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Access to Medical Treatment in the California Workers' Compensation System, 2006

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A Report to the California Department of Industrial Relations, Division of
Workers' Compensation, mandated by Labor Code § 5307.2.

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The views expressed in this report are those of the authors and do not necessarily represent the UCLA Center for Health Policy Research, the Regents of the University of California, or the California Department of Industrial Relations, Division of Workers' Compensation.

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LIST OF ACRONYMS

AB – Assembly Bill
ACOEM – American College of Occupational and Environmental Medicine
AD – Administrative Director
AIWWC – Asian Immigrant Women Workers Clinic
AMA – American Medical Association
ASIPP – American Society of International Pain Physicians
CHPR – UCLA Center for Health Policy Research
CHSWC – Commission on Health and Safety and Workers’ Compensation
CMA – California Medical Association
CWCI – California Workers’ Compensation Institute
DWC – Division of Workers’ Compensation
EBM – evidence-based medicine
FFS – fee-for-service
FP/IM – family practice/internal medicine doctor
HCO – Health Care Organization
HMO – Health Maintenance Organization
IMC – Industrial Medical Council
JPA – Joint Powers Authority
LC – Labor Code
MD/DO – medical doctor/doctor of osteopathy
MPN – Medical Provider Network
NP/PA – nurse practitioner/physician assistant
NSD – not sufficient data
OMFS – Official Medical Fee Schedule
PBGH – Pacific Business Group on Health
PT/OT – physical therapy/occupational therapy
PTP – primary treating physician
SB – Senate Bill
SISA – self-insured, self-administered employer
TPA – Third Party Administrator
UR – utilization review
URAC – American Accreditation Commission and Utilization Review Accreditation
Commission
VA – Veterans’ Administration
WC – Workers’ Compensation
WCIS – Workers’ Compensation Information System
WCRI – Workers’ Compensation Research Institute
WINS – Worker Injury National Survey

EXECUTIVE SUMMARY

This report was produced by the UCLA Center for Health Policy Research (CHPR) under contract to the California Division of Workers' Compensation (DWC), Department of Industrial Relations. It was authorized pursuant to Labor Code (LC) § 5307.2, which was revised by Senate Bill (SB) 228 to require the Administrative Director (AD) of DWC to "contract with an independent consulting firm...to perform an annual study of access to medical treatment for injured workers." The primary goal of this annual survey is to "analyze whether there is adequate access to quality health care and products for injured workers and make recommendations to ensure continued access." Furthermore, if the AD determines based on this study "that there is insufficient access to quality health care or products for injured workers," the AD may make appropriate adjustments to medical and facilities fee schedules. Specifically, if the AD determines that "substantial access problems exist," he or she may revise fee schedules by adopting fees "in excess of 120 percent of the applicable Medicare payment system fee for the applicable services or products."

In response to the mandate for the study, the main objectives of this study were to:

1. Establish baseline information regarding the proportion of injured workers and physicians reporting access and/or quality problems in 2006;
2. Determine specific factors that promote or inhibit access to quality care;
3. Quantify the extent of such barriers;
4. Determine whether lack of access, if present, is substantial; and,
5. Recommend methods of ensuring continued access.

REFORM LEGISLATION: AB 749, SB 228, AND SB 899

From 1999 to 2003, workers' compensation (WC) aggregate premiums rose by more than 200 percent (from \$7.1 billion to more than \$25 billion), while premiums per \$100 of payroll increased from \$2.30 to slightly more than \$6.00.¹ During this same period, premiums declined slightly across the nation. In response to the crisis in WC premiums, the state legislature enacted several WC reforms in 2002, 2003, and 2004. Assembly Bill (AB) 749 was signed into law on February 15, 2002 and was effective starting January 1, 2003. In 2003, the legislature adopted two pieces of legislation – AB 227 and SB 228 – that were signed into law on September 30, 2003 and that went into effect on January 1, 2004. In 2004, SB 899 was enacted as an urgency bill and thus made effective immediately upon the Governor's signature on April 19, 2004.

Each of these bills implemented fundamental changes in California's WC system. AB 749 eliminated the treating physician's presumption of correctness, except where an employee had predesignated a personal physician or chiropractor for WC care. For injuries occurring on or after January 1, 2003, AB 749 stated that the presumption of correctness was rebuttable by a preponderance of medical evidence. By eliminating the physician's presumption of correctness, AB 749 set the stage for stricter review of utilization decisions made by physicians in the treatment of injured workers.

SB 228 represented a fundamental departure from the way medical treatment had been viewed under California's WC system.^a Prior to its enactment, medical care and treatment, with the exception of hospital inpatient care, was largely unlimited fee for service treatment based on the legal standard of "reasonable and necessary to cure or relieve" industrial injury.^b Treatment guidelines adopted by the Industrial Medical Council (IMC), which was comprised of physicians, were advisory only.^c

SB 228 abolished the IMC, eliminated its advisory guidelines, and transferred all its remaining responsibilities to the AD of DWC. It further directed the AD to adopt, after consultation with the Commission on Health and Safety and Workers' Compensation (CHSWC), a medical treatment utilization schedule that incorporates the "evidence-based, peer-reviewed, nationally recognized standards of care" recommended by CHSWC and that addresses the "frequency, duration, intensity, and appropriateness of all treatment procedures and modalities commonly performed in workers' compensation cases."^d SB 228 also:

- established that the medical treatment utilization schedule – to be adopted by the AD – was now presumed to be the correct course of treatment, and until then, treatment consistent with the American College of Occupational and Environmental Medicine (ACOEM) guidelines, or other evidence-based medical treatment guidelines for injuries not covered by the ACOEM guidelines, would constitute the correct treatment schedule;^e
- required all employers to adopt a utilization review (UR) system in which only a licensed physician in the appropriate scope of practice may deny, delay, or modify treatment recommended by the primary treating physician (PTP);^f
- placed a cap of 24 chiropractic visits and 24 physical therapy visits for injuries occurring on or after January 1, 2004 for the life of the claim, unless the employer authorized additional visits.^g

SB 899 created Medical Provider Networks (MPNs) that permit employers to control the medical treatment of an injured worker for the life of the claim if contracted with an MPN, but otherwise is not regulated by the state.^h Specifically, employers can now require an injured employee to seek all care within the MPN, although injured employees retain the right to select their own provider within the MPN after the first visit.ⁱ Previously, the employer controlled only the first 30 days of treatment^j or the first 90-180 days where the

^a Although AB 227 was passed as a companion bill to SB 228, the provisions of SB 228 were much broader in scope than those in AB 227.

^b California. Constitution, Article XIV, section 4; LC § 4600.

^c LC § 139.

^d LC § 5307.27.

^e LC § 4604.5.

^f LC § 4610.

^g LC § 4604.5(d).

^h LC § 4616; 4600(c).

ⁱ LC § 4616.3.

^j LC § 4600.

employer contracted with a DWC-approved Health Care Organization (HCO).^k SB 899 also imposed a cap of 24 visits on occupational therapy visits, unless the employer authorized additional visits, in addition to the 24-visit cap on chiropractic care and physical therapy imposed by SB 228.

The use of UR, evidence-based medical treatment guidelines, explicit caps on selected services, and MPNs are all intended to improve efficiency and reduce medical costs within California's WC system. But these mechanisms for limiting utilization may also have adverse consequences on access to quality care for injured workers and on provider satisfaction and willingness to participate in the WC system.

IDENTIFYING POTENTIAL BARRIERS TO QUALITY CARE: SURVEYING INJURED WORKERS, PHYSICIANS, AND PAYERS

The purpose of this study is to measure access to quality medical care for injured workers. To answer this question, we conducted surveys of injured workers, providers authorized to act as the PTPs for WC cases,^l and payers.

Injured Worker Survey

The survey of injured workers was a telephone-based interview conducted from May 2006 to October 2006. In this six-month time period, 1,001 surveys were completed, out of a random sample of 5,260 claims taken from the DWC's Workers' Compensation Information System (WCIS). The survey was offered in English and Spanish — 21% of surveys were conducted in Spanish. Of the 5,260 injured workers in the final sample, 2,855 were determined to be eligible for the study, while 2,124 we were unable to locate. The adjusted response rate for this survey was 35.1%.

Provider Survey

The survey of providers was primarily a telephone-based interview (with some mail and internet responses) conducted from April 2006 to October 2006 that produced 1,096 completed responses. The sample for the provider survey was constructed from MPN and HCO provider lists reported to DWC. We constructed a final list of 51,363 unique providers using the provider network directories of MPNs and HCOs, consisting of: 1,055 acupuncturists; 1,277 podiatrists; 2,570 clinical psychologists; 4,850 chiropractors; and 41,611 medical doctors and doctors of osteopathy (MD/DOs). To ensure adequate representation of non-MD/DO providers, we selected a stratified random sample of 6,743 providers. Of these 6,743 providers, 1,123 were determined to be ineligible for the study, and 1,142 we were unable to locate. The adjusted response rate for this survey was 24.5%.

^k LC § 4600.3.

^l Physicians and surgeons holding an M.D. or D.O. degree, psychologists, acupuncturists, optometrists, dentists, podiatrists, and chiropractic practitioners, as defined by LC § 3209.3.

Payer Survey

We surveyed three primary categories of payers: insurers, third-party administrators (TPAs), and self-insured, self-administered employers (SISAs). SISAs were then further sub-divided into three categories – Joint Powers Authority (JPA),^m public non-JPA, and private. We developed a convenience sampling frame designed to have some large, mid-size, and small payers in each of these categories (7 insurers, 7 TPAs, and 9 SISAs). We obtained a total of 20 respondents to this survey.

FINDINGS

Injured Workers

1. Overall, injured workers under California’s WC system do not appear to be facing substantial barriers to care. Some barriers to access are more prevalent among certain subgroups of injured workers.

- Most injuries were non-repetitive injuries (45%) or scrapes, cuts, rashes, bruises or swelling (22%). Most injuries (61%) required workers to miss 3 or fewer days of work, and were therefore medical-only claims that did not receive indemnity payments.
- About 1 in 8 injured workers (13%) did not receive care within three days of reporting their injury. Injured workers with 10 or more visits were twice as likely to report receiving their first visit after 3 days relative to other injured workers (20% versus 11%).
- About 1 in 4 injured workers (24%) reported being in treatment for over 6 months.
- About 1 in 5 injured workers (19%) reported that they chose their first provider.
- Time and distance to first and main providers were within requirements imposed on MPNs for the vast majority of injured workers. Most injured workers traveled 15 miles or less (86%) or 30 minutes or less (92%) to see their first provider. Most also traveled 15 miles or less (82%) or 30 minutes or less (89%) to see their main provider (i.e., the provider most involved in their care).
- Very few injured workers (3%) reported communication barriers due to language discordance with the main provider.

^m A JPA is a unit of government, authorized under the State Government Code, created to jointly administer a shared power, under the terms of a joint exercise of powers agreement adopted by the public agencies that constitute the JPA.

- Overall, almost 1 in 3 injured workers (31%) received a recommendation for specialty care. Among those receiving such a recommendation, 8% (or 2.4% of all injured workers) reported that they did not see a specialist because of authorization denials, scheduling problems, or other barriers. Given 780,000 workers compensation claims filed in 2005, 2.4% represents roughly 19,000 injured workers who may have encountered barriers to specialty care.
- Almost half (44%) of injured workers reported receiving a recommendation for physical or occupational therapy (PT/OT) as part of their care. Among those receiving such a recommendation, about 5% (2.3% of all injured workers, or approximately 18,000 injured workers in 2005) reported that they did not receive PT/OT because of authorization denials, scheduling problems, or other barriers. About 10% (4.6% of injured workers) reported that they had 25 or more PT/OT visits, despite the 24-visit cap.
- About two-thirds (65%) of injured workers reported receiving a prescription for their injury.

2. Overall, injured workers reported satisfaction with care received. However, further improvement in the quality of care is indicated.

- Most injured workers reported that their main provider was oriented to occupational medicine, in terms of understanding their job demands (83%) and discussing work restrictions (71%) and avoidance of reinjury (55%). MD/DOs and chiropractors were more likely to have an occupational medicine orientation than other providers.
- More than 9 in 10 injured workers reported that their main provider treated them with respect (93%) and explained their treatment and condition in an understandable way (90%), while about 6 in 7 rated their main providers highly and were satisfied or very satisfied (82%) with the care delivered by those providers.
- About 5 in 6 injured workers (83%) reported they were able to access quality care.
- About 4 in 5 injured workers (78%) reported being satisfied or very satisfied overall with the care they received for their injury.
- Among the 22% of injured workers who were dissatisfied or highly dissatisfied overall with their care, most cited their inability to get the care they needed (63%, equaling 13.5% of all injured workers) or the lack of improvement in their condition (41%, equaling 8.9% of all injured workers) as the main reasons for their dissatisfaction.
- About 1 in 10 injured workers (11%) reported changing providers during the course of their treatment because of their dissatisfaction with their care.

3. The health outcomes of injured workers need further improvement.

- More than half of injured workers (55%) have not fully recovered from their injury more than one year after their injury, including 10% who reported no improvement.
- About 4 in 5 injured workers (78%) were currently working more than one year after their injury, while 10% reported they are not currently working due to their injury.
- Injured workers not currently working due to injury were almost twice as likely to report that their employer did not make recommended modifications when they returned to work compared to those who are currently working and who returned to the same job they held prior to their injury (51% versus 26%).

4. Additional improvements are needed in the health and return-to-work outcomes of injured workers with high levels of utilization.

- More than 1 in 4 injured workers (28%) reported high levels of utilization, defined as 10 or more visits during the course of their treatment.
- Injured workers with 10 or more visits were more likely to be dissatisfied with their overall quality of care relative to other injured workers (30% versus 18%).
- Injured workers with 10 or more visits were more than 3 times more likely to report they had no improvement in their injury relative to other injured workers (19% versus 6%).
- Injured workers with 10 or more visits were almost 7 times more likely to report they were not currently working due to their injury relative to other injured workers (27% versus 4%).

5. Racial/ethnic differences in access to and satisfaction with care exist in the WC system in California.

- African-American injured workers are more likely to have 10 or more physician visits, see more providers, report not receiving quality care, change providers due to dissatisfaction, and report no improvement in their condition than whites, Latinos, and Asian-Americans.
- Latinos and Asian-Americans are also more likely to report that they did not receive quality care for their injury and had no improvement in their condition than whites.

Workers' Compensation Providers

1. Past and current providers differed according to specialty mix and payment rates.

- There were no significant differences in the mix of provider types who were no longer treating WC patients compared to those who currently are treating WC patients. Among MD/DO specialties, however, family practice/internal medicine (FP/IM) doctors were 32% of past providers compared to 25% of current providers, and other non-surgical specialists were 31% of past providers compared to 22% of current providers, suggesting that both these groups were more likely to have dropped out of the WC system. Orthopedic surgeons were 14% of past providers, but 28% of current providers, suggesting that they were less likely to have dropped out of the WC system.
- More past providers were paid at discounts of greater than 15% below the fee schedule than current providers (33% versus 24%). Past providers most frequently cited low payment levels (46%) as the reason for not participating in WC.
- The great majority of past providers (88%) are not likely to return to WC care.

2. For a large majority of providers, WC patients represented a small portion of their total practice (5 or fewer WC patients per week), and almost half of providers stated they did not belong to MPNs.

- Less than a third of current WC providers (31%) rendered care to a high volume of injured workers (defined as 6 or more WC patients per week). Among provider types, MD/DOs (35%) and chiropractors (26%) were more likely to be high-volume providers. Among MD/DO specialties, orthopedic surgeons (67%) and other non-surgical specialists (36%) were more likely to be high volume.
- More than half of providers (54%) stated they belonged to MPNs. Among provider types, chiropractors (74%) and podiatrists (60%) were more likely to have MPN contracts. Among MD/DO specialties, orthopedic surgeons (62%) and other non-surgical specialists (60%) were more likely to have such contracts.

3. The majority of providers believed injured workers did not have adequate access to quality care and even more believed that access had declined since 2004. These unfavorable perceptions were particularly prevalent among chiropractors and acupuncturists, compared to MD/DOs, podiatrists, and clinical psychologists. Among MD/DO specialties, orthopedic surgeons also perceived a lack of access to quality care and a decline in access since 2004.

- Less than half (45%) strongly agreed or agreed that injured workers have adequate access to quality WC care. While almost two-thirds of MD/DOs (62%) and podiatrists (65%) reported high levels of agreement, chiropractors (8%) and acupuncturists (20%) reported low levels of agreement. Among MD/DO specialties,

other surgical specialists (79%) and FP/IM doctors (66%) reported high levels of agreement, while orthopedic surgeons (44%) and other non-surgical specialists (58%) reported lower levels of agreement.

- About two-thirds (65%) believed access to care of injured workers has declined since 2004. This belief was particularly strong among chiropractors (96%) and acupuncturists (90%), and among orthopedic surgeons (75%).

4. The majority of providers reported declines in their volume of WC patients since 2004, most frequently citing new regulations and authorization/UR issues. These reported declines were most prevalent among chiropractors and acupuncturists, compared to MD/DOs, podiatrists, and clinical psychologists. However, among MD/DO specialties, orthopedic surgeons reported declines in WC volume since 2004 more often than other specialties.

- Over one half of current providers (52%) experienced a decline in the volume of their WC patients since 2004. Chiropractors (90%), acupuncturists (87%), and orthopedic surgeons (55%) were most likely to report declines. Providers reported that their declines in WC volume were most often the result of new regulations (31%) and authorization/UR issues (30%).
- Providers paid 1% to 15% below the Official Medical Fee Schedule (OMFS) (65%) or more than 15% below the OMFS (66%) were more likely to report declines in WC volume since 2004 than those paid at or above the OMFS (49%).
- More than one-third of providers report they plan to quit WC entirely (14%) or to reduce their WC volume in the future (21%). Providers most often reported that improvements in the authorization/UR process (25%) and in the fee schedule (24%) would help them to continue treating WC patients.

5. Providers reported a high level of orientation towards occupational medicine.

- The great majority of providers report understanding the injured workers' job demands (84%) and discussing work status and ability to return to work (92%) always or most of the time.
- Most providers (72%) contact employers about the availability of modified work at least half the time. However, most providers (87%) report not being compensated for contacting the employer.
- Thirty-nine percent of current WC providers conduct medical-legal evaluations. Chiropractors have the highest rate of performing such evaluations (47%), followed by podiatrists (40%), MD/DOs (39%), clinical psychologists (38%), and acupuncturists (19%). Among MD/DO specialties, orthopedic surgeons (56%) had the highest rate of conducting such evaluations.

6. The majority of providers perceived a decline in quality of WC care since 2004 and these perceptions were closely associated with authorization/UR processes, although it differed by provider type and specialty.

- The majority of providers (56%) believed that the quality of WC care has declined since 2004. Chiropractors (93%), acupuncturists (80%), and orthopedic surgeons (63%) were most likely to report this belief.
- Providers most frequently cited authorization/UR issues (47%) (specifically, denials and UR requirements) as barriers to provision of quality care. Orthopedic surgeons (74%) were most likely to cite these reasons.

7. Despite some increases in the number of WC patients among high-volume providers, they reported perceived declines in access to and quality of care for injured workers more frequently than low-volume providers.

- More high-volume providers believed that access to care for injured workers has declined since 2004 than low-volume providers (75% versus 61%).
- High-volume providers reported more often that the volume of their WC patients had increased compared to low-volume providers (19% versus 9%). High-volume providers also planned further increases more often than low-volume providers (23% versus 18%).
- High-volume providers more often perceived a decline in quality of WC care since 2004 compared to low-volume providers (65% versus 52%).
- High-volume providers more often perceived authorization/UR issues as barriers to providing quality care than low-volume providers (62% versus 41%).

8. The majority of WC providers are located in the three most populous areas of the state: Los Angeles County, the Bay Area, and all other Southern California counties.

- Most WC providers (91%) were located in urban areas.
- The providers with the largest representation in rural areas were FP/IM doctors — 17% of these providers reported being located in rural areas.

9. Paying providers less than the OMFS seems to have affected the current volume of WC patients treated by physicians, as well as their intentions to reduce WC volume or leave the WC system entirely in the future.

- High-volume providers were more likely to be paid at the fee schedule or be paid at a discount of 1% to 15% below the fee schedule (82%) than low-volume providers (73%).

- The majority of providers (54%) who reported being paid more than 15% below the fee schedule reported they are planning to decrease their WC volume or quit WC care entirely. In comparison, only 29% of providers paid at the fee schedule and 37% of providers paid from 1% to 15% below the fee schedule had similar plans to decrease volume or to quit the system.
- The most frequently cited reason for stopping participation in WC was payment or fee schedule issues (46%).
- Providers paid 1% to 15% below the fee schedule (65%) or more than 15% below the fee schedule (66%) were more likely to report declines in WC volume since 2004 than those paid at or above the fee schedule (49%). When asked about the reasons for planned decreases, providers most frequently cited payment or fee schedule issues (47%).
- Providers most often reported that improvements in the authorization/UR process (25%) and in the fee schedule (24%) would help them to continue treating WC patients.

Workers' Compensation Payers

1. MPNs are common, but payers report difficulties contracting with certain provider types and specialists, and with providers in some regions of the state.

- All responding insurers and TPAs have one or more MPN products, and one third of SISAs have MPN products.
- Payers report the most difficulty contracting with dentists, psychologists, psychiatrists, dermatologists, orthopedic surgeons, and neurosurgeons.
- The regions where payers have the most difficulty contracting with physicians for WC care were the North Coast/North Inland/Sierras, the San Joaquin Valley, and the Central Coast. Reasons physicians give to payers for not wanting to contract include inadequate payment, paperwork and reporting requirements, UR/ACOEM guidelines, and administrative hassles.
- No respondent pays any physician type or specialty above the fee schedule. The physician types most often paid below the fee schedule include chiropractors, occupational medicine providers, physical medicine and rehabilitation providers, and radiologists

2. Payers report that some providers they contract with are more likely to refuse to treat WC patients.

- The specialties most likely to refuse WC patients were psychologists, allergists and immunologists, dermatologists, and urologists.
- The regions where payers reported physicians were most likely to refuse WC patients were the North Coast/North Inland/Sierras, the Greater San Francisco Bay Area, the Central Coast, and the San Joaquin Valley. Reasons for refusing to treat WC patients, as reported by payers, include inadequate payment, UR, paperwork and reporting, business reasons, and patient-related issues.

3. Payers report their perceptions that overall access for injured workers has remained the same since 2004.

- Most respondents expressed their belief that injured workers' access to PTPs and specialists is the same now as it was before 2004. Furthermore, 17 of the 20 respondents reported that overall access to quality medical care in the WC system is the same now as before 2004.
- Most respondents have time and distance standards for their PTPs and specialists as part of their MPNs. Among respondents with non-MPN products, the majority of respondents had a standard for days to first appointment with a PTP, but few had any other standards.

CONCLUSIONS/RECOMMENDATIONS

The injured worker, provider, and payer surveys conducted as part of this study were all fielded during 2006, two years after the reforms of 2003-2004. For the most part, it was impossible to obtain data related to access and quality prior to the implementation of WC reform. In the provider and payer surveys, it was only possible to obtain impressions about how WC access and quality have changed since 2004. However, this was not possible for the injured worker survey. Therefore, our results are most useful in establishing firm baseline data for determining the current state of California's WC system from the perspective of three major stakeholders (Study Objective 1). These baseline data are valuable for comparing California's current experience with previous WC studies, including those in California and in other states. These data should also prove valuable for monitoring changes in California's WC system over time. The findings presented in Sections VI, VII, and VIII of this report identify specific factors that promote or inhibit access to quality care and quantify the extent of such barriers (Objectives 2 and 3). Finally, our results suggest several important conclusions about whether access problems are substantial as well as other recommendations for maintaining access (Objectives 4 and 5), which are presented and discussed below.

1. The vast majority of injured workers reported they received care within 3 days of reporting their injury and had access to care within 15 miles or 30 minutes. The proportion of injured workers reporting other access problems was small. Based on these measures, access does not appear to be a major problem for the vast majority of injured workers.

The vast majority of injured workers (87%) reported they received initial treatment within 3 days of their injury. Time and distance to first and main providers were within requirements imposed on MPNs for the vast majority of injured workers. Most injured workers traveled 15 miles or less (86%) or 30 minutes or less (92%) to see their first provider. Most also traveled 15 miles or less (82%) or 30 minutes or less (89%) to see their main provider (i.e., the provider most involved in their care). High proportions of injured workers received recommendations for specialty care (31%), physical/occupational therapy (44%), and prescription drugs (65%). Finally, most injured workers reported they were able to access quality care for their injuries (82%). This percentage is slightly higher than the findings from a previous 1998 DWC study in which 77% of injured workers reported no trouble accessing care for their injuries.²

The proportion of injured workers reporting access problems was small. Only 3% report communication barriers with their main provider due to language discordance; while 2.4% did not see a specialist, 2.3% did not receive occupational/physical therapy, and 0.7% did not receive a prescription when recommended because of authorization, transportation, or scheduling barriers. No comparable data exists from previous studies.

2. Most injured workers are satisfied overall with their care.

Our results show that 22% of injured workers were dissatisfied or highly dissatisfied overall with their care. Results from Pennsylvania's WC system, which has been collecting similar satisfaction data from injured workers annually since 2001, indicates a similar level of dissatisfaction (16.7% in 2004).³ Because our study did not collect data on injured workers prior to the implementation of reforms, we cannot directly evaluate changes in satisfaction between the pre- and post-reform periods. However, two large-scale studies of injured workers in California prior to the 2003-2004 reforms found that virtually the same percentage of injured workers (23.5%² and 20%⁴) were dissatisfied with their overall care. Therefore, we conclude that the satisfaction of injured workers has not changed as a result of recent reforms. Although there are many efforts to assess patient satisfaction among the general health population, comparisons of the satisfaction of injured workers and the general health population are difficult to perform, because most individuals in the general health population are not injured and patient satisfaction surveys generally do not provide data on satisfaction levels for injured and non-injured individuals separately.

3. The health outcomes of injured workers need further improvement.

Overall, 55% of injured workers have not fully recovered from their injury after one year, including 10% who report no improvement. Previous research by DWC on injured

workers in California² showed a similar percentage of injured workers reporting no improvement, but a lower percentage reporting they were fully recovered (30% versus 45% in this study). Similarly, results from Washington state showed a lower rate of full recovery (28.1%).⁵ Both of these previous studies were conducted within a shorter time period after the original dates of injury — 8 months and 5 months, respectively — versus an average of about 15 months in this study. Therefore, a direct comparison of rates of full recovery is not possible. Nevertheless, a majority of injured workers are not fully recovered after one year, suggesting that health outcomes can be further improved.

4. Injured workers with 10 or more visits for their injury represent slightly more than one quarter of injured workers and are more likely to report delays in time to first visit, dissatisfaction with their overall care, lack of improvement in their condition, and being out of work due to their injury. Because of the high level of resources associated with these injured workers, additional case management efforts may be needed to improve satisfaction, health and return-to-work outcomes for these workers.

Injured workers with 10 or more visits — who represent 28% of injured workers — are three times more likely to report no improvement compared to those with less than 10 visits (19% versus 6%). They are also more likely to report other poor outcomes. These findings suggest that additional effort to manage the care of these more complicated cases may produce both lower utilization and improved outcomes, including return-to-work and overall satisfaction with care.

5. Important racial/ethnic differences in satisfaction and outcomes exist and need to be further investigated.

Our results suggest that important differences in satisfaction and outcomes exist between racial/ethnic groups in California, with African-Americans experiencing worse outcomes relative to all other groups. Our findings do not adjust for possible differences in the mix of occupations, which may account for some of the differences observed in the data presented in this report. Nevertheless, the magnitude and statistical significance of the findings on disparities presented in this report suggest that further investigation of the underlying reasons for these disparities is clearly warranted.

6. Despite physician dissatisfaction with elements of WC reform, there do not appear to be access problems for most injured workers in the state, and physicians have not limited or given up their WC practices in large numbers.

The majority of providers (55%) reported that they disagreed with the statement that injured workers have adequate access to quality care, and 65% reported that access has declined since the 2003-2004 reforms. Furthermore, 56% of providers reported that quality of care had declined since the reforms, and 35% report that they are likely to quit WC entirely or to reduce their WC case loads. Chiropractors, acupuncturists, and orthopedic surgeons were particularly dissatisfied with the current system. The high level of dissatisfaction among acupuncturists and chiropractors is understandable in light

of the implementation of the ACOEM guidelines and caps on visits, respectively, which most directly affect these provider groups. The dissatisfaction among orthopedic surgeons was primarily due to authorization/UR issues. Nevertheless, despite the reported intention of providers to quit treating WC patients altogether, our results suggest that a number of providers have increased their WC case loads. As a result, we do not find compelling evidence of access problems due to providers limiting or abandoning their WC case loads. In contrast, many of the comments reported primarily by acupuncturists and chiropractors in the open-ended portion of our survey suggested that they were dissatisfied that they were unable to get more WC cases referred to them.

7. Streamlining the authorization/UR process to improve access to care for injured workers seems warranted.

Providers most frequently reported that new regulations (31%) and authorization/UR issues (30%) were the most common reasons for the decline in their WC volume of cases. Furthermore, they most frequently reported authorization/UR issues (47%) as barriers to the provision of quality care. Therefore, mechanisms for improving the authorization/UR processes should be explored. Although only a small percentage of injured workers reported not receiving care because of authorization/UR denials or barriers, the high level of provider dissatisfaction with these processes may be a relatively easy way to improve provider satisfaction and reduce the probability of providers leaving the WC system.

8. Providers frequently reported dissatisfaction with the OMFS, and those who were paid at the largest discounts below the fee schedule reported the largest declines in the volume of WC patients they treat. Increases in the fee schedule, or limits on the discounts insurers can pay below the fee schedule, may be warranted to ensure continued broad provider participation in the WC system.

The most frequently cited reason for stopping participation in WC was payment or the fee schedule (46%). Providers paid 1% to 15% below the OMFS (65%) or more than 15% below the OMFS (66%) were more likely to report declines in WC volume since 2004 than those paid at or above the fee schedule (49%). When asked about the reasons for planned decreases, providers most frequently cited payment or fee schedule issues (47%). Comparing future plans for decreased volume of WC patients by provider payment levels showed that those who were paid more than 15% below the fee schedule were significantly more likely to report planned decreases or quitting the system entirely relative to providers who were paid at the fee schedule or higher (54% vs. 29%). Providers most often reported that improvements in the authorization/utilization review process (25%) and in the fee schedule (24%) would help them to continue treating WC patients. Furthermore, a recent study by the Workers' Compensation Research Institute (WCRI) shows that California on average pays about 21% above the Medicare fee schedule for physician services, whereas the median value across all states is 55%.⁶ For evaluation and management services (i.e., visits), California WC physicians receive on average 13% below the Medicare fee schedule.⁶ Therefore, increases in the fee schedule, at least for some services, or limits on the discounts insurers can pay below the fee

schedule, may be warranted to ensure continued broad provider participation in the WC system.

I. BACKGROUND

This report, produced by the UCLA Center for Health Policy Research (CHPR) under contract to the California Division of Workers' Compensation (DWC), Department of Industrial Relations, and mandated pursuant to California Labor Code (LC) § 5307.2, examines access to quality medical care for injured workers. The study was conducted following multiple recent changes in the way that medical care for industrial illnesses and injuries is accessed and delivered. Workers' Compensation (WC) legislative reforms enacted in 2003 and 2004 followed a period of rapidly rising WC premiums. From 1999 to 2003, WC aggregate premiums rose by more than 200 percent (from \$7.1 billion to more than \$25 billion), while premiums per \$100 of payroll increased from \$2.30 to slightly more than \$6.00.¹ During this same period, WC premiums declined slightly across the nation. In response to the crisis in WC premiums, the state legislature enacted several WC reforms in 2002, 2003, and 2004. Assembly Bill (AB) 749 was signed into law on February 15, 2002, amended by AB 486 in September, and was effective starting January 1, 2003. In 2003, the legislature adopted two pieces of legislation – AB 227 and Senate Bill (SB) 228 – that both went into effect on January 1, 2004. In 2004, SB 899 was enacted as an urgency bill and thus made effective immediately upon the Governor's signature on April 19, 2004.

The remainder of the report is organized as follows. Section I provides a brief chronological overview of the evolution of WC reform in California, and a summary of the legislative history and content of WC reform bills AB 749, AB 227, SB 228, and SB 899. Section II presents the goals of the evaluation study conducted by CHPR. Section III describes the unique features of this study, and how this study differs from other recent efforts to assess the impact of the WC reforms on access to quality care. Section IV presents a review of the relevant scientific literature related to quality of care and access to care in both the general health care and WC health care sectors. Section V provides an overview of the three surveys – of injured workers, providers, and payers – conducted as part of this evaluation, including sampling frames, sample sizes, survey design, and survey administration. Detailed information on each of the surveys is also included in the Appendices. Sections VI, VII, and VIII analyze the responses from the surveys of injured workers, providers, and payers,

respectively, to determine the adequacy of quality medical care for injured workers. Section IX presents conclusions drawn by the CHPR research team regarding the impact of WC reform on access and quality, and presents directions for future research and for legislative action to ensure continued access.

CALIFORNIA'S PROMISE OF MEDICAL TREATMENT IN WORKERS' COMPENSATION

California was among the first states to adopt WC legislation early in the 20th century. California's first WC law was established under the Compensation Act in 1911 (known as the Roseberry Act), *1911 Cal. 399*, which established a WC insurance system with voluntary participation by employers. This voluntary system was replaced two years later with a compulsory system as part of the Workers' Compensation, Insurance and Safety Act of 1913 (known as the Boynton Act), *1913 Cal. 176*. The fundamental role of California's WC system is signified by its embodiment in California's Constitution, which grants the legislature express authority to "create and enforce a complete system of workers' compensation...[that] includes full provision for such medical, surgical, hospital and other remedial treatment as is requisite to cure and relieve from the effects of such injuries..." (Art. XIV, s. 4). The specific definitions of medical and hospital treatments provided under California's WC system are specified in LC § 4600.

Because of the above language in the state Constitution, WC insurers prior to recent reforms could not deny payment for medically necessary care provided to injured workers. In contrast, non-occupational treatments that are medically necessary are often excluded or limited by insurers because they are outside the scope of coverage of the insurer's contract with the insured. California's WC system therefore allowed for a broad range of treatment modalities. For example, the definition of physician "includes physicians and surgeons holding an M.D. or D.O. degree, psychologists, acupuncturists, optometrists, dentists, podiatrists, and chiropractic practitioners licensed by California state law and within the scope of their practice as defined by California state law" (LC § 3209.3). Prior to the enactment of SB 899 in 2004, California's WC system also provided a broad definition of medical treatment for injured workers. Under SB 899, effective April 19, 2004, LC §

4600(b) was amended to provide for “medical treatment that is reasonably required to cure or relieve the injured worker from the effects of his or her injury means treatment that is based upon the guidelines adopted by the administrative director pursuant to Section 5307.27 or, prior to adoption of those guidelines, the updated American College of Occupational and Environmental Medicine’s Occupational Medicine Practice Guidelines,” as discussed further below.

THE CONTEXT FOR REFORM: AB 749, AB 227, AND SB 228

Premiums for WC insurance nationally remained relatively constant during the period from 1999-2003. In California, however, WC premiums increased by about 200 percent during this same period. This rapid increase in premiums was not due to more injuries or illnesses among California workers; in fact, workplace injuries and illnesses actually continued to decline during this period.¹ Instead, premiums appear to have increased rapidly during this period because of increasing medical costs and increasing rates of permanent partial disability cases.¹ Furthermore, premiums also appear to have increased based on insurer expectation that medical costs and permanent partial disability cases would continue to rise.

In response to the crisis in WC premiums, the state legislature enacted several WC reforms in 2002 and 2003. AB 749 was signed into law on February 15, 2002, amended by AB 486 in September, and was effective starting January 1, 2003. AB 749’s most significant impact on access was the elimination of the treating physician’s presumption of correctness, except where an employee had predesignated a personal physician or personal chiropractor for WC care. For injuries occurring on or after January 1, 2003, AB 749 stated that the presumption of correctness was rebuttable by a preponderance of medical evidence. AB 749 also required the adoption of a pharmaceutical fee schedule and gave DWC the authority to adopt an outpatient surgical fee schedule.

In 2003 legislative hearings were held on unnecessary medical treatment and treatment costs in the WC system. Three bills to reform WC were introduced during this session (SB 228 by Senator Alarcon, AB 227 by Assembly Member Vargas, and SB 899 by Senator

Poochigian). SB 228 and AB 227 were actually introduced as complimentary pieces of legislation, with each bill containing language that its provisions would only go into effect if the other bill was passed, and were both passed during the 2003 regular legislation session. SB 899 was referred to conference committee after it passed the Senate in the 2003 session, and was passed out of conference in 2004.

Because of the intense legislative interest in WC reform during the 2003 legislative session, several relevant studies were also published during this period. The Commission on Health and Safety and Workers' Compensation (CHSWC) contracted with RAND to produce a report analyzing the implementation issues related to adopting Medicare fee schedules to pay WC providers in California for all services.⁷ The RAND report built on three previous studies. One was done for the Industrial Medical Council (IMC) in 1999 examining the implementation issues related to the adoption of Medicare's fee schedule by California as the basis of WC payments to physicians.⁸ Another was conducted in 2001 for CHSWC analyzing the cost savings associated with adopting Medicare fee schedules as the basis for WC payments to outpatient surgery and ambulatory surgery centers.⁹ A third was conducted in 2002 for the IMC to assess the impact of and strategies for adopting an adjusted Medicare-based fee schedule for physicians.¹⁰ The goals of these studies were to propose a system for increasing the accuracy of payments to providers of WC care while ensuring access to quality care for California's injured workers. In addition, the California Bureau of State Audits produced a report in 2003 at the request of the Joint Legislative Audit Committee with a number of recommendations, including the adoption of Medicare-based fee schedules for physicians and outpatient surgical centers and treatment guidelines.¹¹

AB 227 and SB 228 were signed into law by Gov. Gray Davis on September 30, 2003, just one week before the recall election that led to his departure from office. These bills represented a fundamental departure from the way medical treatment had been viewed under California's WC system, although the provisions of SB 228 were much broader in scope than those in AB 227. Prior to the enactment of these bills, medical care and treatment, with the exception of hospital inpatient care, was largely unlimited fee-for-service (FFS) treatment based on the legal standard of "reasonable and necessary to cure or relieve"

industrial injury (Cal. Constitution, Art. XIV, s. 4; LC § 4600). Treatment guidelines adopted by the IMC, which was comprised of physicians, were advisory only (as specified in LC § 139). SB 228 abolished the IMC, repealed LC § 139, transferred all its remaining responsibilities to the Administrative Director (AD) of DWC, and directed the AD to adopt, after consultation with CHSWC, a medical treatment utilization schedule that incorporates the “evidence-based, peer-reviewed, nationally recognized standards of care” recommended by CHSWC and that addresses the “frequency, duration, intensity, and appropriateness of all treatment procedures and modalities commonly performed in workers’ compensation cases” (LC § 5307.27).

SB 228 also retroactively repealed the presumption of correctness for treating physician decisions regarding the extent and scope of medical treatment, except where the primary treating physician (PTP) was predesignated by an employee, for all injuries regardless of when they occurred (LC § 4062.9). Rather than presuming that a physician’s proscribed treatment was correct, it established that treatment consistent with the medical treatment utilization schedule to be adopted by the AD was now presumed to be the correct course of treatment, and until then, treatment consistent with the American College of Occupational and Environmental Medicine (ACOEM) guidelines, or other evidence-based medical treatment guidelines for injuries not covered by the ACOEM guidelines, would constitute the correct treatment schedule (LC § 4604.5). Furthermore, SB 228 placed a cap of 24 chiropractic visits and 24 physical therapy visits for injuries occurring on or after January 1, 2004 for the life of the claim (LC § 4604.5(d)), unless the employer authorized additional visits. SB 228 required all employers to adopt a utilization review (UR) system in which only a licensed physician in the appropriate scope of practice may deny, delay, or modify treatment recommended by the PTP (LC § 4610). SB 228 also established new fee schedules for WC payment, equal to: (1) 100 percent of Medi-Cal for pharmaceuticals; (2) 120 percent of Medicare for hospital inpatient care; and, (3) 120 percent of the Medicare hospital outpatient payment schedule for both hospital outpatient department care and for ambulatory surgery centers (LC § 5307.1). It also reduced rates for physician services by 5 percent off the existing Official Medical Fee Schedule (OMFS) rates, except where the fee for the

procedure was currently reimbursed at a rate equal to or below the Medicare rate for the same procedure.

AB 227 was much narrower in scope than SB 228. It repealed the vocational rehabilitation mandate contained in Article 2.6 (starting with Section 4635) of Chapter 2, Part 2, Division 4 of the Labor Code, and replaced this mandate with a new requirement that employers provide vocational rehabilitation with a new supplemental job displacement benefit consisting of fixed dollar payments based on the percentage of the injured worker's permanent partial disability (LC § 4658.5). It also required the Insurance Commissioner to consider projected savings from all bills passed during the 2003 session (including SB 228) in determining advisory pure premium rates for WC policies effective on or after January 1, 2004.

FURTHER REFORM: SB 899

SB 899 was passed by both houses of the legislature on April 16, 2004, and signed April 19, 2004 by Gov. Schwarzenegger as an urgency bill, which meant that the bill was effective immediately, with some provisions retroactive to January 1, 2004. SB 899 completely repealed the presumption of correctness of the PTP, making the repeal apply to all cases, regardless of the date of injury and whether the employee had predesignated a personal physician or chiropractor (LC § 4062.9). It explicitly tied the definition of medical treatment to the utilization schedule or treatment guidelines adopted by the AD, such that “medical treatment that is reasonably required to cure or relieve...from the effects of ...injury” (LC § 4600) means treatment that is based upon the guidelines adopted by the AD pursuant to LC § 5307.27 or, until then, the ACOEM guidelines (LC § 4600(b)). Although SB 228 established the authority of the AD to adopt treatment guidelines, SB 899 strengthened the “rebuttable presumption” by requiring all parties in legal disputes to meet the evidentiary burden of proof instead of simply the burden of producing evidence. The effect of this change is that guidelines must be rebutted in court proceedings by scientific medical evidence.

One of the unique features of SB 899 was the creation of Medical Provider Networks (MPNs). As of January 1, 2005, the law now permits employers to control the medical treatment of an injured employee for the life of the claim in WC if contracted with an MPN that meets statutory requirements, but otherwise is not regulated by the state (LC § 4616; 4600(c)). Specifically, employers can now require an injured employee to seek all care within the MPN, although injured employees retain the right to select their own provider within the MPN after the first visit (LC § 4616.3). Previously, the employer controlled only the first 30 days of treatment (LC § 4600) or the first 90-180 days where the employer contracted with a DWC-approved Health Care Organization (HCO) (LC § 4600.3). SB 899 also required a new schedule for rating permanent disability be adopted by January 1, 2005 (LC § 4660(e)), replacing a “diminished ability to compete” with a “diminished future earning capacity” and requiring the rating of permanent impairment to follow the American Medical Association (AMA) Guides to the Evaluation of Permanent Impairment.¹² It also imposed a cap of 24 visits on occupational therapy visits, unless the employer authorized additional visits, in addition to the 24-visit cap on chiropractic care and physical therapy imposed by SB 228. SB 899 restored the vocational rehabilitation requirement on the part of employers, repealed by SB 228, for a period of five years. Finally, SB 899 now requires employers to authorize up to \$10,000 in medical treatment after an injured employee files a WC claim until the date the WC claim is accepted or rejected (LC § 5402(c)).

LEGISLATIVE REQUIREMENT FOR AN ANNUAL SURVEY OF ACCESS TO MEDICAL TREATMENT FOR INJURED WORKERS (LC § 5307.2)

As mentioned above, this report was authorized pursuant to LC § 5307.2, which was revised by SB 228 to require the AD to “contract with an independent consulting firm...to perform an annual study of access to medical treatment for injured workers.” The primary goal of this annual survey is to “analyze whether there is adequate access to quality health care and products for injured workers and make recommendations to ensure continued access.” Furthermore, if the AD determines based on this study “that there is insufficient access to quality health care or products for injured workers,” the AD may make appropriate adjustments to medical and facilities fee schedules. Specifically, if the AD determines that “substantial access problems exist,” he or she may revise fee schedules by adopting fees “in

excess of 120 percent of the applicable Medicare payment system fee for the applicable services or products.”

EVALUATING THE IMPACT OF WORKERS’ COMPENSATION REFORM ON INJURED WORKERS, PROVIDERS, AND PAYERS

SB 228 and SB 899 have fundamentally changed the nature of WC medical treatment by establishing a new standard regarding the presumption of correctness regarding medical treatment of industrial injuries. These bills replaced the judgment of individual physicians with guidelines adopted by the AD that are evidence-based, nationally recognized, and peer reviewed. Many of these guidelines include explicit limits on the number and types of services that are appropriate for treating specific injuries. As a result, the adoption of guidelines, whether those produced by ACOEM or by other organizations, represents a major shift in the legal definition of medical treatment for WC care. DWC is currently in the process of rule-making regarding adoption of a Medical Treatment Utilization Schedule that provides for treatment that goes beyond what is addressed by ACOEM, per LC § 5307.27.

These bills also imposed caps on the number of visits for occupational therapy, physical therapy, and chiropractic care in addition to imposing employer control on who an injured worker can receive treatment from, as result of implementation of MPNs, for the life of a claim. By explicitly limiting medical care available to injured workers through the use of guidelines, lifetime caps, and employer control of treating physician, WC reform established mechanisms for controlling the growth of medical expenditures in California’s WC system.

The purpose of this evaluation is to assess the adequacy of access to quality medical care and products for injured workers in the context of WC reform and to establish a baseline for access and quality of care against which future studies on access and quality can be measured. To address these goals, we conducted surveys of injured workers, physicians authorized to treat WC cases as defined by law (LC § 3209.3), and payers. The next section explains these goals in more detail, while Section V explains the survey methods in more detail.

II. STUDY GOALS AND OBJECTIVES

The primary goal of this study is to measure access to quality health care under the WC system in California following recent WC reforms that went into effect in 2004 and 2005. Specifically, have reforms that (1) implement treatment guidelines and UR, (2) explicitly limit the number of visits to specific types of providers, (3) establish MPNs that potentially limit the choice of providers available to deliver treatment to injured workers, and (4) reduce payment for most physician services by 5 percent from previous levels created barriers to access and quality of care. These aspects of recent WC reforms may reduce access to quality care by causing physicians who previously treated WC cases to limit or cease their treatment of WC cases or by limiting the ability of physicians still treating WC cases to obtain the care they believe necessary on behalf of injured workers.

The main objectives of this study are to:

1. Establish baseline information regarding the proportion of injured workers and physicians reporting access and/or quality problems in 2006;
2. Determine specific factors that promote or inhibit access to quality care;
3. Quantify the extent of such barriers;
4. Determine whether lack of access, if present, is substantial; and,
5. Recommend methods of ensuring continued access.

For this first year of the study, CHPR developed and fielded three surveys to achieve the primary goal and objectives of this study. The experiences of injured workers were examined through an extensive survey designed to assess various aspects of access and quality of care received for a specific injury in the recent past. A second survey of six different categories of physicians, as defined by LC § 3209.3, was conducted to examine perceived and experienced barriers by providers in delivery of care to injured workers. A final survey of WC payers including self-insured employers, insurers, and third party administrators was administered to examine the experiences of payers with MPNs, contracting with physicians, and with injured workers' ability to access quality medical care.

These surveys are described in more detail in Section V of this report. CHPR's analyses of the data obtained from these three surveys are presented in Sections VI, VII, and VIII of this report. The survey results are used to develop recommendations presented in Section IX regarding how California's WC system can be enhanced to promote and maintain access to quality health care.

III. STUDY SIGNIFICANCE

California is the eighth largest economy in the world,¹³ and the WC system accounts for approximately 3 percent of all medical treatment in the state.^{14, 15} Furthermore, because an estimated 16% (2.6 million) of workers do not have health insurance in California,¹⁶ the WC system represents the only form of health insurance for a substantial portion of the employed population. Thus, any reforms in the WC system will have an impact on a significant cross-section of the population in the state both financially and in human terms.

Multiple studies have assessed access to care of injured workers and barriers to delivery of care by providers. However, only a few have been conducted following the 2003-2004 reforms or have attempted to establish the consequences of these recent reforms in California. Recent studies of the impact of reforms on access to care, conducted by the California Workers' Compensation Institute (CWCI) using claims data,^{17, 18} found reductions in utilization of physical therapy and chiropractic services, which is consistent with the 24-visit cap on these services, but no negative consequences in access to care in terms of distance to providers and access to primary care providers and specialists. However, the CWCI claims data do not include unique physician identifiers, and thus were unable to measure access to the actual physicians who treated injured workers. Instead, their analyses rely on distance from the injured worker's home to the three closest physicians or physician groups, regardless of whether these physicians were actually involved in treating injured workers. Furthermore, claims data do not assess the perceptions of injured workers or providers about barriers of access to quality care or satisfaction with care. Therefore, while providing information on certain indicators of access, these studies cannot address the impact of reforms on perceived quality of and satisfaction with care received by injured workers.

