

# Impact of the Texas Pharmacy Closed Formulary

A Preliminary Report  
Based on 12-month Injuries with 18-month Services  
and Legacy Status

August 2014



**Texas Department of Insurance**

**Workers' Compensation Research and Evaluation Group**

# Data and methods

- Injury months: 12 Months (September–August)
- Injury years: 2009–2011
- Prescription months: 18 months maturity per claim
- Injuries in 2011 are new injuries that occurred after the implementation of the pharmacy closed formulary
  - Injury year from September 2011 to August 2012
  - Services covering from September 2011 to February 2013
- N-drug list: approximately 150 drugs that require carrier preauthorization
- Key measures:
  - Claim counts
  - Prescription costs
  - Prescription utilization patterns
  - Generic substitution rates
  - Cost and utilization by drug group
  - Most prescribed drugs

# Summary of key findings: New claims

Since the implementation of the Texas pharmacy closed formulary:

- The number of injured employees receiving N-drugs fell by 65 percent.
- N-drug costs fell by 82 percent, and N-drug costs as a percentage of all drug costs decreased by 79 percent (from 17 percent of total to 4 percent of total).
- The number of injured employees receiving other drugs fell by 1 percent.
- The share of N-drug claims among all claims fell from 18 percent to 6 percent.
- The total number of prescriptions for N-drugs fell by 75 percent while it fell by 3 percent for other drugs.
- The average number of N-drug prescriptions per claim fell by 29 percent.
- The generic substitution rate for N-drugs increased from 61 percent in 2010 to 73 percent in 2011.
- The number of N-drug prescriptions fell by 60+ percent across all drug groups.
- The number of prescriptions for the ten most-prescribed N-drugs decreased by 81 percent.

# Summary of key findings: Legacy claims

Legacy claims with injuries prior to September 1, 2011 are subject to the Pharmacy Closed Formulary from September 1, 2013.

- Legacy claims accounted for 39 percent of the claims and 62 percent of the total pharmacy cost in April 2014.
- Legacy claims serviced in a month decreased from 35,597 in September 2011 to 13,206 in April 2014 (63% decrease), mainly because there are no new claims added.
- The average pharmacy cost per legacy claim dropped by 18 percent in September 2013 from the previous month.
- Total cost of N-drugs decreased from \$1.55 million in August 2013 to \$700,000 in September 2013 (55 percent decrease).
- For legacy claims, the share of N-drug cost in the total dropped from 19 percent of the total in August 2013 to 11 percent in September 2013 (41 percent decrease).

New Claims

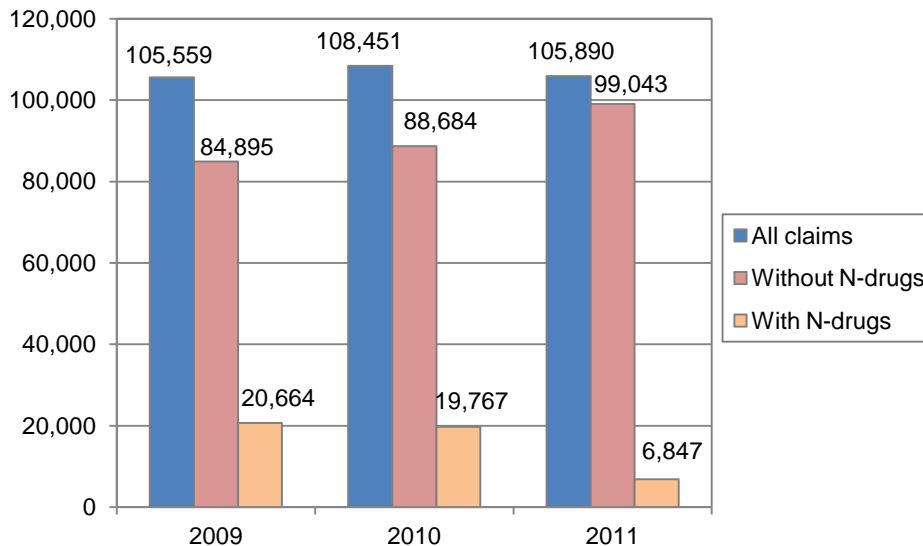
# Number of Claims

# Number of claims receiving pharmaceuticals, by injury year (Sept.–Aug.)

	Injury year			2010-2011 percentage change
	2009	2010	2011	
All claims	105,559	108,451	105,890	-2%
<b>N-drugs</b>				
Number of claims	20,664	19,767	6,847	-65%
<i>Percent of all claims</i>	20%	18%	6%	-65%
<b>Other Drugs</b>				
Number of claims with at least one Other drug	103,375	106,105	105,086	-1%
Number of claims with Other drugs only (no N-drugs)	84,895	88,684	99,043	12%
<i>Percent of all claims</i>	80%	82%	94%	14%

Source: Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, 2014.

# Number of claims, by injury year (Sept.–Aug.)



Source: Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, 2014.

