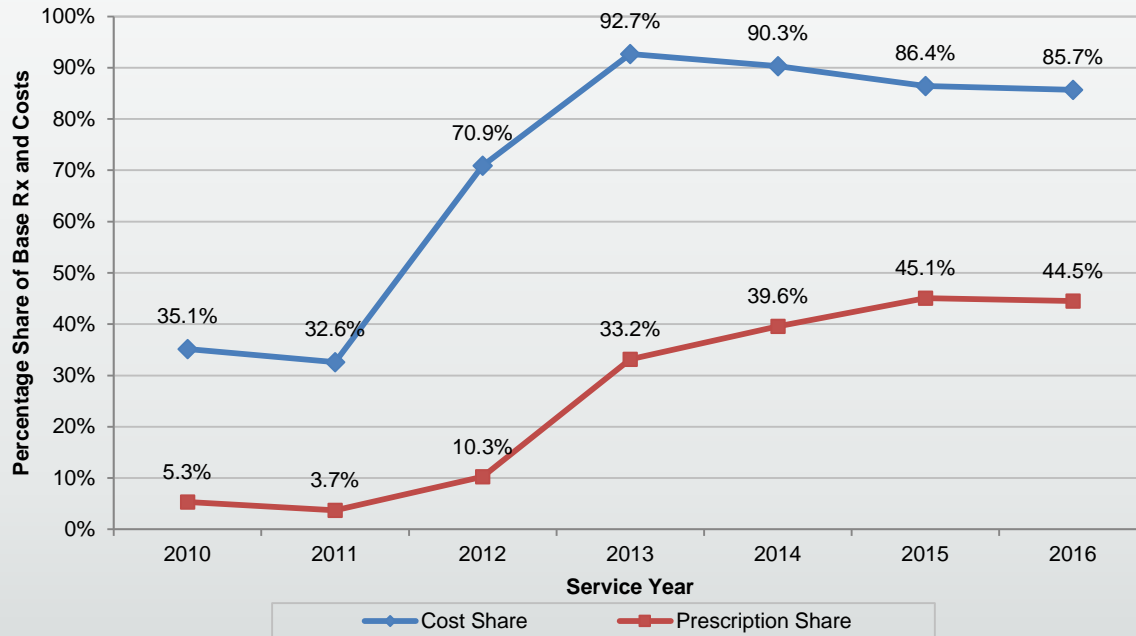
Rank	Base Name	Number of Bill Lines	Total Pay	Pay per Line
1	ETHOXY LIQ DIGLYCOL	19,784	\$276,074	\$14
2	VERSAPRO CREAM	16,791	\$1,686,380	\$100
3	SALT STABLE CRE LS ADV	8,165	\$1,684,204	\$206
4	POLOXAMER POW 407	7,967	\$28,014	\$4
5	LECITHIN SOY GRA	7,722	\$7,247	\$1
6	ISOPROPYL LIQ PALMITATE	7,602	\$6,403	\$1
7	POTASSIUM POW SORBATE	7,506	\$48,557	\$6
8	ALCOHOL SOL 100%	7,398	\$21,113	\$3
9	SORBIC ACID POW	7,337	\$1,578	\$0
10	PCCA LIPODER CRE BASE	6,954	\$1,036,790	\$149
11	PROPYLENE LIQ GLYCOL	6,841	\$28,261	\$4
12	POLOXAMER POW 188	4,763	\$25,101	\$5
13	PCCA CUSTOM CRE LIPO-MAX	4,744	\$1,113,384	\$235
14	BACTER WATER INJ BENZ ALC	4,318	\$32,114	\$7
15	PROPYLENE GL SOL	3,825	\$30,519	\$8
16	ETHYL ALCOHO SOL 100%	3,679	\$6,335	\$2
17	PCCA LECITHI SOL ISOPROPY	2,977	\$37,112	\$12
18	ETHYL ALCOHO SOL 95%	1,839	\$5,059	\$3
19	EUCALYPTUS OIL	1,612	\$3,848	\$2
20	DIMETHYL SOL SULFOXIDE	1,533	\$19,295	\$13

Source: Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, 2017.



USE OF PROPRIETARY BASES

- Proprietary bases are manufactured specialty bases with proprietary components, which are sold as an alternative to traditional mixing of solvents, emulsifiers, cream bases, preservatives, and other base ingredients.