Studies of barriers to delivery of care by providers conducted by professional societies, including the California Medical Association (CMA)¹⁹ and the California Orthopaedic Association²⁰ paint an alarming picture of deterioration in participation rates of providers

who face reduced fees and stringent UR criteria and predict further declines in access to providers if such problems are not alleviated. While the concerns raised by these studies represent the views of those providers who participated in the related surveys, it is difficult to determine if these providers are representative of the much larger population of WC providers across the state. These studies provide limited information on methodology, include small sample sizes, and do not include all providers listed under the Labor Code such as chiropractors and acupuncturists.

Our study addresses the limitations of the aforementioned studies by simultaneously surveying large representative cross sections of injured workers and providers. Both of these surveys were conducted using rigorous scientific standards of survey research, including the use of objective, non-leading questions to solicit unbiased views of the respective experiences of survey participants. The injured worker survey provided an opportunity for participation by employees with all types of injuries. The results represent the experiences of injured workers after the implementation of WC reforms in 2004 and 2005. Our findings therefore represent a baseline identifying the rate of possible access problems identified by injured workers in the period immediately following reform implementation. Our results cannot be used to compare rates of access problems in the pre-reform period (i.e., prior to 2004) with those in the post-reform period (i.e., starting January 1, 2004), however.

Similarly, our provider survey has the distinct advantage of including providers who contract with WC HCOs and MPNs around California, thereby targeting the population of providers with the most potential to be treating in the WC system. In addition, this survey captured the potential barriers to provision of care before and after the recent reforms by including both issues faced by current providers as well as the experiences of providers who previously treated injured workers under the WC system but who report that they no longer treat WC cases. Thus, the results provide a snapshot of the time periods before and after the recent reforms. Finally, the provider survey includes sufficient sample sizes of various types of physicians, as defined by LC § 3209.3, to reliably estimate provider perceptions and experiences separately for several important categories of physicians.

By conducting a survey of WC payers, our study has the further advantage of including an exploratory examination of issues in WC coverage from the perspective of several important categories of payers, including self-insured employers, commercial insurers, and third-party administrators. The issues examined in our payer survey included potential difficulties faced by payers in the development of provider networks and the respective standards of access to care defined by payers.

IV. LITERATURE REVIEW ON ACCESS AND QUALITY IN WORKERS' COMPENSATION MEDICAL CARE

Health care delivery is based on the implicit assumption that access to quality care produces better clinical outcomes and patient satisfaction. A considerable amount of attention has been focused in the past decade or so on testing this assumption, by explicitly measuring the relationship between access and outcomes, and between quality and outcomes. This section briefly reviews the literature on quality and access to care, citing studies from both the general health care literature and the occupational medicine literature, where available, to summarize what is known about the association of access to care and quality of care with patient clinical outcomes and patient satisfaction with care.

Quality and access are interrelated concepts in both the general health care field and in the WC system, though this is not to say one cannot exist without the other. The relationship between access and quality is especially apparent in the goal of this report, “To analyze whether there is adequate access to quality health care and products for injured workers” in California (LC § 5307.2). Between 1995 and 2002, the Robert Wood Johnson Foundation, through its Workers’ Compensation Health Initiative,²¹ supported pilot programs studying various aspects of cost containment and quality improvement in WC systems. One product of this program, the Rhode Island Department of Labor and Training’s Model State Technical Resource Center for Improvement of Workers’ Compensation Medical Care, defined quality of care in the WC system as being comprised of five dimensions: (1) appropriate clinical care, (2) injured worker satisfaction, (3) access to care, (4) timeliness, and (5) work-related outcomes such as return-to-work.²² For this report, relevant research and background on quality and access to care are presented using the same five dimensions defined by the Rhode Island study, preceded by a brief section on quality of care in general. Furthermore, the current study attempts to measure each of these dimensions of quality directly, with the exception of appropriateness of care, for which proxy measures are used.

Quality

In 2001, the Institute of Medicine's Committee on the Quality of Health Care in America issued a report in which they defined quality as "the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge."²³ Therefore, quality of care is a critical factor in achieving better clinical outcomes and improved patient satisfaction. Numerous programs, including provider incentive systems, clinical management programs, outcome-based systems, pay for performance, satisfaction surveys, and report cards have been implemented to improve the quality of the health care system. In contrast to the general medical field, however, research into quality of care in the WC system is still in its infancy.²⁴ However, despite advancements in the general medical and WC fields, quality of care is still lower than expected. A RAND study found that Americans do not receive all of the recommended medical care they need²⁵ and the Agency for Healthcare Research and Quality noted in their *2005 National Quality Healthcare Report* that quality continues to increase at a moderate pace, but that quality is not consistent for all individuals or populations.²⁶

Appropriate Clinical Care

Appropriate clinical care is a dimension of quality that relies on utilization levels, physician practice patterns, and physician behaviors. In the current study, appropriate clinical care is not measured directly, but questions relating to a provider's WC experience and occupational medicine behavior are used as a proxy for certain aspects of appropriate clinical care.

Research has shown that the level of utilization of medical care is not directly related to health outcomes; that is, higher utilization and costs do not always result in better outcomes. Numerous studies of the general health care field have shown that while the United States spends more money on health care than any other industrialized country, health outcomes tend to rank among the worst.²⁷⁻³² In one study conducted by the Workers' Compensation

Research Institute (WCRI), injured workers in California, Florida, Tennessee, and Texas received more medical services and had higher medical expenditures for their claims than those in Massachusetts, Pennsylvania, and Wisconsin, but they had worse outcomes despite having injuries of similar severity.³³ Outside the WC system, studies done on homogenous patient populations have found costs and utilization appear to be separate from actual need for services.³⁴ One group of researchers found that in two groups of patients with similar chronic conditions, those who received care in a high-cost region had worse outcomes than those in a low-cost region.³⁵ John Wennberg, in discussing this result, concluded that because low-cost regions had better outcomes than high-cost regions “systems of care serving high-cost regions are inefficient because they are wasting resources.”³⁶ In the WC system, the Oregon Medical Outcomes Study found that there was an inverse relationship between utilization level (number of services and treatment duration) and outcomes, such that “optimal results occur when service utilization is *below* the community standard.”³⁷ This is not surprising, given that the most severe injuries require the most care and may have worse outcomes relative to minor injuries. On the other hand, there is some basic level of care that everyone should receive. Under-utilization of health services has also been documented and can have serious effects on health outcomes.^{25, 34} It is clear from these studies that level of utilization is not directly related to health outcomes and both over- and under-utilization can have serious consequences on health and outcomes.

Disease-specific utilization management systems, including the use of evidence-based medicine (EBM) guidelines, have been ubiquitous components of the general health care field since the late 1980’s. With the 2004 WC reforms, utilization management is now a central feature of the California WC system. SB 228 introduced legislation requiring that medical treatment in the California WC system be based on “evidence-based, peer-reviewed, nationally recognized standards of care” (LC § 5307.27). Similar to the California WC system, the WC systems in Hawaii, Alaska, and North Dakota have elected to use ACOEM guidelines either in whole or part.³⁸ There is some evidence that clinical guidelines do work to reduce costs and improve quality by linking scientific evidence with the medical practice.³⁹⁻⁴¹ Clinical trials have shown some drugs and procedures do more harm than good for patients or certain subsets of patients, and as a result their use has been restricted or

stopped entirely.⁴² Despite this, the reliance on guidelines, especially the ACOEM guidelines, has been controversial for a number of reasons. Providers have raised concerns that ACOEM guidelines do not adequately address all aspects of care. For example, a systematic comparison of the ACOEM guidelines and the American Society of Interventional Pain Physicians (ASIPP) guidelines showed that the ASIPP guidelines were more applicable to chronic spinal pain than ACOEM guidelines.⁴³ A recent analysis of ACOEM guidelines and 4 other guidelines for possible use in the California WC system found that while no comprehensive guidelines were clearly superior to ACOEM, ACOEM guidelines were not valid for all surgical conditions, and in general were not valid for non-surgical conditions.⁴⁴ Furthermore, the use of guidelines in general has been questioned as an effective means for improving quality. In a 2005 *Health Affairs* article, Alan Garber reported that while clinical guidelines have become a credible source of information for choosing effective care techniques and formulating performance incentive programs, their complexity makes them difficult to actually assess compliance with the guidelines in different situations and demands.⁴⁵ Finally, research has shown that adoption of clinical guidelines by physicians requires a multifaceted approach including, but not limited to, academic detailing, audit and feedback, and multiple reminders.⁴⁶ Although California law mandates the use of guidelines for WC, physician resistance towards those guidelines may result in provider dissatisfaction, and increase the perception among both providers and their patients that injured workers do not have access to quality care. Even the most sound and effective clinical guidelines can only work to the extent that they are actually used consistently by providers, whether by a PTP or peer reviewer conducting UR.

UR programs have been used for over 20 years in the general health care field as a way to manage the levels of utilization. As of 2000, the California WC system and 29 other states have been using UR for well over a decade in an attempt to reduce costs and prevent unnecessary and ineffective treatments.⁴⁷⁻⁴⁹ UR is most commonly performed on a case-by-case basis by an external reviewer; methods can include preauthorization review, restrictions on treatment duration or intensity, limits on length of hospital stay, and mandatory review of surgical procedures or expensive diagnostic tests.⁵⁰ Prior to the 2003-2004 WC reforms, UR was not mandatory in California. A 2001 review of UR plan summaries found considerable

variation in the clinical criteria used in the UR process and in the internal appeals processes of California WC claims administrators.⁴⁹ Given the treating physician's presumption of correctness, the potential impact of UR prior to WC reform in preventing unnecessary and ineffective treatments and managing costs was likely minimal.

Although it has been successful in reducing costs both in the general medical care field and in WC,⁵¹⁻⁵³ UR has sometimes been viewed as being overly burdensome and restrictive to providers and potentially detrimental to patients.^{53, 54} Historically, California has had higher levels of utilization of some WC services, specifically physical medicine, psychological therapy, and chiropractic care, that has led to higher WC costs relative to other states.⁵⁵ And, while there are few studies on UR usage within the WC system, those that do exist show UR to reduce hospitalizations and surgeries with unknown effects on quality of care.^{51, 56, 57} In terms of costs, though, a recent Bickmore Risk Services report from 2006 found evidence-based medicine, including UR and the use of ACOEM guidelines, produced a 27% savings to the California WC system.⁵⁸ Another issue is whether insurers are meeting UR deadlines specified in the reform legislation. The Bickmore report indicated that about 5% of claims subjected to UR had unfavorable results, which includes both denial of necessary care and delayed approval of necessary care.⁵⁸

Over the years there has been extensive research into provider behaviors and ways to influence practice patterns and levels of clinical care, but as they relate to WC three primary areas stand out: provider experience, occupational medicine and interpersonal behaviors, and provider incentives. Provider experience is especially important as it has been shown to have a direct link to patient health outcomes. Numerous studies have documented the relationship between the physician's experience level and patient outcomes. Physicians with a greater volume of services provided have better patient outcomes, and vice versa.^{59, 60} In other words, although there is a strong association between volume and outcomes, it is difficult to demonstrate conclusively the direction of causality. In the California WC system, Swedlow and Gardner reported that providers with less WC experience had poorer outcomes, measured as higher costs, higher attorney involvement, and longer disability claims.⁶¹

For providers in the WC system, occupational medicine behaviors and interpersonal aspects of care are integral parts of appropriate clinical care for injured workers. Occupational medicine behaviors include those related to understanding an injured worker's job, discussing how to avoid reinjury, work restrictions, and return-to-work. In a 1998 survey of California injured workers, 21% of injured workers reported the provider did not understand their job, 39% felt their provider did not understand the impact of the injury/illness on their job, 33% said the provider did not discuss work restrictions or return to work, and 36% were not told how to avoid reinjury. Furthermore, with regard to the interpersonal aspects of care, many respondents were dissatisfied (reported "fair" or "poor") with their provider in terms of communication and being treated with courtesy and respect.² In a separate focus group study, some participants reported dissatisfaction with their provider's understanding of their job or injury.⁶² These findings are similar to those found in other states. A 2004 Pennsylvania injured worker survey found only 67% of the sample reported that the doctor discussed treatment options³ and a study from Washington State found 74% of injured workers were satisfied with their provider's interpersonal aspects of care.⁵ Given that interpersonal aspects of care are related to an injured worker's desire to seek care and to follow through with treatment recommendations, and that occupational medicine behaviors may be correlated with health outcomes,^{5, 63-65} any dissatisfaction on the part of the injured workers may be cause for concern.

Provider incentive systems were developed as a way to influence providers' delivery of care through, for example, pay for performance, provider profiling measures, and capitated care. Financial incentives for California physicians are very common; in fact, one study found that 38% of primary care physicians in managed care organizations encounter some form of financial incentive in addition to their usual contracted rates. And, while all financial incentives are not tied to quality of care, physicians facing financial incentives based on quality of care and patient satisfaction are more likely to be supportive of the arrangement than those with incentives based on other factors.⁶⁶ The Pacific Business Group on Health (PBGH) has produced a number of reports on the use of incentives in health care delivery that describe methods for aligning physician incentives with reliable, appropriate, proven,

patient-centered care. Some of PBGH's recommendations include national standards for measuring quality, increased use of electronic health records for tracking clinical performance, and financial incentives linked to a common, comprehensive set of core measures for primary and specialty care.^{67, 68} Studies looking at capitated care, a common method used in California given the high penetration of managed care organizations,⁶⁹ have found mixed results in terms of quality and health outcomes. Capitated care as used in HMOs has been shown to increase preventive services and decrease hospitalization and high cost services with no reported difference in quality of care, though access and satisfaction are lower in HMOs than non-HMOs.⁷⁰ Overall, while there are risks to using provider incentive systems, including reduced continuity of care, reduced access to certain physician types, and conflicts of interest between provider and patient,⁷¹ evidence seems to support their use when linked to quality of care and patient satisfaction. However, it is important to note that provider incentives based on patient satisfaction may be problematic in the WC system. In the WC system, providers are not only responsible for an injured worker's medical care, but also for evaluating the nature of the injury or illness (work or non-work related), rating the level of impairment, determining the time needed off from work, and working within the UR process to get care authorized. If injured workers are dissatisfied with any of these aspects of their WC claim, the worker may give a poor satisfaction rating to the provider. It is therefore difficult for an injured worker to separate out the clinical aspects of care from the other, more administrative and legal aspects of care.

Injured Worker Satisfaction

Patient satisfaction surveys have become a routine part of measuring quality. The California DWC has previously addressed this issue by developing and testing a patient survey intended to assess injured workers' satisfaction with their care and perceived outcomes. This DWC survey, conducted in 1998, found that more than 25% of respondents were dissatisfied with their overall care, 39% felt the physician most involved in their care did not understand the relationship between their job responsibilities and the injury, 28% reported being dissatisfied or very dissatisfied with their choice of provider, and very few felt they had fully recovered from their injury after 6 months.^{2, 72} A survey of injured workers conducted by

WCRI in California in 2002 and 2003 found that 80% reported being somewhat or very satisfied with their overall care.³³ The Washington State Workers' Compensation Managed Care Pilot Program looked at patient satisfaction for managed care and FFS WC delivery systems. The study found that patients were less satisfied in a capitated, occupational-medicine delivery model than in regular FFS.⁷³ In a 2004 Pennsylvania study, 83% of injured workers reported being very satisfied or satisfied with their overall care in the WC system and 83% felt that the care they received in the WC system was as good as other health care they had received.³ Regular evaluations of patient satisfaction could help improve quality and inform payers and workers about their choices in the WC medical system.² In Washington, survey and claims data were used to determine that injured worker satisfaction with interpersonal and technical aspects of care was positively associated with their overall treatment experience, including ability to return to work. Injured workers who reported less favorable treatment experience were more likely to be receiving time-loss compensation for inability to work due to injury than their more satisfied counterparts.⁵ Similarly, in the Oregon WC system one survey found a positive relationship between injured worker satisfaction and health outcomes.³⁷

Access to Care

The health services research literature has found that patients with better access into the medical system are more likely to receive comprehensive, higher quality care, and therefore experience better outcomes.^{74, 75} Similar to quality of care, access is a multidimensional concept that cannot be quantified with a single clinical measure. Therefore, patient choices of provider, specialist referral patterns, patient characteristics, and physician supply and willingness to participate have all been used as proxies for determining whether access problems exist and to what extent.

The California WC reforms of 2003 and 2004 changed the dynamics of patient and employer choice over the PTP. Prior to SB 899, employers controlled the first 30 days of treatment; however, SB 899 allows the employer to require an employee to seek all care within an MPN, although employees retain the right to select their own provider after the

first visit. Within an MPN, the injured worker selects a physician and if he or she disagrees or is unhappy with that physician's treatment or diagnosis, he/she can select any other physician in the MPN, and again if that is not a good fit, select another, rather than go to litigation. This change in choice of PTP has consequences for employees as well as the WC system. A recent WCRI study found that costs were higher and outcomes were poorer for workers who selected their own provider, when compared to injured workers who had their provider selected by their employer. Although these self-selecting workers actually reported better satisfaction with their overall care, they did not experience better outcomes. In addition, workers who selected a new provider rather than someone they had an existing relationship with were less likely to return to work, took longer to return to work if they ever did, and had lower levels of satisfaction and physical recoveries.⁷⁶ A separate WCRI report found that the percentage of California injured workers reporting problems getting a provider they wanted was 13% and 17% for first provider and most involved provider, respectively.³³ The 2004 Pennsylvania study of injured workers found that since 2001, panel respondents, those who used a designated provider, had "become the group that is better informed about rights and benefits, is more likely to be satisfied with care received, and also returns to work earlier."³ Evidence from the general health care field shows that patients generally report decreased satisfaction when they have limited choice of provider, but that this does not have an effect on health outcomes.^{73,77}

Access to specialists and specialty care results in better health outcomes for patients for certain clinical procedures. For example, improved outcomes for acute myocardial infarction and rheumatoid arthritis seem to be associated with care given by a cardiologist and rheumatologist, respectively.⁷⁸⁻⁸⁰ A recent study of rheumatoid arthritis sufferers found that early referral by primary care physicians to rheumatologists reduces joint pain and improves functional outcomes, but many factors impact the ability of patients to obtain these referrals. Patient preferences, interpersonal relationships, and physician confidence and expectations, among others, influence referral patterns and prohibit rheumatoid arthritis sufferers from receiving proper care.⁸¹ Another study examining physician referrals to physical therapists found that referrals were primarily driven by the age, gender, and educational level of patients, and by variations between spinal injury treatment centers. This finding suggests

that much of physical therapy referral practices are driven not by clinical guidelines, but by other factors that could indicate problems with access to care and inappropriate use of physical therapy.⁸² In Oregon, orthopedic surgeons had better outcomes for occupational knee and shoulder injuries than other types of providers, and chiropractors had the best outcomes for non-surgical lower back ailments.³⁷

Access to medical care is not only influenced by system characteristics; worker demographic characteristics and industry of employment can also impact the likelihood of seeking and receiving care when injured at work. The general health care literature has documented substantial disparities in access to and quality of care based on race/ethnicity, age, gender, and various other factors, resulting in poorer outcomes for certain subpopulations.^{28, 83-85} A survey of migrant garment workers found that many of the women working in the industry, although legally eligible to access the WC system, do not do so. Instead, they live with chronic pain and continue to work with injuries. The study also found that 99% of patients surveyed at the Asian Immigrant Women Workers Clinic (AIWWC) in Oakland, California had one or more diagnosed work-related injuries, and that 94% of them had pain that was severe enough to interfere with their daily activity levels. In addition, many of these injured workers refused to file for WC benefits because they did not know about the system or because they were afraid of consequences on the job.⁸⁶ Similar findings were found among Las Vegas hotel room cleaners.⁸⁷ Negative employer response – including indifference, retaliation, blacklisting, and firing – are common concerns among injured workers and present a significant barrier to reporting workplace injury.⁸⁸ Furthermore, factors related to underreporting of workplace injuries by low-wage workers include: immigrant status, employment by a small business, limited English proficiency, no union representation, lack of benefits including health insurance and sick leave, and geographic factors.⁸⁸ The Oregon Medical Outcomes Study found that patient characteristics such as age, gender, and race were not significantly associated with medical outcomes, but that those patients with the lowest education and income levels also had the worst outcomes.³⁷ In New Mexico, injured women workers reported far worse experiences and outcomes than men.⁸⁹ California injured workers who were “younger, Spanish-speaking, non-white, lower income, less educated, or laborers” reported significantly lower levels of

satisfaction with provider interactions than those workers who did not have those characteristics.²

The recent reforms to the California WC system have brought increased attention to the system, and have resulted in several smaller surveys of providers conducted by provider-trade associations. A recent report by the California Orthopaedic Association found that injured workers faced obstacles to obtaining care from orthopedic surgeons and other physician specialists in the state following recent reforms.²⁰ The report indicates that both orthopedic surgeons and neurosurgeons are decreasing the number of injured workers they treat, or dropping out of the WC system entirely. Another survey of the CMA found that sampled physicians were experiencing low payments and slow reimbursement, as well as denial of claims. The CMA reported that almost two-thirds of the physicians who responded to the survey intended to decrease or cease their participation in the WC system.¹⁹ These surveys expose a certain degree of physician displeasure with the current system and recent reforms. While both surveys identify substantial problems among the population sampled, small sample sizes and the narrow scope in terms of provider types surveyed limit the validity and generalizability to the California WC system as a whole.

At least one study questions the validity of self-reported physician intention to leave clinical practice.⁹⁰ In this study, physician dissatisfaction had a strong association with intention to leave clinical practice, but was not associated with actual departure from practice. Self-reported intention to leave may be more of a proxy for dissatisfaction than an accurate predictor of actual behavior.⁹⁰ Regardless, though, physician supply is a critical component of access to care. An article by Joseph LaDou claims that the field of occupational medicine is in decline as evidenced by the decrease in the number of individuals receiving board certification in the field and the decrease in the number of residency programs.⁹¹ In response to LaDou's claims, three members of ACOEM state that the field of occupational medicine is in fact moving forward with increasing membership in ACOEM, increasing numbers of practitioners and jobs, a growing science base, and increasing respect and power on a national level.⁹² Unfortunately, no reliable counts of the number of WC providers in

California are available and therefore actual attrition rates are hard to determine. In the future, baseline estimates of WC provider numbers in the state will have to be measured.

The 2003-2004 WC reforms reduced the fee schedule for most physician services by 5% and placed limits on utilization through the use of ACOEM guidelines, UR, and explicit caps on selected types of visits. These changes are likely to have a major impact on the total WC revenue received by at least some WC providers. Furthermore, the level of the current OMFS and possible changes in the OMFS may affect physician participation in WC. A recent study by WCRI shows that California on average pays about 21% above the Medicare fee schedule for physician services as of July 2006, whereas the median value across all states is 55%.⁶ For evaluation and management services (i.e., visits), California WC physicians receive on average 13% *below* the Medicare fee schedule.⁶ Physician participation in public programs has been linked to the level of physician fees in both Medicaid and Medicare. Several studies have concluded that individual physicians are more likely to accept Medicaid, Medicare, or other public programs if the fee is at a higher level.⁹³ Additionally, studies have determined that while higher fee levels may be associated with greater use of physician office visits, hospital-based facilities, and clinics, they do not appear to have a direct effect on overall service use by Medicaid beneficiaries.^{94,95} Recent evidence indicates that Medicare physician payments are generally adequate and not producing significant access problems for beneficiaries.⁹⁶ A previous study of Medicare fee schedule reductions for eleven surgical procedures found no impact on access for potentially vulnerable Medicare enrollees and that volume changes for the eleven procedures were not as significant as predicted.⁹⁷ In an analysis of 1999 National Ambulatory Medical Care Survey data, 22% of physicians refused to accept new Medicaid cases, and over 26% of physicians refused to accept new WC cases, presumably because of low fees.⁹⁸

Timeliness

In addition to barriers to care related to patient characteristics, time and distance to treatment can negatively affect access to medical care. Though there does not seem to be a consensus on the maximum time or distance that is appropriate, the California regulations pertaining to

MPNs define adequate access as 15 miles or 30 minutes to a PTP, 30 miles or 60 minutes to a specialist, and three days between injury and first visit with a PTP (LC § 9767.5 b-c). In 2004, 89% of Pennsylvania's injured workers were able to see a doctor within 48 hours of their injury. Although Pennsylvania did not report any information on distance or length of travel time to the PTP, they did mention that wait time for appointments with certain specialists (neurology and neurosurgery) were months long and getting worse.³ The 1998 Oregon Medical Outcomes Study found that receiving the majority of medical care within the first 30 days of injury produced better outcomes for injured workers, though this was happening in only 14% of the cases.³⁷ According to a WCRI study, 84% of injured workers in California reported being somewhat or very satisfied with the timeliness of their very first visit, but only 67% reported similar satisfaction with the timeliness of their initial visit to the provider most involved in their care.³³ Similar research has been conducted on veterans' use of hospital, surgical, and outpatient services in the Veterans Health Administration of the Department of Veterans Affairs (VA) system. Studies have found that veterans' use of services is sensitive to distance; utilization of services decreases as travel distance increases up to 15 miles, at which point increases in distance do not affect utilization further.⁹⁹ For elderly veterans, living 30 to 40 miles from a VA facility decreases service use per year compared to those living closer.¹⁰⁰ To the extent that distance decreases necessary health services utilization, this clearly will have a significant and negative effect on health outcomes.

Work-Related Outcomes

Return-to-work outcomes are a key component of quality, as getting injured workers back to work is one of the main goals of any WC program. However, return-to-work can be problematic if injured workers are sent back to work too soon after injury or if employers do not or are not able to accommodate necessary work changes to prevent reinjury. Furthermore, medical outcomes do seem to play a significant role in patients' satisfaction with their care. The 1998 DWC survey of California injured workers found that just under half of the respondents felt that they had returned to work "too soon" and just under one quarter felt that their employer was not helpful with their return-to-work.² The DWC study

also found that just over half of the injured workers had difficulty performing their job because of their work injury and just under half felt that their work injury limited the kind of work they could do.² Another study found that injured workers in Pennsylvania and Wisconsin had better physical health and functional recovery and better return-to-work outcomes than workers in California.³³ In the three and a half years following their injury, workers in California were less likely to return to work for at least one month compared to workers in Pennsylvania and Wisconsin (90% vs. 93% and 95%).³³ In Pennsylvania, only 66% of injured workers were satisfied with the timing of their return-to-work in 2004.³ These findings suggest an increased use of programs that improve return-to-work outcomes may be one method for improving satisfaction and quality. A literature review of modified work programs found that, in addition to many of them being cost-effective, they enabled faster and more successful return-to-work outcomes.¹⁰¹

Conclusion

In summary, quality of care in the WC system has been conceptualized as consisting of five dimensions: (1) appropriate clinical care, (2) injured worker satisfaction, (3) access to care, (4) timeliness, and (5) work-related outcomes. Evidence has shown that patients with better access to care are more likely to receive comprehensive, higher quality health care, and therefore experience better outcomes. And, while some steps have been taken in the California WC system to address these five dimensions, such as developing standards for timeliness of care and the use of ACOEM guidelines, it is clear from the literature that there are numerous dimensions for both measuring and improving quality and access to medical care. Therefore, it is appropriate for the DWC, under the mandate of California LC § 5307.2, to study whether there is adequate access to quality health care for injured workers according to the multiple dimensions of quality and access discussed above. As explained in the next chapter, this study directly examined quality and access for all of the dimensions discussed in this section except for appropriateness of clinical care, which is measured indirectly.

V. METHODS

As previously discussed, the purpose of this evaluation is to measure the adequacy of access to quality medical care for injured workers. To answer this question, we conducted surveys of injured workers, physicians authorized to act as the PTP for a WC case as defined by law (LC § 3209.3), and payers. This section explains the methods employed, including sampling frame and sample selection, for each of these three surveys.

SURVEY AND SAMPLING METHODOLOGY

Injured Worker Survey

The survey of injured workers was conducted from May 2006 to October 2006. In this approximate six-month time period, 1,001 surveys were completed out of a sample of 5,260 claims taken from the state's Workers' Compensation Information System (WCIS), which is maintained by the DWC pursuant to LC § 138.6 and 8 Cal. Code Regulations § 9700-9704.

The WCIS claims database is a comprehensive database of nearly all California WC claims with a date of injury since March 1, 2000. It is the only database that exists containing information for nearly the complete population of state WC claims filed each year, being representative of the insured and self-insured markets as well as the private and public sectors. For the purposes of this study we used records for claims with a date of injury between April 1, 2005 and June 30, 2005. This three-month time frame yielded 170,658 active claims from non-deceased individuals when the sample was drawn on January 31, 2006, from which we obtained a randomly selected sample of 6,172 claims. After removing records with both missing or invalid employee contact information and missing or invalid social security numbers, there were 6,121 claims left in the sample. This sample was split into replicates; we did not use 861 of the sample records, leaving a final sample of 5,260.

The sample size of 5,260 claims was selected primarily to achieve a target of 1,000 respondents. This five-to-one ratio of claims to respondents was selected because the quality of the contact information contained in the WCIS claims database was unknown. A large proportion of claims were expected to have inaccurate contact information since many injured workers could have moved residence since the date of injury and may not be traceable.

We selected workers who reported injuries between April 1, 2005 and June 30, 2005 to study workers whose claims occurred after the major components of the 2003-2004 reforms had been implemented, and so that the more serious or complicated cases would have had ample time for exposure to WC medical care. We also expected the time elapsed from the date of injury to the date of the survey was sufficient to permit reporting and resolution of a large number of cases. This lag of 12 to 18 months between date of injury and participation in the survey may introduce recall bias. However, given that workplace injuries can be significant events in the lives of many individuals, and the time between date of injury and survey participation was relatively short, we assumed that the potential for recall bias in this survey would be minimal.

We used a simple random sample of claims records to obtain a representative sample of workers with all types of injuries, minor to extensive, that required anywhere from one to multiple visits to providers. At the time the sample was drawn, WCIS did not contain data on medical services utilization for claimants' injuries. Data provided by CWCI to the authors indicated that about 25 percent of injured workers have 10 or more visits during the course of treatment for their claim. Consequently, a random sample of 5,260 injured workers was expected to yield, among 1,000 respondents, an adequate representative sample of approximately 250 workers with 10 or more visits, thereby allowing examination of the experiences of injured workers with relatively high exposure to WC medical care.

The injured worker survey was designed using an exhaustive list of topic areas and questions in several existing state and national surveys on issues related to injured workers'

care.ⁿ These surveys included the 2002 Worker Injury National Survey (WINS), funded by the Robert Wood Johnson Foundation as part of the Workers' Compensation Health Initiative,¹⁰² the 2000 Survey of Worker Experience with Work Related Injuries developed by the American Accreditation Commission and Utilization Review Accreditation Commission (URAC),¹⁰³ the UC Berkeley Workers' Compensation Patient Satisfaction Survey (1998),² the Pennsylvania Injured Worker Survey from the Pennsylvania Medical Access Study (2004),³ the 2001 WCRI Worker Outcomes Survey,¹⁰⁴ and the Worker Satisfaction Survey conducted in Washington State.⁵ In addition to selecting or modifying questions from these previous surveys, we also developed questions unique to this survey.

The final version of the UCLA/DWC Injured Worker Survey has 66 questions, allowing for both multiple choice and open-ended responses. The major sections of the survey are: (1) patient demographics, (2) injury type, recovery from injury, and duration of the claim, (3) access to medical care (first visit, referral to specialists, physical therapy, occupational therapy, and prescription medication), (4) injured worker experience with the main provider, (5) quality of medical care and satisfaction with care received, and (6) work experience, including current work status, work modifications, and return-to-work information. The majority of the questions in the survey excluded care provided by physical and occupational therapists, with the exception of the section on access to these professionals. The complete survey appears in Appendix A. The survey was offered in English and Spanish — 21% of surveys were conducted in Spanish.

Injured workers in the study sample were mailed pre-notification letters with consent information. The letter indicated a choice of completing the survey by phone, mail, or the internet using a passcode and username furnished in the letter. All sampled injured workers were contacted by telephone (a maximum of 24 calls), and respondents' identity and eligibility was confirmed prior to beginning the survey. Eligible participants were those with confirmed identity and who recalled a WC injury that occurred between April and June 2005. Each respondent was mailed a \$15 gift card after completion of the survey.

ⁿ Copies of all surveys were obtained directly from the administering source via personal communication. When available, the survey or corresponding study results have been cited.

Of the 5,260 possible subjects in the final Injured Worker Survey sample, 2,855 were determined to be eligible for the study, while 2,124 could not be located. Because this was a telephone survey, the primary reason for being unable to locate an injured worker was inaccurate or missing telephone numbers, even after searching for phone numbers using the injured worker's address and Social Security Number. An additional 281 injured workers were not eligible because they: had a language/comprehension problem (n=53), did not have an injury during the sampled time period (n=189), were institutionalized or not adults (n=31), or were deceased (n=8). To calculate our response rate, we excluded the 281 injured workers who were found to be ineligible and the 2,124 who we were unable to locate despite additional searches of available databases. This produced an adjusted response rate of 35.1% — equal to 1,001 respondents divided by 2,855 eligible injured workers. Other surveys of injured workers reported a wide range of response rates (20% to 63%). In two surveys of WC patient satisfaction in Washington state (2000)⁵ and California (1998)² response rates were 53% and 63%, respectively. Both of these surveys were based on a different type of sample than our injured worker survey. The Washington state survey focused on specific injury types, and targeted more recent WC claims. The sample was obtained from claims that potentially began two months before data collection, which may result in better response rates due to a lower likelihood of subject migration and greater likelihood of recall of their injury. However, this faster approach may not allow a patient to assess their injury from a long-term perspective. The California survey was focused on patients with a claim in specific HCOs, which also increased the likelihood of contact through updated administrative records. On the other end of the spectrum is the 2004 Pennsylvania Medical Access Study provider survey, which reports a much lower response rate of 20%.³ The survey used a much simpler sampling methodology by randomly selecting 10,000 subjects from WC claims. This approach is similar to our survey methods because the random sample of claims was obtained from the state WCIS database without being able to validate contact or expenditure information.

The injured worker analysis dataset contains 976 records. This analysis database is based on the 1,001 surveys completed, but excludes the 25 records collected through our pre-test of

the survey instrument. Due to minor changes in the design of the survey it was necessary to exclude these pre-test cases from the analysis presented in this report.

The responses for the injured worker survey are unweighted because the sample was a simple random sample — there was no reason to stratify the claims or to over-sample. However, after survey completion, to verify that the sample was representative, we conducted analyses comparing characteristics of the sample to the overall universe of claims during the study period of April 1, 2005 to June 30, 2005. We found the sample to be entirely representative of the universe of claims on every dimension available in the WCIS administrative claims database, including age, gender, employment status, part of body injured, cause of injury, and nature of injury. We also compared characteristics of respondents to the sample of injured workers using variables reported in the WCIS claims database to determine if our respondents were representative. We found that respondents were comparable to the sample population in employment status, part of body injured, cause of injury, and nature of injury. Respondents were slightly older (41.2 years of age vs. 39.2) and more likely to be female (44.8% vs. 36.6%) relative to the sample population of injured workers.

Provider Survey

The survey of providers was conducted from April 2006 to October 2006. In this seven-month time period, 1,096 surveys were completed out of a sample of 6,743. The sample for the provider survey was constructed from MPN and HCO provider lists reported to the California DWC, as required by 8 CCR § 9767.3(d)(8)(C) and § 9773(b), respectively. Both MPNs and HCOs are approved by DWC. MPNs are networks set up by insurers or employers, through direct contracting with individual doctors or a contract with one or more established provider networks. HCOs are WC managed care organizations established by HMOs, PPOs, disability insurers, insurers, or Third Party Administrators (TPAs) that have a provider network as one component.

The sample of providers in this study included those defined by California LC § 3209.3 as a physician in the California WC system. These were doctors of medicine and osteopathy (MD/DOs), chiropractors (DCs), acupuncturists (LAcS), podiatrists (DPMs), and clinical psychologists (PhDs). Although defined as physicians under the Labor Code, dentists and optometrists were excluded due to the very low-volume of WC care provided by these professionals as PTP and their potential inability to respond to the survey questions. In addition, MD/DOs primarily specialized in anesthesiology, gynecology/obstetrics, oncology, pathology, radiology, adolescent/child specialties, and geriatric care were also excluded because they were highly unlikely to act as the PTP for a WC case.

We constructed a final list of 51,363 unique providers using the WC provider network directories of MPNs and HCOs, consisting of: 1,055 acupuncturists, 1,277 podiatrists, 2,570 clinical psychologists, 4,850 chiropractors, and 41,611 MD/DOs. Among MD/DOs, our list included the following specialties: 2,404 in orthopedic surgery, 7,157 in family practice, 11,949 in internal medicine, and 20,101 in other specialties. The MPN/HCO lists used for the sampling frame were the most recent DWC had on file, ranging from March 2004 to October 2005, and included the Blue Cross MPN, Interplan MPN, Prime Advantage MPN, SCIF Preferred Provider Network, First Health MPN, First Health HCO, CompPartners HCO, Concentra HCO, and Corvel HCO.

The survey was designed to include providers who accepted and treated WC patients from 2001 until shortly prior to the date of the survey. Inclusion of these past providers of WC care was possible because the MPN/HCO lists often include providers who have not recently seen any WC patients, since providers vary greatly in the volume and frequency with which they treat WC patients. We also expected to capture at least some providers who no longer treated WC patients by the time the survey was fielded in 2006. However, the lists are not likely to be representative of the number of providers who no longer treat WC patients.

MD/DOs represented 81 percent of the providers in our final list. Drawing a simple random sample of providers for the study would have led to very small sample sizes of other physician types in the WC system, thereby limiting inferences about their experiences.

Therefore, we selected a stratified random sample of 6,743 providers, consisting of 350 podiatrists, 360 clinical psychologists, 349 acupuncturists, 691 chiropractors, 4,804 MD/DOs, and 189 pre-identified high-volume MD/DOs, described below. The sample size of 6,743 providers was selected primarily to achieve a target of 1,200 respondents. This approximate six-to-one ratio of providers to respondents was selected because the quality of the contact information for physicians was unknown and because the anticipated participation rate by physicians in surveys is generally low.

Not all providers who are contracted to provide WC care within an MPN or HCO see a high volume of WC patients, and recent reforms may have affected low- and high-volume providers differently. The available provider lists did not distinguish between low- and high-volume providers. Moreover, data available in other reports do not provide consensus on what level of patient volume should be used as a cut-off point to define high-volume providers. For example, administrative WC data collected by CWCI, primarily representing the insured market in California, could be used to approximate the number of patient visits an average WC provider would have in a week.⁶¹ However, these data report medical services at the billing level, rather than the provider level, and identify the provider as a medical group or institution in a large percentage of cases. To ensure that our sample had a sufficient number of high-volume providers to draw reliable conclusions, we included a sample of 189 high-volume providers provided by one of the largest health care networks in California. This is the only component of the sample that can be considered non-random, and a weighting scheme was developed to compensate for differences between the general provider population and these pre-identified providers.

Similar to the Injured Worker Survey, a comprehensive list of topic areas and pertinent questions were identified from several existing surveys on issues related to WC providers around the country.^o These surveys included the Pennsylvania Workers' Compensation Health Care Providers Survey from the ongoing Pennsylvania Medical Access Study (most recently published in 2004),³ the 1998 Hawaii Legislative Reference Bureau Workers'

^o Copies of all surveys were obtained directly from the administering source via personal communication. When available, the survey or corresponding study results have been cited.

Compensation Health Care Provider Survey,¹⁰⁵ the CMA Workers' Compensation Survey,¹⁹ and a non-workers' compensation survey by the California Health Care Foundation related to physician participation in Medi-Cal.¹⁰⁶ In addition to selecting or modifying questions from these previous surveys, we also developed new and unique questions for this survey.

The final version of the UCLA/DWC provider survey has a total of 46 questions, allowing for both multiple choice and open-ended responses. The major topics covered are: (1) provider demographics and practice characteristics, including specialty and size of practice, (2) current, past, and future caseloads and acceptance of WC patients, (3) reasons for recent or planned future changes in volume of WC patients, (4) physician payment, (5) time to first appointment with a new patient and ease of referrals to other providers, (6) perceived barriers and level of access to care and quality of care for injured workers, and (7) provider occupational medicine behaviors. The full survey is included in Appendix B.

Sampled providers were mailed letters with consent information along with a copy of the entire survey and a self-addressed stamped envelope. The letter indicated that the provider had three options for completing the survey: (1) via phone, (2) via mail, or (3) via internet using a passcode and username furnished in the letter. Respondents were screened via telephone for eligibility, which included provision of WC care from 2001 onwards, and type of license and specialty. Providers were contacted a maximum of 14 times, and knowledgeable office staff were allowed to respond as proxies.

Of the 6,743 individuals in the Provider Survey sample, 4,478 were determined to be eligible for the study and 1,142 had unknown eligibility status. Unknown eligibility status was mainly due to inaccurate telephone contact information or inability to reach someone at the location. Extensive efforts to conduct follow-up searches for working phone numbers for these providers proved unsuccessful. In addition, 1,123 providers were determined to be ineligible and were therefore completely removed from the sample. The reasons for ineligibility included: ineligible provider type (n=2); moved out of state (n=286); deceased (n=60); never treated WC patients (n=569); or had not treated WC patients since 2001 (n=206).

To calculate our response rate, we excluded the 1,123 providers who were found to be ineligible and 1,142 who we were unable to contact despite extensive additional searches of available databases. This produced an adjusted response rate of 24.5% — equal to 1,096 respondents divided by 4,478 eligible providers. This response rate falls within the range of other WC provider surveys. The Pennsylvania Medical Access Study reported an injured worker survey response rate of approximately 22%,³ while the Hawaii Legislative Research Bureau provider survey had a response rate for MDs and chiropractors of about 30% overall.¹⁰⁵ Provider response rates in non-WC survey research have declined since 1985 to the 40-50% range.¹⁰⁷ As is the case in this survey, provider survey response rates tend to be negatively affected by long survey instruments, large sampling frames, shorter duration in the field, and absence of financial incentives.¹⁰⁸

The analysis dataset for the provider survey excludes the pre-test responses, because the survey instrument underwent slight changes between conducting the pre-test and fielding the final version of the survey. For this reason, 19 responses are excluded from the final analysis dataset, leaving 1,077 respondents.

Due to the stratified random sample of provider types and the over-sampling of high-volume providers, the analysis dataset was re-weighted to compensate for differential response rates among acupuncturists (51.8%), chiropractors (43.3%), podiatrists (28.3%), high-volume MD/DOs (28.6%), other MD/DOs (18.2%), and clinical psychologists (19.8%). Although 81% of the sampling frame was made up of MD/DOs, a higher level of non-response for MD/DOs and clinical psychologists resulted in a differential response rate between provider types. Therefore, half of the survey responses were from MD/DOs. To correct for this, population weights were calculated using the expected sample response distribution, so that the overall proportions and averages displayed in the findings section account for the observed difference between the distribution of providers within the sample and within the respondents. For comparisons within non-MD/DO provider types, this re-weighting scheme is unnecessary, because all respondents within each non-MD/DO group receive the same weight. When considering the MD/DO weighting scheme, it was also necessary to adjust for

the 189 pre-identified high-volume MD/DO providers in the sample. This adjustment enabled the low-volume MD/DOs to be compared to high-volume MD/DOs in terms of specialties and other survey responses.

Payer Survey

The survey of payers was conducted from May 2006 to October 2006. In this six-month time period, 20 surveys were completed out of a sample of 26. California WC payers were divided into three primary categories: insurers, TPAs, and self-insured, self-administered employers (SISAs). SISAs were then further sub-divided into three categories – Joint Powers Authority (JPA),^p public non-JPA, and private. Because resources were limited, it was not possible to develop a random and representative sample of payers within each of these categories. Instead, we developed a convenience sampling frame designed to have some large, mid-size, and small payers in each of these categories. For insurers and TPAs, the top 5 companies in terms of total 2004 calendar year (CY) claims were first selected. Then, a company with roughly half the total claims as the 5th highest and a company with roughly a quarter of the total claims as the 5th highest were selected and added to the list. For SISAs, the top two companies based on total 2004 CY claims were selected within each of the 3 categories of SISAs. The third company in each group was selected if it had total 2004 CY claims equal to roughly half of the total claims of the second company in the group. Number of claims was determined from the DWC Annual Report of Inventory for each payer, which measures the number of new indemnity claims, medical-only claims, denied claims, and total claims for each claims adjuster for each calendar year.

Firms were mailed an introductory letter and consent language, along with a copy of the survey. Follow-up calls were made and the opportunity to receive an electronic copy of the survey or complete the survey on the phone was offered. Additional calls were made to each respondent to verify answers or complete missing data. Surveys were originally mailed out to 23 payers; 3 refused to participate and were replaced with similar firms from the same

^p A JPA is a unit of government, authorized under the State Government Code, created to jointly administer a shared power, under the terms of a joint exercise of powers agreement adopted by the public agencies that constitute the JPA.

category, resulting in a total of 26 mailed surveys. Of the 23 who did not refuse participation; 20 firms returned completed responses and 3 did not submit completed surveys prior to the final date of data collection, October 19, 2006. Of the 20 completed surveys, 6 were insurers, 5 were TPAs, and 9 were SISAs.

The payer surveys were tailored to the three organization types resulting in 54 questions for SISAs, and 53 questions to insurers and TPAs. The payer surveys contained adapted versions of questions in the 2000 and 2004 Pennsylvania Insurer Survey⁹ from their Workers' Compensation Medical Access Study.³ In addition, new questions were developed to cover issues unique to California. The survey included both multiple-choice and open-ended questions that focus on various important areas in WC, including: (1) firm characteristics and coverage locations, (2) the use of networks, (3) physician contracting, (4) physician reimbursement, (5) standards for patient access, and (6) claims management. The consolidated Insurer, TPA, and SISA Payer survey instrument can be found in Appendix C.

ANALYTIC METHODS

Constructed Variables: Injured Worker Survey

The geographic area and urban versus rural location of injured workers were created using the zip code of the location of injury in the WCIS database, mapping zip codes to the relevant county as well as to the United States census definitions of urban areas. Race/ethnicity of injured workers was constructed using two separate questions on race and Hispanic origin. Following the California Department of Finance definition, all individuals reporting Hispanic origin were assigned as Latino, regardless of reported race. Individuals not of Hispanic origin were assigned their reported race.

The duration of treatment for injured workers was calculated using the number of days reported. Those injured workers who reported still being in treatment at the time of

⁹ Copies of all surveys were obtained directly from the administering source via personal communication. When available, the survey or corresponding study results have been cited.

interview were assigned the number of days between the reported date of injury and the date of the survey interview. Thus, the maximum possible duration of treatment in the survey was between April 1, 2005 to October 19, 2006, or a total of 536 days (about one year and five months).

Similarly, the number of missed work days was calculated using self-reported data. Those injured workers who had not returned to work as of the date of the survey were assigned the maximum number of days possible, calculated from the date of injury to the date of survey interview. The maximum number of missed workdays in the survey was 536 days from April 1, 2005 to October 19, 2006.

Constructed Variables: Provider Survey

Specialty categories are based on self-reported data, obtained from the survey respondents. The MD/DO respondents were assigned into four groups based on their reported primary specialty. These four groups were: family practice and internal medicine (FP/IM), orthopedic surgery, other surgical specialties (such as ophthalmology, neurosurgery, general surgery and otolaryngology), and other non-surgical specialties (such as occupational medicine, neurology, rheumatology and gastroenterology).

Past providers were identified as those who treated WC patients between January 1, 2001 and the date they completed the survey, but do not treat WC patients any longer. Current providers were defined as providers who currently accept or treat WC patients. If providers never treated WC patients, or stopped treating before January 1, 2001, they were considered ineligible.

Current WC providers were divided into low- and high-volume providers using their self-reported weekly volume of WC patients. Data on medical group and individual provider claims volume from CWCI and a major California WC provider network was used to empirically inform a definition of low- and high-volume WC providers. Providers with 5 or

more WC patients per week were considered high-volume, indicating an estimated annual WC visit load of 260 or more.

Statistical Tests of Significance

All comparisons between subgroups of injured workers and providers were tested, where appropriate, for statistical significance using a minimum significance level of $p < 0.05$. T-tests (two-tailed) were performed to analyze significant differences in continuous variables, while chi-squared tests were performed to analyze significant differences in the distribution of individuals across categorical variables.

VI. RESULTS: INJURED WORKERS

This section presents results of our survey of injured workers in California and their experiences receiving treatment in the WC system. The first subsection summarizes the characteristics of our respondents. The next two subsections summarize the findings according to issues related to access and quality, respectively. The next subsection presents findings on access and quality for injured workers with 10 or more provider visits, since these workers may have more severe injuries and thus different experiences with the WC system relative to injured workers with fewer visits. The next subsection presents findings on racial/ethnic disparities in access and quality. The final subsection presents a summary of the findings and conclusions.

