

ACCESS TO MEDICAL CARE
IN THE TEXAS WORKERS' COMPENSATION
SYSTEM, 2000–2015



TEXAS DEPARTMENT OF INSURANCE
WORKERS' COMPENSATION
RESEARCH AND EVALUATION GROUP

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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.

Information in this report can be obtained in alternative formats by contacting the Texas Department of Insurance.

For more information, email WCResearch@tdi.texas.gov

This report is available online at www.tdi.texas.gov/wc/regulation/roc

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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 last report. The study also expands into access to non-physician health care providers, and brings network results up to date.

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

Participation Rates of Physicians and Other Health Care Providers

- The total number of physicians actively practicing in Texas increased at an annual rate of 3 percent between 2000 and 2015. The number of WC participating physicians remained relatively stable. The result is a decreasing participation rate.
- But because the number of WC claims decreased by 22 percent, the average number of WC patients per participating physician decreased by 26 percent.
- Decreasing participation by primary care physicians is in part alleviated by increasing participation by emergency medicine specialists and physician assistants.
- Participating physicians in the top 20th percentile in terms of the number of patients treated in a year received about 86 percent of the total medical payments each year. The lower 80 percent of the physicians received 14 percent of the total payment.

Physician Retention

- Overall WC physician retention rate is high and stable: 83 percent in 2000 and 79 percent in 2015. 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 at more than 90 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 69 percent in 2015. There are indications that primary care is increasingly provided by emergency medicine specialists and physician assistants.
- '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: 75 percent of those who had participated in 2005 were still participating 10 years later in 2015.

Access to Medical Care by Geographical Area

- In 2015, 78 percent of active physicians in Texas practiced in the five largest metro areas. 74 percent of WC participating physicians are in the largest metro areas. In comparison, 72 percent of workers' compensation claims reside in these areas.
- Participation rates are generally lower in larger metro areas as there are more doctors in these areas.
- Some smaller metro areas and border regions have a higher number of WC patients per physician. Bryan, San Angelo, and Tyler HRRs have relatively more physicians than claims. El Paso and Harlingen HRRs have relatively less physicians than claims.

Timeliness of Care

- Overall, initial access (timeliness of care) measures show that WC patients received non-emergency treatments faster in 2015 than in 2000.
- About 84 percent of patients received initial care in seven days or less in 2015, up from 76 percent in 2000. This rate stayed above 82 percent since 2007. 10 percent of the claims in 2000 had delays of 29 days or more. It decreased to 5 percent in 2015.
- Delayed initial care is correlated with higher total medical costs. In 2015, claims with greater than seven days delay had on average 40 percent more medical costs in the first 6 months.
- Claims with extremity injuries received first treatment faster than those with neck, low back, and shoulder injuries.
- The average number of days before first treatment was larger for severe injuries (with radiculopathy, ligament tears, and fractures) than non-severe injuries.
- 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 first treatment. Smaller HRRs have higher number of claims traveling outside of their HRR, some over 40 percent. The majority of our-of-HRR trips were for primary care physicians.

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 stayed about the same.
- The share of claims that received initial treatment within seven days is higher among networks than non-networks. However, this share decreased slightly in 2015 for some networks although it was still higher than non-networks.

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.

Injured employees' access to medical care provided under the Texas workers' compensation system is 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 analyzes participation by non-physician health care providers (chiropractors, physician assistants, and physical therapists/occupational therapists), access-to-care conditions by geographical area, and by 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 work 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. As a result, some physicians may not be matched because of data error.
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 20th percentile in terms of the number of patients treated. The cutoff for the 20th percentile in terms of the number of patients varies by year, but it ranges between 25 to 45 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 85 to 90 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 a physician or other health care provider). Medical service data for timeliness is 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 the following 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 physicians. Archived 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.
- 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 mainly on the access to physicians (Doctor of Medicine or Doctor of Osteopathy (MD/DO)) who accounted for about 90 percent of the providers at initial visit. Non-physician health care providers (HCPs) tend not to be the first provider of choice for non-emergency visits. However, there are some injured employees whose first visit may include non-physicians such as chiropractors (DC), physical and occupational therapists (PT/OT), and increasingly physician assistants (PA). This report extends our analysis into non-physician HCPs.

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.

This study also focuses on non-emergency care. Emergency care involves hospital emergency room 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 included emergency services have been excluded. This results in about 15 to 20 percent of the claims being excluded from the timeliness analysis. However in other measurements such as participation rates, these claims and their services have been included in the analysis. This is mainly to reflect the fact that the number of participating physicians with emergency medicine specialty has been increasing substantially while that of primary care physicians has been decreasing. As a result, this report includes all professional (non-hospital) medical bills from emergency medicine specialists that are coded as emergency services.

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. For detailed analyses regarding non-physician HCPs, most tables are limited to the post-EDI dataset covering the years from 2005 to 2015.

Finally, claims with non-compensable and extent of injury exceptions were deleted. Exception codes (Claim Adjustment Reason Codes) were reviewed and updated for this report. This may result in numbers being slightly different from previous years’ reports.

2. PHYSICIAN AND HCP PARTICIPATION

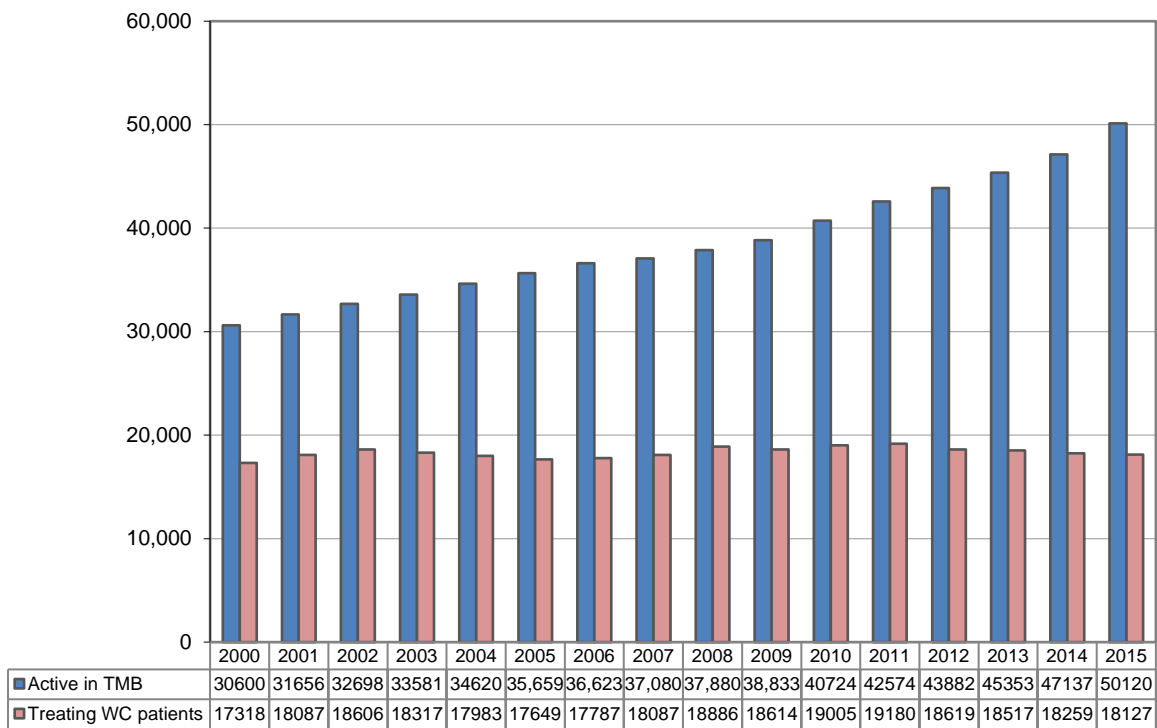
KEY FINDINGS

- The total number of physicians actively practicing in Texas increased at an annual rate of 3 percent between 2000 and 2015. The number of WC participating physicians remained relatively stable. The result is a decreasing participation rate.
- But because the number of WC claims decreased by 22 percent, the average number of WC patients per participating physician decreased by 26 percent.
 - 21 patients per participating physician in 2000, decreasing to 15 patients per physician in 2015 (a 26 percent decrease).
 - For new patients only, 15 patients per participating physician in 2000, decreasing to 13 patients per physician in 2015.
 - The total number of WC claims treated in a calendar year decreased from 358,235 claims in 2000 to 279,061 claims in 2015.
 - Including other health care providers (HCPs) such as chiropractors, physician assistants, and physical/occupational therapists, the number of claims per HCP stayed about the same at 9 claims per HCP.
- Decreasing participation by primary care physicians is in part alleviated by increasing participation by emergency medicine specialists and physician assistants.
 - Primary care physician participation rate decreased from 62 percent in 2000 to 33 percent in 2015. In absolute terms, the actual number of physicians decreased from 5,847 to 4,514, a 23 percent decrease.
 - Emergency medicine physician participation rate increased from 70 percent in 2000 to 87 percent in 2015. Actual number increased from 611 to 2,729.
 - Participating physician assistants increased from 992 in 2005 to 2,047 in 2015.
- Participating physicians in the top 20th percentile in terms of the number of patients treated in a year received about 86 percent of the total medical payments each year. The lower 80 percent of the physicians received 14 percent of the total payment.

2.1 NUMBER OF ACTIVE AND WC PARTICIPATING PHYSICIANS

- The number of active physicians in Texas increased by 64 percent from 2000 to 2015.
- The number of participating physicians increased by 5 percent from 2000 to 2015.
- Overall, 36 percent of all Texas physicians participated in WC in 2015.

This measure shows the total number of active physicians licensed by the Texas Medical Board and the number of physicians participating in the Texas workers’ compensation system. The number of active physicians grew from 30,600 in 2000 to 50,120 in 2015, 64 percent increase. It increased by 6 percent in 2015 alone. In comparison, the number of WC participating physicians grew by 6 percent since 2000.



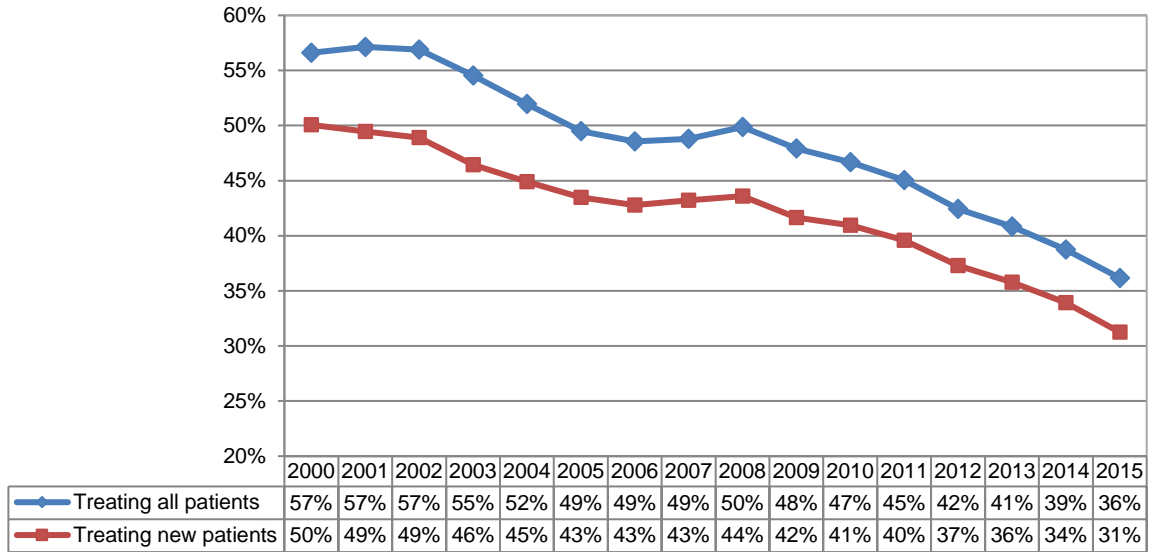
Notes: ‘Active in TMB’ refers to the total number of active physicians licensed by the Texas Medical Board. See page 1 for the definition of ‘active.’

‘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.

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 RATE

- The physician participation rate has been decreasing steadily since 2000 mainly because the number of licensed physicians (the denominator) has been increasing. The number of WC participating physicians (the numerator) increased slightly.
- The decrease in the participation rate was primarily due to the increasing number of licensed physicians in Texas.



Calendar/ Injury year	Active	Treating all patients	Treating new 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	17,983	15,547
2005	35,659	17,649	15,504
2006	36,623	17,787	15,670
2007	37,080	18,087	16,023
2008	37,880	18,886	16,514
2009	38,833	18,614	16,176
2010	40,724	19,005	16,682
2011	42,574	19,180	16,858
2012	43,882	18,619	16,362
2013	45,353	18,517	16,231
2014	47,137	18,259	15,986
2015	50,120	18,127	15,661

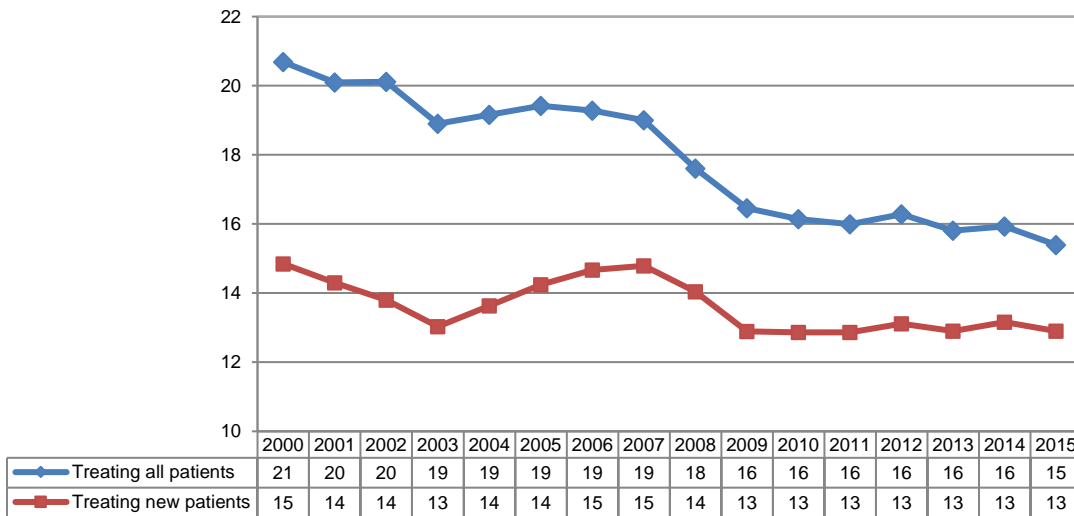
Notes: Participation rate is the number of physicians treating WC patients divided by the number of licensed and active physicians in Texas. Active physicians include pediatricians, OB/GYN, and other specialties that seldom treat work-related injuries.

