



# Texas Department of Insurance

Workers' Compensation Research and Evaluation Group

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## Access to Medical Care in the Texas Workers' Compensation System 2000–2013

March 2015

ACCESS TO CARE  
2015

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## **Acknowledgements**

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Dr. Soon-Yong Choi, an economist, managed the project, conducted the analyses, and authored the report. D.C. Campbell, Ward Adams, Botao Shi, and Amy Lee provided valuable editorial comments.

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## Executive Summary

The Workers' Compensation Research and Evaluation Group (REG) conducted an analysis of injured employee access to medical care provided under the Texas workers' compensation (WC) system. This report is aimed at monitoring any change in the system's performance since the 2012 study, and bringing network results up to date.

This study focuses on the injured employees' initial access to physicians excluding emergency medical services. Principal measurements are physician participation and retention, and timeliness of care.

### Physician Participation

- The total number of physicians actively practicing in Texas increased at an annual rate of 3 percent until 2012. Since then it stabilized. The number of WC participating physicians was stable until 2011, and decreased by 10 percent by 2013. The result is a decreasing participation rate.
- The average number of WC patients per participating physician decreased by 19 percent as the number of WC claims decreased by 22 percent.
- Decreasing participation by primary care physicians is in part alleviated by increasing participation by emergency medicine specialists.
- Participating physicians in the top 20<sup>th</sup> percentile in terms of the number of patients treated in a year received about 88 percent of the total medical payments in each year. The bottom 80 percent of the physicians received 12 percent of the total payment.

### Physician Retention

- Overall WC physician retention rate is high and stable: 83 percent in 2000 and 78 percent in 2013. This means that about 80 percent of one year's participating physicians will also participate in the following year.
- Retention rates for orthopedic surgery, radiology/pathology, emergency medicine, and anesthesiology specialties stayed between 90 to 95 percent since 2005. Considering a natural rate of attrition due to practice change and retirement, these rates indicate almost no change in WC participation status.
- Retention rate for primary care physicians decreased from 81 percent in 2000 to 72 percent in 2013.
- 'Top 20%' physicians have a high rate of year-to-year retention at over 98 percent. Also, 'top 20%' physicians continue to participate in WC in the long term: 80 percent of those who had been participating in 2005 were still participating in 2013.

## Access to Medical Care by Geographical Area

- In 2013, 77 percent of active physicians in Texas practiced in the five largest metro areas. Seventy-three percent of WC participating physicians were in the largest metro areas. In comparison, 70 percent of workers' compensation claims occurred in these areas.
- Access-to-care measures in smaller metro areas are affected greatly by changes in a few physicians, and may display large year-to-year changes.
- Some smaller metro areas and border regions have a higher number of WC patients per physician. Any lack of physician access is primarily due to the low total number of physicians practicing in these areas rather than a low WC participation rate.

## Timeliness of Care

- Overall, initial access (timeliness of care) measures show that WC patients received non-emergency treatments faster in 2013 than in 2000.
- About 81 percent of patients received initial care in seven days or less in 2013, up from 74 percent in 2000. This rate stayed above 81 percent since 2006.
- Delayed initial care is correlated with higher total medical costs. Claims with greater than seven days delay had on average 50 percent higher medical costs in the first 6 months.
- Delayed claims with more than seven days accounted for 26 percent of the claims in 2000, which decreased to 20 percent in 2013. 11 percent of the claims in 2000 had delays of 29 days or more. It decreased to 6 percent in 2013.
- Smaller HRRs have a higher percentage of delayed cases but these areas are often affected by a few extreme values.
- Large metro areas generally show about 10 percent or less of their claims traveling out of their area for their first treatment. Smaller HRRs have higher number of claims traveling outside of their HRR, some over 30 percent.

## Health Care Networks and Timeliness of Care

- Initial access for WC Network patients was slightly better than non-network patients, and many networks showed further improvement from 2011 while access to care among non-network claims worsened slightly.
- The share of claims that received initial treatment within seven days is higher among networks than non-networks. However, this share decreased slightly in 2013 for both network and non-network claims.
- The share of delayed claims that took 29 days or more before first treatment is lower for network claims than for non-network claims. This share generally decreased for networks but increased for non-networks.

**Effects of Disputes/Denials on Access to Care**

- Denial and/or disputes tend to delay initial care by doubling the number of days between injury and first treatment. The average delay was seven days in 2013 for non-disputed cases while disputes on compensability resulted in 14 days of delay.
- Despite delays, initial access to care has improved for denied/disputed claims steadily since 2000. The average delay was 35 days in 2000 for compensability dispute cases, which decreased to 14 days in 2013.
- Approximately 65 percent of denied/disputed cases received initial care in seven days or less in 2013, significantly higher than 51 percent in 2000. Despite this improvement, however, this compares to non-dispute cases where 81 percent of claims received an initial care in seven days of less.

## 1. Introduction

House Bill 28 (78th Legislature, third called session, 2003) 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.

In accordance with the REG's annual research agenda, REG conducted an analysis of injured employees' access to medical care provided under the Texas workers' compensation system as an important subject in the quality of medical benefits. Primary access-to-care measures are the rate of physician participation in treating work-related injuries and the rate of physician retention. In addition, this report presents access-to-care conditions by geographical area and by participation status in the workers' compensation health care networks.

In the remainder of this section, we discuss definitions, data sources, and methodology used for this report. Analytic results are then presented in subsequent sections. In each section, a summary of key findings offers an overview, followed by a list of key performance indices.

### Key Measures for Access to Medical Care

1. “**Participation rate**” is defined as the number of workers' compensation **participating physicians** divided by the total number of **active physicians** in Texas.
2. “**Active physicians**” are defined as physicians (Doctor of Medicine or Doctor of Osteopathy) licensed by Texas Medical Board (TMB) who are Texas-based, non-military, and direct patient care physicians. These physicians include those whose registration status is ‘active’ and exclude those who are working at military and VA hospitals or those who hold teaching, administration and research positions. TMB registry is a snapshot at the end of a year and does not provide dates denoting intra-year changes in the registration status.
3. “**Participating physicians**” in a given year are active physicians who have workers' compensation medical bills for one or more patients (claims) for that year.
4. “**Claims to physician ratio**” is calculated as the total number of WC claims divided by the total number of participating physicians per given year.

5. “**Retention rate**” is the percentage of a prior year’s WC participating physicians who also participate in the following year.

6. “**Top 20%**” physicians are defined based on the total number of unique WC patients a physician treats in a given year. Top 20% physicians are those who are in the top 20<sup>th</sup> percentile in terms of the number of patients treated. The cutoff for the 20<sup>th</sup> percentile in terms of the number of patients varies by year, but it ranges between 29 and 44 patients or more treated in a year to qualify as a top 20% physician. However, the share of costs may indicate how important these top 20% physicians are in the workers’ compensation system: top 20% physicians received about 88 percent of the total medical payment in most years.

7. “**Timeliness of care**” is measured by the number of days from the date of injury to the first non-emergency treatment (first visit to an MD or DO physician). Medical service data for timeliness is limited to 6 months maturity, which means that medical services are analyzed only for the first six months after an injury. Thus, we exclude possible cases with a delayed treatment, for example, if an injured employee first saw a doctor more than six months after the injury.

8. “**Geographical areas**” are defined by using Hospital Referral Regions (HRRs) developed by the Dartmouth Atlas of Healthcare project. In Texas, there are 24 Hospital Referral Regions constructed using Medicare hospitalization records and patient referral patterns. Texas HRRs also roughly correspond to major metro areas.

## Data Sources

This report utilizes five datasets:

- Division of Workers’ Compensation (DWC) Medical Data. This data collection has approximately 100 medical data elements, including billing and payment information, service date, physician license number, patient ZIP codes, treatment codes (CPT codes), and diagnostic codes (ICD-9 codes) for each injured employee.
- Archived files of the annual list of physicians were obtained from the TMB. This data file is an annual snapshot of the TMB’s real-time registry of licensed MD and DO physicians. Detailed data were available from 2000.
- Network claims list is provided by WC network data calls administered by the REG. These network claims were identified and matched with DWC medical data.
- Data regarding denied/disputed claims were provided by DWC.
- Hospital Referral Region (HRR) ZIP code boundary data comes from the Dartmouth Atlas of Healthcare project. Patient’s location is based on the ZIP code in the medical bills. For physicians, the practice location in the TMB list is used.



## Methodological Notes

This study focuses on physicians (Doctor of Medicine or Doctor of Osteopathy) even though there are some injured employees whose first visit may include non-physicians such as chiropractors (DC) and physical and occupational therapists (PT/OT). Non-physicians tend not to be the first provider of choice for non-emergency visits. Although MD/DO physicians account for about 70 percent of all bills and payments in the workers' compensation system, they make up 95 percent of all providers at initial visit. In addition, data integrity and other practical reasons limit our analysis to physicians. For example, MD/DO identifiers in the medical data are highly reliable unlike DC or PT/OT license numbers, and archived licensee lists for past years were available only for MD/DO providers.

This study also focuses on non-emergency care only. Emergency care involves hospital visits, and issues regarding patients' access to hospital care differ from those of access to physician care. In the measurement of timeliness to care (initial care), all claims whose first day services include emergency services have been excluded. This results in about 15 percent of claims being excluded from the analysis.

The specialty of each physician is based on the primary specialty specified in the TMB list. Most physicians also have secondary specialties. Therefore, data classifications by specialty in this report may not be exclusive. And a few specialty groups used in this report require some clarification. First, it should be noted that the 'Emergency Medicine' specialty refers to the primary specialty field in the TMB list, not according to services they provide. In other words, this classification has no direct connection to emergency services, and their services may occur in various non-ER settings.

The 'Primary Care' specialty group consists of family medicine, general practice, and internal medicine specialties. The 'Other Specialty' includes all other specialties including the four large groups of pediatrics, psychiatry, obstetrics & gynecology, and dermatology. It also includes physical medicine and rehabilitation, and occupational medicine specialties. These two specialties are relatively small groups.

Finally, the data reporting standard transitioned to an electronic data interchange in 2005. Because of some transitional problems, data for 2004 showed a significant drop from 2003, and for this reason we report any medical treatment data for 2004 as an average of 2003 and 2005 data.

## 2. Physician Participation

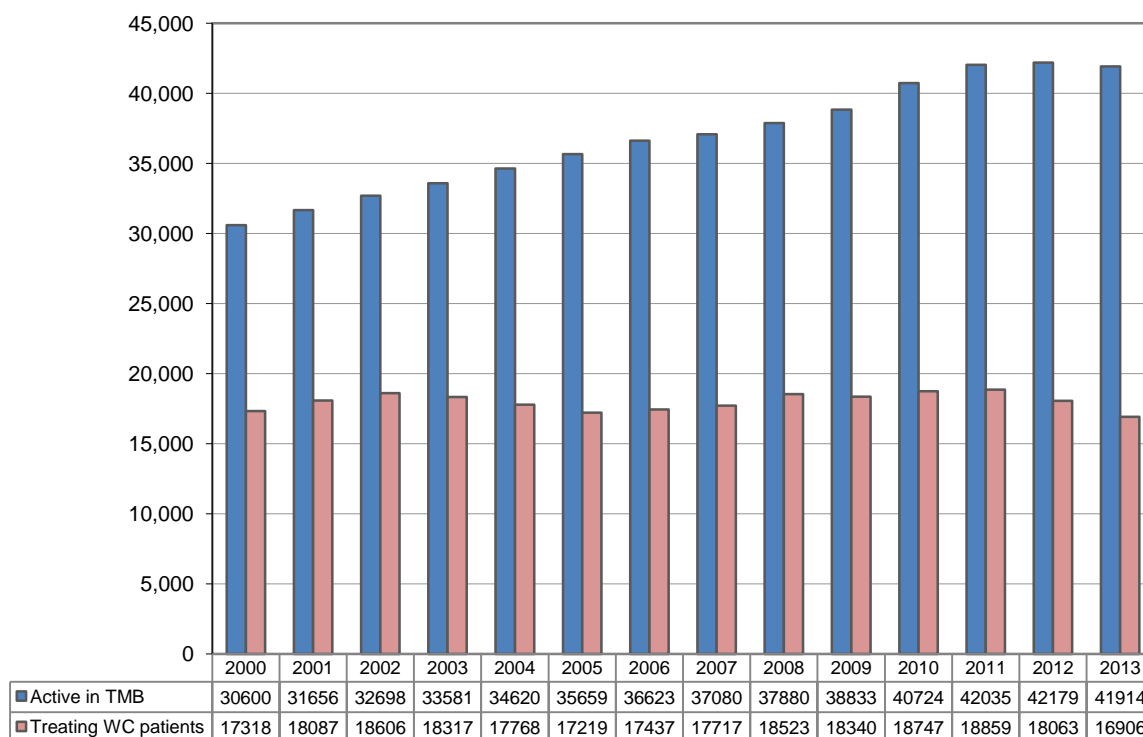
### Key Findings

- The total number of physicians actively practicing in Texas increased at an annual rate of 3 percent until 2012. Since then it stabilized. The number of WC participating physicians was stable until 2011, and decreased by 10 percent by 2013. The result is a decreasing participation rate.
- The average number of WC patients per participating physician decreased by 19 percent as the number of WC claims decreased by 22 percent.
  - 21 patients per participating physician in 2000, decreasing to 17 patients per physician in 2013 (a 19 percent decrease).
  - For new patients only, 15 patients per participating physician in 2000, decreasing to 13 patients per physician in 2013.
  - The total number of WC claims treated in a calendar year decreased from 358,235 claims in 2000 to 279,505 claims in 2013.
- Decreasing participation by primary care physicians is in part alleviated by increasing participation by emergency medicine specialists.
  - Primary care physician participation rate decreased from 62 percent in 2000 to 39 percent in 2013. In absolute terms, the actual number of physicians decreased from 5,847 to 4,571, a 22 percent decrease.
  - Emergency medicine physician participation rate increased from 70 percent in 2000 to 85 percent in 2013. Actual number increased from 611 to 1,875.
- Participating physicians in the top 20<sup>th</sup> percentile in terms of the number of patients treated in a year received about 88 percent of the total medical payments each year. The bottom 80 percent of the physicians received 12 percent of the total payment.