INJURED WORKER DEMOGRAPHICS AND INJURY CHARACTERISTICS

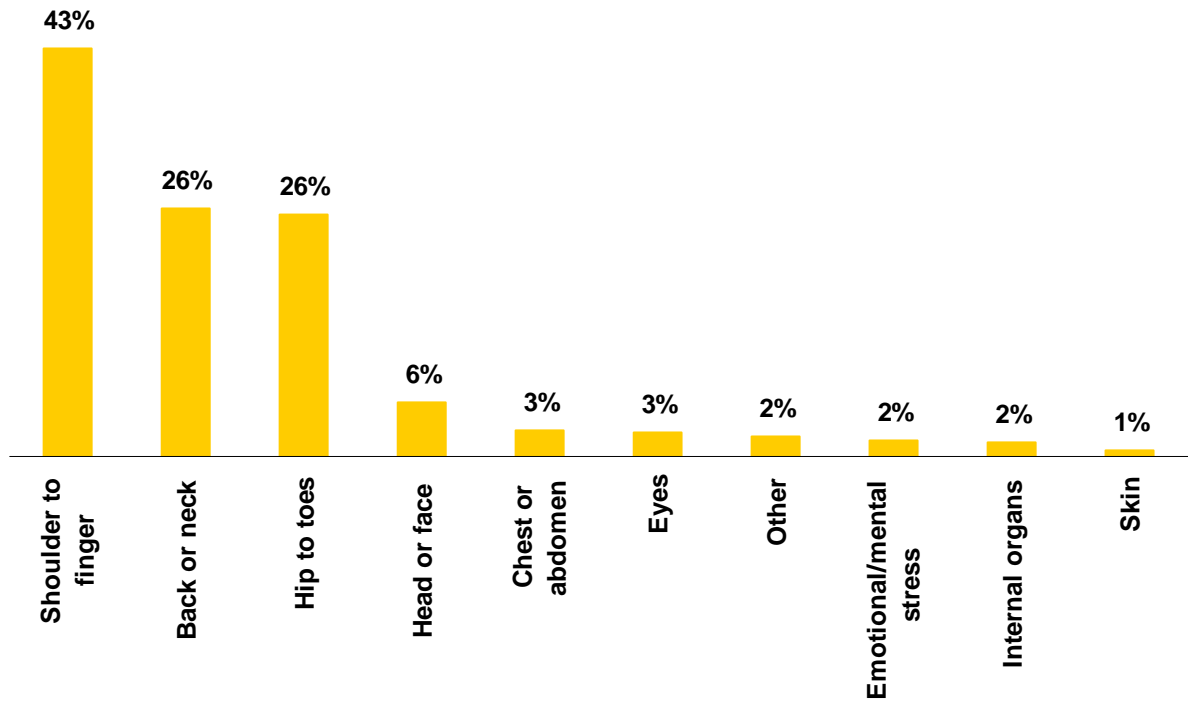
Injured workers were 41 years of age on average and 46% were female (Exhibit 1). The largest proportions of injured workers were white (40%) or Latino (45%). The largest proportions were high school graduates (31%) or had some college education (33%). Most (74%) reported being fluent in English. The largest proportion of injured workers (32%) earned between \$15,000 and \$35,000 and the majority (67%) had health insurance through their employers or purchased it privately. A small proportion (11%) reported being represented by an attorney. Nearly all injured workers (90%) worked in an urban area at the time of injury.

Exhibit 1. Demographics of injured workers, California, 2006

Age	
30 or less	26%
31 - 45	34%
46 or older	40%
Average age: 41, Median age: 42	
Female	46%
Educational attainment	
Less than high school diploma	17%
High school diploma or GED	31%
Some college	33%
College graduate	19%
Race/ethnicity	
White	40%
Latino	45%
African-American	5%
Asian-American	6%
Native American/Alaska Native	2%
Other/mixed race	1%
Fluent in spoken English	74%
Individual annual income	
Less than \$15,000	23%
\$15,000 - \$34,999	32%
\$35,000 - \$49,999	17%
\$50,000 or more	28%
Health insurance coverage	
Uninsured	8%
Employment-based or privately purchased	67%
Medi-Cal/Healthy Families	11%
Other	14%
Represented by an attorney	11%
Location of injury is urban	90%

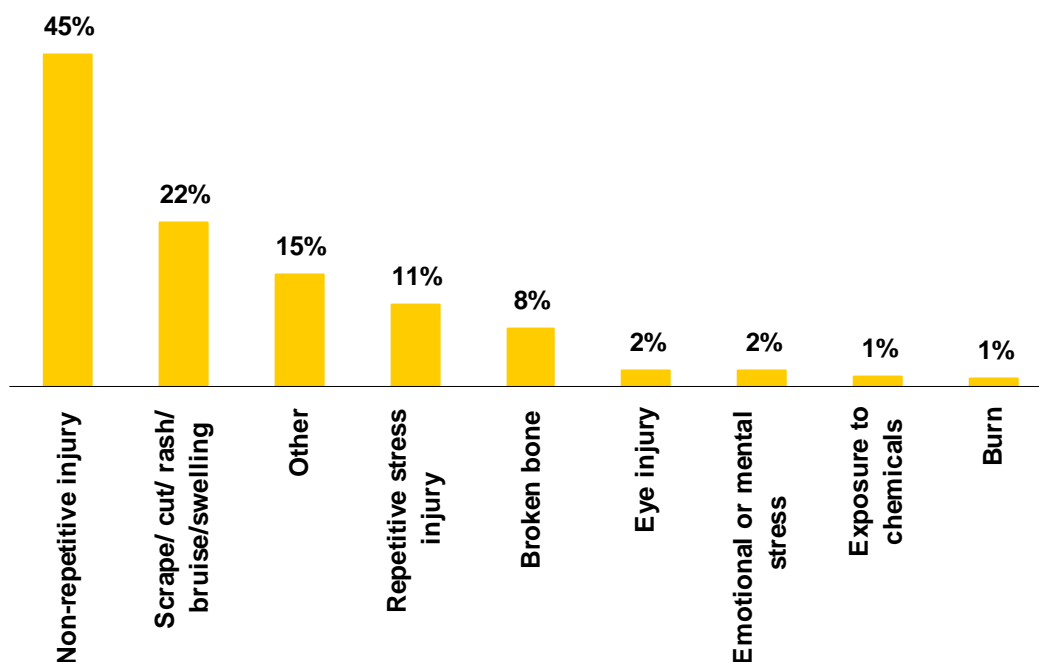
The most frequently injured parts of the body were the upper extremities (from fingers to shoulders) (43%), followed by the lower extremities (hips to toes) (26%), and the back or neck (26%) (Exhibit 2).

Exhibit 2. Injured workers' part of body injured, California, 2006



The most common types of injuries were sprains, strains, or other muscle or joint injuries not due to repetitive motion (45%), followed by scrapes, cuts, rashes, bruises or swelling (22%), other injuries (15%), and repetitive stress injuries (11%) (Exhibit 3). Most injured workers (61%) reported having missed 3 or fewer days of work and were therefore classified as medical-only claims that did not receive indemnity payments.

Exhibit 3. Injured workers' type of injury, California, 2006



ACCESS TO CARE

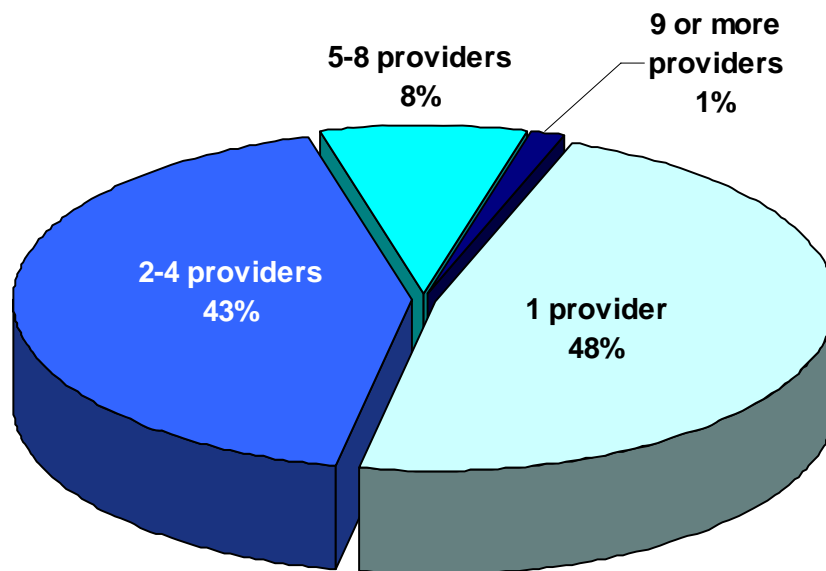
A number of factors are predictors of access to care for injured workers (refer to Section IV). In the following analyses, access to care is measured by a variety of indicators including the overall utilization pattern of medical services, characteristics of the first visit as well as visits to the main provider (i.e., the provider most involved in their care), and use of and difficulties in accessing specialists, physical and occupational therapists, and prescription medications.

Overall Utilization

The overall utilization of medical services by injured workers included the total number of providers seen, total number of visits to all providers, and duration of treatment, which was measured from the date of injury to the date of participation in the survey for those still receiving treatment.

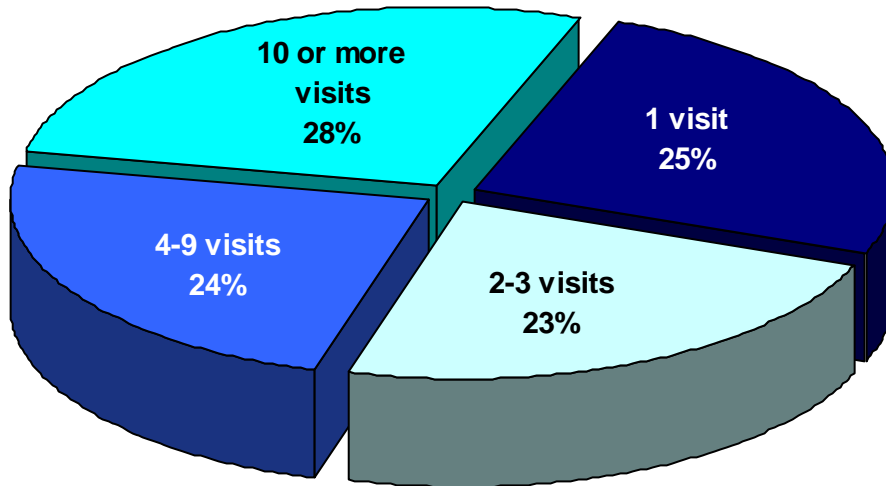
Almost half (48%) of injured workers reported having seen a single provider (excluding physical and occupational therapists) for their injury, while a large proportion (43%) saw 2-4 providers (Exhibit 4).

Exhibit 4. Total number of providers seen by injured workers, California, 2006



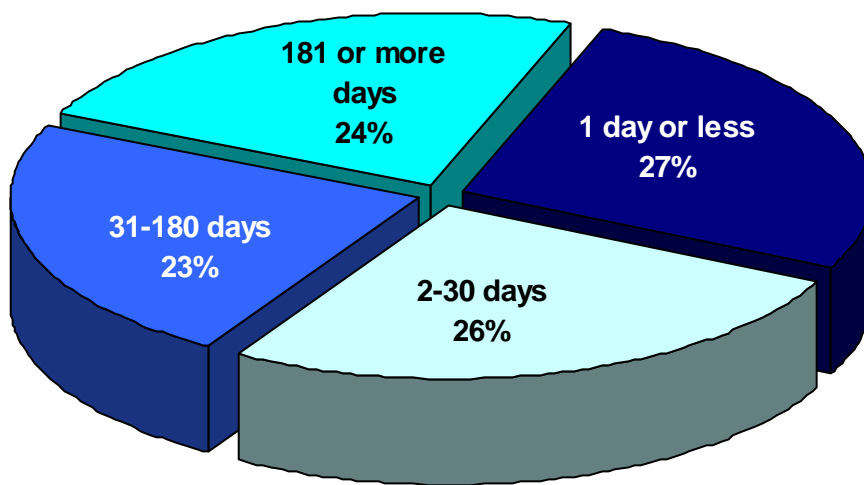
A quarter of injured workers had a single visit for the injury, and 23% had 2-3 visits. Therefore, almost half of injuries (48%) required 3 or fewer visits. However, 24% of injured workers had 4-9 visits, and 28% had 10 or more visits (Exhibit 5). Combining the data on number of visits and number of providers seen indicates that 25% of injured workers reported a single visit to a single provider, followed by 22% who reported more than one visit to a single provider, and 53% who had multiple visits to multiple providers.

Exhibit 5. Total number of visits by injured workers, California, 2006



The average duration of treatment was 126 days (approximately four months and one week) and the median duration was 30 days, indicating a highly skewed distribution of the number of days reported by injured workers. Twenty-seven percent had been in treatment for one day or less and another 26% had treatment for 2-30 days. Overall, 24% of injured workers reported being in treatment over six months (Exhibit 6). Seventeen percent were still seeking medical care for their injury at the time of the survey.

Exhibit 6. Duration of treatment of injured workers, California, 2006



A closer examination of overall utilization by the type of main provider did not show any significant differences, with two exceptions. Injured workers most frequently reported 10 or more visits to their main provider if the main provider was a chiropractor and most frequently reported three or fewer visits if their main provider was an MD/DO, nurse practitioner/physician assistant (NP/PA), or another type of provider (Exhibit 7). Similarly, injured workers most frequently reported being in treatment for over six months if their provider was a chiropractor versus other provider types (Exhibit 8).

Exhibit 7. Number of visits to main provider by main provider type, California, 2006

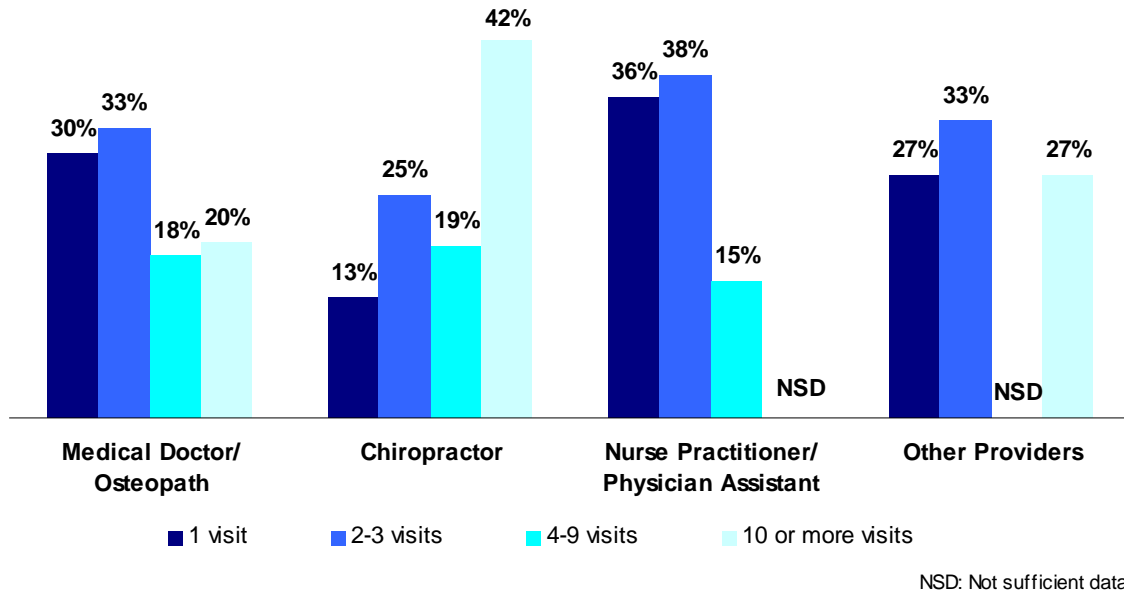
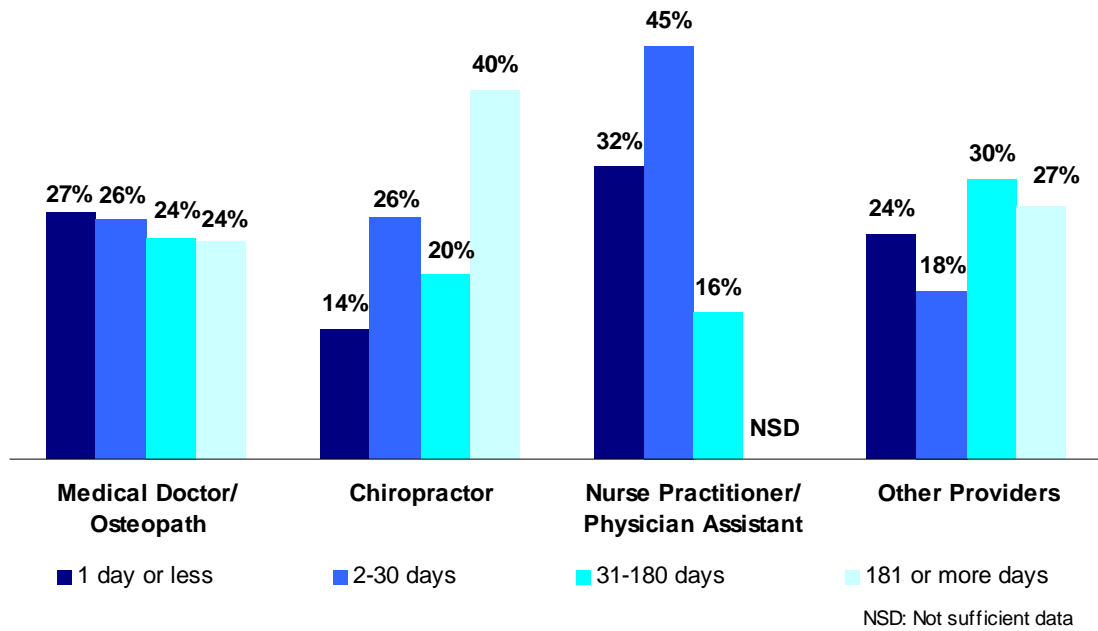


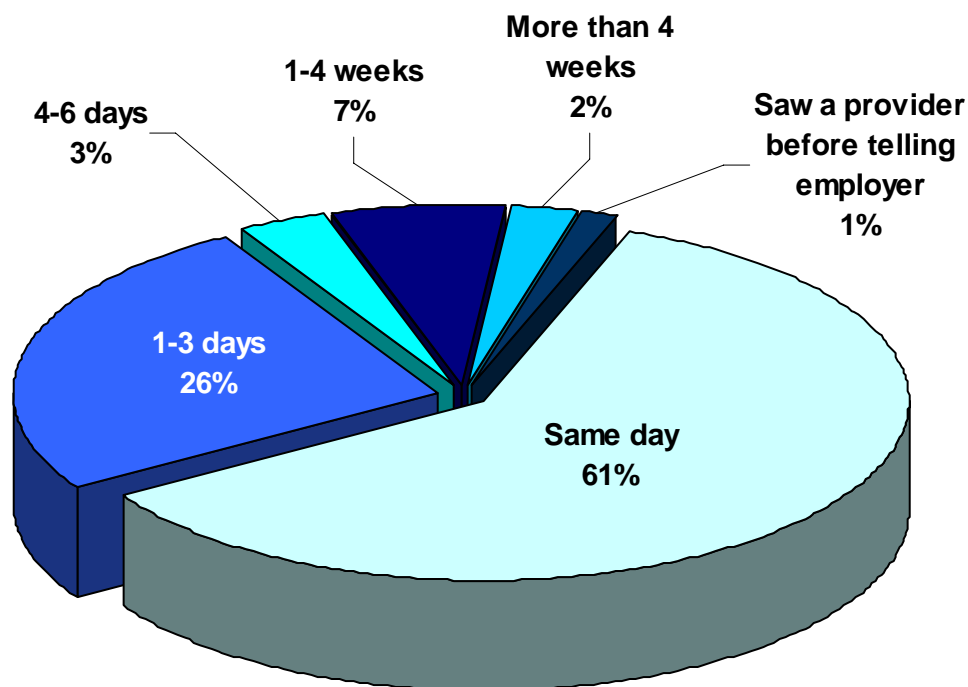
Exhibit 8. Duration of treatment of injured workers by main provider type, California, 2006



Access to First Visit

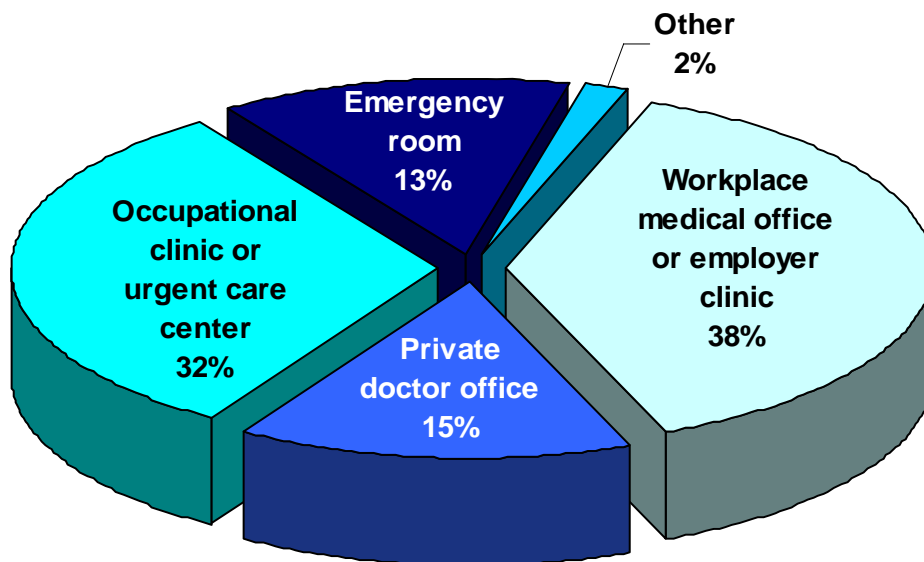
The vast majority (87%) of injured workers visited a health care provider on the same day (61%) or within 3 days of reporting the injury to their employer (26%) (Exhibit 9). A higher percentage of injured workers with 10 or more visits had their first provider visit after 3 days (20%, representing 5.5% of all injured workers) compared to those with fewer visits (11%). Injured workers most often visited an MD/DO (91%) for their initial visit, followed by 3% who visited a chiropractor, 4% who visited an NP/PA, and the remaining 2% who visited other providers such as psychologists, podiatrists, optometrists, or dentists.

Exhibit 9. Time of first provider visit by injured workers, California, 2006



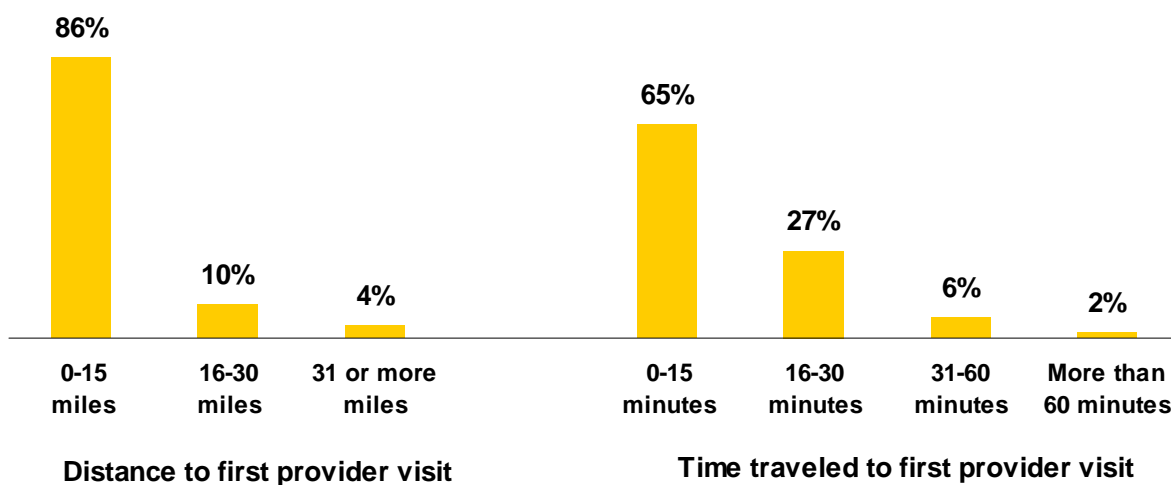
The majority (68%) of injured workers reported that their employer or the insurer selected the first provider or the location for their first visit. The remaining workers either selected the first provider/location (19%) or were seen at an emergency room (13%). The greatest proportion of injured workers were seen at a workplace medical office or clinic (38%) followed by an occupational clinic or urgent care center (32%) (Exhibit 10).

Exhibit 10. Location of first provider visit by injured workers, California, 2006



The first providers were most often within a 15-mile radius of the injured worker (86%) or within 30 minutes of driving time (92%) (Exhibit 11). Injured workers' reported distance to the first provider was not significantly associated with the urban/rural location of the injury.

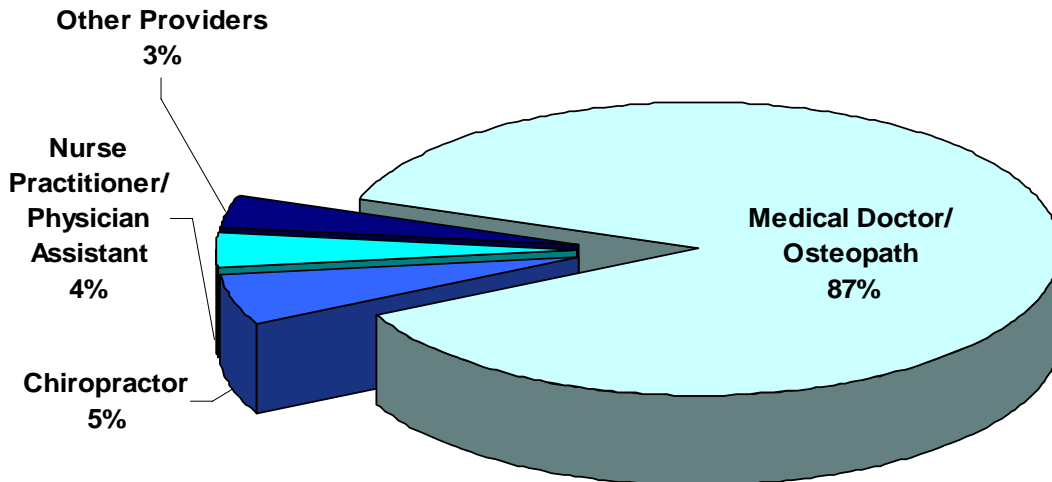
Exhibit 11. Time and distance to first provider visit, California, 2006



Access to Main Provider

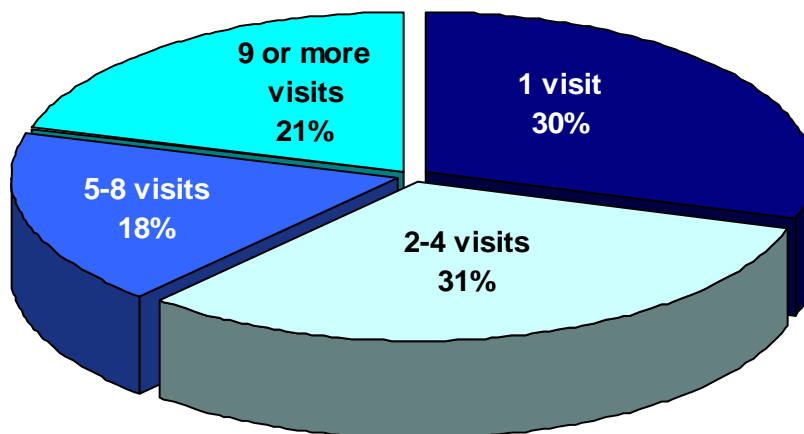
Injured workers reported that the main provider who was most involved in their care (including those who reported only one provider) was most frequently (87%) an MD/DO (Exhibit 12).

Exhibit 12. Type of main provider for injured workers, California, 2006



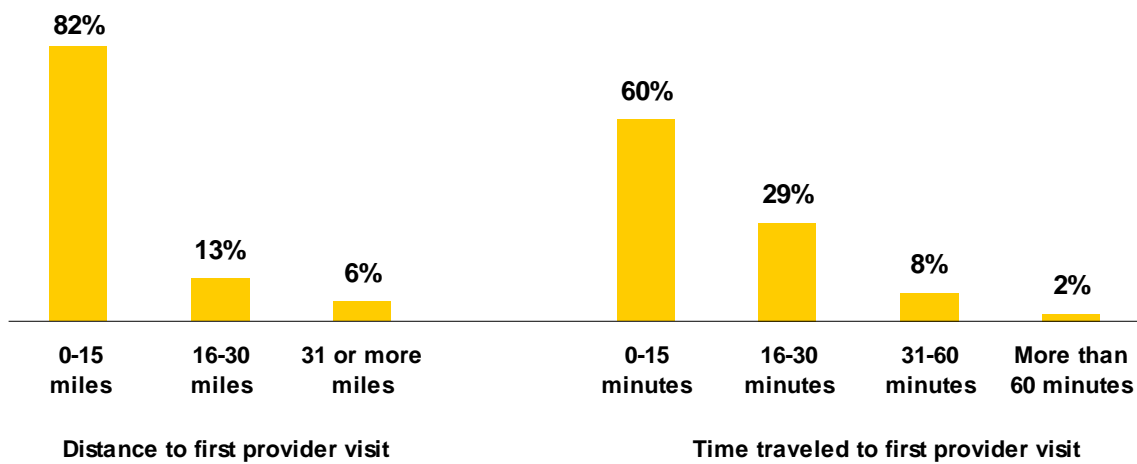
The majority (61%) had either only one (30%) or 2-3 visits (31%) to the main provider (Exhibit 13). Twenty-six percent of injured workers chose their main provider.

Exhibit 13. Number of visits to main provider for injured workers, California, 2006



Most injured workers traveled 15 miles or less (82%) or 30 minutes or less (89%) to the main provider (Exhibit 14). When asked to report on any difficulties communicating with the main provider during their last visit, 93% reported none, followed by 3% who reported having such difficulty due to language barriers, and the remaining 4% who reported difficulties due to other reasons.

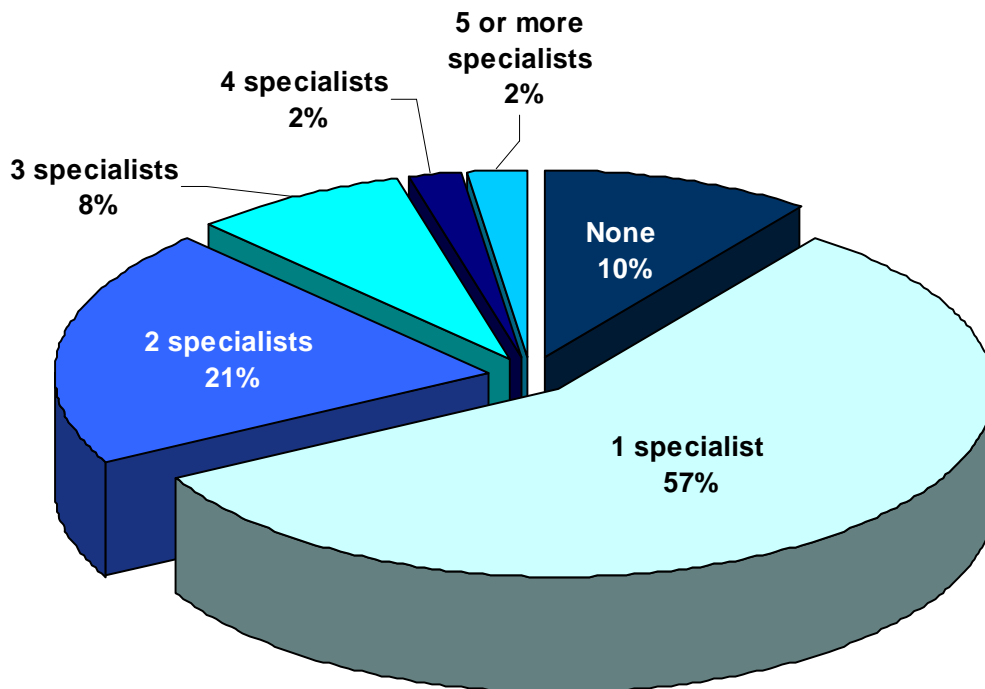
Exhibit 14. Time and distance to main provider for injured workers, California, 2006



Access to Specialists

Approximately one-third (31%) of injured workers reported that a health care provider recommended specialist care. Among those injured workers who received a recommendation for specialist care, 10% reported not seeing a specialist for their injury, over half (57%) saw one specialist, and the remaining 33% saw 2 or more specialists (Exhibit 15).

Exhibit 15. Number of specialist seen by injured workers with a recommendation to see a specialist, California, 2006

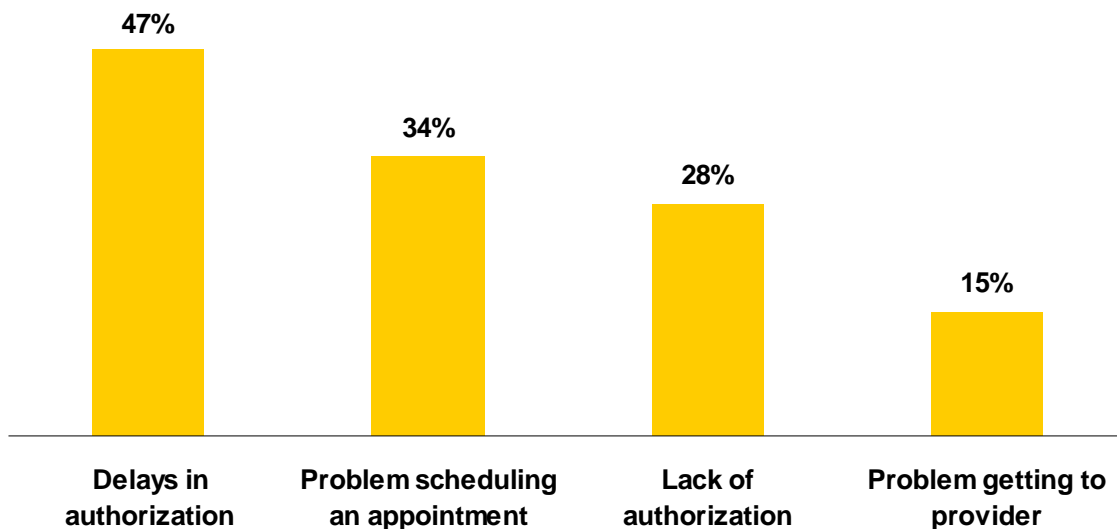


Among the 10% of injured workers with a recommendation for specialist care who did not have a specialist visit, 33% reported not seeing a specialist due to lack of authorization by the employer or insurer (equal to 1% of all injured workers) and 23% reported not seeing a specialist because they did not think it was needed (0.7% of all injured workers). The remainder reported reasons such as problems scheduling appointments, problems getting to providers, providers would not accept WC patients, or something else (percentages not reported due to insufficient data). Overall, 8% of injured workers with a recommendation for specialist care (2.4% of all injured workers) did not see a specialist for reasons other than personal preference.

Among workers with a recommendation to see a specialist and with at least one specialist visit, 20% reported encountering difficulties when seeking this care (5.5% of all injured workers). Those reporting difficulties most frequently (47%) cited delays with authorization

(2.6% of all injured workers) followed by 34% citing problems scheduling appointments (1.9% of all injured workers) and 28% citing problems obtaining authorization (1.6% of all injured workers) (Exhibit 16).

Exhibit 16. Difficulties reported by injured workers who had a specialist visit, California, 2006



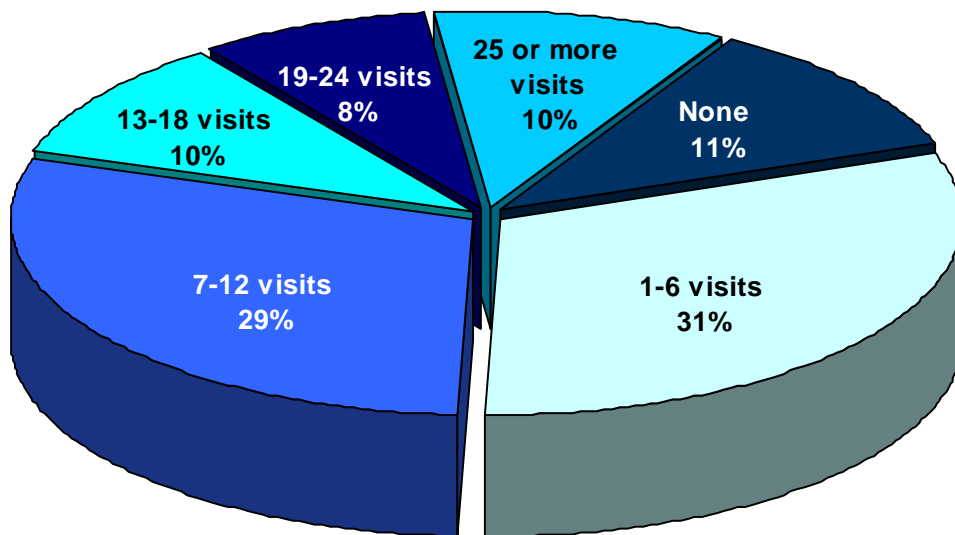
The vast majority of those with specialist visits reported travel distances of 30 miles or less (83%) and travel times of 60 minutes or less (91%) to the specialist seen most often.

Access to Physical and Occupational Therapy

Forty-four percent of injured workers reported that a health care provider had recommended physical or occupational therapy (PT/OT) as part of their care. Of those with such a recommendation, 11% did not see a PT/OT and 10% had 25 or more such visits (Exhibit 17). Among those who did not see a PT/OT, 52% reported that they did not think they needed such care, and another 23% (1.1% of all injured workers) reported not being able to get authorization from the employer or insurer. Twelve percent reported problems scheduling appointments and the remainder reported problems getting to the provider or

something else (percentages not reported due to insufficient data). Overall, 5% of injured workers with a recommendation for PT/OT (2.3% of all injured workers) did not receive such care for reasons other than personal disinclination.

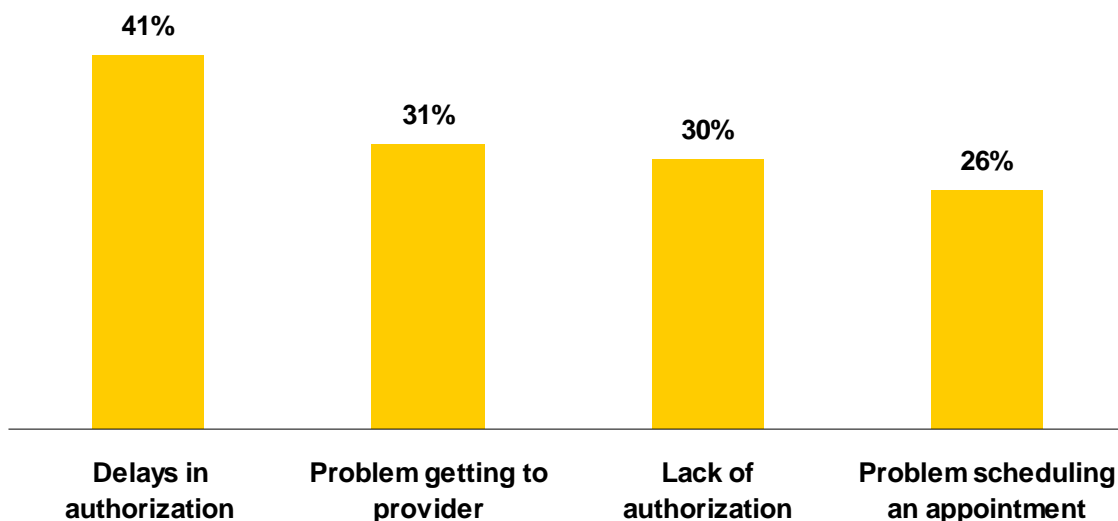
Exhibit 17. Number of PT/OT visits among injured workers with a recommendation for such care, California, 2006



Note: Percentages do not sum to 100% due to rounding

Of those with any PT/OT visits, 16% reported ever having problems seeing such providers (6.3% of all injured workers). Delays in authorization (41%) (2.6% of total), problems getting to the provider (31%) (2% of total), lack of authorization (30%) (1.9% of total), and problems scheduling appointments (26%) (1.7% of total) were cited as the more frequent reasons (Exhibit 18).

Exhibit 18. Difficulties reported by injured workers who had a PT/OT visit, California, 2006

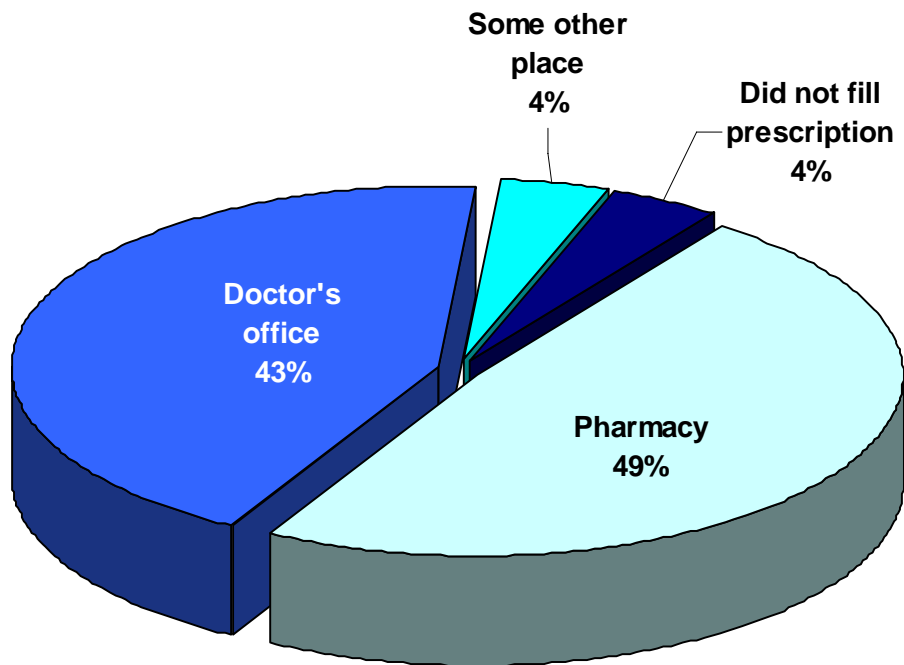


Access to Prescription Medications

Sixty-five percent of injured workers reported that a health care provider prescribed medication for their injury. Among these injured workers, 49% received the medication at a pharmacy, 43% received it from the doctor, and 4% never received the medication (Exhibit 19). The primary reason for not receiving the medication was the injured worker’s lack of interest in taking medication (72%). Few reported lack of authorization, problems getting to a pharmacy, or other reasons (percentages not reported due to insufficient data).

Comparing injured workers who filled their prescriptions at a pharmacy or a doctor’s office by geographic location revealed that more injured workers who filled their prescription at a doctor’s office (92%) lived in urban areas than those who filled it at a pharmacy (86%). Similarly, more injured workers who filled their prescription at a doctor’s office lived in Los Angeles County (35%) or other Southern California counties (Orange, San Diego, Riverside, San Bernardino, Imperial) (27%) than those who filled their prescriptions at a pharmacy (21% and 25%, respectively).

Exhibit 19. The location injured workers filled their prescription, California, 2006



QUALITY OF CARE

Five dimensions of quality in the WC system were delineated previously (refer to Section IV), namely appropriate clinical care, injured worker satisfaction, access to care, timeliness, and work-related outcomes such as return-to-work. Of these dimensions, access to and timeliness of care for injured workers was examined earlier. This section thus examines injured worker satisfaction and outcomes of care. In addition, though appropriateness of clinical care is not measured directly, indicators such as the main provider's occupational medicine orientation are reported.

Occupational Medicine Orientation of Providers

Most injured workers reported that their main provider understood the demands of their job very well (47%) or fairly well (36%) (Exhibit 20). Similarly, most injured workers reported that their main provider discussed if they needed work restrictions or changes in their job (71%) and how to avoid reinjury (55%) (Exhibit 21). Further examination of the occupational medicine orientation of the main provider revealed no significant differences by type of provider.

Exhibit 20. Main provider's understanding of the job demands of the injured worker, California, 2006

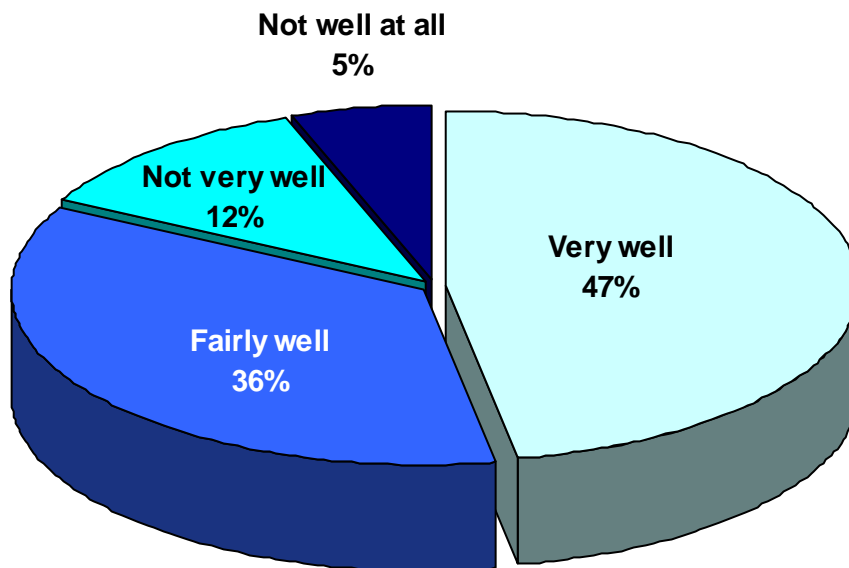
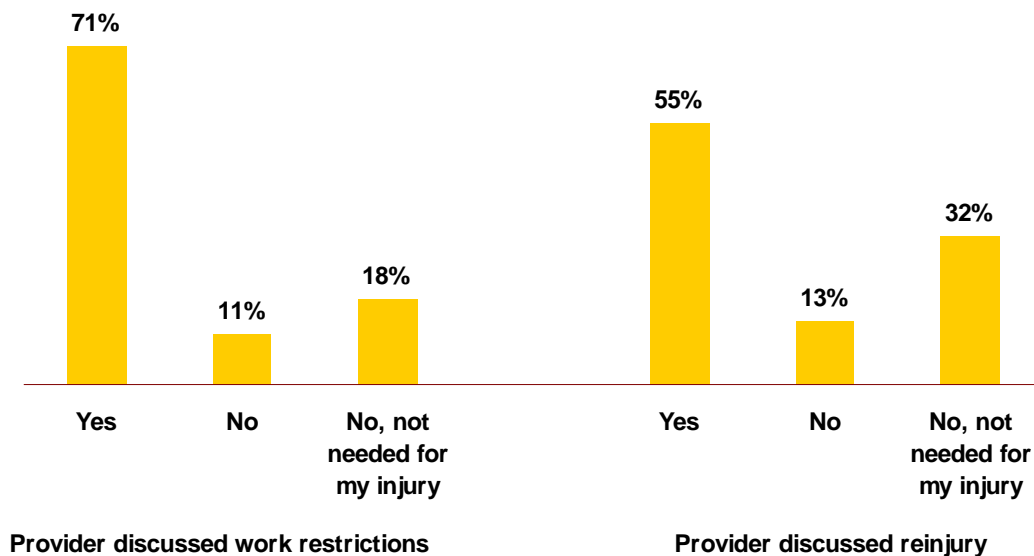


Exhibit 21. Main provider discussed work restrictions and avoidance of reinjury, California, 2006



Satisfaction with Provider and General Care

The great majority of injured workers strongly agreed (47%) or agreed (46%) that their main provider treated them with courtesy and respect, and strongly agreed (45%) or agreed (45%) that their main provider explained their medical condition and treatment in an understandable way (Exhibit 22). Injured workers reported that they were very satisfied (37%) or satisfied (45%) with the care provided by their main provider (Exhibit 23).

