



Texas Department of Insurance

# Pharmaceutical Utilization and Costs 1991-2010

**2011 Results**

Workers' Compensation Research and Evaluation Group  
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## 1. Introduction

House Bill (HB) 28 (78th Legislature, third called session) created a new workers' compensation research function at the Texas Department of Insurance (TDI) by transferring the research function of the former Research and Oversight Council on Workers' Compensation (ROC) to the agency. Per Chapter 405 of the Texas Labor Code, the Workers' Compensation Research and Evaluation Group (REG) is responsible for conducting professional studies and research on various system issues, including the delivery of benefits, litigation and controversy, insurance rates and rate-making procedures, rehabilitation and reemployment of injured workers, workplace health and safety issues, the quality and cost of medical benefits, and other matters relevant to the cost, quality, and operational effectiveness of the workers' compensation system.

House Bill (HB) 7 (79th Legislature, Regular Session, 2005) included a new Section 405.0026, Texas Labor Code, which requires the Commissioner of Insurance to adopt an annual research agenda for the Workers' Compensation Research and Evaluation Group (REG) at the Texas Department of Insurance (TDI). Section 405.0026, Texas Labor Code, also requires TDI to post a proposed research agenda in the Texas Register for public review and comment and requires the Commissioner of Insurance to hold a public hearing on the research agenda if requested by a member of the public.

In 2005 the Texas Department of Insurance began collecting data on prescriptions written for injured employees, and by 2007 REG had completed the first descriptive report on pharmaceutical usage in Texas. The key findings then showed that a relatively small number of injuries (13 percent of the injured employees) accounted for a disproportionate share (46 percent) of total pharmacy costs in the system.

In accordance with the Fiscal Year 2011 research agenda, REG conducted a follow-up analysis on pharmaceutical utilization and costs in the Texas workers' compensation system. The report examines utilization patterns and cost of legacy claims (injuries that occurred between 1991 and 2005), network and non-network comparisons of more recent injuries (2006 to 2010), generic substitution rates, and utilization trends of Schedule II drugs.

## Data Sources

- Division of Workers' Compensation (DWC) Medical Data. This data collection covers approximately 100 data elements across the key medical groups (hospital, professional, pharmacy, and dental).
- Medi-Span Master Drug Database (Classification Groups).
- Network claims list provided by WC network data calls administered by the TDI WC Research and Evaluation Group (REG).
- List of drugs with "N" status identified in the Official Disability Guideline (ODG) Treatment in Workers' Comp/Appendix A, *ODG Workers' Compensation Drug Formulary*.

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## Data Parameters

- Injury Years 1991 – 2010.
- Prescription Years 2005 and 2010.
- Prescriptions for 90 Days or less (99.8% of all data).
- Dropped prescriptions with denials for Duplicate, Entitlement, and Compensability issues.

## Methodology

The analyses combined injury years into four five-year groups (1991-1995, 1996-2000; 2001-2005, and 2006-2010) for ease of reporting. However, for the network/non-network results the most recent injury group has results by specific injury year. All results are based on twelve months of prescriptions. For injuries after 2005, the prescription timeframe is the first twelve months after the date of the injury, and for legacy claims, the timeframes are the annual prescriptions years covering 2007-2010. DWC does not have data on prescriptions dispensed prior to 2005. The calculation of generic substitution rates ignores drugs that do not have available generics. Drug days are measured as the aggregate duration of all prescriptions dispensed during the study timeframes. While the major drug groups such as opioids are self-explanatory, the mood stabilizer group includes drugs that are not always associated with the treatment of mood swings. In addition to antidepressants, the mood-stabilizer group also includes anticonvulsants and sleep enhancing hypnotics.

## Key Findings

- Pharmacy payments consistently represent 13% of all medical payments in Texas.
- Legacy claims (injury years 1991-2005) have significantly higher average pharmacy costs than more recent claims.
- Network injured employees tend to receive pharmaceuticals earlier, but for less drug days, and for lower costs than non-network injured employees.
- Network injured employees with back or upper extremities injuries tend to have 12% lower pharmacy costs than non-network injured employees.
- Overall, approximately 82% of prescriptions are for generic substitutes.
- Approximately 76% of the prescriptions for Schedule II drugs are for injury years 1991 – 2005.

## 2. Pharmaceuticals in the Texas Workers' Compensation System

### Pharmaceutical payments

- Professional costs represented 55 percent of total medical costs in 2010.
- Hospital costs represented 32 percent of total medical costs in 2010.
- Pharmaceutical costs consistently represent 13 percent of total medical costs.
- *Dental costs consistently represent less than 1 percent of total medical costs.*

Description: This table show total dollars paid by insurance carriers in the Texas workers' compensation system by the four key medical types, for medical treatments and services delivered to injured employees. Professional payments are made to health care providers, including medical doctors, chiropractors, and physical therapists. These payments and their relative share of total payments have fluctuated slightly between 2006 (\$597,587,746 at 57 percent share) and 2010 (\$578,685,252 at 55 percent share). Payments to hospitals also experienced slight fluctuations from 2006 (\$308,837,996 at 29 percent) to 2010 (\$336,347,909 at 32 percent). Pharmacy costs also fluctuated slightly during those years (a high of \$146,146,665 in 2007 and a low of \$138,583,187 in 2010) but the relative share of pharmaceutical costs was consistently 13 percent during those years. Dental payments increased from \$1,492,339 in 2006 to \$3,642,501 in 2010, but the relative share of dental payments remain at less that 1 percent.