## 2.1 Number of Active and WC Participating Physicians

- The number of active physicians in Texas increased steadily at an annual rate of 3 percent until 2012, but decreased slightly since 2012.
- The number of participants also decreased noticeably since 2013.
- Overall, 40 percent of all Texas physicians participate in WC in 2013.

This measure shows the number of physicians participating in the Texas workers’ compensation system compared with the total number of active physicians licensed by the Texas Medical Board, from 2000 to 2013. The number of active physicians grew from 30,600 in 2000 to 41,914 in 2013, a 37 percent increase. Workers’ compensation participating physicians grew by 9 percent from 17,318 in 2000 to 18,859 in 2011 but they decreased to 16,906 in 2013. This resulted in a 57 percent participation rate for 2000, and a 40 percent participation rate for 2013.

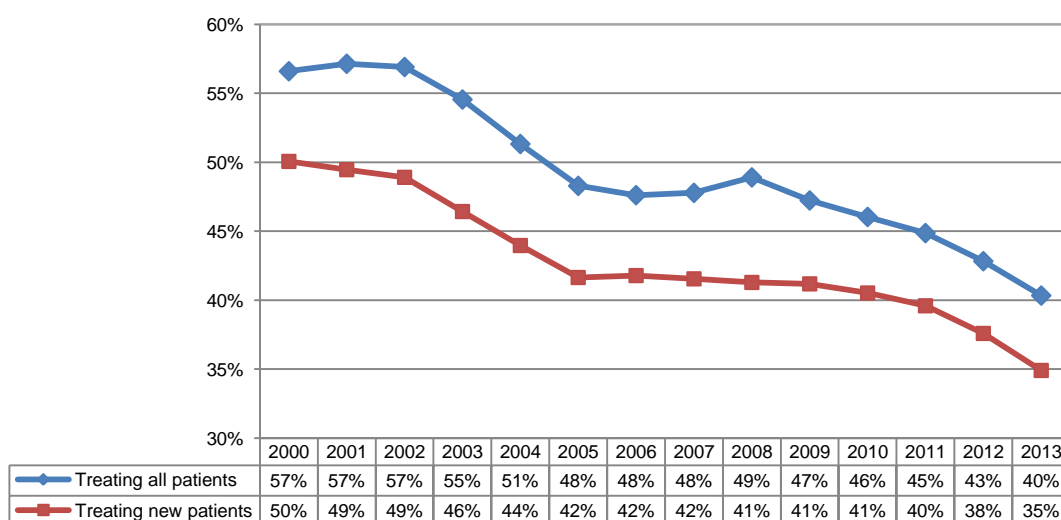


- Notes:**
1. ‘Active in TMB’ refers to the total number of active physicians licensed by the Texas Medical Board. See page 1 for the definition of ‘active.’
  2. ‘Treating WC patients’ refers to the number of participating physicians who billed at least one service in a given service/calendar year according to the medical billing data.
  3. Medical treatment data for 2004 in this report is an average of 2003 and 2005 numbers due to data problems. See Section 1 for more detail.

## 2.2 Physician Participation Rates

- Since 2009, the physician participation rate decreased as the number of active physicians remained stable while WC participants decreased.
- Physician participation rates were stable between 2005 and 2008 primarily because of the increase in the number of active and participating physicians in Texas.
- Decreases in the participation rate between 2002 and 2005 and since 2011 were due to the decreasing number of participating physicians.

This measure shows a continuous decline in the physician participation rate. Considering physicians treating both new and old workers’ compensation patients, the physician participation rate decreased from 57 percent in 2000 to 40 percent in 2013. Considering those treating new patients only, the participation rate decreased from 50 percent in 2000 to 35 percent in 2013.



Calendar/ Injury year	Active Physicians	Treating all WC patients	Treating new WC patients
2000	30,600	17,318	15,318
2001	31,656	18,087	15,657
2002	32,698	18,606	15,991
2003	33,581	18,317	15,590
2004	34,620	17,768	15,220
2005	35,659	17,219	14,850
2006	36,623	17,437	15,303
2007	37,080	17,717	15,406
2008	37,880	18,523	15,639
2009	38,833	18,340	15,992
2010	40,724	18,747	16,502
2011	42,035	18,859	16,643
2012	42,179	18,063	15,855
2013	41,914	16,906	14,631

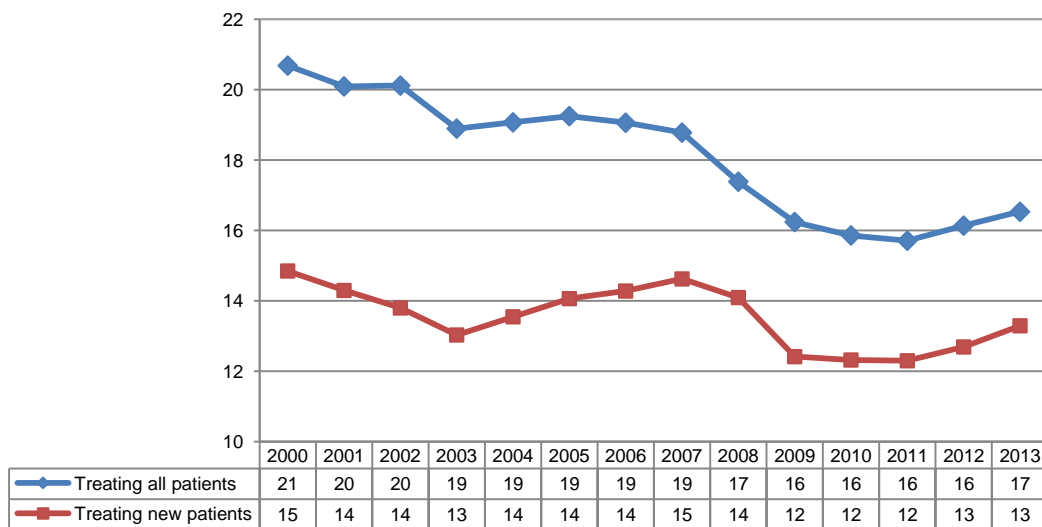
**Notes:** Participation rate is the number of physicians treating WC patients divided by the number of active physicians in Texas. Active physicians include pediatricians, OB/GYN, and other specialties that seldom treat work-related injuries.

*Treating all WC patients* is based on service year data. *Treating new WC patients* considers physicians treating new injuries and based on injury year data with 6 months maturity.

### 2.3 Number of Claims per Participating Physician

- Since 2000, the total number of WC claims treated in each year decreased by 22 percent. The number of new claims decreased by 15 percent.
- The number of participating physicians decreased by about 3 percent in the same period.
- As a result, the average number of claims per physician decreased in both new injury and all injury cases.

This measure shows the average number of claims per participating physician. Considering all physicians treating all patients, the average number of claimants per physician decreased from 21 in 2000 to 17 in 2013. Considering only new injuries, the average number per physician decreased from 15 in 2000 to 13 in 2013.



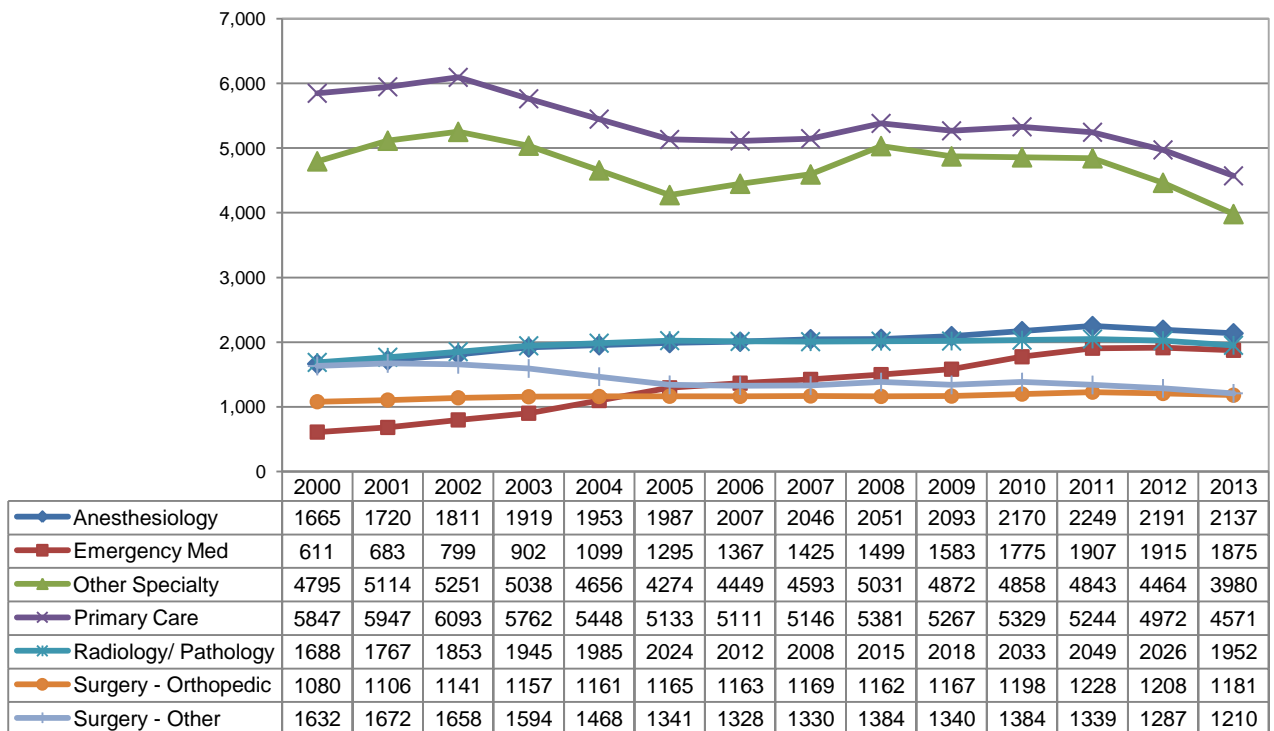
Calendar/ Injury year	Number of all claims	Number of new claims
2000	358,235	227,448
2001	363,439	223,819
2002	374,290	220,619
2003	346,119	203,132
2004	338,799	205,988
2005	331,479	208,844
2006	332,400	218,499
2007	332,739	225,275
2008	322,026	220,400
2009	297,838	198,517
2010	297,317	203,279
2011	296,246	204,655
2012	291,485	201,187
2013	279,505	194,444

**Notes:** *Treating all patients* is based on service year data; *treating new patients* considers physicians treating new injuries and based on injury year data with 6 months maturity.

## 2.4 Number of Participating Physicians by Specialty

- The number of primary care physicians participating in WC decreased by 22 percent. The number of claims decreased by 22 percent during the same period.
- ‘Emergency medicine’ physicians increased by 207 percent. Those with a specialty in anesthesiology increased by 28 percent. Radiology/pathology specialties increased by 16 percent.
- The number of participating orthopedic surgeons increased by 9 percent.

This measure shows the number of participating physicians by specialty. Primary care physicians are the largest group with 5,847 in 2000, which decreased to 4,571 in 2013. ‘Other Specialty’ is the second most common group with 3,980 participating physicians in 2013, decreasing by 17 percent from 4,795 in 2000. Radiology/pathology and surgery specialties, each ranging between 1,000 and 2,000, stayed relatively stable in number. Emergency medicine grew rapidly from 611 in 2000 to 1,875 in 2013.



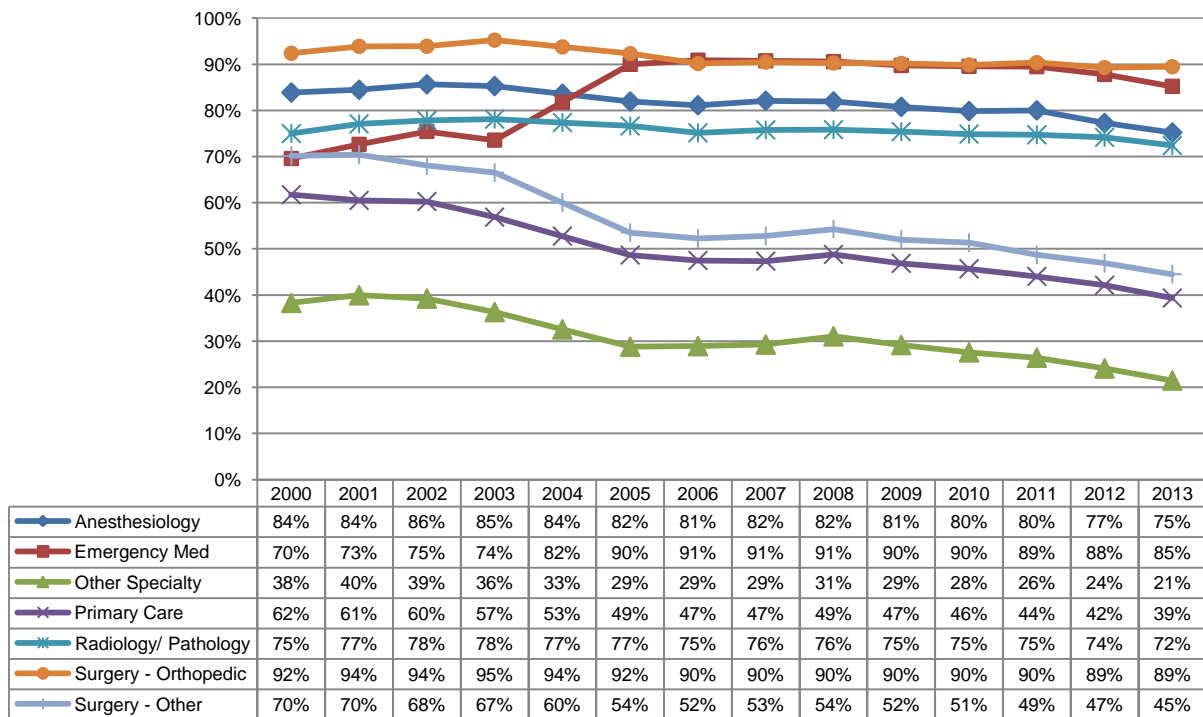
**Note:** ‘Other specialty’ includes such specialties as pediatrics, OB/GYN, cardiovascular diseases, and ophthalmology.