Exhibit 22. Injured worker rating of main provider respect and explanation of condition and treatment, California, 2006

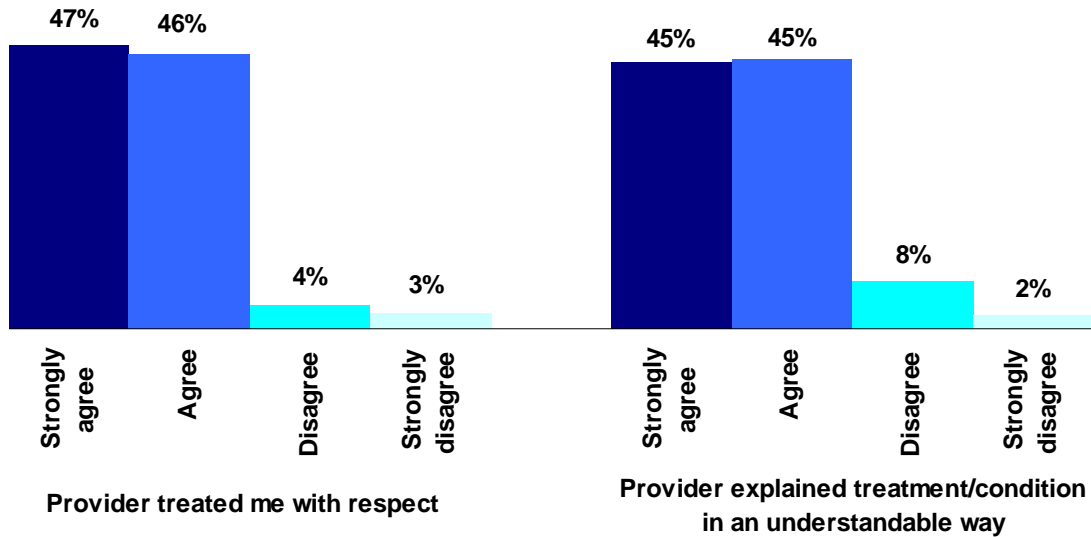
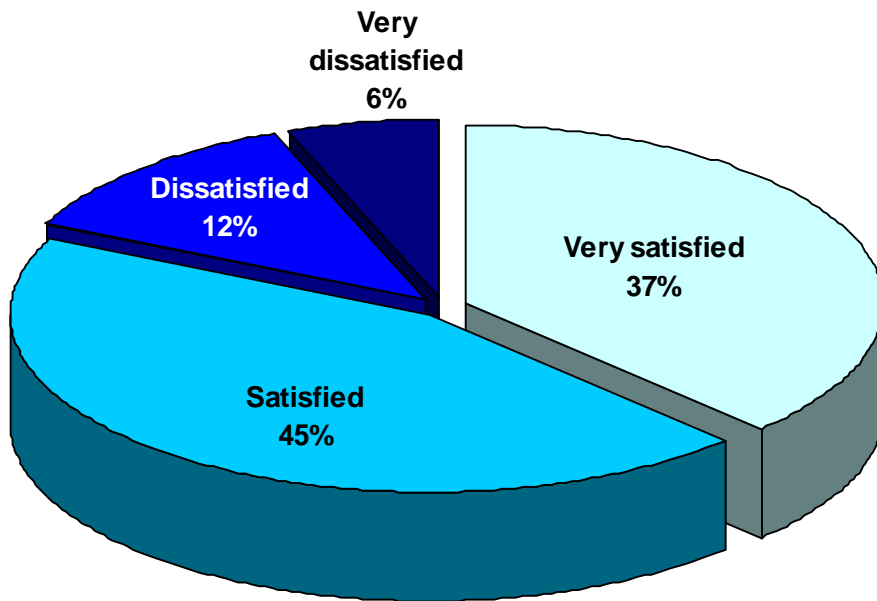
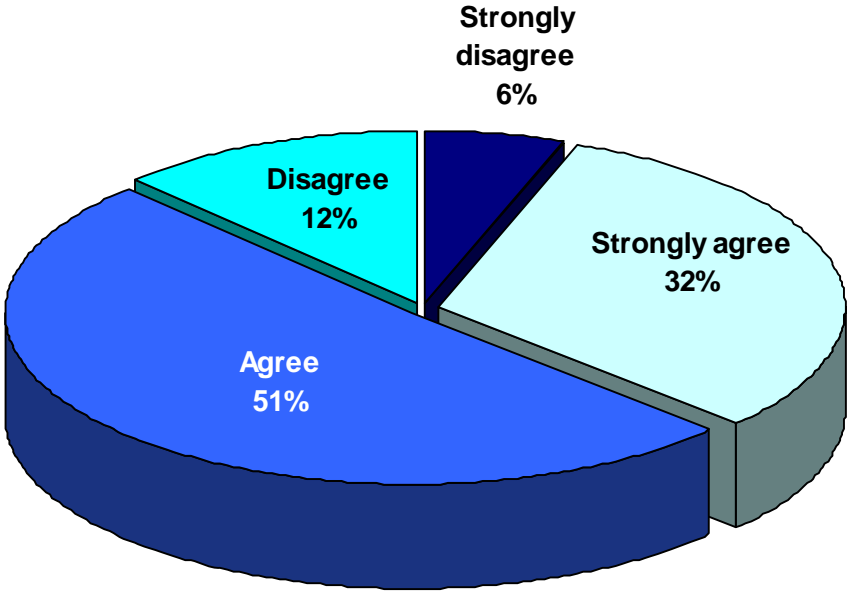


Exhibit 23. Injured worker satisfaction with main provider, California, 2006



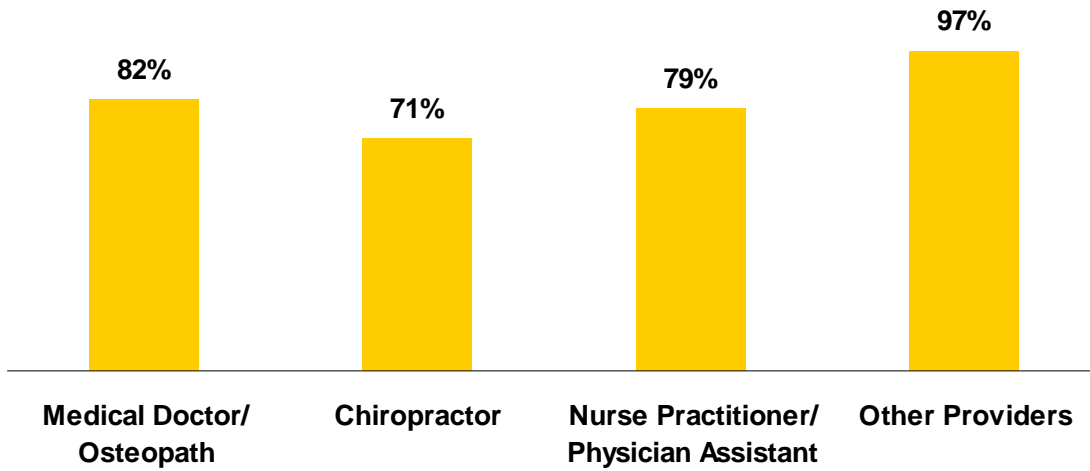
Most injured workers strongly agreed (32%) or agreed (50%) that they were able to get access to quality health care for their injury (Exhibit 24). Comparing responses to this question by main provider type revealed that injured workers more frequently reported having received quality care if their main provider was an MD/DO (82%) or other providers (such as psychologists and podiatrist) (97%) compared to chiropractors (71%) (Exhibit 25).

Exhibit 24. Injured workers’ ability to access quality health care, California, 2006



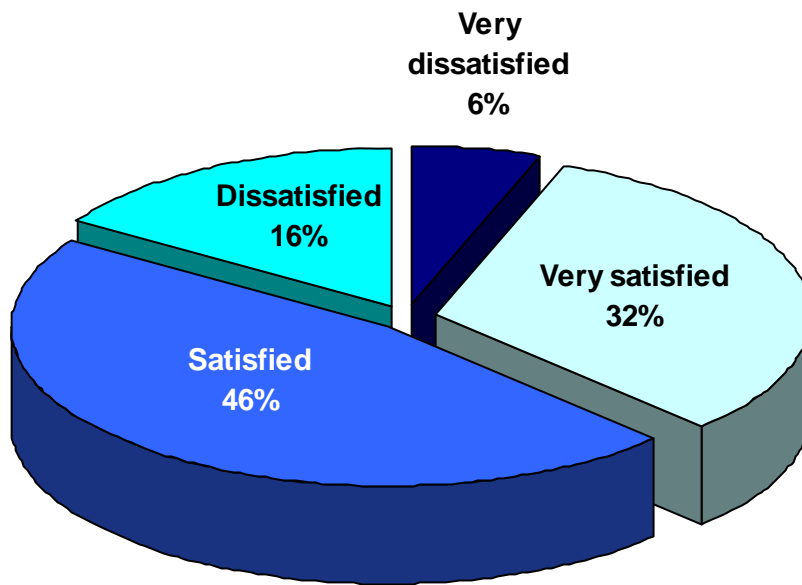
Note: Percentages do not sum to 100% due to rounding

Exhibit 25. Injured workers who strongly agreed or agreed that they were able to access quality care by main provider type, California, 2006



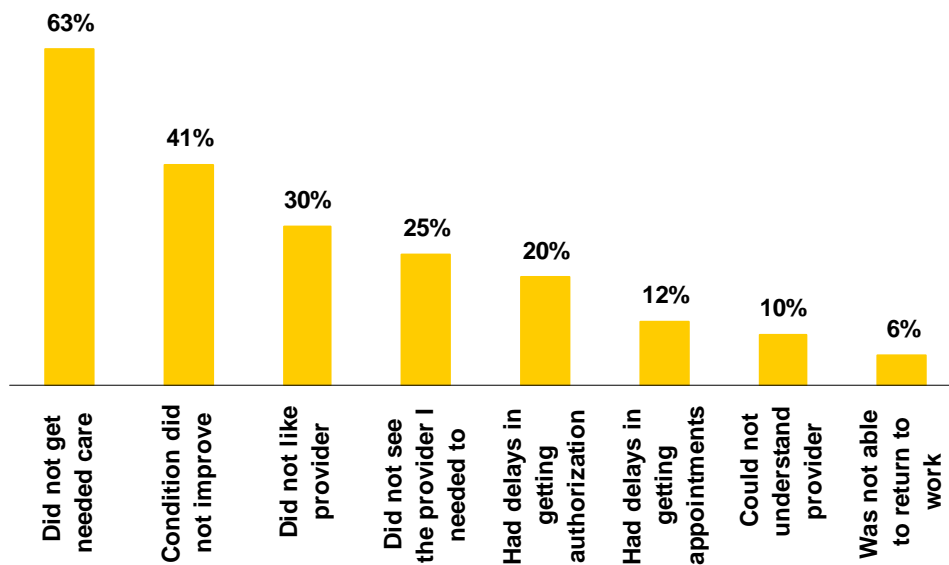
Injured workers rated their overall health care highly, with most reporting they were satisfied (46%) or very satisfied (32%) (Exhibit 26). Overall satisfaction ratings did not differ by main provider type.

Exhibit 26. Injured worker overall satisfaction with health care, California, 2006



Among the 22% of injured workers who reported being dissatisfied or highly dissatisfied overall with their health care, most cited their inability to get the care they needed (63%, or 13.5% of all injured workers) or lack of improvement or deterioration in their condition (41%, or 8.9% of all injured workers) as the reasons for their dissatisfaction (Exhibit 27). Eleven percent of injured workers reported having changed providers during the course of treatment for their injury because they were dissatisfied.

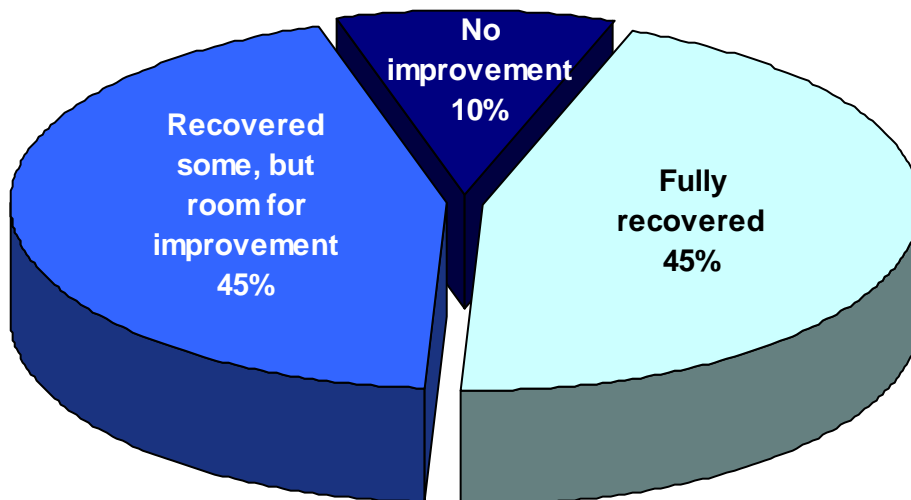
Exhibit 27. Injured workers’ most frequent reasons for dissatisfaction with their care, California, 2006



Health and Work-related Outcomes

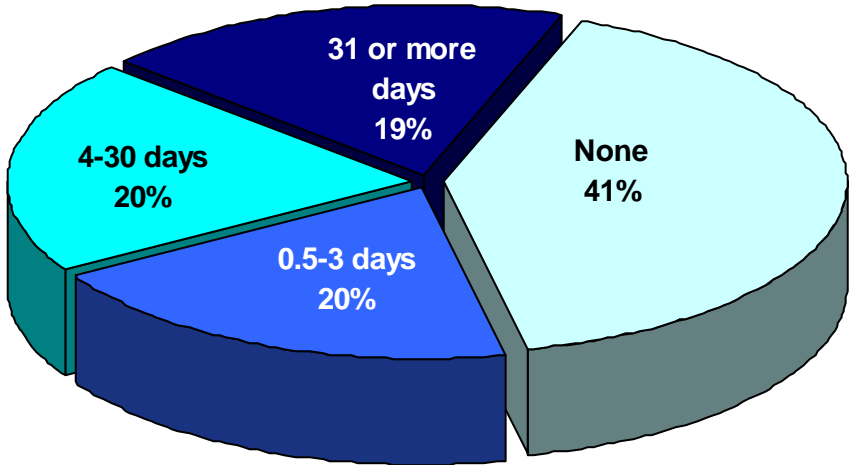
Injured workers were asked to assess the health outcomes of their care. Forty-five percent of injured workers felt that they had fully recovered from their injury (Exhibit 28). Another 45% reported to have recovered some, but felt that there was room for further improvement. Ten percent reported no improvement in their condition. Injured workers’ assessment of their health outcomes did not differ by type of main provider.

Exhibit 28. Injured worker feelings about recovery, California, 2006



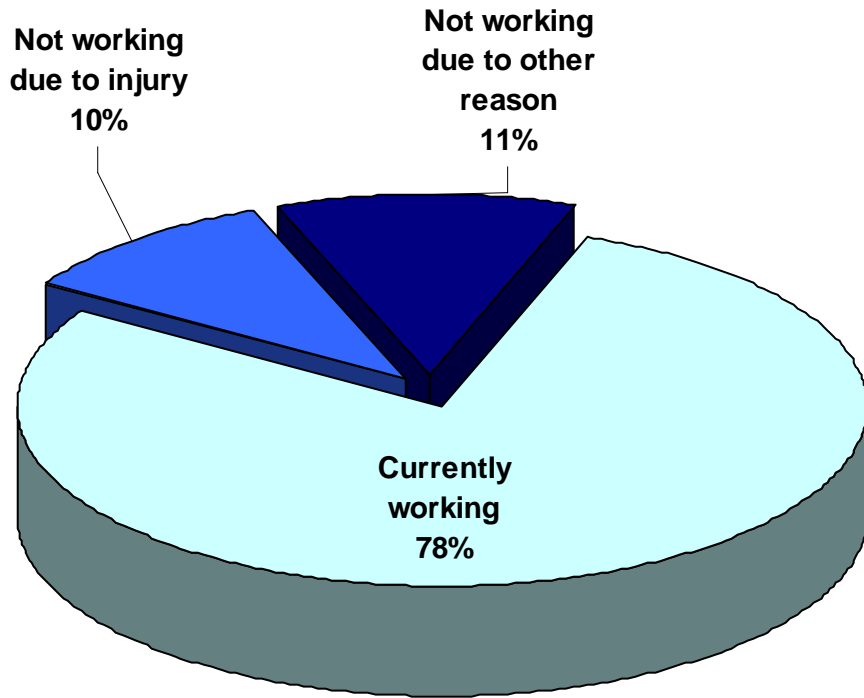
The total number of days of missed work for all injured workers who ever returned to work was 35 on average, while the median number of missed work days was 1.5, indicating a highly skewed distribution in number of missed work days. Overall, 41% of injured workers did not miss any work days, 40% missed 30 days or less, and 19% missed more than one month (30 days) of work (Exhibit 29). The number of days missed from work did not differ by type of main provider.

Exhibit 29. Number of days missed from work among injured workers who ever returned to work, California, 2006



The majority of injured workers (79%) reported they were currently working at the time of interview (Exhibit 30). Ten percent were not working at the time of the survey due to their injury, and 11% were not working due to other reasons. Overall, 93% of all injured workers returned to work after their injury, even if only for a few days. Among these workers, 92% had returned to the same employer.

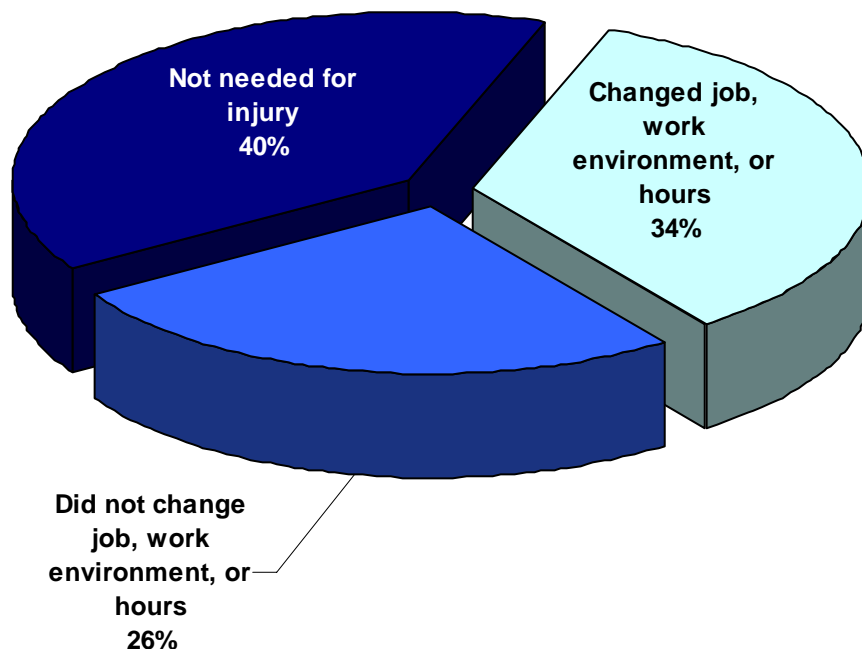
Exhibit 30. Injured worker current work status, California, 2006



Note: Percentages do not sum to 100% due to rounding

Among those who ever returned to work and who returned to the same employer, 34% reported that their job, work environment, or hours were changed in response to their injury, 26% said such changes were not made, and another 40% reported such changes were not needed (Exhibit 31). However, among those not currently working due to their injury but who had returned to the same employer, 51% reported no such modifications.

Exhibit 31. Changes to work conditions of injured worker who ever returned to work for the same employer, California, 2006



SATISFACTION AND OUTCOMES OF INJURED WORKERS WITH 10 OR MORE VISITS

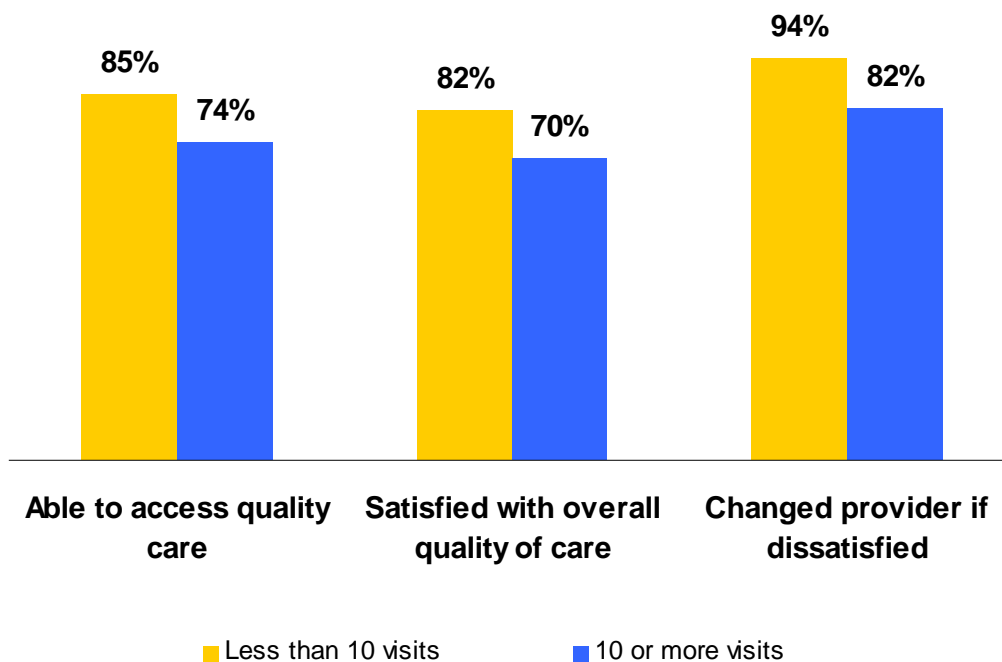
As shown in Exhibit 5, a notable proportion (28%) of injured workers reported high levels of overall utilization of care with 10 or more visits, potentially indicating more severe or complicated injuries. The following analyses examine whether these injured workers differed in their reported satisfaction and outcomes of care from those who had fewer visits.

Those with 10 or more visits did not differ from those with fewer visits in their assessment of the main provider's understanding of their job demands, discussions of work restrictions, and how to avoid reinjury. Furthermore, there were no differences in assessment of satisfaction with the main provider, of the courtesy and respect which the main provider

afforded the injured worker, or of the main provider's ability to explain the medical condition and treatment in an understandable way.

Those with 10 or more visits were less likely to report receiving access to quality care (strongly agree or agree) (74%) or being satisfied with the overall care received for their injury (70%), than those with fewer visits (Exhibit 32). However, the former group reported having changed a provider in their course of treatment if dissatisfied (82%) less often than those with fewer visits.

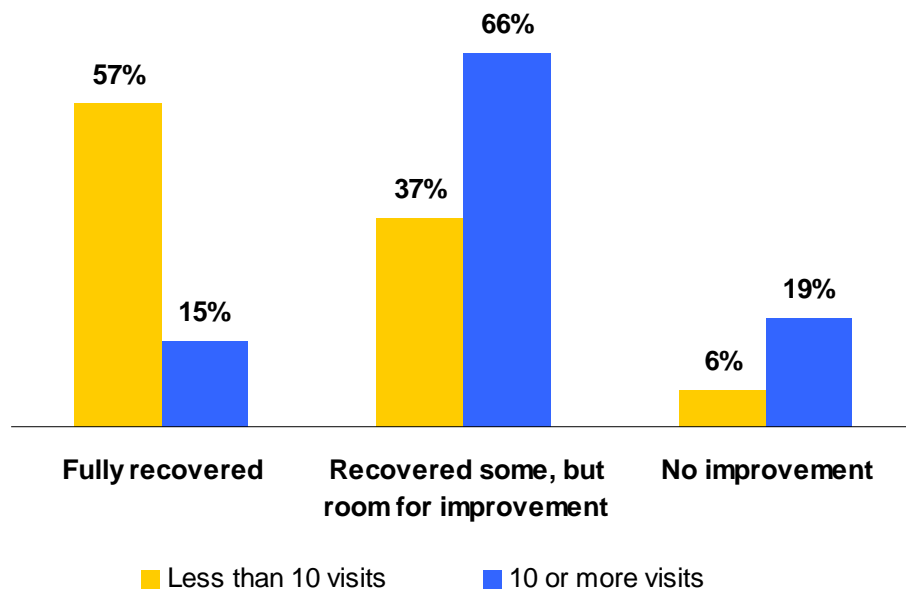
Exhibit 32. Satisfaction and assessment of quality by injured workers by utilization level, California, 2006



Relative to those with fewer visits, injured workers with 10 or more visits were less likely to report being fully recovered (15% vs. 57%) and more likely to report being only partially recovered (66% vs. 37%) (Exhibit 33). Those with 10 or more visits were 3 times more likely to report no improvement in their condition relative to those with fewer visits (19%

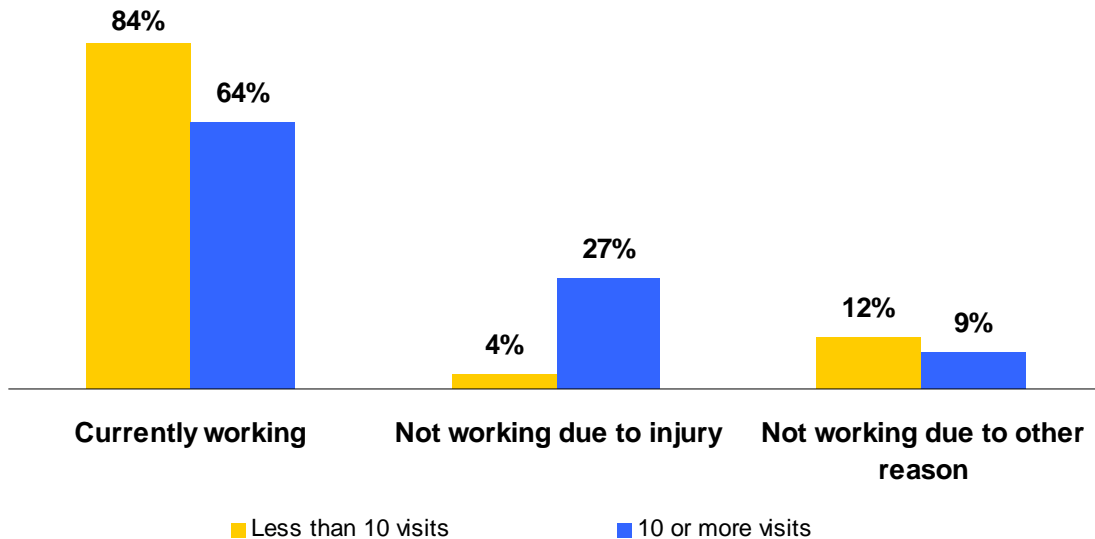
vs. 6%). In addition, the former group was less likely to have had three or fewer missed work days compared to the latter (40% vs. 68%). Those with 10 or more visits were more likely to have missed 31 or more days of work compared to those with fewer visits (43% vs. 11%).

Exhibit 33. Health outcomes of injured workers by utilization level, California, 2006



The examination of current work status by utilization level revealed that those with 10 or more visits were less likely to be currently working (64% vs. 84%) and less likely to be working due to their injury (27% vs. 4%) than others (Exhibit 34).

Exhibit 34. Current work status of injured workers by utilization level, California, 2006



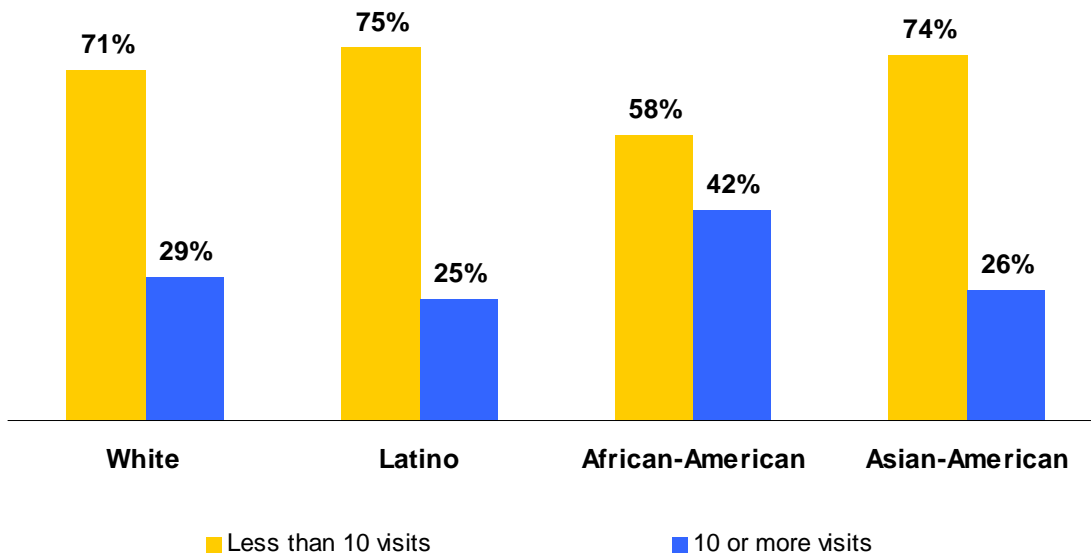
RACIAL/ETHNIC DIFFERENCES IN ACCESS AND QUALITY OF CARE

An important concern in delivery of care under the WC system is whether injured workers of different races and ethnicities have equal access to quality care. In the following analyses, injured workers of different races and ethnicities are compared on the access and quality indicators examined earlier.

Access

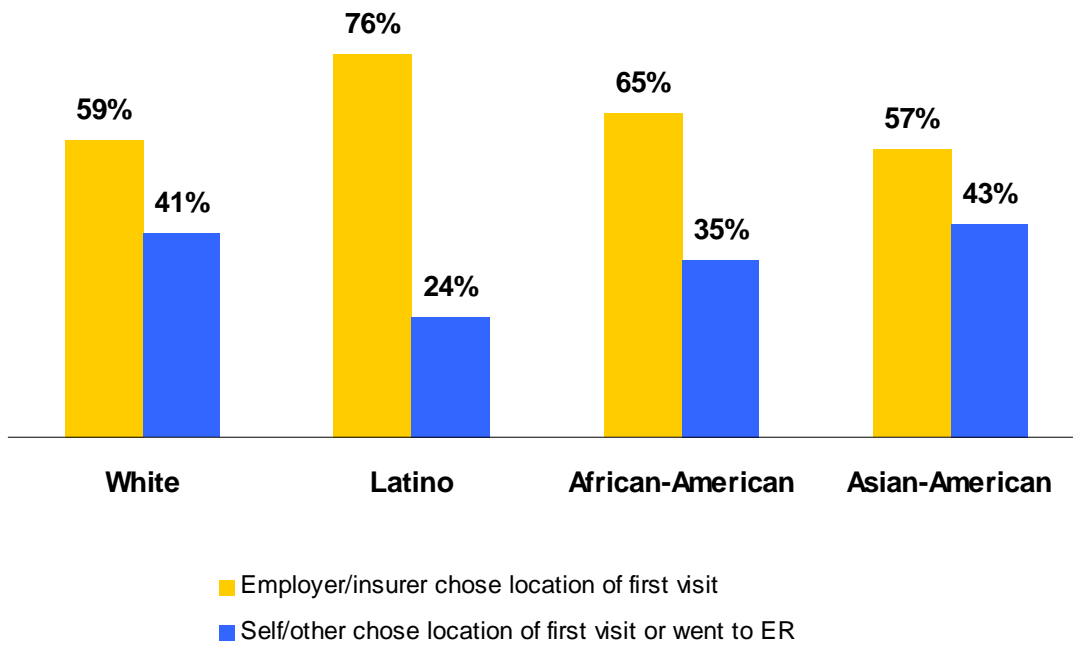
Injured workers differed significantly in the number of providers seen and in the level of utilization by race/ethnicity. A higher proportion of Asian-American (57%) and Latino (52%) injured workers saw only one provider compared to whites (42%) and African-Americans (45%). Furthermore, African-Americans were more likely (42%) to report 10 or more visits compared to whites (29%), Asian-Americans (26%), and Latinos (25%) (Exhibit 35).

Exhibit 35. Utilization level by race/ethnicity of injured worker, California, 2006



Injured workers did not differ by race/ethnicity in the time it took to have their first visit. However, Latino (50%) and African-American injured workers (38%) were more likely to report a work-place medical office or employer clinic as the location of their first visit than whites (27%) or Asian-Americans (33%). Latino (76%) and African-American (65%) injured workers most frequently reported that their employer or the insurer had chosen the location of their first visit compared to whites (59%) and Asian-Americans (57%) (Exhibit 36). No significant differences were observed for distance or time it took to get to the first provider.

Exhibit 36. Choice of first provider by race/ethnicity of injured worker, California, 2006



No notable differences by race/ethnicity were observed in injured workers' access to specialists, PT/OT, or prescription medications, with two exceptions. African-Americans more often (61%) reported receiving a recommendation to see a PT/OT than other groups, while Latinos least often received such a recommendation (Exhibit 37). Similarly, African-Americans were more often (84%) told that they needed prescription medication for their injury than other racial/ethnic groups (Exhibit 38).

Exhibit 37. Recommendation to receive PT/OT by race/ethnicity of injured worker, California, 2006

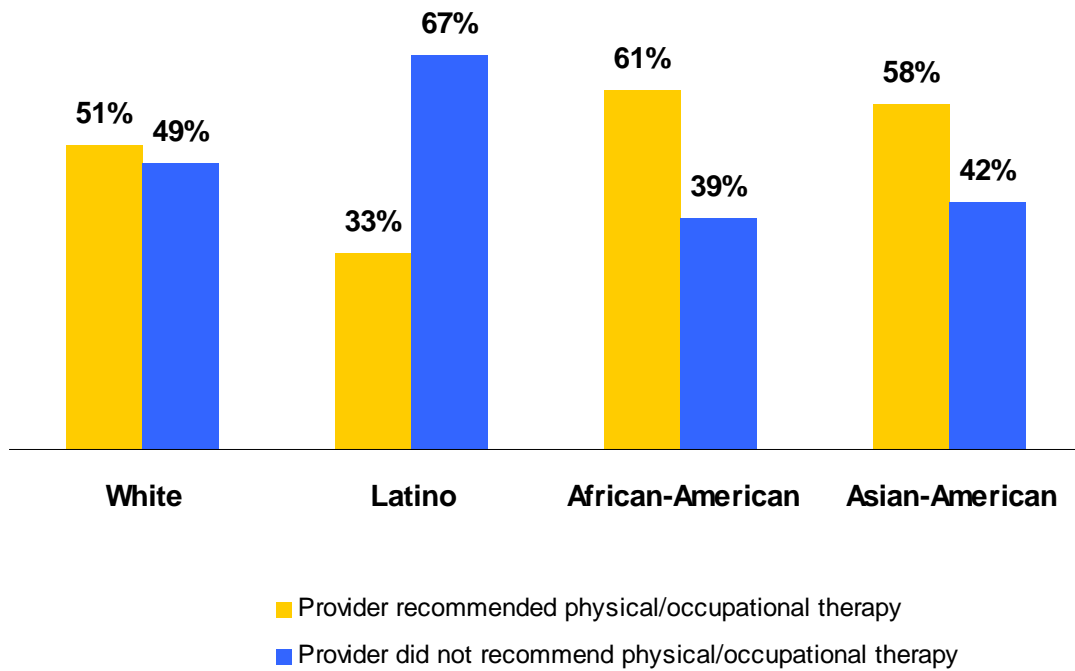
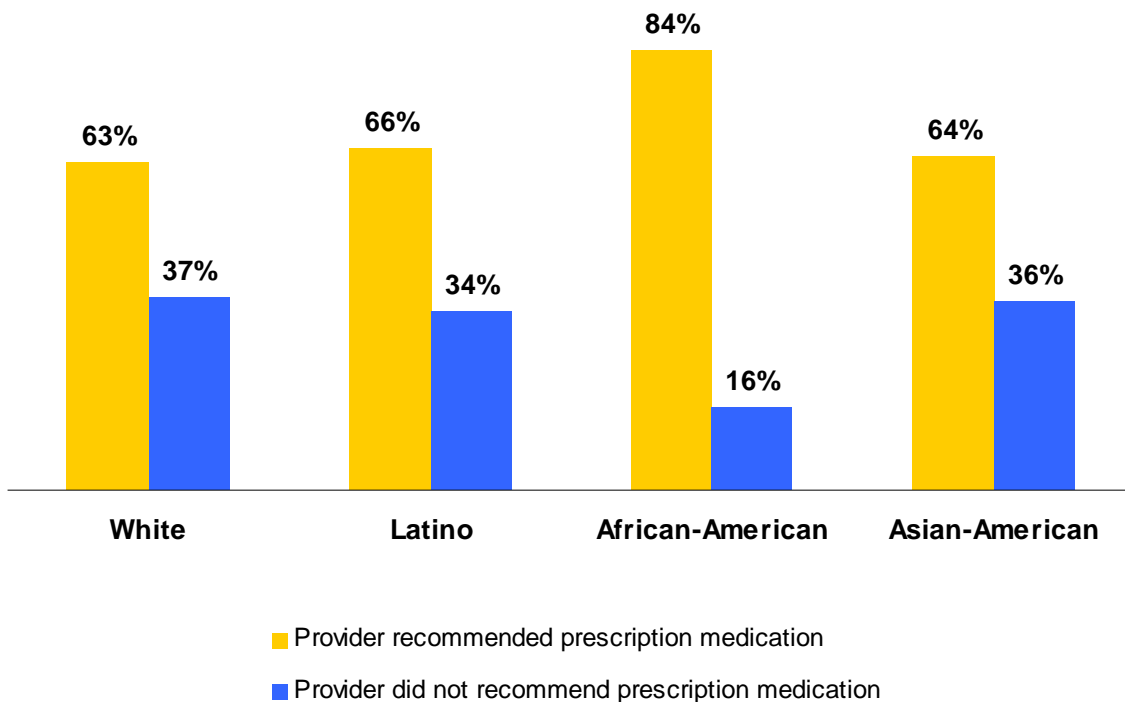


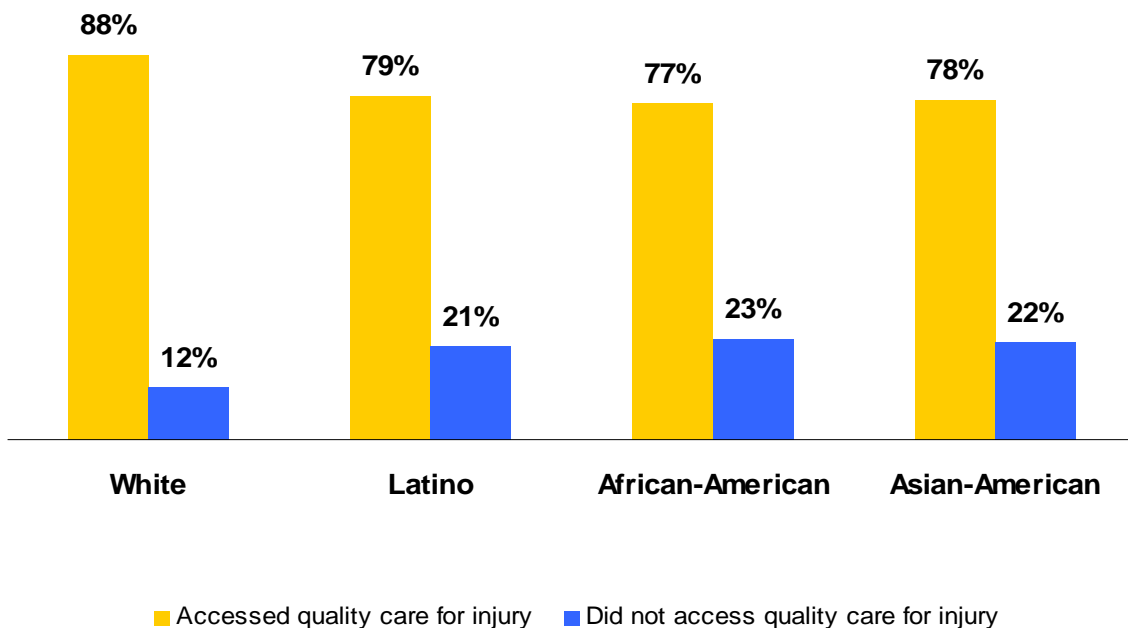
Exhibit 38. Recommendation for prescription medication by race/ethnicity of injured worker, California, 2006



Quality

Injured workers did not report notable differences on the measures of the occupational medicine orientation of the main provider by race/ethnicity, nor were there any differences in rating of their main provider on courtesy and respect, explanation of condition, satisfaction with that provider, or their overall satisfaction with their care. However, white injured workers more frequently (88%) reported having accessed quality care for their injury compared to other groups (Exhibit 39). Alternatively, African-American (18%) and Asian-American (23%) injured workers more frequently reported having changed providers during the course of their treatment due to dissatisfaction with care compared to whites (9%) and Latinos (10%).

Exhibit 39. Access to quality care by race/ethnicity of injured worker, California, 2006



Self-reporting of full recovery was most frequent among white injured workers (50%) and self-reporting of no improvement was most frequent among African-Americans (20%) (Exhibit 40). No significant differences were observed in the number of missed work days or current work status by race/ethnicity. However, a higher percentage of African-American (29%) and Asian-American (25%) injured workers reported still seeking care for their injury

more than one year after their injury compared to whites (17%) and Latinos (15%) (Exhibit 41).

Exhibit 40. Self-reported recovery from the injury by race/ethnicity of injured worker, California, 2006

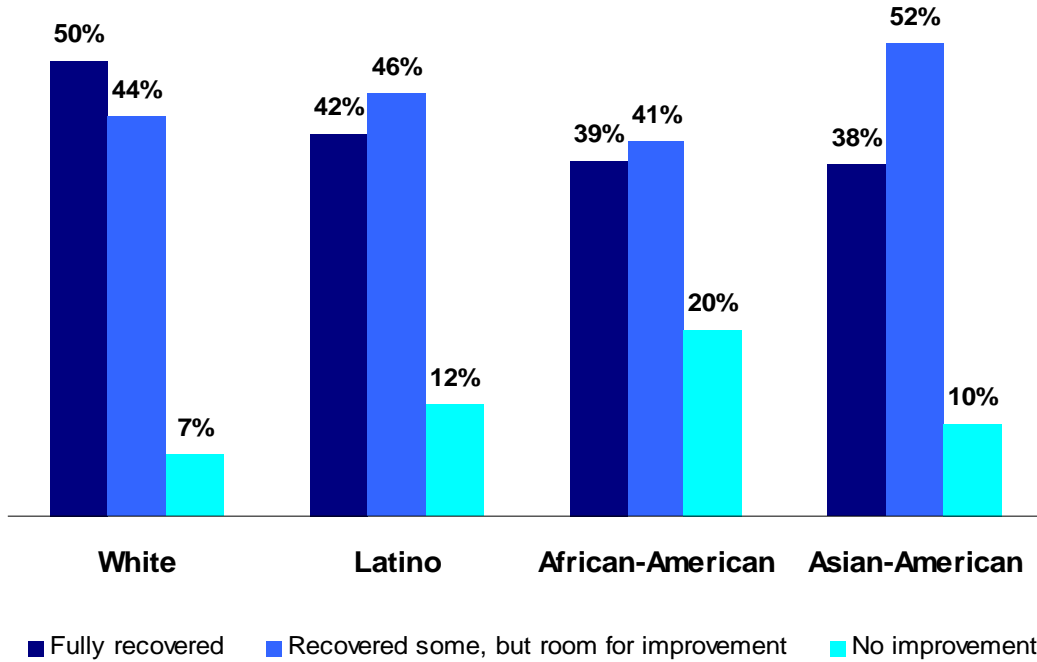
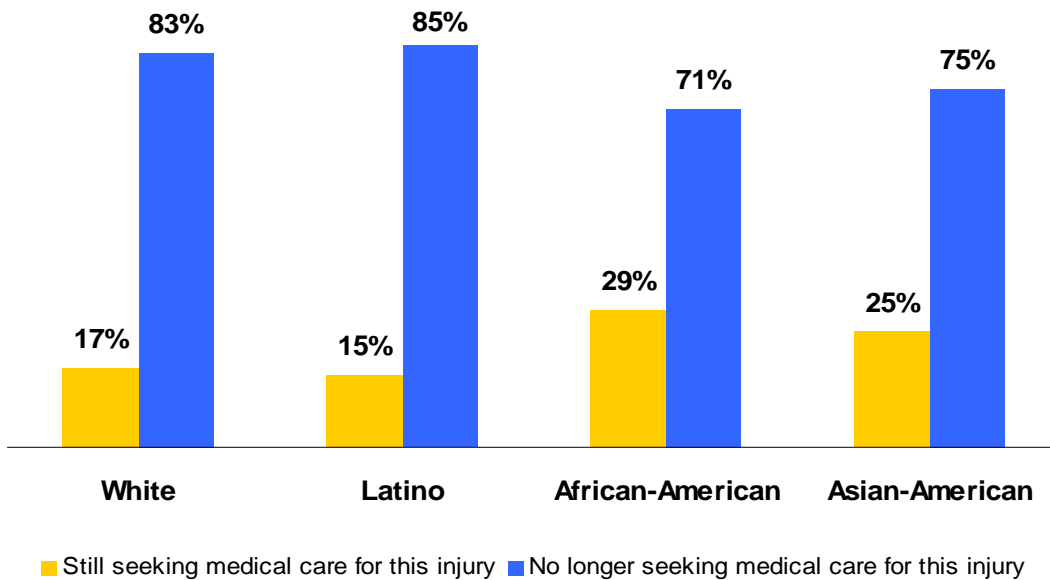


Exhibit 41. Proportion of injured workers still seeking care by race/ethnicity of injured worker, California, 2006



SUMMARY AND CONCLUSIONS

1. Overall, injured workers under California's WC system do not appear to be facing substantial barriers to care. Some barriers to access are more prevalent among certain subgroups of injured workers.

- Most injuries were non-repetitive injuries (45%) or scrapes, cuts, rashes, bruises or swelling (22%). Most injuries (61%) required workers to miss 3 or fewer days of work, and were therefore medical-only claims that did not receive indemnity payments.
- About 1 in 8 injured workers (13%) did not receive care within three days of reporting their injury. Injured workers with 10 or more visits were twice as likely to report receiving their first visit after 3 days relative to other injured workers (20% versus 11%).
- About 1 in 4 injured workers (24%) reported being in treatment for over 6 months.
- About 1 in 5 injured workers (19%) reported that they chose their first provider.
- Time and distance to first and main providers were within requirements imposed on MPNs for the vast majority of injured workers. Most injured workers traveled 15 miles or less (86%) or 30 minutes or less (92%) to see their first provider. Most also traveled 15 miles or less (82%) or 30 minutes or less (89%) to see their main provider (i.e., the provider most involved in their care).
- Very few injured workers (3%) reported communication barriers due to language discordance with the main provider.
- Overall, almost 1 in 3 injured workers (31%) received a recommendation for specialty care. Among those receiving such a recommendation, 8% (or 2.4% of all

injured workers) reported that they did not see a specialist because of authorization denials, scheduling problems, or other barriers. Given 780,000 workers compensation claims filed in 2005, 2.4% represents roughly 19,000 injured workers who may have encountered barriers to specialty care.

- Almost half (44%) of injured workers reported receiving a recommendation for PT/OT as part of their care. Among those receiving such a recommendation, about 5% (2.3% of all injured workers, or approximately 18,000 injured workers in 2005) reported that they did not receive PT/OT because of authorization denials, scheduling problems, or other barriers. About 10% (4.6% of injured workers) reported that they had 25 or more PT/OT visits, despite the 24-visit cap.
- About two-thirds (65%) of injured workers reported receiving a prescription for their injury.

2. Overall, injured workers reported satisfaction with care received. However, further improvement in the quality of care is indicated.

- Most injured workers reported that their main provider was oriented to occupational medicine, in terms of understanding their job demands (83%) and discussing work restrictions (71%) and avoidance of reinjury (55%). MD/DOs and chiropractors were more likely to have an occupational medicine orientation than other providers.
- More than 9 in 10 injured workers reported that their main provider treated them with respect (93%) and explained their treatment and condition in an understandable way (90%), while about 6 in 7 rated their main providers highly and were satisfied or very satisfied (82%) with the care delivered by those providers.
- About 5 in 6 injured workers (83%) reported they were able to access quality care.

- About 4 in 5 injured workers (78%) reported being satisfied or very satisfied overall with the care they received for their injury.
- Among the 22% of injured workers who were dissatisfied or highly dissatisfied overall with their care, most cited their inability to get the care they needed (63%, equaling 13.5% of all injured workers) or the lack of improvement in their condition (41%, equaling 8.9% of all injured workers) as the main reasons for their dissatisfaction.
- About 1 in 10 injured workers (11%) reported changing providers during the course of their treatment because of their dissatisfaction with their care.

3. The health outcomes of injured workers need further improvement.

- More than half of injured workers (55%) have not fully recovered from their injury more than one year after their injury, including 10% who reported no improvement.
- About 4 in 5 injured workers (78%) were currently working more than one year after their injury, while 10% reported they are not currently working due to their injury.
- Injured workers not currently working due to injury were almost twice as likely to report that their employer did not make recommended modifications when they returned to work compared to those who are currently working and who returned to the same job they held prior to their injury (51% versus 26%).

4. Additional improvements are needed in the health and return-to-work outcomes of injured workers with high levels of utilization.

- More than 1 in 4 injured workers (28%) reported high levels of utilization, defined as 10 or more visits during the course of their treatment.

- Injured workers with 10 or more visits were more likely to be dissatisfied with their overall quality of care relative to other injured workers (30% versus 18%).
- Injured workers with 10 or more visits were more than 3 times more likely to report they had no improvement in their injury relative to other injured workers (19% versus 6%).
- Injured workers with 10 or more visits were almost 7 times more likely to report they were not currently working due to their injury relative to other injured workers (27% versus 4%).

5. Racial/ethnic differences in access to and satisfaction with care exist in the WC system in California.

- African-American injured workers are more likely to have 10 or more physician visits, see more providers, report not receiving quality care, change providers due to dissatisfaction, and report no improvement in their condition than whites, Latinos, and Asian-Americans.
- Latinos and Asian-Americans are also more likely to report that they did not receive quality care for their injury and had no improvement in their condition than whites.