New Claims

# Prescription Costs

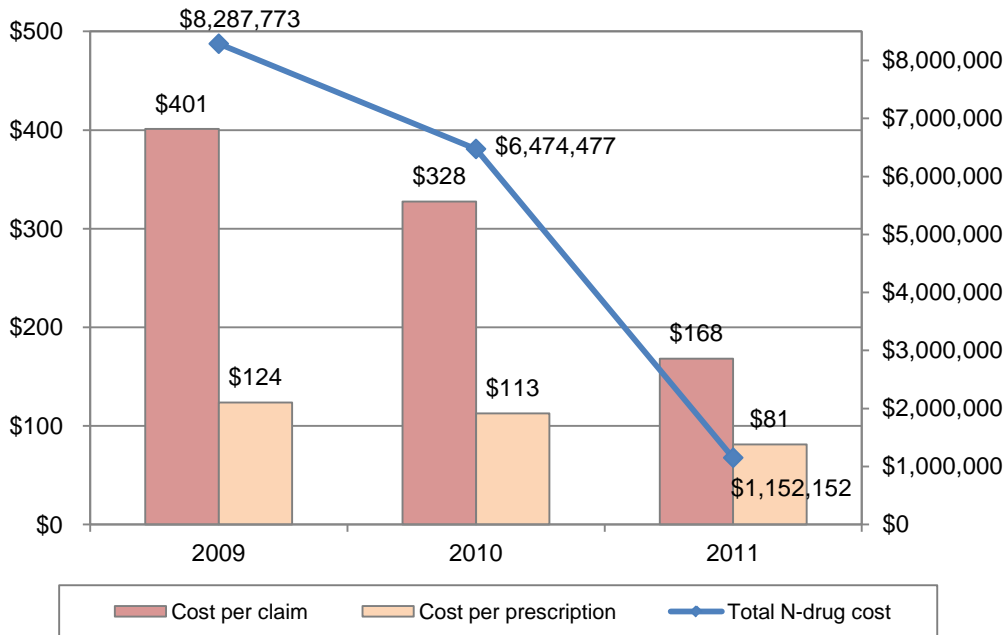


# Cost of N-drugs, by injury year (Sept.–Aug.)

	Injury year			2010-2011 percentage change
	2009	2010	2011	
Total cost	\$40,001,352	\$38,436,372	\$32,823,107	-15%
Total cost of N-drug prescriptions	\$8,287,773	\$6,474,477	\$1,152,152	-82%
<i>N-drug cost as a percentage of total drug costs</i>	21%	17%	4%	-79%
Total number of N-drug prescriptions	67,002	57,369	14,195	-75%
<i>Average cost per N-drug prescription</i>	\$124	\$113	\$81	-28%
Total number of N-drug claims	20,664	19,767	6,847	-65%
<i>Average N-drug cost per claim</i>	\$401	\$328	\$168	-49%

Source: Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, 2014.

# Total and average costs: N-drugs, by injury year (Sept.–Aug.)



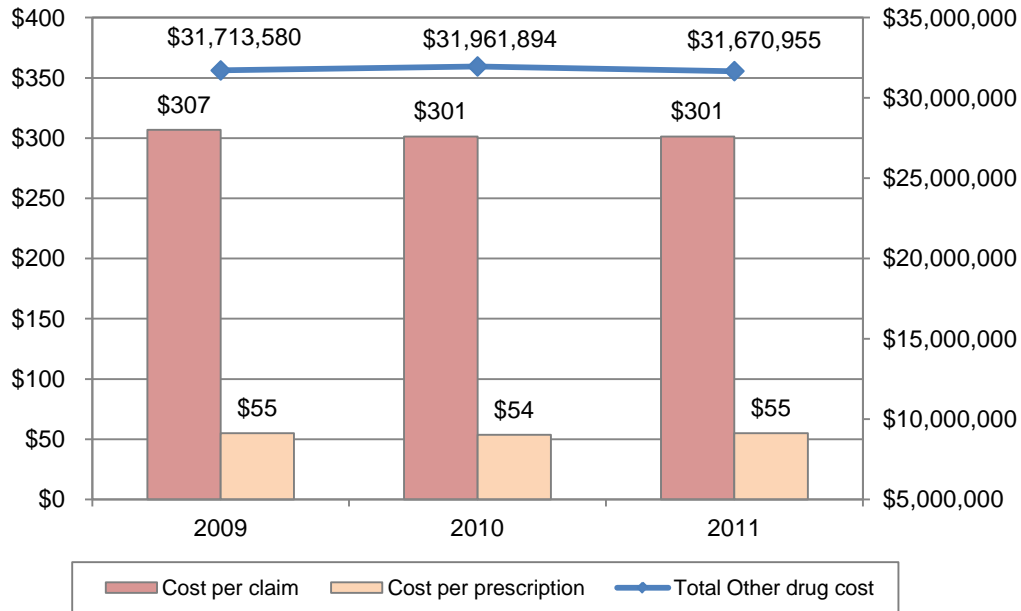
Source: Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, 2014.

# Cost of Other drugs, by injury year (Sept.–Aug.)

	Injury year			2010-2011 percentage change
	2009	2010	2011	
Total cost	\$40,001,352	\$38,436,372	\$32,823,107	-15%
Total cost of Other drug prescriptions	\$31,713,580	\$31,961,894	\$31,670,955	-1%
<i>Other drug cost as a percentage of total drug costs</i>	79%	83%	96%	16%
Total number of Other drug prescriptions	575,865	595,126	575,062	-3%
<i>Average cost per Other drug prescription</i>	\$55	\$54	\$55	3%
Total number of Other drug claims	103,375	106,105	105,086	-1%
<i>Average Other drug cost per claim</i>	\$307	\$301	\$301	0%

Source: Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, 2014.