## 2.5 Participation Rates by Specialty

- Over 85 percent of active orthopedic and emergency medicine physicians participated in WC in 2013.
- Primary care physicians’ participation rate decreased from 62 percent in 2000 to 39 percent in 2013. This decrease is somewhat compensated by the increasing participation of emergency medicine specialists.
- Participation rates have been stable or slightly decreasing since 2005.

This measure shows participation rates by physician specialty. Participation rates have consistently been 70 percent or higher for orthopedic surgery, anesthesiology, and radiology/pathology specialties. That of emergency medicine specialty increased significantly from 70 percent in 2000 to 85 percent in 2013. Primary care and non-orthopedic surgery specialty physicians had 60 to 70 percent participation rates in 2000, which decreased substantially between 2002 and 2005, but since then stabilized.

Physicians in all other specialties have the lowest participation rate at 21 percent in 2013. This group’s low participation rate is expected mainly because they include specialties that are least related to work-related injuries such as OB/GYN and pediatrics.

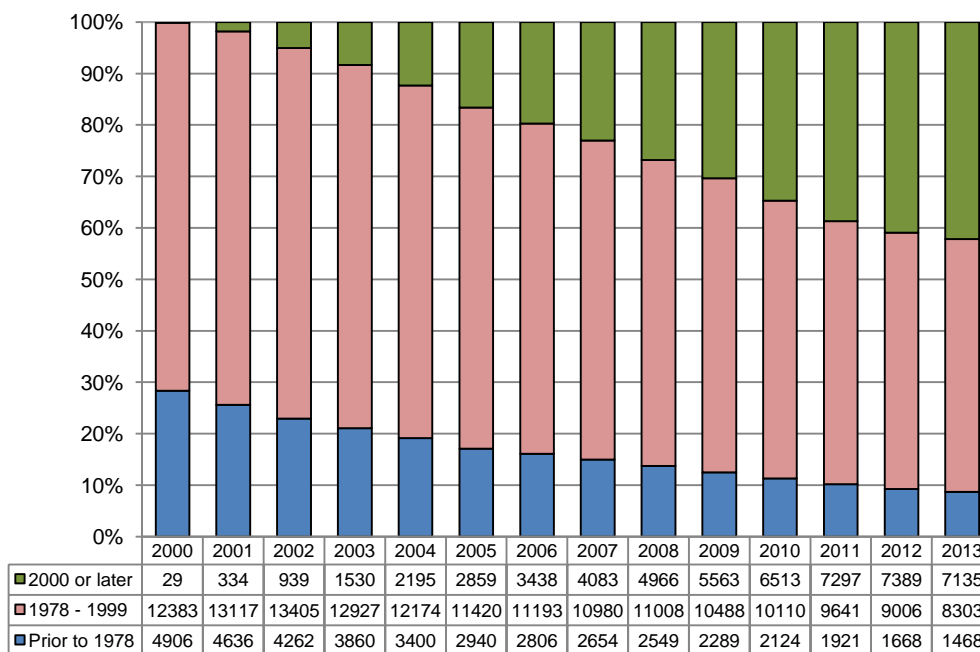


## 2.6 Participating Physicians by Year of License

- In 2013, 42 percent of participants were physicians licensed in 2000 or later.
- In 2013, 9 percent of participants were physicians licensed prior to 1978, down from 28 percent of the total in 2000.

This measure groups WC participating physicians by their license year. The most recent group was licensed in 2000 or later and accounts for 42 percent of the total participating physicians in 2013. Its share increased rapidly between 2005 and 2010, indicating a large increase in supply or an influx of new physicians into Texas. The share of the oldest group of physicians who were licensed in 1977 or earlier declined from 28 percent in 2000 to 9 percent in 2013.

This measure shows that participating physicians exit and enter the WC market continuously, and that the main dynamics of such changes is the natural process of licensing, aging and retirement.





## 2.7 Top 20% Physicians

WC health care market is highly specialized due to the nature of occupational injuries, reimbursement and review processes, regulatory rules, and the initial investment costs for providers (training, adapting to rules and procedures, special devices, and so on). National WC markets are also highly concentrated. In Louisiana, for example, 3.8 percent of physicians accounted for 72 percent of WC costs.<sup>1</sup>

Physicians in the top 20 percentile are identified by the number of WC patients treated in a given year. Each treated on average at least 44 WC patients in 2005 and 29 WC patients in 2013. They accounted for about 90 percent of the total payments to physicians. Overall, ‘top 20%’ physicians are distributed relatively evenly across large and small metro areas.

		2005	2006	2007	2008	2009	2010	2011	2012	2013
Number of physicians	Top 20%	3,480	3,543	3,590	3,732	3,687	3,797	3,812	3,659	3,420
	Bottom 80%	13,739	13,894	14,127	14,791	14,653	14,950	15,047	14,404	13,486
Total payments	Top 20%	\$290	\$271	\$269	\$269	\$279	\$278	\$313	\$297	\$266
	Bottom 80%	\$39	\$36	\$37	\$37	\$38	\$38	\$44	\$41	\$39

Note: Payments are in millions of dollars.

### Top 20% Physicians by Geographical Areas (HRRs) in Selected Specialties in 2013

HRR	All	Primary Care	Radiology/ Pathology	Surgery - Orthopedic
Abilene	53	13	13	12
Amarillo	61	18	27	9
Austin	261	58	86	43
Beaumont	55	8	23	12
Bryan	40	8	21	7
Corpus Christi	80	17	31	15
Dallas	717	185	198	122
El Paso	86	15	20	24
Fort Worth	282	54	79	56
Harlingen	62	33	12	8
Houston	779	168	219	151
Longview	21	0	13	3
Lubbock	86	34	26	9
McAllen	87	39	22	11
Odessa	69	18	20	10
San Angelo	29	5	10	8
San Antonio	396	117	94	58
Temple	54	12	22	9
Tyler	88	13	31	20
Victoria	28	11	11	2
Waco	35	8	10	3
Wichita Falls	19	3	12	2
<b>Total</b>	<b>3,388</b>	<b>837</b>	<b>1,000</b>	<b>594</b>

Note: There are 32 physicians whose HRR is missing.

<sup>1</sup> See “The impact of cost intensive physicians on workers’ compensation,” by Bernacki et al., *Journal of Occupational and Environmental Medicine*, 51(1): 22-28, January 2010.

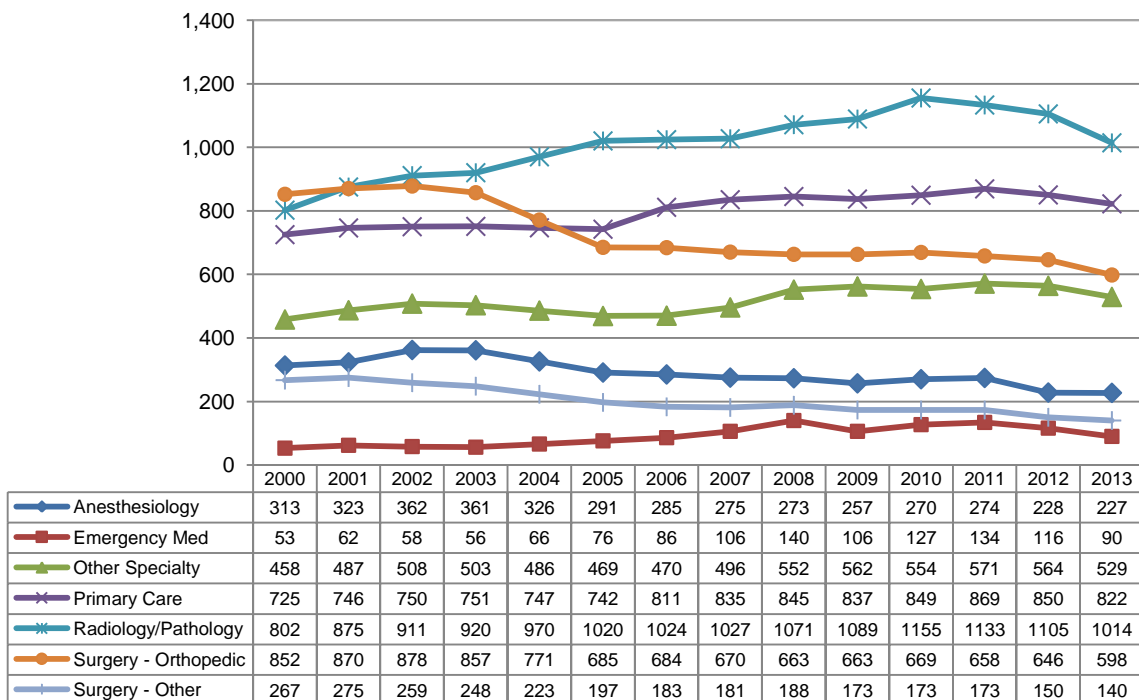
## 2.8 Number of Top 20% Physicians by Specialty

- Among the ‘top 20%’ in 2000, the specialty with the most physicians was orthopedic surgery. In 2013, this changed to the radiology/pathology group.
- The number of primary care physicians in the ‘top 20%’ has increased since 2005.

This measure shows the number of ‘top 20%’ participating physicians by specialty. The number of physicians in radiology/pathology, primary care, emergency medicine, and ‘other’ specialty groups increased since 2000.

The number of physicians of orthopedic surgery, other surgery, and anesthesiology specialties decreased. The total combined share of these three surgery-related groups decreased from 41 percent in 2000 to 28 percent in 2013.

The specialty with the highest number of participants is radiology/pathology, growing by 26 percent from 802 in 2000 to 1,014 in 2013.



## 3. Physician Retention

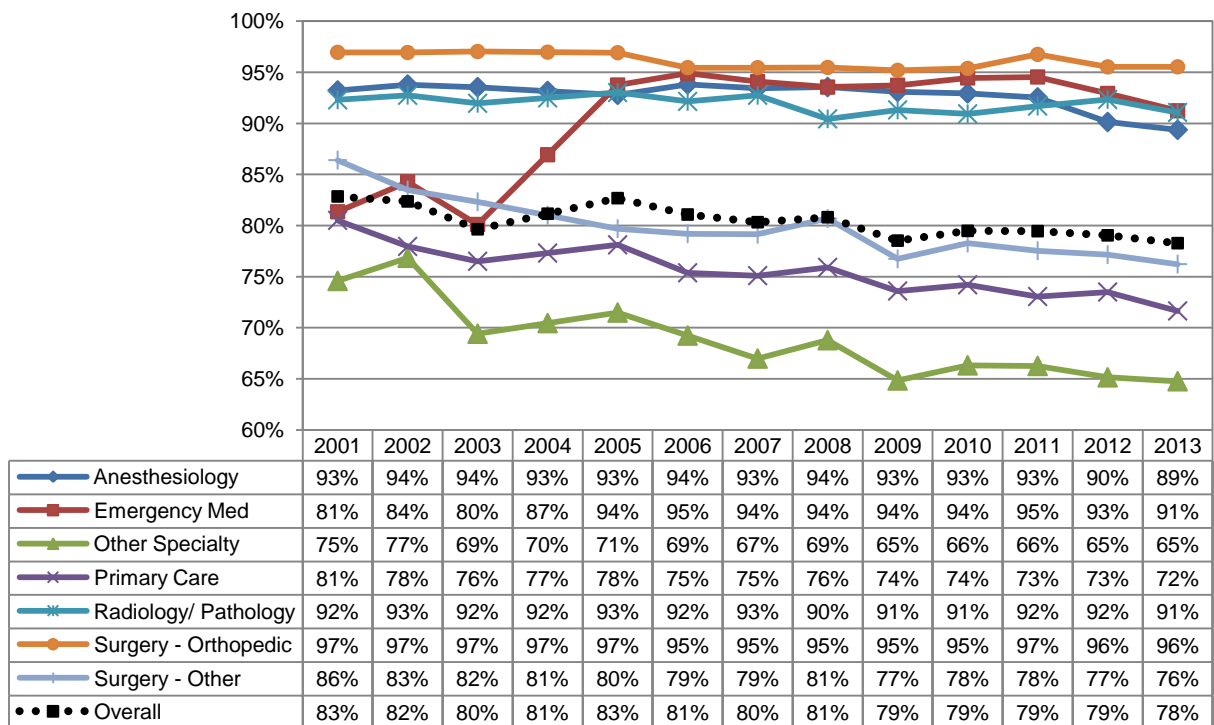
### Key Findings

- Overall WC physician retention rate is high and stable: 83 percent in 2000 and 78 percent in 2013. This means that about 80 percent of each year’s participating physicians will also participate in the following year.
- Retention rates for orthopedic surgery, radiology/pathology, emergency medicine, and anesthesiology specialties stayed between 90 and 95 percent since 2005. Considering a natural rate of attrition due to practice change and retirement, these rates indicate almost no change in WC participation status.
- Retention rate for primary care physicians decreased from 81 percent in 2000 to 72 percent in 2013.
- ‘Top 20%’ physicians have a high rate of year-to-year retention at over 98 percent. Also, ‘top 20%’ physicians continue to participate in WC in the long term: 80 percent of those who had participated in 2005 were still participating in 2013.

### 3.1 Year-to-Year (Consecutive) Retention Rates by Specialty

- Overall, physicians who participated in 2000 had an 83 percent retention rate in 2001. Among those who participated in 2012, the retention rate in 2013 was 78 percent. The remaining 20 percent or so exiters are partly explained by normal attrition rates among physicians such as retirement, death, changes in practice type, migration, and others.
- Orthopedic surgeons maintained the highest retention rate at above 90 percent in each year.

