



**STUDY OF ACCESS TO MEDICAL TREATMENT FOR INJURED WORKERS
YEAR 3 FINAL REPORT
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EXECUTIVE SUMMARY

1. Introduction

Berkeley Research Group, LLC (“BRG”) prepared this report for the Department of Industrial Relations, Division of Workers’ Compensation (“DWC”). The report presents findings for Year 3 of BRG’s study of access to medical care by injured workers under the workers’ compensation system regulated by the State of California. DWC must complete an annual study of access to medical treatment for injured workers as required by Labor Code Section 5307.2. The objectives of the annual study are to determine whether injured workers have adequate access to care and healthcare-related products and to recommend methods to support continued access.

This report presents study findings based on data extracted from the Workers’ Compensation Information System (WCIS). The WCIS data set used in the study consists of over 70 million medical bills submitted for the years 2007 through 2013. These data were used to assess injured workers’ access to medical care primarily by assessing provider participation, utilization of services, and types of services provided. The Year 1 study included data through 2011; the Year 2 study included data through 2012; and the Year 3 study included data through 2013. This report presents findings from the Year 3 study.

2. Summary of Findings

Analyses of the WCIS data revealed the following key findings for the Year 3 study:

- The number of injured workers who received medical services in the workers’ compensation system decreased 30 percent from an estimated 822,175 in 2007 to 574,524 in 2012 and then increased to 605,243 in 2013.
- The number of providers treating injured workers decreased 25 percent from 146,247 in 2007 to 110,009 in 2013, although this decline was not as great as the decline in the number of injured workers.
- Although the number of providers per injured worker did not change substantially between 2007 and 2013, the number of general practice physicians and the number of chiropractors per injured worker declined, and the number of pain medicine specialists (including anesthesiologists), mental health providers and orthopedists per injured worker increased.
- The number of out-of-state providers decreased, but the number of bills these providers submitted increased 98 percent.

- The number of services billed increased from 2007 to 2013, with large increases in certain services, including acupuncture and infrared therapy.
- The number of drugs billed increased 87 percent, including substantial increases in narcotic pain medications.
- The number of injured workers with back injury diagnoses increased, but the number of injured workers with back injury diagnoses that were admitted to hospitals decreased. The number of injured workers with diagnoses related to injuries to other body parts (as compared to back injuries) increased.
- Total payments decreased 16 percent due, in part, to a decrease in inpatient hospital payments.

As described in the Year 1 and Year 2 study reports, access criteria used by health planners and health care payers were reviewed in detail to assess their appropriateness for DWC. They were categorized as follows:

- Provider availability,
- Experience of injured workers who sought care, and
- Injured worker satisfaction with their access to care.

This report, like the Year 2 report, focuses on provider availability as a key measure of access. The study's findings suggest that overall provider availability remained relatively unchanged from 2007 to 2013. Although the actual number of providers treating injured workers declined, the number of injured workers who sought medical services in the workers' compensation system also declined. As a result, the ratio of injured workers to providers remained relatively constant.

Although providers submitted fewer medical bills in 2013 as compared to 2007, they billed for more products and services. Although back injury diagnoses were consistently the most common diagnoses appearing on medical bills, certain types of back injury diagnoses declined and diagnoses relating to injuries to other parts of the body increased, which may explain some of the changes in the services provided.

3. Recommendations

There is a need to determine whether the increase in injured workers and medical bills that occurred between 2012 and 2013 is the beginning of a trend or an anomaly that will not be repeated in future years. There is also a need to determine whether the use of Resource-Based Relative Value Scale (RBRVS) reimbursement for physicians that was instituted at the beginning of 2014 will have an impact on access to care. In addition, it will be important to determine whether the decline in inpatient services as a portion of total services that occurred in 2013 is a single year anomaly or the beginning of a trend.

1. INTRODUCTION

1.1 Overview

This report, prepared by Berkeley Research Group, LLC (“BRG”) for the Department of Industrial Relations, Division of Workers’ Compensation (“DWC”) presents findings for Year 3 of BRG’s study of access to medical care by injured workers under the workers’ compensation system regulated by the State of California. Prior studies of access to medical care for injured workers were conducted in 2006 by the University of California at Los Angeles (UCLA), in 2008 by the University of Washington and in 2012 (Year 1 Study), and 2013 (Year 2 Study) by BRG.

DWC is required to complete an annual study of access to medical treatment for injured workers. The requirement is included in Labor Code Section 5307.2, which was enacted by Senate Bill 228 (Chapter 639, Statutes of 2003). The study objectives are to determine whether injured workers have adequate access to care and healthcare-related products and to recommend methods to support continued access.

In the UCLA, University of Washington and the Year 1 BRG studies, surveys of injured workers were conducted to determine whether workers were able to obtain appropriate care and whether they were satisfied with the care they received in the workers’ compensation health care system. In addition, in the Year 1 BRG study, medical billing data submitted by workers’ compensation carriers to the State of California Workers’ Compensation Information System (“WCIS”) were analyzed to examine issues such as physician participation in the workers’ compensation system and regional differences in frequencies and types of claims. In BRG’s Year 2 and Year 3 studies, analyses focused exclusively on the WCIS data, including more detailed analyses of utilization, specific services provided and provider participation.

1.2 Methodology and Data Issues

As noted, this report is based on medical billing data as submitted by claims administrators and included in the WCIS. The WCIS data set used in the study consists of over 70 million medical bills submitted for the years 2007 through 2013. Duplicate bills (those with the same bill identification number as well as bills for the same services provided on the same day for the same injured worker) were removed.

1.2.1 Regional Categories

Data were organized by region of the state to better understand geographic differences in access. Regional assignment is based on the zip code of the provider rendering the service. The following regions were used (rural regions are identified by an *):

- San Francisco Bay Area – Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma Counties
- Central Coast – Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz, and Ventura Counties
- Central Valley – Fresno, Kern, Kings, Madera, Merced, San Joaquin, Stanislaus, and Tulare Counties
- *Eastern Sierra Foothills – Alpine, Amador, Calaveras, El Dorado, Inyo, Mariposa, Mono, Nevada, Placer, and Tuolumne Counties
- Inland Empire – Imperial, Orange, Riverside, and San Bernardino Counties
- Los Angeles – Los Angeles County
- *North State Shasta – Del Norte, Humboldt, Lake, Lassen, Mendocino, Modoc, Plumas, Shasta, Sierra, Siskiyou and Trinity Counties
- Sacramento Valley – Sacramento and Yolo Counties
- *Sacramento Valley North – Butte, Colusa, Glenn, Sutter, Tehama and Yuba Counties
- San Diego – San Diego County
- Out-of-State

This regional classification allows comparisons across regions of the state and urban and rural areas, as well as comparisons to services provided by out-of-state providers. Although there are differences in population density among the regions, all but the three rural regions include a Metropolitan Statistical Area of significant size. It should be noted that providers are identified by their billing address, not the site of service. Because medical bills are the data used for the study, only provider billing addresses were available. The increase in the number of out-of-state bills noted in this study may be due to increased use of out-of-state billing companies rather than an increasing number of services provided outside of California.

1.2.2 Provider Type and Physician Specialty Categories

Each medical bill in the WCIS dataset contains a code that identifies the provider that delivered the service. This code was linked to a taxonomy published by Washington Publishing that contains detailed

descriptions for each code.¹ Using the taxonomy descriptions, each provider was further categorized using three “levels.” Level 1 classifies physician specialties and some non-physician specialties (referred to as “Specialty”). Physicians and some non-physician providers are identified by specialty and sub-specialty. Facilities are also identified according to their specific type, i.e., acute care hospital, rehabilitation hospital, etc. Level 2 further classifies the specialties into more general provider types (referred to as “Provider Type”), and Level 3 classifies provider types into broad categories of generalists, specialists, facilities and supplies. Examples of these levels are shown below.

Example 1:

Provider Description:	Allopathic & Osteopathic Physicians: Family Medicine: Adult Medicine
Level 1	Physicians: Family Medicine [SPECIALTY]
Level 2	General/Internal/Family/Pediatric Medicine [PROVIDER TYPE]
Level 3	General Practitioner

Example 2:

Provider Description:	Allopathic & Osteopathic Physicians: Orthopedic Surgery: Foot and Ankle Surgery
Level 1	Physician: Orthopedics [SPECIALTY]
Level 2	Specialist - Orthopedics, Physical Medicine and Rehabilitation and Occupational Medicine [PROVIDER TYPE]
Level 3	Specialist

Example 3:

Provider Description:	Hospitals: General Acute Care Hospital: Critical Access
Level 1	Hospital: General Acute Care [SPECIALTY]
Level 2	Hospital [PROVIDER TYPE]
Level 3	Facility

The provider descriptions are those provided in the taxonomy file. Levels 1 through 3 were created based on typical categorizations used by commercial insurers in developing fee schedules for their provider networks. Several tables examine data by provider type. It is useful to understand the groupings of providers that have been used:

¹ See Washington Publishing Company, Healthcare Provider Taxonomy Code Set, <http://www.wpc-edi.com/reference/>.

- General practice, internal medicine, family practice, preventive medicine and pediatrics have been grouped in a single category. These physicians provide primary care in most instances. Internal medicine specialists may provide other care as well, but they are included in the primary care category to reflect the majority of their services. There are a very small number of medical bills submitted by pediatricians and their impact on this categorization is minimal.
- Physical therapy and occupational therapy have been combined in a single category. Although these providers may perform different services, they are frequently considered in a single therapy category in health care analyses.
- Anesthesiology and pain management have been combined. These specialists typically perform the same function.
- Mental health includes psychiatrists, psychologists, other behavioral health specialists and marriage and family therapists.
- Orthopedics, physical medicine and occupational medicine have been combined. Orthopedic and physical medicine specialists often treat the same conditions. Although occupational medicine specialists may perform different functions than orthopedists and physical medicine specialists, they have been included in this category. They represent a small portion of the providers in the category (occupational medicine specialists submitted 0.4 percent of medical bills in 2013).
- Other hospital-based physicians include emergency medicine specialists and pathologists.
- Other non-hospital-based physicians include allergy, dermatology, obstetrics and gynecology, ophthalmology, otolaryngology and urology specialists. No one of these categories of specialists submits substantial numbers of medical bills on its own. For example, urologists submitted 3,743 medical bills in 2013, or 0.04 percent of all medical bills submitted.
- Diagnostic radiology, interventional and therapeutic radiology, nuclear medicine and radiation oncology have been combined in a single category identified as radiology.
- General surgery, plastic surgery and neurosurgery have been combined in a single category identified as surgery.

2. MEASUREMENT OF ACCESS TO MEDICAL CARE

2.1 Review of Access Criteria

As described in the Year 1 and Year 2 study reports², access criteria used by health planners and health care payers were reviewed in detail to assess their appropriateness for DWC. Access measures were categorized as follows:

- Provider availability,
- Experience of injured workers who sought care, and
- Injured worker satisfaction with their access to care.

The Year 1 BRG analysis as well as the UCLA and University of Washington studies determined that the experience of workers who sought care, including injured worker satisfaction with access to care, has remained relatively constant over the past several years. Therefore, it was determined that it would be more beneficial to focus on learning more about access to care from the WCIS data rather than conduct additional surveys. As a result, injured workers' experience with care and satisfaction were not assessed in the Year 2 and Year 3 analysis. Instead, access to care in these years is measured by provider availability, including the number of providers that submitted medical bills, the number of medical bills submitted across different provider types and/or specialties, as well as the types of injuries treated and types of services provided. In addition, payment issues that may have had an impact on provider availability and therefore access to care are discussed.

2.2 Research Questions

In this study and the Year 2 study, research questions were developed to address the issue of access to medical treatment for injured workers, as measured by provider availability. The analysis of provider availability focuses on the following measures:

- Provider participation (number of unique providers submitting bills and number of bills submitted), and
- Utilization of services (injuries treated and services provided), and
- Payment issues (trends in payments per service and payments per worker).

Measurement of provider participation identifies the number of providers who treated injured workers, the number of medical bills submitted across different provider types and specialists, trends over time and geographic variation. Utilization of services includes the number and types of injuries, as well as the

²Miller, H. et. al. "2013 Study of Access to Medical Treatment for Injured Workers: Final Report." April 5, 2013, and Miller, H. et. al. "2014 Study of Access to Medical Treatment for Injured Workers: Final Report, March 18, 2014.

types of services provided, types of providers delivering services, and changes in volume and type of services over time.

Research questions regarding payment issues seek to address the issue of payment levels (per bills and per worker), how they may differ between the workers' compensation population and the general patient population, and how they may have changed over time. Specific research questions in each of the three categories are listed below. Although most of the questions were addressed, at least in part, data limitations prevented a full response to all questions. These issues are described subsequently.

I. Provider Participation

- How has the number of providers treating injured workers changed from 2007 to 2013?
- How has the number of medical bills per injured worker seeking medical services changed from 2007 to 2013?
- How has participation in the workers' compensation program changed by type of provider, including type of specialist?
- Is there a pattern in participation (as measured by the number of medical bills submitted) by type of specialist?
- Have certain types of specialists entered or exited from the market for workers' compensation care (as measured by the number of bills submitted)?
- Are there specific specialists that treat an especially high volume of workers' compensation patients? How has their volume changed over time?
- Are there differences in the distribution of specialists by region of the State? How is this distribution changing?

II. Utilization of Services

- How have services provided to injured workers changed?
- Are there differences in types of services provided when injured workers are treated by specialists and general practitioners?
- Are there differences in the volume of services provided when injured workers are treated by specialists and general practitioners?
- What volume of services is provided at different types of facilities? Has the volume changed over time? Have the services changed over time? How does the volume and service mix compare across different types of facilities? Has this changed over time?
- What proportion of injured workers is admitted for inpatient care versus being treated on an outpatient basis? How does this compare to other populations? Note that outpatient services will include those provided in ambulatory surgery centers (ASCs). Freestanding ASCs can be separately identified; however, hospital-owned ASCs may not have individual facility codes to identify them.

- Has the proportion of inpatient vs. outpatient services (including those provided in ASCs) changed over time?
- For workers admitted for inpatient stays, what are the most common injuries (by diagnosis code)? Have the types of injuries changed over time?
- What is the average length of hospital stay by type of injury and how has this changed over time?
- What proportion of inpatients has surgical procedures and how has this changed over time? What procedures are more common versus less common for a certain diagnosis or certain injury?
- How have types of outpatient services provided changed over time by type of injury?
- Have the type and volume of drugs prescribed changed by type of injury? What types of procedures or services are more common versus less common for a certain diagnosis or certain injury?

III. Payment Issues

- What are the payment rates for services provided to injured workers and how have they changed?
- How have payments per medical bill changed?
- How have payments per injured worker changed?
- How do workers' compensation provider payment rates compare to rates paid by other payers for the same services?
- Can the impact of specific changes in provider payment rates on the types and volume of services be measured?

Findings related to research questions are presented in the chapters that follow. Provider participation is addressed first, followed by utilization of services and payment issues. In the Year 2 study, it was noted that findings addressed most of the research questions, but data limitations prevented BRG from identifying a complete response in some cases. Comments regarding these issues that were included in the Year 2 Study Report are noted below as are the efforts undertaken to address them in this report.

- **Year 2 Comment.** Additional data analyses will be required to more completely answer some questions regarding the utilization of inpatient versus outpatient care. Although inpatient medical bills were identified, the structure of the data files and time constraints limited the analysis of inpatient services. Additional efforts are required to link all of the services attributable to these bills. **Year 3 Efforts.** Additional analyses of inpatient services were completed, but data limitations continued to constrain the completeness of this analysis.
- **Year 2 Comment.** Additional investigation will be required to accurately link specific services and drugs to injury and diagnosis codes. Because the diagnosis code field is often not

populated and appears to be inaccurately populated in some cases, analyses regarding patterns of services to treat specific injuries were not completed. **Year 3 Efforts.** Although more analyses of drug utilization were completed, incomplete diagnosis codes continued to limit the extent of analyses that could be completed.

- **Year 2 Comment.** While facility types were identified, additional analysis will be required to distinguish services billed by facilities as compared to services billed by professionals. For this reason, analyses regarding the specific types of facilities where services were provided were not completed. **Year 3 Efforts.** Despite efforts to refine the data, limitations in how medical bill data are submitted do not permit accurate distinctions between professional and facility bills. Professional services provided in facilities can be billed by either the facility or the professional, and it is the billing entity that controls the provider code rather than who performed the service.
- **Year 2 Comment.** Although most payment issues are addressed, detailed comparisons of payment rates to other payers are being completed in an independent study and therefore are not addressed in this report. **Year 3 Efforts.** Although there was an interest in undertaking efforts to assess the impact of legislative changes regarding payment rates on access to care, these changes did not take place until January 1, 2014. It is not possible to determine whether changes that occurred in 2013 data were affected by expectations of new payment rates.

3. PROVIDER PARTICIPATION

3.1 Introduction

In this study, provider participation in the workers' compensation system is measured by assessing changes in three variables over the study period (2007 to 2013):

- Number of injured workers,
- Number and type/specialty of providers submitting medical bills, and
- Number of medical bills submitted by provider type and specialty.

Taken together, these factors present an indication of whether injured workers who sought care in the workers' compensation system have access to the providers and services they need to recover from their injuries and return to work. Each of these variables is discussed in the sections that follow.

3.2 Number of Injured Workers

According to WCIS data, the number of injured workers who received services in the workers' compensation system declined from 2007 to 2012, but increased in 2013.³ This analysis is based on the number of unique patient identification numbers⁴ that can be linked to medical bills that appear in the WCIS data. Adjustments to data for years 2007 through 2012 have been made based on the more complete data set provided for the Year 3 analysis.

³ The number of injured workers in the analysis includes workers appearing in the medical bill primary files as well as the "orphan" files for each year. The actual number of workers in the "orphan" files could not be identified but were estimated based on the proportion of medical bills in these files relative to the total number of medical bills each year. These estimates were then added to the actual number of injured workers appearing in the primary medical bill files. Note that the proportion of orphan bills to total bills declined substantially in 2012 and 2013. Orphan bills represented 12.2 percent of all bills in 2013.

⁴ Social security numbers that appear in the WCIS data are "scrambled" or "masked."

**Table 3.1
Number of Unique Injured Workers
2007 – 2013**

Year	Injured Workers		
	Number	Change	% Change
2007	822,175	---	---
2008	799,048	(23,127)	-2.8%
2009	726,150	(72,898)	-9.1%
2010	675,061	(51,089)	-7.0%
2011	605,976	(69,085)	-10.2%
2012	574,524	(31,452)	-5.2%
2013	605,243	30,719	5.3%
Change 2007-2013	---	(216,932)	-26.4%

3.3 Number and Type of Providers Submitting Medical Bills

The number of providers that submitted medical bills for injured workers during the 2007 to 2013 study period is presented in this section, as well as a comparison of the number of providers to the number of injured workers who medical received services.

3.3.1 Total Providers Submitting Medical Bills

As shown in Table 3.2, the number of providers treating injured workers declined during the period from 2007 to 2013. There was a substantial decline in 2011 but slight increases in 2012 and 2013. Most importantly, the decrease in the number of providers was similar to the decrease in the number of injured workers. As a result, although there was some fluctuation during the seven-year period, the ratio of injured workers to providers was almost unchanged. At an aggregate level, injured workers had proportionally the same number of providers available to them in 2013 as they did in 2007.

Table 3.2
Ratio of Injured Workers to Providers
2007 – 2013

Year	Number of Providers	Percent Change	Estimated Injured Workers	Percent Change	Ratio of Workers to Providers	Percent Change
2007	146,247	---	822,175	---	5.6	---
2008	150,194	2.7%	799,048	-2.8%	5.3	-5.4%
2009	143,969	-4.1%	726,150	-9.1%	5.0	-5.3%
2010	134,752	-6.4%	675,061	-7.0%	5.0	0.0%
2011	104,711	-22.3%	605,976	-10.2%	5.8	16.0%
2012	108,480	3.6%	574,524	-5.2%	5.3	-8.6%
2013	110,009	1.4%	605,243	5.3%	5.5	3.8%
Change 2007-2013	(36,238)	-24.8%	(216,932)	-26.4%	NA	-1.8%

The ratio of injured workers to providers is a useful measure of access in that it measures the availability of providers. The aggregate measure presented in Table 3.2, however, does not identify changes in the mix of providers available to injured workers. Additional analyses were completed to address this issue.

Table 3.3 identifies the ratio of injured workers to providers in key specialties. Specialties were chosen for inclusion in the table based on their volume of medical bills and the extent to which the number of providers in each specialty varied during the study period. Definitions of specialties were provided in Chapter 1.

The ratio of chiropractors and general practice/internal medicine/family practice to the number of injured workers increased during the study period, which means that there were fewer of these providers for the number of injured workers who needed care. At the same time, there was a decrease in the ratio of anesthesiology/pain management, mental health and orthopedics/physical and occupational medicine to the number of injured workers which means more of these providers were available to injured workers who needed care. There was little change in the availability of physical and occupational therapists during the study period.

Table 3.3
Change in the Ratio of Injured Workers to Providers
Selected Specialties
2007-2013

Specialty	Providers 2007	Workers/Providers 2007	Providers 2013	Workers/Providers 2013	Percent Change
Chiropractic	9,883	83.2	6,352	95.3	14.5%
General/Internal/Family Medicine	40,338	20.4	23,584	25.7	26.0%
Physical Therapy and Occupational Therapy	8,329	98.7	6,088	99.4	0.7%
Anesthesiology/Pain Management	3,354	245.1	3,288	184.1	-25.3%
Mental Health	7,469	110.1	5,443	81.0	-26.4%
Orthopedics/Physical and Occupational Medicine	10,104	81.4	8,204	73.8	-9.3%
Radiology	4,225	194.6	2,876	210.5	8.2%
Surgery	4,889	168.2	3,453	175.3	4.2%

3.4 Number of Bills Submitted by Provider Type and Specialty

The number of providers submitting medical bills for injured workers by provider type and specialty was calculated for each year, with special focus on high-volume providers. These analyses are described in the sections that follow.

3.3.2 Total Number of Medical Bills Submitted

As described in the 2013 and 2014 reports, the number of medical bills submitted was relatively constant from 2007 to 2010. Total bills increased by just 1.2 percent between 2007 and 2010 (the number of bills declined in 2008, but increased in 2009 and 2010). However, the number of bills declined substantially from 2010 to 2011 (11 percent) and from 2011 to 2012 (9 percent). It was previously noted that the number of injured workers and the number of unique providers increased from 2012 to 2013. As expected, the number of medical bills also increased from 2012 to 2013, although the increase in the number of medical bills was considerably greater (19 percent).