Source: Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, 2017.



ACTIVE INGREDIENTS OF COMPOUNDED DRUGS (2016)

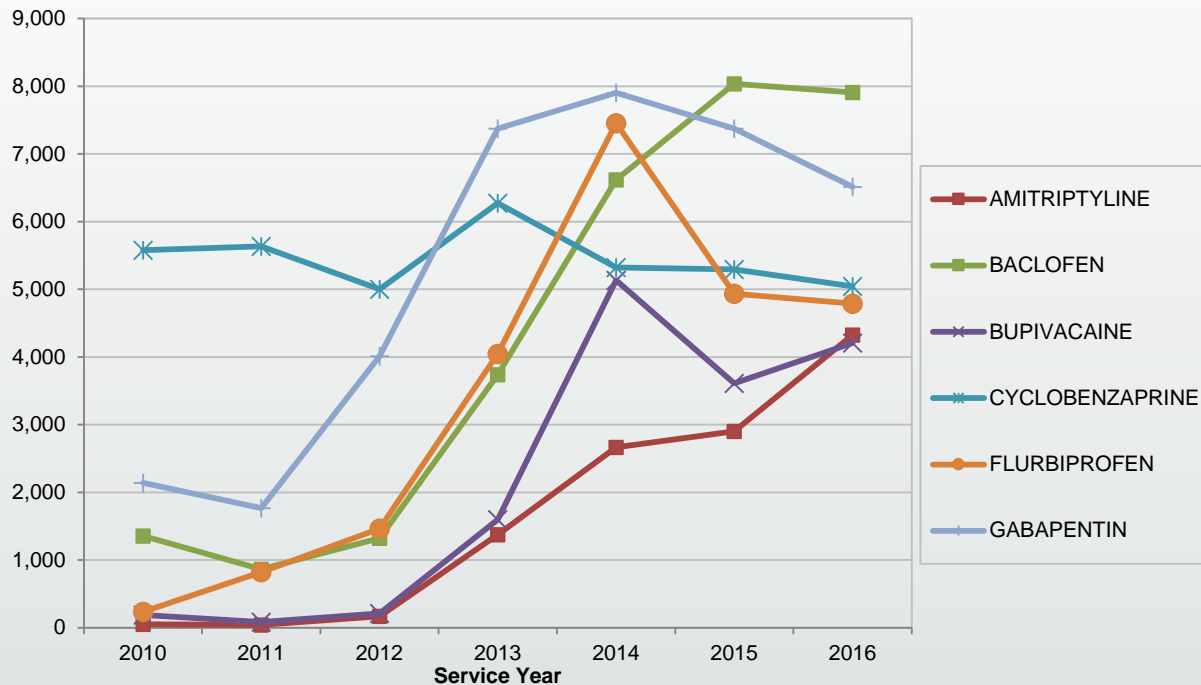
- Top 20 accounted for 93% of bill lines and 93% of the active ingredient cost.

Rank	Drug Description	Number of Bill Lines	Total Pay	Share of Prescriptions Containing the Ingredient
1	BACLOFEN POW	7,986	\$1,294,827	38.1%
2	GABAPENTIN POW	6,604	\$1,775,113	31.4%
3	CYCLOBENZAPRINE POW HCL	5,103	\$682,450	24.3%
4	FLURBIPROFEN POW	4,844	\$1,473,704	23.1%
5	AMITRIPTYLIN POW HCL	4,351	\$310,039	20.8%
6	BUPIVACAINE POW HCL	4,282	\$165,303	20.3%
7	AMANTADINE POW HCL	3,428	\$320,062	16.3%
8	KETOPROFEN POW	3,076	\$520,989	14.7%
9	TRAMADOL HCL POW	1,979	\$383,830	9.5%
10	MELOXICAM POW	1,570	\$65,593	7.6%
11	MENTHOL CRY	1,402	\$4,614	6.7%
12	LIDOCAINE POW HCL	1,106	\$18,521	5.3%
13	CLONIDINE POW	889	\$18,205	4.2%
14	RELYYT DIS 0.025-5%	431	\$268,156	2.0%
15	SYNVEXIA PAD 4-1%	368	\$720,095	1.7%
16	MEFENAMIC POW ACID	299	\$25,760	1.4%
17	MELOXICAM TAB 15MG	268	\$26,521	1.2%
18	FLUTICASONE POW PROPIONA	261	\$362,500	1.2%
19	NEW TEROGIN LOT	260	\$68,930	1.2%
20	LIDOCAINE POW	258	\$2,039	1.2%
Subtotal		48,765	\$8,507,251	
Total Active Ingredients		52,546	\$9,198,646	

Source: Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, 2017.