VII. RESULTS: PROVIDER SURVEY

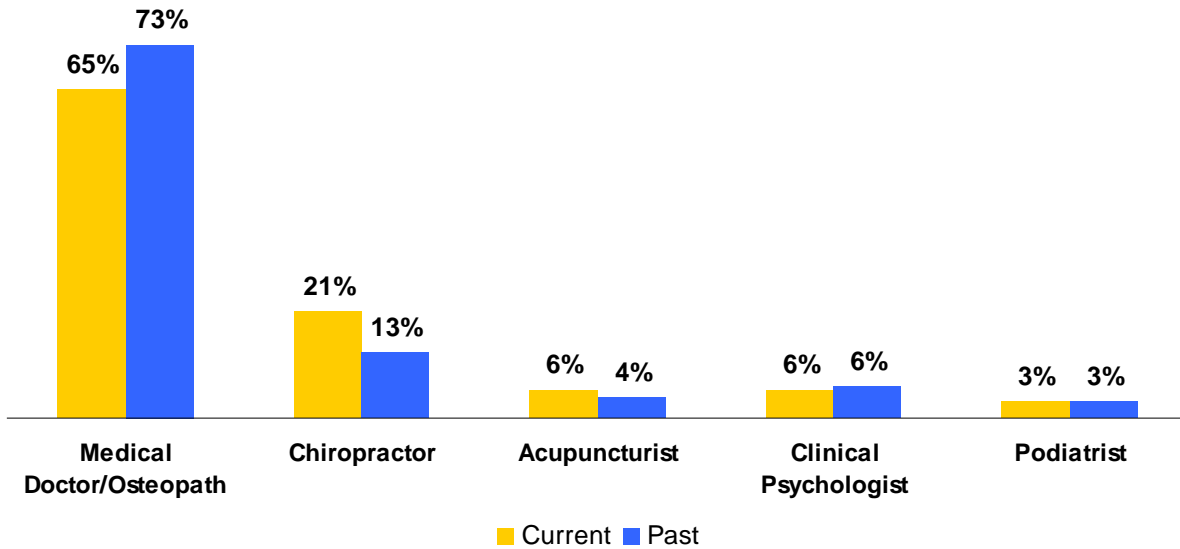
This section presents results of our survey of providers in California and their experiences with the WC system. The first subsection summarizes the characteristics of our respondents. We report characteristics separately for providers who previously treated WC patients but are not currently participating in the WC system and for providers who currently accept WC patients. The next two subsections summarize the findings according to issues related to access and quality, respectively. The final subsection presents findings on access and quality for high-volume providers relative to low-volume providers.

PAST AND CURRENT PROVIDER CHARACTERISTICS

Eighty-four percent of the eligible survey respondents currently provided care to injured workers under the WC system. The remaining 16% had been WC providers between 2001 and prior to the survey, but had since left the system.

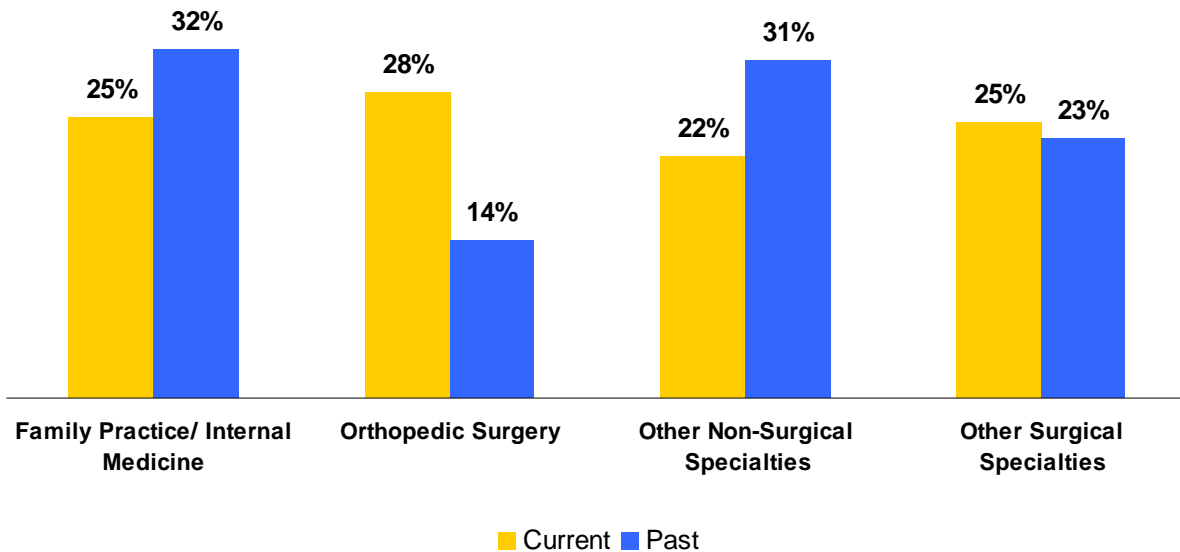
Current and past providers did not differ significantly by type; in general, MD/DOs constituted the largest proportion of both groups, followed by chiropractors, clinical psychologists, acupuncturists, and podiatrists. (Exhibit 42).

Exhibit 42. Comparison of current and past WC providers by type, California, 2006



The specialties of MD/DOs differed significantly among past and current providers. For example, FP/IM doctors made up 32% of past providers and 25% of current providers. Orthopedic surgeons were 14% of past providers and 28% of current providers (Exhibit 43).

Exhibit 43. Current and past WC providers by specialty, California, 2006

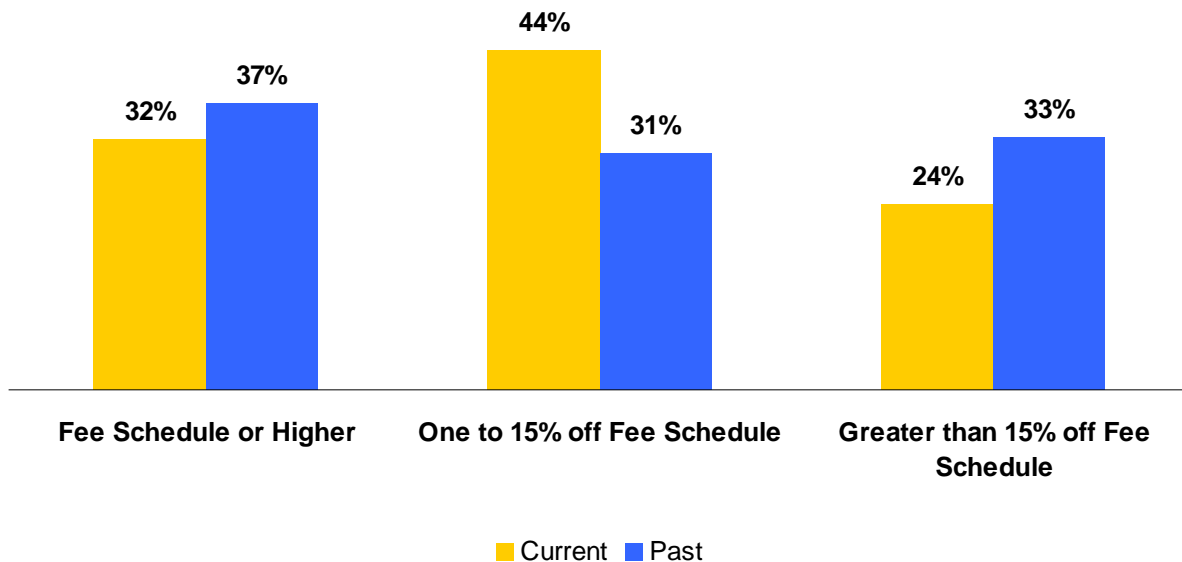


Overall, 37% of current and 29% of past MD/DOs reported having a secondary area of specialization. Most MD/DOs were board certified among both current (91%) and past providers (93%).

Past and current providers had been licensed health care practitioners (21.6 years and 21.1 years, respectively) and treating WC patients (15.9 years and 17.3 years, respectively) for a similar number of years on average.

Current and past providers differed in their reported level of reimbursement for treating WC patients. More current providers reported payment at a discount of 1% to 15% below the fee schedule compared to past providers (44% vs. 31%) (Exhibit 44). In contrast, 24% of current providers reported receiving payments discounted at more than 15% below the fee schedule, while 33% of past providers reported that level of payment.

Exhibit 44. Payment levels of current and past WC providers, California, 2006

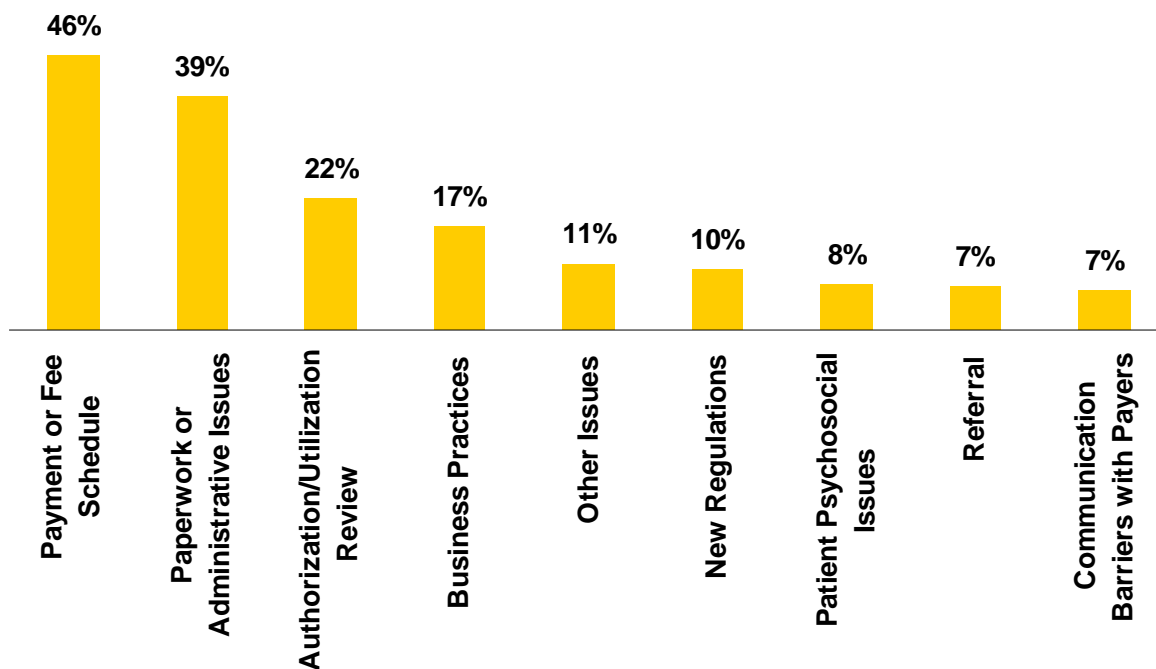


Past Provider Experiences in Workers' Compensation

Past providers reported the year they stopped treating WC patients, why they stopped treating WC, and whether they planned to treat WC patients again in the future. The majority of past providers (75%) stopped accepting or treating WC patients after January 1st, 2004 – following the implementation of SB 228 and AB 227 – rather than earlier. However, the actual percentage may be smaller than reported here since providers who stopped participating in WC in years after 2004 were likely to be overrepresented in the survey sampling frame – as described in Section V, Methods. Similarly, those who stopped participation in the years prior to 2004 were likely to be underrepresented among the respondents.

The most frequently cited reason for stopping participation in WC was payment or the fee schedule (46%) (Exhibit 45). Providers frequently noted that the fee schedule was too low, reimbursement and payments were too low, and it was difficult to get paid or payments were being denied. Among those providers who reported payment and fee schedule as reasons for stopping, 47% were paid at a discount of more than 15% below the fee schedule, 30% were paid at a discount of 1% to 15% below the fee schedule, and 23% were paid at the fee schedule or higher. Other frequent reasons were paperwork and administrative issues (39%), authorization/UR issues (22%), business practice issues including retirement (17%), and other issues (11%) including the bureaucracy of the system, the adversarial nature of WC care, and issues with MPN or other provider networks. Other reasons cited included the new regulations (10%); problems with psychosocial patient issues (8%) such as negative attitudes, hostility, and behavior; barriers to referral (7%); and communication issues and/or excessive demands from claims adjusters, insurers, and administrators (7%). After excluding respondents who left the WC system due to retirement or changes in their work status, about 12% of past providers said that they would consider treating WC patients again in the future.

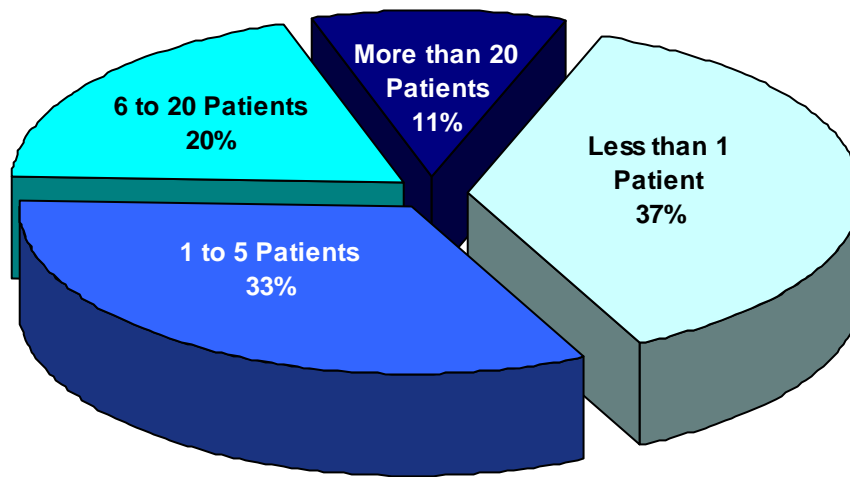
Exhibit 45. Reasons for not accepting or treating WC patients, past providers, California, 2006



Current Providers

A relatively small number of WC providers rendered care to a large volume of WC patients. Thirty-one percent of providers saw more than five WC patients per week, while 11% saw over 20 such patients (Exhibit 46). These rates differed by provider type, where more MD/DO providers were high-volume (more than five visits per week) than any of the other provider types (Exhibit 47). Similarly, more orthopedic surgeons or other non-surgical specialists were high-volume than other specialists (Exhibit 48).

Exhibit 46. Volume of WC patients per week, current providers, California, 2006



Note: Percentages do not sum to 100% due to rounding

Exhibit 47. Volume of WC patients per week by provider type, current providers, California, 2006

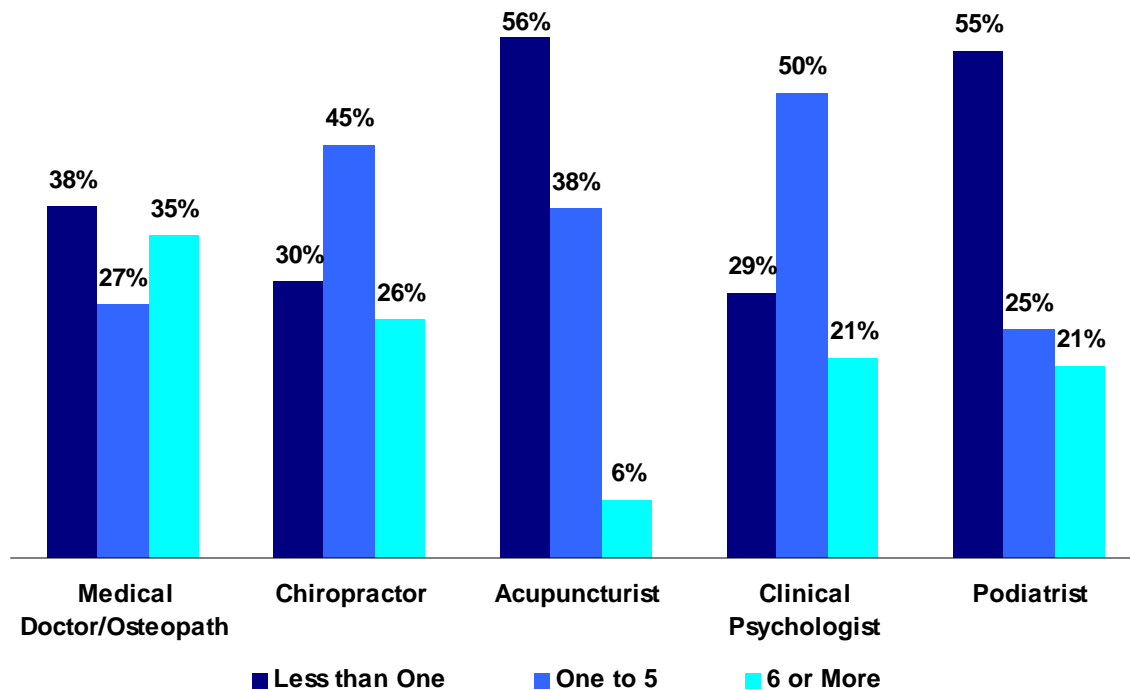
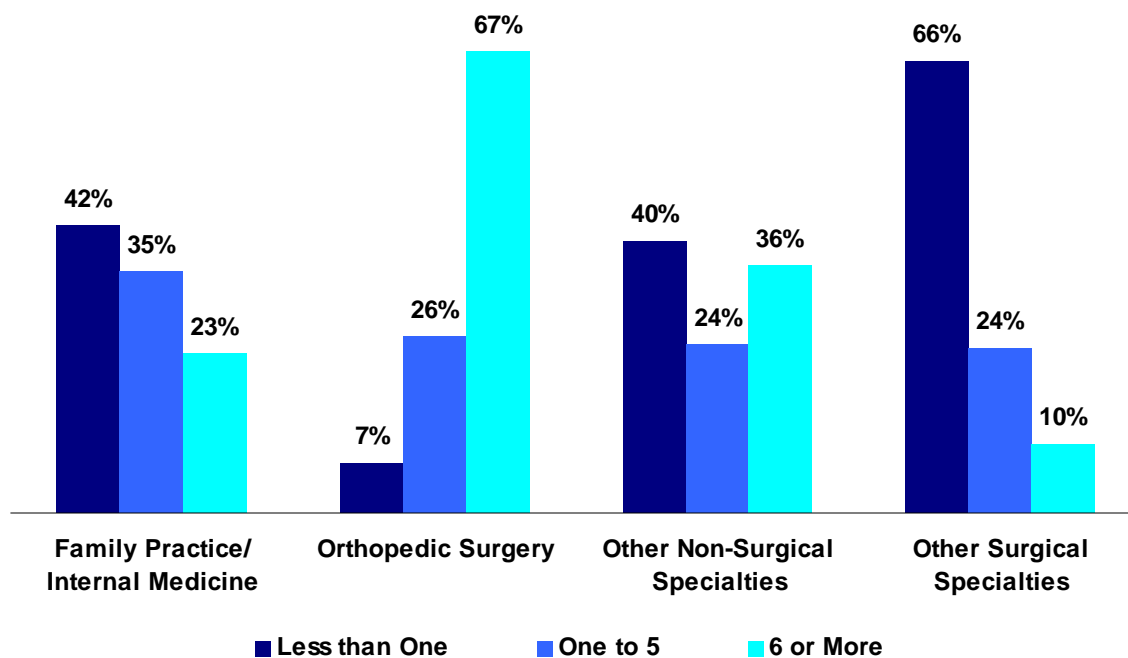


Exhibit 48. Volume of WC patients per week by specialty, current providers, California, 2006

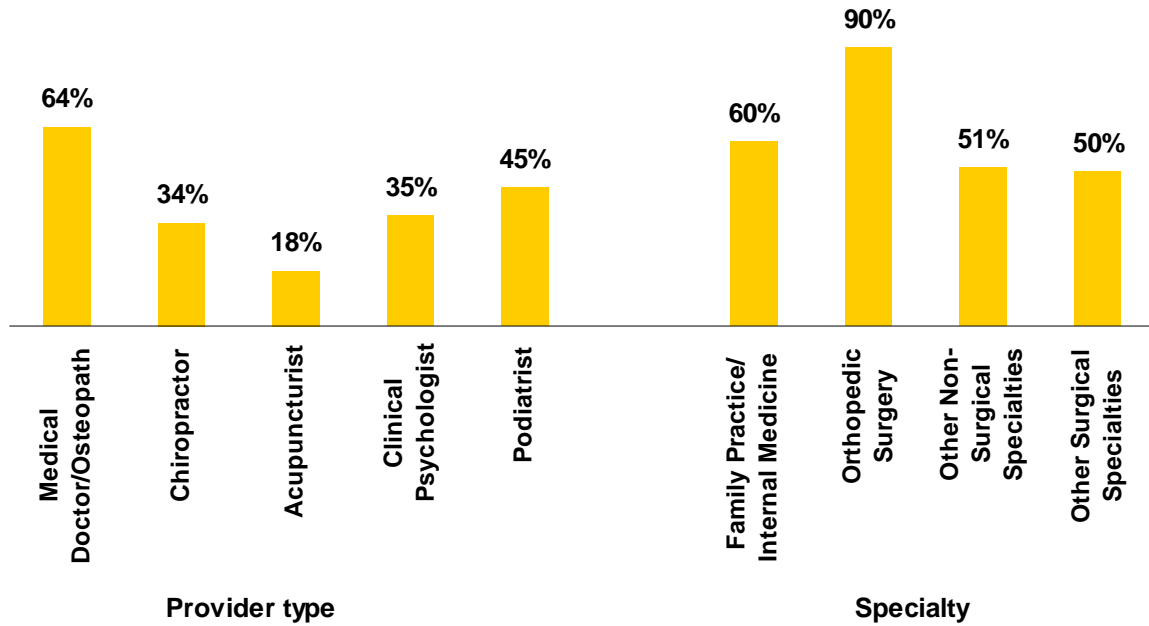


On average, providers reported that 15% of their practices consisted of WC patients. This proportion varied by provider type, where MD/DOs (18%) and clinical psychologists (20%) reported higher levels than chiropractors (9%), podiatrists (9%) and acupuncturists (6%). Similarly, orthopedic surgeons (28%) and other non-surgical specialists (28%) had higher volumes of WC patients than other surgical specialists (9%) and FP/IM doctors (8%).

Overall, providers reported having 8 new WC patients per month on average (median of 2 per month). MD/DOs reported a higher mean average, 11 new patients per month, and a median of 3, when compared to other providers, thus demonstrating a skewed distribution. For this reason, the number of new patients per month was categorized by the overall median into less than 2 and two or more per month. By that measure, the majority (53%) of providers had two or more new WC patients per month. There were significant differences by provider type and specialty type. MD/DOs most often had two or more new patients per month (64%) (Exhibit 49). Among specialties, orthopedic surgeons (90%) and FP/IM

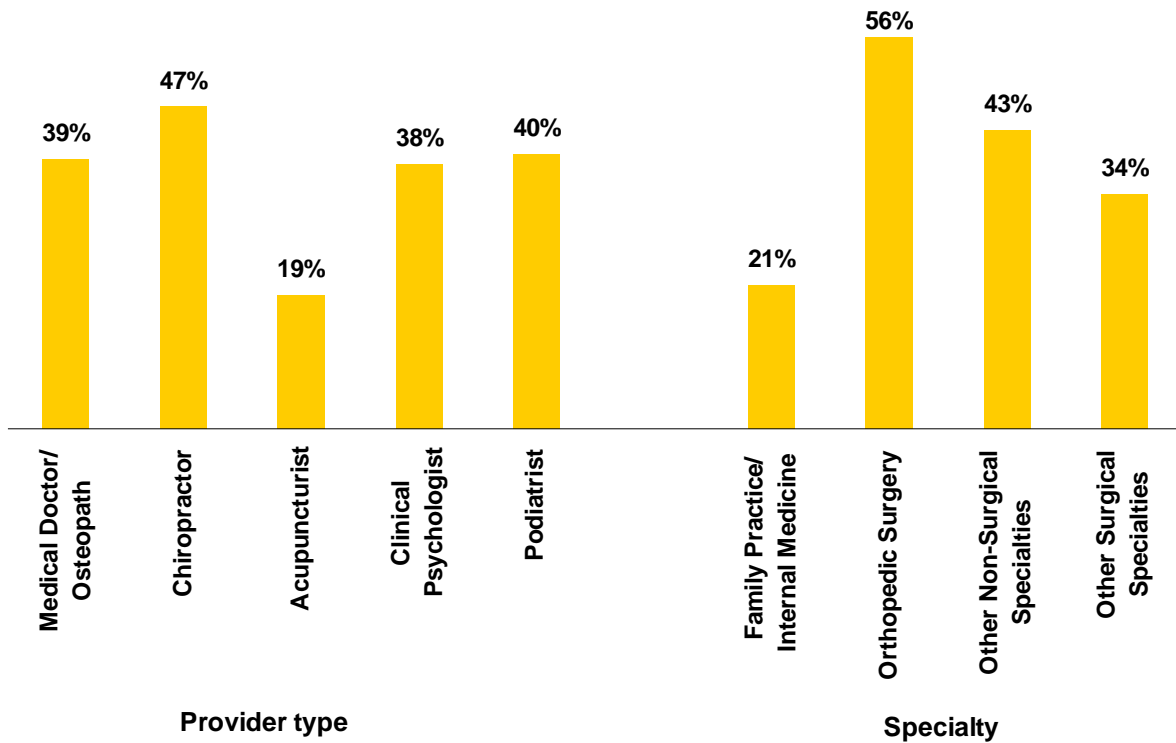
doctors (60%) most often had two or more new WC patients per month compared to other non-surgical specialists (51%) and other surgical specialists (50%).

Exhibit 49. Two or more new WC patients per month by provider type and specialty, current providers, California, 2006



Thirty-nine percent of current providers acted as medical-legal evaluators. More chiropractors (47%) and fewer acupuncturists (19%) were medical-legal evaluators (Exhibit 50). Similarly, among specialists, more orthopedic surgeons (56%) and fewer FP/IM (21%) performed these evaluations.

Exhibit 50. Medical-legal evaluations by provider type and specialty, current providers, California, 2006



The majority of providers (55%) were in solo practice, followed by group practice (36%), and other settings (9%) (Exhibit 51). More chiropractors (74%), acupuncturists (77%), and psychologists (74%) were in solo practice than MD/DOs (45%) and podiatrists (49%). For those providers not in solo practice, the majority (70%) had from 2 to 10 other providers in their primary practice location (Exhibit 52).

Exhibit 51. Primary practice setting, current providers, California, 2006

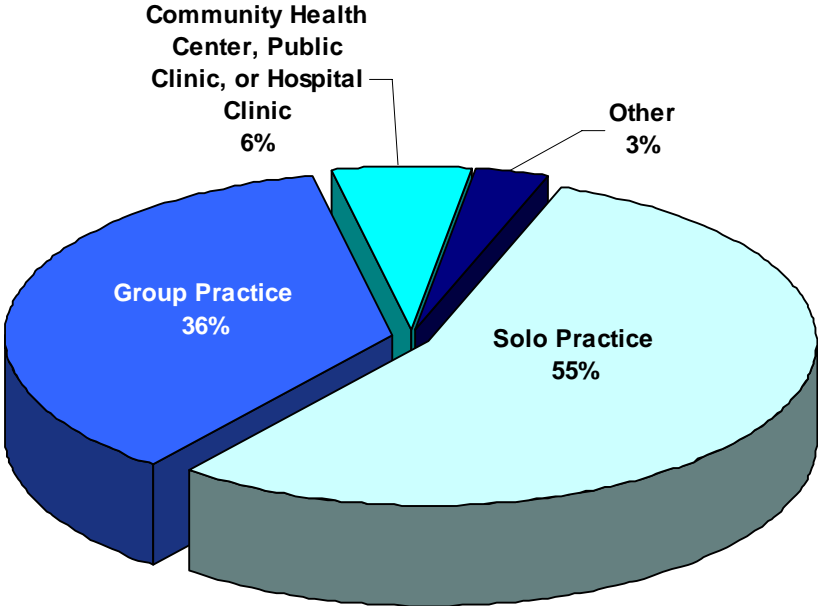
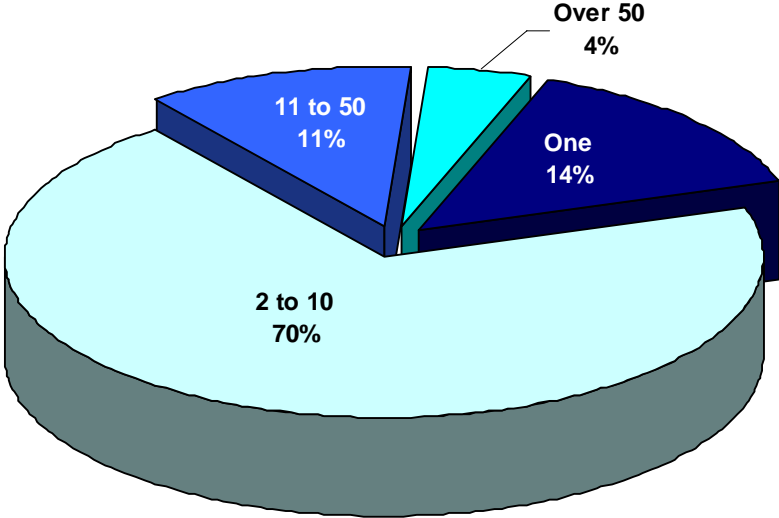


Exhibit 52. Size of non-solo practices, current providers, California, 2006



Note: Percentages do not sum to 100% due to rounding

Thirty-two percent of providers reported having only MPN contracts and 22% reported having both an MPN and HCO contract. Few (4%) only had HCO contracts, and 42% reported neither type of contract (Exhibit 53). Among providers, chiropractors (74%) and podiatrists (60%) most often had MPN contracts (Exhibit 54). Also, orthopedic surgeons (62%) and other non-surgical specialties (60%) most frequently had MPN contracts when compared to the other specialty groups.

Exhibit 53. Participation in MPNs and HCOs, current providers, California, 2006

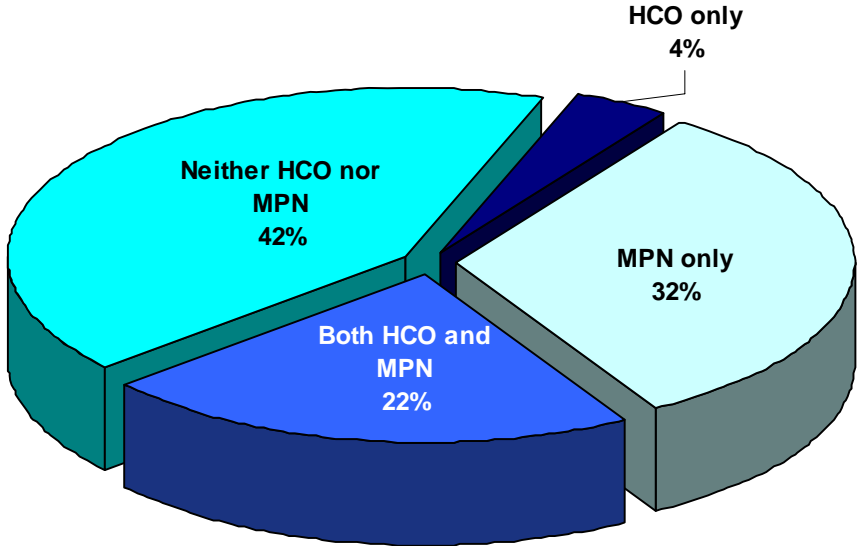
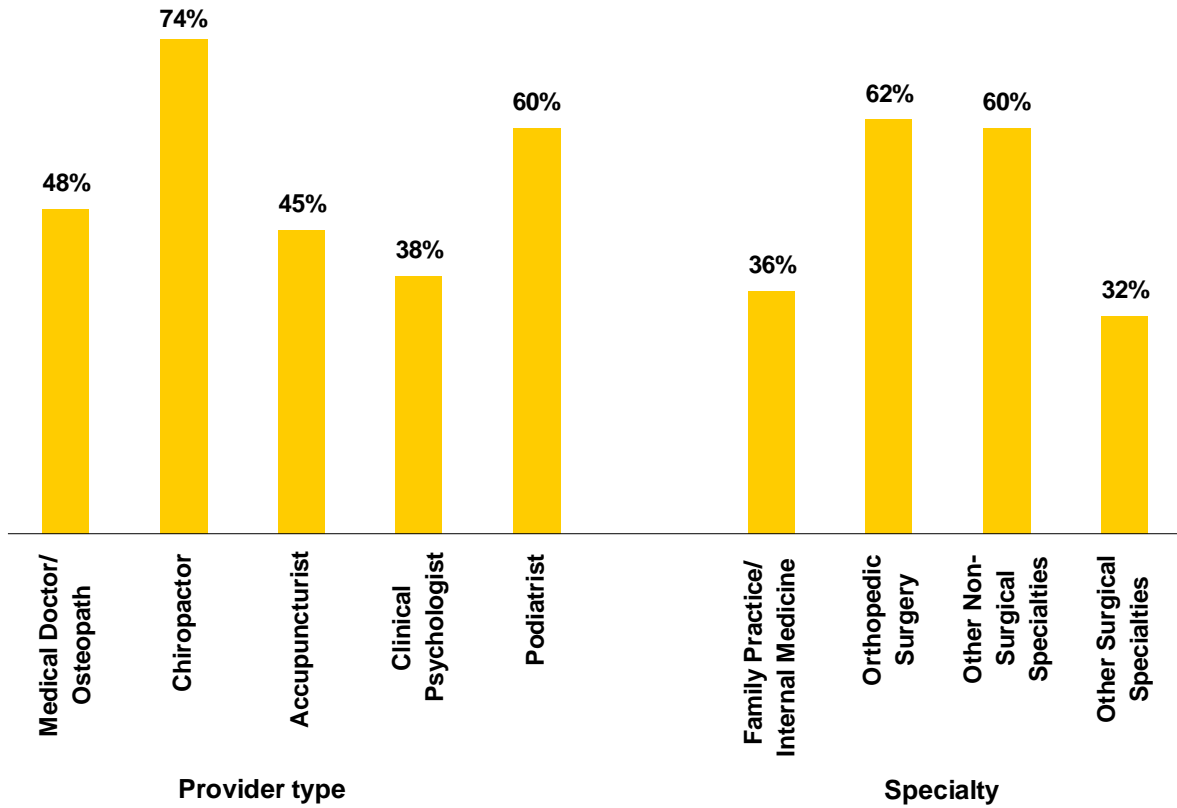
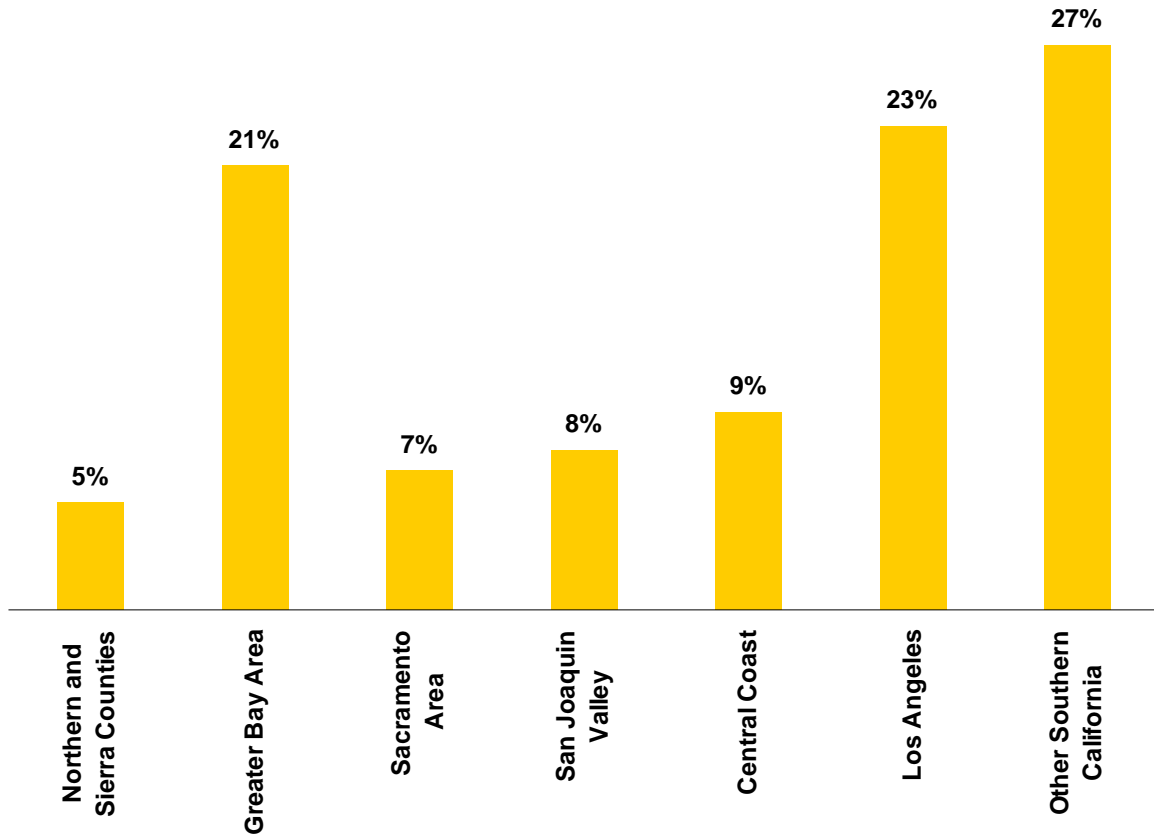


Exhibit 54. Participation in WC MPNs by provider type and specialty, current providers, California, 2006



A large proportion (71%) of providers practiced in Los Angeles County (23%), the Greater Bay Area (21%), and other Southern California counties (27%) (Exhibit 55). Overall, 91% of current providers practiced in urban areas. Due to a low count of acupuncturists and podiatrists in rural areas, it was difficult to obtain an accurate estimate for those two provider types – however, 86% of clinical psychologists and 92% of chiropractors were located in urban areas. Among MD/DOs, there was a lower concentration of FP/IM providers in urban areas than all other specialty types (Exhibit 56).

Exhibit 55. Distribution of current providers by region of practice, California, 2006



Note:

Northern and Sierra Counties includes Butte, Shasta, Humboldt, Del Norte, Siskiyou, Lassen, Trinity, Modoc, Mendocino, Lake, Tehama, Glenn, Colusa, Sutter, Yuba, Nevada, Plumas, Sierra, Tuolumne, Calaveras, Amador, Inyo, Mariposa, Mono and Alpine counties

Greater Bay Area includes Santa Clara, Alameda, Contra Costa, San Francisco, San Mateo, Sonoma, Solano, Marin and Napa counties

Sacramento Area includes Sacramento, Placer, Yolo, and El Dorado counties

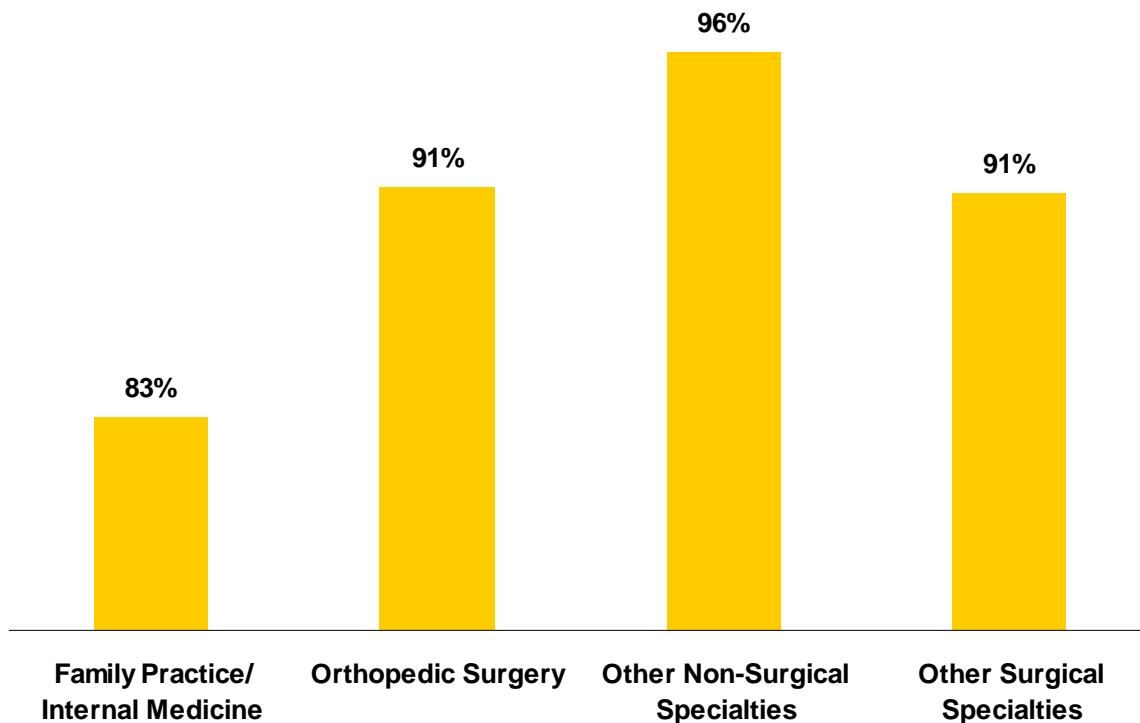
San Joaquin Valley includes Fresno, Kern, San Joaquin, Stanislaus, Tulare, Merced, Kings and Madera counties

Central Coast includes Ventura, Santa Barbara, Santa Cruz, San Luis Obispo, Monterey and San Benito counties

Los Angeles includes Los Angeles County

Other Southern California includes Orange, San Diego, San Bernardino, Riverside and Imperial counties

Exhibit 56. Percentage of WC providers in urban areas by specialty, current providers, California, 2006



ACCESS

In this subsection, access to care by injured workers in the California WC system is assessed by considering a number of practice characteristics as well as provider perceptions and experiences. Specifically, access to care is measured by appointment availability and language capacity of providers, ease of referral, providers' perceptions of access under the WC system of care, changes in the WC practice of providers since 2004, and future plans for change in WC volume.

Availability, Language Capacity, and Ease of Referral

Providers reported that new patients had to wait 9 days on average (median of 5) for a non-emergency appointment. Many (32%) reported that new patients can have an appointment within the first 48 hours (less than 2 days) and 40% reported a waiting time of two days to one week before a new non-emergency patient visit (Exhibit 57). Chiropractors (79%), acupuncturists (56%), and FP/IM doctors (50%) were more likely to offer an appointment in less than 2 days relative to other provider types and specialties. Orthopedic surgeons (18%), and other non-surgical specialties (18%) were least likely to offer appointments in less than two days (Exhibit 58).

Exhibit 57. Wait time for a non-emergency new WC appointment, current providers, California, 2006

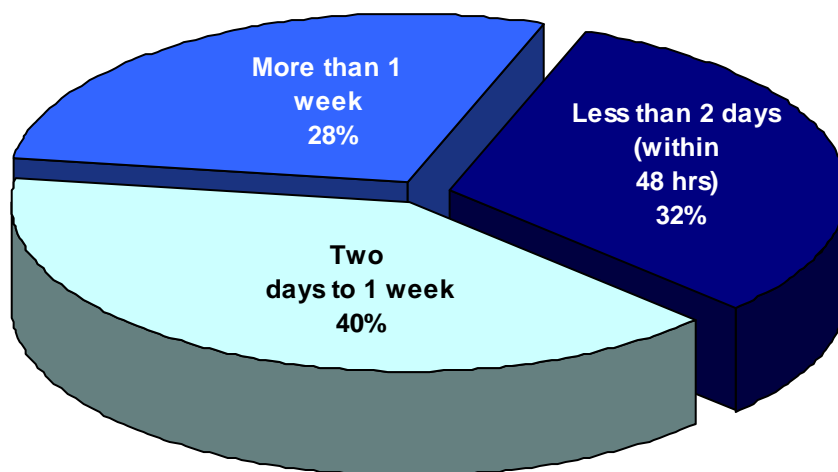
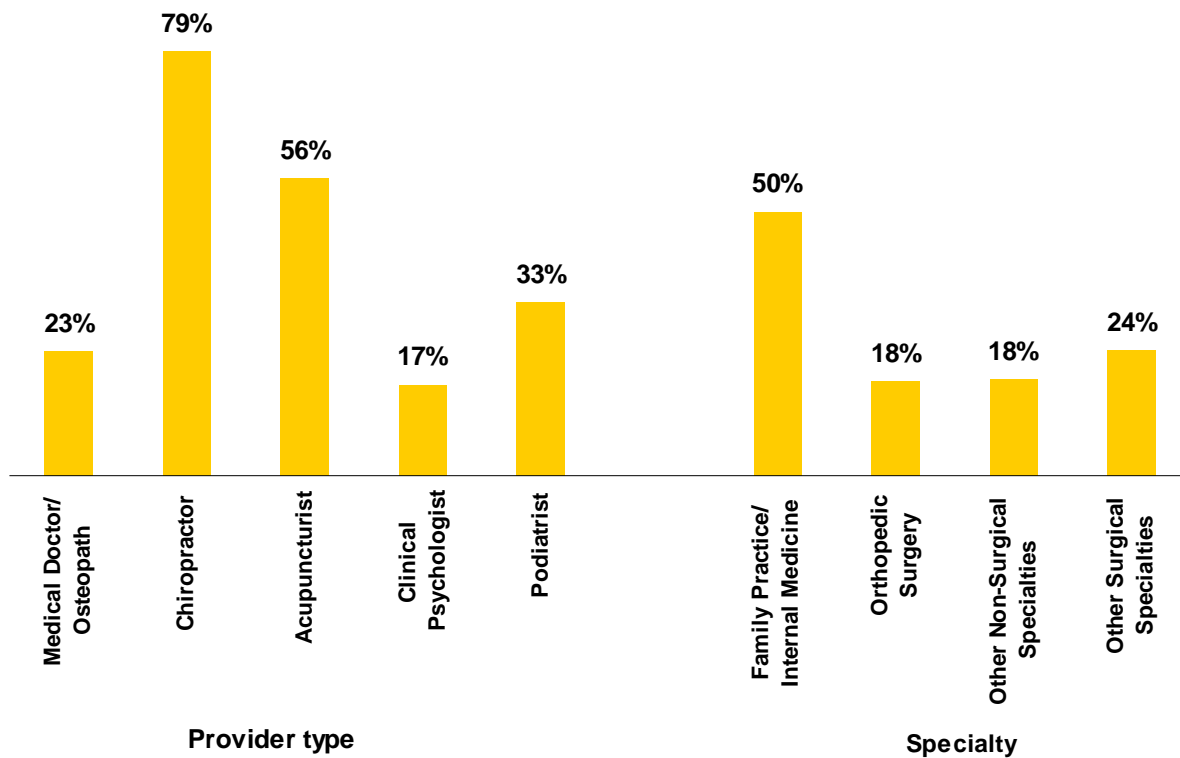
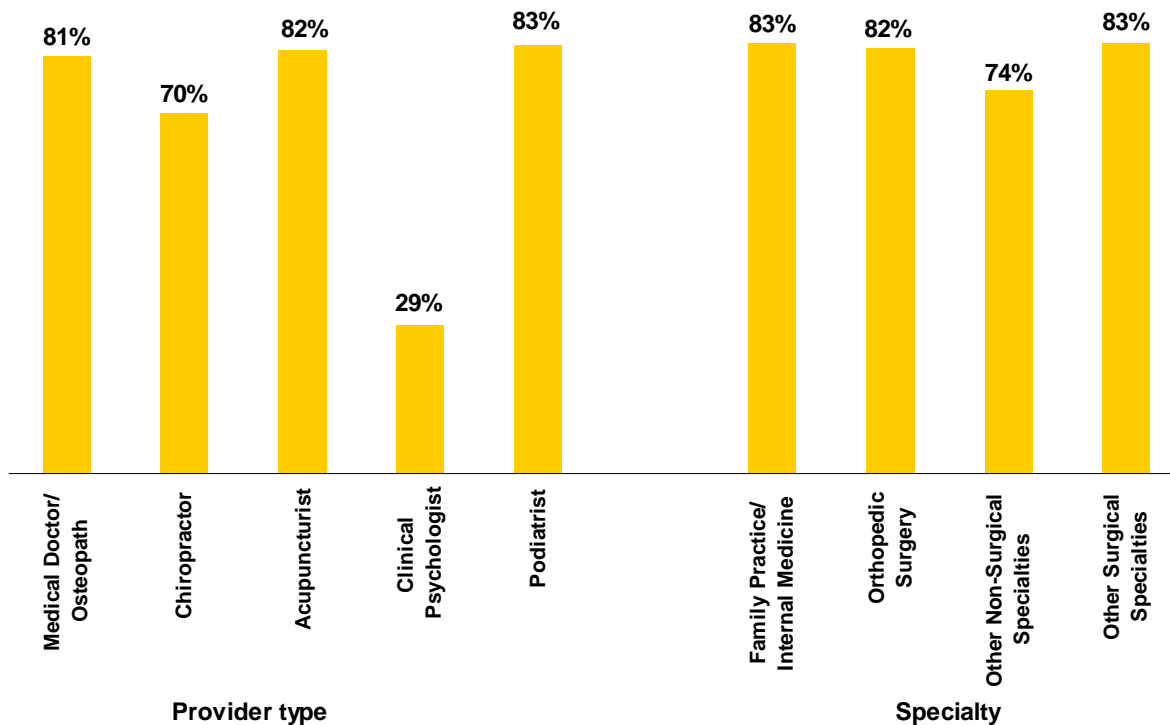


Exhibit 58. New non-emergency WC appointments in less than two days by provider type and specialty, current providers, California, 2006



Seventy-six percent of current providers reported that either they or their staff spoke English and one or more additional languages, while 24% reported no language capacity other than English. For providers with additional language capacity, two-thirds reported Spanish as their additional language. Additional language capacity was least prevalent among clinical psychologists (29%) and most prevalent among podiatrists (83%). Among specialists, other non-surgical specialists (74%) were least likely to be able to offer services in a language other than English (Exhibit 59).