This measure shows year-to-year retention rates of the WC participating physicians by specialty. Retention rates for orthopedic surgery, radiology/pathology, and anesthesiology specialties stayed between 90 and 95 percent in the last ten years. Retention rates for primary care, other surgery, and ‘other’ specialties are generally lower, ranging from 65 percent to 80 percent, and these rates are steadily decreasing since 2000. Retention rate for emergency medicine specialists was around 81 percent in 2001, but increased to the 95 percent range in 2005 and stayed above 90 percent since then.



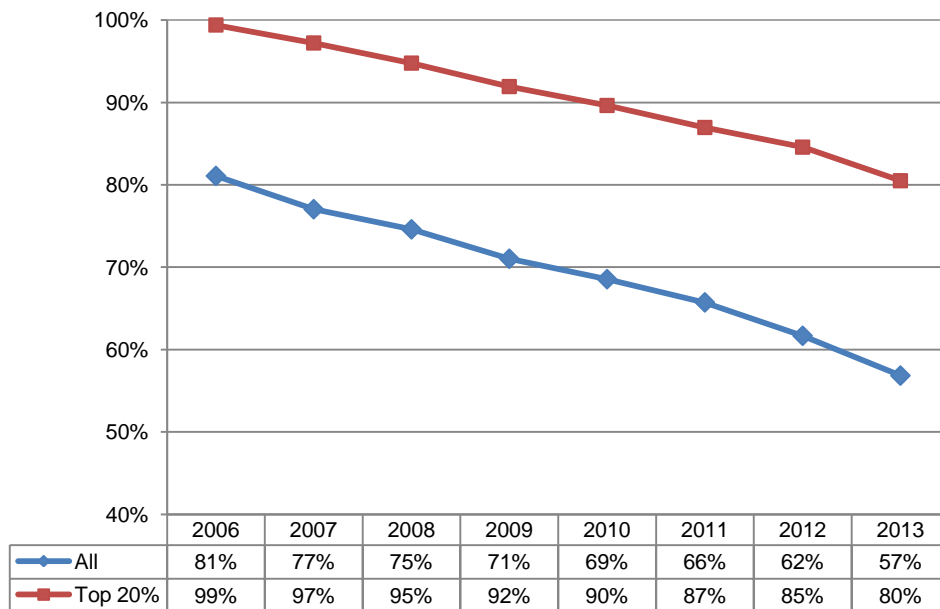
**Note:** *Consecutive retention rate* is calculated as the number of a prior year’s participants who participate in the following year divided by the number of total participants in the previous year.

### 3.2 Cumulative Retention Rates

- Overall, 57 percent of the physicians who had participated in 2005 still participated in 2013.
- For ‘top 20%’ participating physicians, 80 percent of 2005 participants still participated in WC in 2013.

Cumulative retention rates are calculated by following the same physicians who participated in 2005 throughout subsequent years. For all participants in 2005, the cumulative retention rate shows a 20 percent decrease in the first year. However, the attrition rate in subsequent years remains at about 3 percent per year. This may be related to the fact that the majority of WC patients are medical-only claims receiving only a few treatments that are spread over a large number of physicians who do not participate in WC in every year.

For the ‘top 20%’ group, 80 percent of those who participated in 2005 were still participating in 2013. The attrition rate is less than 3 percent per year.



**Note:** A cumulative retention rate is calculated by taking those physicians who participated in 2005 and, among those 2005 participants, by identifying who still participated in each following year since 2005. Unlike year-to-year retention rates, for which new physicians may replace old participants without changing the rate, cumulative retention rates show the longevity of participation in WC.

## 4. Access to Medical Care by Geographical Area

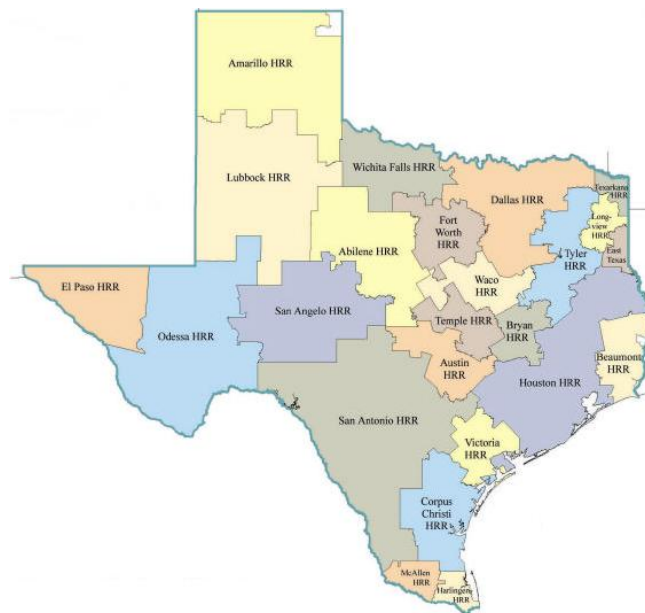
### Key Findings

- In 2013, 77 percent of active physicians in Texas practiced in the five largest metro areas. 73 percent of WC participating physicians are in the largest metro areas. In comparison, 72 percent of workers' compensation claims occur in these areas.
- Access-to-care measures in smaller metro areas are affected greatly by changes in a few physicians, and may display large year-to-year changes.
- Some smaller metro areas and border regions have a higher number of WC patients per physician. Any lack of physician access is primarily due to the low total number of physicians practicing in these areas rather than a low WC participation rate.

### Hospital Referral Region (HRR)

HRRs are based on *The Dartmouth Atlas of Health Care*.

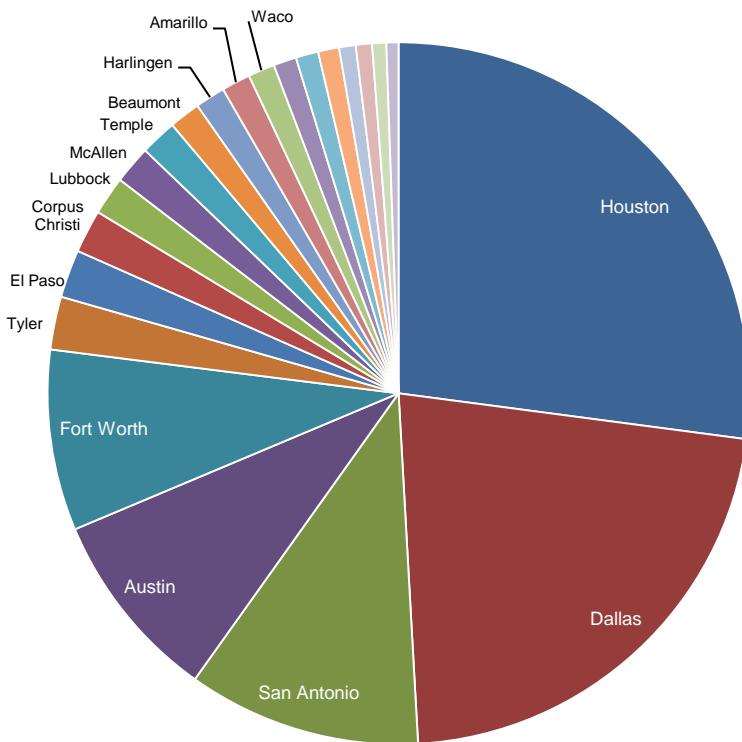
- HRRs are constructed using Medicare hospitalization records and patient referral patterns, closely resembling the pattern of medical care and access.
- HRRs roughly correspond to major metro areas, but these are more relevant to medical care as they are constructed by patient referral pattern. There are 24 HRRs in Texas. Two HRRs are removed from our analysis: 'Texarkana' and 'Shreveport' HRRs are primarily located in Arkansas and Louisiana, respectively.
- Patients' and physicians' ZIP codes are recoded into HRRs. Patient's location is based on the ZIP code in the medical bills. For physicians, the practice location ZIP code in the TMB list is used.



### 4.1 Active Physicians by HRR (2013)

- Total number of active physicians (MD/DOs) in 2013 was 41,461.
- Five largest metro areas (Houston, Dallas, San Antonio, Austin, and Fort Worth) accounted for 77 percent of all active physicians.

This pie chart shows the number of active physicians in each of the 22 hospital referral regions in Texas. It ranges from 11,231 for Houston to 231 for Victoria. Actual numbers are provided in the table on the right.



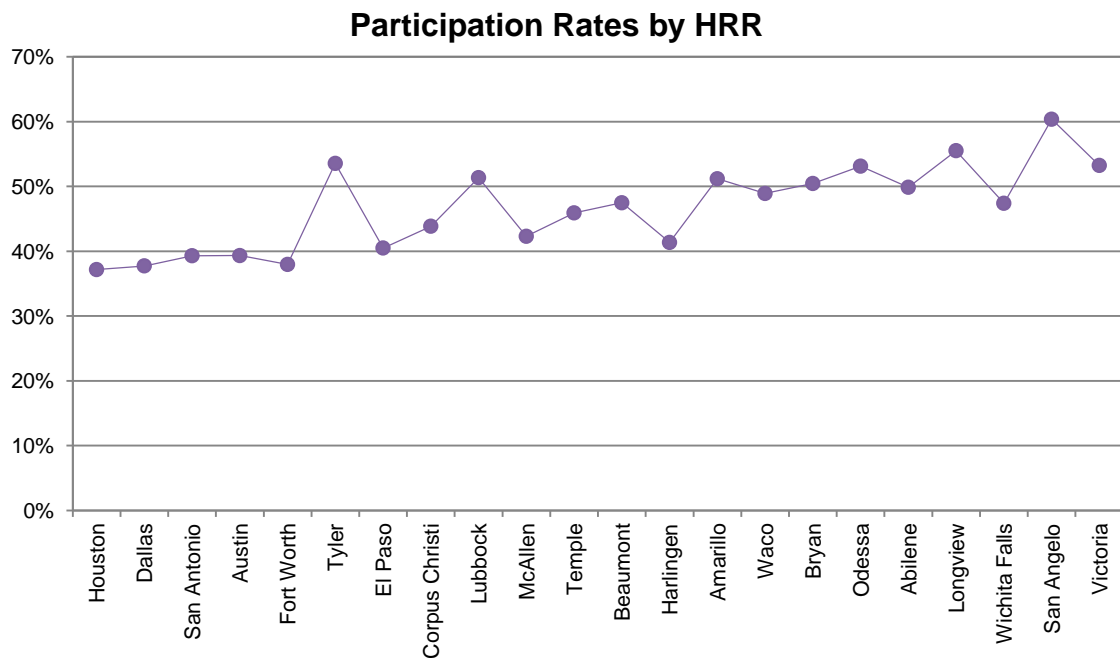
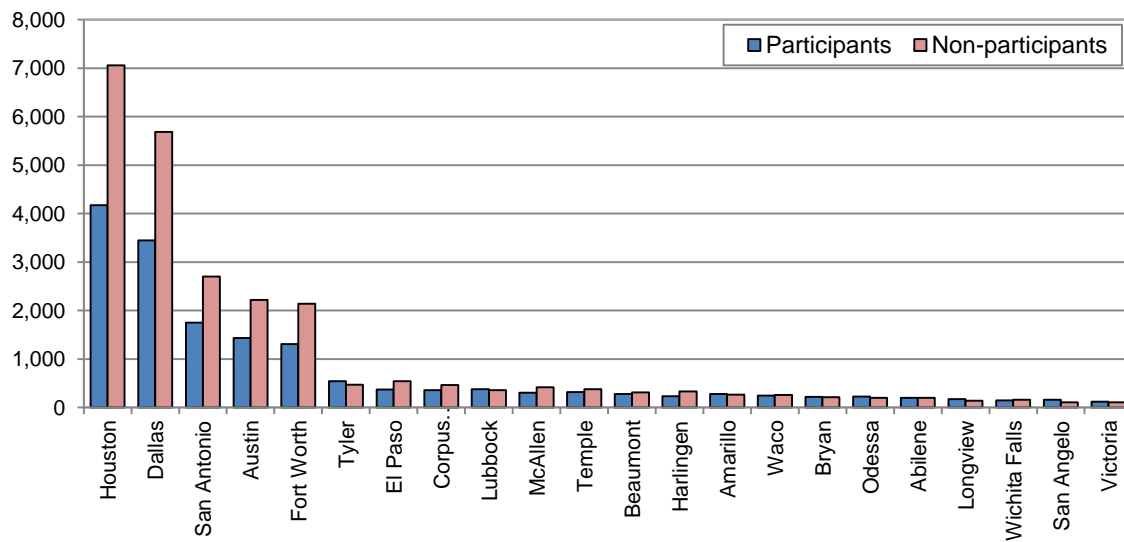
HRR	Number of physicians
Houston	11,231
Dallas	9,132
San Antonio	4,452
Austin	3,656
Fort Worth	3,453
Tyler	1,012
El Paso	916
Corpus Christi	823
Lubbock	736
McAllen	728
Temple	699
Beaumont	596
Harlingen	573
Amarillo	549
Waco	509
Bryan	438
Odessa	431
Abilene	401
Longview	317
Wichita Falls	308
San Angelo	270
Victoria	231

**Note:** Active physicians include only non-military and direct patient care MD/DO physicians whose practice state is Texas.

## 4.2 Physician Number and Participation Status by HRR (2013)

- Overall, 40 percent of active Texas physicians participate in WC, and 73 percent of those participating in WC are in the five largest metro areas. In comparison, 72 percent of all WC claims are in the same five metro areas.

This measure shows the number of non-participants and participants for 22 Texas hospital referral regions. Houston, Dallas, San Antonio, Austin, and Fort Worth accounted for 77 percent of the active physicians and 73 percent of the participating physicians in 2013. Smaller areas have slightly higher participation rates.