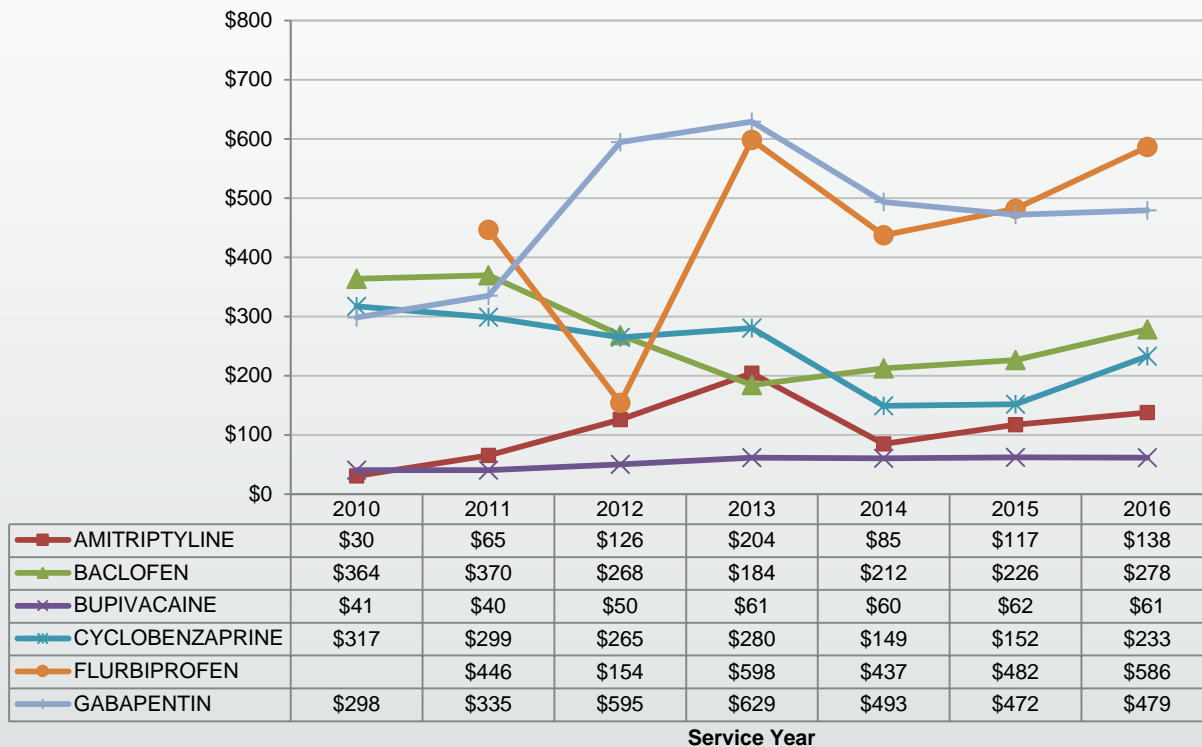
NUMBER OF ACTIVE INGREDIENTS OF COMPOUNDED DRUGS



Source: Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, 2017.



AVERAGE COST PER RX, SELECTED ACTIVE INGREDIENTS



Note: Extreme value as a result of a small number of observations was omitted for Flurbiprofen in 2010. Drug units and quantities billed per prescription differed across different packages, manufacturers, and service years. As a result, average costs were calculated per prescription without considering any changes in the amount of ingredients being used per prescription. A decrease or an increase in the average cost per ingredient may be affected by a systematic decrease or increase in the ingredient's per-prescription unit.

Source: Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, 2017.