# Total and average costs: Other drugs, by injury year (Sept.–Aug.)



Source: Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, 2014.

New Claims

# Prescription Patterns

# Share of prescriptions by drug type, by injury year (Sept.–Aug.)

	Injury year			2010-2011 percentage change
	2009	2010	2011	
Total number of all prescriptions	642,867	652,495	589,257	-10%
<b>N-drugs</b>				
Number of prescriptions	67,002	57,369	14,195	-75%
<i>N-drug prescriptions as a percent of all prescriptions</i>	10%	9%	2%	-73%
<b>Other drugs</b>				
Number of prescriptions	575,865	595,126	575,062	-3%
<i>Other drug prescriptions as a percent of all prescriptions</i>	90%	91%	98%	7%

Source: Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, 2014.

# Number of prescriptions per claim, by injury year (Sept.–Aug.)

	Injury year			2010-2011 percentage change
	2009	2010	2011	
<b>N-drugs</b>				
Number of prescriptions	67,002	57,369	14,195	-75%
Total N-drug claims	20,664	19,767	6,847	-65%
<i>Number of prescriptions per claim</i>	3.24	2.90	2.07	-29%
<b>Other Drugs</b>				
Number of prescriptions	575,865	595,126	575,062	-3%
Total Other drug claims	103,375	106,105	105,086	-1%
<i>Number of prescriptions per claim</i>	5.57	5.61	5.47	-2%

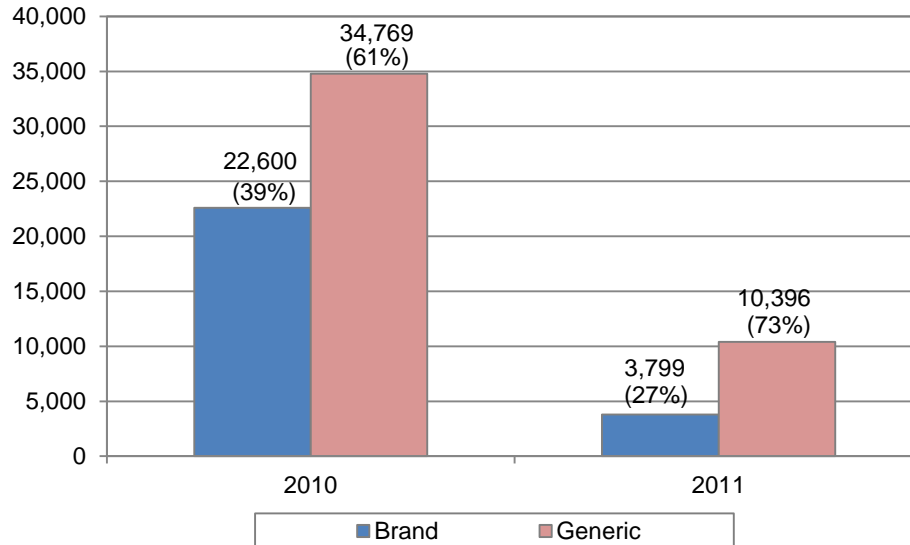
Source: Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, 2014.