Treating all WC patients is based on the service year data that includes new and old patients. *Treating new WC patients* considers physicians treating new injuries only and is 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 11 percent.
- The number of participating physicians increased by about 5 percent in the same period.
- As a result, the average number of claims per physician decreased in both new injury and all injury cases.

The decreasing physician participation rate, which is determined by the total number of licensed physicians, does not indicate a worsening access to care condition for workers’ compensation. The number of patients (claims) in the workers’ compensation decreased significantly. As a result, the number of patients per participating physician decreased after 2000, and remained stable since 2010.



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	344,422	207,369
2005	342,724	211,606
2006	342,948	221,544
2007	343,755	228,621
2008	332,398	223,473
2009	306,381	201,285
2010	306,788	207,199
2011	306,822	209,136
2012	303,105	207,159
2013	292,730	202,272
2014	290,755	203,067
2015	279,061	194,400

Notes: *Treating all WC patients* is based on the service year data that includes new and old patients. *Treating new WC patients* considers physicians treating new injuries only and is based on injury year data with 6 months maturity. The number of claims in 2015 may change after billing data is updated in the future.

2.4 NUMBER OF HCPs IN MEDICAL BILLING DATA

- The number of participants decreased for all HCPs except PAs since 2005.
- The number of participating PAs increased by 115 percent from 1,037 in 2005 to 2,233 in 2015.
- In 2015, about 23 percent of DCs, 28 percent of PAs, and 15 percent of PTs/OTs participated in workers’ compensation.

Physician participation rate was calculated using the TMB list of Texas licensed, active, and direct patient care physicians. This limitation excludes many relevant participants. Actual billing data shows that non-Texas and other physicians do treat and bill for workers’ compensation patients. DCs, PAs, PTs and OTs also play a significant role. The table below presents counts of all relevant HCPs participating in WC.

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
DC	4,726	3,053	2,775	2,712	2,328	2,161	1,931	1,636	1,668	1,626	1,445
MD/DO	24,649	24,906	26,163	27,882	26,736	26,347	25,366	23,838	23,176	23,063	22,110
PA	992	1,024	1,111	1,201	1,207	1,387	1,596	1,824	1,925	2,029	2,047
PT/OT	5,215	4,308	4,386	4,040	3,767	3,600	3,675	3,719	3,695	3,834	3,915
Total	35,582	33,291	34,435	35,835	34,038	33,495	32,568	31,017	30,464	30,552	29,517

Note: DC = Doctor of Chiropractic. MD/DO = Doctor of Medicine or Doctor of Osteopathy. PA = physician assistant. PT/OT = physical therapist or occupational therapist.

Participation rates of non-physician HCPs require annual lists of licensed and active HCPs for each type of providers. For DC, we obtained a master list of licensed and active chiropractors from the Texas Board of Chiropractic

Service year	DC	PA	PT	OT
2009	5,833	5,199		
2010	5,926	5,621		
2011	6,073	6,056		
2012	6,174	6,447		
2013	6,290	6,909		
2014	6,357	7,510	14,789	8,706
2015	6,412	7,961	17,786	8,827

Examiners. A master list of physician assistants was obtained from the TMB. We used these tables to estimate annual numbers of active HCPs using license begin and end dates. For PTs and OTs, access was limited to two archived data at the TDI-DWC. The table on the left shows estimated numbers of active providers.

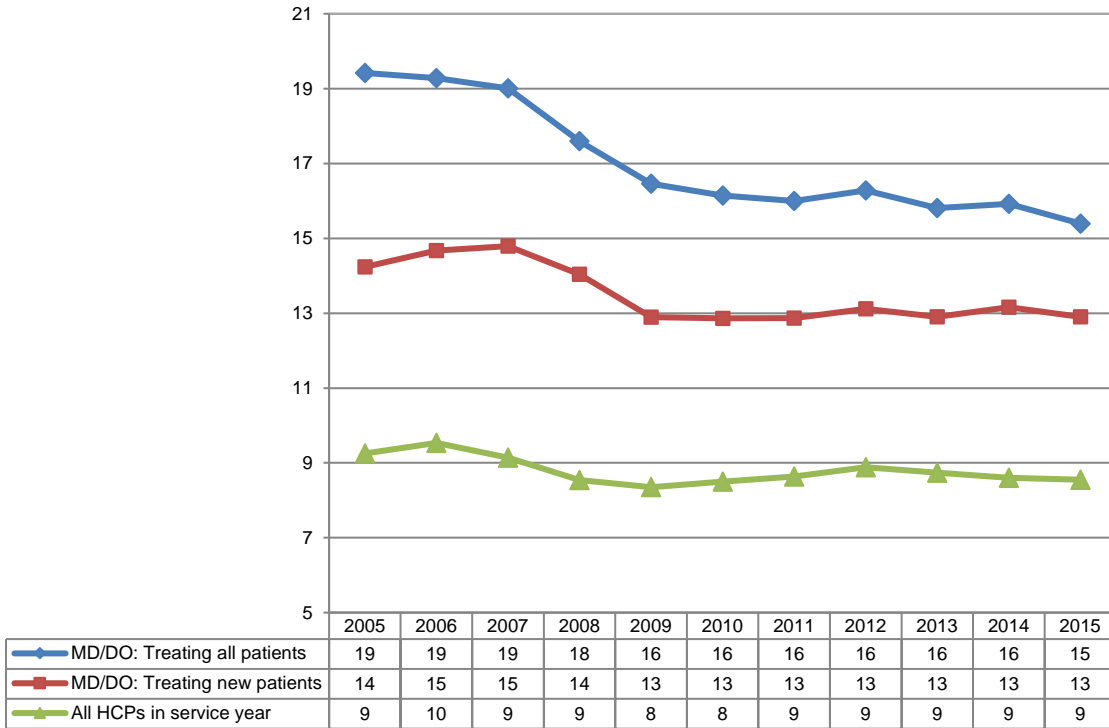
For DCs, the participation rate decreased from 40 percent in 2009 to 23 percent in 2015. While the number of active DCs increased by 10 percent, the number of WC participating DCs decreased by 70 percent.

For PAs, the participation rate increased from 23 percent in 2009 to 28 percent in 2015. Both active and participating PAs increased significantly.

About 15 percent of PTs and OTs participated in the workers’ compensation system in 2015.

2.5 NUMBER OF CLAIMS PER HCP IN MEDICAL BILLING DATA

- Using the counts of all HCPs in the professional billing data, the number of claims per HCP stayed relatively the same at 9 claims per HCP since 2005.

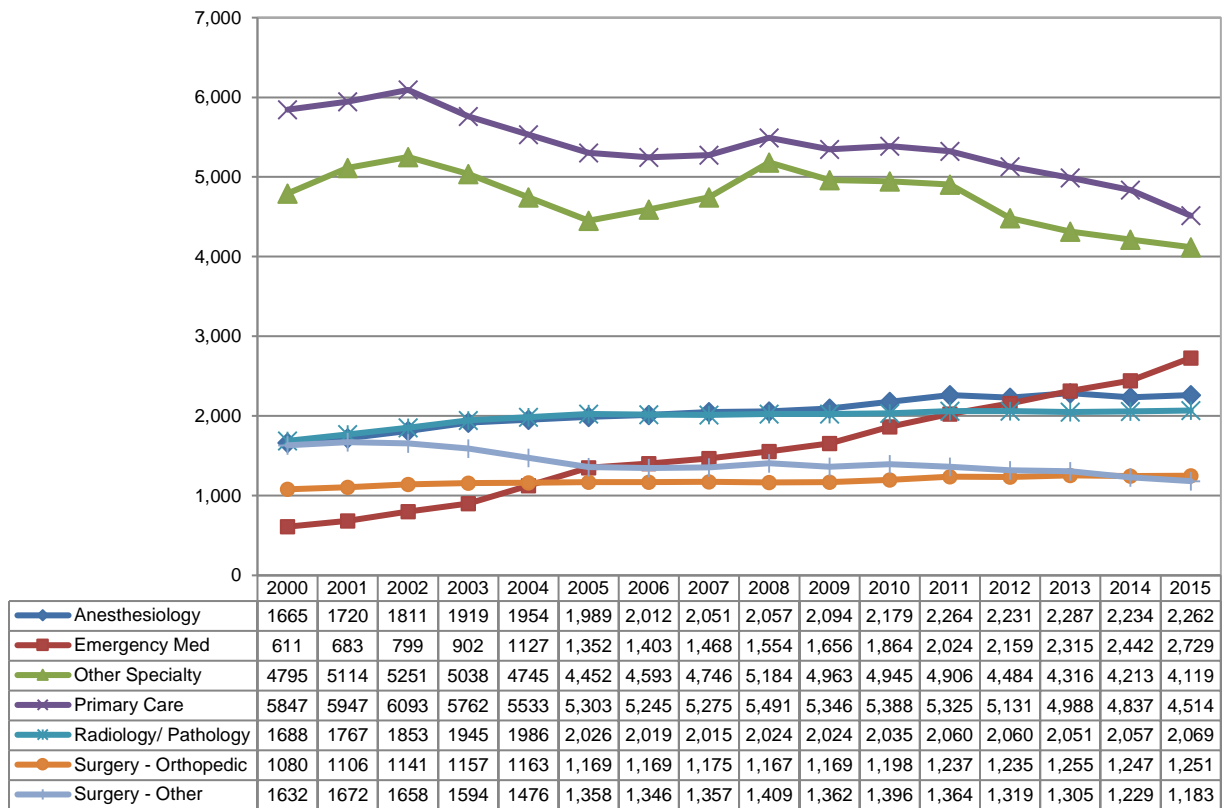


Note: Numbers for MD/DO are reproduced from the data in Section 2.3.

2.6 NUMBER OF PARTICIPATING PHYSICIANS BY SPECIALTY

- The number of primary care physicians participating in WC decreased by 23 percent since 2000. The number of claims decreased by 22 percent during the same period.
- ‘Emergency medicine’ physicians increased by 347 percent. Those with a specialty in anesthesiology increased by 36 percent. Radiology/pathology specialties increased by 23 percent.
- The number of participating orthopedic surgeons increased by 16 percent.

This measure shows the number of participating physicians by specialty. Primary care physicians, the largest group, decreased from 5,847 in 2000 to 4,514 in 2015. ‘Other Specialty’ is the second most common group with 4,119 participating physicians in 2015. The increasing participation by emergency medicine specialists is notable. It increased rapidly from 611 in 2000 to 2,729 in 2015.



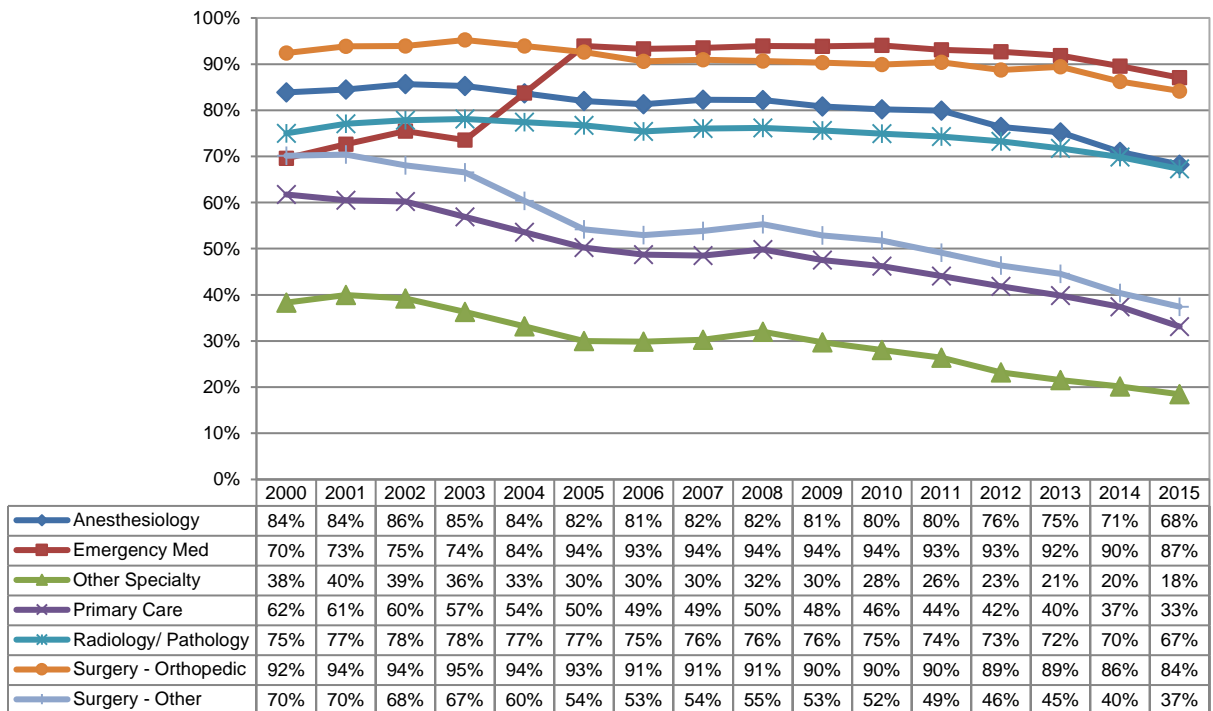
Note: ‘Other specialty’ includes such specialties as pediatrics, OB/GYN, cardiovascular diseases, and ophthalmology.

2.7 PARTICIPATION RATES BY SPECIALTY

- Participation rates have been decreasing slightly since 2005, mainly because the number of active physician have been increasing in Texas.
- Over 85 percent of active orthopedic and emergency medicine physicians participated in WC in 2015.
- Primary care physicians’ participation rate decreased from 62 percent in 2000 to 33 percent in 2015. This decrease is somewhat compensated by the increasing participation of emergency medicine specialists.

As in the overall physician participation rate (see Section 2.2), participation rates by physician specialty show decreases since 2000, but this results mainly from the increasing denominator (the total number of Texas licensed physicians).

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 87 percent in 2015. Physicians in ‘all other’ specialties have the lowest participation rate at 18 percent in 2015. This group’s low participation rate is expected because they include specialties that are least related to work-related injuries such as OB/GYN and pediatrics.