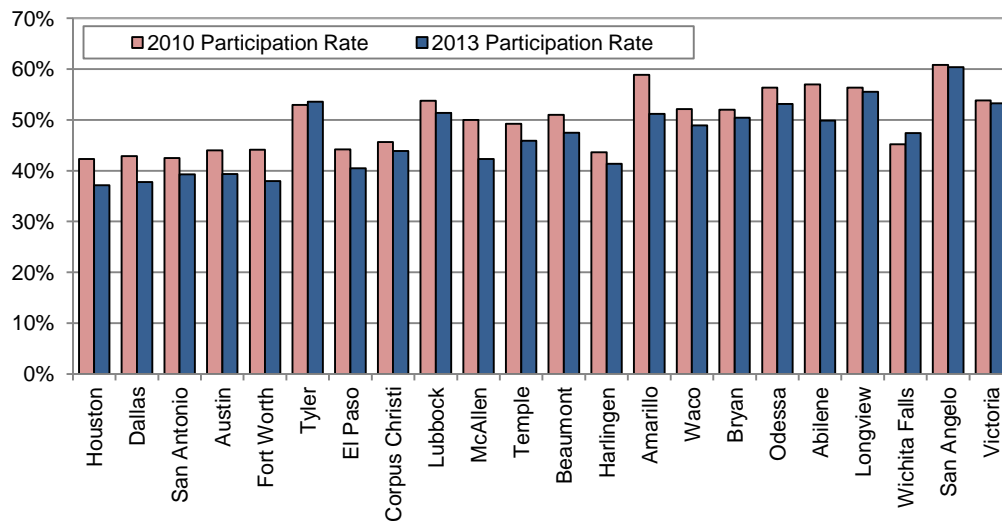




### 4.3 WC Participation Rates by HRR (2010–2013)

- Participation rates are generally lower in larger metro areas as there are more doctors in these areas.
- Between 2010 and 2013, participation rates decreased the most in McAllen, Amarillo, and Abilene HRRs. Wichita Falls and Tyler are the only two HRRs with an increasing participation rate.

This measure shows participation rates for 2010 and 2013 in a descending order of HRR size from the left. Participation rates generally decreased in 2013 because of an increase in the overall active physicians from 2010, and a decrease in the number of participating physicians and claims.



HRR	2010 Participation rate	2013 Participation rate	Change in 2010–2013
Houston	42.3%	37.2%	-5.1%
Dallas	42.9%	37.7%	-5.1%
San Antonio	42.5%	39.3%	-3.2%
Austin	44.0%	39.3%	-4.7%
Fort Worth	44.1%	38.0%	-6.1%
Tyler	53.0%	53.6%	0.6%
El Paso	44.2%	40.5%	-3.7%
Corpus Christi	45.6%	43.9%	-1.8%
Lubbock	53.8%	51.4%	-2.4%
McAllen	50.0%	42.3%	-7.7%
Temple	49.3%	45.9%	-3.3%
Beaumont	51.0%	47.5%	-3.5%
Harlingen	43.6%	41.4%	-2.3%
Amarillo	58.9%	51.2%	-7.7%
Waco	52.2%	48.9%	-3.2%
Bryan	52.0%	50.5%	-1.5%
Odessa	56.4%	53.1%	-3.2%
Abilene	57.0%	49.9%	-7.1%
Longview	56.4%	55.5%	-0.8%
Wichita Falls	45.2%	47.4%	2.2%
San Angelo	60.8%	60.4%	-0.5%
Victoria	53.8%	53.2%	-0.6%

#### 4.4 Claims per Physician by HRR (2005–2013)

- El Paso and Harlingen HRRs have the lowest access in terms of the number of claims per physician. Higher number of claims per physician means more competition among injured employees for care, and therefore lower access.
- Fort Worth and San Antonio HRRs show the lowest access among large metro areas. There were significant improvements in Fort Worth and other large metro area HRRs except San Antonio HRR.
- Access worsened since 2005: Harlingen, Lubbock, El Paso, and Amarillo HRRs.
- Most improved since 2005: Longview, Tyler, and San Angelo HRRs.

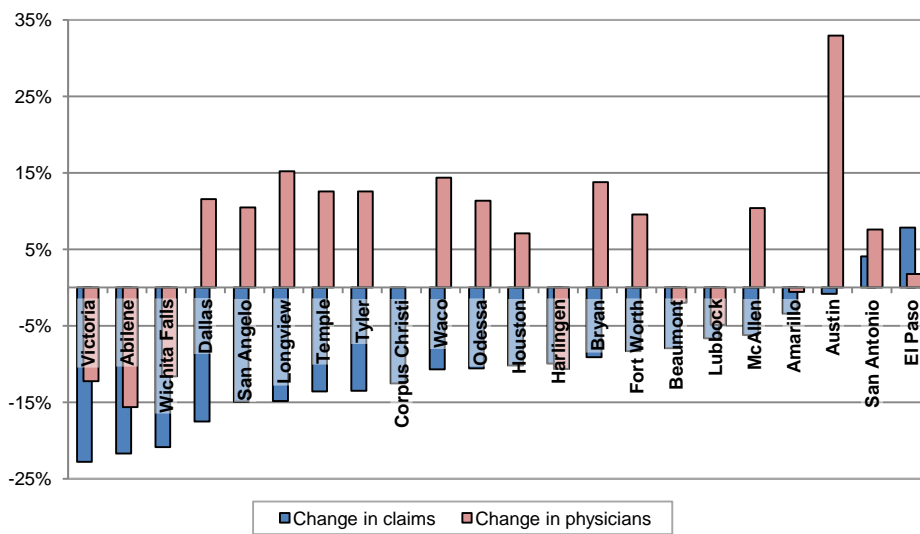
This table shows the average number of claims per participating physician, and the percentage change from 2005 to 2013. HRRs with a large gain (with a large decrease in the number of claims per physician) tended to have a favorable access condition in 2005. The six HRRs with the lowest access in 2013 (El Paso, Harlingen, Fort Worth, Odessa, San Antonio, and McAllen) were also among the worst in 2005. While Fort Worth and Odessa HRRs experienced substantial improvements, the remaining regions did not.

HRR	2005	2006	2007	2008	2009	2010	2011	2012	2013	Change in 2005–2013
El Paso	27.7	30.1	31.6	31.9	28.5	29.4	27.8	27.9	28.9	4.27%
Harlingen	25.7	25.0	25.4	25.4	25.7	25.9	25.9	28.0	27.7	7.89%
Fort Worth	24.3	25.9	25.9	22.6	21.3	20.3	20.2	20.5	21.5	-11.50%
Odessa	25.1	25.2	25.1	22.8	19.6	20.1	21.3	22.1	21.5	-14.19%
San Antonio	21.1	21.8	21.4	20.3	19.3	20.4	19.3	20.5	21.0	-0.51%
McAllen	22.6	20.6	22.7	19.7	19.5	19.2	18.7	19.0	20.5	-9.26%
Corpus Christi	20.7	19.9	19.1	18.2	17.7	18.1	19.8	17.5	18.4	-10.88%
Lubbock	16.7	15.9	16.9	16.7	15.7	16.4	16.3	17.4	17.6	4.92%
Waco	22.0	23.7	21.9	21.7	19.1	17.2	19.6	18.6	17.0	-22.89%
Amarillo	16.1	16.2	18.1	15.8	15.2	15.6	16.4	15.9	16.4	1.81%
Abilene	17.0	18.4	17.7	16.6	16.8	15.8	15.9	16.2	15.8	-7.22%
Houston	16.3	16.7	16.8	15.5	14.5	13.6	13.8	14.6	15.0	-8.03%
Dallas	18.5	17.8	16.6	15.7	14.0	13.7	13.4	13.8	14.5	-21.68%
Beaumont	17.4	17.4	16.5	16.4	15.1	16.3	16.7	15.8	14.3	-17.64%
Wichita Falls	15.9	15.4	16.9	14.2	13.4	14.2	13.7	13.8	14.2	-10.53%
Victoria	16.7	16.3	15.2	13.8	12.8	14.7	14.3	14.7	13.8	-17.31%
Temple	17.7	18.6	18.9	18.2	16.4	13.6	13.7	13.5	13.6	-23.29%
Austin	15.6	15.8	14.6	12.5	12.2	11.6	11.4	11.4	12.6	-19.41%
Longview	20.0	19.9	19.1	16.9	15.2	14.8	14.2	14.1	12.2	-39.19%
San Angelo	16.3	14.7	14.2	13.5	12.0	12.5	11.4	11.6	11.1	-31.66%
Bryan	14.8	13.8	14.3	12.2	11.8	11.8	11.3	10.9	10.4	-29.25%
Tyler	14.9	14.8	15.0	13.2	12.4	11.4	11.1	10.8	9.8	-34.18%

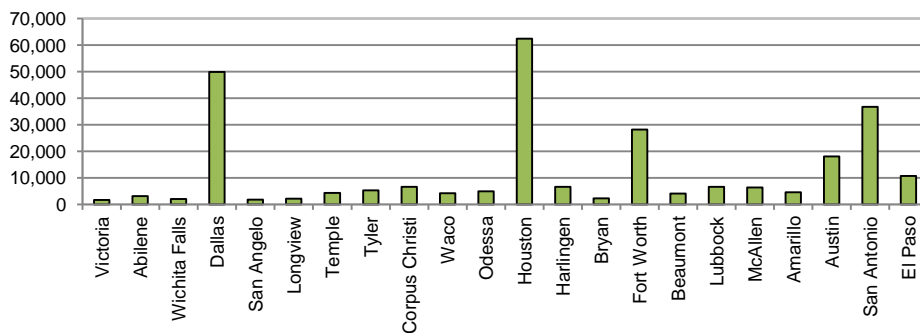
### 4.5 Rates of Change in Claims and Participating Physicians by HRR (2005–2013)

- The number of claims decreased in all HRRs except San Antonio and El Paso HRRs. The number of participating physicians increased in 14 HRRs.
- Large metro areas saw decreases in claims but increases in physicians.

This measure shows 2005 to 2013 changes in the numbers of claims and participating physicians. HRRs with the largest decline in claims are shown from the left. The number of physicians decreased significantly in Victoria, Abilene, and Wichita Falls HRRs, where claims also decreased the most. In most other areas, physicians increased while claims decreased.



#### Total Number of Claims Treated in 2013, Including Medical-Only Claims



## 4.6 Ratio of Physician Share to Claim Share by HRR

- Bryan and Tyler HRRs have relatively more physicians than claims. Among large metro areas, Austin HRR has the highest ratio of 1.3.
- El Paso and Harlingen HRRs have relatively less physicians. Among large metro areas, Fort Worth and San Antonio HRRs have lower ratios.

*Ratio of physician share to claim share* is calculated as ‘% HRR physicians of the total number of Texas physicians’ divided by ‘% HRR claims of the total Texas WC claims’, or

$$\frac{\left(\frac{\text{Physicians}_{HRR}}{\text{Physicians}_{TX}}\right)}{\left(\frac{\text{Claims}_{HRR}}{\text{Claims}_{TX}}\right)}$$

A ratio greater than one means the region’s share of participating physicians is higher than its share of WC patients. This implies that the region has relatively more physicians than its share of claims. A ratio less than one means the region’s share of participating physicians is lower than its share of WC patients.

Physicians are relatively more numerous in Tyler and Bryan HRRs with a ratio above 1.5. El Paso and Harlingen HRRs have the lowest ratio. The inequality in this ratio increased in the last eight years.

HRR	2005	2006	2007	2008	2009	2010	2011	2012	2013	Change in ratio 2005–2013
Tyler	1.26	1.28	1.24	1.31	1.29	1.37	1.40	1.47	1.67	0.41
Bryan	1.27	1.37	1.30	1.41	1.36	1.33	1.37	1.46	1.56	0.30
San Angelo	1.15	1.28	1.31	1.27	1.34	1.25	1.36	1.37	1.47	0.32
Longview	0.93	0.95	0.97	1.01	1.05	1.06	1.09	1.13	1.34	0.41
Austin	1.20	1.19	1.27	1.37	1.32	1.35	1.37	1.39	1.30	0.10
Temple	1.06	1.01	0.98	0.94	0.98	1.15	1.13	1.17	1.20	0.15
Victoria	1.12	1.16	1.22	1.25	1.26	1.07	1.09	1.09	1.18	0.06
Wichita Falls	1.18	1.22	1.10	1.21	1.20	1.10	1.13	1.16	1.15	-0.03
Beaumont	1.08	1.08	1.12	1.05	1.07	0.96	0.93	1.00	1.14	0.06
Dallas	1.01	1.06	1.12	1.10	1.14	1.15	1.16	1.15	1.13	0.12
Houston	1.15	1.13	1.11	1.11	1.10	1.15	1.12	1.09	1.09	-0.06
Abilene	1.10	1.03	1.05	1.03	0.95	0.99	0.98	0.98	1.03	-0.06
Amarillo	1.16	1.16	1.03	1.08	1.05	1.00	0.95	1.00	1.00	-0.17
Waco	0.85	0.80	0.85	0.79	0.84	0.91	0.79	0.86	0.96	0.11
Lubbock	1.12	1.19	1.10	1.03	1.03	0.95	0.95	0.91	0.93	-0.19
Corpus Christi	0.91	0.95	0.97	0.95	0.91	0.87	0.79	0.91	0.89	-0.02
McAllen	0.83	0.92	0.82	0.87	0.82	0.81	0.83	0.84	0.80	-0.03
San Antonio	0.89	0.86	0.87	0.85	0.83	0.77	0.80	0.78	0.78	-0.11
Fort Worth	0.77	0.73	0.72	0.76	0.75	0.77	0.77	0.78	0.76	-0.01
Odessa	0.75	0.75	0.74	0.75	0.82	0.78	0.73	0.72	0.76	0.01
Harlingen	0.73	0.75	0.73	0.68	0.62	0.61	0.60	0.57	0.59	-0.14
El Paso	0.68	0.63	0.59	0.54	0.56	0.53	0.56	0.57	0.57	-0.11

## 5. Timeliness of Care

Timeliness of care is a measure of initial access, and it is calculated as the number of days between the date of injury and the first visit to a physician for non-emergency medical treatment. After the initial access, a possible measure of secondary access can be measured to evaluate the timeliness of access to specialty physicians or referral procedures. Because our access to referral data is limited, this analysis focuses on the initial access only.