As shown in Table 3.4, with the exception of a few increases in some years, the number of bills in each region steadily declined between 2007 and 2012, with much larger decreases from 2010 to 2011 when the number of bills declined between 9 and 22 percent in every region, and from 2011 to 2012, when the number of bills declined between 6 and 16 percent across the regions. The greatest declines in



medical bills submitted over the entire time period from 2007 to 2012 occurred in the San Francisco Bay Area, the Central Coast and San Diego. The volume of medical bills declined at lower rates in Los Angeles, the Inland Empire region and Sacramento Valley North (between 10 and 13 percent). At the same time, the number of bills submitted by out-of-state providers has been steadily increasing since 2007, for a total increase of 49 percent between 2007 and 2012.

The number of medical bills submitted in 2013 was, as noted, considerably greater than the number submitted in 2012. The rate of increase was greatest in the Bay Area, San Diego and the Eastern Sierra Foothills regions. The lowest rates of increase were in the Los Angeles and Inland Empire regions. There is considerably more fluctuation in the number of medical bill submissions in the Bay Area and San Diego as compared to Los Angeles and the Inland Empire.

Table 3.4*
Number of Medical Bills Submitted and Percent Change for 2007 – 2013
All Regions and Out-of-State

Region	2007	2008	2009	2010	2011	2012	2013	% Change 2007-2013
Bay Area	1,602,267	1,544,022	1,467,253	1,491,737	1,254,938	1,080,218	1,422,956	-11.2%
Central Coast	546,923	512,024	498,360	499,957	427,096	385,115	484,353	-11.4%
Central Valley	750,591	792,109	789,847	780,841	632,770	583,504	752,468	0.3%
Eastern Sierra Foothills	110,391	107,529	111,724	110,838	91,115	80,834	105,547	-4.4%
Inland Empire	2,060,519	1,949,125	1,970,203	2,089,166	1,846,053	1,738,359	1,948,850	-5.4%
Los Angeles	3,916,612	3,704,344	3,774,257	3,944,351	3,485,929	3,256,154	3,625,546	-7.4%
North State	127,386	122,521	127,024	127,601	102,450	90,737	112,190	-11.9%
Sacramento Valley	355,913	336,466	335,667	333,784	293,117	250,533	302,466	-15.0%
Sacramento Valley (N.)	67,657	70,154	67,289	64,783	58,691	54,569	65,071	-3.8%
San Diego	638,354	613,872	654,211	617,451	478,887	449,521	589,566	-7.6%
Out-of-State	503,195	517,163	616,545	748,546	896,606	751,489	994,572	97.7%
Total	10,679,808	10,269,329	10,412,380	10,809,055	9,567,652	8,721,033	10,403,585	-2.6%

*Sorted by region name

The number of providers who submitted medical bills declined by 24.8 percent between 2007 and 2013, while the number of medical bills submitted during this period declined by only 2.6 percent. In 2007, 146,247 providers submitted 10,679,808 medical bills for an average of 73 bills per provider. In 2013, 110,009 providers submitted 10,403,585 bills for an average of 94 bills per provider, an increase of 29 percent.

As shown in Table 3.5, the number of bills submitted per worker shows a similar pattern to the number of bills submitted per provider. In fact, the number of bills increased from 2008 to 2009 and from 2009 to 2010, even though the number of injured workers showed the largest declines in those years. Most importantly, the number of injured workers declined by 26 percent from 2007 to 2013, while the number of medical bills per injured worker increased by 32 percent.

**Table 3.5
Average Number of Medical Bills Submitted Per Worker
2007 – 2013**

Year	Number of Bills	% Change	Estimated Injured Workers	% Change	Average Number of Bills Per Worker	% Change
2007	10,679,807	---	822,175	---	13	---
2008	10,269,329	-3.8%	799,048	-2.8%	12.9	-0.8%
2009	10,412,380	1.4%	726,150	-9.1%	14.3	10.9%
2010	10,809,055	3.8%	675,061	-7.0%	16	11.9%
2011	9,567,652	-11.5%	605,976	-10.2%	15.8	-1.3%
2012	8,721,033	-8.5%	574,524	-5.2%	15.2	-3.8%
2013	10,403,585	19.3%	605,243	5.3%	17.2	13.2%
Change 2007-2013	(276,222)	-2.6%	(216,932)	-26.4%	4.2	32.3%

3.3.3 Number of Medical Bills Submitted by Provider Type

In the following analysis, injured workers' medical bills have been categorized by Provider Type (Level 2) as described previously in Section 1.2.2. The greatest numbers of bills were submitted by primary care physicians (general practitioners, internal medicine specialists, family practitioners, preventive medicine specialists) orthopedic/physical medicine physicians (also includes rehabilitation physicians and occupational medicine physicians), physical and occupational therapists and non-physician/mid-level practitioners in 2013. The largest portion of bills (27 percent) was submitted by primary care physicians. Physicians specializing in orthopedics, physical medicine and rehabilitation, and occupational medicine submitted 12 percent of bills, and physical and occupational therapists submitted 13 percent of bills. The volume of bills submitted by non-physician or mid-level practitioners increased to 17 percent in 2013 compared to 8 percent in 2007.

Although primary care physicians submitted the highest portion of bills, the number of bills submitted by these providers decreased by 36 percent from 2007 to 2013, from 4.4 million to 2.8 million. It should be noted that it is likely that group practices and ambulatory health care facilities provide mostly primary care. These provider types, however, are identified in WCIS data in such a way that it is not possible to distinguish primary care from specialty care. Nevertheless, the decline in the use of primary care physicians is not substantially offset when these additional provider types are included. The

number of bills submitted by orthopedic/physical medicine physicians also decreased by almost 13 percent during the time period. There was an overall increase of 42 percent in the number of bills submitted by physical and occupational therapists from 2007 to 2013. Among other provider types, the volume of bills submitted by anesthesiologists and pain management physicians increased dramatically in 2013, bringing the percentage increase for the period from 2007 to 2013 to 116 percent. These findings are shown in Table 3.6a.

Table 3.6a
Number of Bills Submitted by Provider Type and Change from 2007 to 2013
In-State and Out-of-State

Provider Type	2007 No. of Bills	2013 No. of Bills	Change No. of Bills	Change Percent
Physicians:				
Primary Care	4,384,809	2,816,939	(1,567,870)	-35.8%
Pain Management	122,779	264,832	142,053	115.7%
Mental Health	202,178	228,995	26,817	13.3%
Orthopedics and Physical Medicine	1,368,171	1,191,071	(177,100)	-12.9%
Other Hospital Based Physicians	223,002	194,186	(28,816)	-12.9%
Other Non-Hospital Based Physicians	80,544	84,546	4,002	5.0%
Radiology	219,863	226,251	6,388	2.9%
Surgery	70,357	88,531	18,174	25.8%
Group Practices	315,618	383,149	67,531	21.4%
Ambulatory Health Care Facilities	248,628	89,452	(159,176)	-64.0%
Facilities:				
Labs	22,082	184,078	161,996	733.6%
Nursing and Custodial Care	753	2,769	2,016	267.7%
Ambulatory Surgical Centers	47,937	65,552	17,615	36.7%
Hospitals	260,749	177,411	(83,338)	-32.0%
Non-Physician and Mid-Level Practitioners	855,971	1,714,400	858,249	100.3%
Pharmacies	271,368	372,630	101,262	37.3%
Physical and Occupational Therapy	926,472	1,319,714	393,242	42.4%
Chiropractic	516,689	502,610	(14,079)	-2.7%
Medical Supplies	377,498	351,815	(25,683)	-6.8%
Other	88,033	139,940	51,907	60.0%
<i>Provider Type Missing</i>	66,298	3,714	(62,584)	-94.4%
Total	10,669,799	10,402,585	(267,214)	-2.5%

For in-state providers, there were substantial decreases in the number of medical bills between 2007 and 2013 among primary care physicians (36 percent) and orthopedic/physical medicine physicians (13 percent). However, the number of bills submitted by non-physician or midlevel practitioners increased 77 percent during the time period. The number of bills that were missing a provider type code substantially decreased over the period. These bills now represent only 0.4 percent of total bills. These findings are shown in Table 3.6b.

Table 3.6b
Number of Bills Submitted by Provider Type and Change from 2007 to 2013
In-State Providers Only

Provider Type	2007 No. of Bills	2013 No. of Bills	Change No. of Bills	Change Percent
Physicians:				
Primary Care	4,173,158	2,729,943	(1,443,215)	-34.6%
Pain Management	95,195	259,305	164,110	172.4%
Mental Health	196,969	223,547	26,578	13.5%
Orthopedics and Physical Medicine	1,335,966	1,165,712	(170,254)	-12.7%
Other Hospital Based Physicians	204,905	181,438	(23,467)	-11.5%
Other Non-Hospital Based Physicians	76,120	82,462	6,342	8.3%
Radiology	207,988	215,056	7,068	3.4%
Surgery	68,980	86,898	17,918	26.0%
Group Practices	311,466	350,144	38,678	12.4%
Ambulatory Health Care Facilities	243,646	83,962	(159,684)	-65.5%
Facilities:				
Labs	18,860	146,210	127,350	675.2%
Nursing and Custodial Care	683	2,711	2,028	296.9%
Ambulatory Surgical Centers	46,474	64,580	18,106	39.0%
Hospitals	254,438	169,764	(84,674)	-33.3%
Non-Physician and Mid-Level Practitioners	790,176	1,394,427	604,251	76.5%
Pharmacies	195,310	293,391	98,081	50.2%
Physical and Occupational Therapy	915,691	1,121,456	205,765	22.5%
Chiropractic	506,734	479,413	(27,321)	-5.4%
Medical Supplies	292,394	255,569	(36,825)	-12.6%
Other	75,639	99,366	23,727	31.4%
<i>Provider Type Missing</i>	<i>61,262</i>	<i>3,619</i>	<i>(57,463)</i>	<i>-94.1%</i>
Total	10,176,606	9,408,973	(767,633)	-7.5%

Greater inconsistency among specific provider types across regions between 2007 and 2013 were found as compared to the period from 2007 to 2012. The number of medical bills submitted by primary care physicians declined in all regions except North State – Shasta. Medical bills submitted by mid-level practitioners increased substantially in all regions. Although medical bills submitted by orthopedic/physical medicine specialists declined in 8 regions, they increased in North State – Shasta and Sacramento Valley. Medical bills submitted by physical therapists increased in all regions except in the Inland Empire where they declined by 30 percent. Medical bills submitted by chiropractors declined in 6 regions and increased in 4 regions. These findings are shown in Table 3.6c.

Table 3.6c*
Highest-Volume Provider Types
Percent Change in Medical Bills Submitted by Region
2007 – 2013

Region	General Practice	Non-Physician or MidLevel	Ortho/PMR/Occupational Medicine	PT/OT	Chiropractor
Bay Area	-30%	75%	-20%	18%	-39%
Central Coast	-42%	77%	-11%	53%	-34%
Central Valley	-33%	124%	-43%	53%	-5%
E Sierra Foothills	-48%	163%	-24%	37%	-11%
Inland Empire	-29%	70%	-10%	-30%	11%
Los Angeles	-40%	76%	-16%	13%	7%
North State – Shasta	3%	47%	25%	81%	-10%
Sacramento Valley	-41%	176%	12%	35%	-33%
Sacramento Valley N	-62%	149%	-35%	45%	2%
San Diego	-41%	130%	-3%	11%	2%

At the same time that the number of bills decreased for many in-state provider types, the number of bills submitted by the same out-of-state provider types increased. Similar to the in-state analysis, the number of bills submitted by out-of-state primary care physicians decreased by a large percentage, and the number of bills submitted by non-physician and mid-level practitioners increased dramatically. Other provider types that experienced large increases in the number of medical bills submitted included clinical labs, physical therapists and chiropractors. These findings are shown in Table 3.6d.

Table 3.6d
Number of Bills Submitted by Provider Type and Change from 2007 to 2013
Out-of-State Providers Only

Provider Type	2007 No. of Bills	2013 No. of Bills	Change No. of Bills	Change Percent
Physicians:				
Primary Care	130,439	71,684	(58,755)	-45.0%
Pain Management	3,759	5,807	2,048	54.5%
Mental Health	5,209	5,448	239	4.6%
Orthopedics and Physical Medicine	32,205	25,359	(6,846)	-21.3%
Other Hospital Based Physicians	18,097	27,779	9,682	53.5%
Other Non-Hospital Based Physicians	4,424	2,084	(2,340)	-52.9%
Radiology	11,875	20,747	8,872	74.7%
Surgery	1,377	1,633	256	18.6%
Group Practices	4,152	33,305	29,153	702.1%
Ambulatory Health Care Facilities	4,982	5,490	508	10.2%
Facilities:				
Labs	3,222	37,870	34,648	1,075.4%
Nursing and Custodial Care	70	156	86	122.9%
Ambulatory Surgical Centers	1,463	972	(491)	-33.6%
Hospitals	6,311	7,647	1,336	21.2%
Non-Physician and Mid-Level Practitioners	65,795	294,841	229,046	348.1%
Pharmacies	76,058	79,239	3,181	4.2%
Physical and Occupational Therapy	21,266	198,258	176,992	832.3%
Chiropractic	9,955	23,197	13,242	133.0%
Medical Supplies	85,104	96,247	11,143	13.1%
Other	12,394	40,574	28,180	227.4%
<i>Provider Type Missing</i>	<i>5,036</i>	<i>95</i>	<i>(4,941)</i>	<i>-98.1%</i>
Total	10,176,606	9,408,973	(767,633)	-7.5%

3.3.4 Number of Medical Bills Submitted by Specialty

When physicians and certain non-physician practitioners are further classified into specialties and subspecialties (Level 1 – Specialty, as described in Section 1.2.2), similar patterns emerge in the number of medical bills submitted. Physicians in general practice had the highest number of bills submitted in 2013, while physical therapists, chiropractors and physicians specializing in orthopedics also submitted high numbers of bills. The remaining specialties each submitted less than 5 percent of bills, with the vast majority submitting less than 1 percent of all medical bills. Although some specialties submitted low numbers of bills, there is representation across a variety of provider types and specialties indicating that there are several different types of specialists who participate in the workers’ compensation program. On the other hand, the number of bills submitted by providers in general practice and in specialties that have historically treated large numbers of injured workers decreased.



There were several shifts among specialties that submitted at least 30,000 bills in either 2007 or 2013. For example, the number of bills submitted by general practice physicians and physical medicine and rehabilitation physicians declined by more than 50 percent from 2007 to 2013. In addition, the number of bills submitted by emergency medicine physicians decreased by 30 percent. At the same time, the number of bills submitted by some specialties increased dramatically, including pain medicine physicians (332 percent). Other provider specialties with large increases in the number of bills submitted include clinical labs (733 percent), pathologists (105 percent) and pharmacists (85 percent). These findings are shown in Table 3.7a.

Table 3.7a*
Number of Bills Submitted by High-Volume Specialists and Change from 2007 to 2013
All Regions and Out-of-State

Specialty	2007		2013		2007 – 2013
	Number of Bills	% Total	Number of Bills	% Total	% Change
Lab: Clinical Lab	22,072	0.2%	183,939	1.8%	733.4%
Physician: Pain Medicine	23,825	0.2%	102,863	1.0%	331.7%
Provider: Other	331,370	3.2%	967,599	9.6%	192.0%
Physician: Pathology	55,026	0.5%	112,613	1.1%	104.7%
Pharmacist	221,510	2.1%	408,832	4.1%	84.6%
Physician: Family Medicine	126,707	1.2%	216,978	2.2%	71.2%
Physician: Anesthesiology	98,954	1.0%	162,249	1.6%	64.0%
Physician: Internal Medicine	126,322	1.2%	196,984	2.0%	55.9%
Psychologist	65,264	0.6%	99,548	1.0%	52.5%
Physical Therapist	811,371	7.9%	1,192,852	11.9%	47.0%
Ambulatory Surgical Center	47,937	0.5%	65,552	0.7%	36.7%
Suppliers : Pharmacy	266,908	2.6%	364,741	3.6%	36.7%
Physician: Preventive Medicine	453,175	4.4%	609,564	6.1%	34.5%
Podiatrist	34,349	0.3%	46,204	0.5%	34.5%
Physician: Orthopedics	687,313	6.7%	881,277	8.8%	28.2%
Group Practice: Single Specialty	45,576	0.4%	56,714	0.6%	24.4%
Group Practice or Clinic: Multispecialty	270,042	2.6%	326,435	3.3%	20.9%
Physician Assistant	166,921	1.6%	197,270	2.0%	18.2%
Nurse	29,295	0.3%	34,316	0.3%	17.1%
Occupational Therapist	105,773	1.0%	118,211	1.2%	11.8%
Physician: Psychiatry and Neurology	96,954	0.9%	107,671	1.1%	11.1%
Suppliers: DME	341,342	3.3%	347,203	3.5%	1.7%
Physician: Diagnostic Radiology	219,218	2.1%	222,812	2.2%	1.6%
Chiropractor	516,689	5.0%	502,610	5.0%	-2.7%
Physician: Other	57,239	0.6%	56,608	0.6%	-1.1%
Hospital: General Acute Care	166,196	1.6%	150,691	1.5%	-9.3%
Technologists, Technicians and Other Technical Service Providers	65,213	0.6%	51,589	0.5%	-20.9%
Physician: Emergency Medicine	138,288	1.3%	96,604	1.0%	-30.1%
Physician: General Practice	3,595,655	34.8%	1,732,050	17.3%	-51.8%
Physician: Physical Medicine and Rehabilitation	680,858	6.6%	309,794	3.1%	-54.5%
Occupational Medicine Clinic	124,365	1.2%	44,474	0.4%	-64.2%
Hospital: Other	94,553	0.9%	26,720	0.3%	-71.7%
Clinic Other	233,561	2.3%	37,930	0.4%	-83.8%

*Submitted > 30,000 medical bills in either 2007 or 2013. Sorted by percent change.

Data by specialty for only in-state providers for the period from 2007 to 2013 are presented in Table 3.7b. The findings are similar to the overall finding presented in Table 3.7a, although there are some variations. Medical bills submitted by pharmacists increased at a greater rate in the overall data than in the in-state data, because of the number of bills submitted by out-of-state providers. Similar findings

for physical therapists are noted as well. It is possible that an increasing number of physical therapists based in California are using out-of-state billing services.

Table 3.7b*
Number of Bills Submitted by High Volume Specialists and Change from 2007 to 2013
In-State Providers Only

Specialty	2007		2013		2007 – 2013
	Number of Bills	% Total	Number of Bills	% Total	% Change
Lab: Clinical Lab	18,851	0.2%	146,077	1.6%	674.9%
Physician: Pain Medicine	22,938	0.2%	100,625	1.1%	338.7%
Provider: Other	321,874	3.3%	927,004	10.2%	188.0%
Physician: Pathology	44,549	0.5%	88,519	1.0%	98.7%
Physician: Family Medicine	124,694	1.3%	213,390	2.4%	71.1%
Physician: Anesthesiology	95,195	1.0%	158,680	1.8%	66.7%
Physician: Internal Medicine	121,409	1.2%	193,540	2.1%	59.4%
Psychologist	64,231	0.7%	97,776	1.1%	52.2%
Suppliers : Pharmacy	194,193	2.0%	285,826	3.2%	47.2%
Ambulatory Surgical Center	46,474	0.5%	64,580	0.7%	39.0%
Podiatrist	33,712	0.3%	45,505	0.5%	35.0%
Physician: Preventive Medicine	445,596	4.6%	593,132	6.6%	33.1%
Physical Therapist	793,109	8.1%	1,022,029	11.3%	28.9%
Physician: Orthopedics	678,131	6.9%	869,746	9.6%	28.3%
Nurse	28,338	0.3%	33,560	0.4%	18.4%
Physician Assistant	165,494	1.7%	195,602	2.2%	18.2%
Group Practice or Clinic: Multispecialty	266,932	2.7%	305,278	3.4%	14.4%
Physician: Psychiatry and Neurology	94,897	1.0%	104,876	1.2%	10.5%
Physician: Other	53,213	0.5%	55,384	0.6%	4.1%
Group Practice: Single Specialty	44,534	0.5%	44,866	0.5%	0.7%
Physician: Diagnostic Radiology	207,349	2.1%	203,911	2.3%	-1.7%
Suppliers: DME	258,230	2.6%	251,000	2.8%	-2.8%
Chiropractor	506,734	5.2%	479,413	5.3%	-5.4%
Pharmacist	174,135	1.8%	158,642	1.8%	-8.9%
Occupational Therapist	103,290	1.1%	92,640	1.0%	-10.3%
Hospital: General Acute Care	162,318	1.7%	143,927	1.6%	-11.3%
Physician: Emergency Medicine	131,936	1.3%	92,919	1.0%	-29.6%
Physician: General Practice	3,479,868	35.6%	1,684,349	18.6%	-51.6%
Physician: Physical Medicine and Rehabilitation	657,835	6.7%	295,966	3.3%	-55.0%
Hospital: Other	92,120	0.9%	25,837	0.3%	-72.0%
Occupational Medicine Clinic	123,844	1.3%	43,987	0.5%	-64.5%
Clinic Other	229,155	2.3%	34,773	0.4%	-84.8%

*Submitted > 30,000 medical bills in either 2007 or 2013. Sorted by percent change.

In contrast to in-state providers, there are more out-of-state specialties with increases in the number of medical bills submitted over the 2007 to 2013 time period. Clinical labs, group practices –single specialty, occupational therapists, physical therapists, and group practices – multispecialty all had increases in excess of 500 percent. These findings are shown in Table 3.7c.