BILL TYPES	2006	2007	2008	2009	2010
<b>Professional Payments</b>	\$597,587,746	\$571,999,094	\$570,687,770	\$598,317,235	\$578,685,252
<b>Professional Percent</b>	57%	54%	53%	55%	55%
<b>Hospital Payments</b>	\$308,837,996	\$347,845,572	\$362,108,521	\$348,240,233	\$336,347,909
<b>Hospital Percent</b>	29%	33%	34%	32%	32%
<b>Pharmacy Payments</b>	\$140,653,851	\$146,146,665	\$143,348,364	\$144,286,048	\$138,583,187
<b>Pharmacy Percent</b>	13%	13%	13%	13%	13%
<b>Dental Payments</b>	\$1,492,339	\$2,520,843	\$3,288,516	\$3,347,596	\$3,642,501
<b>Dental Percent</b>	<1%	<1%	<1%	<1%	<1%

**Data sources:** TDI-DWC Medical 837 data.

**Data description:** Figures are in years that the medical services were received by injured employees. Total payments service years.

**Notes:** Medical costs are based on actual payments, which are typically lower than the amount billed by health care providers and hospital facilities.

## Pharmaceuticals and return-to-work

### Injured employees who received Temporary Income benefits (TIBs) for back injuries in 2009

- When injured employees are prescribed analgesics and musculoskeletal agents, most tend to receive their first prescription within the first month of their injury, regardless of their employment status.
- When injured employees are prescribed mood stabilizers, more than 80 percent receive their first prescription one month or more after their injury date, regardless of their employment status.

**Description:** This table shows the percentage of injured employees (TIBs recipients) who received the first prescriptions of key drug groups, by duration from date of injury, for back injuries. The percentages are distributed across seven time spans, measured as months after the injury (months 1-6 separately, and 7-12 months combined). The prescriptions are grouped into four key drug groups: analgesics-anti-inflammatory, analgesics-opioid, mood stabilizers, and musculoskeletal therapy agents. The injured employees are classified by employment status: employees who had a minimum of three consecutive quarters (9 months) of employment after the injury, and employees who were unemployed or had not received three consecutive quarters of employment during the 12 months after the injury.

Drug Group	Sustained Employment within 6 Months	1 mth	2 mths	3 mths	4 mths	5 mths	6 mths	1 year
Analgesics - Anti-Inflammatory	Employed	72%	10%	5%	3%	2%	2%	7%
	Not Employed	57%	12%	7%	5%	4%	3%	12%
Analgesics - Opioid	Employed	66%	11%	6%	3%	3%	2%	9%
	Not Employed	52%	13%	7%	5%	4%	4%	14%
Mood Stabilizers	Employed	18%	13%	11%	9%	7%	7%	35%
	Not Employed	12%	12%	10%	9%	10%	8%	40%
Musculoskeletal Therapy Agents	Employed	74%	9%	4%	3%	2%	2%	7%
	Not Employed	59%	12%	6%	5%	4%	3%	12%

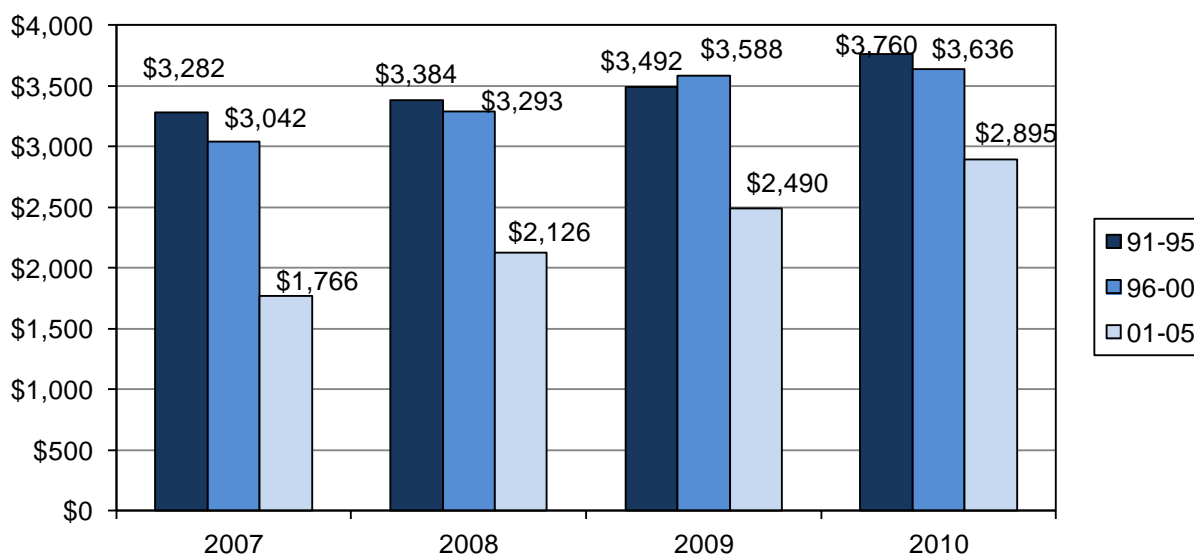
**Data sources:** Texas Workforce Commission wage data and TDI-DWC Medical 837 data.

### 3. Pharmaceuticals and Legacy claims

#### Legacy Claims: Average pharmacy cost per claim

- Per claim pharmacy costs for employees injured between 1991 and 1995 increased from \$3,282 in 2007 to \$3,760 in 2010. The number of these claims fell from 7,376 in 2007 to 4,909 in 2010.
- Per claim pharmacy costs for employees injured between 1996 and 2000 increased from \$3,042 in 2007 to \$3,636 in 2010. The number of these claims fell from 11,827 in 2007 to 7,161 in 2010.
- Per claim pharmacy costs for employees injured between 2001 and 2005 increased from \$1,766 in 2007 to \$2,895 in 2010. The number of these claims fell from 26,354 in 2007 to 9,984 in 2010.
- The total number of legacy injured employees on pharmaceuticals is decreasing. This may explain the increases in average claim costs, as lower cost claims from earlier pharmacy years are no longer included in the calculations for more recent years.