As a measure of access to medical care, timeliness of care is affected by physician availability and participation rates as well as such non-supply factors as type of injury, travel preferences, and dispute and denial processes. Therefore, timeliness of care presented in this section goes beyond physician participation in understanding access to medical care.

In this report, measurements were calculated for new injuries and non-emergency services only. All claims that had one or more emergency services were removed from our analysis. Medical services were considered for the first 6 months only. As a result, injury and illness cases whose first treatment occurred more than 6 months after the injury were also removed.

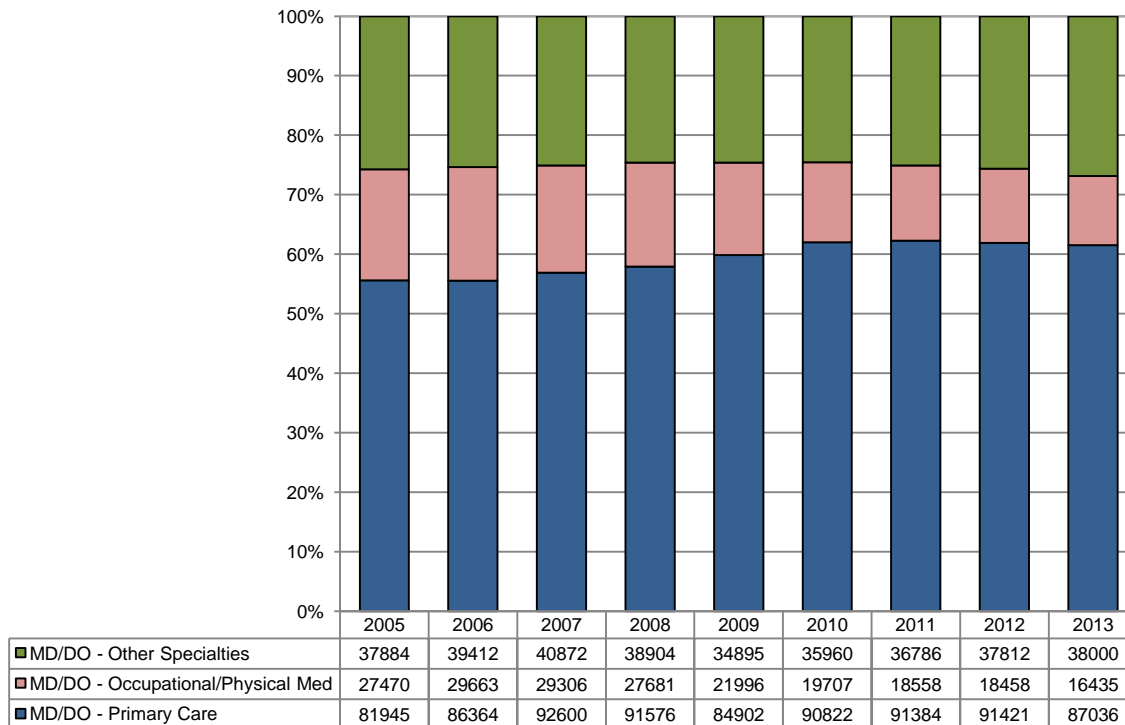
### Key Findings

- Overall, initial access (timeliness of care) measures show that WC patients received non-emergency treatments faster in 2013 than in 2000.
- About 81 percent of patients received initial care in seven days or less in 2013, up from 74 percent in 2000. This rate stayed above 81 percent since 2006.
- Delayed initial care is correlated with higher total medical costs. Claims with greater than seven days delay had on average 50 percent more medical costs in the first 6 months.
- Delayed claims with more than seven days accounted for 26 percent of the claims in 2000, which decreased to 20 percent in 2013. 11 percent of the claims in 2000 had delays of 29 days or more. It decreased to 6 percent in 2013.
- Smaller HRRs have a higher percentage of delayed cases but these areas are often affected by a few extreme values.
- Large metro areas generally show about 10 percent or less of their claims traveling out of their area for their first treatment. Smaller HRRs have higher number of claims traveling outside of their HRR, some over 30 percent.

## 5.1 Shares of Treating Doctor Types Delivering First Treatment

- The majority of injured employees saw a primary care physician on their first treatment day, and this rate has increased from 56 percent in 2005 to 62 percent in 2013.
- About 12 percent of new patients saw occupational/physical medicine specialists on the first day of treatment in 2013 although these specialty physicians account for less than 3 percent of the total MD/DO participants.

This measure shows cumulative percentage shares of claims by the type of physician that they saw for their first treatment. Claim numbers are shown below the graph. The majority of them saw primary care physicians, and more patients saw primary care physicians in recent years (62 percent in 2013). Occupational and physical medicine specialists were the second most important group for first treatment. In 2005, 19 percent of patients saw occupational/physical medicine specialists, but this decreased to 12 percent in 2013.

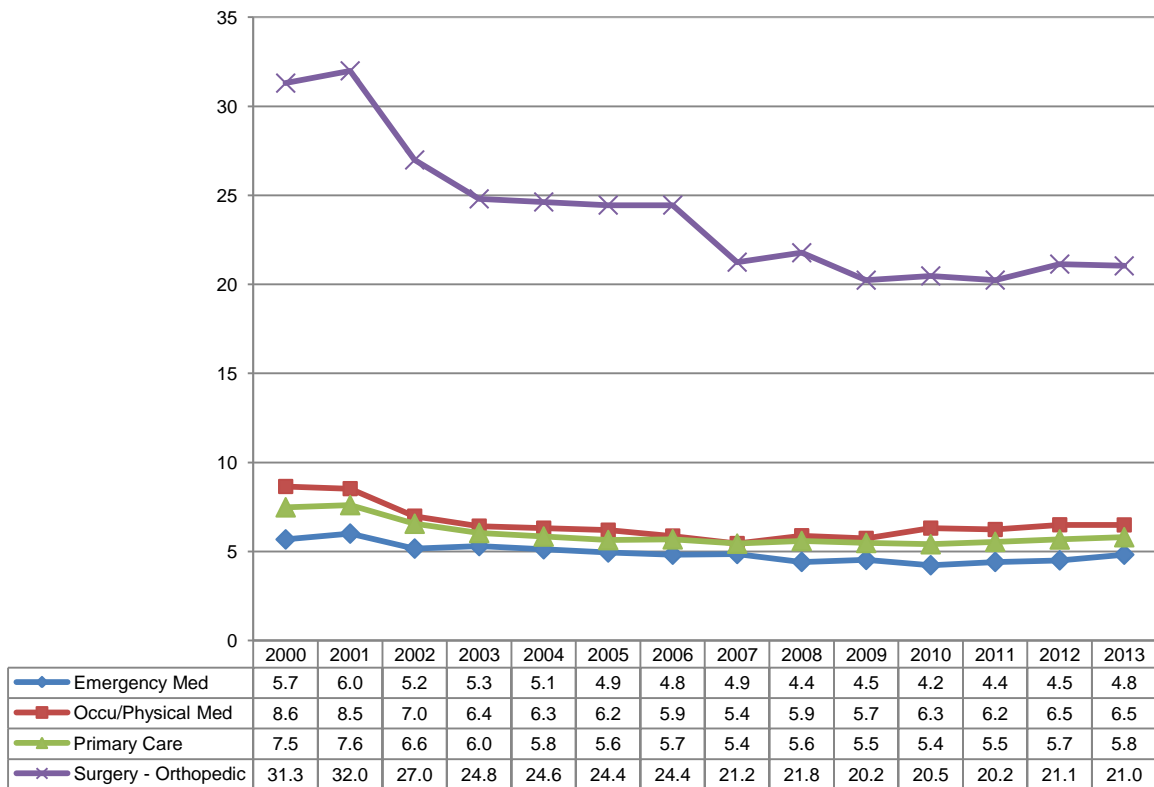


**Note:** This measurement counts new patients who saw only one type of physician on their first day of non-emergency treatment. About 10 percent of new patients saw multiple types of physicians on their first visit.

## 5.2 Average Days between Injury and First Visit

- The average number of days between injury and the first treatment was similar across claims whose first visit was to a primary care, emergency medicine, or occupational/physical medicine physician, at around 5 days after injury.
- For those whose first treatment was with an orthopedic surgeon, the average number of days was much higher, but it improved as it decreased from 31 days in 2000 to 21 days in 2013.

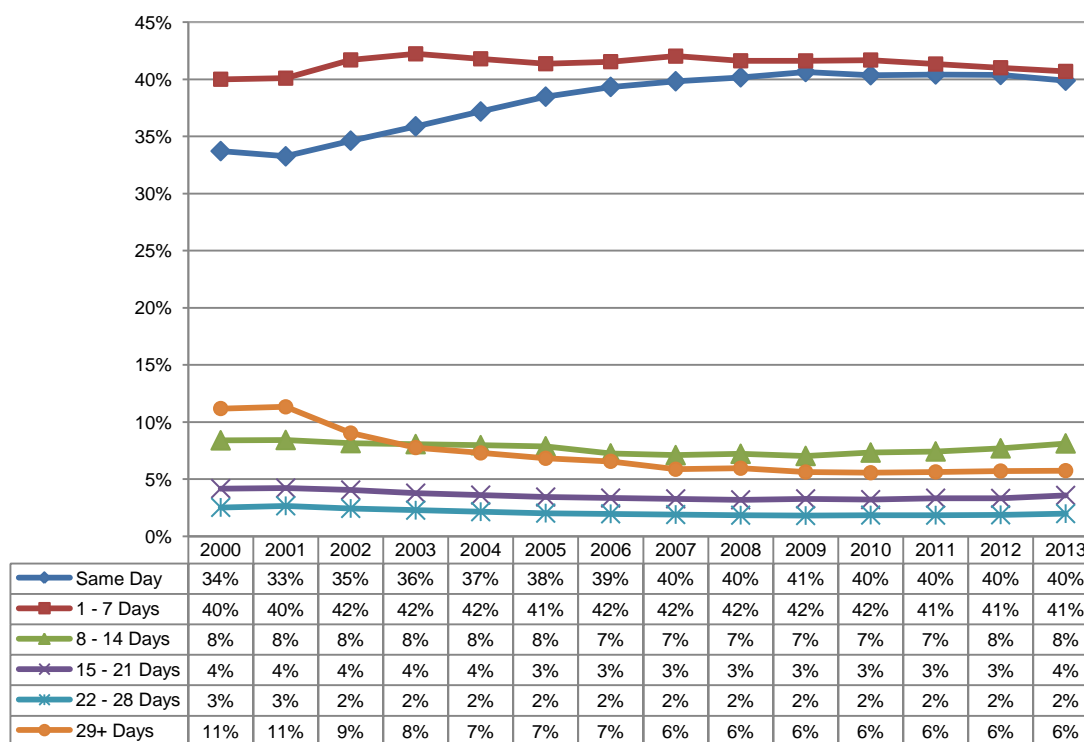
This measure calculates the average number of days between the injury date and the first treatment by type of physician. Patients who saw physicians in primary care, emergency medicine, and occupational/physical medicine specialties took 4 to 6 days on average. This delay has decreased slightly since 2000. In comparison, those whose first treatment was by an orthopedic surgeon took 31 days for their first treatment in 2000, which nevertheless decreased to 21 days in 2013.



### 5.3 Percent of Claims by Number of Days between Injury and First Visit

- Claims that received treatment on the ‘same day’ as injury or ‘1 to 7 days’ from injury accounted for 74 percent in 2000, increasing steadily to 81 percent in 2013.
- The largest decrease was in the share of extreme delays (29 days or more): it decreased from 11 percent in 2000 to 6 percent in 2013,

This measure shows the percentage of claims by the number of days before first medical treatment in six broad groups. In 2000, 74 percent of all claims received medical treatments on the same day as their injury or within seven days from injury. This timeliness of care measure has improved continuously. In 2013, 81 percent of the claims received their first care within seven days of their injury. Claims with more than seven days’ delay stayed about the same except the most delayed group with 29 days or more whose number has decreased significantly since 2000.



**Note:** Timeliness of care measures are calculated for new injuries only. Medical service records are in injury year with six months maturity.

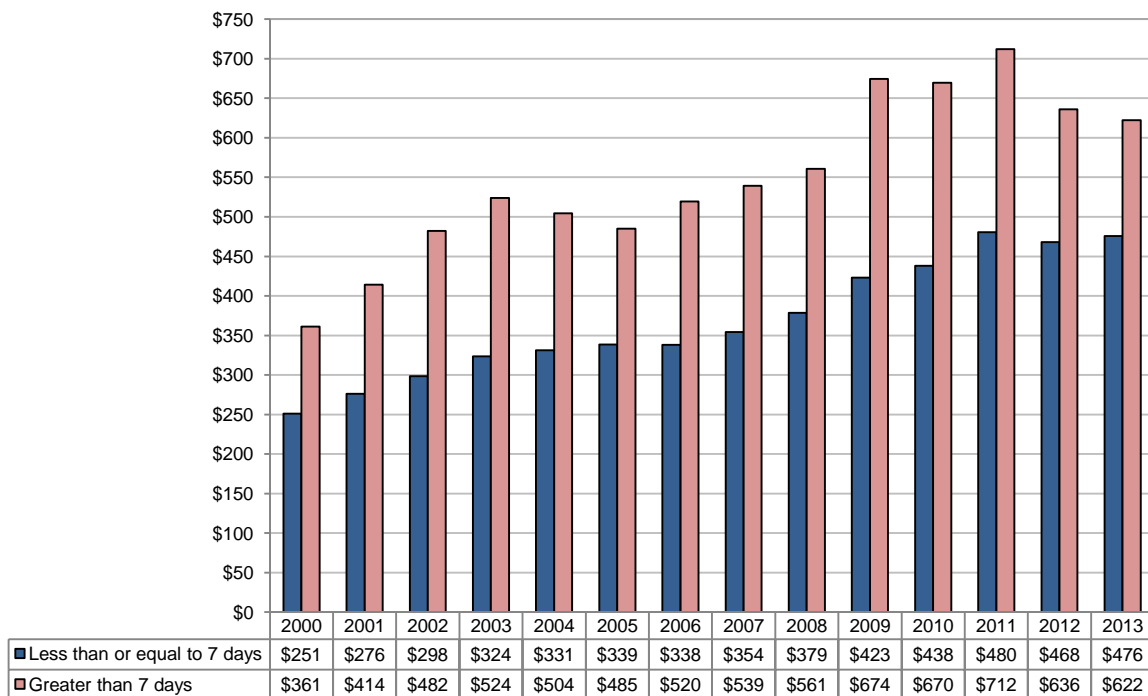


### 5.4 Median Total Cost per Claim by Number of Days to First Treatment

- Median medical cost for the delayed group (first treatment after more than seven days) was 31 percent higher than that of ‘within 7 days’ group in 2013.
- Median costs fluctuate more for the delayed group.