New Claims

# Generic Substitution Rates

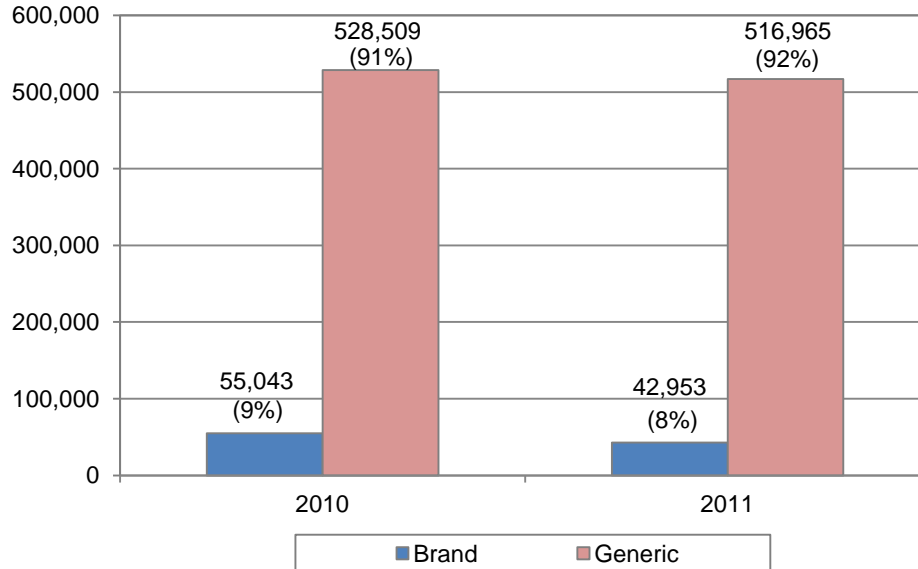


# Generic substitution: prescriptions of N-drugs, by injury year (Sept.–Aug.)



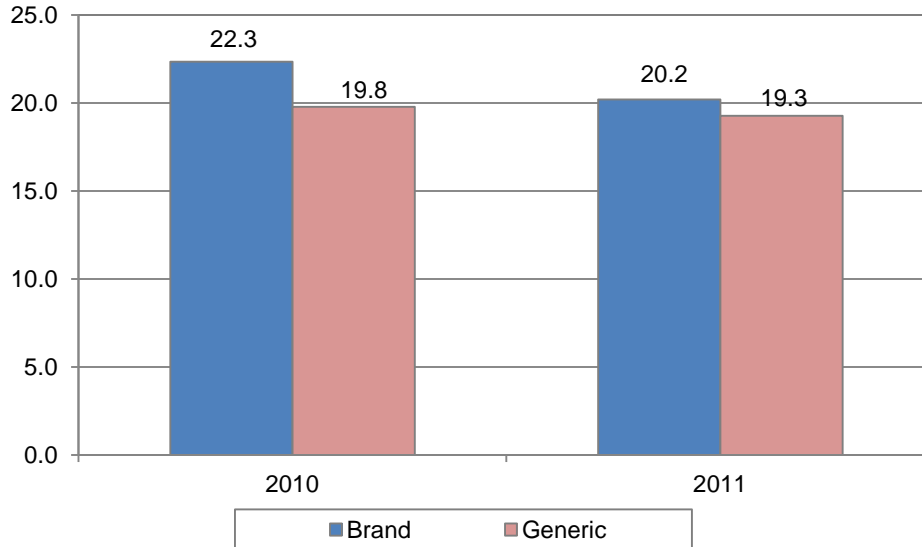
Source: Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, 2014.

# Generic substitution: prescriptions of Other drugs, by injury year (Sept.–Aug.)



Source: Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, 2014.

# Average number of N-drug prescription days by generic status, by injury year (Sept.–Aug.)



Source: Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, 2014.

New Claims

# Cost and Utilization by Drug Group

# Number of prescriptions by drug group, by injury year (Sept.–Aug.)

N-Drug Status	Drug Group	Number of prescriptions 2010	Number of prescriptions 2011	2010 - 2011 percentage change
<b>N-drugs</b>	Analgesics - Anti-Inflammatory	14,618	3,421	-77%
	Analgesics - Opioid	7,158	2,547	-64%
	Central Nervous System Drugs	13,232	3,894	-71%
	Musculoskeletal Therapy Agents	12,457	1,646	-87%
	Others	9,904	2,687	-73%
	<b>Total</b>	<b>57,369</b>	<b>14,195</b>	<b>-75%</b>
<b>Other drugs</b>	Analgesics - Anti-Inflammatory	145,023	144,944	0%
	Analgesics - Opioid	213,774	193,768	-9%
	Central Nervous System Drugs	36,227	34,598	-4%
	Musculoskeletal Therapy Agents	84,438	84,224	0%
	Others	115,664	117,528	2%
	<b>Total</b>	<b>595,126</b>	<b>575,062</b>	<b>-3%</b>

Source: Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, 2014.

# Total cost by drug group, by injury year (Sept.–Aug.)

N-Drug Status	Drug Group	Total cost 2010	Total cost 2011	2010 - 2011 percentage change
<b>N-drugs</b>	Analgesics - Anti-Inflammatory	\$1,639,491	\$202,543	-88%
	Analgesics - Opioid	\$999,531	\$283,389	-72%
	Central Nervous System Drugs	\$809,572	\$236,939	-71%
	Musculoskeletal Therapy Agents	\$1,010,932	\$63,624	-94%
	Others	\$2,014,951	\$365,657	-82%
	<b>Total</b>	<b>\$6,474,477</b>	<b>\$1,152,152</b>	<b>-82%</b>
<b>Other drugs</b>	Analgesics - Anti-Inflammatory	\$8,774,992	\$8,620,410	-2%
	Analgesics - Opioid	\$6,716,525	\$5,769,180	-14%
	Central Nervous System Drugs	\$4,393,064	\$4,264,433	-3%
	Musculoskeletal Therapy Agents	\$4,966,653	\$4,551,336	-8%
	Others	\$7,110,660	\$8,465,596	19%
	<b>Total</b>	<b>\$31,961,894</b>	<b>\$31,670,955</b>	<b>-1%</b>

Source: Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, 2014.

# Average cost per claim by drug group, by injury year (Sept.–Aug.)

N Drug Status	Drug Group	Number of claims		Cost per claims		
		2010	2011	2010	2011	2010 - 2011 percentage change
<b>N-drugs</b>	Analgesics - Anti-Inflammatory	8,360	2,315	\$196	\$87	-55%
	Analgesics - Opioid	2,867	1,221	\$349	\$232	-33%
	Central Nervous System Drugs	3,696	1,381	\$219	\$172	-22%
	Musculoskeletal Therapy Agents	4,771	958	\$212	\$66	-69%
	Others	4,409	1,710	\$457	\$214	-53%
<b>Other drugs</b>	Analgesics - Anti-Inflammatory	62,364	63,732	\$141	\$135	-4%
	Analgesics - Opioid	59,664	58,749	\$113	\$98	-13%
	Central Nervous System Drugs	7,738	7,563	\$568	\$564	-1%
	Musculoskeletal Therapy Agents	34,497	35,484	\$144	\$128	-11%
	Others	46,135	46,856	\$154	\$181	17%

Source: Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, 2014.