Description: This graph shows the average pharmacy payments per claim by injury year for pharmacy years 2007 to 2010. The pharmacy years are the years that the prescriptions were dispensed while the injury years are in three 5-year ranges from 1991 to 2005. The x-axis (horizontal) shows the years that the prescriptions were dispensed and the y-axis (vertical) shows the average cost per claim by injury years.



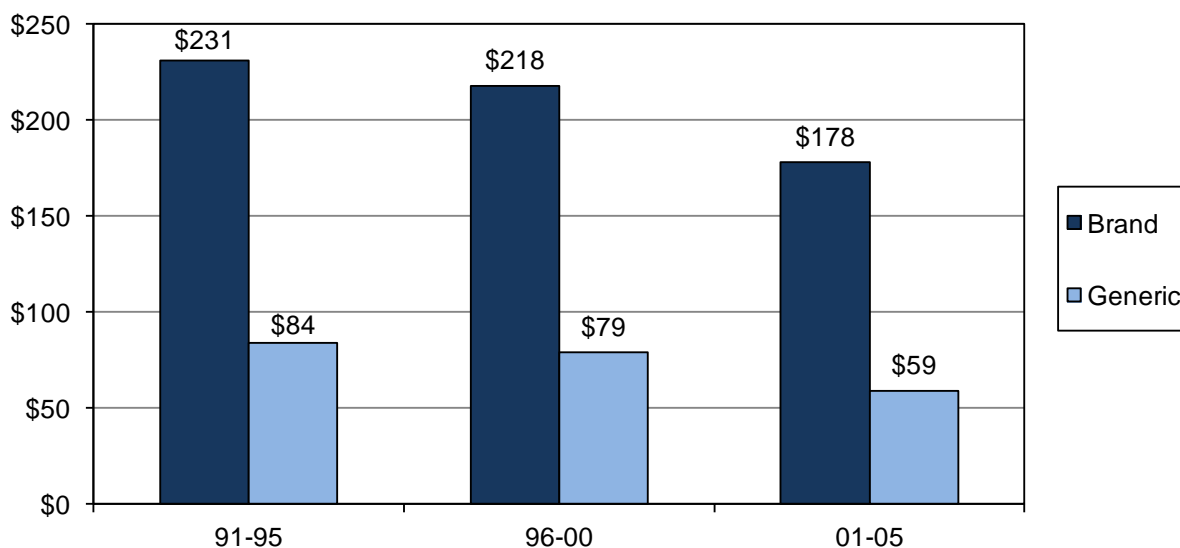
Data sources: TDI-DWC Medical 837 data.



## Legacy Claims: Average payment per prescription

- The average payment per brand prescription for employees injured between 1991 and 1995 was \$231, while the average cost for their generic drugs was \$84.
- The average payment per brand prescription for employees injured between 1996 and 2000 was \$218, while the average cost for their generic drugs was \$79.
- The average payment per brand prescription for employees injured between 2001 and 2005 was \$178, while the average cost for their generic drugs was \$59.
- These cost differences may help explain why employees injured in earlier years have higher average cost costs than more recent injured employees.

Description: This graph shows the average pharmacy payments per prescription in 2010 by drug type (brand or generic) across the legacy injury-year ranges. The injury years are in three 5-year ranges from 1991 to 2005. The x-axis (horizontal) shows the injury-years ranges and the y-axis (vertical) shows the average cost per prescription claim by drug type.

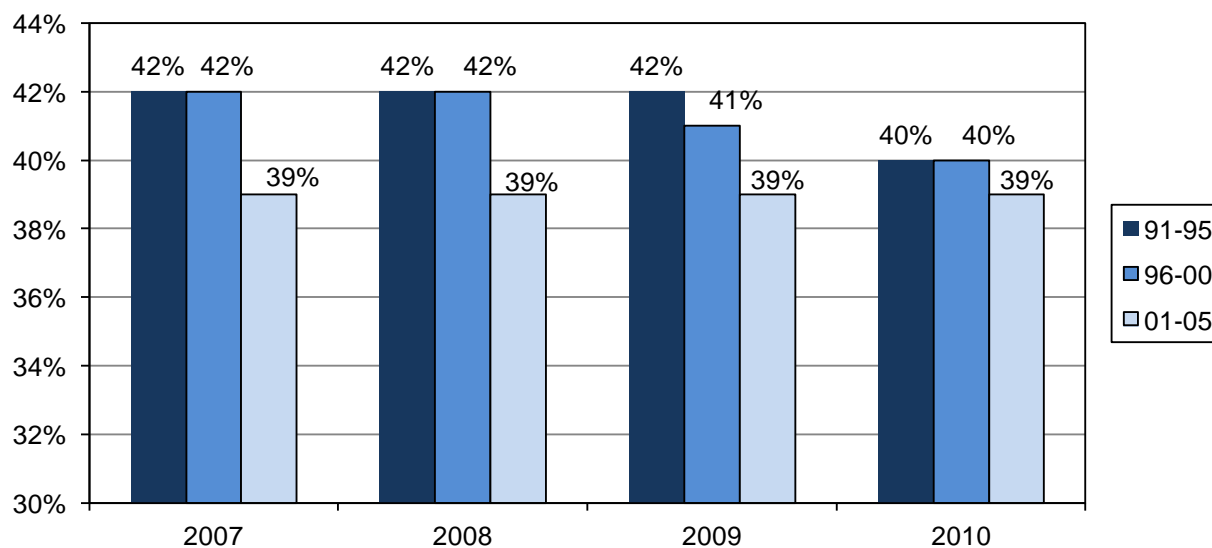


**Data sources:** TDI-DWC Medical 837 data.

## Legacy Claims: brand-name drug utilization (2007-2010)

- The utilization of brand name drugs for employees injured between 1991 and 1995 fell from 42 percent in 2007 to 40 percent in 2010.
- The utilization of brand name drugs for employees injured between 1996 and 2000 fell from 42 percent in 2007 to 40 percent in 2010.
- The utilization of brand name drugs for employees injured between 2001 and 2005 remained stable at 39% from 2007 to 2010.
- The high utilization and high costs of brand name drugs contribute toward the higher average per claim cost of pharmaceuticals for legacy claims.