Table 3.7c*
Number of Bills Submitted by High-Volume Specialists and Change from 2007 to 2013
Out-of-State Providers

Specialty	2007		2013		2007 – 2013
	Number of Bills	% Total	Number of Bills	% Total	% Change
Lab: Clinical Lab	3,221	0.7%	37,862	4.0%	1075.5%
Group Practice: Single Specialty	1,042	0.2%	11,848	1.3%	1037.0%
Occupational Therapist	2,483	0.6%	25,571	2.7%	929.8%
Physical Therapist	18,262	4.2%	170,823	18.2%	835.4%
Group Practice or Clinic: Multispecialty	3,110	0.7%	21,157	2.3%	580.3%
Agencies	2,874	0.7%	15,718	1.7%	446.9%
Pharmacist	47,375	10.8%	250,190	26.7%	428.1%
Technologists, Technicians and Other Technical Service Providers	3,810	0.9%	16,584	1.8%	335.3%
Provider: Other	9,496	2.2%	40,595	4.3%	327.5%
Transportation: Other	4,196	1.0%	17,062	1.8%	306.6%
Chiropractor	9,955	2.3%	23,197	2.5%	133.0%
Physician: Pathology	10,477	2.4%	24,094	2.6%	130.0%
Physician: Preventive Medicine	7,579	1.7%	16,432	1.8%	116.8%
Physician: Diagnostic Radiology	11,869	2.7%	18,901	2.0%	59.2%
Physician: Orthopedics	9,182	2.1%	11,531	1.2%	25.6%
Suppliers: DME	83,112	18.9%	96,118	10.2%	15.6%
Suppliers : Pharmacy	72,715	16.5%	78,915	8.4%	8.5%
Physician: Physical Medicine and Rehabilitation	23,023	5.2%	13,828	1.5%	-39.9%
Physician: General Practice	115,787	26.3%	47,701	5.1%	-58.8%

*Submitted > 10,000 medical bills in either 2007 or 2013. Sorted by percent change.

3.4 Discussion

The number of injured workers receiving medical services in the California workers’ compensation system and the number of providers treating these injured workers decreased continually during the period from 2007 to 2012. This trend was reversed in 2013 when the number of injured workers and the number of providers increased slightly. Over the entire study period (2007-2013), the ratio of injured workers to providers remained fairly constant and was almost the same in 2013 as it was in

2007, i.e., there was little change in aggregate provider availability. The ratio of certain provider types to injured workers, however, changed more substantially. There were fewer chiropractors and primary care physicians per injured worker in 2013 than in 2007, but there were more anesthesiologists/pain medicine providers and the number of orthopedic/physical medicine physicians increased per injured worker. The aggregate data suggest that there was little change in the availability of providers during the study period.

The number of medical bills submitted during the study period increased substantially (19.3 percent). Although it is not surprising that there was an increase in the number of injured workers in 2013, the extent of the increase is greater than expected. National data identify a slight increase in injured workers and medical bills submitted for workers compensation claims in 2013, but the national increase is far less substantial than the increase in California.⁵ It should be noted that the declines in injured workers and medical bills in California for the period 2007 to 2013 occurred at a greater rate than declines in the nation as a whole, which could account for a portion of the extent of the change in California. It should also be understood that although the number of injured workers increased in 2013, there were still considerably more injured workers in 2007 than in 2013. The significance of the 2013 increase is in its reversal of the trend of declining numbers of injured workers, not in the absolute number of workers who were injured while working.

The national increases in injured workers and medical bills are attributed to economic recovery, which varied by industry. For example, the national recovery in the construction industry appeared to start earlier than it did in California. The mix of industries in California may, therefore, have had an effect on the rate of growth in injured workers, but national data for different industries do not indicate rates of change that are sufficiently significant to explain the overall increase. The number of injured workers grew by more than 5 percent in California in 2013 while the national increase was less than half that amount.⁶

Although the number of injured workers increased in 2013 to reverse the trend in downward numbers of injured workers, there were still far fewer injured workers in 2013 than there were in 2007. As noted in the Year 2 report, these declines appear to be driven by a number of factors. However, it is important to note that, beginning in 1991, there has been a nationwide downward trend in the number of workers' compensation claims. Expert sources differ on the specific reasons for the decline. The National Council on Compensation Insurance (NCCI) attributes the declines to several factors, including advances in automation and technology, an aging (and hence, more experienced) workforce, and

⁵ See Bureau of Labor Statistics, <http://www.bls.gov/news.release/pdf/osh2.pdf>

⁶ Id.

greater emphasis on workplace safety.⁷ However, the Commission on Health and Safety and Workers' Compensation (CHSWC) found that an increase in older workers did not necessarily correlate with fewer workplace injuries, at least for women. As stated in a 2011 report, "[w]e find that after controlling for the types of jobs and the hours worked, injury risk through the age of 64 only declines for men, while the risk for women stays constant or increases gradually with age."⁸

It is noteworthy that the number of providers did not change substantially as the number of injured workers grew from 2012 to 2013, which means that approximately the same number of providers treated a greater number of injured workers. It is not clear, however, that this finding means that there was an impact on access to medical care. Because the number of injured workers declined more rapidly than the number of providers between 2007 and 2012, it is likely that there was capacity in the workers' compensation provider network to provide access to additional injured workers in 2013 when the number of injured workers increased.

The rate of growth of medical bills per injured worker is noteworthy. Almost the same numbers of medical bills were submitted in 2013 as were submitted in 2007, despite a decline of more than 26 percent in the number of injured workers. The increase in the number of medical bills submitted in 2013 indicates that more services are being provided to injured workers than were provided in earlier years. Although some of the difference in medical bills submitted may be the result of improved reporting, the increase appears to be too great to be the result of only improved reporting.

Increases in medical bills for injured workers were not proportional among provider types and in some instances, appear to mirror changes in the health care system as a whole. The decline in the use of primary care physicians and the increase in the use of mid-level professionals has occurred throughout the health care industry although not at as significant rates as found for injured workers. The National Ambulatory Medical Care Survey prepared by the U.S. National Center for Health Statistics identified a decline of 4.6 percent in the number of primary care visits for the U.S. as a whole between 2009 and 2010.⁹ More recent data have not yet been published. Similarly, increases in lab testing and the use of drugs occurred in the health care system as a whole, but, again, not at the rate that these changes occurred for injured workers. It is noteworthy that that the data suggest that the utilization of anesthesiologists and pain medicine specialists has increased substantially as the utilization of orthopedic specialists and chiropractors has declined.

⁷National Council on Compensation Insurance. *Workers' Compensation Claim Frequency Continues to Decline in 2009*. September 2010. P.1.

⁸Commission on Health and Safety and Workers' Compensation. *Working Safer or Just Working Longer? The Impact of an Aging Workforce on Occupational Injury and Illness Costs*. January 2011. P.1.

⁹ National Center for Health Statistics, National Ambulatory Care Medical Survey, http://www.cdc.gov/nchs/data/ahcd/namcs_summary/2008_namcs_web_tables.pdf.



Increases in the number of medical bills submitted by out-of-state providers are not likely to have significant meaning for the measurement of service use. Most of California's out-of-state billing is undertaken by billing agencies in other parts of the U.S. on behalf of California-based providers. For example, an increasing number of lab services are provided by national labs as compared to local labs, which is likely to be responsible for the increase in out-of-state medical bills submitted by labs.

4. UTILIZATION OF SERVICES

4.1 Medical Services Billed

As discussed previously, there were 26.4 percent fewer injured workers in 2013 than there were in 2007. The number of medical bills declined slightly during the period, which means that more services were billed in 2013 than in earlier years. There were 22.9 million procedures/services (HCPCS codes) billed in 2007. As shown in Table 4.1, this increased to 25.8 million codes in 2010, when the number of medical bills was at its highest level prior to 2013. The number of codes increased to 26.7 million in 2013, a net increase of more than 3.9 million codes or 16.9 percent more than the number of codes billed in 2007. The number of Health Care Common Procedure Coding System (HCPCS) codes billed is less than the number that would be expected given the number of medical bills submitted. A portion of all bills submitted do not have HCPCS codes, which limits this analysis. The number of bills without HCPCS codes is relatively constant from year to year, which allows trend analyses to be completed. It should be understood, however, that the analysis of specific codes is limited by the data used for the analysis.

Table 4.1
Total HCPCS Codes Billed
2007 – 2013

Year	Total HCPCS Codes Billed	Percent Change
2007	22,859,147	---
2008	23,351,406	2.2%
2009	24,452,301	4.7%
2010	25,816,772	5.6%
2011	20,104,549	-22.1%
2012	21,861,496	8.7%
2013	26,724,152	22.2%
Change 2007-2013	3,865,005	16.9%%

In terms of specific services billed, increases in the occurrence of two codes, CPT 97026 – infrared therapy and CPT 97801 – acupuncture, were especially substantial. The volume of each of these codes increased by more than 125.0 percent. Other services such as reimbursable chart notes, also increased during the period. CPT 99080 (special reports and forms) increased by 42.6 percent. CPT 99081 (primary treating physician progress report –form PR-2) increased by 10.7 percent. These codes are special CPT codes used by the workers’ compensation program to reimburse providers for reports that are required by the State of California. According to the California Code of Regulations, an injured worker’s “primary treating physician” is required to submit reports in narrative format (using specific guidelines) or complete the “Primary Treating Physician’s Report” form (DWC Form PR-2), which is

reimbursed under CPT 99081.¹⁰ It is important to note, however, that the volume of bills for 99081 increased even though the number of injured workers declined by more than 20.0 percent.

Other high-volume medical procedures increased as well, especially myofascial release (CPT 97250) and electric stimulation therapy (CPT 97014). Codes that had the largest decreases included mechanical traction therapy (CPT 97012), physical therapy – additional time increments (CPT 97145) and ultrasound (CPT 97128). The data appear to show that newer technologies and approaches used in 2013 replaced technologies and approaches used in 2007. Data on the frequency with which codes were billed are shown in Table 4.2.

Table 4.2
Changes in Highest-Volume CPT Codes*
2007 – 2013

HCPCS Code	Description	Code Count 2007	Code Count 2013	Percent Change
99081	Primary treating physician progress report	2,017,221	2,232,963	10.7%
99214	Office/outpatient visit (established patient)	1,347,627	1,624,216	20.5%
97250	Myofascial release	1,141,168	1,565,418	37.2%
97014	Electric stimulation therapy	1,265,334	1,564,252	23.6%
97110	Therapeutic exercises	1,286,795	1,519,215	18.1%
99080	Special reports or forms	870,549	1,241,127	42.6%
99213	Office/outpatient visit (established patient)	1,237,721	1,102,413	-10.9%
99358	Prolonged service w/o contact	446,693	803,649	79.9%
97026	Infrared therapy	269,914	610,798	126.3%
99070	Special supplies and materials	526,879	500,931	-4.9%
99215	Office/outpatient visit (established patient)	392,707	405,984	3.4%
A4556	Electrodes, pair	245,987	256,665	4.3%
99204	Office/outpatient visit (new patient)	263,544	254,324	-3.5%
99199	Unlisted special service, procedure or report	148,458	253,656	70.9%
97801	Acupuncture, 1 or more needles	80,558	211,771	162.9%
95851	Range of motion measurements	184,600	210,676	14.1%
97530	Therapeutic activities	184,164	205,546	11.6%
97016	Vasopneumatic device therapy	100,155	196,071	95.8%
98940	Chiropractic manipulation 1-2 regions	213,510	194,625	-8.9%
99203	Office/outpatient visit (new patient)	213,996	189,442	-11.5%
97128	Ultrasound	228,322	183,536	-19.6%
97018	Paraffin bath therapy	158,016	173,012	9.5%
97145	Physical therapy, additional time increments	211,305	167,673	-20.6%
97012	Mechanical traction therapy	200,974	158,515	-21.1%
90901	Biofeedback training	88,554	147,082	6.1%
Other		9,534,396	10,750,592	12.8%
Total		22,859,147	26,724,152	16.9%

*Sorted by 2013 volume.

¹⁰ California Code of Regulations, Title 8, Section 9785.

4.2 Drugs Billed

As the number of medical services provided increased between 2007 and 2013, the number of drugs prescribed, as measured by the number of National Drug Codes (NDCs) billed, also increased.¹¹ In 2007, a total of 417,772 NDC codes were billed, while 782,657 NDC codes were billed in 2013 (an 87 percent increase). The number of prescriptions reached a high of 782,657 in 2013. The highest-volume drug prescribed across all years (10.6 percent of all drugs billed in 2013) was hydrocodone-acetaminophen, which is sold in generic form and also under such brand names as Vicodin. Hydrocodone is a narcotic pain-reliever. The number of bills for hydrocodone-acetaminophen increased 53 percent from 2007 to 2013. The number of bills for other narcotic pain medications such as APAP-hydrocodone (another form of hydrocodone and acetaminophen), oxycodone, oxycontin and tramadol also increased. For example, the number of bills for oxycontin increased by 915 percent and for tramadol increased by 257 percent. Tramadol is a synthetic pain reliever.¹²

Other commonly prescribed drugs include ibuprofen and naproxen (both non-steroidal anti-inflammatory drugs or NSAIDs), and the number of bills for these drugs also increased. Only three high-volume drugs (carisoprodol, acetaminophen-codeine and compound drugs) decreased in volume during the study period. One drug, ketoprofen, was used far less frequently in 2013 than it had been in 2010 through 2012. Ketoprofen is an NSAID drug that is used as an anti-inflammatory medication. Other NSAIDs increased in volume as ketoprofen decreased. These data are shown in Table 4.3.

¹¹NDC codes were categorized into their respective generic drug names using the National Drug Code directory published by the Food and Drug Administration (FDA).

¹²Available at www.medicinenet.com.

Table 4.3*
Changes in Highest-Volume Drugs Billed
2007 – 2013

Drug Name	2007		2013		2007-2013
	Number of NDCs Billed	% Total	Number of NDCs Billed	% Total	% Change
OXYCONTIN	656	0.2%	6,658	0.9%	914.9%
ZOLPIDEM TARTRATE	3,834	0.9%	14,954	1.9%	290.0%
OMEPRAZOLE	6,630	1.6%	25,514	3.3%	284.8%
TIZANIDINE	3,049	0.7%	11,014	1.4%	261.2%
TRAMADOL	10,372	2.5%	36,992	4.7%	256.7%
APAP/HYDROCODONE	6,091	1.5%	19,031	2.4%	212.4%
CYMBALTA	4,036	1.0%	12,200	1.6%	202.3%
BUPROPION	1,962	0.5%	5,731	0.7%	192.1%
CYCLOBENZAPRINE	10,174	2.4%	27,943	3.6%	174.7%
NABUMETONE	2,613	0.6%	7,077	0.9%	170.8%
GABAPENTIN	9,774	2.3%	25,811	3.3%	164.1%
OXYCODONE-ACETAMINOPHEN	5,726	1.4%	14,934	1.9%	160.8%
TRAZODONE	2,375	0.6%	5,925	0.8%	149.5%
AMITRIPTYLINE	2,424	0.6%	5,507	0.7%	127.2%
ALPRAZOLAM	3,557	0.9%	6,806	0.9%	91.3%
NAPROXEN	13,315	3.2%	24,646	3.1%	85.1%
DICLOFENAC SODIUM	3,205	0.8%	5,856	0.7%	82.7%
IBUPROFEN	20,049	4.8%	34,434	4.4%	71.7%
CELEBREX	8,001	1.9%	13,687	1.7%	71.1%
HYDROCODONE-ACETAMINOPHEN	54,324	13.0%	83,142	10.6%	53.0%
LIDODERM	6,701	1.6%	10,029	1.3%	49.7%
COMPOUND DRUGS	25,568	6.1%	34,749	4.4%	35.9%
ACETAMINOPHEN-CODEINE	5,653	1.4%	5,608	0.7%	-0.8%
CARISOPRODOL	17,862	4.3%	17,313	2.2%	-3.1%
KETOPROFEN	5,577	1.3%	3,914	0.5%	-29.8%
Subtotal	233,528	55.9%	459,475	58.7%	
All Others	184,244	44.1%	323,182	41.3%	
TOTAL	417,772	100.0%	782,657	100.0%	87.3%

*Sorted by percent change.

4.3 Proportion of Inpatient Versus Outpatient Services

Inpatient bills as a proportion of all medical bills declined sharply in 2013. According to the WCIS data, 3.3 percent of medical bills were for inpatient services in 2013 compared to 4.0 percent in 2007. The proportion of inpatient medical bills in 2013 was the lowest of all years studied. Although inpatient services consistently accounted for a small portion of medical bills during the study period, they accounted for nearly 33 percent of total billed charges and 20 percent of total payments in 2007. These portions steadily increased each year until 2012 when they represented 41 percent of total billed charges and 33 percent of total payments. Inpatient medical bills only accounted for 36 percent of billed charges and 26 percent of total payments in 2013. In comparison to other California populations, inpatient hospital payments as a percentage of total medical payments are higher for workers' compensation patients. For example, inpatient hospital payments for injured workers in California represented 30.5 percent of total medical payments in 2011 compared to 24 percent for the U.S. Medicare population¹³ and 14.6 percent for the Medicaid population¹⁴ in the same year. Inpatient data are presented in Table 4.4.

Table 4.4
Inpatient Medical Bills, Billed Charges and Payments
2007 – 2013

Year	Inpatient Hospital Bills	Percent of Total Medical Bills	Inpatient Hospital Billed Charges	Percent of Total Billed Charges	Inpatient Hospital Payments	Percent of Total Hospital Payments
2007	426,676	4.00%	\$2,976,015,435	32.70%	\$543,321,023	19.60%
2008	368,213	3.60%	\$2,850,923,250	33.70%	\$586,689,552	19.50%
2009	368,538	3.50%	\$3,248,684,051	35.90%	\$610,859,846	24.80%
2010	457,293	4.20%	\$3,582,938,105	36.70%	\$683,188,217	27.50%
2011	409,044	4.30%	\$3,529,691,013	39.80%	\$682,966,198	30.50%
2012	378,468	4.30%	\$3,911,185,682	40.90%	\$708,253,018	32.60%
2013	338,775	3.30%	\$3,331,037,074	35.90%	\$589,116,683	25.60%

The average length of stay for injured workers admitted to a hospital was similar to that of the Medicare population through 2011 (Table 4.5), but it declined substantially in 2012 and 2013. The decline is especially interesting since average length of stay for other populations increased in 2012 and 2013.^{15 16} No reason for the decline in average length of stay can be discerned from WCIS data.

¹³Medicare Payment Advisory Commission. *A Data Book: Health Care Spending and the Medicare Program*. June 2012. P.11.

¹⁴Kaiser Family Foundation. *The Medicaid Program at a Glance*. March 2014.

¹⁵Outlier lengths of stay (>365 days) were excluded from the calculations.

¹⁶Medicare Payment Advisory Commission. *A Data Book: Health Care Spending and the Medicare Program*. June 2012. P.68 and Kaiser Family Foundation, *State Health Facts*, 2013.

**Table 4.5
Inpatient Hospital Average Length of Stay¹
California Workers' Compensation Population Compared to Other Populations
2007 – 2013**

Year	California Workers' Compensation Population	Medicare	Non-Medicare*
2007	4.45	4.91	3.91
2008	4.09	4.89	3.95
2009	4.14	4.78	3.96
2010	4.56	4.67	3.93
2011	4.83	4.95	4.17
2012	3.84	5.32	4.25
2013	3.23	--**	--**

*Non-Medicare includes patients covered by Medicaid and commercial insurance.

**2012 is the most recent data available for Medicare and Non-Medicare.

4.4 Changes in the Type of Injuries

As expected, back injuries were the most common injuries identified on workers' compensation medical bills (based on ICD-9 diagnosis code), comprising approximately one-third of all injuries in 2013. However, the overall nature of worker injuries shifted during the study period. The top 20 highest-volume diagnosis code categories are shown in Table 4.6. The ICD-9 category 719 (other and unspecified disorders of joints) increased from about 5 percent of all injuries in 2007 to 7 percent of all injuries in 2013. Some types of back injuries, including ICD-9 category 722, intervertebral disc disorders, which includes disc displacement and degeneration injuries, declined from about 10 percent of all injuries in 2007 to 8 percent in 2013. In addition, some injuries relating to other parts of the body such as arm, shoulder, wrist and hand increased.

Table 4.6*
Highest-Volume Diagnosis Codes Billed
2007 – 2013

ICD-9 Category	Description	2007	2013
		% of Codes Billed	% of Codes Billed
847	Sprains and strains of other and unspecified parts of back	11.8%	12.4%
724	Other and unspecified disorders of back	8.5%	8.8%
722	Intervertebral disc disorders	9.9%	7.6%
719	Other and unspecified disorders of joint	5.1%	6.8%
959	Injury other and unspecified	8.5%	5.9%
726	Peripheral enthesopathies and allied syndromes	4.6%	5.2%
840	Sprains and strains of shoulder and upper arm	3.9%	4.8%
723	Other disorders of cervical region	3.0%	3.3%
727	Other disorders of synovium tendon and bursa	2.3%	3.1%
354	Mononeuritis of upper limb and mononeuritis multiplex	3.0%	3.1%
842	Sprains and strains of wrist and hand	2.1%	2.5%
715	Osteoarthritis and allied disorders	1.9%	2.1%
729	Other disorders of soft tissues	1.9%	1.9%
844	Sprains and strains of knee and leg	2.0%	1.8%
845	Sprains and strains of ankle and foot	1.8%	1.7%
846	Sprains and strains of sacroiliac region	2.7%	1.7%
924	Contusion of lower limb and of other and unspecified site	1.6%	1.5%
883	Open wound of finger(s)	2.2%	1.5%
836	Dislocation of the knee	1.2%	1.5%
923	Contusion of upper limb	1.2%	1.2%
	Subtotal	79.2%	78.4%
	All Others	21.8%	22.6%
	Total Codes	100.0%	100.0%

*Sorted by percent of codes billed in 2013. Shaded indicates an increase from 2007 to 2013.

The most common injuries identified in inpatient bills are similar to those appearing on all bills, i.e., back injuries were the most common injuries requiring inpatient hospitalization. Almost one-fourth (22 percent) of inpatient hospital bills were for back injuries in 2013, up from about 17 percent in 2007. As shown in Table 4.7, the 20 highest-volume diagnosis codes accounted for only 66 percent of injuries on inpatient bills in 2012 but accounted for more than 78 percent of injuries on all bills that year.