This measure compares median medical costs for delayed and non-delayed groups of claims. From 2000 to 2013, the median medical cost of the delayed group (which took more than seven days for first treatment) was 50 percent higher on average, and 31 percent higher in 2013, than that of the claims that received medical treatment within seven days of injury.

Since 2000, median costs increased by 90 percent for non-delayed group and by 72 percent for the delayed group. The latter increased by a higher rate in most years, but the cost decreased significantly in the last two years.

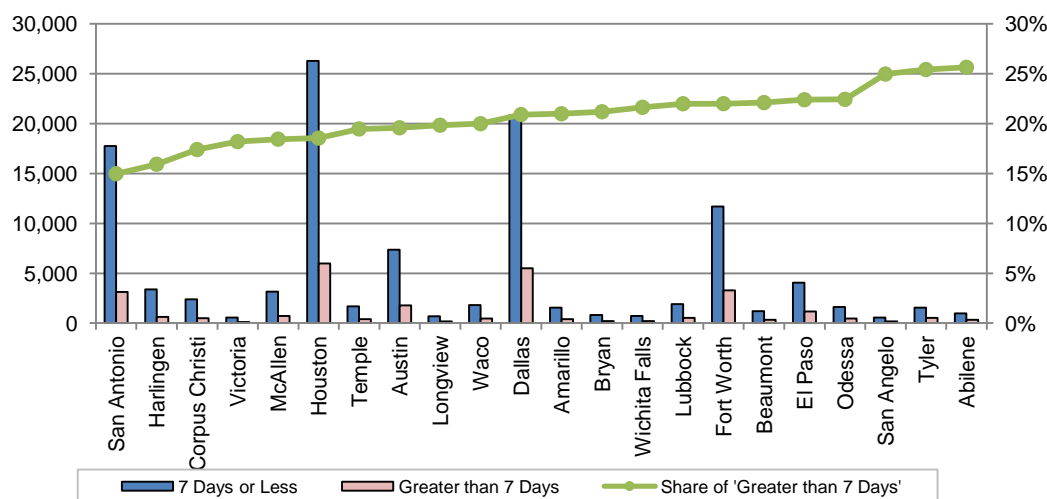


**Notes:** Medical costs are only for the first six months after injury. Figures are in current dollars without any adjustment for inflation.

### 5.5 Number of Claims by Number of Days by HRR (2013)

- Injured employees in Abilene HRR had the highest chance of delayed treatment in 2013.
- Among large metro areas, Houston has the most delayed cases (5,984), and Fort Worth has the highest percentage of delays (22 percent).

The line graph shows, from left to right, the percentage of delayed treatment (greater than seven days) group, which ranges from 15 percent of San Antonio HRR to 26 percent of Abilene HRR. It also shows the numbers of non-delayed (within seven days) and delayed (more than seven days) claims in bar graphs for each HRR.



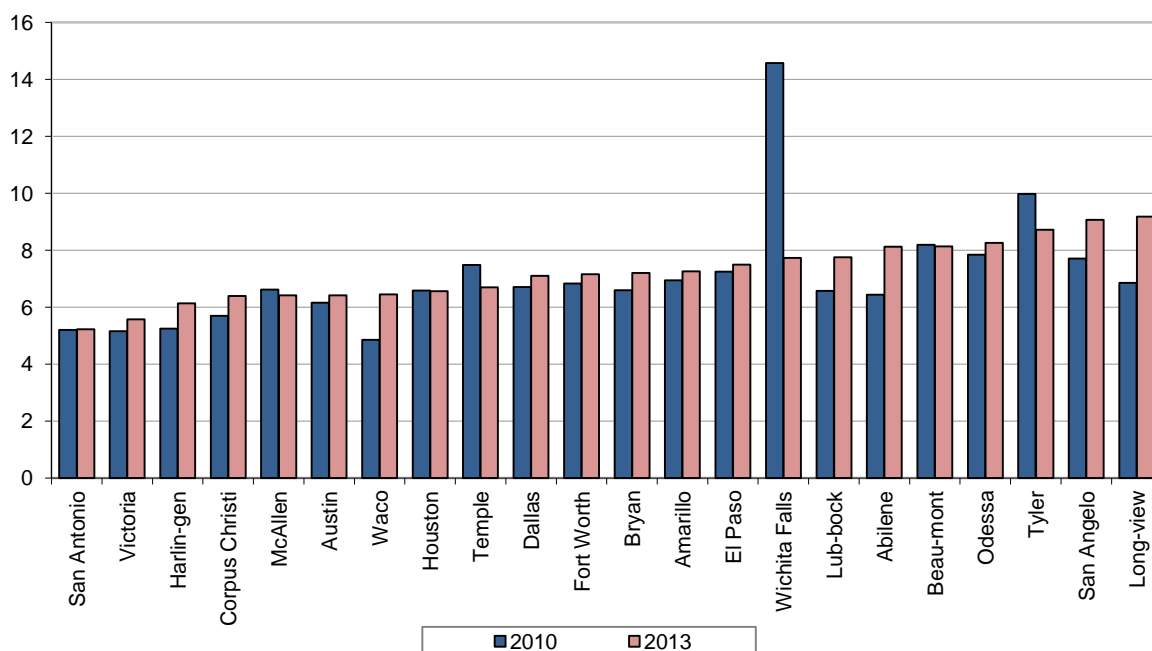
HRR	7 Days or Less	Greater than 7 Days	Share of 'Greater than 7 Days'
San Antonio	17,756	3,127	15%
Harlingen	3,383	641	16%
Corpus Christi	2,397	505	17%
Victoria	571	127	18%
McAllen	3,171	717	18%
Houston	26,276	5,984	19%
Temple	1,684	407	19%
Austin	7,377	1,796	20%
Longview	703	174	20%
Waco	1,821	455	20%
Dallas	20,824	5,504	21%
Amarillo	1,566	416	21%
Bryan	811	218	21%
Wichita Falls	728	201	22%
Lubbock	1,919	541	22%
Fort Worth	11,683	3,295	22%
Beaumont	1,205	342	22%
El Paso	4,069	1,174	22%
Odessa	1,632	472	22%
San Angelo	559	186	25%
Tyler	1,555	530	25%
Abilene	989	341	26%

**Notes:** The figure and the table are in an ascending order of the share of ‘greater than 7 days’ in 2013. For smaller HRRs, these measurements are affected greatly by small changes in the number of participating physicians.

## 5.6 Average Number of Days between Injury and First Visit by HRR (2010–2013)

- In 2013, the average number of days from injury to first treatment ranged from 5.2 days in San Antonio HRR to 9.2 days in Longview HRR.
- Most HRRs in 2013 experienced longer delays than in 2010.

This measure compares 2010 and 2013 average days between injury and first treatment. The average number of delays in 2013 ranged from 5 days to 9 days. Most areas experienced an increase in delay in 2013 except Wichita Falls, Tyler, Temple, McAllen, and Houston HRRs where the delay decreased.



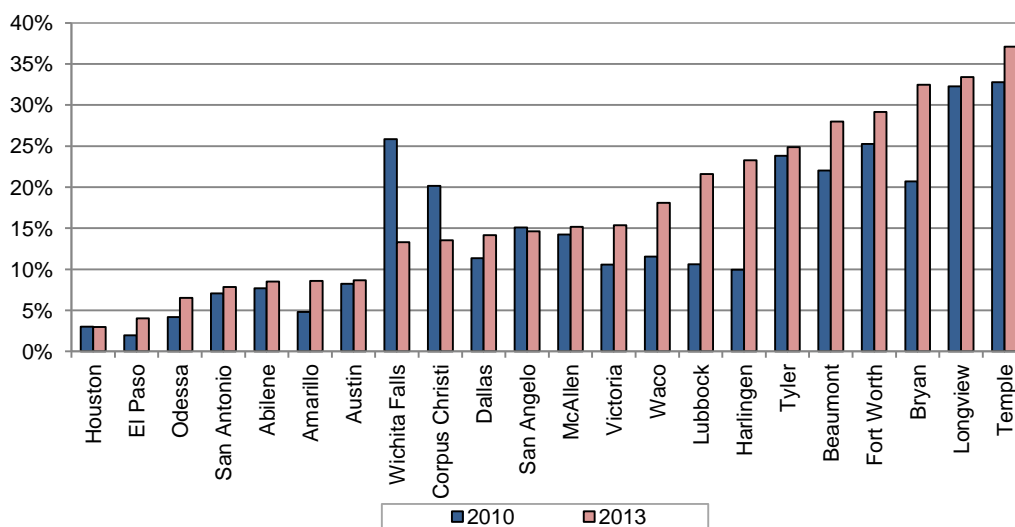
HRR	San Antonio	Victoria	Harlingen	Corpus Christi	McAllen	Austin	Waco	Houston	Temple	Dallas	Fort Worth	Bryan	Amarillo	El Paso	Wichita Falls	Lubbock	Abilene	Beaumont	Odessa	Tyler	San Angelo	Longview
2010	5.2	5.3	5.6	5.7	6.6	6.2	4.8	6.7	7.6	6.7	6.8	7.0	7.1	7.3	14.9	6.8	6.2	8.0	7.9	10.0	7.5	7.1
2013	5.2	5.6	6.1	6.4	6.4	6.4	6.4	6.6	6.7	7.1	7.2	7.2	7.3	7.5	7.7	7.8	8.1	8.1	8.3	8.7	9.1	9.2

**Note:** This measure is presented in averages which may be affected by a small number of cases with extreme values in a smaller area such as Wichita Falls. The median number of days for this measure is one day for most HRRs.

### 5.7 Traveling out of HRR for Initial Treatment (2010–2013)

- Large metro areas had about 10 percent or less of their claims traveling out of their area for first treatment, except Fort Worth that had 25 percent or more of claims traveling to other HRRs (mainly Dallas HRR).
- Smaller HRRs had a higher number of claims traveling outside of their HRR.

Percentages are shown from left to right by increasing percentage of claims having ‘out of HRR’ non-emergency services in 2013, ranging from 3 percent for Houston to 37 percent for Temple. Most areas show an increasing rate of out-of-HRR travel from 2010. Exceptions are Wichita Falls and Corpus Christi HRRs whose out-of-HRR travels decreased substantially in 2013.



HRR	2010		2013	
	Within HRR	Outside HRR	Within HRR	Outside HRR
Houston	30,333	936	29,813	913
El Paso	5,761	114	4,936	207
Odessa	1,991	87	1,899	132
San Antonio	19,763	1,500	18,595	1,582
Abilene	1,417	118	1,184	110
Amarillo	2,037	103	1,707	160
Austin	7,858	703	8,139	773
Wichita Falls	448	156	783	120
Corpus Christi	2,582	652	2,291	359
Dallas	21,856	2,801	22,019	3,626
San Angelo	563	100	602	103
McAllen	3,063	508	3,203	573
Victoria	769	91	562	102
Waco	2,127	277	1,787	395
Lubbock	2,407	285	1,702	469
Harlingen	3,706	410	3,028	919
Tyler	1,689	528	1,500	497
Beaumont	1,494	422	1,050	408
Fort Worth	10,903	3,685	10,375	4,268
Bryan	835	218	647	311
Longview	741	353	570	286
Temple	1,115	544	1,199	707

**Notes:** ‘Traveling out of HRR’ means that the patient’s HRR is different from physician/facility HRR. Large changes in the three year period are mainly due to practice changes of a few ‘top 20%’ physicians.

## 6. Health Care Networks and Timeliness of Care

In 2005, the 79th Texas Legislature passed House Bill 7, which authorized the use of workers' compensation health care networks certified by TDI. In March 2006, TDI began certifying workers' compensation health care networks. As of 2014, 29 networks covering 250 Texas counties are certified to provide workers' compensation health care services. Among the certified networks, 21 were treating injured employees.

This study covers networks in 2011–2013 injury years. Four certified networks – Coventry, Liberty, Texas Star, and Travelers – had a sufficient number of claims to be analyzed separately. All other smaller networks are grouped into 'Other networks.' In addition, certain public entities and political subdivisions have the option to contract directly with health care providers. This report includes Alliance, a joint contracting partnership of five political subdivisions (authorized under Chapter 504, Texas Labor Code) that chose to directly contract with health care providers. While not required to be certified by TDI, the Alliance network must still meet TDI's workers' compensation reporting requirements under Chapter 1305, Texas Insurance Code.