Description: This graph shows the percentage of prescriptions for legacy claims that are for brand name drugs. The pharmacy years, 2007 to 2010, are the years during which the prescriptions were dispensed while the injury years are in three 5-year ranges from 1991 to 2005. The x-axis (horizontal) shows the years that the prescriptions were dispensed and the y-axis (vertical) shows the percentage of drugs that are brand name drugs by injury years.



**Data sources:** TDI-DWC Medical 837 data.

## 4. Network and Non-network Claims: Pharmaceutical Costs

### Average cost per claim

- Per claim pharmacy costs for employees injured in 2006 was \$274 for network claims; \$258 for non-network claims; and \$259 overall.
- Per claim pharmacy costs for employees injured in 2007 was \$234 for network claims; \$261 for non-network claims; and \$257 overall.
- Per claim pharmacy costs for employees injured in 2008 was \$255 for network claims; \$289 for non-network claims; and \$281 overall.
- Per claim pharmacy costs for employees injured in 2009 was \$266 for network claims; \$311 for non-network claims; and \$298 overall.

**Description:** This table shows the average pharmacy cost (total cost divided by number of claims) per claim 12-months post-injury, for injury years 2006 to 2009. These averages combine the costs of all injured employees who received prescriptions within 12 months after the injury, including low severity injuries with low prescription counts. These averages are therefore not readily comparable with the average costs for legacy claims which are dominated by chronic conditions that require medical and pharmaceutical services for years after the injury occurred.

Injury year	Network	Non-network	System
2006	\$274	\$258	\$259
2007	\$234	\$261	\$257
2008	\$255	\$289	\$281
2009	\$266	\$311	\$298

**Data sources:** TDI-DWC Medical 837 data.

## Average cost by body part

### Average cost per claim by injured body part (Back and Upper Extremities) - Injury years 2006-2009, 12 months post injury

- Average pharmacy costs for network injured employees with back injuries fluctuated downward from \$491 in 2006 to \$466 in 2009.
- Average pharmacy costs for network injured employees with upper extremity injuries fluctuated from \$163 in 2006 to \$166 in 2009.
- Average pharmacy costs for non-network injured employees with back injuries increased steadily from \$417 in 2006 to \$521 in 2009.
- Average pharmacy costs for non-network injured employees with upper extremity injuries increased steadily from \$159 in 2006 to \$189 in 2009.

**Description:** This table shows the average pharmacy cost by injured body part (total cost divided by number of claims) per claim 12-months post-injury, for injury years 2006 to 2009. While the average pharmacy cost for injuries to back and upper extremities have increased in more recent years, network injured employees with these injuries tended to have lower average pharmacy costs than non-network injured employees with similar injuries.

Injury Years	Network Back	Non-network Back	Network Upper Extremity	Non-network Upper Extremity
2006	\$491	\$417	\$163	\$159
2007	\$401	\$439	\$136	\$169
2008	\$447	\$492	\$150	\$179
2009	\$466	\$521	\$166	\$189

**Data sources:** TDI-DWC Medical 837 data.

## Average cost by drug-type

### Average payment per prescription: Injury years 2006-2009, 12 months post injury

- Average payment per prescription for Opioids fluctuated slightly for both network and non-network injured employees.
- Average payment per prescription for Mood Stabilizers fluctuated slightly for network injured employees, but for non-network injured employees, the average payment increased steadily from \$288 in 2006 to \$357 in 2009.
- Average payment per prescription for N-drugs increased for network injured employees, from \$236 in 2006 to \$280 in 2009, and for non-network injured employees from \$202 to \$313.

**Description:** This table shows the average pharmacy payments (network vs non-network) per prescription for injury years 2006 - 2009. The drug groups used for this analysis are Opioid, Mood Stabilizers, and N-drugs. The first two are broad pharmaceutical therapeutic groups, and the third is the list of drugs with “N” status identified in the Official Disability Guideline (ODG) Treatment in Workers’ Comp/Appendix A, *ODG Workers’ Compensation Drug Formulary*. This list of drugs has preauthorization requirements, as described in the closed formulary adopted for the Texas workers’ compensation system by TDI-DWC effective September 1, 2011. N-drugs may include both Opioids and Mood stabilizers. While the 2006 average prescription payment for all three drug types was higher for network than for non-network injured employees, the average payment for network injured employees was lower for the following three years (2007-2009).

Injury Years	Network Opioid	Non-network Opioid	Network Mood Stabilizers	Non-network Mood Stabilizers	Network N-Drugs	Non-network N-drugs
2006	\$107	\$105	\$315	\$288	\$236	\$202
2007	\$94	\$109	\$285	\$312	\$188	\$220
2008	\$98	\$114	\$297	\$352	\$244	\$276
2009	\$100	\$111	\$316	\$357	\$280	\$313

**Data sources:** TDI-DWC Medical 837 data. List of drugs with “N” status identified in the Official Disability Guideline (ODG) Treatment in Workers’ Comp/Appendix A, *ODG Workers’ Compensation Drug Formulary*.

## 5. Network and Non-network Claims: Pharmaceutical Utilization

### Average number of drug days per claim

- Average number of drug days for employees injured in 2006 was 91 for network claims; 70 for non-network claims; and 71 overall.
- Average number of drug days for employees injured in 2007 was 76 for network claims; 71 for non-network claims; and 72 overall.
- Average number of drug days for employees injured in 2008 was 73 for network claims; 74 for non-network claims; and 74 overall.
- Average number of drug days for employees injured in 2009 was 75 for network claims; 77 for non-network claims; and 76 overall.

**Description:** This table shows the average drug days (total drug days for all prescriptions received in the first 12 months after the injury dates, divided by the total number of claims) for network and non-network claims, as well as the overall system average.