Exhibit 59. Additional language capacity by provider type and specialty, current providers, California, 2006



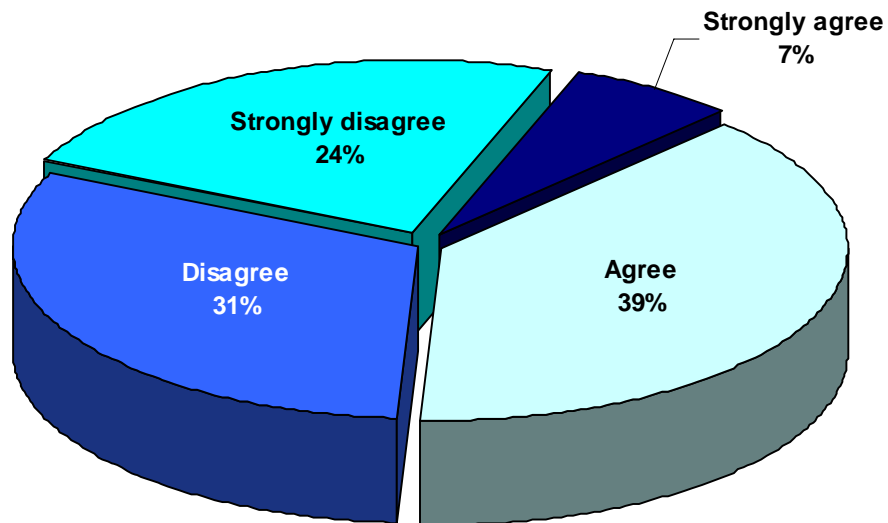
Eighty-nine percent of the current providers reported referring WC patients to other kinds of providers. Among those who referred, providers most frequently cited orthopedic surgeons as the easiest provider type for referral (25%), followed by physical therapy (18%), neurology (11%), and radiology (12%). However, another 20% said that no provider types were easy to refer to. Provider types hardest to refer to were psychiatrists (10%) and acupuncturists (7%). Five percent of respondents reported that chiropractors, neurosurgeons, anesthesiologists, neurologists, and physical therapists were also difficult.

Provider Perceptions of Access

Forty-six percent of providers either strongly agreed or agreed with the statement, “In general, injured workers have adequate access to quality health care and health care products” (Exhibit 60). MD/DOs (62%) and podiatrists (65%) were more likely to strongly

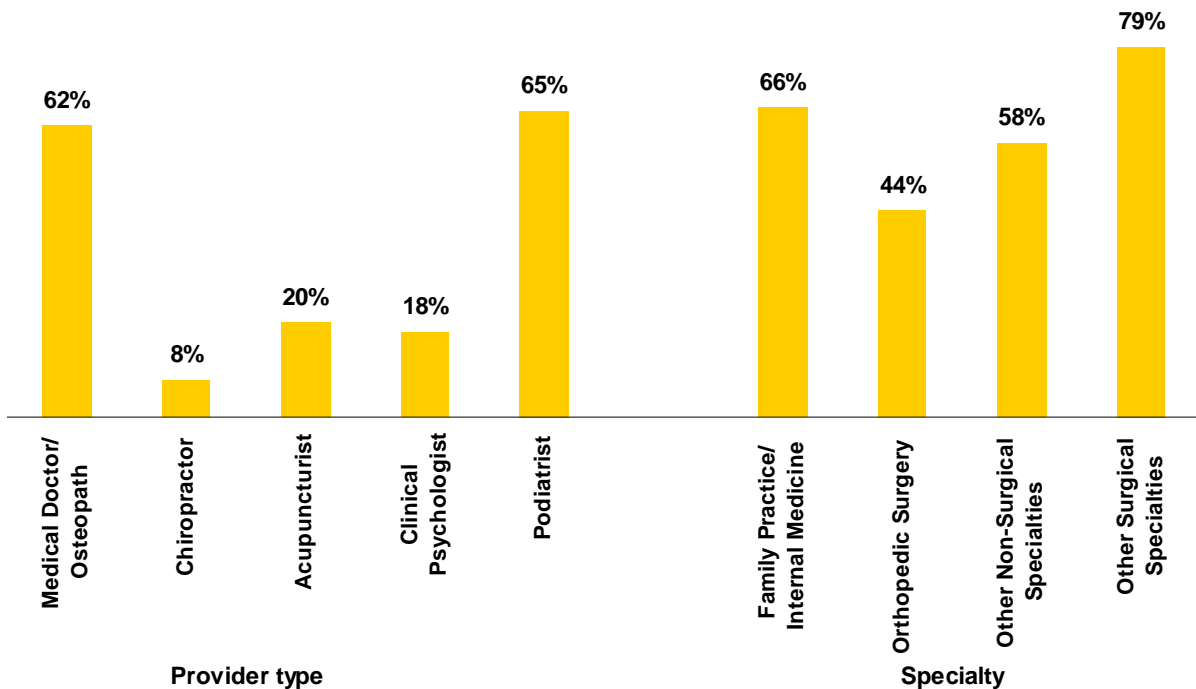
agree or agree with this statement than other provider types. Among specialists, orthopedic surgeons were least likely (44%) to agree with this statement (Exhibit 61).

Exhibit 60. Provider perceptions that injured workers' have adequate access to quality care, current providers, California, 2006



Note: Percentages do not sum to 100% due to rounding

Exhibit 61. Providers who strongly agree or agree that injured workers have adequate access to quality care by provider type and specialty, current providers, California, 2006



Sixty-five percent of providers believed that injured workers’ access to health care has declined since 2004. The remaining providers believed that access had stayed the same (27%) or improved (7%) (Exhibit 62). Over 90% of chiropractors and acupuncturists and more than 80% of clinical psychologists reported a perceived decline in injured workers’ access since 2004, but only 51% of MD/DOs and 55% of podiatrists reported a perceived decline in access. Orthopedic surgeons (75%) were significantly more likely to report perceived declines in injured workers’ access than other specialists (Exhibit 63).

Exhibit 62. Providers' perceived changes in injured workers' access since 2004, current providers, California, 2006

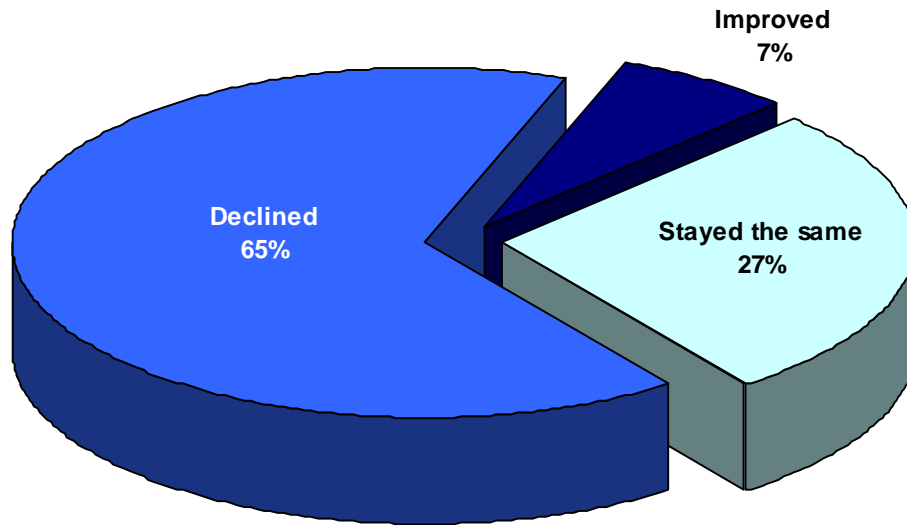
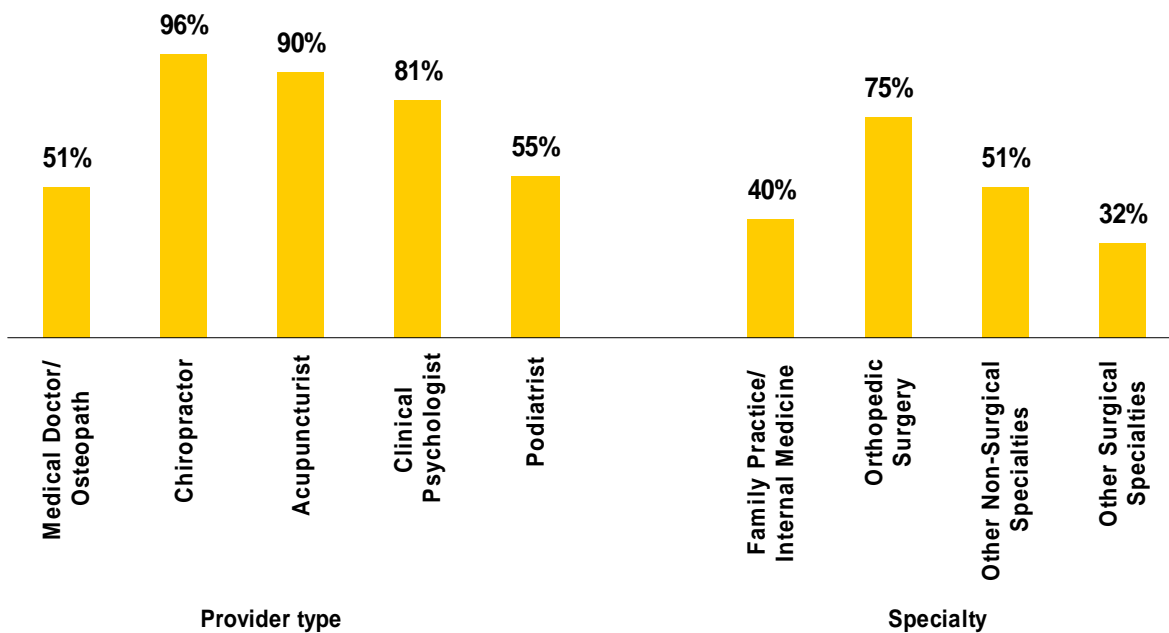


Exhibit 63. Perceived decline in injured workers' access since 2004 by provider type and specialty, current providers, California, 2006



Changes in Volume of Workers' Compensation Patients in Providers' Practices

The majority (52%) of current providers reported that the percentage of WC patients has decreased in their practice since 2004, while another 36% reported it has remained the same (Exhibit 64). A decrease was reported more frequently by chiropractors (90%), acupuncturists (87%), and orthopedic surgeons (55%) than other provider types and specialists (Exhibit 65).

Exhibit 64. Changes in volume of injured workers since 2004, current providers, California, 2006

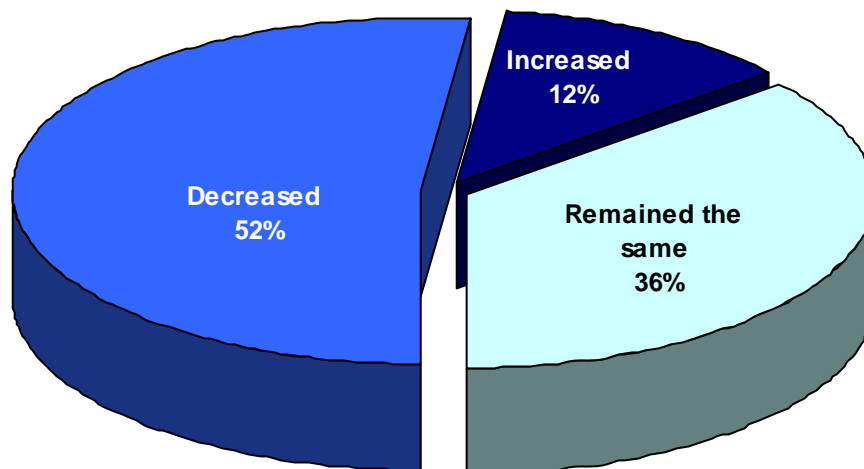
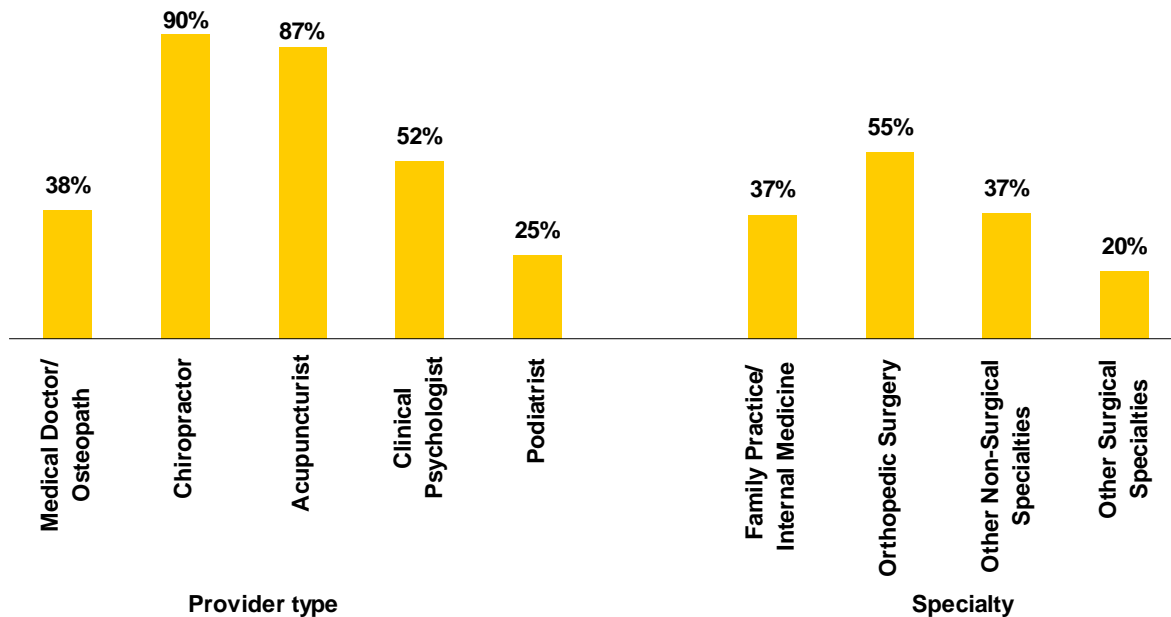


Exhibit 65. Changes in volume of injured workers since 2004 by provider type and specialty, current providers, California, 2006



The most frequently cited reasons by all providers for decreased volume pertained to new regulations (31%), authorization/UR issues (30%), and MPN/network issues (22%) (Exhibit 66). Specific regulation issues reported were centered on acupuncture care (i.e., ACOEM not recognizing acupuncture, not able to get authorization for acupuncture, and limits on number of acupuncture visits) and chiropractic care, specifically the 24-visit cap. Chiropractors and acupuncturists were significantly more likely than MD/DOs to report regulations as a reason for decreased volume – 49% and 47% versus 14%, respectively (Exhibit 67). Authorization/UR problems included delays and denials of authorization/treatment requests and UR being too burdensome or wanting less peer review. Specific MPN/network issues cited were not being able to get into an MPN and patient difficulties accessing MPN doctors or having a choice of providers for referral. Among MD/DOs, authorization/UR problems were reported as a reason for decreased WC volume more frequently by other non-surgical specialists (40%) and orthopedic surgeons (31%), while business practices were cited by other surgeons (47%) at a significantly higher rate than other specialties.

Exhibit 66. Reasons for decrease in volume of injured workers' in providers' practice since 2004, current providers, California, 2006

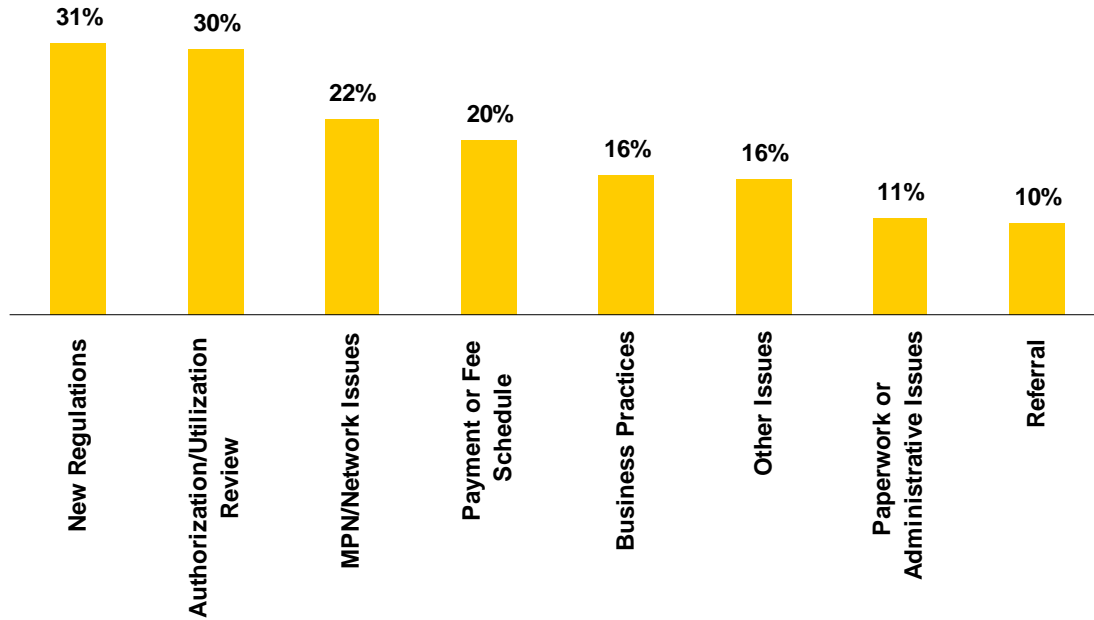
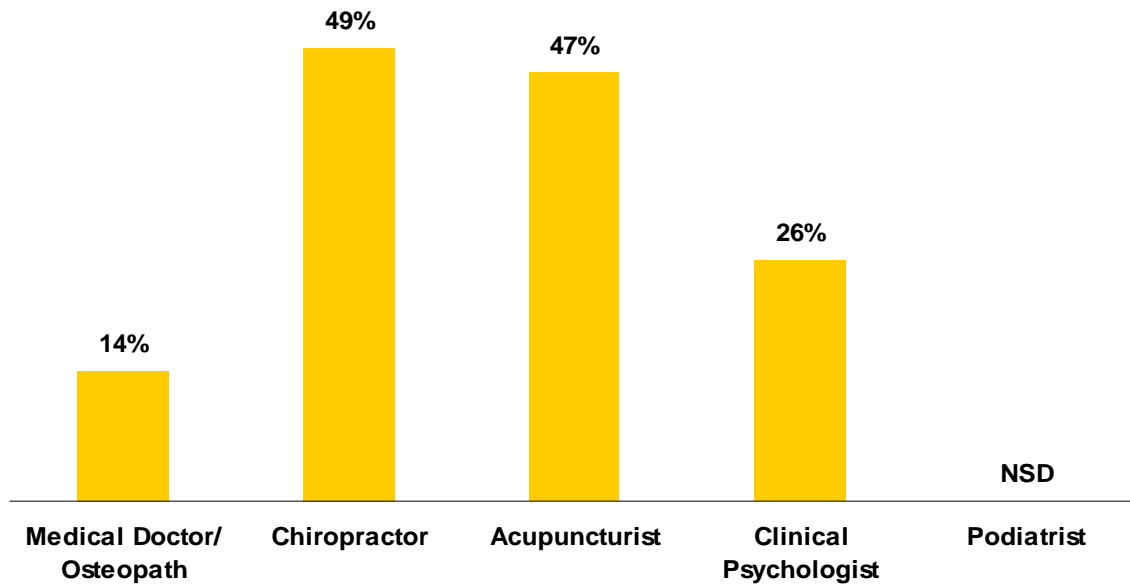


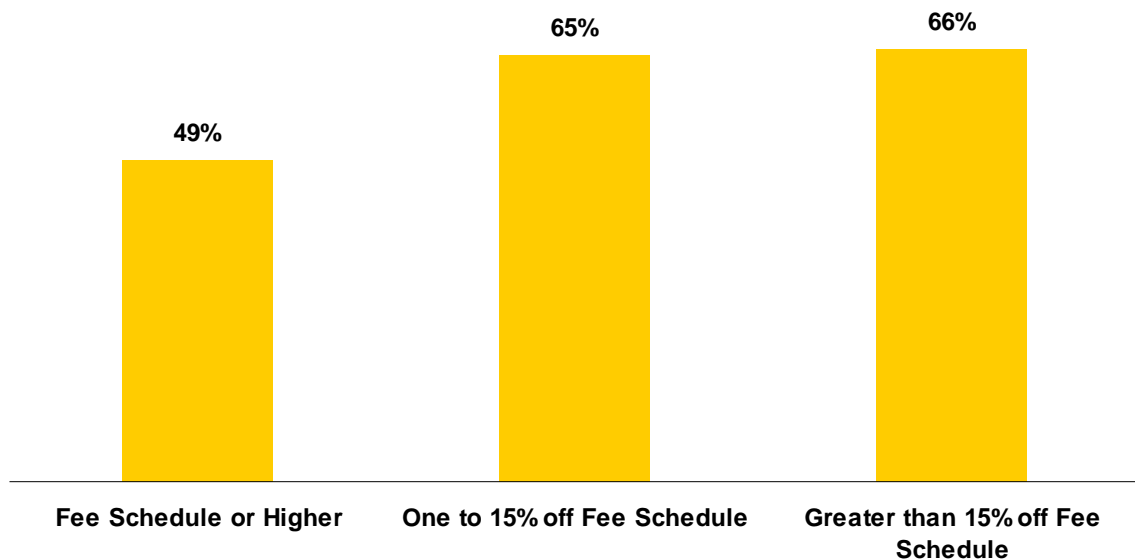
Exhibit 67. Decrease in volume of injured workers' since 2004 due to new regulations by provider type, current providers, California, 2006



NSD: Not Sufficient Data

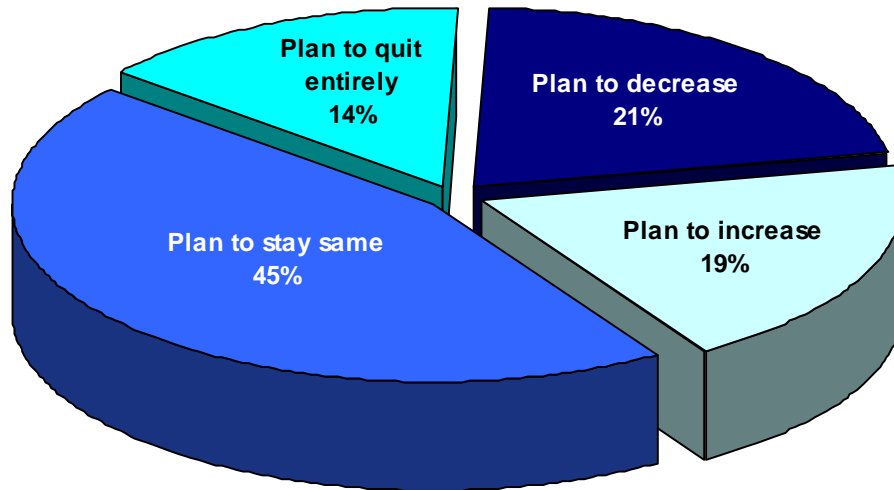
Further comparison of providers who reported a decreased volume of injured workers in their practice by their WC payment levels revealed that those paid at any discounted rate off the fee schedule were significantly more likely to have decreased WC volume since 2004 (65% and 66%) than providers paid at the fee schedule or higher (49%) (Exhibit 68).

Exhibit 68. Reported decrease in WC volume by provider payment rate, current providers, California, 2006



In response to a question on future plans to change the volume of WC patients in their practice, 19% of providers reported they planned to increase their volume, while 45% planned to stay at the same level. The remainder (36%) planned to decrease or quit the system entirely (Exhibit 69). A higher percentage of clinical psychologists (41%), chiropractors (39%), MD/DOs (36%), and orthopedic surgeons (48%) reported planned decreases compared to acupuncturists (17%), podiatrists (25%), FP/IM (35%) and other surgeons (25%).

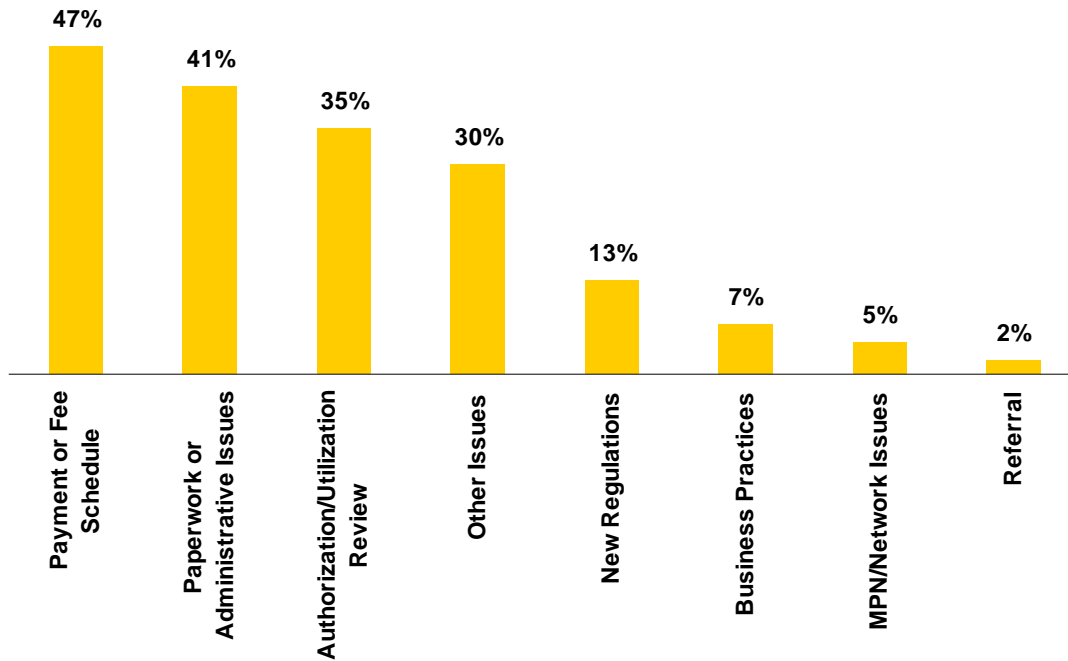
Exhibit 69. Future plans for changes in WC volume, current providers, California, 2006



Note: Percentages do not sum to 100% due to rounding

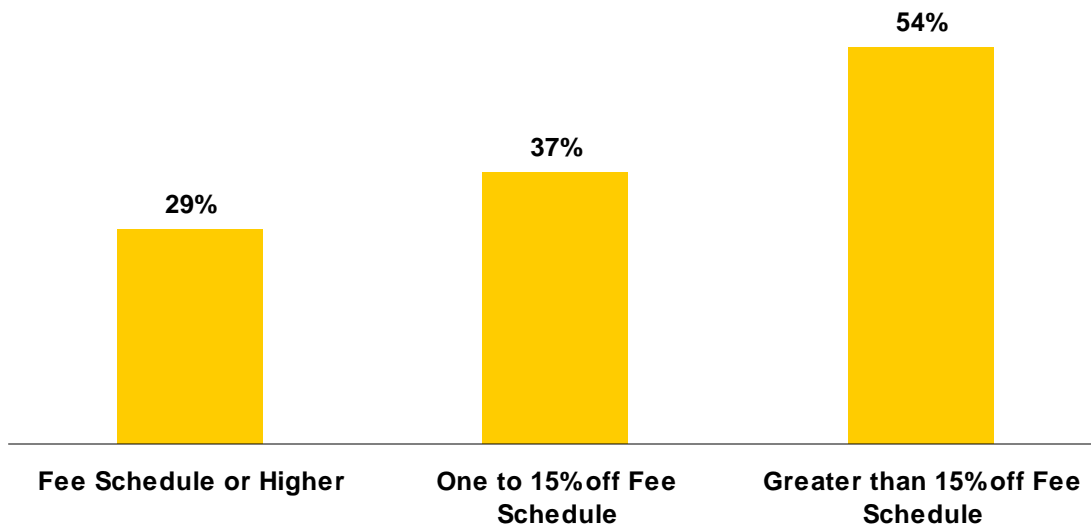
When asked about the reasons for planned decreases, providers most frequently cited payment or fee schedule issues (47%), paperwork and administrative issues (41%), and authorization/UR issues (35%) (Exhibit 70). Providers noted specific issues including: low payment and insufficient reimbursement levels, delays in payment, excessive paperwork, delays and denials of authorization/treatment requests, and wanting less peer review and UR. Overall, when asked to identify what changes would help them continue to treat WC patients, providers cited improvements in the authorization/UR process (25%), payment or fee schedule (24%), paperwork and administrative issues (14%), and referral system (13%).

Exhibit 70. Reasons for planned decrease in WC volume, current providers, California, 2006



Comparing future plans for decreased volume of WC patients by provider payment levels showed that those who were paid 15% or more below the fee schedule were significantly more likely to report planned decreases or quitting the system entirely relative to providers who were paid at the fee schedule or higher (54% vs. 29%) (Exhibit 71).

Exhibit 71. Future planned decrease in WC Volume by payment rate, current providers, California, 2006



QUALITY

In this subsection, quality of care provided to injured workers in California is assessed based on the occupational medicine orientation of providers, providers' perceptions of injured workers' quality of care, and perceived barriers to delivery of quality care under the California WC system.

Occupational Medicine Orientation

Most providers reported they understood the physical and mental demands of their WC patients' jobs (84%) and discussed work status or ability of the patient to return to work (92%) always or most of the time (Exhibit 72). Providers did not differ in their responses by provider type, but those in other surgical specialties least frequently reported understanding the physical and mental demands of WC patients' jobs (78%) compared to FP/IM (85%), orthopedic surgeons (81%), or other non-surgical specialists (82%). Provider types and specialties differed in the frequency of discussing work status and return-to-work, with

acupuncturists (65%) and other surgical specialties (87%) least likely to report this activity always or most of the time (Exhibit 73).

Exhibit 72. Occupational medicine orientation, current providers, California, 2006

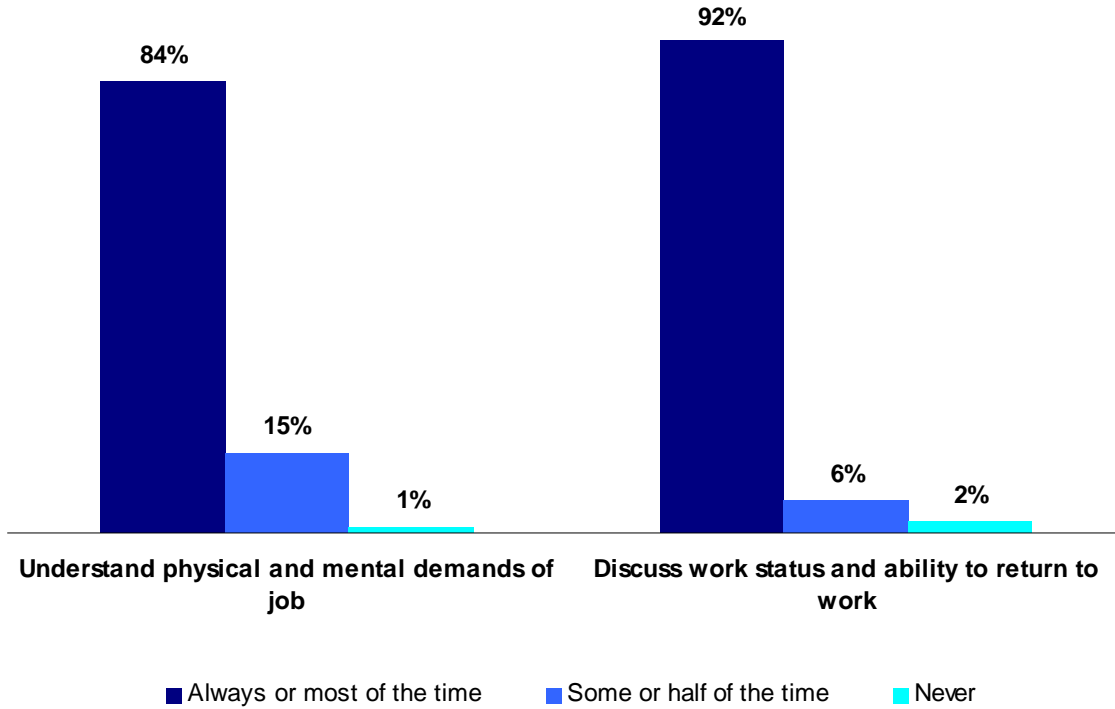
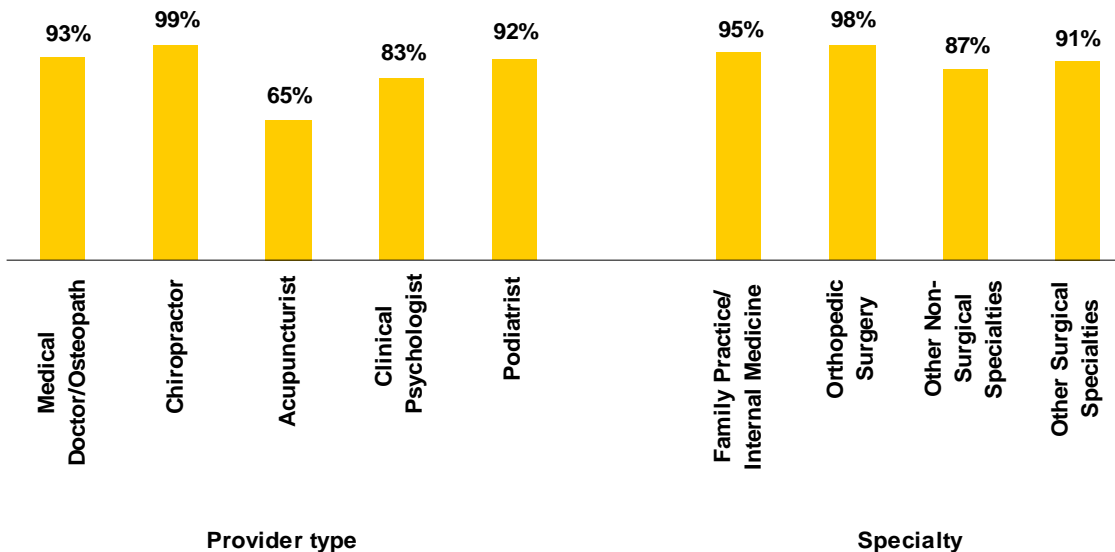
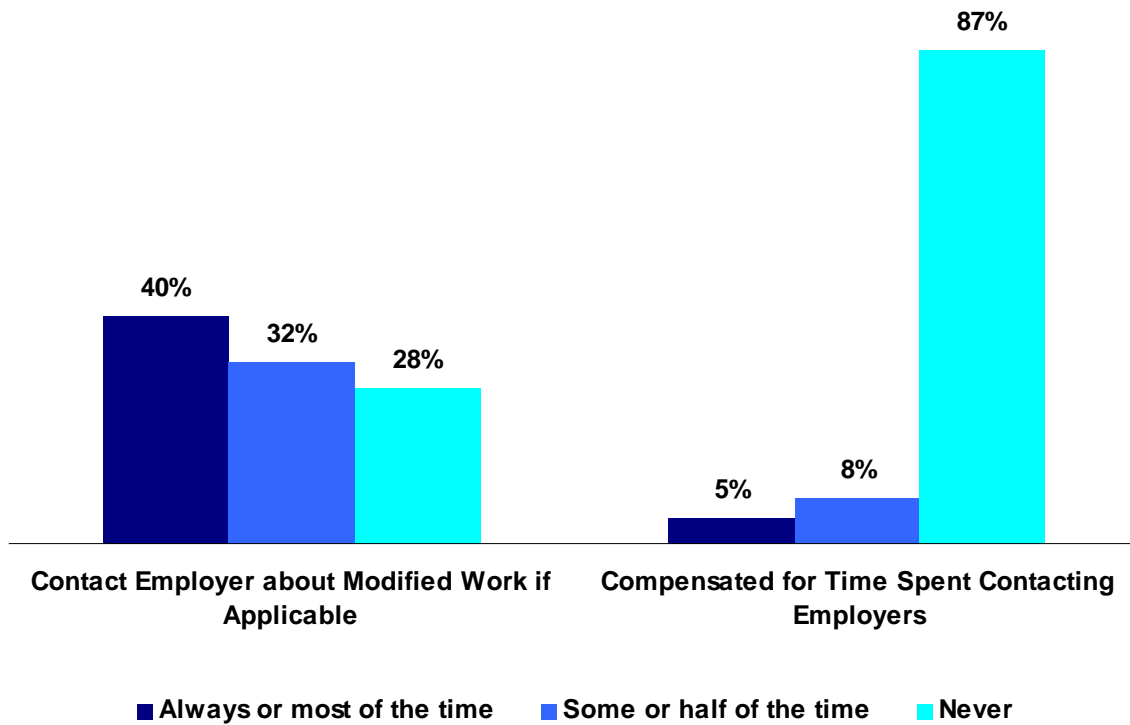


Exhibit 73. Always or most of time discuss work status and ability to return to work by provider type and specialty, current providers, California, 2006



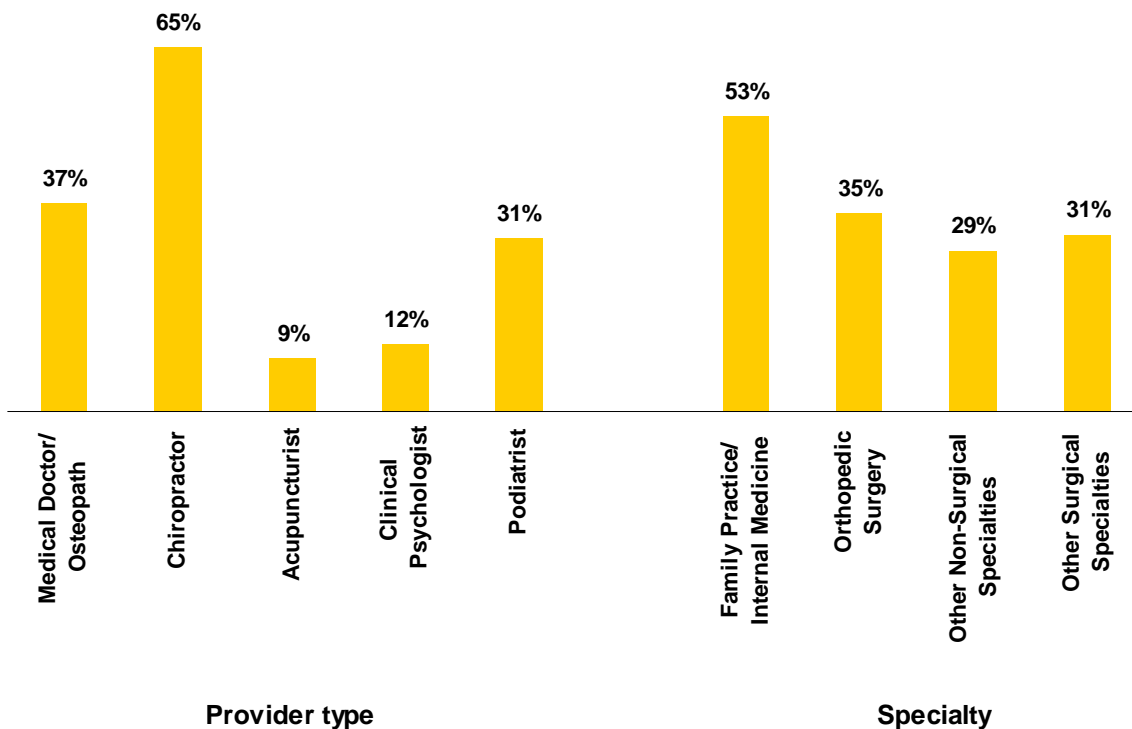
Forty-percent of providers reported always or most of the time contacting the employer about the availability of modified work (Exhibit 74). A small minority of providers (5%) said they were always compensated for this activity. Among those who were sometimes or never compensated for this activity, 67% reported they would contact the employers more frequently if they were specifically compensated to do so.

Exhibit 74. Contacting employer and being compensated for time, current providers, California, 2006



Chiropractors (65%), MD/DOs (37%), orthopedic surgeons (35%), and FP/IM doctors (53%) more frequently reported contacting the employer about modified work always or most of the time (Exhibit 75).

Exhibit 75. Provider types and specialties who always or most of the time contact employers about the availability of modified work, current providers, California, 2006



Providers' Perceptions of Workers' Compensation Quality of Care

Most providers (56%) reported that the quality of care has declined since 2004, while the remainder reported quality has stayed the same (34%) or improved (10%) (Exhibit 76). Chiropractors (93%), acupuncturists (80%), clinical psychologists (76%), and orthopedic surgeons (63%) more often reported a decline in WC quality of care (Exhibit 77).

Exhibit 76. Providers' perception of quality of care, current providers, California, 2006

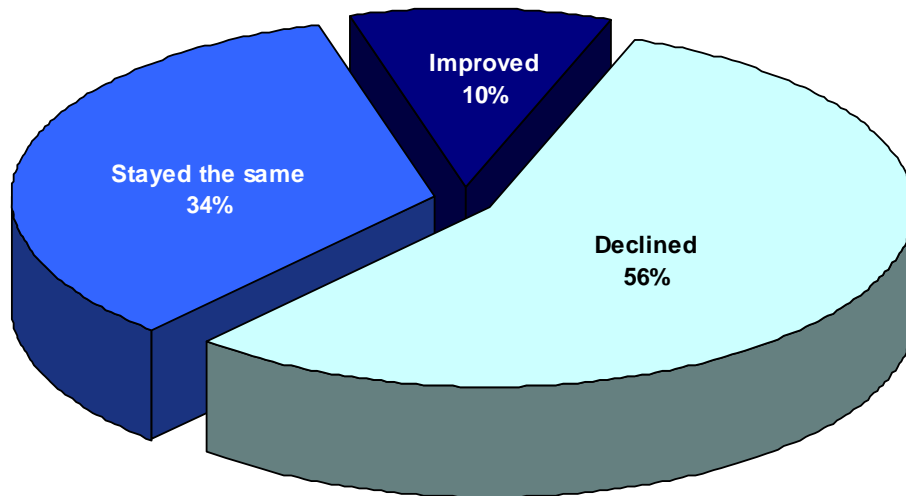
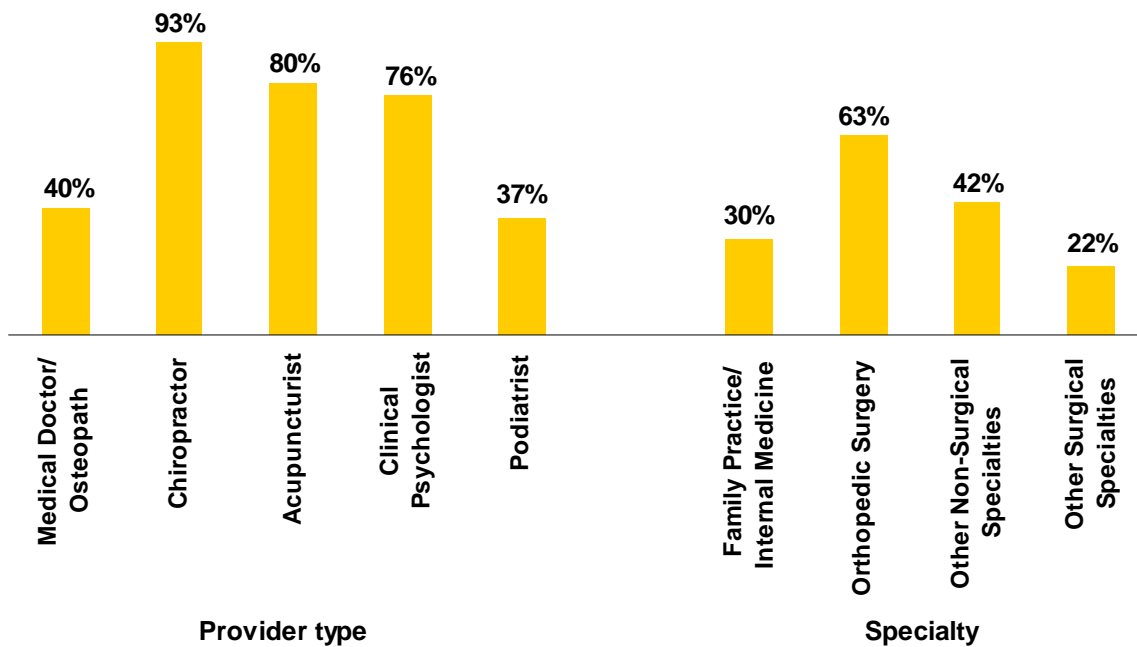


Exhibit 77. Providers' perceived decline in quality of care by provider type and specialty, current providers, California, 2006



Providers also reported on the barriers they may have experienced in providing quality care in the current WC system. Providers most frequently (47%) reported authorization/UR issues as barriers (Exhibit 78). Most of the problems related to authorization/UR focused on denials of treatment, burdensome UR requirements, and other issues. Reported authorization/UR issues differed by specialty but not by provider type. Orthopedic surgeons (74%) and other non-surgical specialists (48%) most often reported authorization/UR as a barrier to quality care (Exhibit 79).

Exhibit 78. Perceived barriers to quality of care, current providers, California, 2006

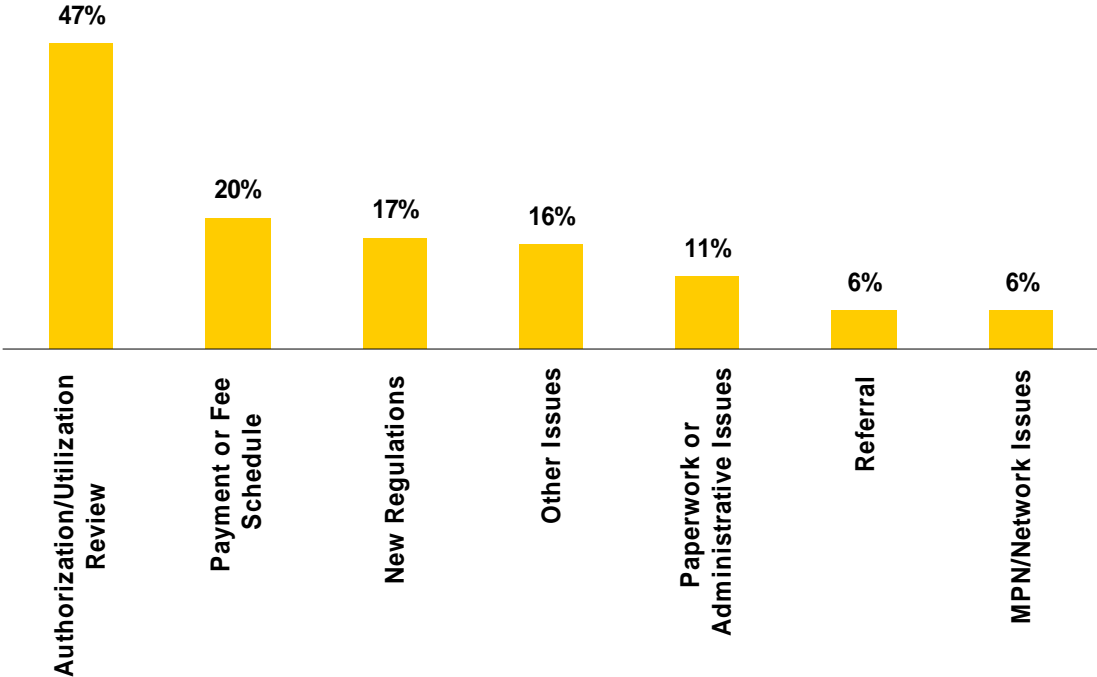
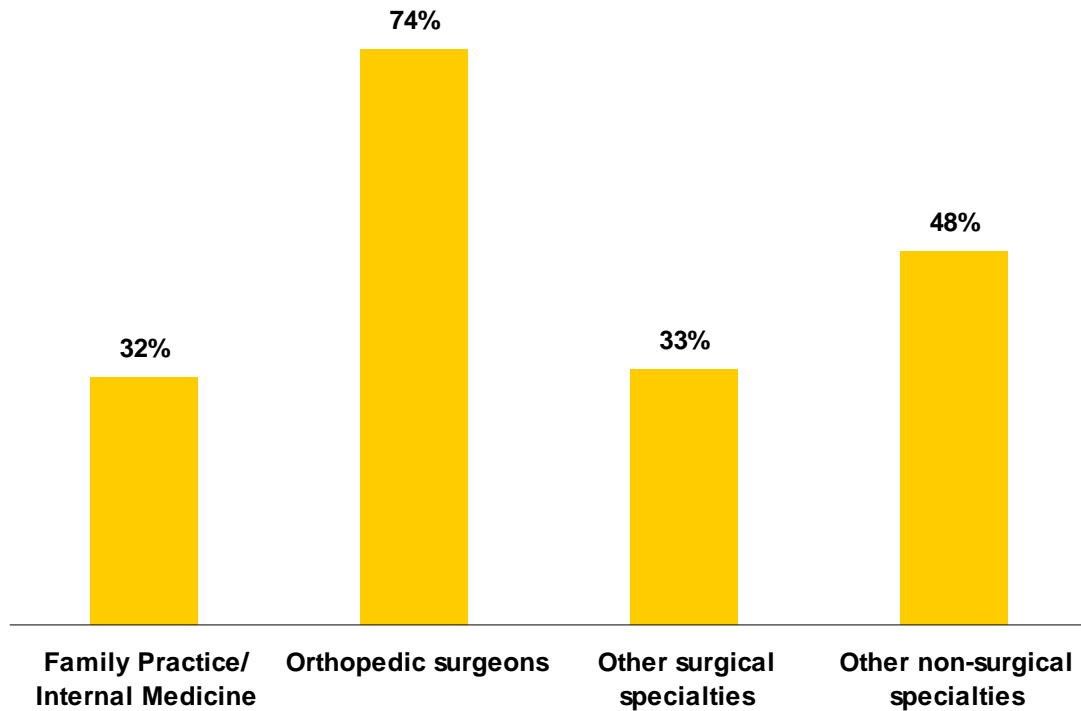


Exhibit 79. Authorization/UR Issues as barrier to quality of care by specialty, current providers, California, 2006



ACCESS AND QUALITY OF CARE BY PROVIDERS' VOLUME OF WORKERS' COMPENSATION PATIENTS

As shown previously in Exhibit 46, 31% of current providers under California's WC system provide care to six or more injured workers per week, a relatively high volume of care. This subsection presents findings for these high-volume providers relative to low-volume providers, since declines in accepting or treating WC patients or perceived barriers in access to quality care by high-volume providers may have a greater overall impact on the WC system.