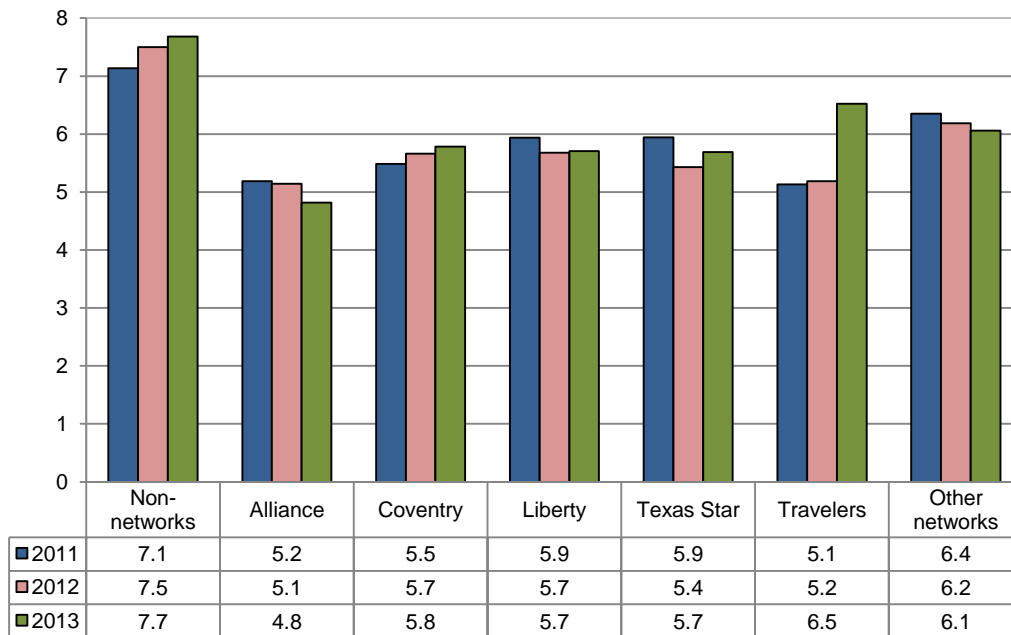
### Key Findings

- Initial access for WC Network patients was slightly better than non-network patients, and many networks showed further improvement from 2011 while access to care among non-network claims worsened slightly.
- The share of claims that received initial treatment within seven days is higher among networks than non-networks. However, this share decreased slightly in 2013 for both network and non-network claims.
- The share of delayed claims that took 29 days or more before first treatment is lower for network claims than for non-network claims. This share generally decreased for networks but increased for non-networks.

## 6.1 Average Number of Days between Injury and First Visit by Network

- Initial access in networks is better than that in non-network WC care.
- Networks show more improvement in initial access than non-networks.

This measure shows the average number of days between injury date and first visit to a physician for the claims in networks compared to all non-network claims. The average delay for non-network claims was 7.1 days in 2011, increasing slightly to 7.7 days in 2013. All networks showed a lower average in all years than non-networks.



**Notes:** Network claims were identified using the lists of claims collected via network data calls. Claims include only new injuries in each injury year.

## 6.2 Percent of Injured Employees by Number of Days by Network

- Injured employees in networks are seeing physicians faster than those in non-networks.

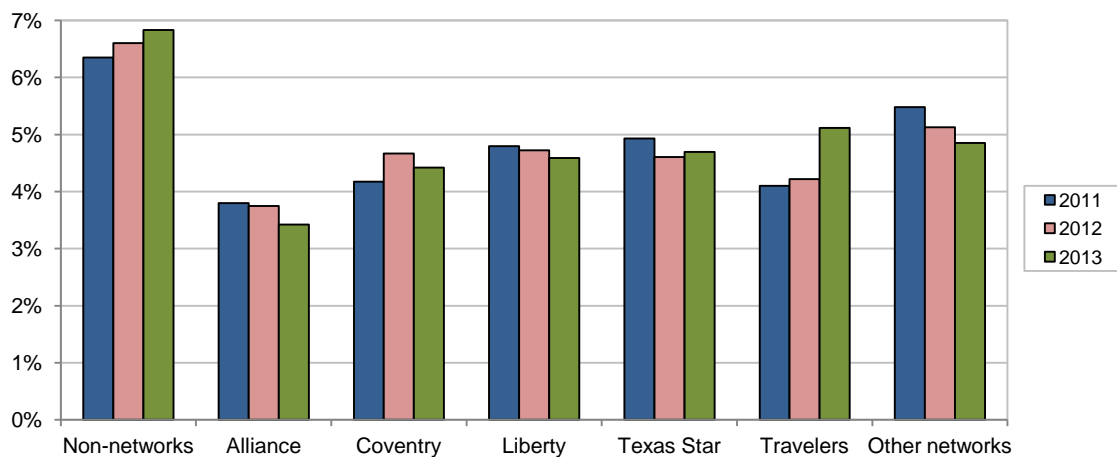
### Percent of Injured Employees Who Saw a Physician within seven days or Less

The share of network patients who saw a physician within seven days after the injury ranges from 80 to 85 percent in 2013, which was higher than the 79 percent for non-network claims.



### Percent of Injured Employees Who Saw a Physician in 29 Days or More

The share of patients with critical delays (29+ days) is lower in networks. About 7 percent of non-network patients were delayed by 29 or more days in 2013, while it was 5 percent or less for networks.



**Notes:** Network claims were identified using the lists of claims collected via network data calls. Claims include only new injuries in each injury year.

## 7. Effects of Disputes/Denials on Access to Care

The denial and dispute process may have a significant effect on the access to medical care for injured employees. They may delay initial access to a physician or may exclude certain services and procedures.

To identify disputed claims, we rely on the list of denied and disputed claims reported by insurers. When insurers find that an injury is not compensable or that they are not liable for the injury, they are required to file a notice of denial of a claim (form PLN-1). This type of dispute/denial revolves around compensability of the claim. A dispute may arise for a compensable injury regarding additional body parts or injury conditions and particular treatments or services. Such a dispute/denial is an extent of injury issue, and the insurer must file a notice of dispute of extent of injury (form PLN-11).

Our analysis of denied/disputed claims is based on DWC's database of reportable claims with at least one day of lost time. About 7 percent of these claims are denied and/or disputed. These denied/disputed claims are then matched with medical billing data to analyze access to care conditions. About 85 percent of these matched cases are disputed on compensability, and the remaining 15 percent on extent of injury issues.

There are lags in the dispute/denial determination process. Some claims may be notified of a compensability denial or an extent of injury denial months and years after the injury. Therefore, more recent years' results should be regarded as preliminary as the number of cases may still increase in the future.

### Key Findings

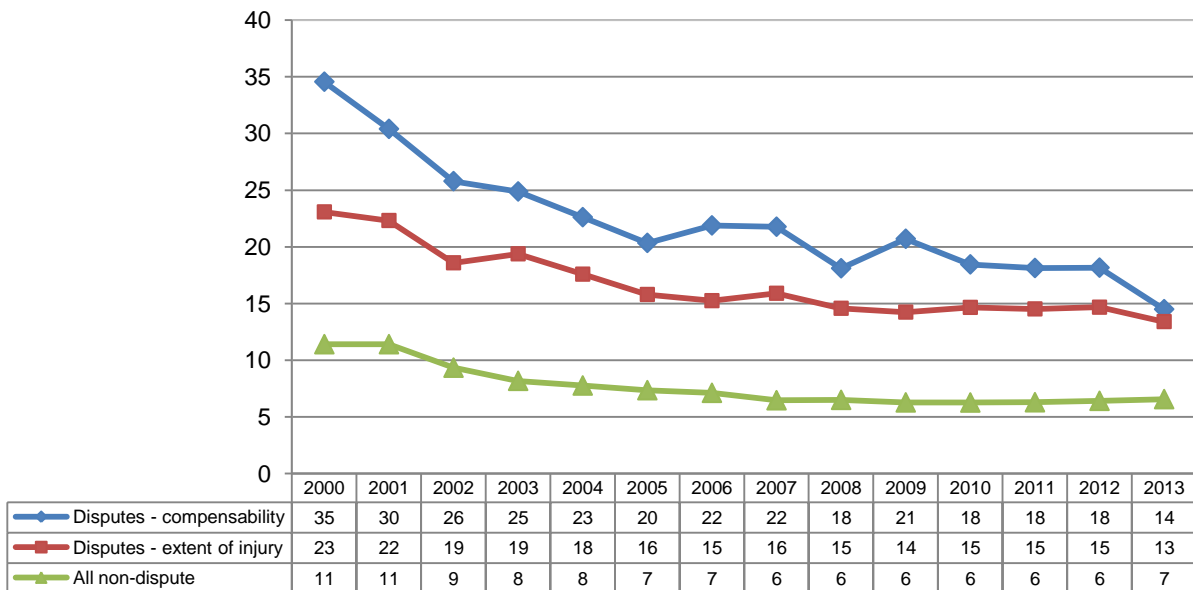
- Denial and/or disputes tend to delay initial care by doubling the number of days between injury and first treatment. The average delay was seven days in 2013 for non-dispute cases while disputes on compensability resulted in 14 days of delay.
- Despite delays, initial access to care has improved steadily for denied/disputed claims since 2000. The average delay was 35 days in 2000 for compensability dispute cases, which decreased to 14 days in 2013.
- Approximately 65 percent of denied/disputed cases received initial care in seven days or less in 2013, significantly higher than 51 percent in 2000. Despite this improvement, however, this compares to non-dispute cases where 82 percent of claims received an initial care in seven days or less, as seen in Section 5.3.



## 7.1 Average Number of Days between Injury and First Visit by Dispute Status

- In 2000, initial access to care for claims disputed for compensability was delayed 3 times longer than all non-dispute claims. In 2013, the delay for disputed cases was reduced to two times that of non-dispute cases.
- Both disputed and non-dispute claims improved access to care continuously since 2000.

This measure shows the number of days from injury to the first treatment for compensability denial/dispute cases, extent of injury denial/dispute cases, and all non-dispute cases. All three groups show a steady, continuous decrease in delay from 2000 to 2013. In 2013, the average delay was 14 days, 13 days and seven days, respectively, for these cases. Compensability denial/dispute cases are delayed longer than the extent of injury denial/dispute cases.

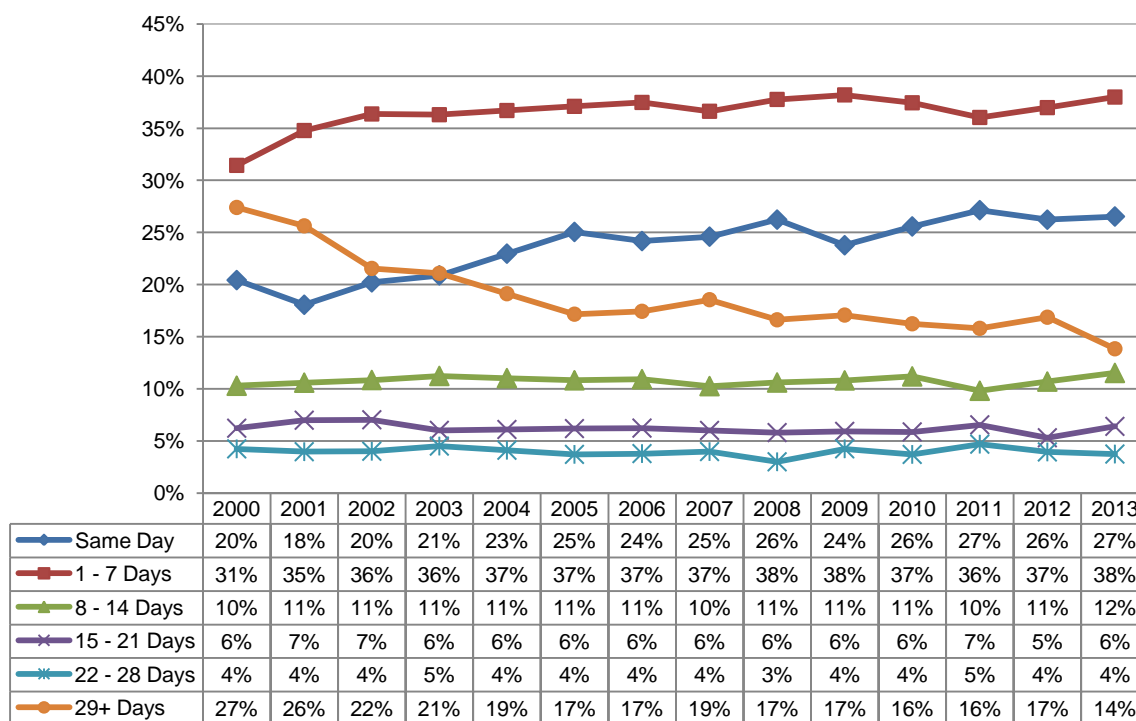


**Note:** Because disputed claims are fewer in number, delays in these claims have minimal effect on the overall access to care.

## 7.2 Percent of Injured Employees by Number of Days for Disputed Claims

- Improvements in timeliness of care resulted from an increasing share of ‘same day’ group and a decreasing share of ‘29+ days’ group.
- The share of claims with ‘same day’ access improved substantially, increasing from 20 percent of the total claims in 2000 to 27 percent in 2013. The most delayed group also improved greatly, decreasing from 27 percent of the total claims in 2000 to 14 percent in 2013.

This measure shows the percentage of claims by the number of days between injury and first treatment in seven broad groups. The shares of these groups are quite similar to non-denial cases except that the share of the same day group is much lower (20 percent vs. 34 percent in 2000) and that of the extreme delay group with 29 or more days of delay is very high (27 percent vs. 11 percent in 2000) (see Section 5.3 for comparison). But the shares of these groups show steady improvement: the ‘same day’ group increased to 27 percent by 2013 while the ‘29+ days’ group decreased to 14 percent. Still, the share of claims with seven days or less delay in 2013 is 65 percent compared to 81 percent for non-dispute claims.



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**Texas Department of Insurance**  
Workers' Compensation Research and  
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Per Chapter 405 of the *Texas Labor Code*, the Workers' Compensation Research and Evaluation Group (REG) 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.
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