Injury year	Network	Non-network	System
2006	91	70	71
2007	76	71	72
2008	73	74	74
2009	75	77	76

**Data sources:** TDI-DWC Medical 837 data.

## Average duration to first prescription

### Drug type - Injury years 2006-2009, average number of days from injury date to first prescription

- Average number of days to first prescription for Opioids, Mood Stabilizers, and N-drugs in 2006 was 29, 114, and 79 respectively for network injured employees, and 32, 100 and 72 respectively for non-network injured employees.
- Average number of days to first prescription for Opioids, Mood Stabilizers, and N-drugs in 2007 was 25, 96, and 65 respectively for network injured employees, and 32, 95 and 68 respectively for non-network injured employees.
- Average number of days to first prescription for Opioids, Mood Stabilizers, and N-drugs in 2008 was 27, 97, and 63 respectively for network injured employees, and 32, 99 and 68 respectively for non-network injured employees.
- Average number of days to first prescription for Opioids, Mood Stabilizers, and N-drugs in 2009 was 26, 97, and 59 respectively for network injured employees, and 32, 107 and 72 respectively for non-network injured employees.
- Overall, network doctors tend to prescribe pharmaceuticals in fewer days after the injury date than does non-network doctors.

**Description:** This table shows the average numbers of days after the injury date that doctors (network and non-network) prescribed pharmaceuticals for injury years 2006 – 2009. The drug groups used for this analysis are Opioid, Mood Stabilizers, and N-drugs. The first two are broad pharmaceutical therapeutic groups, and the third is the list of drugs with “N” status identified in the Official Disability Guideline (ODG) Treatment in Workers’ Comp/Appendix A, *ODG Workers’ Compensation Drug Formulary*. This list of drugs has preauthorization requirements, as described in the closed formulary adopted for the Texas workers’ compensation system by TDI-DWC September 1, 2011. N-drugs may include both Opioids and Mood stabilizers.

Injury Years	Network Opioid	Non-network Opioid	Network Mood Stabilizers	Non-network Mood Stabilizers	Network N-Drugs	Non-network N-drugs
2006	29	32	114	100	79	72
2007	25	30	96	95	65	68
2008	27	32	97	99	63	68
2009	26	32	97	107	59	62

**Data sources:** TDI-DWC Medical 837 data. List of drugs with “N” status identified in the Official Disability Guideline (ODG) Treatment in Workers’ Comp/Appendix A, *ODG Workers’ Compensation Drug Formulary*.

## 6. Network and Non-network claims: Generic and Brand Name Drugs

### Average payment: generic and brand drugs

#### Injury years 2006-2009, 12 months post injury

- Average payment per prescription for network injured employees increased from \$130 in 2006 to \$151 in 2009 for generic drugs, and from \$343 to \$358 for brand drugs.
- Average payment per prescription for non-network injured employees increased from \$152 in 2006 to \$182 in 2009 for generic drugs, and from \$281 to \$395 for brand drugs.
- Average payment per prescription for network injured employees was consistently lower than for non-network injured employees.
- Average payment per prescription for brand name drugs was approximately 100 percent higher than for generic drugs for both network and non-network injured employees.

**Description:** This table shows the average payment per prescription for generic and brand name drugs, for network and non-network injured employees, 12-months post-injury, for injury years 2006 to 2009.

Injury Years	Network Generic	Non-network Generic	Network Brand	Non-network Brand
2006	\$130	\$152	\$343	\$281
2007	\$140	\$160	\$289	\$302
2008	\$139	\$167	\$330	\$360
2009	\$151	\$182	\$358	\$395

**Data sources:** TDI-DWC Medical 837 data.



## Average generic and brand payments for N-drugs

### N-drugs, injury years 2006-2009, 12 months post injury

- Average payment per prescription for network injured employees increased from \$26 in 2006 to \$30 in 2009 for generic drugs, and from \$162 to \$192 for brand drugs.
- Average payment per prescription for non-network injured employees fluctuated from \$39 in 2006 to \$40 in 2009 for generic drugs, and from \$148 to \$201 for brand drugs.
- Average payment per prescription for network injured employees was consistently lower for network injured employees than for non-network injured employees.
- Average payment per prescription for brand name drugs on the N-drug list was approximately four times the payment for generic drugs on the N-drug list.

**Description:** This table shows the average payment per prescription for generic and brand name drugs, for network and non-network injured employees, 12-months post-injury, for injury years 2006 to 2009.

Injury Years	Network Generic	Non-network Generic	Network Brand	Non-network Brand
2006	\$26	\$39	\$162	\$148
2007	\$27	\$42	\$161	\$171
2008	\$28	\$40	\$183	\$201
2009	\$30	\$38	\$192	\$210

**Data sources:** TDI-DWC Medical 837 data.

## Generic substitution rates

### Generic substitution rates: injury years 2006-2009, 12 months post injury

- The generic substitution rate increased from 80% in 2006 to 83% in 2009 for network injured employees.
- The generic substitution rate fluctuated between 80% in 2006 and 82% in 2009 for non-network injured employees.
- These rates are significantly higher than the approximately 60 % generic substitution rate for legacy claims (see page 8).

**Description:** This table shows the rates at which a generic drug was prescribed when a brand name drug was also available for network and non-network injured employee, 12-months post-injury, for injury years 2006 to 2009.

Injury Years	Network	Non-network
2006	80%	80%
2007	81%	82%
2008	81%	80%
2009	83%	82%

**Data sources:** TDI-DWC Medical 837 data.

## Generic substitution rates by drug type

### Injury years 2006-2009, 12 months post injury, by drug type

- The generic substitution rates for Opioids for both network and non-network injured employees were consistently between 95 and 97 percent.
- The generic substitution rates for Mood Stabilizers for network and non-network injured employees increased from approximately 51 percent in 2006 to 64 percent in 2009.
- The generic substitution rates for N-drugs decreased from 65 percent for networks in 2006 to 53 percent in 2009, while for non-network injured employees, this rate decreased from 72 to 52 percent during the same time frame.