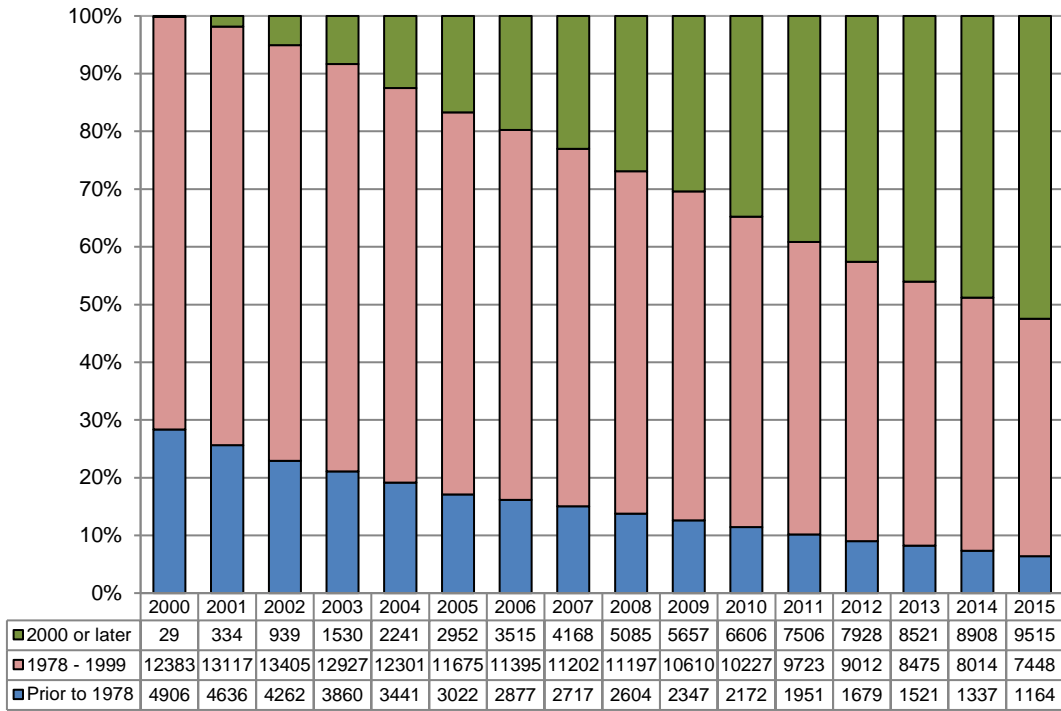


Note: ‘Other specialty’ includes such specialties as pediatrics, OB/GYN, cardiovascular diseases, and ophthalmology.

2.8 PARTICIPATING PHYSICIANS BY YEAR OF LICENSE

- In 2015, 53 percent of participants were physicians licensed in 2000 or later.
- In 2015, 6 percent of participants were physicians licensed prior to 1978, down from 28 percent of the total in 2000.

This measure shows that participating physicians exit and enter the WC market continuously, and that the main dynamics behind such changes is the natural process of licensing, aging and retirement. Between 2000 and 2015, 3,787 physicians who were licensed in 1999 or earlier exited the market while 2,909 new licensees entered it. The most recently licensed group (licensed in 2000 or later) accounted for 53 percent of the total participating physicians in 2015.



2.9 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.¹

Physicians in the top 20 percentile are identified by the number of WC patients treated in a given year. Each physician treated between 25 and 45 WC patients on average. They accounted for about 86 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	2014	2015
Number of physicians	Top 20%	3,531	3,573	3,643	3,830	3,761	3,866	3,841	3,777	3,732	3,699	3,676
	Bottom 80%	14,118	14,214	14,444	15,056	14,853	15,139	15,339	14,842	14,785	14,560	14,451
Total payments (in million dollars)	Top 20%	\$289	\$271	\$270	\$272	\$280	\$279	\$313	\$300	\$278	\$262	\$251
	Bottom 80%	\$45	\$42	\$42	\$43	\$43	\$45	\$53	\$49	\$47	\$41	\$40

Top 20% Physicians by Geographical Areas (HRRs) in Selected Specialties in 2015

HRR	All	Primary Care	Radiology/ Pathology	Emergency Med	Surgery - Orthopedic
Abilene	56	14	12	6	11
Amarillo	65	15	26	4	8
Austin	326	77	91	18	48
Beaumont	67	8	24	9	13
Bryan	41	9	20	1	7
Corpus Christi	76	16	32	2	12
Dallas	786	184	217	62	126
El Paso	98	14	27	5	27
Fort Worth	307	69	88	18	56
Harlingen	62	33	10	1	8
Houston	794	170	208	62	141
Longview	23		13	2	3
Lubbock	94	29	31	5	8
McAllen	77	31	20	2	12
Odessa	74	18	21	11	10
San Angelo	31	7	11	3	6
San Antonio	415	109	98	22	59
Temple	66	13	25	7	12
Tyler	84	11	27	9	16
Victoria	33	12	8	2	4
Waco	39	6	13	4	5
Wichita Falls	31	5	10	11	3

Note: ‘All’ includes other specialties besides the four specialties shown above.

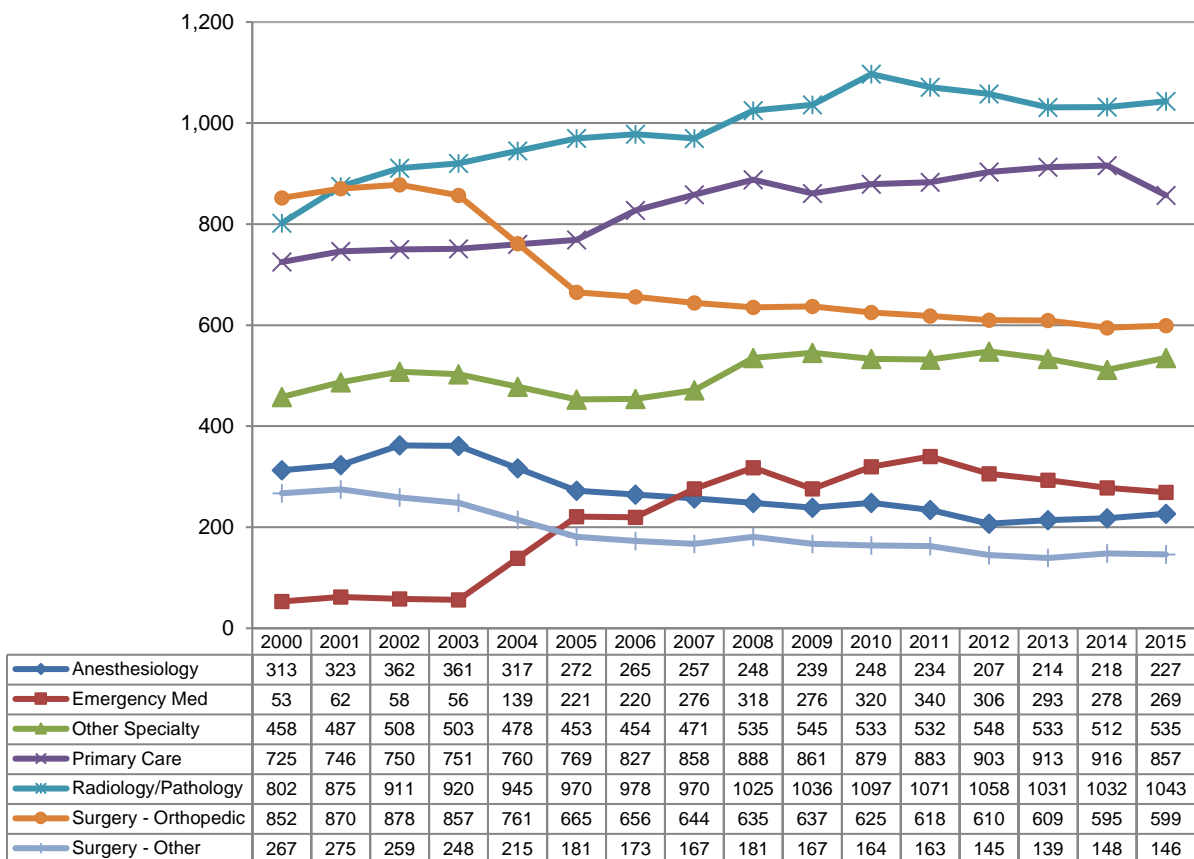
¹ See “The impact of cost intensive physicians on workers’ compensation,” by Bernacki et al., *Journal of Occupational and Environmental Medicine*, 51(1): 22-28, January 2010.

2.10 NUMBER OF TOP 20% PHYSICIANS BY SPECIALTY

- Among the ‘top 20%’ in 2000, the specialty with the most physicians was orthopedic surgery. Since 2002, radiology/pathology has been the most common specialty among the ‘top 20%’ physicians.
- 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 26 percent in 2015.

The slight decrease in 2015 in the number of primary care physicians appears to be related to the decrease in the participation rate of primary care physicians and the increase in the participation of PAs in primary care.



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

3. PHYSICIAN RETENTION

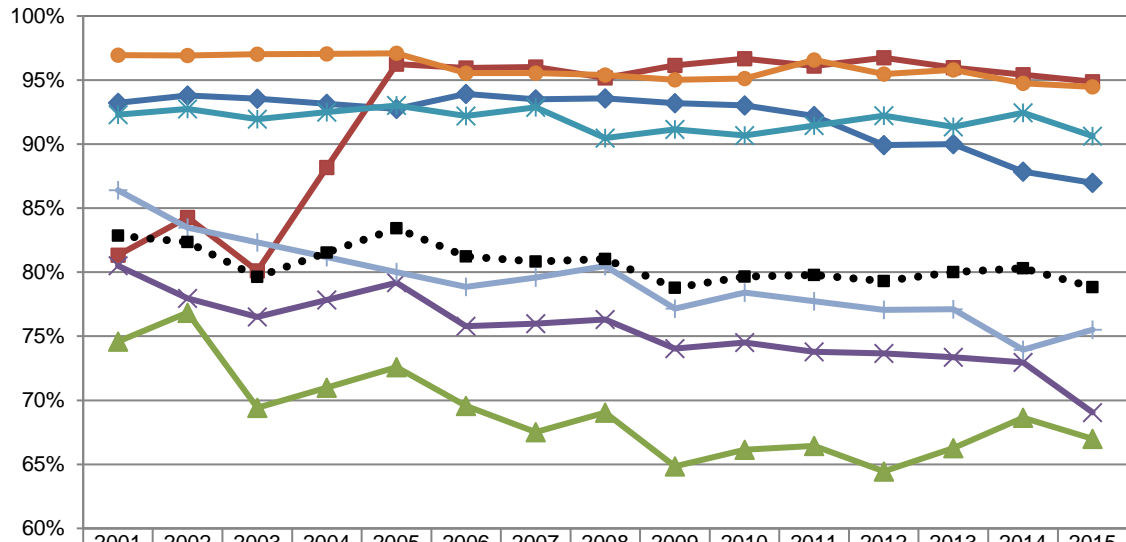
KEY FINDINGS

- Overall WC physician retention rate is high and stable: 83 percent in 2000 and 79 percent in 2015. 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 remained at more than 90 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 69 percent in 2015. There are indications that primary care is increasingly provided by emergency medicine specialists and physician assistants.
- ‘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: 75 percent of those who had participated in 2005 were still participating 10 years later in 2015.

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 2014, 79 percent of them continued to participate in 2015. The remaining 21 percent exiters are partly explained by normal attrition rates among physicians such as retirement, death, changes in practice type, migration, and others. Newly licensed and relocated physicians are entering to replace these exiters.
- Orthopedic surgeons and emergency medicine specialists maintained the highest retention rate at above 90 percent in each year.

Retention rates for orthopedic surgery, radiology/pathology, and anesthesiology specialties stayed between 85 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 have been steadily decreasing since 2000.



	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
—◆— Anesthesiology	93%	94%	94%	93%	93%	94%	93%	94%	93%	93%	92%	90%	90%	88%	87%
—■— Emergency Med	81%	84%	80%	88%	96%	96%	96%	95%	96%	97%	96%	97%	96%	95%	95%
—▲— Other Specialty	75%	77%	69%	71%	73%	70%	68%	69%	65%	66%	66%	64%	66%	69%	67%
—×— Primary Care	81%	78%	76%	78%	79%	76%	76%	76%	74%	75%	74%	74%	73%	73%	69%
—*— Radiology/ Pathology	92%	93%	92%	92%	93%	92%	93%	90%	91%	91%	91%	92%	91%	92%	91%
—+— Surgery - Orthopedic	97%	97%	97%	97%	97%	96%	96%	95%	95%	95%	97%	95%	96%	95%	94%
—+— Surgery - Other	86%	83%	82%	81%	80%	79%	80%	80%	77%	78%	78%	77%	77%	74%	76%
●●●● Overall	83%	82%	80%	82%	83%	81%	81%	81%	79%	80%	80%	79%	80%	80%	79%

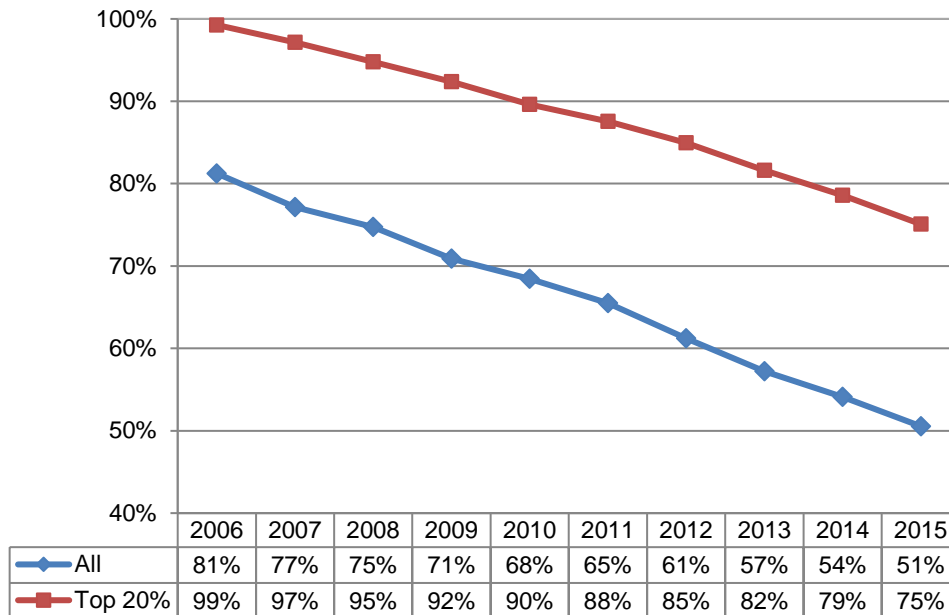
Note: *Consecutive retention rate* is calculated as the number of a prior year’s participants who participate in the following year divided by the number of total participants in the previous year. ‘Other specialty’ includes such specialties as pediatrics, OB/GYN, cardiovascular diseases, and ophthalmology.

3.2 CUMULATIVE RETENTION RATES

- Overall, 51 percent of the physicians who had participated in 2005 still participated in 2015.
- Among the ‘top 20%’ participating physicians in 2005, 75 percent of them were still participating in 2015.