New Claims

# Most Prescribed Drugs



# Ten most frequently prescribed drugs, by injury year (Sept.–Aug.)

2010 Rank by Number of Prescription	Drug Name	Drug Group	Number of Prescriptions 2010	Number of Prescriptions 2011
1	Hydrocodone/APAP	Analgesics - Opioid	146,231	127,632
2	Cyclobenzaprine	Musculoskeletal Therapy Agents	52,944	53,743
3	Naproxen	Analgesics - Anti-Inflammatory	47,827	48,346
4	Ibuprofen	Analgesics - Anti-Inflammatory	44,828	47,567
5	Tramadol	Analgesics - Opioid	43,479	45,411
6	Meloxicam	Analgesics - Anti-Inflammatory	18,739	20,111
7	Celebrex	Analgesics - Anti-Inflammatory	13,083	10,867
8	Tramadol/APAP	Analgesics - Opioid	11,845	12,522
9	Methylpred	Others	10,325	11,141
10	Gabapentin	Central Nervous System Drugs	10,184	11,127
Subtotal			399,485	388,467

Note: No N-drug was in the top ten most frequently prescribed drugs in 2010 and 2011.

These ten drugs accounted for 61 percent of total prescriptions in 2010, and 66 percent in 2011.

Source: Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, 2014.

# Ten most frequently prescribed N-drugs, by injury year (Sept.–Aug.)

2010 Rank by Number of Rx	Drug Name	Drug Group	Number of Rx in 2010	Number of Rx in 2011	2010-2011 Percentage Change
1	Carisoprodol	Musculoskeletal Therapy Agents	7,780	1,042	-87%
2	Diclofenac	Analgesics - Anti-Inflammatory	4,688	1,922	-59%
3	Zipsor	Analgesics - Anti-Inflammatory	3,793	462	-88%
4	Lidoderm	Others	3,349	723	-78%
5	Diazepam	Central Nervous System Drugs	2,969	746	-75%
6	Naprelan	Analgesics - Anti-Inflammatory	2,840	218	-92%
7	Hydrocodone/IBU	Analgesics - Opioid	2,407	628	-74%
8	Flector	Others	2,292	322	-86%
9	Amrix	Musculoskeletal Therapy Agents	2,204	29	-99%
10	Alprazolam	Central Nervous System Drugs	2,101	357	-83%
Subtotal			34,423	6,449	-81%

Note: These ten drugs accounted for 60 percent of total N-drug prescriptions in 2010, and 45 percent in 2011.

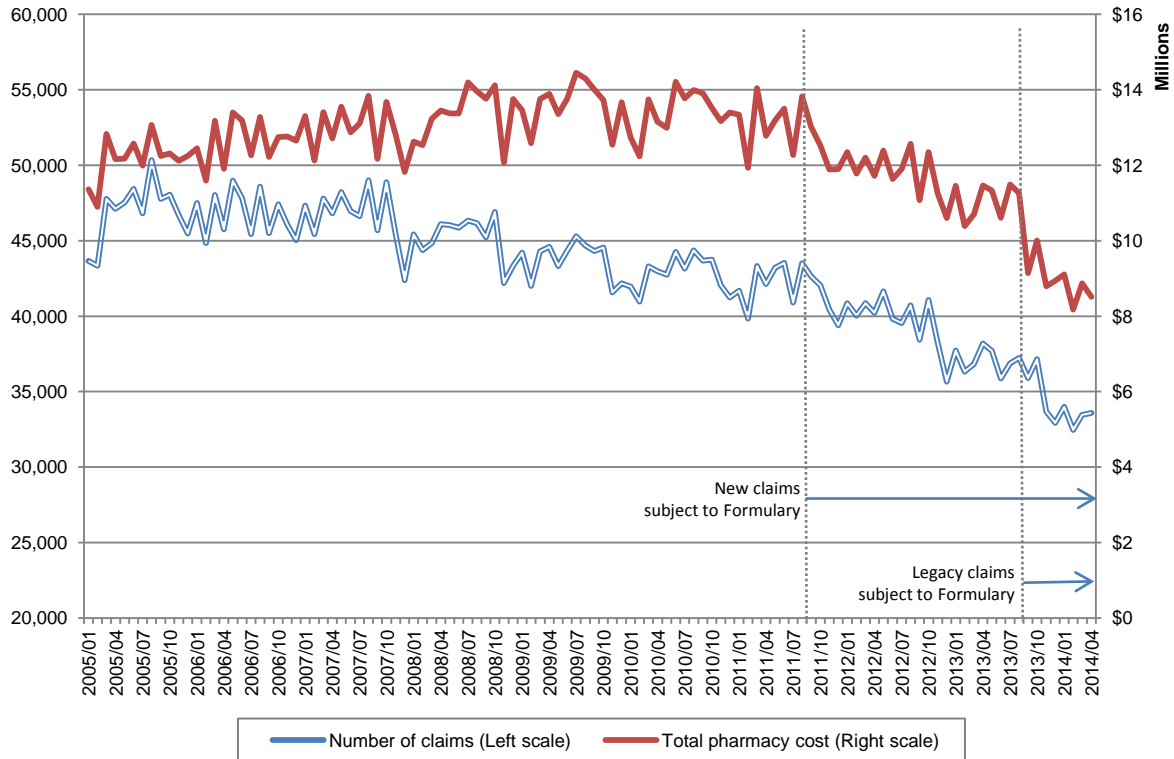
Source: Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, 2014.