**Description:** This table shows the rates at which a generic drug was prescribed when a brand name drug was also available for network and non-network injured employee, 12-months post-injury, for injury years 2006 to 2009. The drug groups used for this analysis are Opioid, Mood Stabilizers, and N-drugs. The first two are broad pharmaceutical therapeutic groups, and the third is the list of drugs with “N” status identified in the Official Disability Guideline (ODG) Treatment in Workers’ Comp/Appendix A, *ODG Workers’ Compensation Drug Formulary*. This list of drugs has preauthorization requirements, as described in the closed formulary adopted for the Texas workers’ compensation system by TDI-DWC September 1, 2011. N-drugs may include both Opioids and Mood stabilizers.

Injury Years	Network Opioid	Non-network Opioid	Network Mood Stabilizers	Non-network Mood Stabilizers	Network N-Drugs	Non-network N-drugs
2006	95%	96%	51%	52%	65%	72%
2007	95%	95%	58%	56%	70%	70%
2008	96%	95%	60%	58%	60%	60%
2009	97%	96%	64%	64%	53%	52%

**Data sources:** TDI-DWC Medical 837 data. List of drugs with “N” status identified in the Official Disability Guideline (ODG) Treatment in Workers’ Comp/Appendix A, *ODG Workers’ Compensation Drug Formulary*.

## Generic substitution and claim types

### Claim types: Injury years 2006-2009, 12 months post injury

- Approximately 5-7 percent of network and non-network injured employees received only brand name drugs for their injuries.
- The percentage of injured employees who received only generic drugs for their injuries increased from 59 to 67 percent in networks and from 61 to 66 percent for non-network injured employees.
- The percentage of injured employees who received a combination of brand name and generic drugs decreased moderately from a high of 35 percent in 2006 to 28 percent in 2009. This decrease can be attributed to the increase for those with generic only drugs.

**Description:** This table shows the distribution of claims by the types of prescriptions they receive: brand only, generic only, and a combination of brand and generic drugs. This is based on 12-months post-injury, for injury years 2006 to 2009.

Injury Years	Network Brand Only	Non-network Brand Only	Network Generic Only	Non-network Generic Only	Network Brand and Generic	Non-network Brand and Generic
2006	6%	7%	59%	61%	35%	32%
2007	6%	7%	62%	64%	32%	29%
2008	6%	7%	63%	64%	31%	29%
2009	5%	6%	67%	66%	28%	28%

**Data sources:** TDI-DWC Medical 837 data.

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## 7. Schedule II Drugs

### U.S. Drug Enforcement Agency's definition

Definition: Drugs and other substances that

- have a high potential for abuse;
- have currently accepted medical use in treatment in the United States, or currently accepted medical use with severe restrictions; and
- may lead to severe psychological or physical dependence if abused.

Examples

- Fentanyl. Approximately 80 times more powerful than morphine. Also known as Actiq and Fentora.
- Oxycodone. Also known as OxyContin and by other brand names.
- Morphine. Morphine is considered the prototypical opioid.
- Methadone. A synthetic opioid, used for treating opioid dependency.

Warnings

The U.S. Food and Drug Administration (FDA) issues warnings and safety information on Schedule II drugs. For example, the FDA issued a warning about fentanyl patches in 2007 that included the following:

- Fentanyl patches are only for patients who are opioid-tolerant and have chronic pain that is not well controlled with other pain medicines.
- The patches are not to be used to treat sudden, occasional or mild pain, or pain after surgery.
- Health care professionals who prescribe the fentanyl patch, and patients who use it, should be aware of the signs of fentanyl overdose: trouble breathing or slow or shallow breathing; slow heartbeat; severe sleepiness; cold, clammy skin; trouble walking or talking; or feeling faint, dizzy, or confused.<sup>1</sup>

This section briefly examines the utilization of Schedule II drugs in the Texas workers' compensation system. This includes the frequency of fentanyl prescriptions for back strains and sprains, injuries not typically cited in medical literature as candidates for such Schedule II drugs.

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<sup>1</sup> U.S. Food and Drug Administration, U.S. Department of Health and Human Services, FDA Issues Second Warning on Fentanyl Skin Patch, *Deaths and serious injuries from improper use*, News Release, Dec. 21, 2007

## Number of Schedule II prescriptions

### Number of Schedule II prescriptions: Injury years 1991-2009, pharmacy years 2006-2010

- The total number of Schedule II prescriptions decreased steadily from 71,812 in 2006 to 54,442 in 2010, a 24 percent fall.
- All of the decrease was from injury years 1991 to 2005, and all of the increase was from injury years 2006-2009.
- The increases for injury years 2006-2009 resulted primarily from prescriptions for new injuries added to prescriptions for existing injuries within that range.
- The highest number of Schedule II prescriptions (16281) is for injury years 1996-2000.
- The lowest number of Schedule II prescriptions (10151) is for injury years 1996-2000.

**Description:** This table shows the number of prescriptions for Schedule II drugs for injured employees in Texas. The pharmacy years are the years that the prescriptions were dispensed while the injury years are for three 5-year ranges from 1991 to 2005, and the fourth for injury years 2006-2009.

Prescription Years	Injury years 1991-1995	Injury years 1996-2000	Injury years 2001-2005	Injury years 2006-2009	Total
2006	16282	27259	25842	2429	71812
2007	15052	24500	24298	7002	70852
2008	12919	20906	20428	9817	64070
2009	10389	18221	17717	11885	58212
2010	10157	16281	14867	13137	54442

**Data sources:** TDI-DWC Medical 837 data.

## Percent of Schedule II prescriptions

### Percent of Schedule II prescriptions: Injury years 1991-2009, pharmacy years 2006-2010

- The percentage of Schedule II prescriptions among legacy claims from 1991-2005 injuries decreased from 97 percent in 2006 to 76 percent in 2010.
- The increases for injury years 2006-2009 resulted primarily from prescriptions for new injuries added to prescriptions for existing injuries within that range.
- The highest percentage of Schedule II prescriptions (30 percent) is for injury years 1996-2000.
- The lowest percentage of Schedule II prescriptions (19 percent) is for injury years 1991-1995.