Table 4.7*
Highest-Volume Diagnosis Codes Billed – Inpatient Only
2007 – 2013

ICD-9 Category	Description	2007	2013
		% of Codes Billed	% of Codes Billed
724	Other and unspecified disorders of back	6.5%	9.5%
722	Intervertebral disc disorders	5.9%	8.5%
V57.1	Care involving other physical therapy	5.7%	6.4%
719	Other and unspecified disorders of joint	3.5%	4.8%
726	Peripheral enthesopathies and allied syndromes	3.5%	4.5%
959	Injury other and unspecified	5.9%	4.4%
847	Sprains and strains of other and unspecified parts of back	4.1%	3.5%
354	Mononeuritis of upper limb and mononeuritis multiplex	2.6%	3.3%
883	Open wound of finger(s)	2.8%	2.9%
723	Other disorders of cervical region	1.7%	2.6%
840	Sprains and strains of shoulder and upper arm	2.4%	2.6%
727	Other disorders of synovium tendon and bursa	1.9%	2.5%
729	Other disorders of soft tissues	1.3%	2.2%
717	Internal derangement of knee	1.5%	2.1%
V57.21	Encounter for occupational therapy	1.5%	1.6%
836	Dislocation of the knee	1.2%	1.6%
924	Contusion of lower limb and of other and unspecified site	1.2%	1.0%
V54.89	Other orthopedic aftercare	1.1%	0.8%
V67.59	Other follow-up examination	1.5%	0.5%
V58.89	Unspecified aftercare	1.1%	0.3%
	Subtotal	56.9%	65.6%
	All Others	43.1%	34.4%
	Total Codes	100.0%	100.0%

*Sorted by percent of codes billed in 2013. Shaded indicates an increase from 2007 to 2013.

4.5 Discussion

Although the number of medical bills submitted in 2013 increased, a decreasing portion of services (3.3 percent of bills in 2013) were provided on an inpatient basis, but these services continued to account for a large proportion of medical payments (26 percent). It is possible that improved coding during the time period contributed to the increase in services billed, particularly for items such as required workers' compensation reports (e.g., CPT 99081 – reimbursable PR-2 chart notes). Reasons for improved coding are difficult to identify, but in general, providers have focused more attention on coding accuracy and compliance over the past five to ten years as both public and private payers, especially the Medicare program, have increased efforts to reduce fraud and abuse.

The increase in the number of drugs billed, especially narcotic pain medications, suggests a trend toward increased medication therapy to treat injuries. As shown in Chapter 3, the number of medical bills submitted by pain medicine physicians increased during the study period. At the same time that the number of narcotic and/or opiate prescriptions increased, the number of lab procedures to test for these drugs also increased. It is difficult to determine whether the two patterns of increase are linked, but evidence suggesting increased medication therapy is bolstered by data from the 2013 update of the Workers' Compensation Prescription Drug Study published by the National Council on Compensation Insurance (NCCI), which shows an increase in the prescription drug cost portion of workers' compensation claims across the U.S. from 2007 to 2012. Study authors attribute the increase to increased utilization rather than higher drug prices. In addition, narcotics utilization among workers' compensation populations nationwide increased over this time period. The NCCI study shows that California's total prescription drug cost per claim is high relative to other states. However, despite the increase in narcotics prescriptions identified in the WCIS data, the NCCI study also shows that California's narcotics costs are less than 23 percent of total prescription costs per workers' compensation claim as compared to 25 percent for the U.S. as a whole. Thirty-four states have higher narcotics costs than California as a percent of total prescription costs per workers' compensation claim.¹⁷

Other services that increased dramatically in volume during the study period include two codes that increased more than 100 percent, 97026 (infrared therapy) and 97250 (myofascial release). Although myofascial release is thought to have originated in the 1980's, some recent studies demonstrating effectiveness for the treatment of pain have resulted in increased use of these techniques (including foam rolling, trigger point therapy and Rolwing) in the past five to ten years.¹⁸ Infrared therapy is one of several heat modalities used in physical therapy and is used to treat pain. At the same time that

¹⁷Lipton, B., Colón, D. and Robertson, J., "Workers' Compensation Prescription Drug Study: 2013 Update." National Council on Compensation Insurance. September 2013.

¹⁸Beardsley, C. "Does research support the use of foam rolling?" *Strength and Conditioning Research*. October 1, 2013.

utilization of these modalities increased, chiropractic manipulation decreased during the study period, and other forms of physical therapy such as electrical stimulation and therapeutic exercises showed little or no change in utilization. While it is beyond the scope of this study to assess the reasons for changes in the use of specific treatments or modalities or shifts in practice patterns, these findings suggest that such shifts may be occurring.

Study findings also suggest that other shifts in the types of services, as well as increased use of medication therapy have occurred, which may or may not be the result of subtle changes in the types of injuries sustained by workers. Data from the WCIS suggest that back injuries continue to be the most common injuries suffered and result in more inpatient admissions than other types of injuries. However, the data also show fewer disc displacement and degeneration diagnoses. At the same time, the data show increases in injuries to limbs and joints (for example, sprains and strains of shoulder, arm, wrist and hand). Although it is difficult to determine the reasons for these apparent shifts in types of injuries, it is possible that changes in types of employment could have occurred, for example, fewer construction jobs and more service jobs requiring repetitive computer and/or keyboard work. The California Employment Development Department reported a 40 percent decline in construction jobs between 2007 and 2010, with some recovery by 2013, whereas professional and business services declined only 8 percent between 2007 and 2010 and had rebounded to pre-recession levels by 2013.¹⁹

¹⁹Industry Employment and Labor Force. Employment Development Department. State of California.

5. PAYMENT ISSUES

5.1 Overview

Despite a decrease in the number of medical bills between 2007 and 2013, total billed charges have remained relatively constant. Total billed charges were \$9.1 billion in 2007 and increased two percent to \$9.3 billion in 2013 (Table 5.1). At the same time, total payments decreased 16 percent. Between 24 and 32 percent of bills were denied or had zero paid for each year during the period 2007 to 2013. The average medical payment per injured worker increased 10.6 percent between 2007 and 2013. Because billed charges increased at a faster rate than payments, the average proportion of charges paid declined substantially from nearly 41 percent in 2007 to 34 percent in 2013.

Table 5.1
Total and Average Charges and Payments
2007 – 2013

Year	Total Charges	Average Charge Per Bill	Total Paid	Average Paid Per Bill*	Payment to Charge Ratio	Average Paid Per Worker
2007	9,105,227,716	\$852.56	\$2,752,961,880	\$346.76	40.7%	\$3,951.43
2008	8,461,174,347	\$823.93	\$2,992,833,642	\$379.58	46.1%	\$4,397.97
2009	9,059,993,854	\$870.12	\$2,448,560,392	\$312.15	35.9%	\$3,928.35
2010	9,751,828,582	\$902.19	\$2,471,429,535	\$317.78	35.2%	\$4,511.14
2011	8,876,549,402	\$927.77	\$2,233,510,222	\$329.63	35.5%	\$4,291.75
2012	9,571,105,280	\$1,097.47	\$2,171,495,905	\$368.60	33.6%	\$4,177.87
2013	9,271,099,826	\$891.14	\$2,300,264,493	\$306.70	34.4%	\$4,372.91

*Includes only bills with paid amounts > 0.

5.2 Payments by Service and Comparisons to Other Payers

The highest volume CPT codes billed by providers account for 54 percent of all services billed (Table 5.2). These codes are relatively low-intensity and low-cost with fees less than \$200 and many less than \$50. The fee schedule for physician services that was applicable during the study period was last updated in 2007. The fee schedule is being updated in 2014, but these changes did not affect 2013 data.

Because a detailed assessment of workers' compensation payment rates compared to other payers is addressed in an independent study, only comparisons to Medicare and Medi-Cal are presented in this report. During the time period of the study, physicians and other professionals were reimbursed based on a fee schedule while lab and supplies were reimbursed at 120 percent of the Medicare fee. As shown in Table 5.2, DWC fees were 176 percent of Medi-Cal fees on average for high volume codes in 2013. Compared to Medicare, DWC fees were 104 percent of the average Medicare fee for the same high volume codes, but there was substantial variation across individual codes.

**Table 5.2
DWC Fees Compared to Medi-Cal and Medicare
Selected High Volume Codes and Average for All Codes
2013**

HCPCS Code	DWC Fee	Medi-Cal	Percent of Medi-Cal	Medicare				Percent of Medicare
				San Francisco County	Other Northern CA Counties	Los Angeles County	Other Southern CA Counties	
99081	\$11.69	---	---	---	---	---	---	---
99214	\$72.25	\$37.50	193%	\$127.72	\$110.97	\$115.52	\$110.97	62%
97250	\$44.28	---	---	---	---	---	---	---
97014	\$18.45	\$11.14	166%	---	---	---	---	---
97110	\$33.21	\$10.96	303%	\$38.80	\$33.58	\$34.93	\$32.12	95%
99080	BR	---	---	---	---	---	---	---
99213	\$47.60	\$24.00	198%	\$87.51	\$75.70	\$78.91	\$75.70	60%
99358	\$35.34	\$42.20	84%	---	---	---	---	---
97026	\$18.45	9.84	188%	\$7.45	6.34	6.65	5.97	279%
99070	BR	---	---	---	---	---	---	---
99215	\$110.50	\$57.20	193%	\$169.64	\$148.10	\$153.99	\$148.10	71%
A4556	\$119.94	\$81.86	147%	\$99.95	\$99.95	\$99.95	\$99.95	120%
99204	\$109.65	\$68.90	159%	\$193.54	\$169.42	\$176.27	\$169.42	62%
99199	BR	---	---	---	---	---	---	---
95851	\$18.70	\$14.86	126%	\$23.13	\$19.42	\$20.39	\$19.42	91%
98940	\$36.22	\$16.72	217%	\$30.31	\$26.76	\$27.68	\$26.41	130%
99203	\$76.50	\$57.20	134%	\$129.21	\$111.88	\$116.72	\$111.88	65%
Average			176%					104%

BR = By Report.

Discussion

The findings regarding payment for 2013 are similar to previous study findings. Although the number of injured workers and the number of medical bills declined during the study period, total billed charges were virtually unchanged, which means that there was a substantial increase in the average charges per bill and per worker. In addition, as noted in Chapter 4, there was an increase in the number of services

billed during the time period, which contributed to the increase in the average charges per bill. At the same time, payments increased at a much lower rate.

In terms of fee levels, it should be understood that all references and comparisons to DWC fees apply to the fee schedule that was in place from 2007 to 2013. The DWC fee schedule has since been updated and is now based on the Resource Based Relative Value Scale (RBRVS) published by the Center for Medicare and Medicaid Services (CMS). In addition, DWC has now adopted many Medicare payment policies and bundling rules. At the time of the study, DWC fees compared favorably to Medi-Cal fees. For the 25 highest-volume codes, DWC fees were 176 percent of Medi-Cal fees on average. However, according to the California Health Care Foundation (CHCF), Medi-Cal fees for physician services rank near the bottom among state Medicaid programs. The CHCF sponsored a study conducted by the Urban Institute which found that Medi-Cal fees were 83 percent of the Medicaid national average in 2008 and ranked 47th overall among states when adjusted for geographic differences in the cost of providing medical care.²⁰ The code for “prolonged service without direct face-to-face contact,” CPT 99358, is the only code for which the Medi-Cal fee was lower than the DWC fee during the time period of the study. Medicare does not reimburse separately for this code and instead considers this service to be bundled with other Evaluation and Management (E&M) codes. In addition, most commercial payers do not reimburse providers separately for this code.

DWC fees were 104 percent of the average Medicare fee for the selected high volume codes during the study period, but it is difficult to compare Medicare and DWC payment for specific codes because they were based on different payment methodologies at the time. Although it appears that several services were reimbursed by DWC at rates at or below Medicare, different payment approaches used at the time are primarily responsible for these differences. Medicare bundles a number of services into Evaluation and Management (E&M) code reimbursement, as do many commercial payers, resulting in higher payments for some E&M codes (such as office visits) and no payment for others. All but two of the codes for which DWC paid less than Medicare were E&M codes (99214, 99213, 99204, 99215 and 99203). Because Medicare changed its reimbursement of E&M codes policy, it did not reimburse for the same office and consultation codes used by DWC during the study period. As discussed, DWC has since revised its payment policies to align with many of Medicare’s bundling requirements regarding E& M codes

The number of services provided to injured workers may be related to payment rates. The volume of services per injured worker has increased substantially during the study period, while fees paid for many services have remained unchanged. It is possible that providers are increasing the number of services

²⁰Zuckerman, S, Williams, A. and Stockley, K., “Medi-Cal Physician and Dentist Fees: A Comparison to Other Medicaid Programs and Medicare.” Urban Institute, 2008.



that they provide in an effort to maximize total workers' compensation revenue. Data are not sufficient to investigate this issue in greater depth.

Access to care, as defined in this study, does not appear to be related to DWC's payment rates, since care continued to be available although payment rates did not change during the entire study period. However, it is possible that lower workers' compensation payment rates during the study period relative to other payers may have discouraged some provider participation if other payers increased their rates while DWC did not. Additional comparisons to commercial payer fees will help to better determine whether reimbursement may potentially have an impact on long-term provider availability in the workers' compensation program.

6. SUMMARY OF FINDINGS AND RECOMMENDATIONS

6.1 Summary of Findings

Studies of injured workers' access to medical care in California were conducted in 2006, 2008, 2012 (BRG Year 1 study), 2013 (BRG Year 2 study) and 2014 (BRG Year 3 study). The first three studies included a survey of injured workers that investigated their satisfaction with the care they received. Although there are some differences in the survey methods in each study, all concluded that a substantial majority of injured workers (approximately 85 percent) were satisfied or very satisfied with their care.

The BRG Year 3 study, like the BRG Year 2 study, focused exclusively on analyses of WCIS data. These analyses revealed that both the number of injured workers and the number of providers caring for injured workers declined steadily from 2007 to 2012 and then increased in 2013. The number of medical bills submitted also decreased between 2007 and 2012, but increased in 2013. Although the number of providers treating injured workers decreased over the study period, aggregate availability of providers remained relatively unchanged. There were changes in availability of specific providers; the number of general practice physicians and chiropractors per injured worker declined, while the number of pain medicine specialists, mental health providers and orthopedic specialists increased relative to the number of injured workers.

Providers submitted approximately the same number of medical bills in 2013 as they did in 2007. The nature of worker injuries shifted somewhat between 2007 and 2013. Although back injury diagnoses remain the most common, certain types of back injury diagnoses declined, and diagnoses relating to injuries to other parts of the body increased.

6.2 Recommendations

There is a need for additional studies. There is a need to determine whether the increase in injured workers and medical bills that occurred in 2013 is the beginning of a trend or an anomaly that will not be repeated in future years. There is also a need to determine whether the changes in payment methods that were instituted at the beginning of 2014 will have an impact on access to care. It will also be important to determine whether the decline in inpatient services as a portion of total services is a single year anomaly or the beginning of a trend.

APPENDIX
DETAILED DATA TABLES

Table A.1a
Number of Bills Submitted by Provider Type and Change from 2007 to 2013
In-State and Out-of-State

Provider Type	2007	2008		2009		2010		2011		2012		2013		2007-2013
	Frequency	Frequency	% Change	% Change										
<Missing>	66,298	65,989	-0.47%	36,224	-45.11%	15,575	-57.00%	5,556	-64.33%	14,959	169.24%	3,714	-75.17%	-94.40%
Agencies	7,033	9,162	30.27%	10,151	10.79%	14,619	44.02%	28,425	94.44%	30,557	7.50%	38,079	24.62%	441.43%
Ambulatory Health Care Facilities	248,628	234,183	-5.81%	190,782	-18.53%	145,569	-23.70%	115,260	-20.82%	73,894	-35.89%	89,452	21.05%	-64.02%
Ambulatory Surgical Center	47,937	52,750	10.04%	57,173	8.38%	61,900	8.27%	59,142	-4.46%	57,050	-3.54%	65,552	14.90%	36.75%
Chiropractic	516,689	517,899	0.23%	541,448	4.55%	647,146	19.52%	576,424	-10.93%	518,882	-9.98%	502,610	-3.14%	-2.72%
Dentistry	7,167	8,177	14.09%	9,091	11.18%	10,109	11.20%	9,268	-8.32%	9,130	-1.49%	12,040	31.87%	67.99%
General/Internal/Family /Pediatric Medicine	4,303,597	3,625,465	-15.76%	3,655,573	0.83%	3,446,402	-5.72%	2,725,508	-20.92%	2,452,967	-10.00%	2,757,153	12.40%	-35.93%
Group Practice	315,618	387,993	22.93%	433,497	11.73%	383,906	-11.44%	333,122	-13.23%	294,306	-11.65%	383,149	30.19%	21.40%
Hospital	260,749	234,751	-9.97%	222,490	-5.22%	213,558	-4.01%	188,611	-11.68%	186,924	-0.89%	177,411	-5.09%	-31.96%
Lab	22,082	24,947	12.97%	31,704	27.09%	46,822	47.68%	80,004	70.87%	158,337	97.91%	184,080	16.26%	733.62%
Managed Care Organization	1,628	3,085	89.50%	942	-69.47%	706	-25.05%	775	9.77%	2,608	236.52%	3,024	15.95%	85.75%
Medical Supplies	377,498	356,186	-5.65%	376,515	5.71%	438,153	16.37%	398,885	-8.96%	325,681	-18.35%	351,815	8.02%	-6.80%
Non-Physician or Midlevel Practitioner	855,971	1,210,217	41.39%	1,243,708	2.77%	1,495,658	20.26%	1,546,741	3.42%	1,377,297	-10.95%	1,714,400	24.48%	100.29%
Nursing and Custodial	753	1,291	71.45%	1,495	15.80%	1,816	21.47%	2,198	21.04%	2,191	-0.32%	2,867	30.85%	280.74%

Care Facilities														
Pharmacy	271,368	307,791	13.42%	333,258	8.27%	325,701	-2.27%	291,756	-10.42%	250,913	-14.00%	372,630	48.51%	37.32%
Physical Therapy/Occupational Therapy	1,041,509	941,777	-9.58%	958,198	1.74%	955,081	-0.33%	925,610	-3.09%	890,675	-3.77%	1,355,537	52.19%	30.15%
Specialist - Anesthesiology and Pain Management	98,954	103,574	4.67%	112,502	8.62%	133,954	19.07%	121,825	-9.05%	130,054	6.75%	162,249	24.76%	63.96%
Specialist - Mental Health	202,178	232,838	15.16%	252,117	8.28%	269,619	6.94%	224,302	-16.81%	227,559	1.45%	228,995	0.63%	13.26%
Specialist - Orthopedics, Physical and Occupational Medicine	1,368,171	1,305,618	-4.57%	1,300,976	-0.36%	1,477,727	13.59%	1,253,900	-15.15%	1,049,044	-16.34%	1,191,071	13.54%	-12.94%
Specialist - Other Hospital-Based Physician	223,002	159,382	-28.53%	143,869	-9.73%	182,033	26.53%	189,326	4.01%	202,083	6.74%	209,414	3.63%	-6.09%
Specialist - Other Non-Hospital Based Physician	80,544	109,619	36.10%	126,582	15.47%	156,142	23.35%	145,362	-6.90%	135,879	-6.52%	196,764	44.81%	144.29%
Specialist - Podiatrist	34,349	37,058	7.89%	38,398	3.62%	44,589	16.12%	42,548	-4.58%	38,299	-9.99%	46,204	20.64%	34.51%
Specialist - Radiology	219,863	227,746	3.59%	227,931	0.08%	230,937	1.32%	200,058	-13.37%	189,940	-5.06%	226,251	19.12%	2.91%
Specialist - Surgery	70,357	70,762	0.58%	73,127	3.34%	83,213	13.79%	72,702	-12.63%	71,987	-0.98%	88,531	22.98%	25.83%
Transportation	37,856	41,061	8.47%	34,621	-15.68%	28,112	-18.80%	30,344	7.94%	29,817	-1.74%	40,593	36.14%	7.23%
Totals	10,679,799	10,269,321	-3.84%	10,412,372	1.39%	10,809,047	3.81%	9,567,652	-11.48%	8,721,033	-8.85%	10,403,585	19.29%	-2.59%

Table A.1b
Number of Bills Submitted by Provider Type and Change from 2007 to 2013
In-State Providers Only

Provider Type	2007	2008		2009		2010		2011		2012		2013		2007-2013
	Frequency	Frequency	% Change	% Change										
<Missing>	61,262	58,785	-4.04%	32,043	-45.49%	14,472	-54.84%	2,673	-81.53%	14,755	452.00%	3,619	-75.47%	-94.09%
Agencies	4,159	5,723	37.61%	6,073	6.12%	9,229	51.97%	18,537	100.86%	19,992	7.85%	22,361	11.85%	437.65%
Ambulatory Health Care Facilities	243,646	229,417	-5.84%	186,546	-18.69%	141,692	-24.04%	111,861	-21.05%	70,397	-37.07%	83,962	19.27%	-65.54%
Ambulatory Surgical Center	46,474	51,840	11.55%	56,285	8.57%	60,523	7.53%	57,750	-4.58%	56,120	-2.82%	64,580	15.07%	38.96%
Chiropractic	506,734	507,622	0.18%	529,400	4.29%	632,044	19.39%	552,663	-12.56%	499,246	-9.67%	479,413	-3.97%	-5.39%
Dentistry	6,708	7,457	11.17%	7,937	6.44%	8,607	8.44%	7,531	-12.50%	7,793	3.48%	10,263	31.70%	53.00%
General/Internal/Family /Pediatric Medicine	4,173,158	3,521,163	-15.62%	3,542,295	0.60%	3,345,260	-5.56%	2,625,759	-21.51%	2,392,667	-8.88%	2,685,956	12.26%	-35.64%
Group Practice	311,466	382,652	22.86%	424,221	10.86%	371,256	-12.49%	311,489	-16.10%	269,085	-13.61%	350,144	30.12%	12.42%
Hospital	254,438	228,707	-10.11%	216,392	-5.38%	206,938	-4.37%	179,703	-13.16%	177,864	-1.02%	169,764	-4.55%	-33.28%
Lab	18,860	20,382	8.07%	23,499	15.29%	36,885	56.96%	63,750	72.83%	134,427	110.87%	146,210	8.77%	675.24%
Managed Care Organization	1,313	879	-33.05%	867	-1.37%	634	-26.87%	696	9.78%	2,528	263.22%	2,907	14.99%	121.40%
Medical Supplies	292,394	285,098	-2.50%	304,002	6.63%	352,320	15.89%	308,924	-12.32%	253,642	-17.90%	255,569	0.76%	-12.59%
Non-Physician or Midlevel Practitioner	790,176	1,115,368	41.15%	1,091,837	-2.11%	1,246,491	14.16%	1,232,730	-1.10%	1,122,034	-8.98%	1,401,214	24.88%	77.33%
Nursing and Custodial	683	1,200	75.70%	1,385	15.42%	1,704	23.03%	2,031	19.19%	2,045	0.69%	2,711	32.57%	296.93%