The average proportion of WC patients in practices of low-volume providers was 6% compared to 36% among high-volume providers. The majority (75%) of high-volume providers were MD/DOs; 53% of these providers were orthopedic surgeons.

Access

The majority (75%) of high-volume providers perceived a decline in access to quality of care for WC patients since 2004, while 61% of the low-volume providers perceived a decline.

Similar percentages of high-volume and low-volume providers reported decreases in the number of WC patients they have seen since 2004. However, high-volume providers were more likely to have increased their WC patient caseloads than low-volume providers (19% versus 9%) (Exhibit 80). Similarly, high-volume providers more often reported plans to increase their WC patient volume than low-volume providers (23% versus 18%) (Exhibit 81). In addition, high-volume providers were more likely than low-volume providers to report additional language capacity in their practice (83% versus 72%).

Exhibit 80. Change in volume of WC patients since 2004 in practices of high- and low-volume current providers, California, 2006

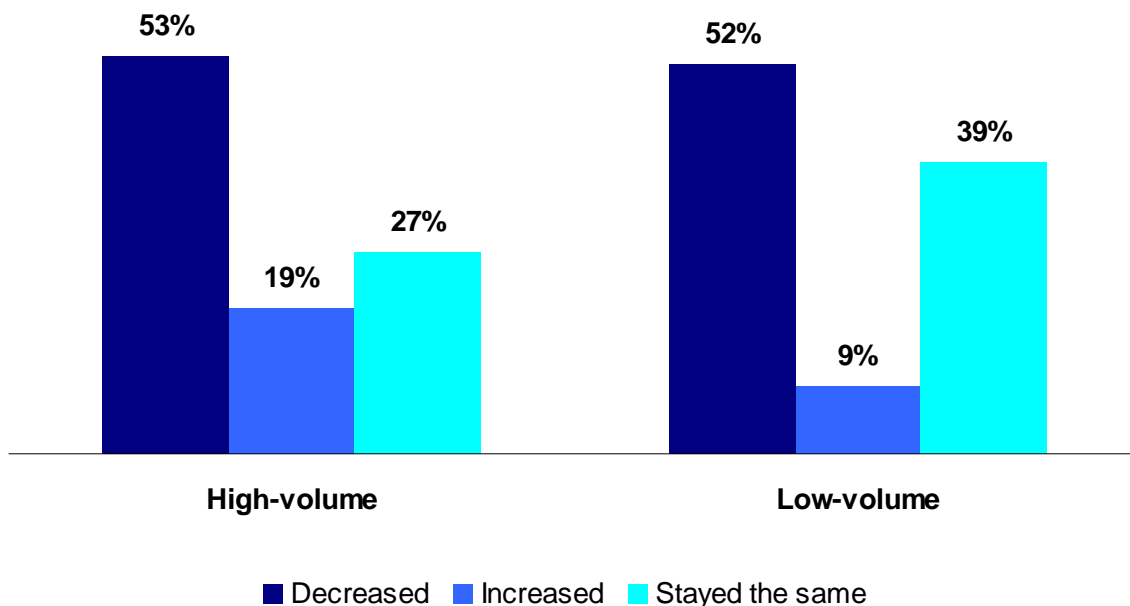
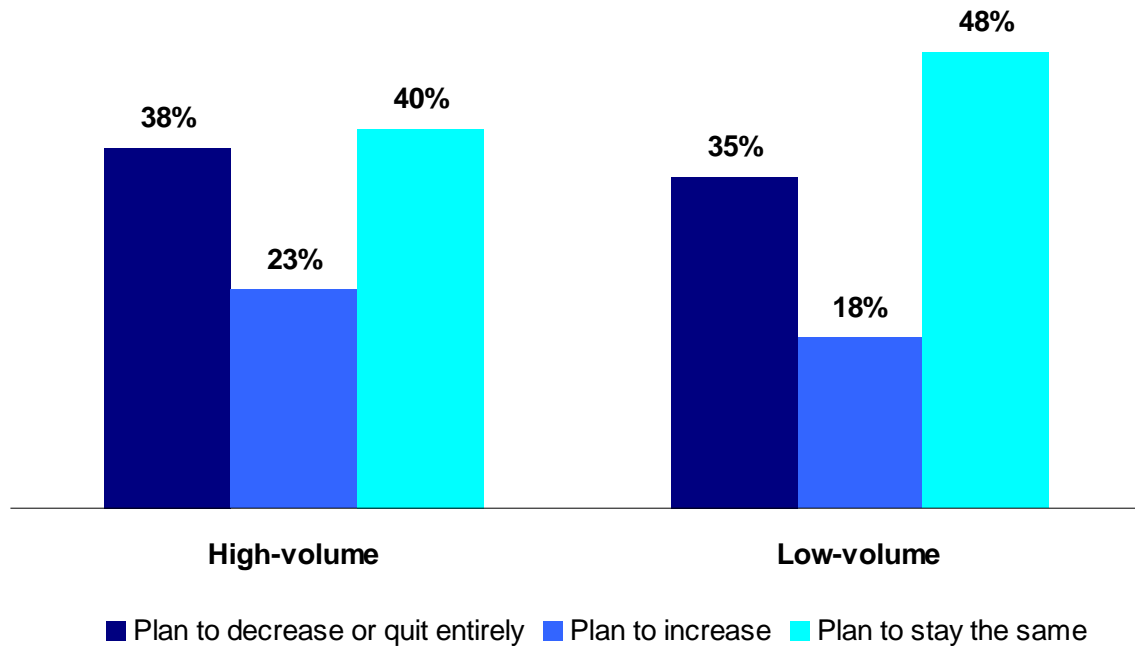


Exhibit 81. Planned change in volume of WC patients among high- and low-volume current providers, California, 2006

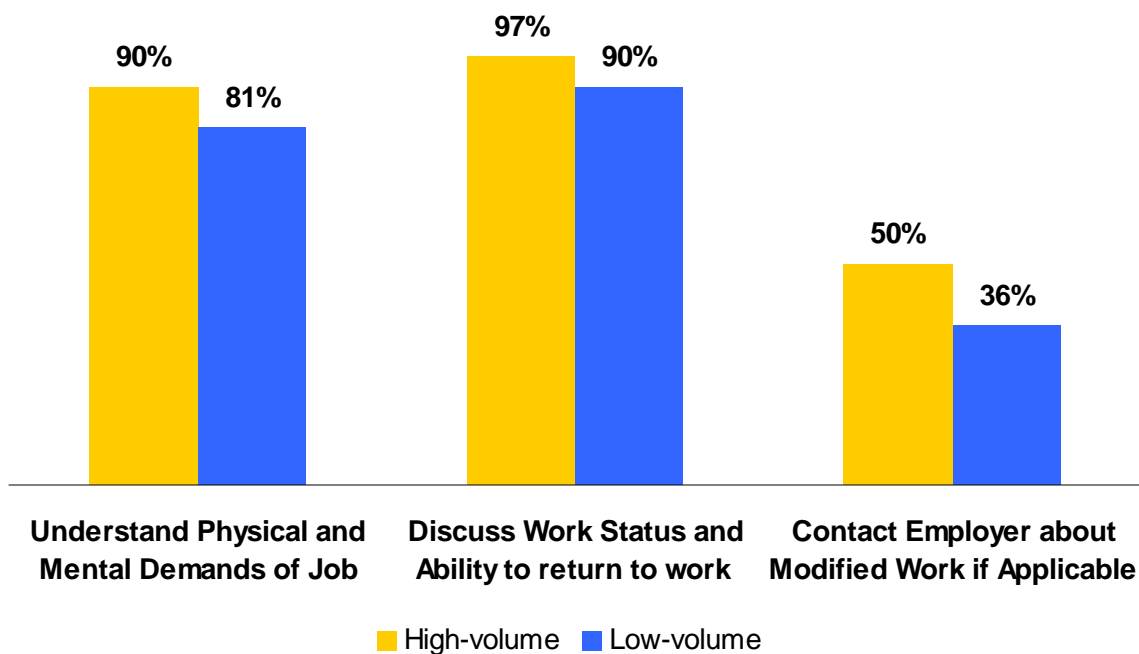


Note: Percentages do not sum to 100% due to rounding

Quality

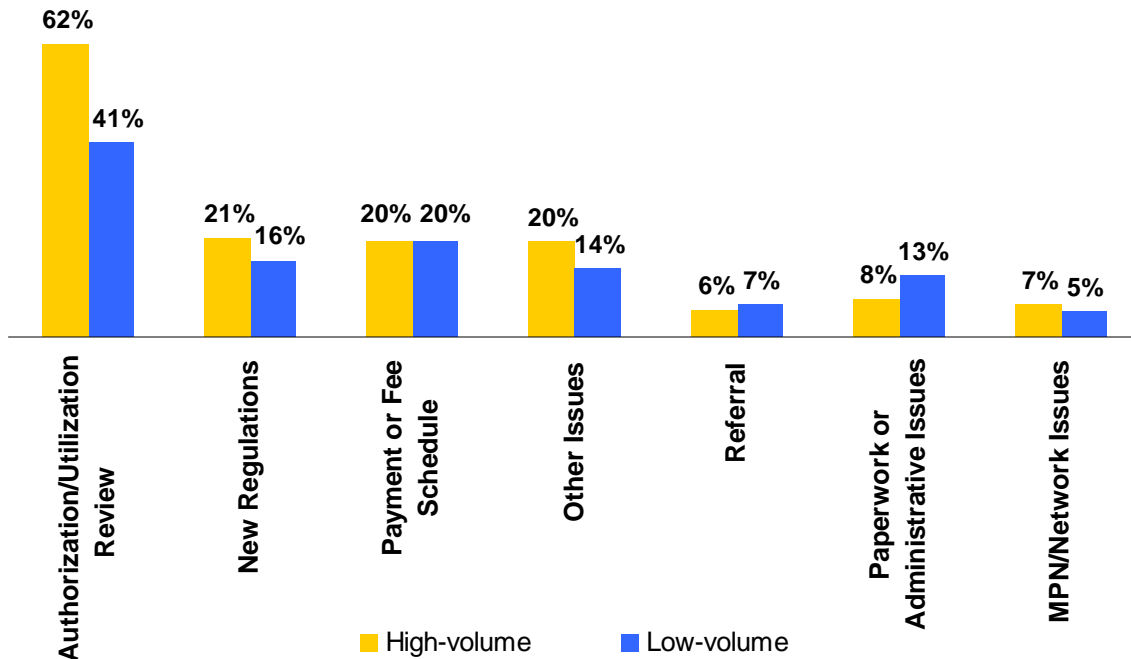
High-volume providers more frequently reported understanding the demands of their patients' jobs (90% vs. 81%), discussing work status (97% vs. 90%), and contacting employers about modified work (50% vs. 36%) than low-volume providers (Exhibits 82). High- and low-volume providers did not differ in whether they were compensated for contacting employers about modified work.

Exhibit 82. Occupational medicine orientation by volume of WC patients, current providers, California, 2006



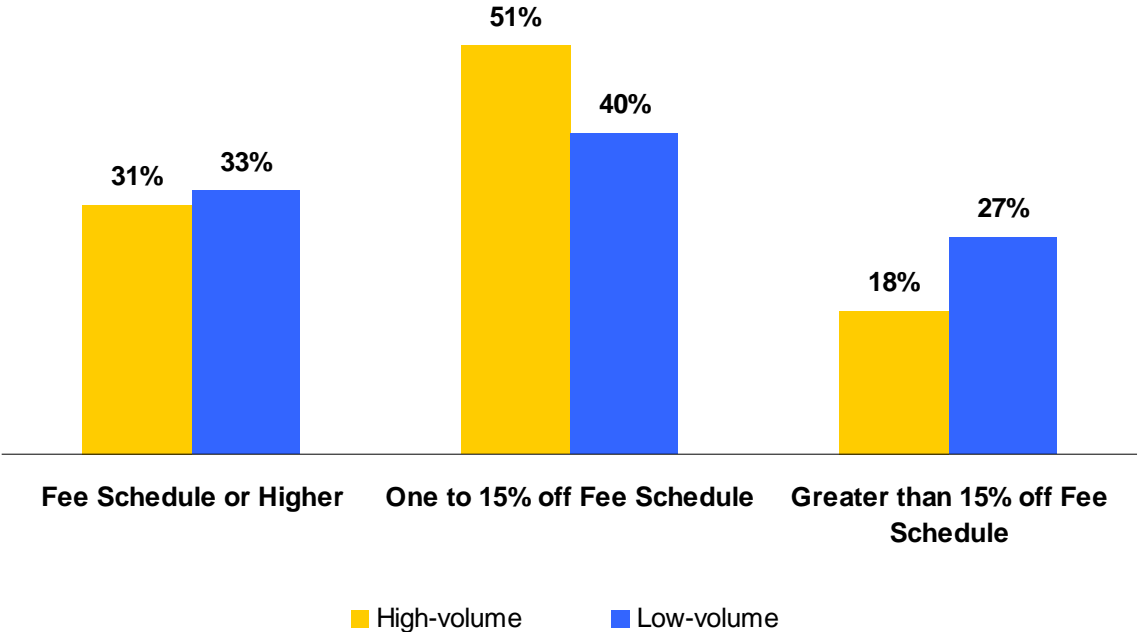
Sixty-five percent of high-volume providers perceived a decline in quality of care compared to 52% of low-volume providers. Furthermore, high-volume providers more frequently perceived authorization/ UR issues (62%), new regulations (21%), and other issues (20%) as barriers to quality of care (Exhibit 83). Although not related to quality, when high-volume providers were asked about the reasons for declines in WC volume they reported authorization/UR (37%) as having a more important impact on declines in WC volume than low-volume providers reported (27%).

Exhibit 83. Perceived barriers to quality of care by volume of WC patients, current providers, California, 2006



High-volume providers were more likely to be paid at a discounted rate of 1% to 15% below the fee schedule than low-volume providers (51% versus 40%), while low-volume providers were more likely to be paid at a discounted rate of more than 15% below the fee schedule than high-volume providers (27% versus 18%) (Exhibit 84).

Exhibit 84. Payment rates of high- and low-volume current providers, California, 2006



SUMMARY AND CONCLUSIONS

1. Past and current providers differed according to specialty mix and payment rates.

- There were no significant differences in the mix of provider types who were no longer treating WC patients compared to those who currently are treating WC patients. Among MD/DO specialties, however, FP/IM doctors were 32% of past providers compared to 25% of current providers, and other non-surgical specialists were 31% of past providers compared to 22% of current providers, suggesting that both these groups were more likely to have dropped out of the WC system. Orthopedic surgeons were 14% of past providers, but 28% of current providers, suggesting that they were less likely to have dropped out of the WC system.
- More past providers were paid at discounts of greater than 15% below the fee schedule than current providers (33% versus 24%). Past providers most frequently cited low payment levels (46%) as the reason for not participating in WC.
- The great majority of past providers (88%) are not likely to return to WC care.

2. For a large majority of providers, WC patients represented a small portion of their total practice (5 or fewer WC patients per week), and almost half of providers stated they did not belong to MPNs.

- Less than a third of current WC providers (31%) rendered care to a high volume of injured workers (defined as 6 or more WC patients per week). Among provider types, MD/DOs (35%) and chiropractors (26%) were more likely to be high-volume providers. Among MD/DO specialties, orthopedic surgeons (67%) and other non-surgical specialists (36%) were more likely to be high-volume.

- More than half (54%) of providers stated they belonged to MPNs. Among provider types, chiropractors (74%) and podiatrists (60%) were more likely to have MPN contracts. Among MD/DO specialties, orthopedic surgeons (62%) and other non-surgical specialists (60%) were more likely to have such contracts.

3. The majority of providers believed injured workers did not have adequate access to quality care and even more believed that access had declined since 2004. These unfavorable perceptions were particularly prevalent among chiropractors and acupuncturists, compared to MD/DOs, podiatrists, and clinical psychologists. Among MD/DO specialties, orthopedic surgeons also perceived a lack of access to quality care and a decline in access since 2004.

- Less than half (45%) strongly agreed or agreed that injured workers have adequate access to quality WC care. While almost two-thirds of MD/DOs (62%) and podiatrists (65%) reported high levels of agreement, chiropractors (8%) and acupuncturists (20%) reported low levels of agreement. Among MD/DO specialties, other surgical specialists (79%) and FP/IM doctors (66%) reported high levels of agreement, while orthopedic surgeons (44%) and other non-surgical specialists (58%) reported lower levels of agreement.
- About two-thirds believed (65%) access to care of injured workers has declined since 2004. This belief was particularly strong among chiropractors (96%) and acupuncturists (90%), and among orthopedic surgeons (75%).

4. The majority of providers reported declines in their volume of WC patients since 2004, most frequently citing new regulations and authorization/UR issues. These reported declines were most prevalent among chiropractors and acupuncturists, compared to MD/DOs, podiatrists, and clinical psychologists. However, among MD/DO specialties, orthopedic surgeons reported declines in WC volume since 2004 more often than other specialties.

- Over one half of current providers (52%) experienced a decline in the volume of their WC patients since 2004. Chiropractors (90%), acupuncturists (87%), and orthopedic surgeons (55%) were more likely to report declines.
- Providers reported that their declines in WC volume were most often the result of new regulations (31%) and authorization/UR issues (30%).
- Providers paid 1% to 15% below the OMFS (65%) or more than 15% below the OMFS (66%) were more likely to report declines in WC volume since 2004 than those paid at or above the OMFS (49%).
- More than one-third of providers report they plan to quit WC entirely (14%) or to reduce their WC volume in the future (21%). Providers most often reported that improvements in the authorization/UR process (25%) and in the fee schedule (24%) would help them to continue treating WC patients.

5. Providers reported a high level of orientation towards occupational medicine.

- The great majority of providers report understanding the injured workers' job demands (84%) and discussing work status and ability to return to work (92%) always or most of the time.
- Most (72%) providers contact employers about the availability of modified work at least half the time. However, most (87%) providers report not being compensated for contacting the employer.
- Thirty-nine percent of current WC providers conduct medical-legal evaluations. Chiropractors have the highest rate of performing such evaluations (47%), followed by podiatrists (40%), MD/DOs (39%), clinical psychologists (38%), and acupuncturists (19%). Among MD/DO specialties, orthopedic surgeons (56%) had the highest rate of conducting such evaluations.

6. The majority of providers perceived a decline in quality of WC care since 2004 and these perceptions were closely associated with authorization/UR processes, although it differed by provider type and specialty.

- The majority of providers (56%) believed that the quality of WC care has declined since 2004. Chiropractors (93%), acupuncturists (80%), and orthopedic surgeons (63%) were most likely to report this belief.
- Providers most frequently cited authorization/UR issues (47%) (specifically, denials and UR requirements) as barriers to provision of quality care. Orthopedic surgeons (74%) were most likely to cite these reasons.

7. Despite some increases in the number of WC patients among high-volume providers, they reported perceived declines in access to and quality of care for injured workers more frequently than low-volume providers.

- More high-volume providers believed that access to care for injured workers has declined since 2004 than low-volume providers (75% versus 61%).
- High-volume providers reported more often that the volume of their WC patients had increased compared to low-volume providers (19% versus 9%). High-volume providers also planned further increases more often than low-volume providers (23% versus 18%).
- High-volume providers more often perceived a decline in quality of WC care since 2004 compared to low-volume providers (65% versus 52%).
- High-volume providers more often perceived authorization/UR issues as barriers to providing quality care than low-volume providers (62% versus 41%).

8. The majority of WC providers are located in the three most populous areas of the state: Los Angeles County, the Bay Area, and all other Southern California counties.

- Most WC providers (91%) were located in urban areas.
- The providers with the largest representation in rural areas were FP/IM doctors — 17% of these providers reported being located in rural areas.

9. Paying providers less than the OMFS seems to have affected the current volume of WC patients treated by physicians, as well as their intentions to reduce WC volume or leave the WC system entirely in the future.

- High-volume providers were more likely to be paid at the fee schedule or be paid at a discount of 1% to 15% below the fee schedule (82%) than low-volume providers (73%).
- The majority of providers (54%) who reported being paid more than 15% below the fee schedule reported they are planning to decrease their WC volume or quit WC care entirely. In comparison, only 29% of providers paid at the fee schedule and 37% of providers paid from 1% to 15% below the fee schedule had similar plans to decrease volume or to quit the system.
- The most frequently cited reason for stopping participation in WC was payment or fee schedule issues (46%).
- Providers paid 1% to 15% below the fee schedule (65%) or more than 15% below the fee schedule (66%) were more likely to report declines in WC volume since 2004 than those paid at or above the fee schedule (49%). When asked about the reasons for planned decreases, providers most frequently cited payment or fee schedule issues (47%).

- Providers most often reported that improvements in the authorization/UR process (25%) and in the fee schedule (24%) would help them to continue treating WC patients.

VIII. RESULTS: PAYER SURVEY

This section presents the results of the 20 California payers who responded to our survey. Of the 20 completed surveys, 6 were insurers, 5 were TPAs, and 9 were SISAs. Overall, the survey focused on 6 different areas relating to WC in California: (1) the creation, use, and characteristics of MPNs, (2) physician contracting, (3) physician reimbursement, (4) perception of physician willingness to treat injured workers, (5) standards for access to quality medical care, and (6) perception of injured worker access to physicians. Summary responses for all payers are presented below.

All of the insurers and TPAs and 2 of the 9 SISAs provide statewide coverage; the remaining SISA respondents covered clients in the Greater San Francisco Bay Area, San Joaquin Valley, Sacramento Area, Los Angeles County, and North Coast/North Inland/Sierras. The SISAs cover between 8,500 and 80,000 employees in California. The percent of all WC claims represented by each of the payer types is shown below in Exhibit 85 separately for 2004 and 2005.

Exhibit 85. Characteristics of respondents by payer type, California, 2006

Payer Type	Sample Size	% of all 2004 WC claims represented†	% of all 2005 WC claims represented†	Geographic Regions Covered
Insurer	6	37.8%	31.1%	Statewide
TPA	5	15.7%	21.1%	Statewide
SISA	9	3.2%	3.5%	
Private	3	1.4%	1.6%	2 Statewide 1 San Joaquin Valley
Public –non-JPA	3	1.4%	1.6%	1 Los Angeles County 1 Greater San Francisco Bay Area and San Joaquin Valley 1 Sacramento Area
Public –JPA	3	0.3%	0.4%	2 Greater San Francisco Bay Area 1 Los Angeles County 1 Sacramento Area and North Coast, North Inland, and Sierras
TOTAL	20	56.7%	56.4%	

† Source: California Department of Industrial Relations, Division of Workers' Compensation Audit Unit Annual Report of Inventory

USE AND CHARACTERISTICS OF MPNs

MPNs are a relatively new feature of the California WC System. As a result, not much is known about MPN arrangements in the state. Questions in the survey include use, formation, and difficulties encountered when trying to create MPNs (Exhibit 86).

Exhibit 86. Use and formation of MPN lists by payer type, California, 2006

	Insurer	TPA	SISA	TOTAL
Number of payers with an MPN	6 of 6	5 of 5	3 of 9	14 of 20
Constructed MPN list from scratch	1 of 6	2 of 5	3 of 3	6 of 14
Customized existing MPN list	2 of 6	3 of 5	1 of 3	6 of 14
Supplemented existing MPN list	3 of 6	1 of 5	2 of 3	6 of 14
Mandate for employers to use MPN	0 of 6	0 of 5	3 of 3	3 of 14
Percentage of employers using MPN	Mean = 76%; Range = 30-99%	Mean = 55%; Range = 10-80%	Mean = 87%; Range = 60-100%	Mean = 70% Range = 10-100%
Planning new/additional MPN(s)	0 of 6	1 of 5	3 of 9	4 of 20
For employees not covered under MPN, employer chooses PTP within first 30 days of illness or injury	6 of 6	5 of 5	6 of 7	17 of 18

NOTE: Due to skip patterns in the survey, not all respondents answered all questions. Therefore, total respondents may vary throughout.

Fourteen of the 20 respondents reported the use of one or more MPN products; all 6 respondents without an MPN were SISAs. The 3 SISA respondents with an MPN all mandate that their California employees be covered under an MPN, while none of the other 11 respondents reported such a requirement. On average, 70% of employers use an MPN, with a range of 10% to 100% of employees covered. For employees not covered under an MPN, 17 payers stated that they choose the PTP the injured worker sees during the first 30 days of illness or injury. In terms of network formation, 6 say they created their provider network from scratch, including selecting, credentialing, and contracting with providers; 6 customized an existing MPN list; and 6 supplemented an existing MPN list with additional providers. Of the 20 payers surveyed, 4 reported they were planning to start new or additional MPNs within the next year or sooner. Of these, one respondent currently has one or more MPN products, while the other 3 do not.

ACCESS AND QUALITY

Physician Contracting

Nine payers found some specialty physician types harder to contract with, especially dentistry, psychology, psychiatry, dermatology, orthopedic surgery, and neurosurgery (Exhibit 87). Furthermore, 12 felt that certain regions of the state were difficult to find physicians willing to contract for WC care, particularly the North Coast/North Inland/Sierras, San Joaquin Valley, and Central Coast. One respondent noted that rural areas proved especially difficult because physicians in smaller towns are “not willing to contract at a discount, even a small discount.” When asked what reasons physicians were giving for not wanting to contract for WC care, responses were similar to those received from physicians in the provider survey. The most common reasons were related to payment issues, the level of paperwork and reporting requirements, UR/ACOEM guidelines/AMA guidelines, general administrative hassles, unwillingness to treat chronic pain and transfer cases, and no WC experience.

Exhibit 87. Difficulties with physician contracting by payer type, California, 2006

	Insurer	TPA	SISA	TOTAL
Number reporting difficulty contracting with certain specialties	4 of 6	1 of 5	4 of 9	9 of 20
Number reporting difficulty finding providers in certain regions of CA willing to contract	6 of 6	3 of 5	3 of 9	12 of 20

Physician Reimbursement

No respondent reported paying any physician types or specialties above the WC OMFS (Exhibit 88). Instead, of those who responded to the question, 13 reported they generally (but not necessarily always) pay physicians at the fee schedule rate and 4 reported they generally pay physicians below the fee schedule rate. Furthermore, 7 respondents reported that when they do pay discounted fees, the discounts range from 4% to 14% below the fee

schedule. Each physician type and specialty is paid by at least one payer at the fee schedule rate. Physician types most commonly paid below the fee schedule include chiropractors, occupational medicine providers, physical medicine and rehabilitation providers, and radiologists. Only one payer varies the compensation for physicians by region of the state, paying physicians in the North Coast/North Inland/Sierras a higher rate than others.

Exhibit 88. Physician reimbursement rates by payer type, California, 2006

	Insurer	TPA	SISA	TOTAL
General physician payment rates				
Above fee schedule	0 of 6	0 of 5	0 of 9	0 of 20
At fee schedule	2 of 6	2 of 5	9 of 9	13 of 20
Below fee schedule	1 of 6	3 of 5	0 of 9	4 of 20
% below fee schedule for physician types paid below fee schedule	5%	4-12%	10-14%	4-14%
Number paying physicians different rates by region of the state	1 of 6	0 of 4	0 of 9	1 of 19

Perception of Physician Willingness to Treat Injured Workers

Six payers responded that there are certain physician specialty types and seven responded that there are regions of the state where physicians they contract with are more likely to refuse to take WC patients (Exhibit 89). Specifically, psychology, allergy and immunology, dermatology, and urology were the most common specialists refusing to treat WC patients. In terms of region, the most commonly cited problem areas are North Coast/North Inland/Sierras, the Greater San Francisco Bay Area, the Central Coast, and the San Joaquin Valley. According to respondents, the most frequent reasons physicians give for not wanting to accept WC patients are: payment issues including the fee schedule and reimbursement rates; UR/ACOEM/AMA guidelines; paperwork, reporting, and other administrative issues; patient related issues such as the complexity of cases and patients wanting control of medical decisions; and business reasons such as the practice being too busy.

Exhibit 89. Physician willingness to treat in the WC system by payer type, California, 2006

	Insurer	TPA	SISA	TOTAL
Are certain specialties not likely to accept WC patients? (number reporting yes)	2 of 6	0 of 5	4 of 9	6 of 20
Are physicians in certain regions not likely to accept WC patients? (number reporting yes)	4 of 6	2 of 5	1 of 9	7 of 20

Access and Quality Standards

Recent reforms require time and distance standards for MPN products, but no such standards are required for non-MPN products. Therefore, questions on access and quality standards were asked separately for MPN and non-MPN products. For their MPN products, of the thirteen payers responding to these questions, all have a standard for days to first appointment with a PTP ranging from 0 to 3 days, while 11 payers also have a standard for days from referral to the first appointment with a specialist or consulting physician (5-21 days) (Exhibit 90). The majority of payers – twelve – also have distance standards to the PTP and specialist for their MPN products. The PTP distance standards range from 5 to 30 miles with a mode of 15 miles, while the specialist distance standards range from 15 to 30 miles with a mode of 30 miles. Six payers have provider performance measures and 2 have patient satisfaction measures that they currently track. Provider performance measures include scorecards, quality assessment reviews, and other methods coordinated through network contracting. Frequent patient satisfaction surveys were the most common method for assessing patient satisfaction within the MPN.

Two SISAs and all five TPA respondents did not have any non-MPN products. Therefore, there were only 13 possible respondents to the questions on access and quality standards for non-MPN products. Of those, 8 have a standard for days to first appointment with a PTP (1-3 days) and 5 have a standard for days from referral to the first appointment with a specialist or consulting physician (5-30 days). Five respondents have a distance standard to the PTP of 5 to 15 miles and one respondent who does not have a standard reported that they do try for

the same geographic region. For distance to specialist physician, three reported that they have standards ranging from 10 to 50 miles. SISAs were the only payers to have provider performance measures for their non-MPN products. Examples of some of the reported measures include monitoring of customer complaints, requiring continuing education credits, time requirements for submission of forms and reports, requirements on patient waiting times, and periodic peer reviews. There were 4 payers with patient satisfaction measures, primarily assessed with satisfaction surveys.

For both MPN and non-MPN products, 17 respondents monitor whether the standards are being met – 12 monitor all standards and 5 monitor only a portion of the standards. Sixteen payers reported that their company takes specific action when monitoring efforts indicate that any of the standards are not being met, though they were not asked what these actions were.

Exhibit 90. Standards for access to quality medical care by payer type, California, 2006

	Insurer	TPA	SISA	TOTAL
Number with standard and days of standard for first appointment with PTP				
MPN	6 of 6 3 days	4 of 4 1-3 days	3 of 3 0-3 days	13 of 13 0-3 days
non-MPN	2 of 6 3 days	N/A	6 of 7 1-2 days	8 of 13 1-3 days
Number with standard and days of standard from referral to first appointment with specialist/consulting physician				
MPN	6 of 6 5-21 days	4 of 4 20-21 days	1 of 3 20 days	11 of 13 5-21 days
non-MPN	2 of 6 5-20 days	N/A	3 of 7 7-30 days	5 of 13 5-30 days
Number with standard and miles of standard for distance to PTP				
MPN	6 of 6 15 miles	4 of 4 15-30 miles	2 of 3 15 miles	12 of 13 15-30 miles
non-MPN	1 of 6 15 miles	N/A	4 of 7 5-10 miles	5 of 13 5-15 miles
Number with standard and miles of standard for distance to specialist/consulting physician				
MPN	6 of 6 15-30 miles	4 of 4 30 miles	2 of 3 30 miles	12 of 13 15-30 miles
non-MPN	1 of 6 30 miles	N/A	2 of 7 10-50 miles	3 of 13 10-50 miles
Provider performance measures				
MPN	2 of 6	2 of 4	2 of 3	6 of 13
non-MPN	0 of 6	N/A	5 of 7	5 of 13
Patient satisfaction measures				
MPN	1 of 6	1 of 4	0 of 3	2 of 13
non-MPN	1 of 6	N/A	3 of 7	4 of 13
Number monitoring all or some standards	5 of 6	4 of 4	8 of 9	17 of 19
Number that take action when standards are not met	5 of 6	3 of 5	8 of 9	16 of 20

Perception of Injured Worker Access

When asked about their experiences with the WC system before and after the 2004 reforms, 19 of 20 reported that access to PTPs did not change at all and one said access is better now due to their being a finite list of providers with which the respondent and employer have a relationship (Exhibit 91). Fifteen of 20 reported that specialist access is the same now as before 2004, four reported that it is now worse, and one said it is now easier for the same reason that PTP access is now easier. Among those who felt specialist access is now worse, reasons cited include fewer specialty doctors seeing WC patients, more communication required to select specialists for MPN, physician frustration with UR and permanent disability ratings, and some specialists not accepting transfer patients. Eighteen payers have mechanisms for reporting access issues to network administrators, including toll-free phone numbers, provider relations departments, and specific contact people.

There were numerous barriers reported in providing access to medical care within the current WC system, including: payment issues (fee schedule, reimbursement rates, delays in receiving payment), paperwork, too much red tape, UR related issues, availability of specialty doctors for appointments, physicians who do not understand the WC system requirements, litigation and attorneys who want to direct treatment, uncertainty about who should initially treat the patient, lack of quality physicians, providers who do not want to treat WC patients (including those in rural locations), providers not willing to be in networks, lack of PTP-employer relationship, and general frustrations with the system (including being too time consuming and complex). However, despite all these barriers, the majority (17) of respondents said that they feel injured workers' access to medical care is the same now as it was prior to 2004.

Exhibit 91. Perception of access to WC medical care by payer type, California, 2006

	Insurer	TPA	SISA	TOTAL
Patient access to PTP is the same now as before 2004	6 of 6	4 of 5	9 of 9	19 of 20
Patient access to specialist is the same now as before 2004	5 of 6	4 of 5	6 of 9	15 of 20
Do you have existing mechanisms for reporting access issues? (number reporting yes)	6 of 6	5 of 5	7 of 9	18 of 20
Overall access to WC medical care is same now as before 2004	6 of 6	3 of 5	8 of 9	17 of 20

SUMMARY AND CONCLUSIONS

1. MPNs are common, but payers report difficulties contracting with certain provider types and specialists, and with providers in some regions of the state.

- All responding insurers and TPAs have one or more MPN products, and one-third of SISAs have MPN products.
- Payers report the most difficulty contracting with dentists, psychologists, psychiatrists, dermatologists, orthopedic surgeons, and neurosurgeons.
- The regions where payers have the most difficulty contracting with physicians for WC care were the North Coast/North Inland/Sierras, the San Joaquin Valley, and the Central Coast. Reasons physicians give to payers for not wanting to contract include inadequate payment, paperwork and reporting requirements, UR/ACOEM guidelines, and administrative hassles.
- No respondent pays any physician type or specialty above the fee schedule. The physician types most often paid below the fee schedule include chiropractors, occupational medicine providers, physical medicine and rehabilitation providers, and radiologists

2. Payers report that some providers they contract with are more likely to refuse to treat WC patients.

- The specialties most likely to refuse WC patients were psychologists, allergists and immunologists, dermatologists, and urologists.
- The regions where payers reported physicians were most likely to refuse WC patients were the North Coast/North Inland/Sierras, the Greater San Francisco Bay Area, the

Central Coast, and the San Joaquin Valley. Reasons for refusing to treat WC patients, as reported by payers, include inadequate payment, UR, paperwork and reporting, business reasons, and patient-related issues.

3. Payers report their perceptions that overall access for injured workers has remained the same since 2004.

- Most respondents expressed their belief that injured workers' access to PTPs and specialists is the same now as it was before 2004. Furthermore, 17 of the 20 respondents reported that overall access to quality medical care in the WC system is the same now as before 2004.
- Most respondents have time and distance standards for their PTPs and specialists as part of their MPNs. Among respondents with non-MPN products, the majority of respondents had a standard for days to first appointment with a PTP, but few had any other standards.

IX. CONCLUSIONS/RECOMMENDATIONS

This report was authorized pursuant to LC § 5307.2, which was revised by SB 228 to require the AD of the DWC to “contract with an independent consulting firm...to perform an annual study of access to medical treatment for injured workers.” The primary goal of this annual survey is to “analyze whether there is adequate access to quality health care and products for injured workers and make recommendations to ensure continued access.” Furthermore, if the AD determines based on this study “that there is insufficient access to quality health care or products for injured workers,” the AD may make appropriate adjustments to medical and facilities fee schedules. Specifically, if the AD determines that “substantial access problems exist,” he or she may revise fee schedules by adopting fees “in excess of 120 percent of the applicable Medicare payment system fee for the applicable services or products.”

In response to the mandate for the study, the main objectives of this study were to:

1. Establish baseline information regarding the proportion of injured workers and physicians reporting access and/or quality problems in 2006;
2. Determine specific factors that promote or inhibit access to quality care;
3. Quantify the extent of such barriers;
4. Determine whether lack of access, if present, is substantial; and,
5. Recommend methods of ensuring continued access.

The injured worker, provider, and payer surveys conducted as part of this study were all fielded during 2006, two years after the reforms of 2003-2004. For the most part, it was impossible to obtain data related to access and quality prior to the implementation of WC reform. In the provider and payer surveys, it was only possible to obtain impressions about how WC access and quality have changed since 2004. However, this was not possible for the injured worker survey. Therefore, our results are most useful in establishing firm baseline data for determining the current state of California’s WC system from the perspective of three major stakeholders (Study Objective 1). These baseline data are

valuable for comparing California's current experience with previous WC studies, including those in California and in other states. These data should also prove valuable for monitoring changes in California's WC system over time. The findings presented in Sections VI, VII, and VIII of this report identify specific factors that promote or inhibit access to quality care and quantify the extent of such barriers (Objectives 2 and 3). Finally, our results suggest several important conclusions about whether access problems are substantial as well as other recommendations for maintaining access (Objectives 4 and 5), which are presented and discussed below.

- 1. The vast majority of injured workers reported they received care within 3 days of reporting their injury and had access to care within 15 miles or 30 minutes. The proportion of injured workers reporting other access problems was small. Based on these measures, access does not appear to be a major problem for the vast majority of injured workers.**

The vast majority of injured workers (87%) reported they received initial treatment within 3 days of their injury. Time and distance to first and main providers were within requirements imposed on MPNs for the vast majority of injured workers. Most injured workers traveled 15 miles or less (86%) or 30 minutes or less (92%) to see their first provider. Most also traveled 15 miles or less (82%) or 30 minutes or less (89%) to see their main provider (i.e., the provider most involved in their care). High proportions of injured workers received recommendations for specialty care (31%), PT/OT (44%), and prescription drugs (65%). Finally, most injured workers reported they were able to access quality care for their injuries (83%). This percentage is slightly higher than the findings from a previous 1998 DWC study in which 77% of injured workers reported no trouble accessing care for their injuries.²

The proportion of injured workers reporting access problems was small. Only 3% report communication barriers with their main provider due to language discordance; while 2.4% did not see a specialist, 2.3% did not receive PT/OT, and 0.7% did not receive a

prescription when recommended because of authorization, transportation, or scheduling barriers. No comparable data exists from previous studies.

2. Most injured workers are satisfied with their overall care.

Our results show that 22% of injured workers were dissatisfied or highly dissatisfied overall with their care. Results from Pennsylvania's WC system, which has been collecting similar satisfaction data from injured workers annually since 2001, indicates a similar level of dissatisfaction (16.7% in 2004).³ Because our study did not collect data on injured workers prior to the implementation of reforms, we cannot directly evaluate changes in satisfaction between the pre- and post-reform periods. However, two large-scale studies of injured workers in California prior to the 2003-2004 reforms found that virtually the same percentage of injured workers (23.5%² and 20%⁴) were dissatisfied with their overall care. Therefore, we conclude that the satisfaction of injured workers has not changed as a result of recent reforms. Although there are many efforts to assess patient satisfaction among the general health population, comparisons of the satisfaction of injured workers and the general health population are difficult to perform, because most individuals in the general health population are not injured and patient satisfaction surveys generally do not provide data on satisfaction levels for injured and non-injured individuals separately.

3. The health outcomes of injured workers need further improvement.

Overall, 55% of injured workers have not fully recovered from their injury after one year, including 10% who report no improvement. Previous research by DWC on injured workers in California² showed a similar percentage of injured workers reporting no improvement, but a lower percentage reporting they were fully recovered (30% versus 45% in this study). Similarly, results from Washington state showed a lower rate of full recovery (28.1%).⁵ Both of these previous studies were conducted within a shorter time period after the original dates of injury — 8 months and 5 months, respectively — versus an average of about 15 months in this study. Therefore, a direct comparison of

rates of full recovery is not possible. Nevertheless, a majority of injured workers are not fully recovered after one year, suggesting that health outcomes can be further improved.

- 4. Injured workers with 10 or more visits for their injury represent slightly more than one quarter of injured workers and are more likely to report delays in time to first visit, dissatisfaction with their overall care, lack of improvement in their condition, and being out of work due to their injury. Because of the high level of resources associated with these injured workers, additional case management efforts may be needed to improve satisfaction, health and return-to-work outcomes for these workers.**

Injured workers with 10 or more visits — who represent 28% of injured workers — are 3 times more likely to report no improvement compared to those with less than 10 visits (19% versus 6%). Furthermore, injured workers with 10 or more visits were almost 7 times more likely to report they were not currently working due to their injury relative to other injured workers (27% versus 4%), suggesting that return-to-work outcomes could also be improved. These findings suggest that additional effort to manage the care of these more complicated cases may produce both lower utilization and improved outcomes, including return-to-work and overall satisfaction with care.

- 5. Important racial/ethnic differences in satisfaction and outcomes exist and need to be further investigated.**

Our results suggest that important differences in satisfaction and outcomes exist between racial/ethnic groups in California, with African-Americans experiencing worse outcomes relative to all other groups. Our findings do not adjust for possible differences in the mix of occupations, which may account for some of the differences observed in the data presented in this report. Nevertheless, the magnitude and statistical significance of the findings on disparities presented in this report suggest that further investigation of the underlying reasons for these disparities is clearly warranted.

6. Despite physician dissatisfaction with elements of WC reform, there do not appear to be access problems for most injured workers in the state, and physicians have not limited or given up their WC practices in large numbers.

The majority of providers (55%) reported that they disagreed with the statement that injured workers have adequate access to quality care, and 65% reported that access has declined since the 2003-2004 reforms. Furthermore, 56% of providers reported that quality of care had declined since the reforms, and 35% report that they are likely to quit WC entirely or to reduce their WC case loads. Chiropractors, acupuncturists, and orthopedic surgeons were particularly dissatisfied with the current system. The high level of dissatisfaction among acupuncturists and chiropractors is understandable in light of the implementation of the ACOEM guidelines and caps on visits, respectively, which most directly affect these provider groups. The dissatisfaction among orthopedic surgeons was primarily due to authorization/UR issues. Nevertheless, despite the reported intention of providers to quit treating WC patients altogether, our results suggest that a number of providers have increased their WC case loads. As a result, we do not find compelling evidence of access problems due to providers limiting or abandoning their WC case loads. In contrast, many of the comments reported primarily by acupuncturists and chiropractors in the open-ended portion of our survey suggested that they were dissatisfied that they were unable to get more WC cases referred to them.

7. Streamlining the authorization/UR process to improve access to care for injured workers seems warranted.

Providers most frequently reported that new regulations (31%) and authorization/UR issues (30%) were the most common reasons for the decline in their WC volume of cases. Furthermore, they most frequently reported authorization/UR issues (47%) as barriers to the provision of quality care. Therefore, mechanisms for improving the authorization/UR processes should be explored. Although only a small percentage of injured workers reported not receiving care because of authorization/UR denials or barriers, the high level of provider dissatisfaction with these processes may be a

relatively easy way to improve provider satisfaction and reduce the probability of providers leaving the WC system.

- 8. Providers frequently reported dissatisfaction with the OMFS, and those who were paid at the largest discounts below the fee schedule reported the largest declines in the volume of WC patients they treat. Increases in the fee schedule, or limits on the discounts insurers can pay below the fee schedule, may be warranted to ensure continued broad provider participation in the WC system.**

The most frequently cited reason for stopping participation in WC was payment or the fee schedule (46%). Providers paid 1% to 15% below the OMFS (65%) or more than 15% below the OMFS (66%) were more likely to report declines in WC volume since 2004 than those paid at or above the fee schedule (49%). When asked about the reasons for planned decreases, providers most frequently cited payment or fee schedule issues (47%). Comparing future plans for decreased volume of WC patients by provider payment levels showed that those who were paid more than 15% below the fee schedule were significantly more likely to report planned decreases or quitting the system entirely relative to providers who were paid at the fee schedule or higher (54% vs. 29%). Providers most often reported that improvements in the authorization/UR process (25%) and in the fee schedule (24%) would help them to continue treating WC patients. Furthermore, a recent study by WCRI shows that California on average pays about 21% above the Medicare fee schedule for physician services, whereas the median value across all states is 55%.⁶ For evaluation and management services (i.e., visits), California WC physicians receive on average 13% *below* the Medicare fee schedule.⁶ Therefore, increases in the fee schedule, at least for some services, or limits on the discounts insurers can pay below the fee schedule, may be warranted to ensure continued broad provider participation in the WC system.

REFERENCES

1. Neumark D. The Workers' Compensation Crisis in California: A Primer. San Francisco, CA: Public Policy Institute of California; 2005.
2. Rudolph L, Dervin K, Cheadle A, Maizlish N, Wickizer T. What do injured workers think about their medical care and outcomes after work injury? *J Occup Environ Med* 2002; 44(5):425-34.
3. 2004 Pennsylvania Medical Access Study Executive Overview. (Accessed at http://www.dli.state.pa.us/landi/lib/landi/bwc/publications/2004_execoverview.pdf).
4. Victor RA, Barth P, Liu T. Outcomes for Injured Workers in California, Massachusetts, Pennsylvania, and Texas. Cambridge, MA: Workers' Compensation Research Institute; December 2003.
5. Wickizer TM, Franklin G, Fulton-Kehoe D, Turner JA, Mootz R, Smith-Weller T. Patient satisfaction, treatment experience, and disability outcomes in a population-based cohort of injured workers in Washington State: implications for quality improvement. *Health Serv Res* 2004; 39(4 Pt 1):727-48.
6. Workers Compensation Research Institute. Benchmarks for Designing Workers' Compensation Medical Fee Schedules: 2006. Cambridge, MA: November 2006.
7. Wynn BO. Adopting medicare fee schedules: considerations for the California workers' compensation program. Santa Monica, CA: RAND; 2003. (http://www.rand.org/pubs/monograph_reports/MR1776/MR1776.pdf).
8. Kominski GF, Pourat N, Black JT. The Use of Relative Value Scales for Provider Reimbursement in State Workers' Compensation Programs. Los Angeles, CA: Prepared by the UCLA Center for Health Policy Research for Industrial Medical Council, California Department of Industrial Relations; 1999. (http://www.healthpolicy.ucla.edu/pubs/files/IMC_Study_FinalReport_081999.pdf).
9. Kominski GF, Gardner LB. Inpatient Hospital Fee Schedule and Outpatient Surgery Study: Prepared for the Commission on Health and Safety and Workers' Compensation; 2001. (<http://www.dir.ca.gov/chswc/HospitalFeeSchedule2002/HFSFinalReport.PDF>).
10. The Lewin Group. Draft Report: California Workers' Compensation RBRVS Study: prepared for Industrial Medical Council, California Department of Industrial Relations; 2002 October 8. (<http://www.dir.ca.gov/dwc/CaliforniaWorkers%27CompensationRBRVSSStudy2002.pdf>).