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. For the ‘top 20%’ group, 75 percent of those who participated in 2005 were still participating in 2015. The attrition rate is less than 3 percent per year.

The very predictable annual decreases (the attrition rate) indicate that the physician participation is somewhat regular and stable in the long term and is not significantly affected by changes in other factors such as decreases in patients, increases in the number of practitioners, and changes in the workers’ compensation fee schedules and policies that occurred since 2005.



Note: A cumulative retention rate is calculated by taking those physicians who participated in 2005 and by identifying who, among those 2005 participants, still participated in each following year since 2005. Unlike year-to-year consecutive 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

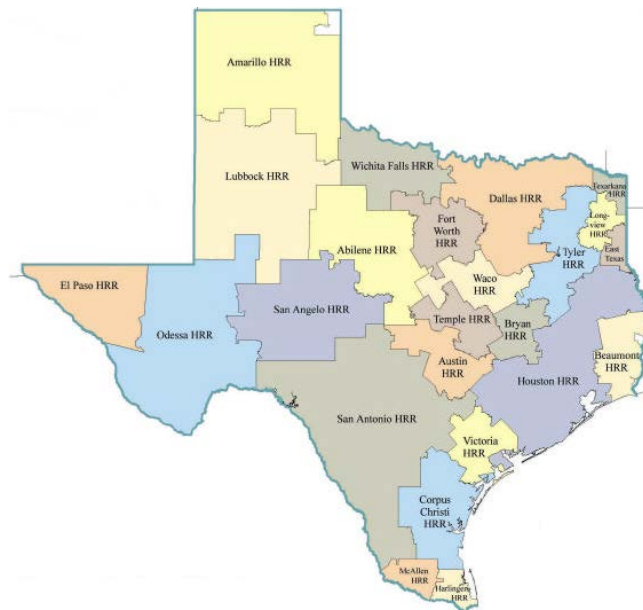
KEY FINDINGS

- In 2015, 78 percent of active physicians in Texas practiced in the five largest metro areas. 74 percent of WC participating physicians are in the largest metro areas. In comparison, 72 percent of workers’ compensation claims reside in these areas.
- Participation rates are generally lower in larger metro areas as there are more doctors in these areas.
- Some smaller metro areas and border regions have a higher number of WC patients per physician. Bryan, San Angelo, and Tyler HRRs have relatively more physicians than claims. El Paso and Harlingen HRRs have relatively less physicians than claims.

HOSPITAL REFERRAL REGION (HRR)

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

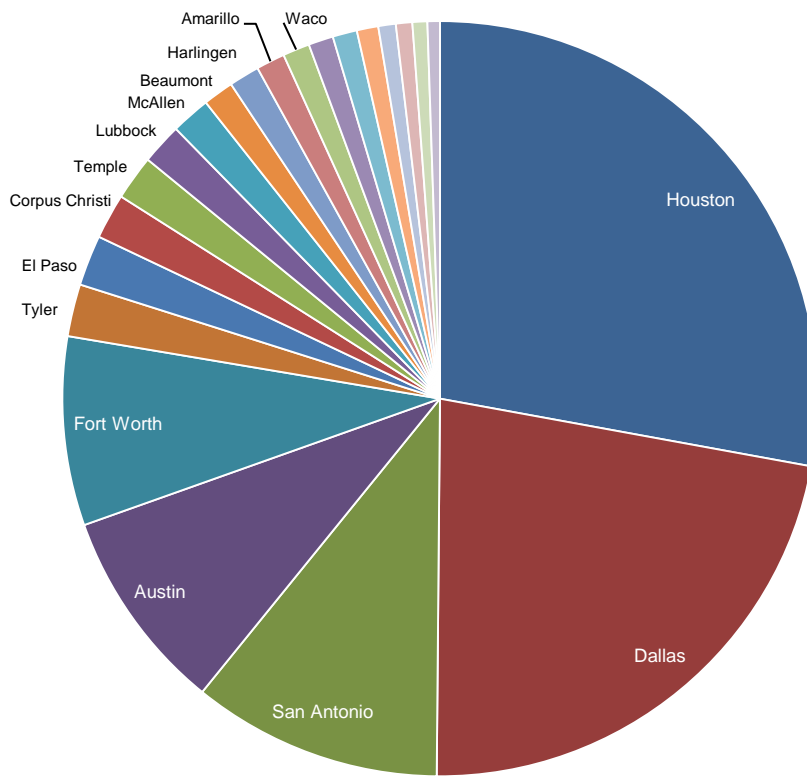
- HRRs are constructed using Medicare hospitalization records and patient referral patterns, closely resembling the pattern of medical care and access.
- HRRs roughly correspond to census metro areas, but HRRs are more relevant to medical care as they are constructed by patient referral pattern. There 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 (2015)

- Total number of active physicians (MD/DOs) in 2015 was 50,120.
- Five largest metro areas (Houston, Dallas, San Antonio, Austin, and Fort Worth) accounted for 78 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 13,837 for Houston to 264 for Victoria. Actual numbers are provided in the table on the right.

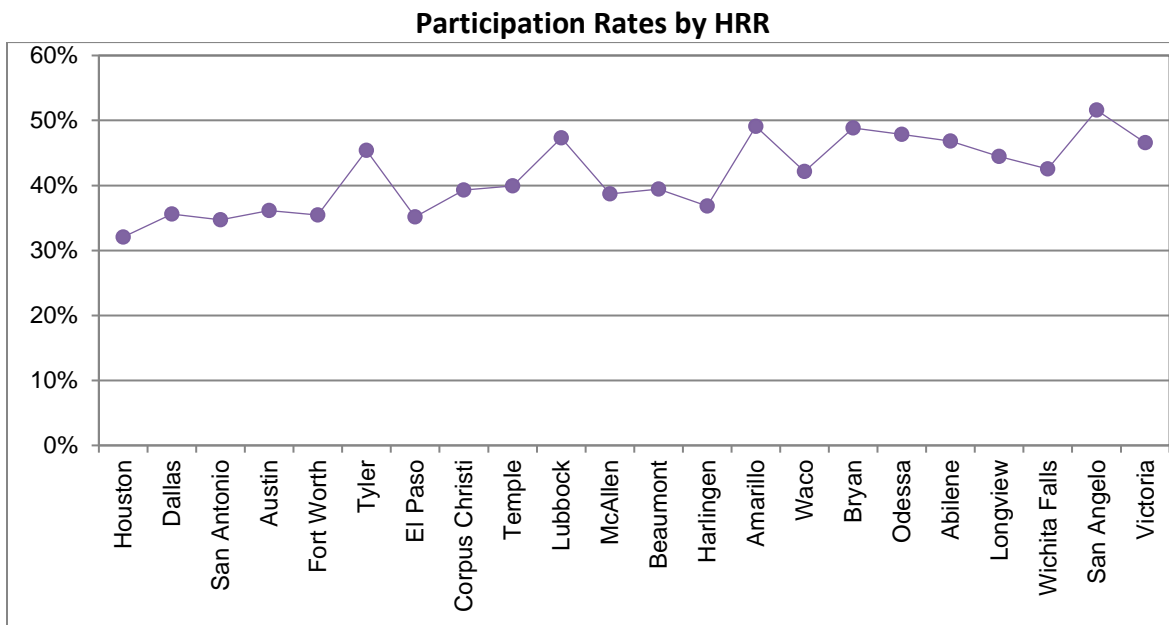
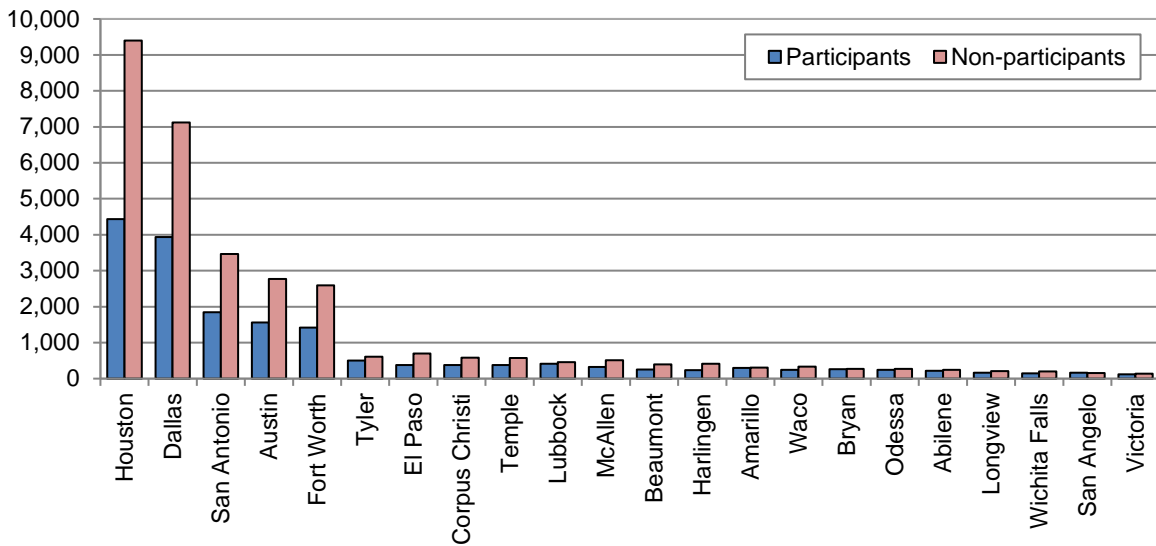


HRR	Number of physicians
Houston	13,837
Dallas	11,056
San Antonio	5,314
Austin	4,333
Fort Worth	4,014
Tyler	1,110
El Paso	1,075
Corpus Christi	962
Temple	954
Lubbock	873
McAllen	835
Beaumont	652
Harlingen	649
Amarillo	611
Waco	572
Bryan	528
Odessa	518
Abilene	457
Longview	371
Wichita Falls	348
San Angelo	316
Victoria	264

Note: Active physicians include only non-military and direct patient care MD/DO physicians whose practice state is Texas. Some cases (471) are excluded because their location cannot be determined.

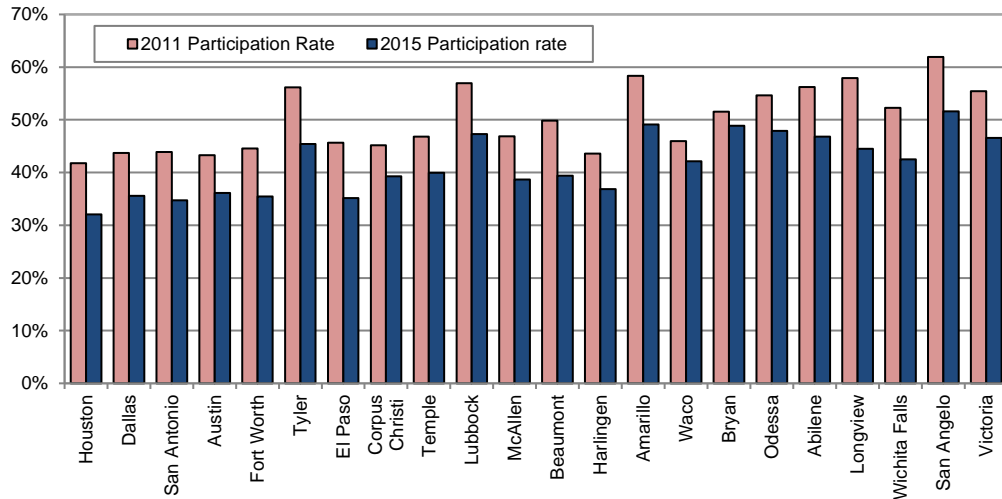
4.2 PHYSICIAN NUMBER AND PARTICIPATION STATUS BY HRR (2015)

- Houston, Dallas, San Antonio, Austin, and Fort Worth accounted for 78 percent of the active physicians and 74 percent of the participating physicians in 2015. In comparison, 72 percent of all WC claims are in the same five metro areas.
- Overall, 36 percent of active Texas physicians participate in WC. Participation rates in the five metro areas are close to this average while smaller areas have slightly higher participation rates.



4.3 WC PARTICIPATION RATES BY HRR (2011–2015)

- Participation rates are generally lower in larger metro areas as there are more doctors in these areas.
- Between 2011 and 2015, participation rates decreased the most in Longview, Tyler, El Paso, Beaumont, and San Angelo HRRs. Bryan and Waco HRRs saw the least decrease in the participation rate.



HRR	2011 Participation rate	2013 Participation rate	2015 Participation rate	Change in 2011 - 2015
Houston	41.8%	37.3%	32.1%	-9.71%
Dallas	43.7%	38.5%	35.6%	-8.13%
San Antonio	43.9%	39.9%	34.7%	-9.17%
Austin	43.3%	39.8%	36.1%	-7.16%
Fort Worth	44.6%	39.3%	35.5%	-9.14%
Tyler	56.2%	53.7%	45.4%	-10.76%
El Paso	45.6%	41.5%	35.2%	-10.48%
Corpus Christi	45.2%	44.1%	39.3%	-5.91%
Temple	46.8%	42.9%	39.9%	-6.88%
Lubbock	56.9%	53.6%	47.3%	-9.62%
McAllen	46.9%	42.1%	38.7%	-8.20%
Beaumont	49.8%	48.2%	39.4%	-10.42%
Harlingen	43.6%	40.5%	36.8%	-6.79%
Amarillo	58.3%	53.1%	49.1%	-9.25%
Waco	46.0%	50.6%	42.1%	-3.84%
Bryan	51.6%	51.7%	48.9%	-2.71%
Odessa	54.7%	51.7%	47.9%	-6.79%
Abilene	56.2%	51.5%	46.8%	-9.41%
Longview	57.9%	54.3%	44.5%	-13.42%
Wichita Falls	52.3%	47.8%	42.5%	-9.74%
San Angelo	61.9%	61.9%	51.6%	-10.32%
Victoria	55.5%	54.3%	46.6%	-8.87%

4.4 CLAIMS PER PHYSICIAN BY HRR (2005–2015)

- El Paso and Harlingen HRRs have the lowest access in terms of the number of claims per physician.
- Fort Worth and San Antonio HRRs show the lowest access among the 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 HRR.
- Most improved since 2005: Bryan and San Angelo HRRs.

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 HRRs with the lowest access in 2015 were also among the worst in 2005. While Fort Worth and Odessa HRRs experienced substantial improvements, Harlingen, El Paso, and San Antonio regions did not.