Care Facilities														
Pharmacy	195,310	216,699	10.95%	250,313	15.51%	270,738	8.16%	258,125	-4.66%	221,374	-14.24%	293,391	32.53%	50.22%
Physical Therapy/Occupational Therapy	1,020,243	922,496	-9.58%	920,657	-0.20%	900,906	-2.15%	809,063	-10.19%	763,184	-5.67%	1,158,656	51.82%	13.57%
Specialist - Anesthesiology and Pain Management	95,195	100,062	5.11%	108,838	8.77%	129,231	18.74%	116,782	-9.63%	126,847	8.62%	158,680	25.10%	66.69%
Specialist - Mental Health	196,969	226,897	15.19%	245,656	8.27%	262,917	7.03%	217,919	-17.11%	222,292	2.01%	223,547	0.56%	13.49%
Specialist - Orthopedics, Physical and Occupational Medicine	1,335,966	1,272,370	-4.76%	1,255,132	-1.35%	1,408,406	12.21%	1,191,944	-15.37%	1,012,105	-15.09%	1,165,712	15.18%	-12.74%
Specialist - Other Hospital-Based Physician	204,905	137,769	-32.76%	118,565	-13.94%	147,795	24.65%	153,080	3.58%	169,993	11.05%	181,599	6.83%	-11.37%
Specialist - Other Non-Hospital Based Physician	76,120	106,143	39.44%	122,049	14.99%	151,619	24.23%	139,079	-8.27%	132,003	-5.09%	190,652	44.43%	150.46%
Specialist - Podiatrist	33,712	36,548	8.41%	37,766	3.33%	43,815	16.02%	41,350	-5.63%	37,690	-8.85%	45,505	20.73%	34.98%
Specialist - Radiology	207,988	214,816	3.28%	213,848	-0.45%	216,753	1.36%	184,407	-14.92%	175,183	-5.00%	207,330	18.35%	-0.32%
Specialist - Surgery	68,980	69,492	0.74%	71,688	3.16%	81,564	13.78%	71,122	-12.80%	70,412	-1.00%	86,898	23.41%	25.98%
Transportation	29,747	32,577	9.51%	28,538	-12.40%	18,703	-34.46%	14,436	-22.81%	15,866	9.91%	18,330	15.53%	-38.38%
Totals	10,176,606	9,752,162	-4.17%	9,795,832	0.45%	10,060,502	2.70%	8,673,404	-13.79%	7,969,544	-8.12%	9,408,973	18.06%	-7.54%

**Table A.1c
Number of Bills Submitted by Provider Type and Change from 2007 to 2013
Out-of-State Providers Only**

Provider Type	2007	2008		2009		2010		2011		2012		2013		2007-2013
	Frequency	Frequency	% Change	% Change										
<Missing>	5,036	7,204	43.05%	4,181	-41.96%	1,103	-73.62%	2,883	161.38%	204	-92.92%	95	-53.43%	-98.11%
Agencies	2,874	3,439	19.66%	4,078	18.58%	5,390	32.17%	9,888	83.45%	10,565	6.85%	15,718	48.77%	446.90%
Ambulatory Health Care Facilities	4,982	4,766	-4.34%	4,236	-11.12%	3,877	-8.47%	3,399	-12.33%	3,497	2.88%	5,490	56.99%	10.20%
Ambulatory Surgical Center	1,463	910	-37.80%	888	-2.42%	1,377	55.07%	1,392	1.09%	930	-33.19%	972	4.52%	-33.56%
Chiropractic	9,955	10,277	3.23%	12,048	17.23%	15,102	25.35%	23,761	57.34%	19,636	-17.36%	23,197	18.14%	133.02%
Dentistry	459	720	56.86%	1,154	60.28%	1,502	30.16%	1,737	15.65%	1,337	-23.03%	1,777	32.91%	287.15%
General/Internal/Family /Pediatric Medicine	130,439	104,302	-20.04%	113,278	8.61%	101,142	-10.71%	99,749	-1.38%	60,300	-39.55%	71,197	18.07%	-45.42%
Group Practice	4,152	5,341	28.64%	9,276	73.68%	12,650	36.37%	21,633	71.01%	25,221	16.59%	33,005	30.86%	694.92%
Hospital	6,311	6,044	-4.23%	6,098	0.89%	6,620	8.56%	8,908	34.56%	9,060	1.71%	7,647	-15.60%	21.17%
Lab	3,222	4,565	41.68%	8,205	79.74%	9,937	21.11%	16,254	63.57%	23,910	47.10%	37,870	58.39%	1075.36%
Managed Care Organization	315	2,206	600.32%	75	-96.60%	72	-4.00%	79	9.72%	80	1.27%	117	46.25%	-62.86%
Medical Supplies	85,104	71,088	-16.47%	72,513	2.00%	85,833	18.37%	89,961	4.81%	72,039	-19.92%	96,246	33.60%	13.09%
Non-Physician or Midlevel Practitioner	65,795	94,849	44.16%	151,871	60.12%	249,167	64.06%	314,011	26.02%	255,263	-18.71%	313,186	22.69%	376.00%
Nursing and Custodial	70	91	30.00%	110	20.88%	112	1.82%	167	49.11%	146	-12.57%	156	6.85%	122.86%

Care Facilities														
Pharmacy	76,058	91,092	19.77%	82,945	-8.94%	54,963	-33.74%	33,631	-38.81%	29,539	-12.17%	79,239	168.25%	4.18%
Physical Therapy/Occupational Therapy	21,266	19,281	-9.33%	37,541	94.70%	54,175	44.31%	116,547	115.13%	127,491	9.39%	196,881	54.43%	825.80%
Specialist - Anesthesiology and Pain Management	3,759	3,512	-6.57%	3,664	4.33%	4,723	28.90%	5,043	6.78%	3,207	-36.41%	3,569	11.29%	-5.05%
Specialist - Mental Health	5,209	5,941	14.05%	6,461	8.75%	6,702	3.73%	6,383	-4.76%	5,267	-17.48%	5,448	3.44%	4.59%
Specialist - Orthopedics, Physical and Occupational Medicine	32,205	33,248	3.24%	45,844	37.88%	69,321	51.21%	61,956	-10.62%	36,939	-40.38%	25,359	-31.35%	-21.26%
Specialist - Other Hospital-Based Physician	18,097	21,613	19.43%	25,304	17.08%	34,238	35.31%	36,246	5.86%	32,090	-11.47%	27,815	-13.32%	53.70%
Specialist - Other Non-Hospital Based Physician	4,424	3,476	-21.43%	4,533	30.41%	4,523	-0.22%	6,283	38.91%	3,876	-38.31%	6,112	57.69%	38.16%
Specialist - Podiatrist	637	510	-19.94%	632	23.92%	774	22.47%	1,198	54.78%	609	-49.17%	699	14.78%	9.73%
Specialist - Radiology	11,875	12,930	8.88%	14,083	8.92%	14,184	0.72%	15,651	10.34%	14,757	-5.71%	18,921	28.22%	59.33%
Specialist - Surgery	1,377	1,270	-7.77%	1,439	13.31%	1,649	14.59%	1,580	-4.18%	1,575	-0.32%	1,633	3.68%	18.59%
Transportation	8,109	8,484	4.62%	6,083	-28.30%	9,409	54.68%	15,908	69.07%	13,951	-12.30%	22,263	59.58%	174.55%
Totals	503,193	517,159	2.78%	616,540	19.22%	748,545	21.41%	894,248	19.46%	751,489	-15.96%	994,612	32.35%	97.66%

Table A.2a
Number of Bills Submitted by Specialty Type and Change from 2007 to 2013
In-State and Out-of-State

Specialty	2007	2008		2009		2010		2011		2012		2013		2007-2013
	Frequency	Frequency	% Change	% Change										
<Missing>	66,298	65,989	-0.47%	36,224	-45.11%	15,575	-57.00%	5,556	-64.33%	14,959	169.24%	3,714	-75.17%	-94.40%
Agencies	7,033	9,162	30.27%	10,151	10.79%	14,619	44.02%	28,425	94.44%	30,557	7.50%	38,079	24.62%	441.43%
Ambulatory Health Care Facilities: Occupational Medicine Clinic	124,365	61,973	-50.17%	40,522	-34.61%	39,129	-3.44%	38,791	-0.86%	31,982	-17.55%	44,474	39.06%	-64.24%
Ambulatory Health Facilities: Clinic Imaging	4,550	6,470	42.20%	6,769	4.62%	5,269	-22.16%	11,608	120.31%	18,520	59.55%	20,007	8.03%	339.71%
Ambulatory Health Facilities: Clinic Other	233,561	206,334	-11.66%	156,015	-24.39%	112,615	-27.82%	78,152	-30.60%	34,683	-55.62%	37,930	9.36%	-83.76%
Ambulatory Health Facilities: Physical Therapy Clinic	10,517	21,379	103.28%	27,998	30.96%	27,685	-1.12%	25,500	-7.89%	20,691	-18.86%	31,515	52.31%	199.66%
Ambulatory Surgical Center	47,937	52,750	10.04%	57,173	8.38%	61,900	8.27%	59,142	-4.46%	57,050	-3.54%	65,552	14.90%	36.75%
Behavioral Health: Other	2,843	2,825	-0.63%	2,598	-8.04%	2,274	-12.47%	2,513	10.51%	2,760	9.83%	2,280	-17.39%	-19.80%
Certified Registered Nurse Anesthetist	2,528	2,516	-0.47%	2,292	-8.90%	3,755	63.83%	4,225	12.52%	5,107	20.88%	6,466	26.61%	155.78%
Chiropractor	516,689	517,899	0.23%	541,448	4.55%	647,146	19.52%	576,424	-10.93%	518,882	-9.98%	502,610	-3.14%	-2.72%
Clinical Nurse Specialist	5,295	15,108	185.33%	14,689	-2.77%	19,505	32.79%	25,014	28.24%	22,878	-8.54%	12,991	-43.22%	145.34%
Dentist - General	6,516	7,564	16.08%	8,508	12.48%	9,498	11.64%	8,635	-9.09%	8,625	-0.12%	11,329	31.35%	73.86%

Dentist - Oral Surgery	439	385	-12.30%	290	-24.68%	370	27.59%	430	16.22%	190	-55.81%	296	55.79%	-32.57%
Dentist - Other	212	228	7.55%	293	28.51%	241	-17.75%	203	-15.77%	315	55.17%	415	31.75%	95.75%
Group Practice or Clinic: Multispecialty	270,042	328,638	21.70%	375,747	14.33%	323,714	-13.85%	292,345	-9.69%	233,725	-20.05%	326,435	39.67%	20.88%
Group Practice: Single Specialty	45,576	59,355	30.23%	57,750	-2.70%	60,192	4.23%	40,777	-32.26%	60,581	48.57%	56,714	-6.38%	24.44%
Hospital: General Acute Care	166,196	173,106	4.16%	168,974	-2.39%	160,535	-4.99%	147,150	-8.34%	150,399	2.21%	150,691	0.19%	-9.33%
Hospital: Other	94,553	61,645	-34.80%	53,516	-13.19%	53,023	-0.92%	41,461	-21.81%	36,525	-11.91%	26,720	-26.84%	-71.74%
Lab: Clinical Lab	22,072	24,921	12.91%	31,642	26.97%	46,657	47.45%	79,844	71.13%	158,174	98.10%	183,939	16.29%	733.36%
Lab: Other	10	26	160.00%	62	138.46%	165	166.13%	160	-3.03%	163	1.88%	141	-13.50%	1310.00%
Managed Care Organization	1,628	3,085	89.50%	942	-69.47%	706	-25.05%	775	9.77%	2,608	236.52%	3,024	15.95%	85.75%
Marriage and Family Therapist	35,996	35,564	-1.20%	30,526	-14.17%	21,452	-29.73%	13,463	-37.24%	18,444	37.00%	17,727	-3.89%	-50.75%
Midlevel Practitioner: Other	4,017	5,451	35.70%	6,293	15.45%	5,604	-10.95%	934	-83.33%	840	-10.06%	53	-93.69%	-98.68%
Nurse	29,295	29,003	-1.00%	26,756	-7.75%	34,387	28.52%	32,713	-4.87%	32,305	-1.25%	34,316	6.23%	17.14%
Nurse Practitioner	16,161	15,388	-4.78%	13,052	-15.18%	16,329	25.11%	16,267	-0.38%	18,708	15.01%	22,860	22.19%	41.45%
Nursing and Custodial Care Facilities: Other	192	369	92.19%	288	-21.95%	274	-4.86%	181	-33.94%	228	25.97%	354	55.26%	84.38%
Pharmacist	221,510	258,139	16.54%	306,631	18.79%	349,467	13.97%	390,225	11.66%	356,169	-8.73%	408,832	14.79%	84.57%
Physician Assistant	166,921	153,042	-8.31%	140,240	-8.37%	164,193	17.08%	159,368	-2.94%	146,075	-8.34%	197,270	35.05%	18.18%
Physician: Allergy & Immunology	3,777	5,455	44.43%	3,901	-28.49%	3,552	-8.95%	3,163	-10.95%	3,600	13.82%	5,641	56.69%	49.35%

Physician: Anesthesiology	98,954	103,574	4.67%	112,502	8.62%	133,954	19.07%	121,825	-9.05%	130,054	6.75%	162,249	24.76%	63.96%
Physician: Dermatology	6,076	5,694	-6.29%	5,584	-1.93%	5,111	-8.47%	4,711	-7.83%	5,516	17.09%	7,701	39.61%	26.74%
Physician: Diagnostic Radiology	219,218	227,048	3.57%	227,192	0.06%	229,915	1.20%	198,982	-13.45%	187,493	-5.77%	222,812	18.84%	1.64%
Physician: Emergency Medicine	138,288	99,523	-28.03%	79,046	-20.58%	90,747	14.80%	83,225	-8.29%	76,113	-8.55%	96,604	26.92%	-30.14%
Physician: Family Medicine	126,707	132,710	4.74%	133,728	0.77%	167,583	25.32%	158,512	-5.41%	158,532	0.01%	216,978	36.87%	71.24%
Physician: General Practice	3,595,655	2,900,116	-19.34%	2,894,157	-0.21%	2,584,809	-10.69%	2,015,342	-22.03%	1,708,116	-15.24%	1,732,050	1.40%	-51.83%
Physician: General Surgery	30,048	31,710	5.53%	30,600	-3.50%	32,069	4.80%	23,480	-26.78%	24,399	3.91%	29,300	20.09%	-2.49%
Physician: Internal Medicine	126,322	155,339	22.97%	135,259	-12.93%	163,920	21.19%	156,773	-4.36%	163,713	4.43%	196,984	20.32%	55.94%
Physician: Interventional and Therapeutic Radiology	196	385	96.43%	411	6.75%	511	24.33%	725	41.88%	2,135	194.48%	3,109	45.62%	1486.22%
Physician: Neurosurgery	17,295	16,165	-6.53%	16,994	5.13%	20,116	18.37%	19,252	-4.30%	17,084	-11.26%	17,499	2.43%	1.18%
Physician: Nuclear Medicine	3,465	5,610	61.90%	4,698	-16.26%	3,998	-14.90%	3,594	-10.11%	7,761	115.94%	9,552	23.08%	175.67%
Physician: Obstetrics and Gynecology	761	620	-18.53%	374	-39.68%	1,000	167.38%	859	-14.10%	579	-32.60%	789	36.27%	3.68%
Physician: Ophthalmology	7,311	8,032	9.86%	7,574	-5.70%	7,640	0.87%	7,017	-8.15%	6,033	-14.02%	6,691	10.91%	-8.48%
Physician: Orthopedics	687,313	667,607	-2.87%	713,680	6.90%	812,543	13.85%	752,088	-7.44%	705,312	-6.22%	881,277	24.95%	28.22%
Physician: Other	57,239	49,994	-12.66%	57,644	15.30%	68,739	19.25%	53,556	-22.09%	33,575	-37.31%	56,608	68.60%	-1.10%

Physician: Otolaryngology	3,273	3,024	-7.61%	3,350	10.78%	3,012	-10.09%	2,458	-18.39%	2,440	-0.73%	3,373	38.24%	3.06%
Physician: Pain Medicine	23,825	31,858	33.72%	44,675	40.23%	63,001	41.02%	66,980	6.32%	73,093	9.13%	102,863	40.73%	331.74%
Physician: Pathology	55,026	54,131	-1.63%	59,269	9.49%	87,051	46.87%	105,629	21.34%	125,832	19.13%	112,613	-10.51%	104.65%
Physician: Pediatrics	1,738	1,086	-37.51%	835	-23.11%	1,074	28.62%	719	-33.05%	768	6.82%	1,577	105.34%	-9.26%
Physician: Physical Medicine and Rehabilitation	680,858	638,011	-6.29%	587,296	-7.95%	665,184	13.26%	501,812	-24.56%	343,732	-31.50%	309,794	-9.87%	-54.50%
Physician: Plastic Surgery	6,541	6,796	3.90%	8,264	21.60%	12,092	46.32%	12,513	3.48%	11,939	-4.59%	17,441	46.08%	166.64%
Physician: Preventive Medicine	453,175	436,214	-3.74%	491,594	12.70%	529,016	7.61%	394,162	-25.49%	421,838	7.02%	609,564	44.50%	34.51%
Physician: Psychiatry and Neurology	96,954	107,165	10.53%	111,283	3.84%	115,446	3.74%	99,770	-13.58%	102,372	2.61%	107,671	5.18%	11.05%
Physician: Radiation Oncology	449	313	-30.29%	328	4.79%	511	55.79%	351	-31.31%	312	-11.11%	330	5.77%	-26.50%
Physician: Surgery Other	16,473	16,091	-2.32%	17,269	7.32%	18,936	9.65%	17,457	-7.81%	18,565	6.35%	24,291	30.84%	47.46%
Physician: Urology	4,505	5,060	12.32%	4,336	-14.31%	4,324	-0.28%	3,496	-19.15%	3,420	-2.17%	3,743	9.44%	-16.91%
Podiatrist	34,349	37,058	7.89%	38,398	3.62%	44,589	16.12%	42,548	-4.58%	38,299	-9.99%	46,204	20.64%	34.51%
Provider: Other	331,370	644,481	94.49%	662,754	2.84%	832,061	25.55%	849,164	2.06%	742,465	-12.57%	967,599	30.32%	192.00%
Psychologist	65,264	85,825	31.50%	105,924	23.42%	128,739	21.54%	106,856	-17.00%	102,312	-4.25%	99,548	-2.70%	52.53%
Residential Treatment Facilities	15	8	-46.67%	29	262.50%	79	172.41%	45	-43.04%	35	-22.22%	98	180.00%	553.33%
Respiratory, Developmental,	105,773	99,661	-5.78%	96,802	-2.87%	114,740	18.53%	93,164	-18.80%	97,965	5.15%	118,211	20.67%	11.76%

Rehabilitative and Restorative Service Providers: Occupational Therapist														
Respiratory, Developmental, Rehabilitative and Restorative Service Providers: Other	9,328	15,834	69.75%	15,317	-3.27%	12,558	-18.01%	10,217	-18.64%	7,835	-23.31%	8,651	10.41%	-7.26%
Respiratory, Developmental, Rehabilitative and Restorative Service Providers: Physical Therapist	811,371	780,143	-3.85%	820,874	5.22%	801,212	-2.40%	793,655	-0.94%	760,728	-4.15%	1,192,852	56.80%	47.02%
Skilling Nursing Facility	546	914	67.40%	1,178	28.88%	1,463	24.19%	1,972	34.79%	1,928	-2.23%	2,415	25.26%	342.31%
Social Worker	1,121	1,459	30.15%	1,786	22.41%	1,708	-4.37%	1,700	-0.47%	1,671	-1.71%	1,769	5.86%	57.81%
Speech, Language and Hearing Service Provider	4,333	4,343	0.23%	4,189	-3.55%	4,391	4.82%	4,026	-8.31%	3,379	-16.07%	3,773	11.66%	-12.92%
Suppliers : Pharmacy	266,908	304,254	13.99%	330,600	8.66%	320,661	-3.01%	283,914	-11.46%	244,249	-13.97%	364,741	49.33%	36.65%
Suppliers : Pharmacy : Clinic Pharmacy	236	476	101.69%	680	42.86%	754	10.88%	2,116	180.64%	392	-81.47%	739	88.52%	213.14%
Suppliers : Pharmacy : Community/Retail Pharmacy	89	375	321.35%	491	30.93%	1,704	247.05%	2,817	65.32%	4,472	58.75%	5,640	26.12%	6237.08%
Suppliers : Pharmacy : Compounding Pharmacy	105	360	242.86%	310	-13.89%	898	189.68%	1,346	49.89%	903	-32.91%	135	-85.05%	28.57%
Suppliers : Pharmacy : Home Infusion Therapy	32	30	-6.25%	11	-63.33%	35	218.18%	15	-57.14%	52	246.67%	44	-15.38%	37.50%

Pharmacy														
Suppliers : Pharmacy : Long Term Care Pharmacy	0	10		3	-70.00%	1	-66.67%	139	13800.0 0%	30	-78.42%	62	106.67%	#DIV/0!
Suppliers : Pharmacy : Mail Order Pharmacy	3,996	2,252	-43.64%	1,042	-53.73%	1,306	25.34%	931	-28.71%	689	-25.99%	1,197	73.73%	-70.05%
Suppliers : Pharmacy : Managed Care Organization Pharmacy	2	8	300.00%	10	25.00%	3	-70.00%	1	-66.67%	7	600.00%	1	-85.71%	-50.00%
Suppliers : Pharmacy : Specialty Pharmacy	0	26		111	326.92%	339	205.41%	477	40.71%	119	-75.05%	71	-40.34%	#DIV/0!
Suppliers: DME	341,342	318,826	-6.60%	344,860	8.17%	406,001	17.73%	374,067	-7.87%	319,209	-14.67%	347,203	8.77%	1.72%
Suppliers: Other	35,892	37,024	3.15%	30,622	-17.29%	30,029	-1.94%	22,449	-25.24%	5,365	-76.10%	1,579	-70.57%	-95.60%
Suppliers: Prosthetic/Orthotic Supplier	264	336	27.27%	1,033	207.44%	2,123	105.52%	2,369	11.59%	1,107	-53.27%	3,033	173.98%	1048.86%
Technologists, Technicians and Other Technical Service Providers	65,213	66,912	2.61%	51,495	-23.04%	53,408	3.71%	54,588	2.21%	41,536	-23.91%	51,589	24.20%	-20.89%
Transportation: Ambulance	29,519	34,292	16.17%	28,583	-16.65%	17,163	-39.95%	14,548	-15.24%	14,099	-3.09%	17,255	22.38%	-41.55%
Transportation: Other	8,337	6,769	-18.81%	6,038	-10.80%	10,949	81.33%	15,796	44.27%	15,718	-0.49%	23,338	48.48%	179.93%
Totals	10,679,799	10,269,321	-3.84%	10,412,372	1.39%	10,809,047	3.81%	9,567,652	-11.48%	8,721,033	-8.85%	10,403,585	19.29%	-2.59%