**Description:** This table shows the number of prescriptions for Schedule II drugs for injured employees in Texas. The pharmacy years are the years that the prescriptions were dispensed while the injury years are for three 5-year ranges from 1991 to 2005, and the fourth for injury years 2006-2009.

Prescription Years	Injury years 1991-1995	Injury years 1996-2000	Injury years 2001-2005	Injury years 2006-2009	Total
2006	23%	38%	36%	3%	100%
2007	21%	35%	34%	10%	100%
2008	20%	33%	32%	15%	100%
2009	18%	31%	30%	20%	100%
2010	19%	30%	27%	24%	100%

**Data sources:** TDI-DWC Medical 837 data.

## Number of claims with Schedule II prescriptions

### Number of claims with Schedule II prescriptions: Injury years 1991-2009, pharmacy years 2006-2010

- The total number of claims with Schedule II prescriptions decreased significantly from 9,231 in 2006 to 6,193 in 2010.
- The number of claims on Schedule II prescriptions fell most precipitously for injury years 2001-2005, by approximately 60 percent.
- The increases for injury years 2006-2009 resulted primarily from new claims added to previous claims within those injury years.
- The highest number of claims with Schedule II prescriptions (2911) is for injury years 2006-2009.
- The lowest number of claims with Schedule II prescriptions (307) is for injury years 1991-1995.

**Description:** This table shows the number of injured employees (claims) with prescriptions for Schedule II drugs in Texas. The pharmacy years are the years that the prescriptions were dispensed while the injury years are for three 5-year ranges from 1991 to 2005, and the fourth for injury years 2006-2009.

Prescription Years	Injury years 1991-1995	Injury years 1996-2000	Injury years 2001-2005	Injury years 2006-2009	Total
2006	1551	2713	3854	1113	9231
2007	1467	2447	2946	2215	9075
2008	1273	2021	2317	2712	8323
2009	1007	1711	1845	2785	6637
2010	957	1472	1503	2911	6193

**Data sources:** TDI-DWC Medical 837 data.



## Average number of days on Schedule II prescriptions

### Average number of days on Schedule II prescriptions: Injury years 1991-2009, pharmacy years 2006-2010

- The per-claim average number of Schedule II prescription days increased as the total number of claims decreased and less chronic claims no longer received Schedule II drugs.
- The injured employees with the highest average number of Schedule II prescription days (321) were injured during the years 1996-2000.

**Description:** This table shows the average number of Schedule II prescription days for injured employees in Texas. The number of days is calculated as the cumulative total of prescription days, whether consecutive or concurrent, divided by the total number of claims by injury year for that pharmacy year. The pharmacy years are the years that the prescriptions were dispensed while the injury years are for three 5-year ranges from 1991 to 2005, and the fourth for injury years 2006-2009.

Prescription Years	Injury years 1991-1995	Injury years 1996-2000	Injury years 2001-2005	Injury years 2006-2009
2006	265	259	165	38
2007	286	282	227	71
2008	283	295	244	85
2009	296	307	271	104
2010	307	321	282	111

**Data sources:** TDI-DWC Medical 837 data.

## Average number of days on Schedule II prescriptions: network and non-network claims

### Average number of Schedule II prescriptions per claim: by network status, injury years 2006-2009, 12 months post-injury.

- Network injured employees received Schedule II prescriptions for fewer days than non-network injured employees.
- The average duration on Schedule II drugs for all injured employees was approximately 46 days in 2010, a 20 percent drop from the 2006 duration of 58 days.

**Description:** This table shows the average number days of Schedule II drugs per claim by network status. The injury years are 2006 to 2009, and the prescriptions days are measured for 12 months post- injury.

Injury Years	Network	Non-network
2006	58.0	58.7
2007	47.0	55.2
2008	44.0	49.8
2009	46.3	46.6

**Data sources:** TDI-DWC Medical 837 data.

## Average number of days from injury to first Schedule II prescription

### Average number of days to first Schedule II prescriptions: by network status, injury years 2006-2010, and 12 months post-injury.

- Network injured employees received Schedule II drugs slightly earlier than non-network injured employees from 2007 to 2010.
- The average duration before the first Schedule II prescription was approximately four months, regardless of network status.

**Description:** This table shows the average number of days from the injury date first Schedule II prescription date. The injury years are 2006 to 2009, and the prescriptions days are measured for 12 months post-injury.

Injury Years	Network	Non-network
2006	125	120
2007	111	118
2008	119	122
2009	113	122

## Average number of Schedule II prescriptions

### Average number of Schedule II prescriptions per claim: by network status, injury years 2006-2010, and 12 months post-injury.

- Network injured employees received slightly less number of Schedule II prescriptions, but the difference is indiscernible.
- The average number of Schedule II prescriptions decreased measurably from 2006 to 2009 for both network and non-network injured employees.

**Description:** This table shows the average number of Schedule II prescriptions per claim by network status. The injury years are 2006 to 2009, and the prescriptions days are measured for 12 months post- injury.