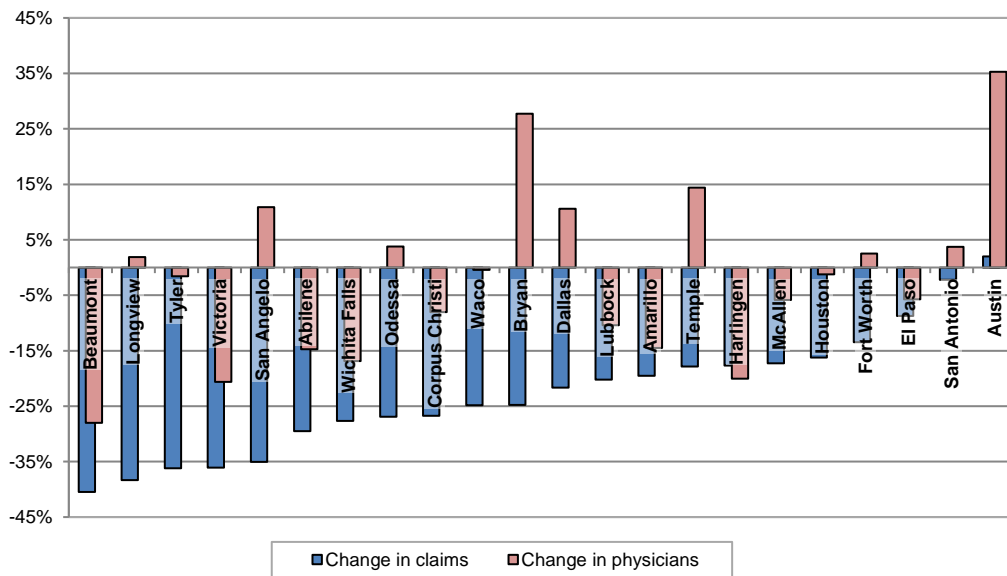
HRR	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Change in 2005-2015
Harlingen	26.83	25.99	25.90	26.05	25.85	26.71	26.36	27.98	27.71	28.11	27.63	2.99%
El Paso	27.57	29.53	31.04	31.69	28.62	28.65	27.26	26.74	25.97	26.00	26.69	-3.21%
Fort Worth	24.32	25.83	26.06	22.69	21.33	20.93	20.87	20.84	20.60	20.82	20.52	-15.62%
San Antonio	20.99	21.92	21.58	20.37	19.46	20.34	19.49	20.44	19.96	20.11	19.79	-5.70%
McAllen	21.97	20.26	22.00	19.45	19.31	19.60	19.87	19.89	20.56	20.45	19.30	-12.15%
Odessa	25.55	25.90	25.49	23.53	20.18	21.08	22.36	22.35	21.07	20.65	18.00	-29.56%
Waco	22.80	24.06	22.45	22.24	19.70	17.17	20.36	18.29	16.56	17.57	17.21	-24.53%
Corpus Christi	20.58	19.71	18.82	17.83	17.18	17.83	19.32	17.83	17.75	17.04	16.40	-20.31%
Amarillo	16.47	16.72	18.72	16.37	15.79	16.10	16.99	16.17	15.92	15.60	15.51	-5.87%
Lubbock	17.29	16.44	17.32	17.23	16.26	16.67	16.71	17.27	16.85	16.96	15.40	-10.94%
Beaumont	17.89	17.94	17.08	16.86	15.50	16.52	17.00	15.78	13.95	13.80	14.79	-17.31%
Abilene	17.16	18.77	18.07	17.18	17.34	16.42	16.77	16.31	14.79	14.56	14.18	-17.35%
Wichita Falls	16.24	15.95	17.65	15.05	15.16	16.66	14.96	14.59	14.04	13.94	14.14	-12.97%
Houston	16.34	16.92	16.92	15.77	14.78	13.96	14.09	14.82	14.27	14.47	13.86	-15.20%
Victoria	16.72	16.94	15.82	14.09	13.29	15.48	14.64	14.71	13.29	13.76	13.47	-19.44%
Temple	18.56	19.07	19.12	18.30	16.35	13.97	14.24	13.98	13.70	12.97	13.33	-28.18%
Dallas	18.53	17.70	16.76	15.70	14.15	13.91	13.57	13.84	13.74	13.78	13.12	-29.17%
Longview	21.12	21.44	19.88	17.69	16.02	15.73	15.13	15.60	12.79	12.31	12.78	-39.47%
Austin	16.03	16.28	14.96	12.78	12.45	11.92	11.58	11.70	11.92	12.15	12.08	-24.60%
Tyler	15.31	15.23	15.32	13.52	12.88	11.80	11.16	10.69	9.72	10.20	9.92	-35.20%
San Angelo	16.83	15.43	14.75	14.18	12.36	13.04	11.84	11.85	10.35	10.21	9.86	-41.42%
Bryan	15.32	14.41	14.49	12.34	11.79	11.97	12.00	11.80	10.84	10.71	9.02	-41.09%

Note: Five major metro areas are highlighted.

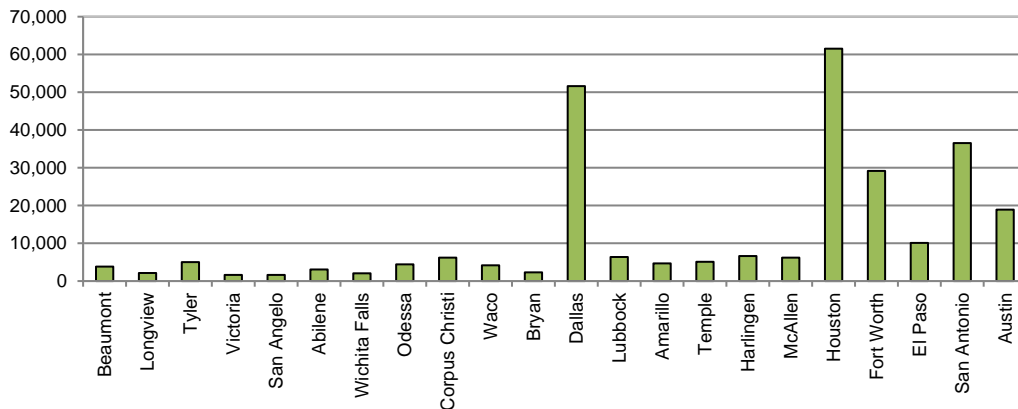
4.5 RATES OF CHANGE IN CLAIMS AND PARTICIPATING PHYSICIANS BY HRR (2005–2015)

- The number of claims decreased in all HRRs except Austin HRR. The number of participating physicians increased in 9 HRRs.
- Large metro areas, except for Houston HRR, saw increases in the number of physicians.

In the figure below, HRRs with the largest decline in the number of claims are shown from left to right. The number of physicians decreased significantly in Beaumont and Victoria HRRs, where claims also decreased the most. Bryan, Temple, San Angelo, and Dallas HRRs saw significant increase in the number of physicians. Austin HRR was the only region with growth in both claims and physicians.



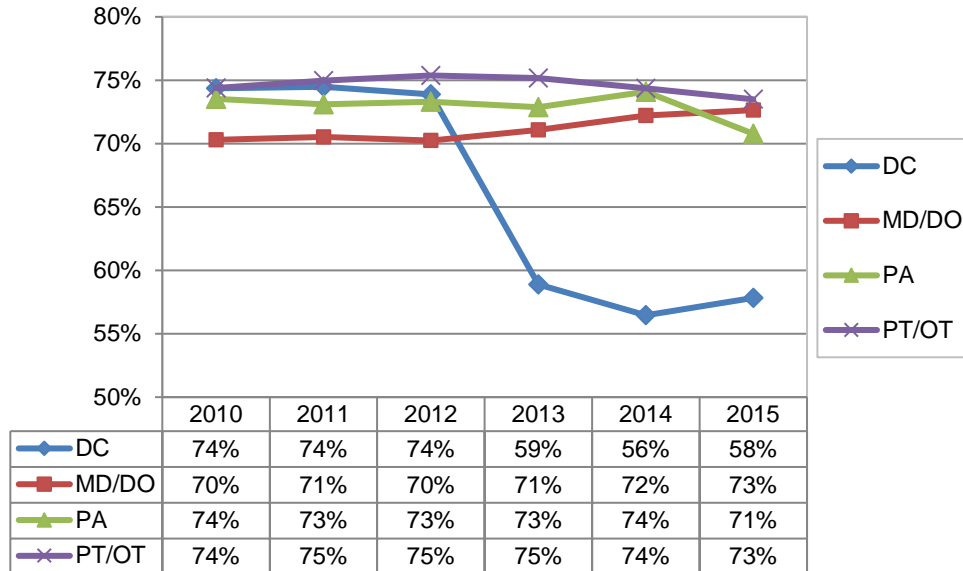
Total Number of Claims Treated in 2015, Including Medical-Only Claims



4.6 GEOGRAPHIC DISTRIBUTION OF HCPS BY HRR

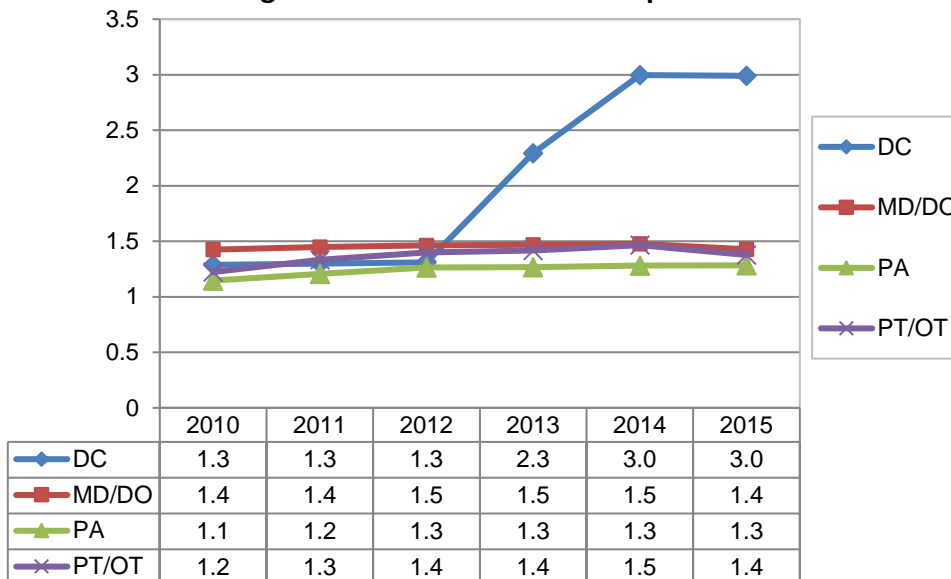
- For all HCPs, about 70 to 75 percent of their services were in the five largest metro areas. About the same share of claims was also in these five metro areas.
- Since 2013, chiropractors provided an increasing number of services in smaller areas. On average, a DC provided services in three HRRs, mostly disability examinations.

Percentage Share of HCP Services in the Five Largest Metro HRRs



Note: Service HRR is determined by facility location. An HCP may provide services in multiple HRRs.

Average Number of Serviced HRRs per HCP



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 or HCP for non-emergency medical treatment. After the initial access, a possible measure of secondary access can be calculated to evaluate the timeliness of access to specialty physicians or referral procedures. Because our access to referral data is limited, this report 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 with 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 occupational disease cases with their first treatment occurring more than 6 months after the injury were also removed.

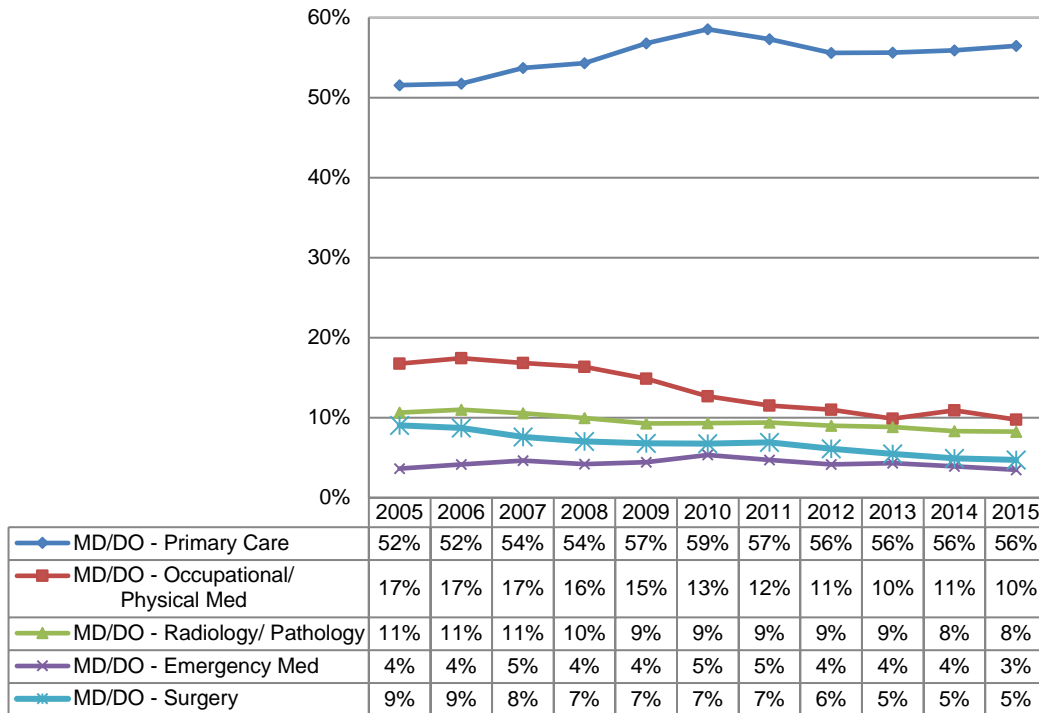
KEY FINDINGS

- Overall, initial access (timeliness of care) measures show that WC patients received non-emergency treatments faster in 2015 than in 2000.
- About 84 percent of patients received initial care in seven days or less in 2015, up from 76 percent in 2000. This rate stayed above 82 percent since 2007. 10 percent of the claims in 2000 had delays of 29 days or more. It decreased to 5 percent in 2015.
- Delayed initial care is correlated with higher total medical costs. In 2015, claims with greater than seven days delay had on average 40 percent more medical costs in the first 6 months.
- Claims with extremity injuries received their first treatment faster than those with neck, low back, and shoulder injuries.
- The average number of days before the first treatment was larger for severe injuries (with radiculopathy, ligament tears, and fractures) than non-severe injuries.
- 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 first treatment. Smaller HRRs have higher number of claims traveling outside of their HRR, some over 40 percent. The majority of our-of-HRR trips were for primary care physicians.

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 52 percent in 2005 to 56 percent in 2015.
- About 10 percent of new patients saw occupational/physical medicine specialists on their first day of treatment in 2015. The share of claims seeing non-primary care physicians on their first visit decreased since 2005.