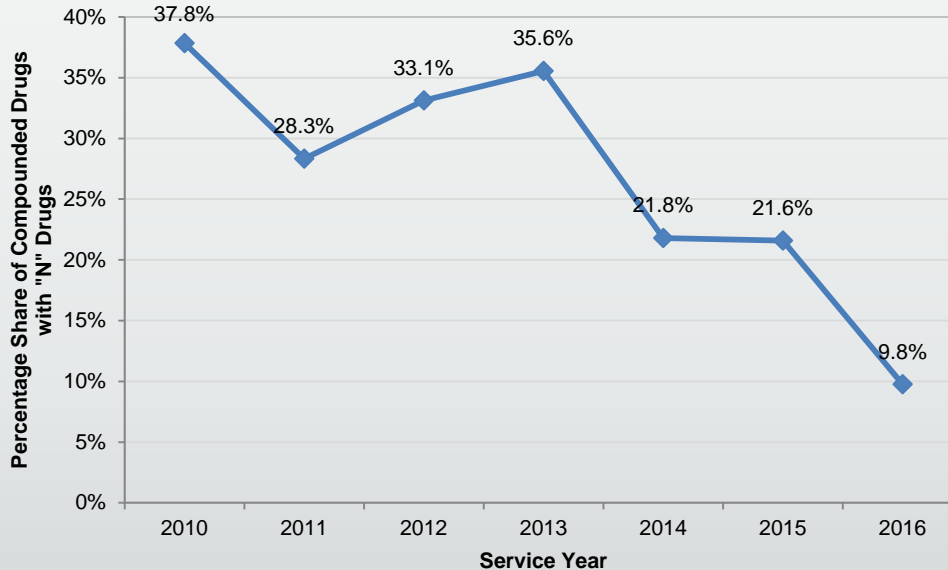


COMPOUNDED DRUGS BY “N” DRUG STATUS AND NETWORK STATUS



COMPOUNDED DRUGS BY N DRUG STATUS

- Notable “N” drugs in compounded drugs: Clonidine, Piroxicam, Diclofenac, and topical analgesics of Ketamine and Lidocaine
- Compounded drugs containing “N” drugs decreased from 38 percent in 2010 to 10 percent in 2016.
- Powder forms of these drugs are not listed in the NDC code list of “N” drugs.



Source: Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, 2017.



OPIOIDS IN COMPOUNDED DRUGS

- The most common opioids were Hydrocodone combination products until 2013. Since then, Tramadol became the most used opioids. Both are “Y” drugs.
- Tramadol became Schedule IV controlled substance in July 2014. Hydrocodone became Schedule II controlled substance in October 2014.
- Powder forms of these drugs are in different classifications from the opioid class in the database (therapeutic classification system).

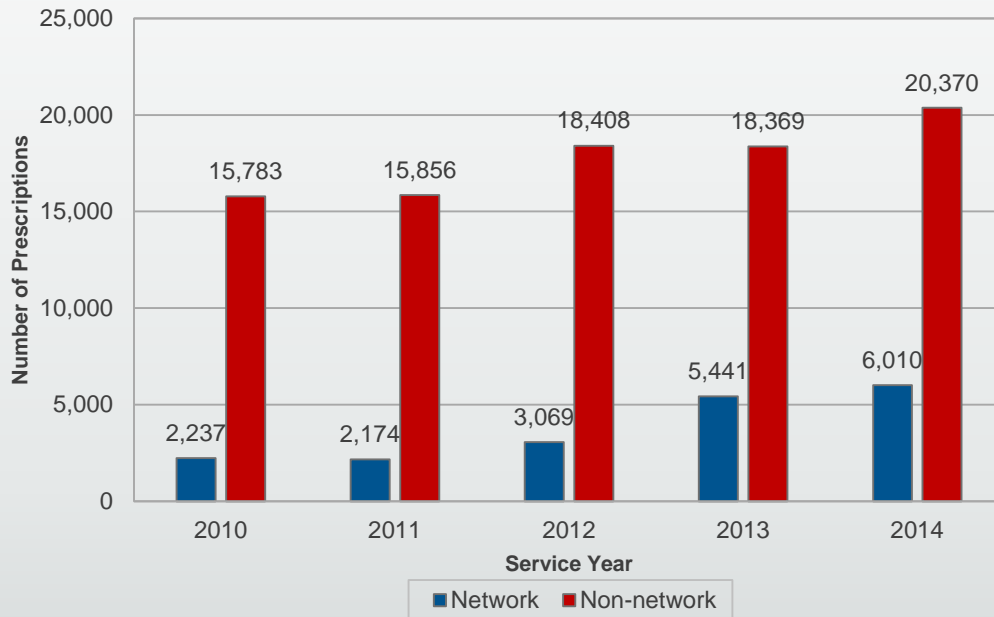
Service Year	Number of Rx with Opioids	Number of Rx w/o Opioids	Share of Rx with Opioids	Cost of Rx with Opioids	Cost of Rx w/o Opioids	Cost Share of Rx with Opioids
2010	1,158	16,862	6.4%	\$396,075	\$5,410,286	6.8%
2011	959	17,071	5.3%	\$325,661	\$5,609,903	5.5%
2012	892	20,585	4.2%	\$413,772	\$8,732,839	4.5%
2013	1,113	22,697	4.7%	\$758,495	\$12,133,823	5.9%
2014	4,182	22,198	15.9%	\$2,293,288	\$11,673,887	16.4%
2015	2,542	18,610	12.0%	\$1,591,285	\$10,452,822	13.2%
2016	2,115	18,636	10.2%	\$1,040,143	\$10,202,721	9.3%