# Legacy Claims

with Injury Dates Prior to September 2011

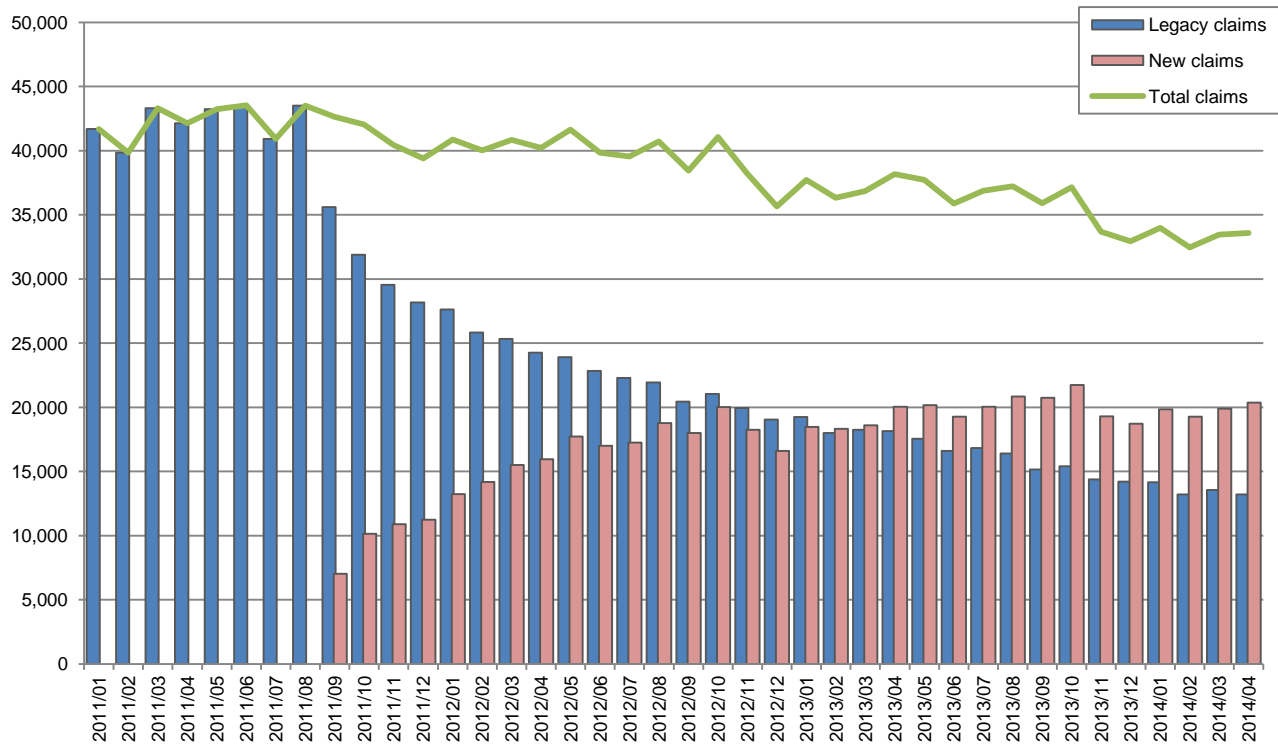
(Subject to the Pharmacy Closed Formulary  
Beginning on September 1, 2013)

# All claims: Number of claims and total cost by service month



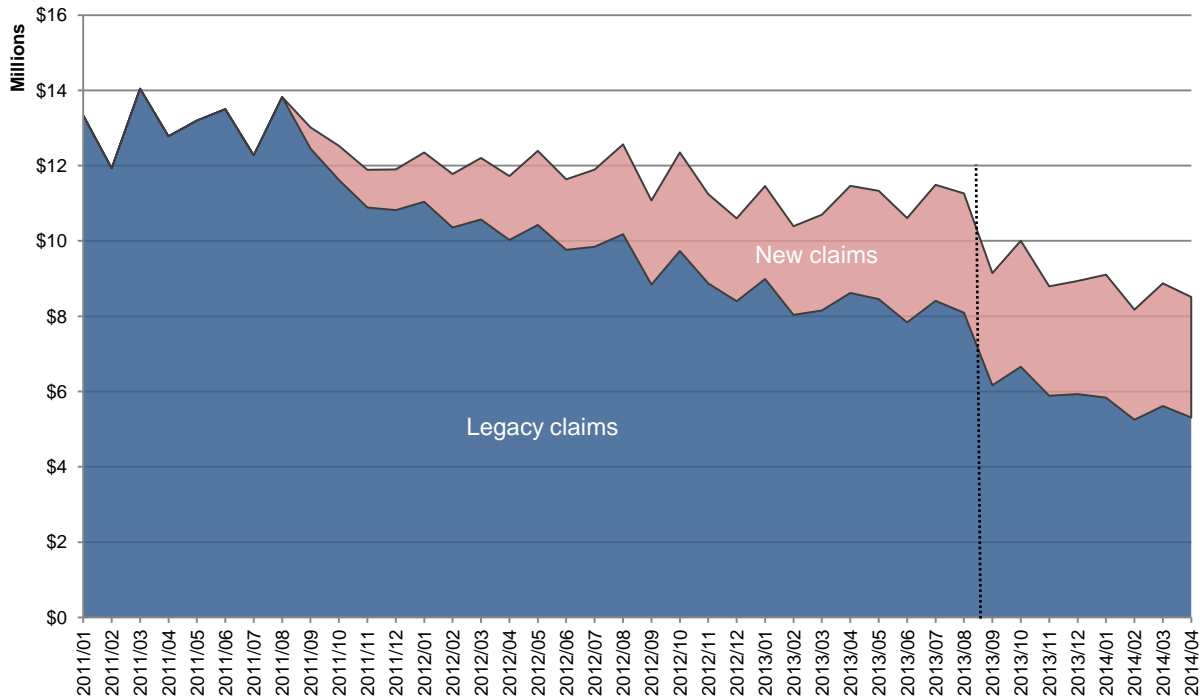
Source: Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, 2014.