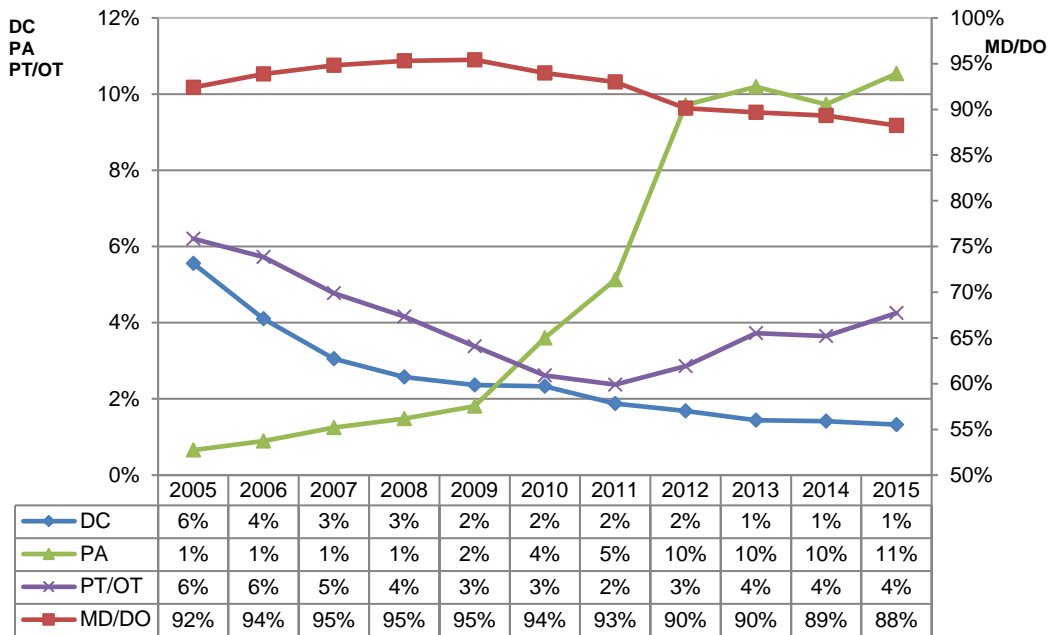
This measure shows percentage shares of claims by the type of physician that they saw on their first day of treatment. When a patient was treated by multiple doctors with different specialties, each unique specialty is counted. 56 percent of the claims saw at least one primary care physician in 2015. Occupational and physical medicine specialists were the second most important group for first treatment. In 2005, 17 percent of patients saw occupational/physical medicine specialists, but this decreased to 10 percent in 2015.



Note: A claim may see multiple physicians, and the sum of the percentages may exceed 100 percent.

5.2 SHARES OF HCP TYPES DELIVERING FIRST TREATMENT

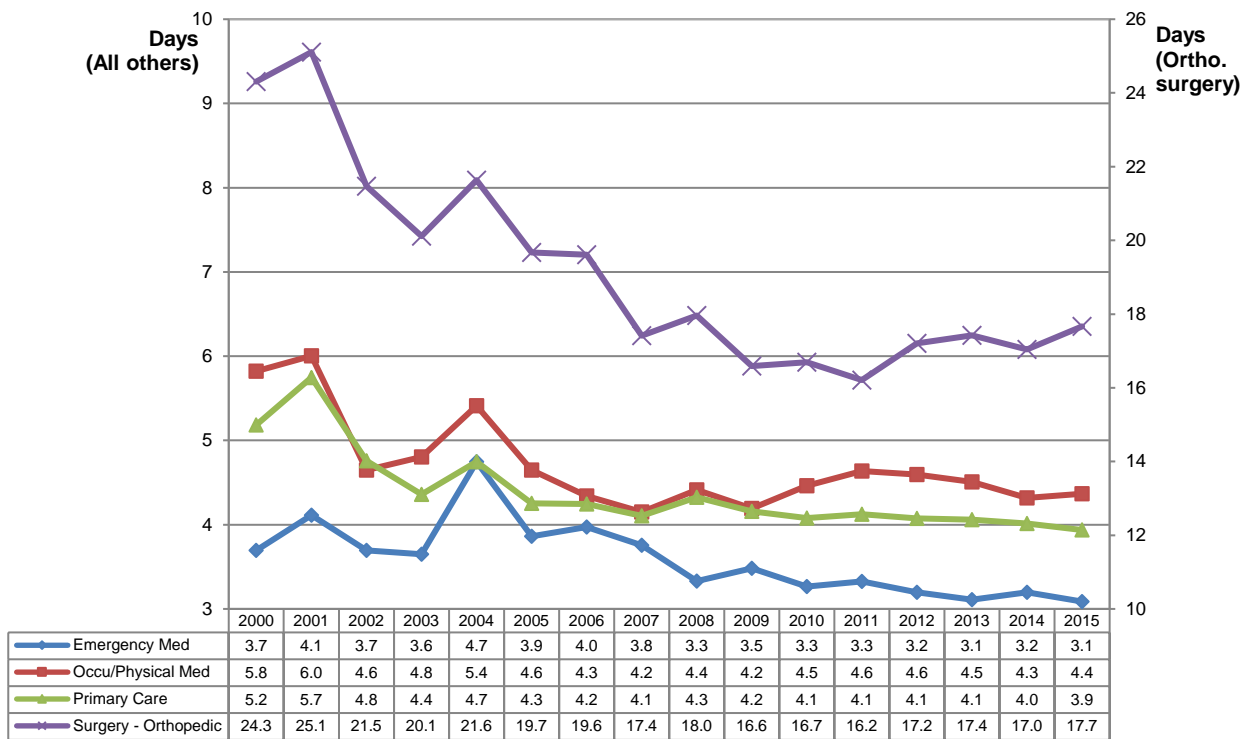
- In 2015, about 88 percent of the new claims saw an MD/DO physician on their first visit.
- About 11 percent of them were treated by a PA in 2015, up sharply from just one percent in 2005.
- The share of claims seeing a DC on their first visit decreased from 6 percent in 2005 to one percent in 2015.
- The share of claims seeing a PT or OT on their first visit also decreased from 6 percent in 2005 to 4 percent in 2015.



Note: An injured employee may see multiple HCPs on the first day. As a result, the sum of the percentages may exceed 100 percent.

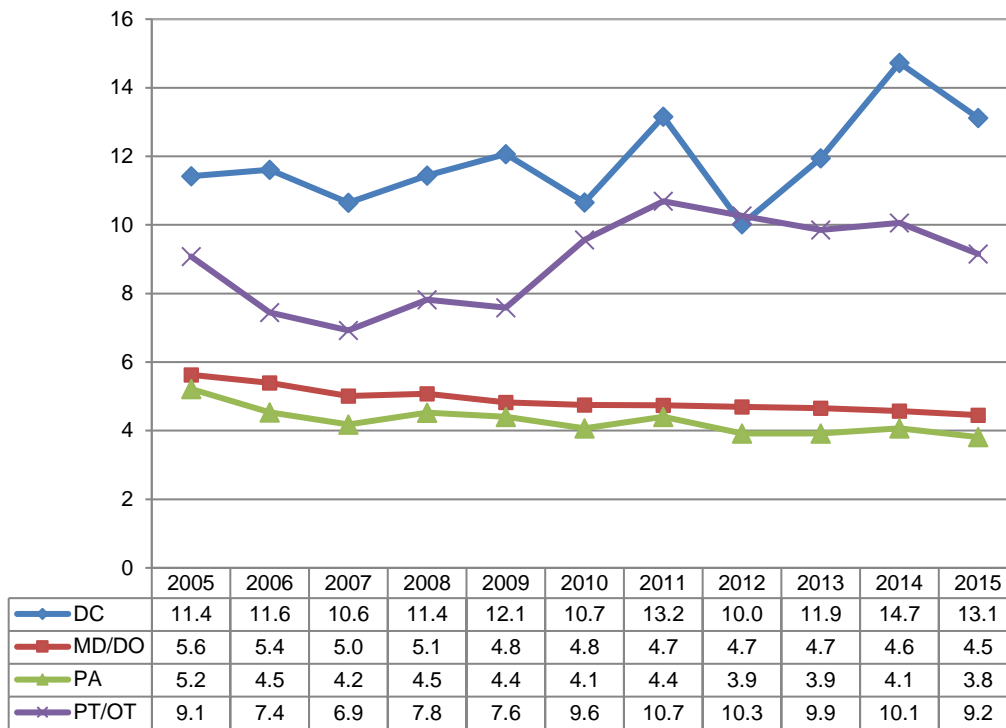
5.3 AVERAGE NUMBER OF DAYS FROM INJURY TO FIRST TREATMENT BY PHYSICIAN

- Patients who saw physicians in primary care, emergency medicine, and occupational/physical medicine specialties took 3 to 4 days on average for their first visit. This delay has decreased slightly since 2000. This average number of days between the injury date and the first treatment is affected by the outliers, but the median is mostly one day or less.
- Claims with first treatment by an orthopedic surgeon decreased from 24 days for their first treatment in 2000 to 18 days in 2015. The median in 2015 was 6 days.



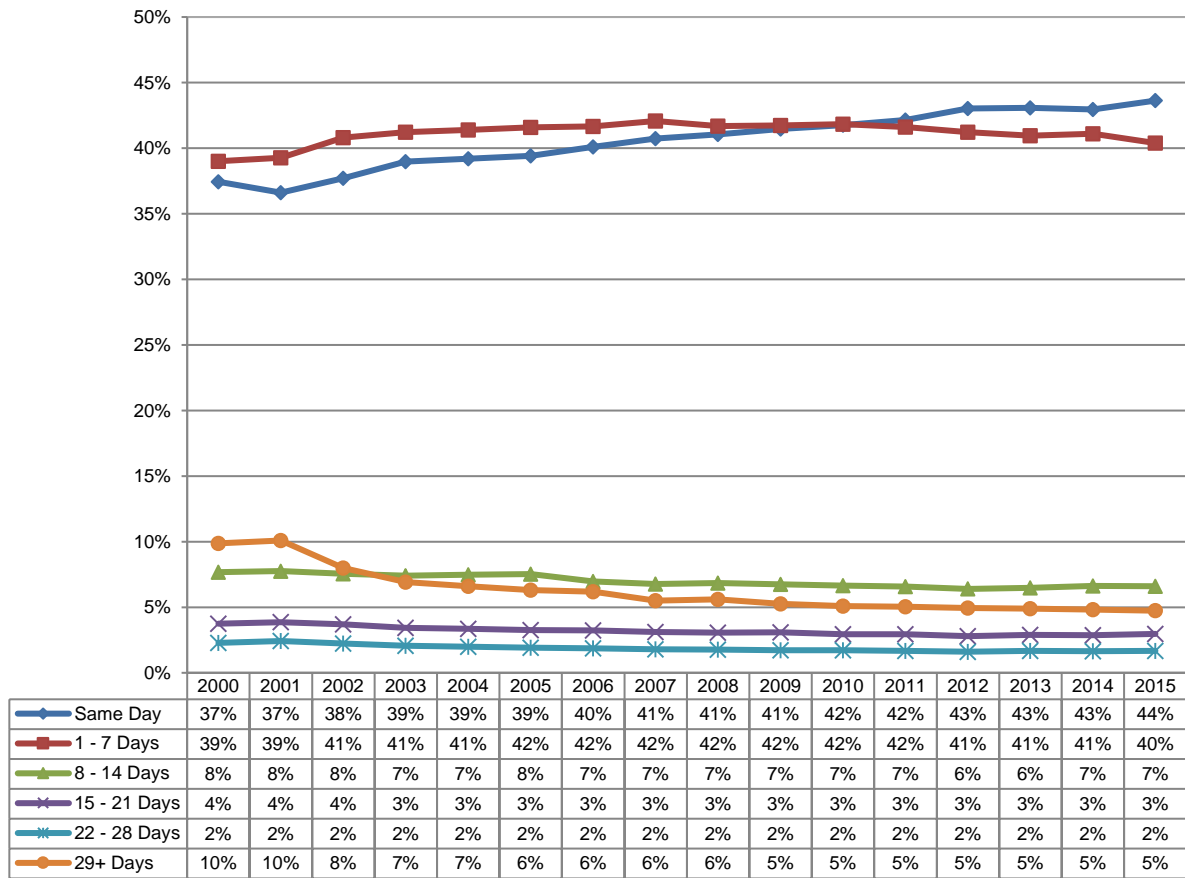
5.4 AVERAGE NUMBER OF DAYS FROM INJURY TO FIRST TREATMENT BY TYPE OF HCP

- The average number of days between injury date and first treatment for all physicians decreased from 5.6 days in 2005 to 4.5 days in 2015. The median was one day for all years.
- The average number of days for PAs were lower than those for physicians, decreasing from 5.2 days in 2005 to 3.8 days in 2015. The median was one day or less.
- The average number of days for PTs and OTs were higher at 9.2 days in 2015. The median was two days.
- Claims with DCs at first visit took longer. The average number of days increased from 11.4 days in 2005 to 13.1 days in 2015. The median was 4 days.



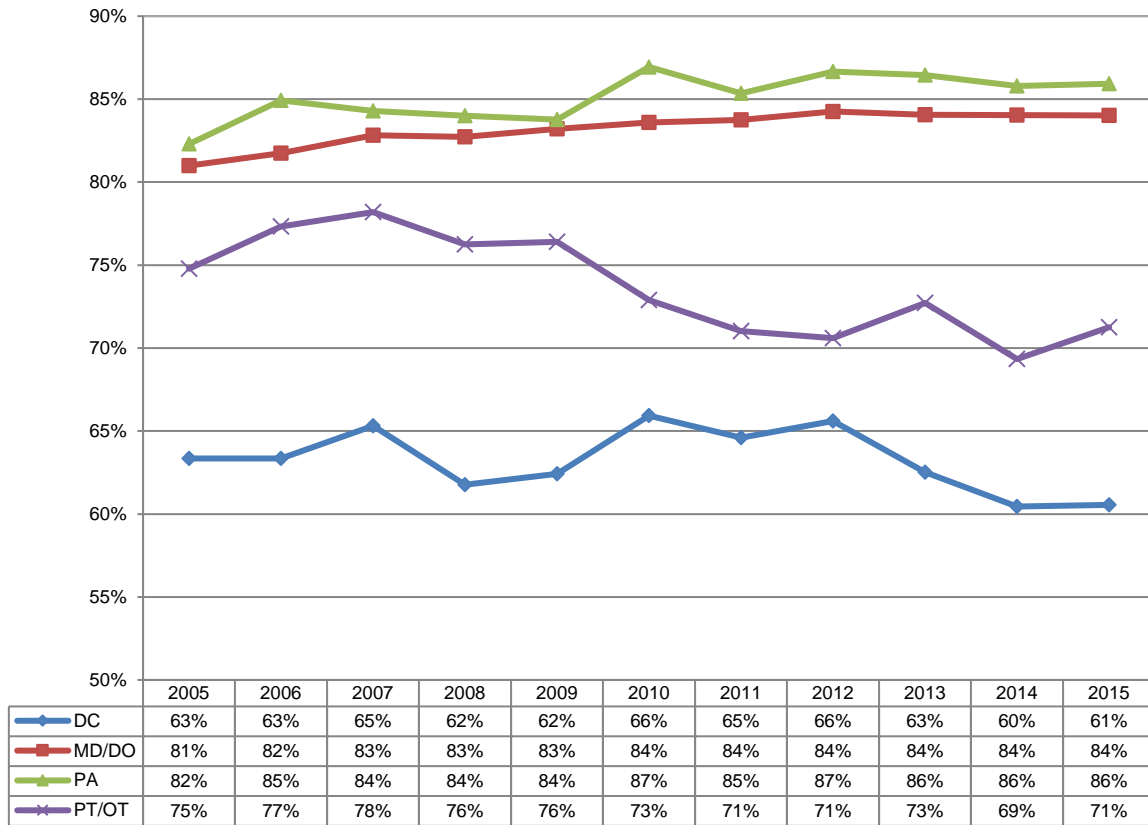
5.5 PERCENT OF CLAIMS BY NUMBER OF DAYS FROM INJURY TO FIRST TREATMENT

- This measure shows the percentage of claims by the number of days before the first medical treatment from MDs and DOs in six broad groups.
- Claims that received treatment on the ‘same day’ as injury or ‘1 to 7 days’ from injury date increased steadily from 76 percent in 2000 to 84 percent in 2015.
- 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 2015.