Source: Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, 2017.



COMPOUNDED DRUGS BY NETWORK STATUS

- In 2014, 23% of compounded drugs were for network claims while 45% of the claims were in networks.



Note: Network claims lists are available up to 2014.

Source: Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, 2017.



COMPOUNDED DRUGS BY NETWORK STATUS

- Compounded drug use by claims in networks was about half of those in non-network.

Service Year	Number of Claims (Networks)	Number of Claims (Non-network)	Share of Total Claims (Networks)	Share of Total Claims (Non-network)
2010	392	2,713	0.8%	2.3%
2011	434	2,349	0.8%	2.3%
2012	763	2,934	1.3%	3.1%
2013	1,413	3,612	2.3%	4.4%
2014	1,314	3,160	2.1%	4.2%

Note: Network claims lists are available up to 2014.

Source: Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, 2017.



DISPENSING PHARMACIES, PRESCRIBERS, AND CARRIERS



DISPENSING PHARMACIES OF COMPOUNDED DRUGS

- Top 5 pharmacies accounted for 86% of all prescriptions dispensed in 2016.

Service Year	2010	2011	2012	2013	2014	2015	2016
Total Number of Compounded Drug Prescriptions	18,020	18,030	21,477	23,810	26,380	21,152	20,751
Rx by Top 5 Pharmacies	13,216	13,968	16,332	15,551	18,036	12,653	17,736
Share of Top 5 Pharmacies	73.3%	77.5%	76.0%	65.3%	68.4%	59.8%	85.5%

Source: Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, 2017.



TOP HCPs BY NUMBER OF COMPOUNDED DRUG PRESCRIPTIONS

Number of Prescriptions by Service Year

Prescribing HCP by Rank	2010	2011	2012	2013	2014	2015	2016
Top 10 Prescribers	11,423	11,767	11,405	10,593	13,456	9,848	11,178
Top 10 Share	67.4%	69.2%	57.5%	45.5%	51.6%	47.0%	54.5%
Top 20 Prescribers	13,266	13,452	13,604	13,821	17,095	13,808	14,000
Top 20 Share	78.3%	79.1%	68.6%	59.3%	65.5%	65.9%	68.3%
Top 100 Prescribers	15,882	15,976	17,653	19,173	22,892	18,784	18,405
Top 100 Share	93.8%	93.9%	89.0%	82.3%	87.7%	89.7%	89.7%
Number of Identified HCPs	388	417	618	893	781	621	517
Total Compounded Drug Rx	16,939	17,005	19,825	23,300	26,088	20,943	20,511

Note: Prescriptions without prescriber's identification were excluded from analysis. HCP = health care provider

Source: Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, 2017.



TOP 10 INSURANCE CARRIERS OF COMPOUNDED DRUGS (2016)

	Number of Compounded Drugs	Number of Denied Rx	Denial Rate	Total Cost	Cost per Rx	Number of Rx in All Pharmacy	Share of Compounded Drugs in All Pharmacy
Top 10 Insurance Carriers	16,508	5,558	33.7%	\$8,567,716	\$782	457,330	3.6%
Total Compounded Drugs	20,751	7,195	34.7%	\$11,242,865	\$829	651,811	3.2%
Share of Top 10 Carriers	79.6%	77.2%		76.2%		70.2%	

Source: Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, 2017.