Table A.2b
Number of Bills Submitted by Specialty Type and Change from 2007 to 2013
In-State Providers Only

Specialty	2007	2008		2009		2010		2011		2012		2013		2007-2013
	Frequency	Frequency	% Change	% Change										
<Missing>	61,262	58,785	-4.04%	32,043	-45.49%	14,472	-54.84%	2,673	-81.53%	14,755	452.00%	3,619	-75.47%	-94.09%
Agencies	4,159	5,723	37.61%	6,073	6.12%	9,229	51.97%	18,537	100.86%	19,992	7.85%	22,361	11.85%	437.65%
Ambulatory Health Care Facilities: Occupational Medicine Clinic	123,844	61,644	-50.22%	40,071	-35.00%	38,750	-3.30%	38,491	-0.67%	31,701	-17.64%	43,987	38.76%	-64.48%
Ambulatory Health Facilities: Clinic Imaging	4,404	6,296	42.96%	6,572	4.38%	5,035	-23.39%	11,334	125.10%	18,175	60.36%	19,533	7.47%	343.53%
Ambulatory Health Facilities: Clinic Other	229,155	202,691	-11.55%	153,778	-24.13%	110,225	-28.32%	75,790	-31.24%	32,517	-57.10%	34,773	6.94%	-84.83%
Ambulatory Health Facilities: Physical Therapy Clinic	10,087	20,430	102.54%	26,196	28.22%	26,432	0.90%	24,737	-6.41%	19,705	-20.34%	29,656	50.50%	194.00%
Ambulatory Surgical Center	46,474	51,840	11.55%	56,285	8.57%	60,523	7.53%	57,750	-4.58%	56,120	-2.82%	64,580	15.07%	38.96%
Behavioral Health: Other	2,791	2,770	-0.75%	2,536	-8.45%	2,184	-13.88%	2,309	5.72%	2,677	15.94%	2,156	-19.46%	-22.75%
Certified Registered Nurse Anesthetist	2,427	2,397	-1.24%	2,158	-9.97%	3,565	65.20%	4,051	13.63%	4,803	18.56%	6,117	27.36%	152.04%
Chiropractor	506,734	507,622	0.18%	529,400	4.29%	632,044	19.39%	552,663	-12.56%	499,246	-9.67%	479,413	-3.97%	-5.39%
Clinical Nurse Specialist	5,234	14,885	184.39%	14,420	-3.12%	19,203	33.17%	24,728	28.77%	22,460	-9.17%	12,784	-43.08%	144.25%
Dentist - General	6,081	6,864	12.88%	7,379	7.50%	8,032	8.85%	6,938	-13.62%	7,329	5.64%	9,618	31.23%	58.16%

Dentist - Oral Surgery	422	371	-12.09%	274	-26.15%	351	28.10%	404	15.10%	171	-57.67%	267	56.14%	-36.73%
Dentist - Other	205	222	8.29%	284	27.93%	224	-21.13%	189	-15.63%	293	55.03%	378	29.01%	84.39%
Group Practice or Clinic: Multispecialty	266,932	325,023	21.76%	368,547	13.39%	313,382	-14.97%	274,991	-12.25%	215,151	-21.76%	305,278	41.89%	14.37%
Group Practice: Single Specialty	44,534	57,629	29.40%	55,674	-3.39%	57,874	3.95%	36,498	-36.94%	53,934	47.77%	44,866	-16.81%	0.75%
Hospital: General Acute Care	162,318	168,635	3.89%	164,232	-2.61%	155,173	-5.52%	140,082	-9.73%	143,067	2.13%	143,927	0.60%	-11.33%
Hospital: Other	92,120	60,072	-34.79%	52,160	-13.17%	51,765	-0.76%	39,621	-23.46%	34,797	-12.18%	25,837	-25.75%	-71.95%
Lab: Clinical Lab	18,851	20,358	7.99%	23,443	15.15%	36,738	56.71%	63,595	73.10%	134,269	111.13%	146,077	8.79%	674.90%
Lab: Other	9	24	166.67%	56	133.33%	147	162.50%	155	5.44%	158	1.94%	133	-15.82%	1377.78%
Managed Care Organization	1,313	879	-33.05%	867	-1.37%	634	-26.87%	696	9.78%	2,528	263.22%	2,907	14.99%	121.40%
Marriage and Family Therapist	34,008	33,436	-1.68%	28,783	-13.92%	20,375	-29.21%	12,870	-36.83%	17,732	37.78%	17,126	-3.42%	-49.64%
Midlevel Practitioner: Other	3,845	5,212	35.55%	6,072	16.50%	5,424	-10.67%	917	-83.09%	824	-10.14%	52	-93.69%	-98.65%
Nurse	28,338	27,975	-1.28%	25,831	-7.66%	33,346	29.09%	31,896	-4.35%	31,617	-0.87%	33,560	6.15%	18.43%
Nurse Practitioner	15,891	14,936	-6.01%	12,391	-17.04%	15,261	23.16%	14,780	-3.15%	18,008	21.84%	22,180	23.17%	39.58%
Nursing and Custodial Care Facilities: Other	187	365	95.19%	283	-22.47%	265	-6.36%	178	-32.83%	223	25.28%	332	48.88%	77.54%
Pharmacist	174,135	200,823	15.33%	198,554	-1.13%	153,765	-22.56%	133,763	-13.01%	145,709	8.93%	158,642	8.88%	-8.90%
Physician Assistant	165,494	152,142	-8.07%	139,195	-8.51%	162,665	16.86%	155,074	-4.67%	144,959	-6.52%	195,602	34.94%	18.19%
Physician: Allergy & Immunology	3,607	5,164	43.17%	3,782	-26.76%	3,485	-7.85%	3,099	-11.08%	3,525	13.75%	5,519	56.57%	53.01%

Physician: Anesthesiology	95,195	100,062	5.11%	108,838	8.77%	129,231	18.74%	116,782	-9.63%	126,847	8.62%	158,680	25.10%	66.69%
Physician: Dermatology	5,942	5,533	-6.88%	5,447	-1.55%	4,961	-8.92%	4,623	-6.81%	5,415	17.13%	7,550	39.43%	27.06%
Physician: Diagnostic Radiology	207,349	214,127	3.27%	213,120	-0.47%	215,746	1.23%	183,338	-15.02%	172,756	-5.77%	203,911	18.03%	-1.66%
Physician: Emergency Medicine	131,936	95,825	-27.37%	74,709	-22.04%	85,315	14.20%	77,236	-9.47%	72,650	-5.94%	92,919	27.90%	-29.57%
Physician: Family Medicine	124,694	130,939	5.01%	131,792	0.65%	164,564	24.87%	155,498	-5.51%	155,944	0.29%	213,390	36.84%	71.13%
Physician: General Practice	3,479,868	2,811,811	-19.20%	2,797,374	-0.51%	2,500,278	-10.62%	1,935,162	-22.60%	1,664,173	-14.00%	1,684,349	1.21%	-51.60%
Physician: General Surgery	29,292	31,056	6.02%	29,918	-3.66%	31,432	5.06%	22,955	-26.97%	23,773	3.56%	28,818	21.22%	-1.62%
Physician: Internal Medicine	121,409	148,317	22.16%	129,106	-12.95%	158,496	22.76%	152,397	-3.85%	159,513	4.67%	193,540	21.33%	59.41%
Physician: Interventional and Therapeutic Radiology	196	385	96.43%	406	5.45%	509	25.37%	723	42.04%	2,124	193.78%	3,096	45.76%	1479.59%
Physician: Neurosurgery	16,937	15,778	-6.84%	16,522	4.72%	19,529	18.20%	18,651	-4.50%	16,615	-10.92%	16,819	1.23%	-0.70%
Physician: Nuclear Medicine	3,426	5,508	60.77%	4,138	-24.87%	3,352	-18.99%	2,940	-12.29%	6,372	116.73%	7,726	21.25%	125.51%
Physician: Obstetrics and Gynecology	707	592	-16.27%	370	-37.50%	993	168.38%	814	-18.03%	559	-31.33%	743	32.92%	5.09%
Physician: Ophthalmology	7,084	7,811	10.26%	7,361	-5.76%	7,449	1.20%	6,782	-8.95%	5,892	-13.12%	6,418	8.93%	-9.40%
Physician: Orthopedics	678,131	660,026	-2.67%	704,864	6.79%	799,321	13.40%	733,284	-8.26%	696,462	-5.02%	869,746	24.88%	28.26%
Physician: Other	53,213	48,360	-9.12%	55,501	14.77%	67,281	21.22%	50,291	-25.25%	32,911	-34.56%	55,384	68.28%	4.08%

Physician: Otolaryngology	3,198	2,941	-8.04%	3,262	10.91%	2,931	-10.15%	2,390	-18.46%	2,381	-0.38%	3,219	35.20%	0.66%
Physician: Pain Medicine	22,938	30,715	33.90%	43,248	40.80%	61,176	41.45%	65,198	6.57%	71,721	10.00%	100,625	40.30%	338.68%
Physician: Pathology	44,549	36,500	-18.07%	38,573	5.68%	58,262	51.04%	75,375	29.37%	97,227	28.99%	88,519	-8.96%	98.70%
Physician: Pediatrics	1,591	1,026	-35.51%	798	-22.22%	1,042	30.58%	695	-33.30%	716	3.02%	1,545	115.78%	-2.89%
Physician: Physical Medicine and Rehabilitation	657,835	612,344	-6.92%	550,268	-10.14%	609,085	10.69%	458,660	-24.70%	315,643	-31.18%	295,966	-6.23%	-55.01%
Physician: Plastic Surgery	6,485	6,742	3.96%	8,174	21.24%	12,005	46.87%	12,431	3.55%	11,863	-4.57%	17,345	46.21%	167.46%
Physician: Preventive Medicine	445,596	429,070	-3.71%	483,225	12.62%	520,880	7.79%	382,007	-26.66%	412,321	7.94%	593,132	43.85%	33.11%
Physician: Psychiatry and Neurology	94,897	104,952	10.60%	108,508	3.39%	112,119	3.33%	96,913	-13.56%	99,849	3.03%	104,876	5.03%	10.52%
Physician: Radiation Oncology	443	304	-31.38%	322	5.92%	498	54.66%	346	-30.52%	303	-12.43%	323	6.60%	-27.09%
Physician: Surgery Other	16,266	15,916	-2.15%	17,074	7.28%	18,598	8.93%	17,085	-8.14%	18,161	6.30%	23,916	31.69%	47.03%
Physician: Urology	4,425	4,963	12.16%	4,223	-14.91%	4,209	-0.33%	3,411	-18.96%	3,343	-1.99%	3,629	8.56%	-17.99%
Podiatrist	33,712	36,548	8.41%	37,766	3.33%	43,815	16.02%	41,350	-5.63%	37,690	-8.85%	45,505	20.73%	34.98%
Provider: Other	321,874	622,645	93.44%	636,377	2.21%	798,270	25.44%	813,994	1.97%	713,491	-12.35%	927,004	29.93%	188.00%
Psychologist	64,231	84,377	31.36%	104,132	23.41%	126,651	21.63%	104,295	-17.65%	100,464	-3.67%	97,776	-2.68%	52.23%
Residential Treatment Facilities	15	4	-73.33%	29	625.00%	79	172.41%	43	-45.57%	34	-20.93%	93	173.53%	520.00%
Respiratory, Developmental,	103,290	96,879	-6.21%	94,056	-2.91%	108,499	15.36%	81,165	-25.19%	75,914	-6.47%	92,640	22.03%	-10.31%

Rehabilitative and Restorative Service Providers: Occupational Therapist														
Respiratory, Developmental, Rehabilitative and Restorative Service Providers: Other	7,567	11,012	45.53%	10,658	-3.21%	9,543	-10.46%	8,032	-15.83%	6,277	-21.85%	6,787	8.12%	-10.31%
Respiratory, Developmental, Rehabilitative and Restorative Service Providers: Physical Therapist	793,109	763,973	-3.67%	786,530	2.95%	753,657	-4.18%	689,407	-8.53%	655,569	-4.91%	1,022,029	55.90%	28.86%
Skilling Nursing Facility	481	831	72.77%	1,073	29.12%	1,360	26.75%	1,810	33.09%	1,788	-1.22%	2,286	27.85%	375.26%
Social Worker	1,042	1,362	30.71%	1,697	24.60%	1,588	-6.42%	1,532	-3.53%	1,570	2.48%	1,613	2.74%	54.80%
Speech, Language and Hearing Service Provider	3,968	4,092	3.13%	3,931	-3.93%	4,140	5.32%	3,807	-8.04%	3,137	-17.60%	3,481	10.97%	-12.27%
Suppliers : Pharmacy	194,193	214,794	10.61%	247,913	15.42%	265,948	7.27%	250,473	-5.82%	214,873	-14.21%	285,826	33.02%	47.19%
Suppliers : Pharmacy : Clinic Pharmacy	234	465	98.72%	628	35.05%	754	20.06%	2,107	179.44%	387	-81.63%	730	88.63%	211.97%
Suppliers : Pharmacy : Community/Retail Pharmacy	87	363	317.24%	480	32.23%	1,688	251.67%	2,793	65.46%	4,427	58.50%	5,591	26.29%	6326.44%
Suppliers : Pharmacy : Compounding Pharmacy	92	340	269.57%	309	-9.12%	898	190.61%	1,346	49.89%	902	-32.99%	98	-89.14%	6.52%
Suppliers : Pharmacy : Home Infusion Therapy	20	24	20.00%	6	-75.00%	26	333.33%	14	-46.15%	51	264.29%	44	-13.73%	120.00%

Pharmacy														
Suppliers : Pharmacy : Long Term Care Pharmacy	0	10		3	-70.00%	1	-66.67%	139	13800.0 0%	30	-78.42%	62	106.67%	#DIV/0!
Suppliers : Pharmacy : Mail Order Pharmacy	682	669	-1.91%	854	27.65%	1,081	26.58%	776	-28.21%	578	-25.52%	968	67.47%	41.94%
Suppliers : Pharmacy : Managed Care Organization Pharmacy	2	8	300.00%	10	25.00%	3	-70.00%	0	-	100.00%	7	#DIV/0!	1	-85.71% -50.00%
Suppliers : Pharmacy : Specialty Pharmacy	0	26		110	323.08%	339	208.18%	477	40.71%	119	-75.05%	71	-40.34%	#DIV/0!
Suppliers: DME	258,230	250,152	-3.13%	275,867	10.28%	322,191	16.79%	286,850	-10.97%	247,792	-13.62%	251,085	1.33%	-2.77%
Suppliers: Other	33,946	34,625	2.00%	27,128	-21.65%	28,055	3.42%	19,733	-29.66%	4,776	-75.80%	1,554	-67.46%	-95.42%
Suppliers: Prosthetic/Orthotic Supplier	218	321	47.25%	1,007	213.71%	2,074	105.96%	2,341	12.87%	1,074	-54.12%	2,930	172.81%	1244.04%
Technologists, Technicians and Other Technical Service Providers	61,403	59,249	-3.51%	42,250	-28.69%	41,309	-2.23%	41,688	0.92%	30,749	-26.24%	35,005	13.84%	-42.99%
Transportation: Ambulance	25,606	29,705	16.01%	25,387	-14.54%	14,452	-43.07%	11,089	-23.27%	11,319	2.07%	12,054	6.49%	-52.93%
Transportation: Other	4,141	2,872	-30.64%	3,151	9.71%	4,251	34.91%	3,347	-21.27%	4,547	35.85%	6,276	38.03%	51.56%
Totals	10,176,606	9,752,162	-4.17%	9,795,832	0.45%	10,060,502	2.70%	8,673,404	-13.79%	7,969,544	-8.12%	9,408,973	18.06%	-7.54%

**Table A.2c
Number of Bills Submitted by Specialty Type and Change from 2007 to 2013
Out-of-State Providers**

Specialty	2007	2008		2009		2010		2011		2012		2013		2007-2013
	Frequency	Frequency	% Change	% Change										
<Missing>	5,036	7,204	43.05%	4,181	-41.96%	1,103	-73.62%	2,883	161.38%	204	-92.92%	95	-53.43%	-98.11%
Agencies	2,874	3,439	19.66%	4,078	18.58%	5,390	32.17%	9,888	83.45%	10,565	6.85%	15,718	48.77%	446.90%
Ambulatory Health Care Facilities: Occupational Medicine Clinic	521	329	-36.85%	451	37.08%	379	-15.96%	300	-20.84%	281	-6.33%	487	73.31%	-6.53%
Ambulatory Health Facilities: Clinic Imaging	146	174	19.18%	197	13.22%	234	18.78%	274	17.09%	345	25.91%	474	37.39%	224.66%
Ambulatory Health Facilities: Clinic Other	4,406	3,643	-17.32%	2,237	-38.59%	2,390	6.84%	2,362	-1.17%	2,166	-8.30%	3,157	45.75%	-28.35%
Ambulatory Health Facilities: Physical Therapy Clinic	430	949	120.70%	1,802	89.88%	1,253	-30.47%	763	-39.11%	986	29.23%	1,859	88.54%	332.33%
Ambulatory Surgical Center	1,463	910	-37.80%	888	-2.42%	1,377	55.07%	1,392	1.09%	930	-33.19%	972	4.52%	-33.56%
Behavioral Health: Other	52	55	5.77%	62	12.73%	90	45.16%	204	126.67%	83	-59.31%	124	49.40%	138.46%
Certified Registered Nurse Anesthetist	101	119	17.82%	134	12.61%	190	41.79%	174	-8.42%	304	74.71%	349	14.80%	245.54%
Chiropractor	9,955	10,277	3.23%	12,048	17.23%	15,102	25.35%	23,761	57.34%	19,636	-17.36%	23,197	18.14%	133.02%
Clinical Nurse Specialist	61	223	265.57%	269	20.63%	302	12.27%	286	-5.30%	418	46.15%	207	-50.48%	239.34%
Dentist - General	435	700	60.92%	1,129	61.29%	1,466	29.85%	1,697	15.76%	1,296	-23.63%	1,711	32.02%	293.33%

Dentist - Oral Surgery	17	14	-17.65%	16	14.29%	19	18.75%	26	36.84%	19	-26.92%	29	52.63%	70.59%
Dentist - Other	7	6	-14.29%	9	50.00%	17	88.89%	14	-17.65%	22	57.14%	37	68.18%	428.57%
Group Practice or Clinic: Multispecialty	3,110	3,615	16.24%	7,200	99.17%	10,332	43.50%	17,354	67.96%	18,574	7.03%	21,157	13.91%	580.29%
Group Practice: Single Specialty	1,042	1,726	65.64%	2,076	20.28%	2,318	11.66%	4,279	84.60%	6,647	55.34%	11,848	78.25%	1037.04%
Hospital: General Acute Care	3,878	4,471	15.29%	4,742	6.06%	5,362	13.07%	7,068	31.82%	7,332	3.74%	6,764	-7.75%	74.42%
Hospital: Other	2,433	1,573	-35.35%	1,356	-13.80%	1,258	-7.23%	1,840	46.26%	1,728	-6.09%	883	-48.90%	-63.71%
Lab: Clinical Lab	3,221	4,563	41.66%	8,199	79.68%	9,919	20.98%	16,249	63.82%	23,905	47.12%	37,862	58.39%	1075.47%
Lab: Other	1	2	100.00%	6	200.00%	18	200.00%	5	-72.22%	5	0.00%	8	60.00%	700.00%
Managed Care Organization	315	2,206	600.32%	75	-96.60%	72	-4.00%	79	9.72%	80	1.27%	117	46.25%	-62.86%
Marriage and Family Therapist	1,988	2,128	7.04%	1,743	-18.09%	1,077	-38.21%	593	-44.94%	712	20.07%	601	-15.59%	-69.77%
Midlevel Practitioner: Other	172	239	38.95%	221	-7.53%	180	-18.55%	17	-90.56%	16	-5.88%	1	-93.75%	-99.42%
Nurse	957	1,028	7.42%	925	-10.02%	1,041	12.54%	817	-21.52%	688	-15.79%	756	9.88%	-21.00%
Nurse Practitioner	270	452	67.41%	661	46.24%	1,068	61.57%	1,487	39.23%	700	-52.93%	680	-2.86%	151.85%
Nursing and Custodial Care Facilities: Other	5	4	-20.00%	5	25.00%	9	80.00%	3	-66.67%	5	66.67%	22	340.00%	340.00%
Pharmacist	47,375	57,316	20.98%	108,077	88.56%	195,702	81.08%	256,462	31.05%	210,460	-17.94%	250,190	18.88%	428.11%
Physician Assistant	1,427	900	-36.93%	1,045	16.11%	1,528	46.22%	4,294	181.02%	1,116	-74.01%	1,668	49.46%	16.89%
Physician: Allergy & Immunology	170	291	71.18%	119	-59.11%	67	-43.70%	64	-4.48%	75	17.19%	122	62.67%	-28.24%