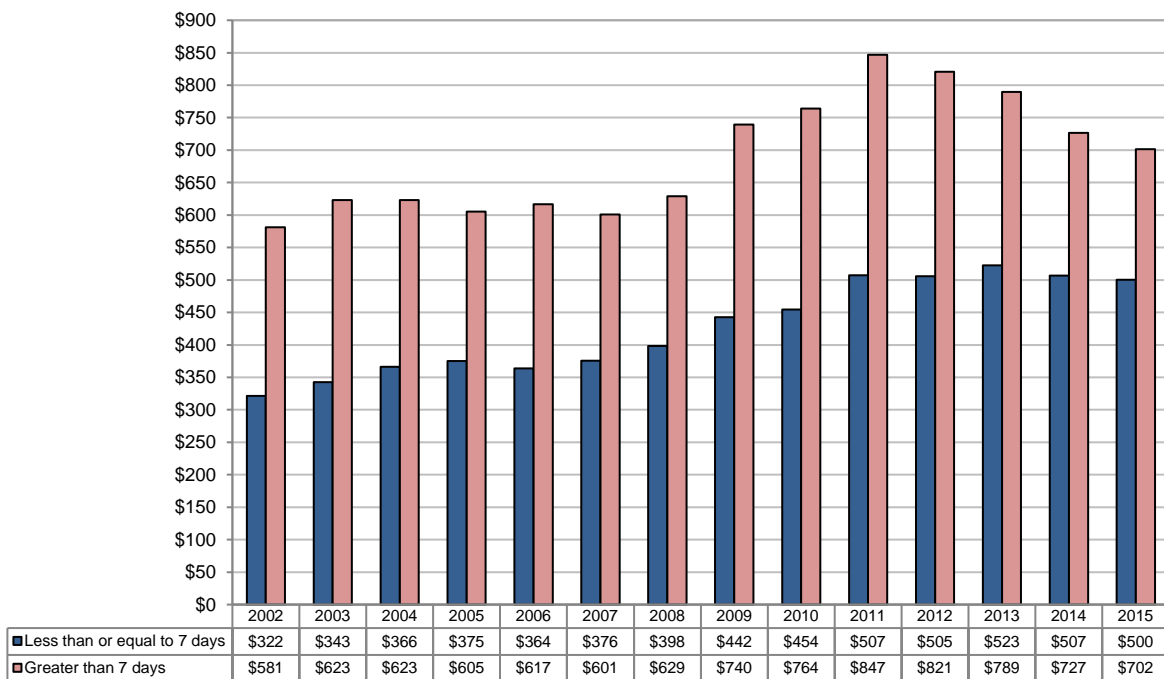
5.6 PERCENT OF CLAIMS WITH SEVEN DAYS OR LESS BETWEEN INJURY AND FIRST TREATMENT BY TYPE OF HCP

- For claims that received their first treatment from MDs and Dos, the share of claims that received their first treatment in 7 days or less increased from 81 percent in 2005 to 84 percent in 2015. For PAs, it also increased from 82 percent in 2005 to 86 percent in 2015.
- The share of 7 days or less decreased slightly for those who received first treatment from DCs, PTs and OTs.



5.7 MEDIAN TOTAL COST PER CLAIM BY NUMBER OF DAYS FROM INJURY TO FIRST TREATMENT

- Median medical cost for the delayed group (first treatment after more than seven days) was 81 percent higher than that of ‘within 7 days’ group in 2002. In 2015, it was higher by 40 percent.
- Median costs fluctuated more for the delayed group. But the cost decreased significantly since 2011, resulting in the reduced gap between the two groups.

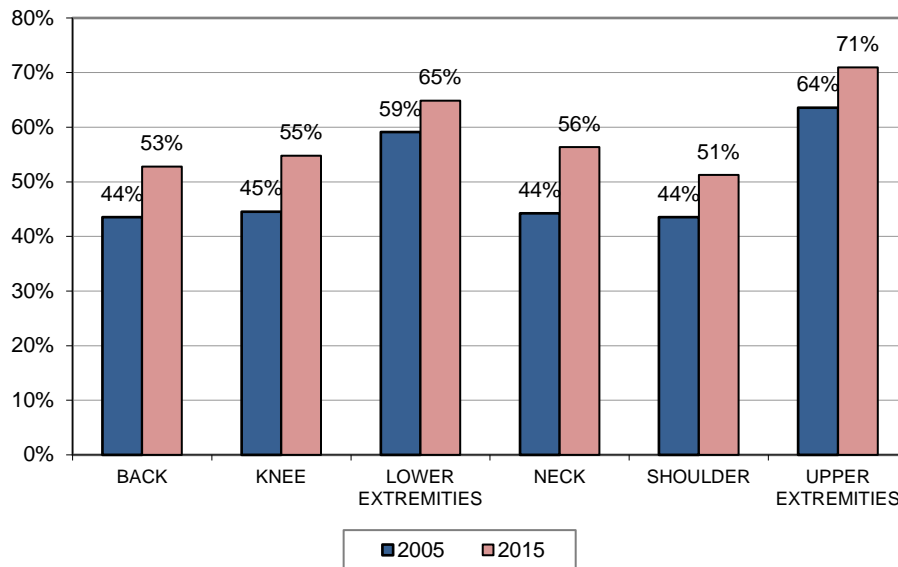


Notes: Medical costs cover the first six months after injury. They include all services including emergency services that are received on later days. Figures are in current dollars without any adjustment for inflation.

5.8 TIMELINESS OF FIRST TREATMENT BY BODY PART INVOLVED

- In 2015, 71 percent of claims with upper extremity injury received their first treatment on the same day or the day following the injury. It was 53 percent for back injury claims.
- For all types of injuries, timeliness of treatment in 2015 showed a significant improvement from 2005.

This measurement shows the percentage of claims who received their first treatment on the same day or the next day after the injury, broken down by the body part involved. Claims with extremity injuries visited HCPs faster than others: in 2015, 71 percent of upper extremity and 65 percent of lower extremity injury claims received first treatment within one day of injury. For all types of injury, first treatment improved since 2005.



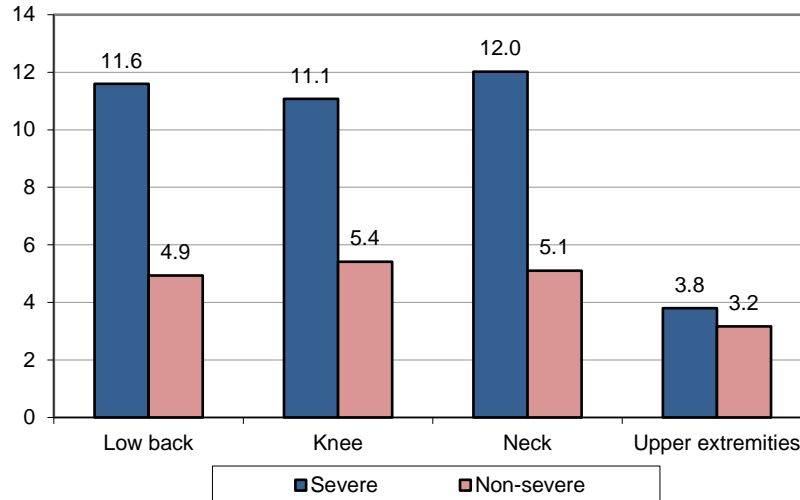
5.9 AVERAGE NUMBER OF DAYS FROM INJURY TO FIRST TREATMENT BY INJURY SEVERITY

- The average number of days before the first treatment is substantially greater for severe injuries than non-severe injuries for low back, neck, and knee injuries.

Based on the primary diagnostic code of each claim, claims are assigned to a severe or a non-severe injury group. Severity grouping is based on the treatment planning guidelines in the “ODG Treatment in Workers’ Comp”. For example, low back and neck injuries are categorized as severe if they have radiculopathy. For knee injuries, severe cases include meniscus and anterior cruciate ligament (ACL) strains and tears. For upper extremities, a severe injury involves fracture or dislocation.

The average delay for first treatment is substantially larger for severe injury claims, except for upper extremity injuries. Causes for such delay is beyond the scope of this report, but one reason may be related to the difficulty in diagnosing or delayed onset of injuries with radicular pain. Delayed treatment itself may increase injuries severity. Also, deleting first-day emergency services from our analysis may have affected the averages for these claims.

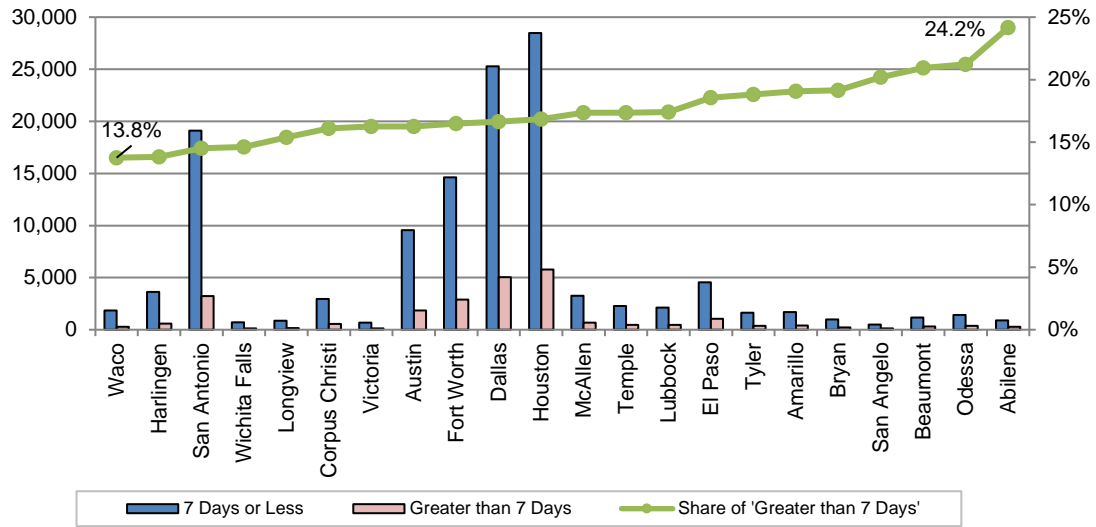
The median number of days for severe injuries is between 4 and 5 days, while the median is zero for non-severe injuries (same day treatment as injury).



5.10 TIMELINESS OF MEDICAL CARE BY HRR (2015)

- Injured employees in Abilene HRR had the highest chance of delayed treatment in 2015.
- Among large metro areas, Houston HRR has both the most delayed cases (5,764) and the highest percentage of delays (17 percent).

The line graph shows, from left to right, the percentage of delayed treatment (greater than seven days), which ranges from 15 percent for San Antonio HRR to 26 percent for 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.



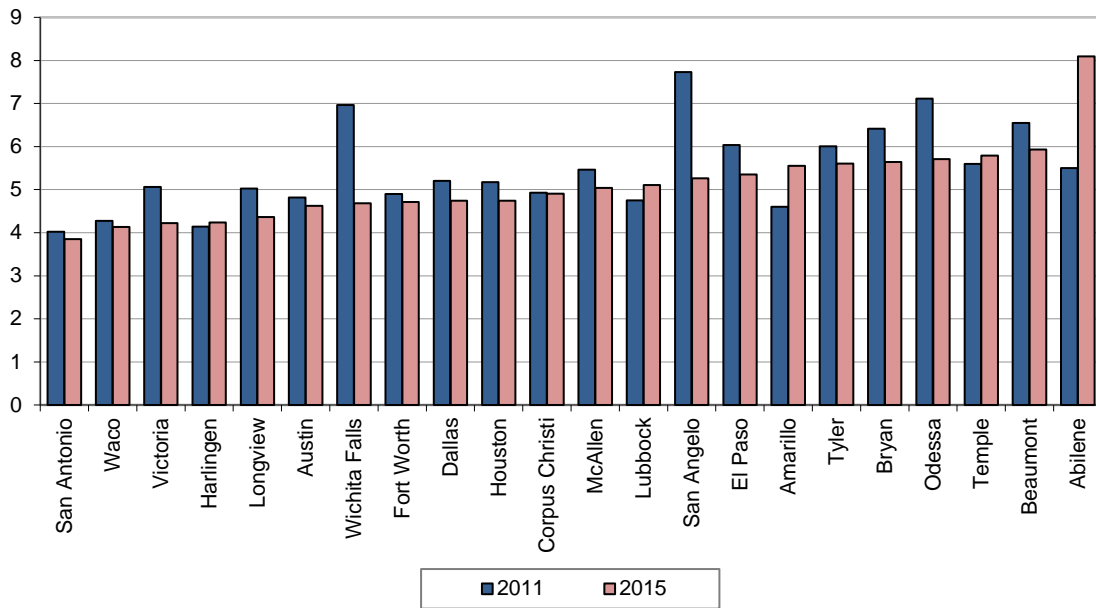
HRR	7 Days or Less	Greater than 7 Days	Share of 'Greater than 7 Days'
Waco	1,849	295	13.8%
Harlingen	3,626	582	13.8%
San Antonio	19,097	3,240	14.5%
Wichita Falls	718	123	14.6%
Longview	853	155	15.4%
Corpus Christi	2,941	564	16.1%
Victoria	670	130	16.3%
Austin	9,547	1,854	16.3%
Fort Worth	14,631	2,890	16.5%
Dallas	25,285	5,044	16.6%
Houston	28,481	5,764	16.8%
McAllen	3,259	684	17.3%
Temple	2,272	477	17.4%
Lubbock	2,134	450	17.4%
El Paso	4,563	1,040	18.6%
Tyler	1,617	375	18.8%
Amarillo	1,684	397	19.1%
Bryan	971	230	19.2%
San Angelo	490	124	20.2%
Beaumont	1,171	310	20.9%
Odessa	1,407	379	21.2%
Abilene	901	287	24.2%

Notes: The figure and the table are in an ascending order of the share of 'greater than 7 days' in 2015. For smaller HRRs, these measurements are affected greatly by small changes in the number of participating physicians.