Injury Years	Network	Non-network
2006	2.8	2.9
2007	2.5	2.7
2008	2.6	2.5
2009	2.3	2.5

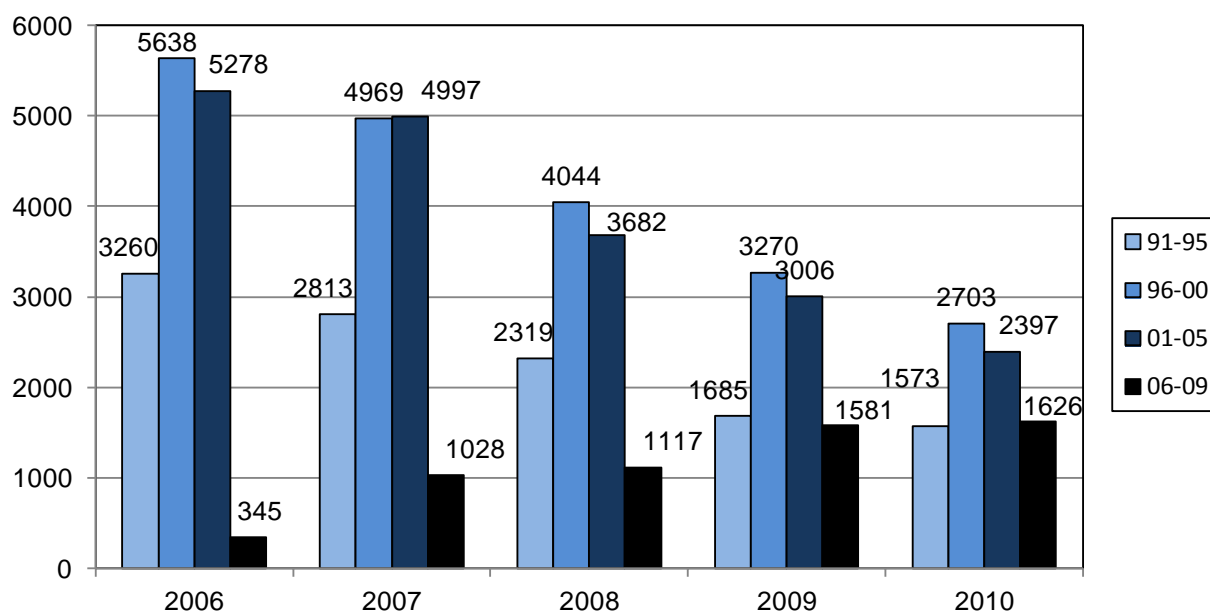
**Data sources:** TDI-DWC Medical 837 data.

## Number of Fentanyl prescriptions

### Number of Fentanyl prescriptions dispensed: Injury years 1991-2010, pharmacy years 2006-2010, 12 months post-injury.

- The overall total number of fentanyl prescriptions decreased steadily from 2006 to 2010.
- The total number of fentanyl prescriptions decreased by more than 50 percent for injury years 1991-2005 during the 2006-2010 pharmacy years.
- The number of fentanyl prescriptions increased for the 2006-2010 injury years as new injuries enter that injury year range.

**Description:** This graph shows the number of Fentanyl prescriptions dispensed to injured employees in Texas. The injury years are in three 5-year ranges from 1991 to 2005, and a fourth for the 2006-2009 injury years. The pharmacy years are the years during which the prescriptions were filled (2006-2010).



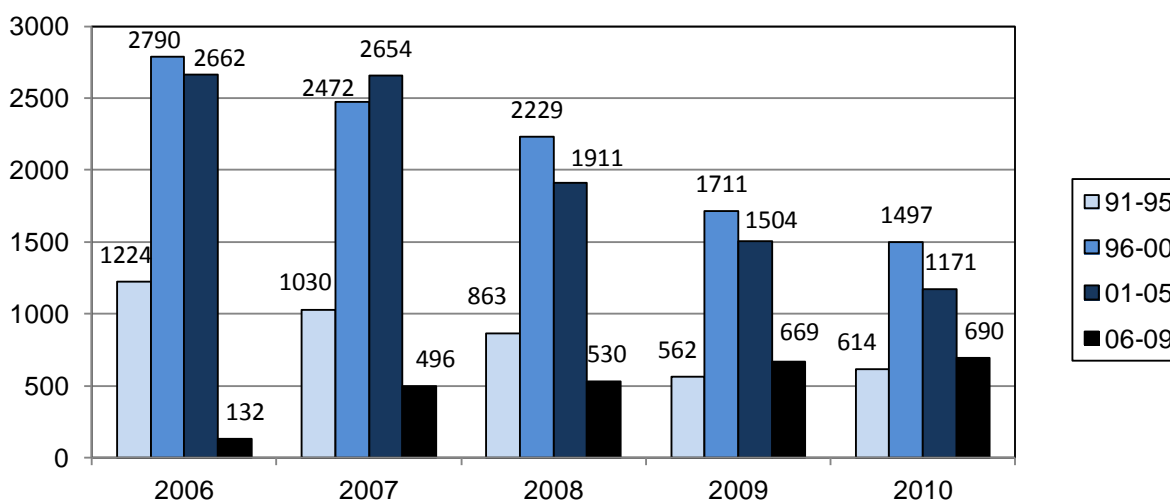
**Data sources:** TDI-DWC Medical 837 data.

## Number of Fentanyl prescriptions: back strains and sprains

### Number of Fentanyl prescriptions dispensed for back strains and sprains: Injury years 1991-2010, pharmacy years 2006-2010, 12 months post-injury.

- Approximately 50 percent of all fentanyl prescriptions are for injured employees with back strain and sprain injuries.
- The total number of fentanyl prescriptions for back strains and sprains decreased steadily from 2006 to 2010.
- The number of fentanyl prescriptions for back strains and sprains increased for the 2006-2010 injury years as new injuries enter that injury year range.
- The number of fentanyl prescriptions for back strains and sprains increased slightly for the 1991-1995 injury years after declines from 2006 to 2009.

**Description:** This graph shows the number of fentanyl prescriptions dispensed to injured employees with back strains and sprains. The injury years are in three 5-year ranges from 1991 to 2005, and a fourth for the 2006-2009 injury years. The pharmacy years are the years during which the prescriptions were filled (2006-2010).



**Data sources:** TDI-DWC Medical 837 data.