# Number of claims by claim type by service month



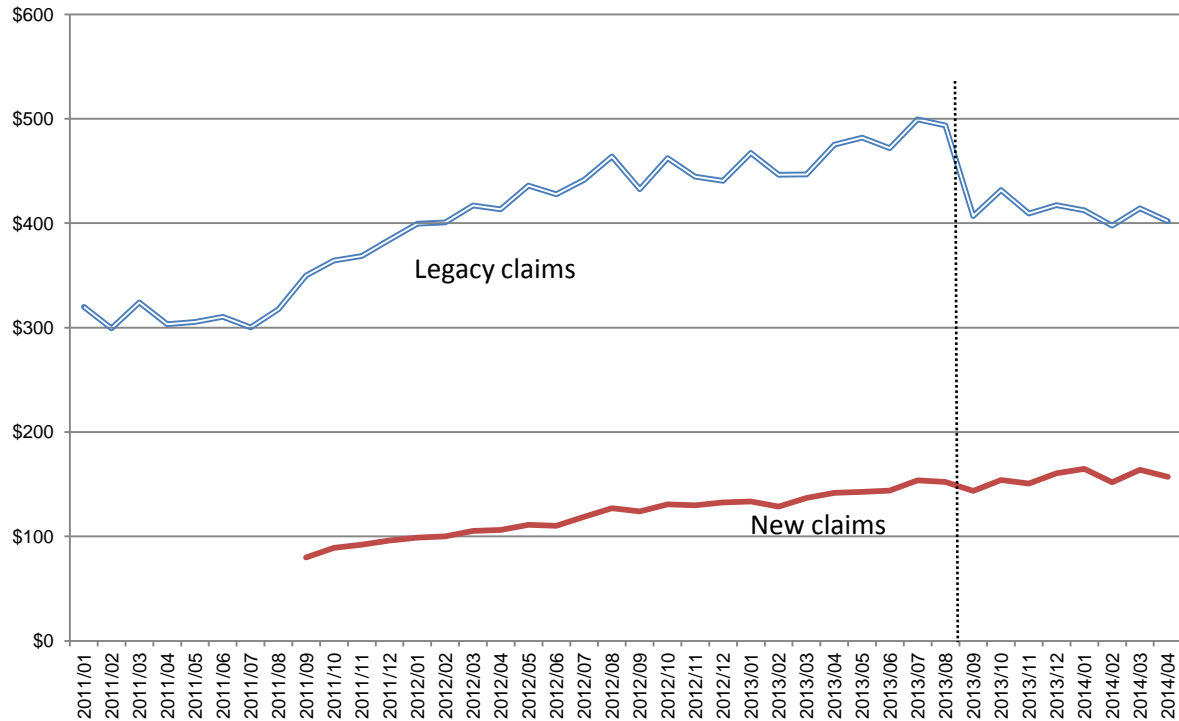
Source: Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, 2014.