5.11 AVERAGE NUMBER OF DAYS FROM INJURY TO FIRST TREATMENT BY HRR (2011–2015)

- In 2015, the average number of days from injury to the first treatment date ranged from 4 days in the San Antonio HRR to 8 days in Abilene HRR. The median was one day for most HRRs.
- Most HRRs in 2015 experienced shorter delays than in 2011.

The average number of days before first treatment in 2015 ranged from 4 days to 8 days. Most areas experienced a decrease in delay since 2011 except Abilene, Amarillo, Lubbock, and Harlingen.



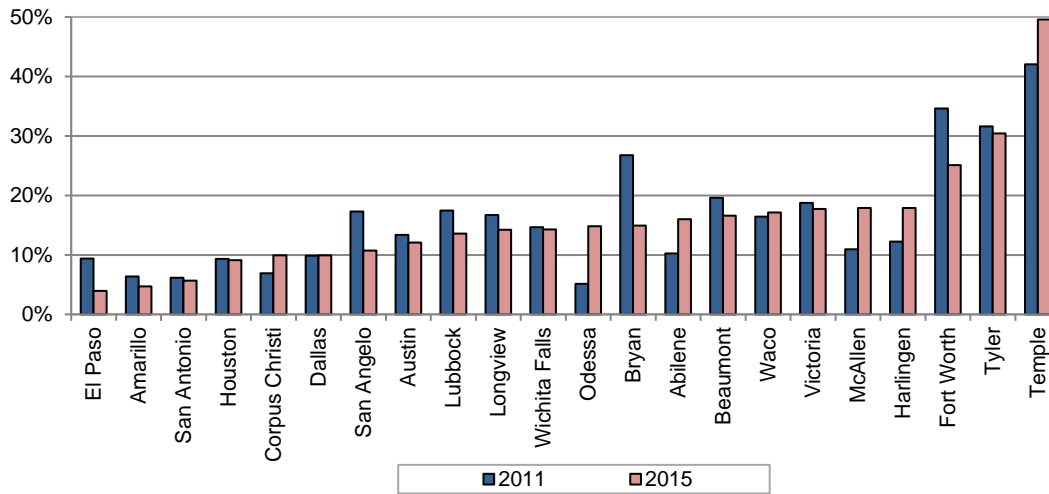
HRR	San Antonio	Waco	Victoria	Harlingen	Longview	Austin	Wichita Falls	Fort Worth	Dallas	Houston	Corpus Christi	McAllen	Lubbock	San Angelo	El Paso	Amarillo	Tyler	Bryan	Odessa	Temple	Beaumont	Abilene
2011	4.0	4.3	5.1	4.1	5.0	4.8	7.0	4.9	5.2	5.2	4.9	5.5	4.8	7.7	6.0	4.6	6.0	6.4	7.1	5.6	6.5	5.5
2013	3.8	3.9	4.7	5.5	5.0	4.8	6.4	4.7	4.9	5.1	4.2	5.1	5.8	6.2	5.3	5.8	6.6	4.3	6.4	4.8	5.9	6.3
2015	3.9	4.1	4.2	4.2	4.4	4.6	4.7	4.7	4.7	4.7	4.9	5.0	5.1	5.3	5.4	5.6	5.6	5.6	5.7	5.8	5.9	8.1

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

5.12 TRAVELING OUT OF HRR FOR INITIAL TREATMENT (2011–2015)

- Large metro areas had about 10 percent or less of their claims traveling out of their area for first treatment, except Austin and Fort Worth, which had 12 percent and 25 percent or more of claims traveling to other HRRs (mainly to Dallas HRR) in 2015.
- 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 at least one ‘out of HRR’ non-emergency services in 2015.



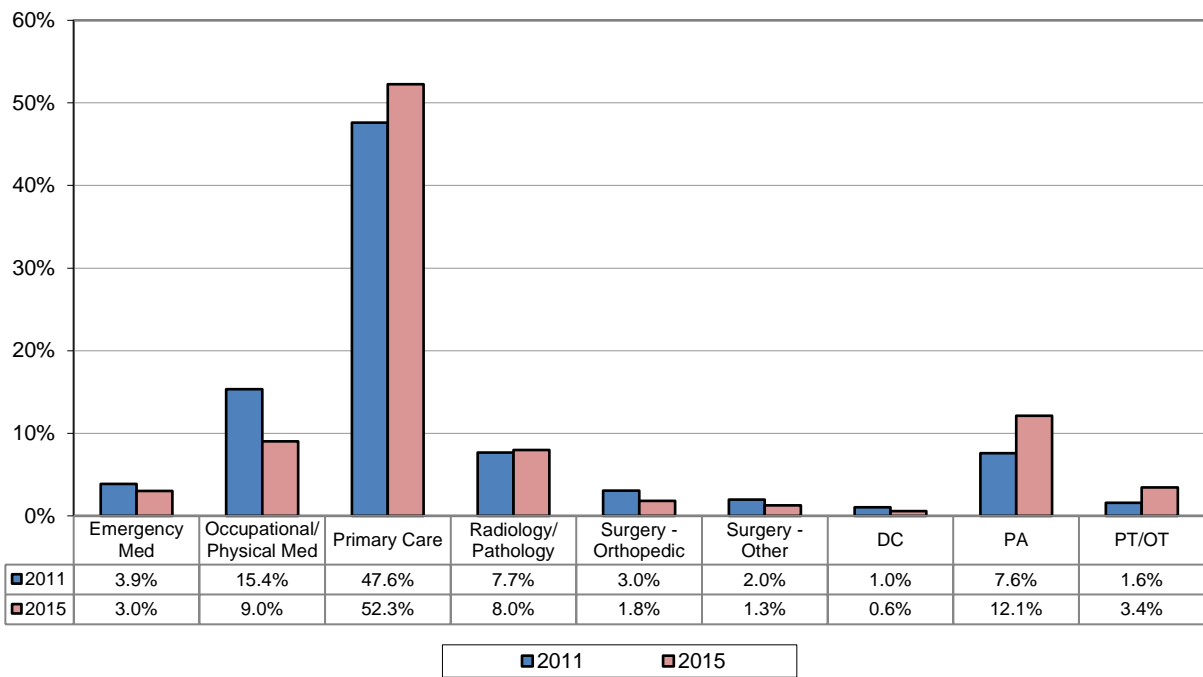
HRR	2011		2015	
	Outside HRR	Within HRR	Outside HRR	Within HRR
El Paso	549	5,285	220	5,383
Amarillo	174	2,559	98	1,982
San Antonio	1,432	21,764	1,263	21,061
Houston	3,367	32,663	3,118	31,116
Corpus Christi	288	3,884	348	3,157
Dallas	3,016	27,490	3,013	27,305
San Angelo	119	569	66	548
Austin	1,422	9,201	1,379	10,021
Lubbock	536	2,538	351	2,233
Longview	190	947	143	864
Wichita Falls	163	949	120	721
Odessa	119	2,206	265	1,521
Bryan	395	1,080	179	1,022
Abilene	171	1,497	190	997
Beaumont	421	1,729	246	1,235
Waco	421	2,144	367	1,777
Victoria	158	686	142	658
McAllen	465	3,791	704	3,238
Harlingen	545	3,903	753	3,454
Fort Worth	6,205	11,726	4,395	13,116
Tyler	704	1,524	605	1,385
Temple	1,102	1,520	1,356	1,380

Notes: ‘Traveling out of HRR’ are the cases where the patient’s HRR is different from facility HRR. Large changes in the four year period may be due to practice changes of a few ‘top 20%’ physicians.

5.13 TRAVELING OUT OF HRR FOR INITIAL TREATMENT (2011–2015) BY TYPE OF HCP

- Most of the claims travelling out of their own HRR for their first treatment were for primary care physicians (48 percent in 2011 and 52 percent in 2015 of all service travels).
- The shares of travels for occupational and physical medicine physicians decreased while travels for primary care physicians and physician assistants increased.
- The relative shares of travels out of HRR decreased for surgeries and emergency medicine, but increased for physical and occupational therapies.

Percentages in the figure were calculated considering all instances of travelling for a service out of one’s own HRR. Actual numbers of trips in 2015 are slightly lower than in 2011 because of the decreasing number of claims and services in 2015.



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 2016, 30 certified networks covering 254 Texas counties are certified to provide workers' compensation health care services. Among the certified networks, 21 treated injured employees in 2015.

This study covers networks in 2011–2014 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.

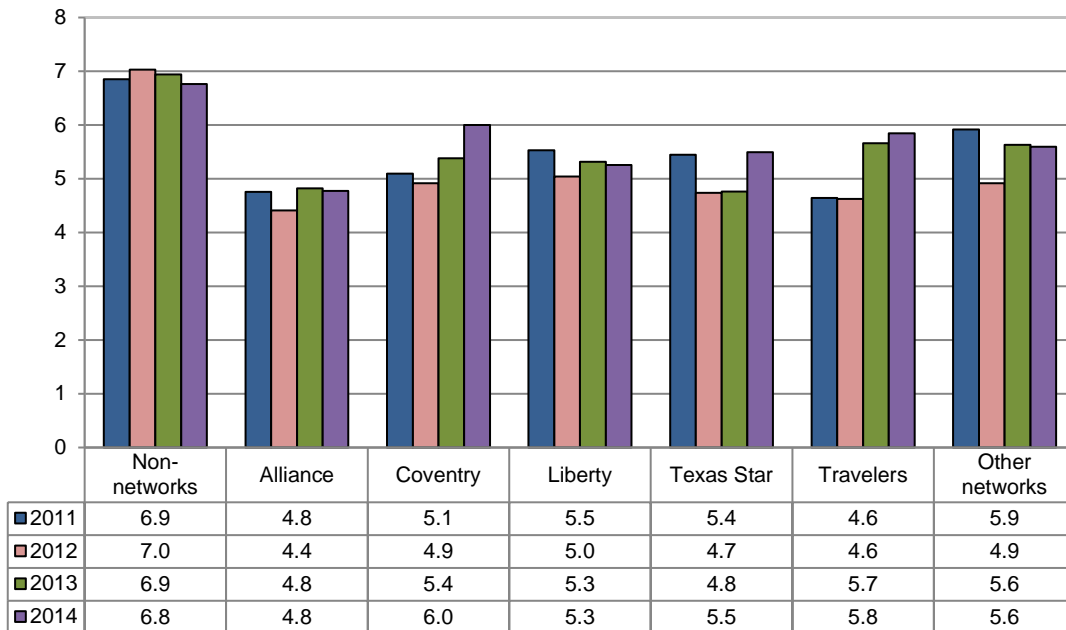
KEY FINDINGS

- 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 stayed about the same.
- The share of claims that received initial treatment within seven days is higher among networks than non-networks. However, this share decreased slightly in 2015 for some networks although it was still higher than 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.
- Some networks show increasing delay in 2014 even though the number of days is still lower 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 decreased slightly from 6.9 days in 2011 to 6.8 days in 2014. In comparison, all networks showed lower average delays in all years than non-networks. The number of days increased in 2015 for some networks, which may be related to the changes in the type of claims being enrolled in networks.

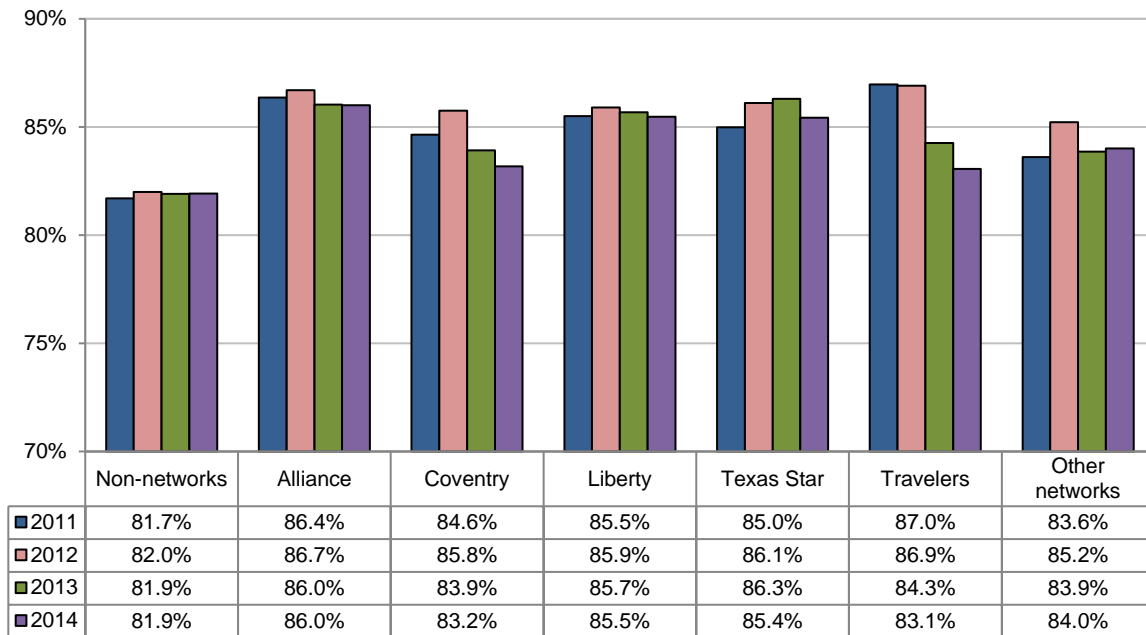


Notes: Network claims were identified using the lists of claims collected via network data calls. Claims include only new injuries in each injury year.

6.2 PERCENT OF INJURED EMPLOYEES BY NUMBER OF DAYS BY NETWORK

- Injured employees in networks received their first visit with physicians faster than those in non-networks.

The figure below shows percentages 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 83 to 86 percent in 2014, which was slightly higher than the 82 percent for non-network claims. For some networks, this share decreased in 2015 although it was still higher 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.





Access to Medical Care in the Texas Workers' Compensation System, 2000–2015

Texas Department of Insurance, Workers' Compensation Research and Evaluation Group