COMPOUNDED DRUG UTILIZATION BY GEOGRAPHICAL AREA AND DEMOGRAPHIC FACTORS



COMPOUNDED DRUG PRESCRIPTIONS BY GEOGRAPHICAL AREA (2016)

HRR	Compounded Drugs		All Pharmacy Prescriptions	
	Number of Prescriptions	Prescription Share	Number of Prescriptions	Prescription Share
Abilene	48	0.2%	10,028	1.6%
Amarillo	160	0.8%	8,618	1.4%
Austin	148	0.7%	33,987	5.4%
Beaumont	709	3.5%	10,822	1.7%
Bryan	38	0.2%	5,102	0.8%
Corpus Christi	190	0.9%	13,087	2.1%
Dallas	1,952	9.6%	121,279	19.3%
El Paso	192	0.9%	26,217	4.2%
Fort Worth	1,006	4.9%	74,534	11.9%
Harlingen	139	0.7%	12,525	2.0%
Houston	13,665	66.9%	148,314	23.6%
Longview	15	0.1%	4,617	0.7%
Lubbock	156	0.8%	15,873	2.5%
McAllen	104	0.5%	12,458	2.0%
Odessa	380	1.9%	14,668	2.3%
San Angelo	89	0.4%	4,333	0.7%
San Antonio	893	4.4%	69,649	11.1%
Temple	87	0.4%	8,218	1.3%
Tyler	164	0.8%	15,095	2.4%
Victoria	131	0.6%	3,966	0.6%
Waco	124	0.6%	8,880	1.4%
Wichita Falls	30	0.1%	4,910	0.8%
Total	20,420	100.0%	627,180	100.0%

Note: Hospital Referral Region (HRR) is based on the pattern of referrals for major surgeries (Dartmouth Atlas of Health Care). Prescriptions without HRR information are removed from analysis.

Source: Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, 2017.



CLAIMS RECEIVING COMPOUNDED DRUGS BY GEOGRAPHICAL AREA (2016)

HRR	Compounded Drugs			All Pharmacy Prescriptions		
	Number of Claims	Rx per Claim	Claim Share	Number of Claims	Rx per Claim	Claim Share
Abilene	15	3	0.5%	1,374	7	1.2%
Amarillo	37	4	1.2%	1,491	6	1.3%
Austin	49	3	1.6%	7,617	4	6.5%
Beaumont	70	10	2.3%	1,439	8	1.2%
Bryan	9	4	0.3%	984	5	0.8%
Corpus Christi	43	4	1.4%	2,562	5	2.2%
Dallas	543	4	18.0%	23,880	5	20.2%
El Paso	36	5	1.2%	5,593	5	4.7%
Fort Worth	244	4	8.1%	14,103	5	11.9%
Harlingen	34	4	1.1%	3,200	4	2.7%
Houston	1,403	10	46.6%	25,946	6	22.0%
Longview	5	3	0.2%	654	7	0.6%
Lubbock	41	4	1.4%	2,695	6	2.3%
McAllen	30	3	1.0%	3,307	4	2.8%
Odessa	113	3	3.8%	1,802	8	1.5%
San Angelo	7	13	0.2%	646	7	0.5%
San Antonio	205	4	6.8%	13,950	5	11.8%
Temple	19	5	0.6%	1,914	4	1.6%
Tyler	33	5	1.1%	1,915	8	1.6%
Victoria	20	7	0.7%	640	6	0.5%
Waco	46	3	1.5%	1,616	5	1.4%
Wichita Falls	9	3	0.3%	706	7	0.6%
Total	3,011	7	100.0%	118,034	5	100.0%

Note: Hospital Referral Region (HRR) is based on the pattern of referrals for major surgeries (Dartmouth Atlas of Health Care). Prescriptions without HRR information are removed from analysis.

Source: Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, 2017.



COMPOUNDED DRUGS BY AGE AND GENDER (2010–2016)

Age Group	Compounded Drugs		Non-compounded Drugs	
	Number of Rx	Share	Number of Rx	Share
Under 20	183	0.1%	20,712	0.3%
20-29	7,943	5.3%	402,898	6.5%
30-39	23,058	15.4%	911,577	14.8%
40-49	43,591	29.2%	1,667,075	27.0%
50-59	52,203	34.9%	2,080,791	33.7%
60 and Over	22,514	15.1%	1,082,808	17.6%
Total	149,492	100.0%	6,165,861	100.0%

Note: Prescriptions without age information are removed from analysis.