# Total pharmacy costs by claim type by service month



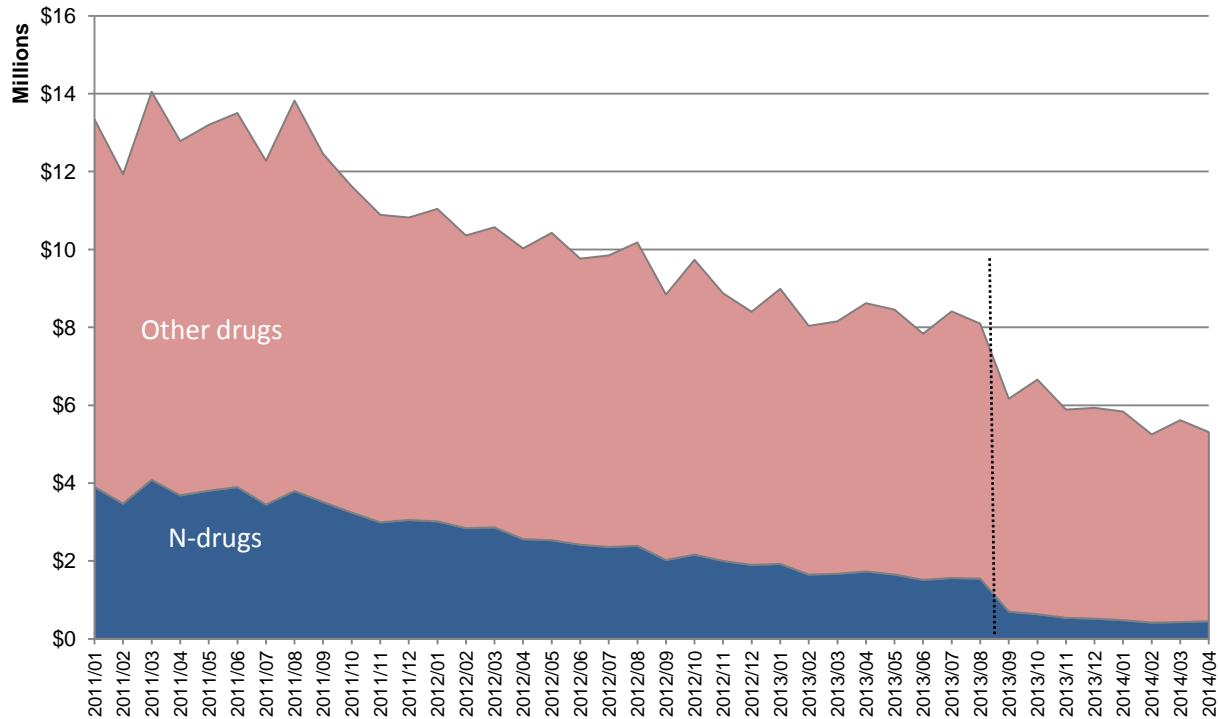
Source: Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, 2014.

# Average pharmacy cost per claim by claim type by service month



Source: Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, 2014.

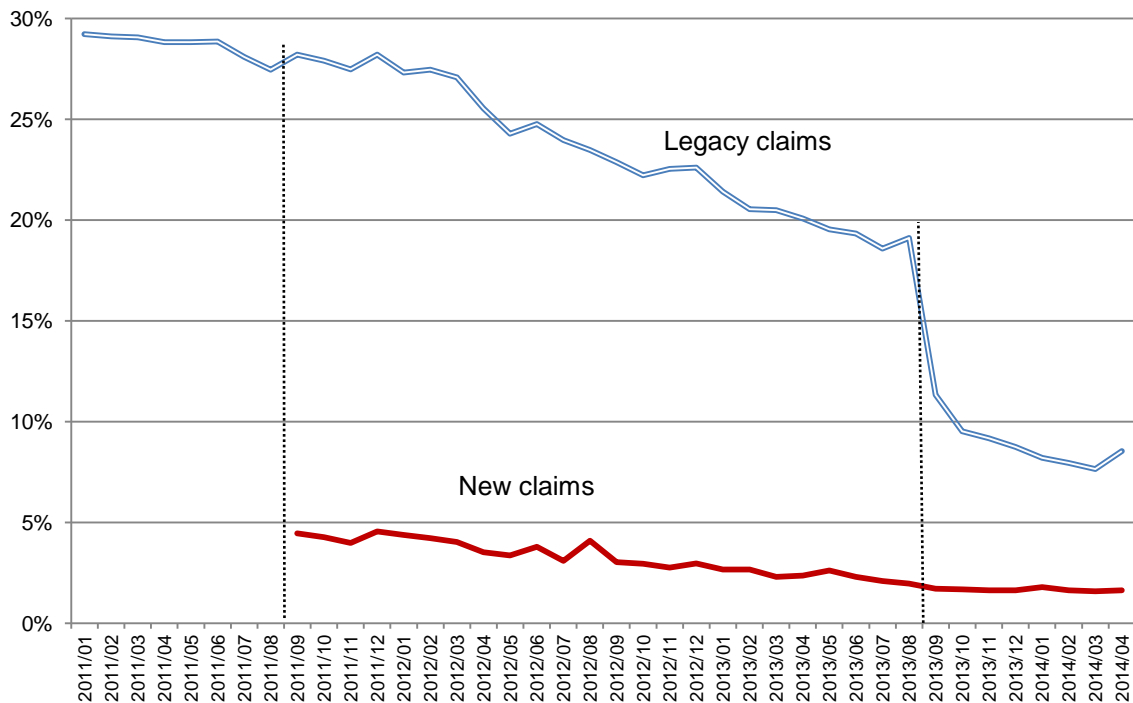
# Legacy claims: Costs of N-drugs and other drugs by service month



Source: Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, 2014.



# Share of N-drug cost in the total cost by claim type by service month



Source: Texas Department of Insurance, Workers' Compensation Research and Evaluation Group, 2014.



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REG's main Web page at the Texas Department of Insurance:  
[www.tdi.texas.gov/wc/regulation/roc](http://www.tdi.texas.gov/wc/regulation/roc)

For more information, contact us at [WCResearch@tdi.texas.gov](mailto:WCResearch@tdi.texas.gov).

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- 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.