Physician: Anesthesiology	3,759	3,512	-6.57%	3,664	4.33%	4,723	28.90%	5,043	6.78%	3,207	-36.41%	3,569	11.29%	-5.05%
Physician: Dermatology	134	161	20.15%	137	-14.91%	150	9.49%	88	-41.33%	101	14.77%	151	49.50%	12.69%
Physician: Diagnostic Radiology	11,869	12,921	8.86%	14,072	8.91%	14,169	0.69%	15,644	10.41%	14,737	-5.80%	18,901	28.26%	59.25%
Physician: Emergency Medicine	6,352	3,698	-41.78%	4,337	17.28%	5,432	25.25%	5,989	10.25%	3,463	-42.18%	3,685	6.41%	-41.99%
Physician: Family Medicine	2,013	1,771	-12.02%	1,936	9.32%	3,019	55.94%	3,014	-0.17%	2,588	-14.13%	3,588	38.64%	78.24%
Physician: General Practice	115,787	88,305	-23.73%	96,783	9.60%	84,531	-12.66%	80,180	-5.15%	43,943	-45.19%	47,701	8.55%	-58.80%
Physician: General Surgery	756	654	-13.49%	682	4.28%	637	-6.60%	525	-17.58%	626	19.24%	482	-23.00%	-36.24%
Physician: Internal Medicine	4,913	7,022	42.93%	6,153	-12.38%	5,424	-11.85%	4,376	-19.32%	4,200	-4.02%	3,444	-18.00%	-29.90%
Physician: Interventional and Therapeutic Radiology	0	0		5		2	-60.00%	2	0.00%	11	450.00%	13	18.18%	#DIV/0!
Physician: Neurosurgery	358	387	8.10%	472	21.96%	587	24.36%	601	2.39%	469	-21.96%	680	44.99%	89.94%
Physician: Nuclear Medicine	39	102	161.54%	560	449.02%	646	15.36%	654	1.24%	1,389	112.39%	1,826	31.46%	4582.05%
Physician: Obstetrics and Gynecology	54	28	-48.15%	4	-85.71%	7	75.00%	45	542.86%	20	-55.56%	46	130.00%	-14.81%
Physician: Ophthalmology	227	221	-2.64%	213	-3.62%	191	-10.33%	235	23.04%	141	-40.00%	273	93.62%	20.26%
Physician: Orthopedics	9,182	7,581	-17.44%	8,816	16.29%	13,222	49.98%	18,804	42.22%	8,850	-52.94%	11,531	30.29%	25.58%
Physician: Other	4,026	1,634	-59.41%	2,143	31.15%	1,458	-31.96%	3,265	123.94%	664	-79.66%	1,224	84.34%	-69.60%

Physician: Otolaryngology	75	83	10.67%	88	6.02%	81	-7.95%	68	-16.05%	59	-13.24%	154	161.02%	105.33%
Physician: Pain Medicine	887	1,143	28.86%	1,427	24.85%	1,825	27.89%	1,782	-2.36%	1,372	-23.01%	2,238	63.12%	152.31%
Physician: Pathology	10,477	17,631	68.28%	20,696	17.38%	28,789	39.10%	30,254	5.09%	28,605	-5.45%	24,094	-15.77%	129.97%
Physician: Pediatrics	147	60	-59.18%	37	-38.33%	32	-13.51%	24	-25.00%	52	116.67%	32	-38.46%	-78.23%
Physician: Physical Medicine and Rehabilitation	23,023	25,667	11.48%	37,028	44.26%	56,099	51.50%	43,152	-23.08%	28,089	-34.91%	13,828	-50.77%	-39.94%
Physician: Plastic Surgery	56	54	-3.57%	90	66.67%	87	-3.33%	82	-5.75%	76	-7.32%	96	26.32%	71.43%
Physician: Preventive Medicine	7,579	7,144	-5.74%	8,369	17.15%	8,136	-2.78%	12,155	49.40%	9,517	-21.70%	16,432	72.66%	116.81%
Physician: Psychiatry and Neurology	2,057	2,213	7.58%	2,775	25.40%	3,327	19.89%	2,857	-14.13%	2,523	-11.69%	2,795	10.78%	35.88%
Physician: Radiation Oncology	6	9	50.00%	6	-33.33%	13	116.67%	5	-61.54%	9	80.00%	7	-22.22%	16.67%
Physician: Surgery Other	207	175	-15.46%	195	11.43%	338	73.33%	372	10.06%	404	8.60%	375	-7.18%	81.16%
Physician: Urology	80	97	21.25%	113	16.49%	115	1.77%	85	-26.09%	77	-9.41%	114	48.05%	42.50%
Podiatrist	637	510	-19.94%	632	23.92%	774	22.47%	1,198	54.78%	609	-49.17%	699	14.78%	9.73%
Provider: Other	9,496	21,836	129.95%	26,377	20.80%	33,791	28.11%	35,170	4.08%	28,974	-17.62%	40,595	40.11%	327.50%
Psychologist	1,033	1,448	40.17%	1,792	23.76%	2,088	16.52%	2,561	22.65%	1,848	-27.84%	1,772	-4.11%	71.54%
Residential Treatment Facilities	0	4		0	100.00%	0		2		1	-50.00%	5	400.00%	#DIV/0!
Respiratory, Developmental,	2,483	2,782	12.04%	2,746	-1.29%	6,241	127.28%	11,999	92.26%	22,051	83.77%	25,571	15.96%	929.84%

Rehabilitative and Restorative Service Providers: Occupational Therapist														
Respiratory, Developmental, Rehabilitative and Restorative Service Providers: Other	1,761	4,822	173.82%	4,659	-3.38%	3,015	-35.29%	2,185	-27.53%	1,558	-28.70%	1,864	19.64%	5.85%
Respiratory, Developmental, Rehabilitative and Restorative Service Providers: Physical Therapist	18,262	16,170	-11.46%	34,344	112.39%	47,555	38.47%	104,248	119.22%	105,159	0.87%	170,823	62.44%	835.40%
Skilling Nursing Facility	65	83	27.69%	105	26.51%	103	-1.90%	162	57.28%	140	-13.58%	129	-7.86%	98.46%
Social Worker	79	97	22.78%	89	-8.25%	120	34.83%	168	40.00%	101	-39.88%	156	54.46%	97.47%
Speech, Language and Hearing Service Provider	365	251	-31.23%	258	2.79%	251	-2.71%	219	-12.75%	242	10.50%	292	20.66%	-20.00%
Suppliers : Pharmacy	72,715	89,460	23.03%	82,687	-7.57%	54,713	-33.83%	33,441	-38.88%	29,376	-12.16%	78,915	168.64%	8.53%
Suppliers : Pharmacy : Clinic Pharmacy	2	11	450.00%	52	372.73%	0	-100.00%	9		5	-44.44%	9	80.00%	350.00%
Suppliers : Pharmacy : Community/Retail Pharmacy	2	12	500.00%	11	-8.33%	16	45.45%	24	50.00%	45	87.50%	49	8.89%	2350.00%
Suppliers : Pharmacy : Compounding Pharmacy	13	20	53.85%	1	-95.00%	0	-100.00%	0		1	#DIV/0!	37	3600.00%	184.62%
Suppliers : Pharmacy : Home Infusion Therapy	12	6	-50.00%	5	-16.67%	9	80.00%	1	-88.89%	1	100.00%	0	#DIV/0!	-100.00%

Pharmacy														
Suppliers : Pharmacy : Long Term Care Pharmacy	0	0		0		0		0		0	#DIV/0!	0	#DIV/0!	#DIV/0!
Suppliers : Pharmacy : Mail Order Pharmacy	3,314	1,583	-52.23%	188	-88.12%	225	19.68%	155	-31.11%	111	-28.39%	229	106.31%	-93.09%
Suppliers : Pharmacy : Managed Care Organization Pharmacy	0	0		0		0		1		0	-	0	#DIV/0!	#DIV/0!
Suppliers : Pharmacy : Specialty Pharmacy	0	0		1		0	-100.00%	0		0	#DIV/0!	0	#DIV/0!	#DIV/0!
Suppliers: DME	83,112	68,674	-17.37%	68,993	0.46%	83,810	21.48%	87,217	4.07%	71,417	-18.12%	96,118	34.59%	15.65%
Suppliers: Other	1,946	2,399	23.28%	3,494	45.64%	1,974	-43.50%	2,716	37.59%	589	-78.31%	25	-95.76%	-98.72%
Suppliers: Prosthetic/Orthotic Supplier	46	15	-67.39%	26	73.33%	49	88.46%	28	-42.86%	33	17.86%	103	212.12%	123.91%
Technologists, Technicians and Other Technical Service Providers	3,810	7,663	101.13%	9,245	20.64%	12,099	30.87%	12,900	6.62%	10,787	-16.38%	16,584	53.74%	335.28%
Transportation: Ambulance	3,913	4,587	17.22%	3,196	-30.32%	2,711	-15.18%	3,459	27.59%	2,780	-19.63%	5,201	87.09%	32.92%
Transportation: Other	4,196	3,897	-7.13%	2,887	-25.92%	6,698	132.01%	12,449	85.86%	11,171	-10.27%	17,062	52.73%	306.63%
Totals	503,193	517,159	2.78%	616,540	19.22%	748,545	21.41%	894,248	19.46%	751,489	-15.96%	994,612	32.35%	97.66%

Table A.3
Change Number of Medical Bills Submitted 2007 to 2013
Top 10 Highest Volume Providers By Region and Out-of-State

Region	2007	2008	2009	2010	2011	2012	2013
Bay Area	299,662	312,276	321,300	333,717	280,515	256,849	411,414
Central Coast	116,710	114,981	108,521	114,229	96,721	94,485	121,701
Central Valley	126,189	142,831	147,151	151,259	120,084	102,763	136,933
Eastern Sierra Foothills	27,790	31,350	33,694	34,246	28,537	25,123	30,751
Inland Empire	558,546	482,058	536,242	566,626	489,708	381,364	423,051
Los Angeles	1,133,844	1,074,770	1,120,725	1,110,282	887,668	629,154	775,650
North State	28,694	29,253	33,222	34,067	24,633	20,195	23,903
Sacramento Valley	101,599	113,177	116,140	120,515	103,444	84,633	107,946
Sacramento Valley North	23,261	29,139	28,261	28,166	25,568	24,040	28,815
San Diego	234,419	231,959	277,304	248,274	172,440	150,428	208,522
Subtotal - California	2,650,714	2,561,794	2,722,560	2,741,381	2,229,318	1,769,034	2,268,686
Out of State	143,659	215,173	291,611	296,627	336,291	284,644	317,826
TOTAL	2,794,373	2,776,967	3,014,171	3,038,008	2,565,609	2,053,678	2,586,512

**Table A.4
Changes in Highest Volume CPT Codes
2007 – 2013**

HCPCS	HCPCS Description	2007		2008		2009		2010		2011		2012		2013		2007-2013
		Frequency	% of Total	% change												
99081	#N/A	2,017,221	8.82%	2,037,178	8.72%	2,094,531	8.57%	2,173,187	8.42%	996,180	4.95%	1,694,180	7.75%	2,232,963	8.36%	10.70%
99214	Office/outpatient visit est	1,347,627	5.90%	1,336,755	5.72%	1,411,129	5.77%	1,542,380	5.97%	977,365	4.86%	1,185,685	5.42%	1,624,216	6.08%	20.52%
97250	#N/A	1,141,168	4.99%	1,226,712	5.25%	1,321,416	5.40%	1,436,683	5.56%	557,509	2.77%	1,192,939	5.46%	1,565,418	5.86%	37.18%
97014	Electric stimulation therapy	1,265,334	5.54%	1,311,263	5.62%	1,430,165	5.85%	1,509,045	5.85%	926,059	4.61%	1,189,197	5.44%	1,564,252	5.85%	23.62%
97110	Therapeutic exercises	1,286,795	5.63%	1,338,400	5.73%	1,404,035	5.74%	1,437,057	5.57%	888,039	4.42%	1,102,561	5.04%	1,519,215	5.68%	18.06%
99080	Special reports or forms	870,549	3.81%	924,901	3.96%	1,027,031	4.20%	1,153,749	4.47%	658,396	3.27%	1,063,243	4.86%	1,241,127	4.64%	42.57%
99213	Office/outpatient visit est	1,237,721	5.41%	1,218,916	5.22%	1,152,071	4.71%	1,149,625	4.45%	715,008	3.56%	854,695	3.91%	1,102,413	4.13%	-10.93%
99358	Prolong service w/o contact	446,693	1.95%	506,730	2.17%	583,311	2.39%	680,798	2.64%	440,516	2.19%	693,848	3.17%	803,649	3.01%	79.91%
97026	Infrared therapy	269,914	1.18%	315,689	1.35%	388,721	1.59%	501,249	1.94%	316,321	1.57%	460,512	2.11%	610,798	2.29%	126.29%
99070	Special supplies phys/qhp	526,879	2.30%	557,784	2.39%	484,026	1.98%	494,880	1.92%	337,715	1.68%	424,441	1.94%	500,931	1.87%	-4.92%
99215	Office/outpatient visit est	392,707	1.72%	379,849	1.63%	410,543	1.68%	423,159	1.64%	253,301	1.26%	362,201	1.66%	405,984	1.52%	3.38%
A4556	Electrodes, pair	245,987	1.08%	239,521	1.03%	277,156	1.13%	306,366	1.19%	281,363	1.40%	230,079	1.05%	256,665	0.96%	4.34%

HCPCS	HCPCS Description	2007		2008		2009		2010		2011		2012		2013		2007-2013
		Frequency	% of Total	% change												
99204	Office/outpatient visit new	263,544	1.15%	252,355	1.08%	232,086	0.95%	245,059	0.95%	158,971	0.79%	193,324	0.88%	254,324	0.95%	-3.50%
99199	Special service/proc/report	148,458	0.65%	161,626	0.69%	172,561	0.71%	193,712	0.75%	109,279	0.54%	242,704	1.11%	253,656	0.95%	70.86%
97801	#N/A	80,558	0.35%	114,134	0.49%	143,645	0.59%	182,065	0.71%	86,489	0.43%	178,557	0.82%	211,771	0.79%	162.88%
95851	Range of motion measurements	184,600	0.81%	210,456	0.90%	224,119	0.92%	234,741	0.91%	131,758	0.66%	191,730	0.88%	210,676	0.79%	14.13%
97530	Therapeutic activities	184,164	0.81%	177,864	0.76%	182,045	0.74%	174,460	0.68%	109,032	0.54%	139,992	0.64%	205,546	0.77%	11.61%
97016	Vasopneumatic device therapy	100,155	0.44%	113,114	0.48%	123,663	0.51%	147,934	0.57%	96,756	0.48%	139,357	0.64%	196,071	0.73%	95.77%
98940	Chiropract manj 1-2 regions	213,510	0.93%	211,949	0.91%	226,534	0.93%	236,736	0.92%	129,697	0.65%	177,842	0.81%	194,625	0.73%	-8.85%
99203	Office/outpatient visit ne	213,996	0.94%	196,139	0.84%	183,750	0.75%	189,931	0.74%	126,103	0.63%	153,394	0.70%	189,442	0.71%	-11.47%
97128	#N/A	228,322	1.00%	222,833	0.95%	218,475	0.89%	214,822	0.83%	103,780	0.52%	157,315	0.72%	183,536	0.69%	-19.62%
97018	Paraffin bath therapy	158,016	0.69%	169,116	0.72%	174,337	0.71%	183,803	0.71%	106,243	0.53%	136,438	0.62%	173,012	0.65%	9.49%
97145	#N/A	211,305	0.92%	186,899	0.80%	164,614	0.67%	170,123	0.66%	71,730	0.36%	129,838	0.59%	167,673	0.63%	0.00%
97012	Mechanical traction therapy	200,974	0.88%	193,218	0.83%	209,515	0.86%	211,929	0.82%	124,042	0.62%	156,108	0.71%	158,515	0.59%	-21.13%
90901	Biofeedback train any met	88,554	0.39%	96,045	0.41%	125,306	0.51%	164,322	0.64%	90,733	0.45%	132,151	0.60%	147,082	0.55%	66.09%

HCPCS	HCPCS Description	2007		2008		2009		2010		2011		2012		2013		2007-2013
		Frequency	% of Total	% change												
	Subtotal	13,324,751		13,699,446		14,364,785		15,357,815		8,792,385		12,582,331		15,973,560		
	Other Codes	9,534,396	41.71%	9,651,960	41.33%	10,087,516	41.25%	10,458,957	40.51%	11,312,164	56.27%	9,279,165	42.45%	10,750,592	40.23%	9,534,396
	TOTAL	22,859,147	100%	23,351,406	100%	24,452,301	100%	25,816,772	100%	20,104,549	100%	21,861,496	100%	26,724,152	100%	16.91%

Table A.5
Changes in Highest Volume Drugs Billed
2007 – 2013

Drug Name	2007		2008		2009		2010		2011		2012		2013		2007-2013
	Frequency	% of Total	% change												
HYDROCODONE-ACETAMINOPHEN	54,324	13.00%	66,470	13.27%	88,090	14.61%	103,159	14.74%	101,099	13.07%	75,929	11.13%	83,142	10.62%	53.05%
TRAMADOL	10,372	2.48%	12,676	2.53%	15,852	2.63%	22,698	3.24%	30,613	3.96%	28,879	4.23%	36,992	4.73%	256.65%
IBUPROFEN	20,049	4.80%	20,090	4.01%	24,505	4.06%	28,169	4.02%	32,134	4.16%	27,298	4.00%	34,434	4.40%	71.75%
COMPOUND DRUGS	25,568	6.12%	34,027	6.79%	27,839	4.62%	24,203	3.46%	27,596	3.57%	30,337	4.45%	34,749	4.44%	35.91%
OMEPRAZOLE	6,630	1.59%	10,827	2.16%	16,641	2.76%	20,715	2.96%	27,750	3.59%	24,582	3.60%	25,514	3.26%	284.83%
NAPROXEN	13,315	3.19%	15,173	3.03%	18,373	3.05%	20,517	2.93%	28,515	3.69%	22,095	3.24%	24,646	3.15%	85.10%
GABAPENTIN	9,774	2.34%	18,004	3.59%	18,550	3.08%	20,559	2.94%	20,880	2.70%	19,946	2.92%	25,811	3.30%	164.08%
CYCLOBENZAPRINE	10,174	2.44%	16,324	3.26%	19,761	3.28%	20,055	2.87%	20,585	2.66%	20,202	2.96%	27,943	3.57%	174.65%
CARISOPRODOL	17,862	4.28%	17,019	3.40%	19,490	3.23%	22,532	3.22%	22,566	2.92%	15,994	2.34%	17,313	2.21%	-3.07%
ZOLPIDEM TARTRATE	3,834	0.92%	9,560	1.91%	10,651	1.77%	14,410	2.06%	19,351	2.50%	14,507	2.13%	14,954	1.91%	290.04%
OXYCODONE-ACETAMINOPHEN	5,726	1.37%	6,264	1.25%	7,828	1.30%	13,876	1.98%	13,155	1.70%	11,960	1.75%	14,934	1.91%	160.81%
TIZANIDINE	3,049	0.73%	4,494	0.90%	6,960	1.15%	8,505	1.22%	11,655	1.51%	11,702	1.72%	11,014	1.41%	261.23%
CELEBREX	8,001	1.92%	9,399	1.88%	12,416	2.06%	12,953	1.85%	12,760	1.65%	10,598	1.55%	13,687	1.75%	71.07%
CYMBALTA	4,036	0.97%	5,783	1.15%	9,045	1.50%	9,917	1.42%	10,938	1.41%	10,300	1.51%	12,200	1.56%	202.28%

Drug Name	2007		2008		2009		2010		2011		2012		2013		2007-2013
	Frequency	% of Total	% change												
LIDODERM	6,701	1.60%	7,466	1.49%	9,535	1.58%	11,211	1.60%	13,209	1.71%	9,995	1.47%	10,029	1.28%	49.66%
APAP/HYDROCODONE	6,091	1.46%	6,222	1.24%	3,440	0.57%	1,417	0.20%	10,298	1.33%	8,662	1.27%	19,031	2.43%	212.44%
KETOPROFEN	5,577	1.33%	9,770	1.95%	5,064	0.84%	5,146	0.74%	5,479	0.71%	7,736	1.13%	3,914	0.50%	-29.82%
ALPRAZOLAM	3,557	0.85%	4,402	0.88%	5,067	0.84%	8,458	1.21%	7,924	1.02%	6,557	0.96%	6,806	0.87%	91.34%
DICLOFENAC SODIUM	3,205	0.77%	4,316	0.86%	5,187	0.86%	5,947	0.85%	7,342	0.95%	5,978	0.88%	5,856	0.75%	82.71%
AMITRIPTYLINE	2,424	0.58%	2,416	0.48%	3,373	0.56%	5,430	0.78%	4,809	0.62%	5,907	0.87%	5,507	0.70%	127.19%
ACETAMINOPHEN-CODEINE	5,653	1.35%	4,903	0.98%	5,917	0.98%	7,989	1.14%	9,198	1.19%	5,567	0.82%	5,608	0.72%	-0.80%
BUPROPION	1,962	0.47%	2,745	0.55%	3,772	0.63%	6,981	1.00%	6,879	0.89%	5,644	0.83%	5,731	0.73%	192.10%
OXYCONTIN	656	0.16%	2,742	0.55%	4,593	0.76%	6,287	0.90%	6,701	0.87%	5,150	0.75%	6,658	0.85%	914.94%
TRAZODONE	2,375	0.57%	2,705	0.54%	3,403	0.56%	6,332	0.90%	5,225	0.68%	5,179	0.76%	5,925	0.76%	149.47%
NABUMETONE	2,613	0.63%	3,095	0.62%	3,631	0.60%	4,308	0.62%	5,925	0.77%	4,971	0.73%	7,077	0.90%	170.84%
Subtotal	233,528	55.9%	296,892	59.3%	348,983	57.9%	411,774	58.8%	462,586	59.8%	395,675	58.0%	459,475	58.7%	
All Other Drugs	184,244	44.1%	204,176	40.7%	254,112	42.1%	288,126	41.2%	310,720	40.2%	286,458	42.0%	323,182	41.3%	
TOTAL	417,772	100%	501,068	100%	603,095	100%	699,900	100%	773,306	100%	682,133	100%	782,657	100%	14.74%