Source: Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, 2017.

Gender	Compounded Drugs		Non-compounded Drugs	
	Number of Rx	Share	Number of Rx	Share
Female	47,564	38.4%	1,657,083	33.6%
Male	76,301	61.6%	3,269,586	66.4%
Total	123,865	100.0%	4,926,669	100.0%

Note: Prescriptions without gender information are removed from analysis.

Source: Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, 2017.



KEY FINDINGS

- ★ The number of compounded drugs was 18,020 prescriptions in 2010 (1.6 percent of total pharmacy prescriptions), which increased to 26,380 (3.2 percent) in 2014. It decreased to 20,751 (3.2 percent) in 2016.
- ★ In 2010, the total cost of compounded drugs was \$6 million (4 percent of the total pharmacy cost of \$152 million), which increased to \$12 million in 2014 (12.5 percent of the total \$112 million). In 2016, the total cost decreased to \$11 million (11 percent of the total \$98 million).
- ★ The average cost per prescription increased from \$356 in 2010 to \$829 in 2016 (133 percent increase).
- ★ From 2010, compounded drugs increasingly used multiple active ingredients.



KEY FINDINGS (CONTINUED)

- ★ In 2016, 2.5 percent of the pharmacy claims received one or more compounded drugs.
- ★ Per-claim cost of compounded drugs increased from \$1,993 in 2010 to \$5,936 in 2016 (198 percent increase). This increase was mainly due to increases in the average cost per compounded drug prescription. The number of prescriptions per claim increased slightly since 2013.
- ★ The most common type of injury among the claims receiving compounded drugs was back injury (31 percent of the claims in 2014).
- ★ About 46 percent of the claims received compounded drug prescriptions one time only. The rest (54 percent) received compounded drugs at multiple prescription dates.
- ★ About 40 percent of the claims received compounded drugs within 3 months of injury. Among them, 40 percent of these claims received compounded drugs without using any other prior drugs.



KEY FINDINGS (CONTINUED)

- ★ Most common base ingredients were those used to prepare cream-based topical analgesics (Pluronic Lecithin Organogel bases).
- ★ The use of proprietary bases increased significantly since 2010. In 2016, about 45 percent of the prescriptions contained proprietary vehicle bases (from 5.3 percent in 2010), and these accounted for 86 percent of the total base cost (from 35 percent in 2010).
- ★ In 2016, Baclofen was the most common active ingredient in compounded drugs, followed by Gabapentin, Cyclobenzaprine, and Flurbiprofen.
- ★ Cyclobenzaprine and Baclofen's cost decreased by 27 percent and 24 percent since 2010, respectively, while the average cost of Gabapentin and Flurbiprofen increased by 61 percent and 31 percent, respectively. Compounded drugs in 2016 contained more active ingredients per prescription than in 2010, contributing to the increasing cost per prescription.



KEY FINDINGS (CONTINUED)

- ★ About 38 percent of the compounded drugs contained one or more “N” drugs in 2010. After the closed formulary, “N” drug share decreased to 10 percent in 2016.
- ★ In 2010, about 6 percent of compounded drug prescriptions contained opioids, which increased to 10 percent in 2016. Tramadol was the most used opioids in compounded drugs.
- ★ In 2014, 2 percent of the network claims received compounded drugs, compared to 4 percent in non-network claims.
- ★ Top 5 dispensing pharmacies accounted for 86 percent of all compounded drugs in 2016, increasing from 73 percent in 2010.
- ★ Top 10 prescribing individuals accounted for 55 percent of compounded drug prescriptions in 2016. Top 20 individuals accounted for 68 percent.
- ★ Houston HRR accounted for 67 percent of all compounded drugs in 2016 while it accounted for 24 percent of all pharmacy prescriptions.





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Per Chapter 405 of the *Texas Labor Code*, the Workers' Compensation Research and Evaluation Group at the Texas Department of Insurance is responsible for conducting professional studies and research on various system issues, including:

- the delivery of benefits;
- litigation and controversy related to workers' compensation;
- insurance rates and rate-making procedures;
- rehabilitation and reemployment of injured employees;
- the quality and cost of medical benefits;
- employer participation in the workers' compensation system;
- employment health and safety issues; and
- other matters relevant to the cost, quality, and operational effectiveness of the workers' compensation system.