Table A.6
Highest Volume Diagnosis Codes Billed
2007 – 2013

Diagnosis Category	Diagnosis Category Description	2007	2008	2009	2010	2011	2012	2013
		% of Total						
847	Sprains and strains of other and unspecified parts of back	11.78%	10.69%	12.16%	14.84%	15.33%	13.76%	12.41%
722	Intervertebral disc disorders	9.93%	9.42%	9.95%	8.12%	7.49%	7.53%	7.61%
724	Other and unspecified disorders of back	8.53%	8.21%	8.84%	7.86%	7.69%	8.30%	8.84%
959	Injury other and unspecified	8.50%	15.30%	6.53%	5.44%	4.74%	6.06%	5.87%
719	Other and unspecified disorders of joint	5.09%	4.65%	5.37%	5.43%	5.56%	5.77%	6.79%
726	Peripheral enthesopathies and allied syndromes	4.64%	4.37%	5.15%	5.25%	5.28%	4.85%	5.24%
840	Sprains and strains of shoulder and upper arm	3.95%	3.69%	4.31%	5.08%	5.22%	4.72%	4.79%
723	Other disorders of cervical region	2.98%	2.86%	3.09%	2.87%	2.97%	3.09%	3.28%
354	Mononeuritis of upper limb and mononeuritis multiplex	3.02%	2.68%	2.95%	2.73%	2.92%	2.76%	3.07%
727	Other disorders of synovium tendon and bursa	2.32%	2.33%	2.72%	3.01%	3.21%	2.90%	3.07%
842	Sprains and strains of wrist and hand	2.08%	1.91%	2.26%	2.97%	3.27%	2.83%	2.52%
844	Sprains and strains of knee and leg	2.03%	2.00%	2.36%	2.85%	2.69%	2.52%	2.49%
846	Sprains and strains of sacroiliac region	2.67%	2.24%	2.34%	2.61%	2.42%	1.99%	1.69%
845	Sprains and strains of ankle and foot	1.76%	1.48%	1.71%	2.02%	1.99%	1.96%	1.83%
729	Other disorders of soft tissues	1.85%	1.70%	1.81%	1.85%	1.83%	1.89%	1.85%
883	Open wound of finger(s)	2.24%	1.72%	1.66%	1.69%	1.76%	1.76%	1.45%

Diagnosis Category	Diagnosis Category Description	2007	2008	2009	2010	2011	2012	2013
		% of Total						
715	Osteoarthritis and allied disorders	1.92%	1.93%	2.08%	1.60%	1.43%	1.69%	2.09%
924	Contusion of lower limb and of other and unspecified site	1.65%	1.37%	1.50%	1.90%	1.79%	1.69%	1.50%
V57.1	Care involving other physical therapy	1.32%	1.03%	1.40%	1.52%	1.65%	2.25%	1.51%
717	Internal derangement of knee	1.45%	1.37%	1.44%	1.26%	1.22%	1.31%	1.40%
836	Dislocation of the knee	1.22%	1.42%	1.43%	1.31%	1.31%	1.33%	1.54%
923	Contusion of upper limb	1.20%	1.14%	1.21%	1.53%	1.43%	1.28%	1.16%
721	Spondylosis and allied disorders	0.92%	0.90%	1.05%	0.91%	0.86%	1.02%	1.18%
841	Sprains and strains of elbow and forearm	0.52%	0.45%	0.53%	0.72%	0.80%	0.65%	0.58%
922	Contusion of trunk	0.56%	0.52%	0.56%	0.67%	0.63%	0.58%	0.59%
882	Open wound of hand except finger(s) alone	0.75%	0.54%	0.56%	0.55%	0.55%	0.53%	0.45%
999	Complications of medical care not elsewhere classified	0.72%	0.72%	0.76%	0.49%	0.47%	0.31%	0.27%
816	Fracture of one or more phalanges of hand	0.63%	0.58%	0.54%	0.58%	0.56%	0.51%	0.51%
780	General symptoms	0.56%	0.60%	0.67%	0.52%	0.48%	0.57%	0.49%
718	Other derangement of joint	0.53%	0.55%	0.59%	0.57%	0.52%	0.56%	0.65%
728	Disorders of muscle ligament and fascia	0.62%	0.50%	0.52%	0.49%	0.47%	0.51%	0.61%
813	Fracture of radius and ulna	0.48%	0.52%	0.51%	0.52%	0.49%	0.45%	0.45%
786	Symptoms involving respiratory system and other chest symptoms	0.50%	0.47%	0.52%	0.40%	0.39%	0.47%	0.46%

Diagnosis Category	Diagnosis Category Description	2007	2008	2009	2010	2011	2012	2013
		% of Total						
848	Other and ill-defined sprains and strains	0.43%	0.39%	0.40%	0.46%	0.42%	0.45%	0.35%
401	Essential hypertension	0.50%	0.46%	0.47%	0.33%	0.36%	0.47%	0.58%
920	Contusion of face, scalp and neck except eye(s)	0.36%	0.36%	0.39%	0.48%	0.45%	0.43%	0.35%
799	Other ill-defined and unknown causes of morbidity and mortality	0.54%	0.55%	0.45%	0.25%	0.29%	0.34%	0.57%
338	Pain not elsewhere classified	0.19%	0.31%	0.40%	0.41%	0.48%	0.64%	0.87%
927	Crushing injury of upper limb	0.45%	0.36%	0.34%	0.39%	0.39%	0.33%	0.27%
337	Disorders of the autonomic nervous system	0.48%	0.44%	0.45%	0.30%	0.26%	0.27%	0.34%
V72.83	Other specified pre-operative examination	0.32%	0.35%	0.40%	0.31%	0.39%	0.46%	0.50%
311	Depressive disorder not elsewhere classified	0.28%	0.28%	0.43%	0.44%	0.41%	0.31%	0.29%
873	Open wound of head	0.38%	0.32%	0.33%	0.32%	0.35%	0.39%	0.30%
V57.21	Encounter for occupational therapy	0.34%	0.30%	0.34%	0.32%	0.37%	0.46%	0.34%
784	Symptoms involving head and neck	0.35%	0.31%	0.33%	0.33%	0.35%	0.38%	0.39%
824	Fracture of ankle	0.36%	0.33%	0.36%	0.33%	0.33%	0.30%	0.30%
843	Sprains and strains of hip and thigh	0.32%	0.27%	0.32%	0.36%	0.37%	0.35%	0.37%
550	Inguinal hernia	0.35%	0.31%	0.33%	0.29%	0.35%	0.35%	0.35%
V15	Other personal history presenting hazards to health	0.18%	0.22%	0.29%	0.34%	0.37%	0.37%	0.37%
996	Complications peculiar to certain specified procedures	0.32%	0.30%	0.34%	0.23%	0.26%	0.32%	0.32%

Diagnosis Category	Diagnosis Category Description	2007	2008	2009	2010	2011	2012	2013
		% of Total						
V45.89	Other post-procedural status	0.30%	0.28%	0.40%	0.27%	0.21%	0.23%	0.31%
881	Open wound of elbow forearm and wrist	0.38%	0.26%	0.23%	0.25%	0.25%	0.29%	0.23%
682	Other cellulitis and abscess	0.30%	0.27%	0.24%	0.26%	0.21%	0.26%	0.22%
789	Other symptoms involving abdomen and pelvis	0.23%	0.23%	0.25%	0.24%	0.23%	0.30%	0.35%
V72.84	Preoperative examination unspecified	0.19%	0.20%	0.24%	0.18%	0.22%	0.28%	0.32%
V54.89	Other orthopedic aftercare	0.30%	0.18%	0.19%	0.15%	0.17%	0.20%	0.24%
V67.59	Other follow-up examination	0.35%	0.22%	0.19%	0.11%	0.14%	0.15%	0.11%
782	Symptoms involving skin and other integumentary tissue	0.20%	0.18%	0.18%	0.16%	0.20%	0.22%	0.21%
886	Traumatic amputation of other finger(s) (complete) (partial)	0.22%	0.18%	0.18%	0.16%	0.15%	0.13%	0.12%
891	Open wound of knee leg (except thigh) and ankle	0.19%	0.16%	0.14%	0.14%	0.14%	0.17%	0.15%
854	Intracranial injury of other and unspecified nature	0.11%	0.14%	0.16%	0.14%	0.19%	0.24%	0.24%
918	Superficial injury of eye and adnexa	0.19%	0.14%	0.15%	0.15%	0.13%	0.14%	0.12%
850	Concussion	0.13%	0.12%	0.15%	0.16%	0.17%	0.18%	0.19%
756	Other congenital muscle anomalies	0.15%	0.16%	0.16%	0.13%	0.12%	0.12%	0.13%
814	Fracture of carpal bones	0.13%	0.13%	0.15%	0.15%	0.15%	0.11%	0.12%
998	Other complications of procedures not elsewhere classified	0.12%	0.13%	0.17%	0.12%	0.11%	0.15%	0.12%
812	Fracture of humerus	0.12%	0.12%	0.11%	0.15%	0.13%	0.11%	0.10%
V57.89	Care involving other specified rehabilitation procedure	0.11%	0.11%	0.14%	0.09%	0.13%	0.19%	0.14%

Diagnosis Category	Diagnosis Category Description	2007	2008	2009	2010	2011	2012	2013
		% of Total						
720	Ankylosing spondylitis and other inflammatory spondylopathies	0.13%	0.11%	0.13%	0.10%	0.12%	0.16%	0.21%
V58.89	Unspecified aftercare	0.27%	0.11%	0.08%	0.07%	0.06%	0.07%	0.09%
738	Other acquired musculoskeletal deformity	0.12%	0.11%	0.13%	0.11%	0.09%	0.11%	0.12%
V72.81	Preoperative cardiovascular examination	0.09%	0.11%	0.12%	0.09%	0.12%	0.13%	0.13%
V58.78	Aftercare following surgery of the musculoskeletal system, NEC	0.08%	0.09%	0.12%	0.10%	0.12%	0.15%	0.17%
802	Fracture of face bones	0.07%	0.08%	0.08%	0.09%	0.08%	0.09%	0.10%
V58.83	Encounter for therapeutic drug monitoring	0.05%	0.06%	0.07%	0.06%	0.10%	0.20%	0.20%
V58.32	Encounter for removal of sutures	0.08%	0.09%	0.07%	0.06%	0.07%	0.09%	0.07%
V71.89	Observation and evaluation for other specified suspected conditions	0.03%	0.02%	0.02%	0.02%	0.25%	0.13%	0.02%
V54.81	Aftercare following joint replacement	0.05%	0.06%	0.07%	0.06%	0.06%	0.09%	0.08%
V67.09	Follow-up examination, following other surgery	0.05%	0.06%	0.07%	0.05%	0.05%	0.07%	0.07%
V54.19	Aftercare for healing traumatic fracture of other bone	0.04%	0.04%	0.05%	0.05%	0.08%	0.08%	0.07%
730	Osteomyelitis periostitis and other infections involving bone	0.06%	0.05%	0.06%	0.05%	0.05%	0.06%	0.06%
V58.30	Encounter for change or removal of nonsurgical wound dressing	0.05%	0.04%	0.03%	0.02%	0.02%	0.03%	0.02%
V58.31	Encounter for change or removal of surgical wound dressing	0.02%	0.03%	0.02%	0.02%	0.02%	0.02%	0.01%

Diagnosis Category	Diagnosis Category Description	2007	2008	2009	2010	2011	2012	2013
		% of Total						
853	Other and unspecified intracranial hemorrhage following injury	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%	0.02%

Table A.7
Highest Volume Diagnosis Codes Billed – Inpatient Only
2007 – 2013

Diagnosis Category	Diagnosis Category Description	2007	2008	2009	2010	2011	2012	2013
		% of Total						
724	Other and unspecified disorders of back	6.46%	7.33%	7.36%	7.52%	7.81%	10.00%	9.45%
959	Injury other and unspecified	5.94%	7.41%	4.95%	6.95%	5.44%	6.05%	4.61%
722	Intervertebral disc disorders	5.94%	6.51%	7.02%	7.38%	7.78%	9.55%	8.51%
V57.1	Care involving other physical therapy	5.67%	4.33%	5.08%	4.19%	4.34%	6.04%	6.43%
847	Sprains and strains of other and unspecified parts of back	4.10%	3.93%	3.95%	5.87%	4.88%	5.11%	3.49%
726	Peripheral enthesopathies and allied syndromes	3.48%	3.33%	3.94%	4.02%	3.55%	3.92%	4.31%
719	Other and unspecified disorders of joint	3.46%	3.35%	3.72%	3.81%	3.63%	4.37%	4.82%
883	Open wound of finger(s)	2.85%	2.70%	2.37%	1.80%	2.06%	2.57%	2.88%
354	Mononeuritis of upper limb and mononeuritis multiplex	2.61%	2.57%	2.69%	2.71%	2.43%	2.75%	3.26%
840	Sprains and strains of shoulder and upper arm	2.42%	2.26%	2.23%	2.36%	2.12%	2.48%	2.63%
727	Other disorders of synovium tendon and bursa	1.93%	1.89%	1.93%	1.82%	1.70%	2.07%	2.47%
723	Other disorders of cervical region	1.67%	1.82%	2.10%	2.19%	2.27%	2.69%	2.57%
V67.59	Other follow-up examination	1.52%	0.99%	0.73%	0.46%	0.52%	0.55%	0.48%
V57.21	Encounter for occupational therapy	1.46%	1.35%	1.44%	1.10%	1.18%	1.50%	1.57%
717	Internal derangement of knee	1.46%	1.50%	1.65%	1.45%	1.43%	1.78%	2.07%

Diagnosis Category	Diagnosis Category Description	2007	2008	2009	2010	2011	2012	2013
		% of Total						
729	Other disorders of soft tissues	1.32%	1.39%	1.38%	2.16%	2.05%	2.32%	2.16%
836	Dislocation of the knee	1.22%	1.39%	1.27%	1.10%	1.10%	1.37%	1.58%
924	Contusion of lower limb and of other and unspecified site	1.16%	1.13%	1.10%	0.86%	0.77%	0.94%	1.03%
V58.89	Unspecified aftercare	1.14%	0.45%	0.27%	0.18%	0.17%	0.20%	0.27%
V54.89	Other orthopedic aftercare	1.14%	0.59%	0.53%	0.52%	0.50%	0.61%	0.76%
715	Osteoarthritis and allied disorders	1.11%	1.24%	1.51%	1.42%	1.53%	2.06%	2.45%
845	Sprains and strains of ankle and foot	1.11%	1.13%	1.15%	0.87%	0.87%	1.02%	1.09%
V72.83	Other specified pre-operative examination	1.08%	1.26%	1.30%	1.03%	1.11%	1.16%	1.33%
842	Sprains and strains of wrist and hand	1.06%	1.01%	0.99%	1.02%	0.95%	0.98%	0.96%
844	Sprains and strains of knee and leg	1.05%	1.20%	1.11%	1.10%	0.92%	1.10%	1.17%
923	Contusion of upper limb	0.98%	0.97%	0.87%	0.67%	0.66%	0.79%	0.85%
721	Spondylosis and allied disorders	0.95%	0.99%	1.14%	1.29%	1.46%	2.11%	2.43%
882	Open wound of hand except finger(s) alone	0.91%	0.89%	0.81%	0.63%	0.62%	0.77%	0.88%
816	Fracture of one or more phalanges of hand	0.84%	0.81%	0.71%	0.58%	0.58%	0.71%	0.88%
550	Inguinal hernia	0.76%	0.80%	0.74%	0.55%	0.64%	0.78%	0.89%
846	Sprains and strains of sacroiliac region	0.74%	0.67%	0.73%	0.90%	0.60%	0.66%	0.54%
873	Open wound of head	0.73%	0.71%	0.65%	0.50%	0.54%	0.69%	0.69%

Diagnosis Category	Diagnosis Category Description	2007	2008	2009	2010	2011	2012	2013
		% of Total						
996	Complications peculiar to certain specified procedures	0.69%	0.67%	0.77%	0.64%	0.73%	0.99%	0.99%
718	Other derangement of joint	0.69%	0.77%	0.78%	0.71%	0.71%	0.94%	1.15%
813	Fracture of radius and ulna	0.67%	0.70%	0.63%	0.57%	0.53%	0.68%	0.73%
780	General symptoms	0.56%	0.62%	0.61%	0.68%	0.67%	0.93%	0.71%
922	Contusion of trunk	0.54%	0.54%	0.55%	0.44%	0.37%	0.48%	0.51%
786	Symptoms involving respiratory system and other chest symptoms	0.54%	0.60%	0.59%	0.52%	0.61%	0.86%	0.74%
881	Open wound of elbow forearm and wrist	0.48%	0.50%	0.39%	0.30%	0.33%	0.45%	0.48%
682	Other cellulitis and abscess	0.46%	0.50%	0.41%	0.34%	0.33%	0.47%	0.41%
V57.89	Care involving other specified rehabilitation procedure	0.46%	0.50%	0.58%	0.49%	0.52%	0.73%	0.69%
920	Contusion of face, scalp and neck except eye(s)	0.46%	0.39%	0.45%	0.34%	0.30%	0.39%	0.41%
V72.84	Preoperative examination unspecified	0.43%	0.49%	0.54%	0.44%	0.53%	0.74%	0.93%
337	Disorders of the autonomic nervous system	0.43%	0.42%	0.49%	0.38%	0.43%	0.50%	0.66%
824	Fracture of ankle	0.43%	0.43%	0.39%	0.32%	0.34%	0.44%	0.45%
927	Crushing injury of upper limb	0.39%	0.41%	0.36%	0.29%	0.31%	0.34%	0.34%
784	Symptoms involving head and neck	0.39%	0.36%	0.32%	0.40%	0.38%	0.47%	0.46%
338	Pain not elsewhere classified	0.38%	0.60%	0.64%	0.65%	0.78%	1.05%	1.17%
799	Other ill-defined and unknown causes of morbidity and mortality	0.36%	0.37%	0.13%	0.16%	0.20%	0.25%	0.23%

Diagnosis Category	Diagnosis Category Description	2007	2008	2009	2010	2011	2012	2013
		% of Total						
V58.32	Encounter for removal of sutures	0.36%	0.40%	0.30%	0.27%	0.26%	0.31%	0.33%
886	Traumatic amputation of other finger(s) (complete) (partial)	0.34%	0.37%	0.29%	0.24%	0.22%	0.29%	0.30%
789	Other symptoms involving abdomen and pelvis	0.31%	0.36%	0.40%	0.42%	0.41%	0.62%	0.62%
891	Open wound of knee leg (except thigh) and ankle	0.31%	0.29%	0.25%	0.19%	0.22%	0.31%	0.30%
998	Other complications of procedures not elsewhere classified	0.31%	0.35%	0.38%	0.32%	0.33%	0.47%	0.40%
401	Essential hypertension	0.30%	0.26%	0.24%	0.33%	0.38%	0.54%	0.58%
848	Other and ill-defined sprains and strains	0.28%	0.26%	0.24%	0.19%	0.20%	0.28%	0.28%
850	Concussion	0.26%	0.27%	0.32%	0.23%	0.26%	0.35%	0.39%
918	Superficial injury of eye and adnexa	0.24%	0.22%	0.23%	0.13%	0.14%	0.19%	0.20%
V15	Other personal history presenting hazards to health	0.24%	0.23%	0.22%	0.27%	0.36%	0.39%	0.46%
728	Disorders of muscle ligament and fascia	0.23%	0.25%	0.24%	0.22%	0.24%	0.29%	0.37%
841	Sprains and strains of elbow and forearm	0.23%	0.20%	0.19%	0.20%	0.19%	0.21%	0.23%
854	Intracranial injury of other and unspecified nature	0.21%	0.32%	0.41%	0.38%	0.58%	0.74%	0.78%
999	Complications of medical care not elsewhere classified	0.20%	0.35%	0.33%	0.19%	0.14%	0.15%	0.24%
782	Symptoms involving skin and other integumentary tissue	0.20%	0.18%	0.22%	0.19%	0.19%	0.24%	0.26%
V58.30	Encounter for change or removal of nonsurgical wound dressing	0.20%	0.17%	0.13%	0.08%	0.08%	0.12%	0.11%
V58.78	Aftercare following surgery of the musculoskeletal system, NEC	0.19%	0.16%	0.25%	0.22%	0.25%	0.32%	0.26%

Diagnosis Category	Diagnosis Category Description	2007	2008	2009	2010	2011	2012	2013
		% of Total						
V67.09	Follow-up examination, following other surgery	0.19%	0.23%	0.20%	0.19%	0.17%	0.21%	0.23%
V72.81	Preoperative cardiovascular examination	0.19%	0.27%	0.25%	0.26%	0.33%	0.38%	0.42%
V45.89	Other post-procedural status	0.18%	0.14%	0.15%	0.19%	0.18%	0.17%	0.16%
802	Fracture of face bones	0.18%	0.16%	0.14%	0.11%	0.11%	0.17%	0.15%
V54.19	Aftercare for healing traumatic fracture of other bone	0.16%	0.18%	0.18%	0.12%	0.19%	0.19%	0.19%
738	Other acquired musculoskeletal deformity	0.16%	0.16%	0.22%	0.15%	0.16%	0.23%	0.22%
812	Fracture of humerus	0.15%	0.19%	0.16%	0.18%	0.13%	0.16%	0.19%
814	Fracture of carpal bones	0.13%	0.14%	0.12%	0.09%	0.11%	0.10%	0.12%
720	Ankylosing spondylitis and other inflammatory spondylopathies	0.13%	0.11%	0.14%	0.13%	0.15%	0.29%	0.34%
311	Depressive disorder not elsewhere classified	0.12%	0.07%	0.16%	0.49%	0.38%	0.28%	0.17%
843	Sprains and strains of hip and thigh	0.12%	0.14%	0.15%	0.13%	0.11%	0.13%	0.16%
V58.83	Encounter for therapeutic drug monitoring	0.12%	0.16%	0.17%	0.18%	0.27%	0.30%	0.23%
756	Other congenital muscle anomalies	0.11%	0.15%	0.11%	0.10%	0.11%	0.14%	0.13%
V54.81	Aftercare following joint replacement	0.11%	0.15%	0.17%	0.16%	0.19%	0.30%	0.27%
V58.31	Encounter for change or removal of surgical wound dressing	0.11%	0.12%	0.10%	0.08%	0.06%	0.06%	0.07%
730	Osteomyelitis periostitis and other infections involving bone	0.10%	0.12%	0.11%	0.10%	0.14%	0.19%	0.18%
V71.89	Observation and evaluation for other specified suspected conditions	0.06%	0.05%	0.06%	0.05%	0.95%	0.38%	0.05%

Diagnosis Category	Diagnosis Category Description	2007	2008	2009	2010	2011	2012	2013
		% of Total						
853	Other and unspecified intracranial hemorrhage following injury	0.01%	0.02%	0.02%	0.01%	0.02%	0.05%	0.05%
725	Polymyalgia rheumatica	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%