11. California Bureau of State Audits. California's Workers' Compensation Program: The Medical Payment System Does Not Adequately Control the Costs to Employers to Treat Injured Workers or Allow for Adequate Monitoring of System Costs and Patient Care; 2003 August. Report No.: 2003-108.1. (<http://www.bsa.ca.gov/pdfs/reports/2003-108.1.pdf>).
12. American Medical Association. Guides to the Evaluation of Permanent Impairment. 5th ed. Chicago: American Medical Association; 2000.
13. Cal Facts: California's Economy and Budget in Perspective. 2006 (Accessed at http://www.lao.ca.gov/2006/cal_facts/cal_facts_2006.pdf).
14. California Commission on Health and Safety and Workers' Compensation. Selected Indicators in Workers' Compensation: A Report Care for Californians. Sacramento, CA: State of California Labor and Workforce Development Agency, Department of Industrial Relations; 2006. (http://www.dir.ca.gov/CHSWC/Reports/WC_ReportCard_Dec2006.pdf).
15. National Health Expenditures Data, Health expenditures by state of provider: Summary Tables, 1980-2004. 2006 (Accessed at <http://www.cms.hhs.gov/NationalHealthExpendData/downloads/nhestatesummary2004.pdf>).
16. California Health Interview Survey. UCLA Center for Health Policy Research, 2003 (Accessed at <http://www.askchis.com>).
17. Swedlow A. California Workers' Compensation Medical Care Reform & Access to Medical Care. Oakland, CA: California Workers' Compensation Institute; 2006.
18. Press Release: CWCI Completes 6-Part Research Series: Early Returns On California Workers' Comp Medical Reforms. California Workers' Compensation Institute, 2006 (Accessed at http://www.cwci.org/NEWSROOM/News_Detail.cfm?ReleaseID=151).
19. Verbeten N, Navarro F, Thompson J. Hostile to Physicians, Harmful to Patients. The Workers' Compensation...Reform? A Survey of Physicians by the California Medical Association. Sacramento, CA: California Medical Association Center for Economic Services; 2005. (http://www.cmanet.org/upload/cma_workers_comp_report_102705.pdf).
20. California Orthopaedic Association. A Report on Injured Workers' Access to Orthopaedic Surgeons and other Physician Specialists in California; 2006. (<http://www.coassn.org/access%20survey.pdf>).
21. Dembe AE, Fox SE, Himmelstein JS. The RWJF Workers' Compensation Health Initiative: Findings and Strategies. Health Aff (Millwood) 2002; 21(1):251-5.
22. *Performance Measurement: Quality Dimensions and Indicators*, funded by the Workers' Compensation Health Initiative of the Robert Wood Johnson Foundation. 2000 (Accessed August 15, 2006, at <http://www.umassmed.edu/uploadedfiles/RhodeIslandFinalReport.pdf>).

23. Institute of Medicine (U.S.). Committee on Quality of Health Care in America. Crossing the quality chasm: a new health system for the 21st century. Washington, D.C.: National Academy Press; 2001.
24. The Planning and Development for a California Work Injury Resource Center for the Improvement of Workers' Compensation Medical Care. 2001 (Accessed August, 8, 2006, at <http://www.umassmed.edu/uploadedfiles/InjuredWorker3.pdf>).
25. McGlynn EA, Asch SM, Adams J, et al. The quality of health care delivered to adults in the United States. *N Engl J Med* 2003; 348(26):2635-45.
26. United States. Agency for Healthcare Research and Quality. 2005 National healthcare quality report. Rockville, MD: U.S. Dept. of Health and Human Services, Agency for Healthcare Research and Quality; 2005. Report No.: 06-0018.
27. Anderson GF, Poullier JP. Health spending, access, and outcomes: trends in industrialized countries. *Health Aff (Millwood)* 1999; 18(3):178-92.
28. Banks J, Marmot M, Oldfield Z, Smith JP. Disease and disadvantage in the United States and in England. *JAMA* 2006; 295(17):2037-45.
29. Reinhardt UE, Hussey PS, Anderson GF. U.S. health care spending in an international context. *Health Aff (Millwood)* 2004; 23(3):10-25.
30. Schuster MA, McGlynn EA, Brook RH. How good is the quality of health care in the United States? *Milbank Q* 1998; 76(4):517-63, 09.
31. Starfield B. Is US health really the best in the world? *JAMA* 2000; 284(4):483-5.
32. Bristol N. US lags in health care despite largest investment, survey shows. *BMJ* 2006; 332(7546):869.
33. Fox SE, Victor, R.A., and Liu, T. Comparing Outcomes for Injured Workers in Seven Large States. Cambridge, MA: Workers' Compensation Research Institute (WCRI); 2006. Report No.: WC-06-01.
34. Wennberg JE, Fisher ES, Skinner JS. Geography and the debate over Medicare reform. *Health Aff (Millwood)* 2002; Suppl Web Exclusives:W96-114.
35. Fisher ES, Wennberg DE, Stukel TA, Gottlieb DJ. Variations in the longitudinal efficiency of academic medical centers. *Health Aff (Millwood)* 2004; Suppl Web Exclusive:VAR19-32.
36. Wennberg JE. Practice variations and health care reform: connecting the dots. *Health Aff (Millwood)* 2004; Suppl Web Exclusive:VAR140-4.

37. Melgard MA. Preliminary findings of the Medical Outcomes Study Project -- Phase I. Salem, OR: Oregon Workers' Compensation Division, Department of Consumer and Business Services; 1998.
38. Guidotti TL. The big bang? An eventful year in workers' compensation. *Annu Rev Public Health* 2006; 27:153-66.
39. Timmermans S, Mauck A. The promises and pitfalls of evidence-based medicine. *Health Aff (Millwood)* 2005; 24(1):18-28.
40. Stanton MS. Implantable cardioverter defibrillators: an excellent case study. *Health Aff (Millwood)* 2005; 24(1):52-4.
41. Ramsey SD, Sullivan SD. Evidence, economics, and emphysema: Medicare's long journey with lung volume reduction surgery. *Health Aff (Millwood)* 2005; 24(1):55-66.
42. PROLOGUE: Evidence-Based Medicine Case Studies. *Health Aff (Millwood)* 2005; 24(1):41.
43. Helm II S. California Workers' Compensation System: Are Occupational Medicine Practice Guidelines Sufficient for the Treatment of Chronic Spinal Pain or Do They Require Supplementation by Guidelines for Interventional Techniques? *Pain Physician* 2004; 7(2):229-38.
44. Nuckols TK, Rand Corporation. Evaluating medical treatment guideline sets for injured workers in California. Santa Monica, CA: RAND Corporation; 2005. (http://www.rand.org/pubs/monographs/2005/RAND_MG400.pdf).
45. Garber AM. Evidence-based guidelines as a foundation for performance incentives. *Health Aff (Millwood)* 2005; 24(1):174-9.
46. Davis DA, Taylor-Vaisey A. Translating guidelines into practice: A systematic review of theoretic concepts, practical experience and research evidence in the adoption of clinical practice guidelines. *Canadian Medical Association Journal* 1997; 157(4):408-16.
47. Restuccia JD, Gertman P. A comparative analysis of appropriateness of hospital use. *Health Aff (Millwood)* 1984; 3(2):130-8.
48. Payne SM. Identifying and managing inappropriate hospital utilization: a policy synthesis. *Health Serv Res* 1987; 22(5):709-69.
49. Rudolph L, Linford-Steinfeld J, Dervin K. Utilization Review in California's Workers' Compensation System: A Preliminary Assessment: Division of Workers' Compensation; 2001. Report No.: 2001-3. (www.dir.ca.gov/dwc/URreport.pdf).

50. Wickizer TM, Franklin G, Gluck JV, Fulton-Kehoe D. Improving quality through identifying inappropriate care: the use of guideline-based utilization review protocols in the Washington State Workers' Compensation System. *J Occup Environ Med* 2004; 46(3):198-204.
51. Wickizer TM, Lessler D, Franklin G. Controlling workers' compensation medical care use and costs through utilization management. *J Occup Environ Med* 1999; 41(8):625-31.
52. Wickizer TM, Wheeler JR, Feldstein PJ. Does utilization review reduce unnecessary hospital care and contain costs? *Med Care* 1989; 27(6):632-47.
53. Wickizer TM, Lessler D. Utilization management: issues, effects, and future prospects. *Annu Rev Public Health* 2002; 23:233-54.
54. Wickizer TM, Lessler D. Do treatment restrictions imposed by utilization management increase the likelihood of readmission for psychiatric patients? *Med Care* 1998; 36(6):844-50.
55. Dembe AE, Sum J, Baker C. Workers' Compensation Medical Care in California: Costs (Fact Sheet #2). San Francisco, CA; 2003 August.
56. Bailit HL, Sennett C. Utilization management as a cost-containment strategy. *Health Care Financ Rev Annu Suppl* 1991:87-93.
57. Elam K, Taylor V, Ciol MA, Franklin GM, Deyo RA. Impact of a worker's compensation practice guideline on lumbar spine fusion in Washington State. *Med Care* 1997; 35(5):417-24.
58. Bickmore Risk Services. A Study of the Effects of Legislative Reforms on California Workers' Compensation Insurance Rates. San Francisco, CA: California Department of Industrial Relations, Division of Workers' Compensation; 2006.
59. Rosenfeld K, Luft HS, Garnick DW, McPhee SJ. Changes in patient characteristics and surgical outcomes for coronary artery bypass surgery 1972-82. *Am J Public Health* 1987; 77(4):498-500.
60. Hughes RG, Hunt SS, Luft HS. Effects of surgeon volume and hospital volume on quality of care in hospitals. *Med Care* 1987; 25(6):489-503.
61. Swedlow A, Gardner LB. Provider Experience and Volume-Based Outcomes in California Workers' Compensation -- Does "Practice Make Perfect?" Oakland, CA: California Workers' Compensation Institute (CWCI); 2003.
62. Sum J. Navigating the California Workers' Compensation System: The Injured Workers' Experience -- An Evaluation of Services to Inform and Assist Injured Workers in California. San Francisco, CA: Commission on Health and Safety and Workers' Compensation; 1996.

63. Ware JE, Jr., Davies AR. Behavioral consequences of consumer dissatisfaction with medical care. *Eval Program Plann* 1983; 6(3-4):291-7.
64. Keith RA. Patient satisfaction and rehabilitation services. *Arch Phys Med Rehabil* 1998; 79(9):1122-8.
65. Kaplan SH, Greenfield S, Ware JE, Jr. Assessing the effects of physician-patient interactions on the outcomes of chronic disease. *Med Care* 1989; 27(3 Suppl):S110-27.
66. Grumbach K, Osmond D, Vranizan K, Jaffe D, Bindman AB. Primary care physicians' experience of financial incentives in managed-care systems. *N Engl J Med* 1998; 339(21):1516-21.
67. Damberg C, Grazier K, Greenfield S, et al. *Advancing Physician Performance Measurement: Using Administrative Data to Assess Physician Quality and Efficiency*. San Francisco: Pacific Business Group on Health; 2005.
68. Stewart D. *Aligning Physician Incentives: Lessons and Perspectives from California*. San Francisco, CA: Pacific Business Group on Health; 2005.
69. *The Practice of Medicine in California: A Profile of the Physician Workforce*. 2001 (Accessed September 10, 2006, at http://www.futurehealth.ucsf.edu/pdf_files/PHASS.pdf).
70. Miller RH, Luft HS. HMO plan performance update: an analysis of the literature, 1997-2001. *Health Aff (Millwood)* 2002; 21(4):63-86.
71. Chaix-Couturier C, Durand-Zaleski I, Jolly D, Durieux P. Effects of financial incentives on medical practice: results from a systematic review of the literature and methodological issues. *Int J Qual Health Care* 2000; 12(2):133-42.
72. Wiley J, Garrett K, Chang Y-T, Rudolph L, Dervin K, Maizlish N. *What do Injured Workers Think of Their Medical Care? A report on the development of a survey*. Oakland, CA: California Division of Workers' Compensation, Department of Industrial Relations; 1998.
73. Kyes KB, Wickizer TM, Franklin G, et al. Evaluation of the Washington State Workers' Compensation Managed Care Pilot Project I: medical outcomes and patient satisfaction. *Med Care* 1999; 37(10):972-81.
74. Weissman JS, Stern R, Fielding SL, Epstein AM. Delayed access to health care: risk factors, reasons, and consequences. *Ann Intern Med* 1991; 114(4):325-31.
75. Docteur ER, Colby DC, Gold M. Shifting the paradigm: monitoring access in Medicare managed care. *Health Care Financ Rev* 1996; 17(4):5-21.
76. *The Impact of Provider Choice on Workers' Compensation Costs and Outcomes*. Cambridge, MA: Workers' Compensation Research Institute (WCRI); 2005. Report No.: WC-05-14.

77. Davis K, Collins KS, Schoen C, Morris C. Choice matters: enrollees' views of their health plans. *Health Aff (Millwood)* 1995; 14(2):99-112.
78. Ward MM, Leigh JP, Fries JF. Progression of functional disability in patients with rheumatoid arthritis. Associations with rheumatology subspecialty care. *Arch Intern Med* 1993; 153(19):2229-37.
79. Mark DB, Naylor CD, Hlatky MA, et al. Use of medical resources and quality of life after acute myocardial infarction in Canada and the United States. *N Engl J Med* 1994; 331(17):1130-5.
80. Kassirer JP. Access to specialty care. *N Engl J Med* 1994; 331(17):1151-3.
81. Suter LG, Fraenkel L, Holmboe ES. What factors account for referral delays for patients with suspected rheumatoid arthritis. *Arthritis and Rheumatism* 2006; 55(2):300-5.
82. Freburger JK, Carey TS, Holmes GM. Physician referrals to physical therapists for treatment of spine disorders. *The Spine Journal* 2005; 5(5):530-41.
83. United States. Agency for Healthcare Research and Quality. 2005 National Healthcare Disparities Report. Rockville, MD: U.S. Dept. of Health and Human Services, Agency for Healthcare Research and Quality; 2005. Report No.: 06-0017.
84. Morales LS, Ortega AN. Disparities in Health Care. In: Andersen RM, Rice TH, Kominski GF, eds. *Changing the US Health Care System: Key issues in health services policy and management*. 3rd ed. San Francisco, CA: Jossey-Bass; 2007.
85. Lasser KE, Himmelstein DU, Woolhandler S. Access to care, health status, and health disparities in the United States and Canada: results of a cross-national population-based survey. *Am J Public Health* 2006; 96(7):1300-7.
86. Lashuay N, Burgel BJ, Harrison R, et al. "We Spend Our Days Working In Pain": A Report on Workplace Injuries in the Garment Industry. Oakland, CA: Asian Immigrant Women Workers Clinic; 2002.
87. Scherzer T, Rugulies R, Krause N. Work-related pain and injury and barriers to workers' compensation among Las Vegas hotel room cleaners. *Am J Public Health* 2005; 95(3):483-8.
88. Lashuay N, Harrison R. Barriers to Occupational Health Services for Low-Wage Workers in California. Oakland, CA: Commission on Health and Safety and Workers' Compensation (CHSWC); 2006.
89. Llewellyn M, Dawson D. Final Report: 2006 Injured Worker Satisfaction Study. Albuquerque, NM: Economic Research Bureau, State of New Mexico Workers' Compensation Administration; 2006.

90. Rittenhouse DR, Mertz E, Keane D, Grumbach K. No exit: an evaluation of measures of physician attrition. *Health Serv Res* 2004; 39(5):1571-88.
91. LaDou J. The rise and fall of occupational medicine in the United States. *Am J Prev Med* 2002; 22(4):285-95.
92. Guidotti TL, Barbanel C, Auerbach K. Occupation medicine: the case for reform. *Am J Prev Med* 2006; 30(2):186.
93. Cunningham PJ, Nichols LM. The effects of medicaid reimbursement on the access to care of medicaid enrollees: a community perspective. *Med Care Res Rev* 2005; 62(6):676-96.
94. Cohen JW, Cunningham PJ. Medicaid physician fee levels and children's access to care. *Health Aff (Millwood)* 1995; 14(1):255-62.
95. Coburn AF, Long SH, Marquis MS. Effects of changing Medicaid fees on physician participation and enrollee access. *Inquiry* 1999; 36(3):265-79.
96. Government Accountability Office. Medicare Physician Services: Use of Services Increasing Nationwide and Relatively Few Beneficiaries Report Major Access Problems. Washington, DC:; 2006 July 21,. Report No.: GAO-06-704.
97. Mitchell JB, Cromwell J. Impact of Medicare payment reductions on access to surgical services. *Health Serv Res* 1995; 30(5):637-55.
98. Cherry DK, Burt CW, Woodwell DA. National Ambulatory Medical Care Survey: 1999 Summary. *Advance Data from Vital and Health Statistics* 2001; (322).
99. Mooney C, Zwanziger J, Phibbs CS, Schmitt S. Is travel distance a barrier to veterans' use of VA hospitals for medical surgical care? *Soc Sci Med* 2000; 50(12):1743-55.
100. Burgess JF, Jr., DeFiore DA. The effect of distance to VA facilities on the choice and level of utilization of VA outpatient services. *Soc Sci Med* 1994; 39(1):95-104.
101. Krause N, Dasinger LK, Neuhauser F. Modified Work and Return to Work: A Review of the Literature. *Journal of Occupational Rehabilitation* 1998; 8(2):113-39.
102. Markiewicz B, Roberts K. The Worker Injury National Survey Project (WINS): Exploring the Feasibility of Building a National Information Resource. In. Portland, ME: WINS Project Collaborative at IAIABC Conference; October 9, 2001. (<http://www.umassmed.edu/workerscomp/presentations/briefings/iaiabc/WINS.ppt>).
103. Greenberg L. Measuring Quality in Workers' Compensation Managed Care Organizations: Technical Manual of Performance Measures. Washington, D.C.: Utilization Review Accreditation Commission (URAC); 2001.

104. Fox S, Borba P, Liu T-C. Return-to-Work Outcomes of Injured Workers: Evidence from California, Massachusetts, Pennsylvania, and Texas. Cambridge, MA: Workers' Compensation Research Institute (WCRI); 2005. Report No.: WC-05-15.
105. Martin P. The Medical Fee Schedule Under the Workers' Compensation Law. Honolulu, HI: State Capitol Legislative Reference Bureau; 1998. Report No.: 8.
106. Bindman AB, Yoon J, Grumbach K, Streett L. Physician Participation in Medi-Cal, 2001. Oakland, CA: California HealthCare Foundation, Medi-Cal Policy Institute; 2003.
107. Burt C, Woodwell D. Tests of methods to improve response to physician surveys. In: Centers for Disease Control and Prevention; Accessed on 11-29-2006:
http://www.fcsm.gov/05papers/Burt_Woodwell_VIIB.pdf.
108. Schoenman JA, Berk ML, Feldman JJ, Singer A. Impact of differential response rates on the quality of data collected in the CTS physician survey. *Eval Health Prof* 2003; 26(1):23-42.

APPENDIX A:
INJURED WORKER SURVEY INSTRUMENT

1-4 For this survey, please answer all questions for your _____ (Mo) 2005 injury. _____

5 Which parts of your body were injured? Check all that apply.

- Back or neck
- Hand, arm, wrist, elbow, shoulder, or finger
- Hip, leg, knee, foot, toes
- Head or face
- Skin
- Eyes
- Emotional or mental stress
- Lungs, heart, or other internal organ(s)
- Chest / abdomen
- Other: _____
- Don't know

6 What kind of injury was it? Check all that apply.

- Sprain, strain, or other muscle or joint injury (not repetitive motion e.g., a pulled muscle, twisted ankle)
- Repetitive stress injury (e.g. tennis elbow, carpal tunnel syndrome)
- Broken bone
- Scrape, cut, skin rash, bruise, or swelling
- Eye injury
- Burn
- Exposure to chemicals or toxic materials
- Emotional or mental stress
- Other: _____
- Don't know

7 Thinking back to the very first time you went to get medical care for this injury, how soon after you told your employer about your injury did you first see a doctor or health care provider about it?

- Same day
- Within 1-3 days
- Within 4-6 days
- Within 1 to 4 weeks
- More than 4 weeks
- Saw doctor before told employer
- Don't know

8 What kind of doctor or health care provider did you see for this first visit?

- Medical doctor or osteopath
- Chiropractor
- Nurse practitioner or physician assistant
- Acupuncturist
- Psychologist
- Podiatrist
- Dentist
- Optometrist
- Other: _____
- Don't know

9 Where was this first visit?

- Workplace medical office or employer's clinic
- Private doctor's office
- Kaiser clinic
- Occupational medical clinic or urgent care center
- Hospital emergency room → GO TO **11**
- Other: _____
- Don't know

SECTION A. ABOUT YOUR ACCESS TO MEDICAL CARE

10 Who chose or recommended where you first went for medical care for this injury?

- Yourself
- Your employer
- Your attorney
- An insurance company / claims adjuster
- Someone else (family, friend, co-worker)
- Don't know

11 How far did you have to travel to get to this first provider?

- 0 to 15 miles
- 16 to 30 miles
- 31 to 60 miles
- More than 60 miles
- Don't know

12 How long did it take you to get to there?

- 0 to 15 minutes
- 16 to 30 minutes
- 31 to 60 minutes
- More than 60 minutes
- Don't know

13 After the first visit, did you have any additional visits to any health care provider for this injury?

- Yes
- No → GO TO **23**
- Don't know

14 Are you still seeking medical care for this injury?

- Yes → GO TO **16**
- No
- Don't know

15 How long did you receive medical care for this injury?

- # days
- # weeks
- # months
- Don't know

16 Thinking of all medical care you've received for this injury, how many different doctors, physician assistants, and nurse practitioners have you seen or been treated by? Do not include any physical or occupational therapists. Please include medical doctors, specialists, chiropractors, acupuncturists, podiatrists, dentists, psychologists, and optometrists.

- 1 → GO TO **22**
- 2 - 4
- 5 - 8
- 9 or more
- Don't know

SECTION B. ABOUT THE PROVIDER MOST INVOLVED IN YOUR CARE
(Please do not include physical or occupational therapists)

17 Was the provider who was **most involved** the same as the provider you first saw?

- Yes, the same → GO TO **22**
- No, a different provider
- Don't know

20 How far did you have to travel to get to the provider **most involved** in your care?

- 0 to 15 miles
- 16 to 30 miles
- 31 to 60 miles
- More than 60 miles
- Don't know

18 What kind of provider was **most involved** in your care?

- Medical doctor or osteopath
- Chiropractor
- Nurse practitioner
- Physician assistant
- Other (licensed acupuncturist, psychologist, podiatrist, dentist, optometrist):
- Don't know

21 On average, how long did it take you to get to the provider **most involved** in your care?

- 0 to 15 minutes
- 16 to 30 minutes
- 31 to 60 minutes
- More than 60 minutes
- Don't know

22 About how many visits did you have to this provider for this injury?

- 1
- 2 - 4
- 5 - 8
- 9 or more
- Don't know

19 Who chose or recommended the provider **most involved** in your care?

- Yourself
- Your employer
- Your attorney
- An insurance company / claims adjuster
- Someone else (family, friend, co-worker)
- Don't know

23 How well did this **most involved** provider seem to understand the physical and mental demands of your job?

- Very well
- Fairly well
- Not very well
- Not at all
- Don't know

SECTION B. ABOUT THE PROVIDER MOST INVOLVED IN YOUR CARE
(Please do not include physical or occupational therapists)

24 Did this provider talk to you about whether or not you need any work restrictions, changes in your job or the way you do your job, so you could continue working or return to work?

- Yes
- No
- Not needed for my injury
- Don't know

25 Did this **most involved** provider tell you how to avoid re-injury?

- Yes
- No
- Not appropriate for my injury
- Don't know

26 Do you agree or disagree with this statement:
This **most involved** provider treated me with courtesy and respect.

- Strongly agree
- Agree
- Disagree
- Strongly disagree
- Don't know / No opinion

27 Do you agree or disagree with this statement:
This **most involved** provider explained my medical condition and treatment in a way I could understand.

- Strongly agree
- Agree
- Disagree
- Strongly disagree
- Don't know

28 How satisfied are you with the care and treatment you received from this **most involved** provider?

- Very satisfied
- Satisfied
- Dissatisfied
- Very dissatisfied
- Don't know / No opinion

29 The last time you saw this provider, did you have a hard time understanding them?

- Yes
- No → GO TO **31**
- Don't know → GO TO **31**

30 Was this because you and this provider spoke different languages?

- Yes
- No
- Don't know

CONTINUE ON PAGE 5

SECTION C: ABOUT THE MEDICAL CARE YOU RECEIVED

- 31** Did any health care provider ever say you needed to see a physical or occupational therapist for this injury?
- Yes
 - No → GO TO **36**
 - Don't Know → GO TO **36**

- 34** Did you ever have any problem getting in to see a physical or occupational therapist for this injury?
- Yes
 - No → GO TO **36**
 - Don't know → GO TO **36**

- 32** About how many visits to physical or occupational therapists did you have for this injury?
- None
 - 1 - 6 → GO TO **34**
 - 7 - 12 → GO TO **34**
 - 13 - 18 → GO TO **34**
 - 19 - 24 → GO TO **34**
 - 25 or more → GO TO **34**
 - Don't Know → GO TO **34**

- 35** What was the problem? Check all that apply.
- Employer or insurance company would not authorize it
 - Delay in getting authorization
 - Problems scheduling appointment (e.g. delay)
 - Problems getting to provider (e.g. far away, no way to get there)
 - Provider wouldn't take Workers' Comp. patients
 - Couldn't find a provider I was satisfied with
 - Other:
 - Don't know

- 33** What was the **primary** reason you didn't see a physical or occupational therapist?
- Didn't think I needed it
 - Employer or insurance company would not authorize it
 - Problems scheduling appointment (e.g. delay)
 - Problems getting to provider (e.g. far away, no way to get there)
 - Provider wouldn't take Workers' Comp. patients
 - Other:
 - Don't know

- 36** Did any provider ever say you needed to see a specialist for this injury? By specialist we mean a doctor in a specialty different from the doctor you were seeing at the time.
- Yes
 - No → GO TO **43**
 - Don't know → GO TO **43**

- 37** About how many different specialists did you see for this injury?
- # of specialists → GO TO **39**
 - None → GO TO **39**
 - Don't know → GO TO **39**

IF YOU DID NOT SEE A PHYSICAL OR OCCUPATIONAL THERAPIST → GO TO **36**

SECTION C: ABOUT THE MEDICAL CARE YOU RECEIVED

38 What was the **primary** reason you didn't see a specialist?

- Didn't think I needed it
- Employer or insurance company would not authorize it
- Problems scheduling appointment (e.g. delay)
- Problems getting to provider (e.g. far away, no way to get there)
- Provider wouldn't take Workers' Comp. patients
- Other:

Don't know

IF DID NOT SEE A SPECIALIST → GO TO 43

39 Did you ever have any problem getting in to see any specialist for this injury?

- Yes
- No → GO TO **44**
- Don't know → GO TO **44**

40 What was the problem? Check all that apply.

- Employer or insurance company would not authorize it
- Delay in getting authorization
- Problems scheduling appointment (e.g. delay)
- Problems getting to provider (e.g. far away, no way to get there)
- Provider wouldn't take Workers' Comp. patients
- Couldn't find a provider I was satisfied with
- Other:

Don't know

41 How far did you have to travel to get to the specialist you saw most often? If you saw different specialists equally as often, please respond for the one you saw most recently.

- 0 to 15 miles
- 16 to 30 miles
- 31 to 60 miles
- More than 60 miles
- Don't know

42 On average, how long did it take you to get to this specialist?

- 0 to 15 minutes
- 16 to 30 minutes
- 31 to 60 minutes
- More than 60 minutes
- Don't know

43 Did any provider ever say you needed prescription medication for this injury?

- Yes
- No → GO TO **46**
- Don't know → GO TO **46**

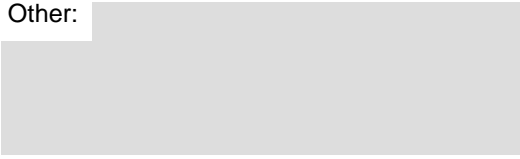
44 Thinking about the most recent time a physician wrote a prescription for this injury, where did you get the medication?

- Pharmacy → GO TO **46**
- Doctor's office → GO TO **46**
- Other place (e.g., online, Canada / Mexico) → GO TO **46**
- Did not get the medication
- Don't know → GO TO **46**

CONTINUE ON PAGE 7

SECTION C: ABOUT THE MEDICAL CARE YOU RECEIVED

45 What was the **primary** reason you didn't get the medication?

- Didn't want to take medication
- Employer or insurance company would not authorize it
- Problems getting to pharmacy (e.g., far away, no way to get there)
- Pharmacy wouldn't take Workers' Comp. patients
- Lost the prescription
- Other: 
- Don't know

48 Do you agree or disagree with this statement: I was able to get access to quality health care for this injury.

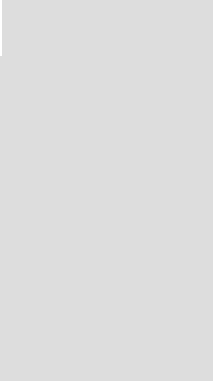
- Strongly agree
- Agree
- Disagree
- Strongly disagree
- Don't know

49 Now overall, how satisfied are you with all of the health care you received for this injury?

- Very satisfied → GO TO **51**
- Satisfied → GO TO **51**
- Dissatisfied
- Very dissatisfied
- Don't know / no opinion → GO TO **51**

46 Which of the following best describes how you feel about your recovery from this injury?

- I am fully recovered, back to feeling the way I did before the injury
- I've recovered some, but there is still room for improvement
- There has been no improvement in my condition since I was first injured
- Don't know

50 Why are you dissatisfied? 

47 At any time during your treatment, did you change the health care provider you were seeing because you were dissatisfied?

- Yes
- No
- Don't know

51 Did you or do you now have an attorney for this Workers' Compensation claim?

- Yes
- No
- Don't know

SECTION D: ABOUT YOU

52 Are you currently working?

- Yes → GO TO **55**
- No
- Don't know → GO TO **54**

53 Why are you not working now?

- Because of this injury
- Because of some other health condition
- Because of some other reason
- Don't know

54 Have you returned to work, even for a few days, since this injury?

- Yes
- No → GO TO **58**
- Don't know → GO TO **58**

55 When you first went back to work after this injury, did you return to the same or to a different employer?

- Same employer
- Different employer
- Don't know

56 About how many total days did you miss from work because of this injury. Please do not include time missed due to medical appointments.

- # days
- # weeks
- # months
- None
- Don't know

57 Did you or your employer change your job, work environment, or work hours to help you return to work after your injury?

- Yes
- No
- Not needed for my injury
- Don't know

58 Are you male or female?

- Male
- Female

59 Are you Latino or Hispanic?

- Yes
- No
- Don't know

60 Which one or more of the following would you use to describe yourself? Check all that apply.

- White
- Black or African American
- Asian
- American Indian or Alaska Native
- Other Pacific Islander
- Native Hawaiian
- Other:
- Don't know

CONTINUE ON PAGE 9

SECTION D. ABOUT YOU

61 What is your marital status?

- Married
- Widowed
- Divorced
- Separated
- Single, never married
- Living with partner

62 What languages do you speak at home?
Check all that apply.

- Asian Indian languages
- Cantonese
- English
- Korean
- Mandarin
- Russian
- Spanish
- Tagalog
- Vietnamese
- Other:

63 If you speak languages other than English at home, would you say you speak English...

- Very well
- Well
- Not well
- Not at all
- Don't know

64 What, if any, type of health insurance did you have at the time of this injury? Check all that apply.

- None / uninsured
- Private or employer-based plan
- Medicare
- Medi-Cal / Healthy Families
- Other
- Don't know

65 What is your best estimate of your **total annual** income from all sources **before taxes** at the time of your injury? Please include wages, salaries, income from investments or your own business, Workers' Comp. payments, Social Security, SSI, and any other sources. Include only **your own** income. Do not include income from other household members.

- Less than \$10,000
- \$10,000 - 14,999
- \$15,000 - 24,999
- \$25,000 - 34,999
- \$35,000 - 49,999
- \$50,000 - 74,999
- \$75,000 or more
- Don't know

66 What is the highest grade or year of school you completed?

- Under grade 9 (elementary / grades 1-8 or less)
- Grades 9 through 11 (some high school)
- Grade 12 or GED (high school graduate)
- College 1 - 3 years (some college or technical school, AA degree)
- College graduate (4 years, BA, BS)
- Post-grad work or degree (MA, MD, JD, PhD)
- Don't know

67 Thank you for completing this survey. To thank you for your time, we'd like to send you a \$15 gift card. Please select your card preference.

- Target gift card
- Safeway / Vons gift card (Safeway cards may be redeemed at Vons)

APPENDIX B:
PROVIDER SURVEY INSTRUMENT

1 Are you a...?

- Doctor of Medicine (MD)
- Osteopath (DO)
- Chiropractor (DC) → GO TO 6
- Psychologist (PhD) → GO TO 6
- Podiatrist (DPM) → GO TO 3
- Acupuncturist (LAc) → GO TO 6
- Other → GO TO 46

2 What is your primary specialization, if any?

- Allergy and Immunology
- Anesthesiology / Pain Management
- Dermatology
- Emergency Medicine
- Family Medicine
- General Surgery
- Internal Medicine
- Neurology
- Neurosurgery
- Occupational Medicine
- Orthopedic Surgery
- Physical Medicine & Rehabilitation
- Plastic Surgery
- Preventive Medicine
- Psychiatry
- Other: _____
- None → GO TO 6

3 Are you board certified in this specialty?

- Yes
- No

PODIATRISTS → GO TO 6

4 What is your secondary specialization, if any?

- Allergy and Immunology
- Anesthesiology / Pain Management
- Dermatology
- Emergency Medicine
- Family Medicine
- General Surgery
- Internal Medicine
- Neurology
- Neurosurgery
- Occupational Medicine
- Orthopedic Surgery
- Physical Medicine & Rehabilitation
- Plastic Surgery
- Preventive Medicine
- Psychiatry
- Other: _____
- None → GO TO 6

5 Are you board certified in this specialty?

- Yes
- No

6 How long have you been a licensed health care provider?

- # of years
- Less than 1 year
 - Don't know

7 Do you currently **accept or treat** WC patients?

- Yes → GO TO 14
- No
- Don't know

8 What year did you last treat any WC patients?

- 2006
- 2005
- 2004
- 2003
- 2002
- 2001
- 2000 or earlier → GO TO 46
- Never → GO TO 46
- Don't know → GO TO 46

SECTION A: COMPLETE IF YOU USED TO TREAT WC PATIENTS

9 Approximately what percent of your patients were Workers' Compensation when you last treated such patients?

% of WC patients

Don't know

10 For how many years did you treat Workers' Compensation patients?

years

Less than 1 year

Don't know

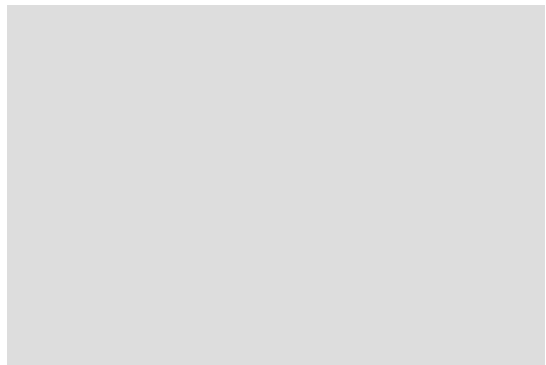
11 Do you plan to treat Workers' Compensation patients again in the future?

Yes

No

Don't know

12 Why did you stop treating Workers' Compensation patients?



13 In your Workers' Compensation practice, were you generally paid at...

The fee schedule or higher

A discounted rate of 15% or less off the fee schedule

A discounted rate of more than 15% off the fee schedule

Don't know / No opinion

**END OF SECTION A
IF YOU NO LONGER ACCEPT OR TREAT WC PATIENTS → GO TO 46**

SECTION B: COMPLETE IF YOU CURRENTLY ACCEPT OR TREAT WC PATIENTS

14 Approximately what percent of your current patients are WC?

- % WC patients
 Don't know

15 How many WC patients do you treat in a typical week?

- Less than one patient
 1 to 5 patients
 6 to 20 patients
 21 or more patients
 Don't know

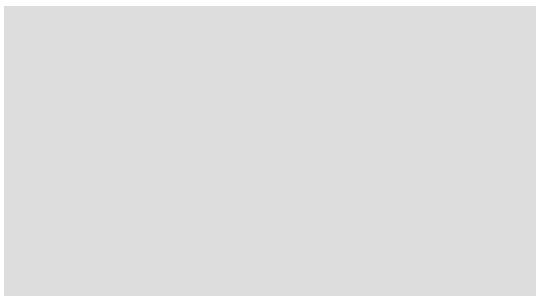
16 How many **new** WC patients do you treat in a typical month?

- # of new WC patients
 None
 Not applicable / not accepting
 Don't know

17 How many years have you been treating WC patients?

- # years
 Less than 1 year
 Don't know

18 Why do you treat WC patients?



19 Do you do WC medical-legal evaluations? (i.e. to clarify disputed medical issues such as whether injury occurred during the course of employment or the level of permanent disability)

- Yes
 No
 Don't know

20 Do you see Medi-Cal / Medicaid patients?

- Yes
 No
 Don't know

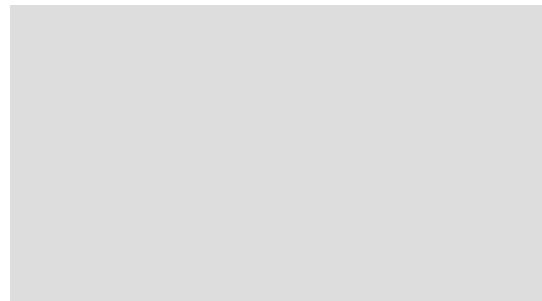
21 For non-emergency care, how many days does a new WC patient have to wait to see you?

- same day, or
 # days
 # weeks
 # months
 Not applicable / not accepting
 Don't know

22 Since the beginning of 2004, has the percent of WC patients you see...

- Increased
 Decreased → GO TO **24**
 Stayed the same → GO TO **25**
 Don't know → GO TO **25**

23 What are the reasons for this increase?



SECTION B: COMPLETE IF YOU CURRENTLY ACCEPT OR TREAT WC PATIENTS

24 What are the reasons for this decrease?

28 What barriers, if any, do you experience in providing **quality care** in the current WC system?

25 In the future, do you plan to change the volume of WC patients in your practice?

- Decrease / thinking about decreasing
- Plan to / thinking about quitting entirely
- Increase / thinking about increasing → GO TO **27**
- Maintain at the same level → GO TO **27**
- Don't know → GO TO **27**

26 Why do you plan to decrease the number of WC patients you see?

→ GO TO **28**

27 What would help you continue to treat WC patients?

29 Once you have authorization, which specialties or disciplines are easiest to refer WC patients to? Check all that apply.

- Acupuncture
- Allergy and Immunology
- Anesthesiology / Pain Management
- Chiropractic
- Dermatology
- Dentistry
- Family Medicine
- General Surgery
- Internal Medicine
- Neurology
- Neurosurgery
- Occupational Medicine
- Occupational Therapy
- Optometry
- Orthopedic Surgery
- Physical Medicine & Rehabilitation
- Physical Therapy
- Plastic Surgery
- Podiatry
- Psychiatry
- Psychology
- Radiology
- Other:
- All equally easy
- None are easy
- Not applicable / do not refer → GO TO **31**
- Don't know

SECTION B: COMPLETE IF YOU CURRENTLY ACCEPT OR TREAT WC PATIENTS

30 Once you have authorization, which specialties or disciplines are hardest to refer WC patients to? Check all that apply.

- Acupuncture
- Allergy and Immunology
- Anesthesiology / Pain Management
- Chiropractic
- Dermatology
- Dentistry
- Family Medicine
- General Surgery
- Internal Medicine
- Neurology
- Neurosurgery
- Occupational Medicine
- Occupational Therapy
- Optometry
- Orthopedic Surgery
- Physical Medicine & Rehabilitation
- Physical Therapy
- Plastic Surgery
- Podiatry
- Psychiatry
- Psychology
- Radiology
- Other:
- All equally hard
- None are hard
- Not applicable / do not refer
- Don't know

31 How often do you feel you understand the physical and mental demands of the worker's job?

- Never
- Some of the time
- Half the time
- Most of the time
- Always
- Don't know

32 How often do you discuss with your WC patients their work status or ability to return to work?

- Never
- Some of the time
- Half the time
- Most of the time
- Always
- Don't know

33 How often do you or your staff contact the employer about the availability of modified work, if applicable?

- Never → GO TO **35**
- Some of the time
- Half the time
- Most of the time
- Always
- Don't know

34 How often are you compensated for time spent contacting employers regarding modified work?

- Never
- Some of the time
- Half the time
- Most of the time
- Always → GO TO **36**
- Don't know

35 Would you contact employers more often if you were compensated specifically to do so?

- Yes
- No
- Don't know / No opinion

**SECTION B:
COMPLETE IF YOU CURRENTLY
ACCEPT OR TREAT WC PATIENTS**

- 36** Since the beginning of 2004, do you feel injured workers' **access** to health care has...?
- Improved
 - Stayed about the same
 - Declined
 - Don't know / No opinion

- 37** Since the beginning of 2004, do you feel injured workers' **quality** of health care has...?
- Improved
 - Stayed about the same
 - Declined
 - Don't know / No opinion

- 38** Please rate the following: In general, injured workers have adequate access to quality health care and health care products.
- Strongly agree
 - Agree
 - Disagree
 - Strongly disagree
 - Don't know / No opinion

- 39** In your Workers' Comp. practice, are you generally paid at...
- The fee schedule or higher
 - A discounted rate of 15% or less off the fee schedule
 - A discounted rate of more than 15% off the fee schedule
 - Don't know / No opinion

**SECTION C:
ABOUT YOUR PRACTICE**

- 40** Zip code of primary office location where you see the largest volume of WC patients:

[Primary office zip code]

- 41** What is your primary practice setting?
- Solo practice → GO TO **43**
 - Group practice
 - Hospital clinic, community health center, public clinic
 - Other:

- 42** Excluding yourself, how many other doctors practice in your primary office location?
- One
 - 2-10
 - 11-59
 - 51-100
 - More than 100

CONTINUE ON PAGE 8

SECTION C: ABOUT YOUR PRACTICE

43 What languages, besides English, do you or your staff speak in your office? Check all that apply.

- None / English only
- Asian Indian languages
- Cantonese
- Korean
- Mandarin
- Russian
- Spanish
- Tagalog
- Other:

45 Are you currently contracted with an HMO and/or a PPO? Check all that apply.

- HMO
- PPO
- None of the above
- Don't know

44 In your WC practice, are you currently contracted with a Health Care Organization (HCO) and/or a Medical Provider Network (MPN)? Check all that apply.

- Health Care Organization (HCO)
- Medical Provider Network (MPN)
- Neither
- Don't know

46 Do you have any other comments about injured workers' access to health care?

END OF SURVEY

Thank you very much for your time. Your responses will improve our understanding of the challenges of providing Workers' Compensation care in California.

APPENDIX C:
CONSOLIDATED PAYER SURVEY INSTRUMENT

Payer Survey: Consolidated Insurer/TPA/SISA Instrument

A. COMPANY DEMOGRAPHICS

1. Does your company provide workers' compensation insurance to employers in the following California regions? (Insurer)

___ Statewide (every region)

1. Does your company adjust workers' compensation claims for employers in the following California regions? (TPA)

___ Statewide (every region)

1. How many employees does your company have in all your California locations?
_____ # employees (SISA)

Do you have employees located in the following California regions? (SISA Q2)

___ Statewide (every region)

or [CHECK ENTIRE REGIONS OR MARK INDIVIDUAL COUNTIES WITHIN REGIONS, AS APPLICABLE]

___ **North Coast, North Inland, and Sierras** – Alpine, Amador, Butte, Calaveras, Colusa, Del Norte, Glenn, Humboldt, Inyo, Lake, Lassen, Mariposa, Mendocino, Modoc, Mono, Nevada, Plumas, Shasta, Sierra, Siskiyou, Sutter, Tehama, Trinity, Tuolumne, Yuba

___ **Sacramento Area** – El Dorado, Placer, Sacramento, Yolo

___ **Greater San Francisco Bay Area** – Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma

___ **San Joaquin Valley** - Fresno, Kern, Kings, Madera, Merced, San Joaquin, Stanislaus, Tulare

___ **Central Coast** – Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz, Ventura

___ **Los Angeles County**

___ **Orange County**

___ **Inland Empire** - Riverside, San Bernardino

___ **San Diego Area** – Imperial, San Diego

___ **Other, more specific region(s)** (specify: _____
_____)

B. WORKERS' COMPENSATION PROVIDER NETWORKS

This section is about the workers' compensation provider network arrangements your company uses, issues pertaining to contracting with physicians for workers' compensation care, and standards for access to care set by your company or the network your company contracts with.

Demographics of Individual Responder to this section

2. What is your current job title? _____
3. How long have you been in this position? _____years, _____months
4. How long have you been working in Workers' Compensation in California?
_____years, _____months

Medical Provider Network (MPN) Arrangements

5. Does your company currently use one or more Medical Provider Networks (MPNs)?

___ Yes

___ No [GO TO 15]

6. Do you have a policy which currently mandates all of your California clients [SISA: employees] to use an MPN?

Yes

No

7. What percentage of your California workers' compensation [Insurer: employers; TPA: clients; SISA: employees] currently use an MPN?

_____ % of California [employers/clients/employees] using an MPN

These next questions are about the MPN(s) your company uses.

8. Did your company (or a contractor on your behalf) develop its own MPN from scratch, including selecting, credentialing, and contracting with providers and making sure the MPN meets regulatory requirements?

Yes

No [**GO TO 10**]

9. Why did your company develop its own MPN?

10. Do you use an existing MPN that you have customized?

Yes

No [**GO TO 12**]

11. Why do you use a customized version of an existing network?

12. Do you supplement the MPN(s) you use with additional providers (e.g., by leasing a portion of providers from an existing MPN or by contracting directly with providers)?

- Yes
- No [**GO TO 14**]

13. Why do you supplement the MPN you use with additional providers?

14. Does your company plan to start any additional MPNs? **CHECK ONLY ONE**

- Yes [**GO TO 17**]
- No [**GO TO 18**]
- Not sure [**GO TO 18**]

15. Does your company plan to start an MPN? **CHECK ONLY ONE**

- Yes [**GO TO 17**]
- No
- Not sure [**GO TO 18**]

16. Why are you not planning to start an MPN? [**RECORD RESPONSE AND GO TO 18**]

17. When do you plan to start an MPN?

- In process/immediately
- Within the next year
- In a few years

18. For employees not covered under an MPN, do either your clients or your company choose the primary treating physician an injured worker sees during the first 30 days of injury or illness (i.e., is 30-day control exerted)?

- Yes
- No
- Not applicable – all client employees are in an MPN

Physician Contracting

19. Are there certain physician types or specialties your company (or the network you contract with) has found it harder to contract with for workers' compensation care?

- Yes
- No [GO TO 22]
- Don't know [GO TO 22]

20. For which physician types and specialties is it harder to contract with for workers' compensation care? Check all that apply.

- Acupuncture
- Allergy and Immunology
- Anesthesiology
- Chiropractic
- Dermatology
- Dentistry
- Emergency Medicine
- Family Medicine
- General Practice
- General Surgery
- Internal Medicine
- Neurology
- Neurosurgery
- Occupational Medicine
- Ophthalmology
- Optometry
- Orthopedic Surgery
- Physical Medicine & Rehabilitation
- Plastic Surgery
- Podiatry
- Psychiatry
- Psychology
- Radiology
- Toxicology
- Urology
- Other, SPECIFY: _____

21. What difficulties do you (or your network) experience in contracting with these physician types and specialties?

22. Are there certain geographic areas or regions of California where it is harder to find physicians willing to contract for workers' compensation care?

- Yes
- No [**GO TO 24**]
- Don't know [**GO TO 24**]

23. In what regions is it harder to find physicians to contract for workers' compensation care? **CHECK ENTIRE REGIONS OR MARK INDIVIDUAL COUNTIES WITHIN REGIONS, AS APPLICABLE.**

North Coast, North Inland, and Sierras - Alpine, Amador, Butte, Calaveras, Colusa, Del Norte, Glenn, Humboldt, Inyo, Lake, Lassen, Mariposa, Mendocino, Modoc, Mono, Nevada, Plumas, Shasta, Sierra, Siskiyou, Sutter, Tehama, Trinity, Tuolumne, Yuba

Sacramento Area – El Dorado, Placer, Sacramento, Yolo

Greater San Francisco Bay Area - Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma

San Joaquin Valley - Fresno, Kern, Kings, Madera, Merced, San Joaquin, Stanislaus, Tulare

Central Coast – Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz, Ventura

Los Angeles County

Orange County

Inland Empire - Riverside, San Bernardino

____ **San Diego Area** – Imperial, San Diego

____ **Other, more specific region(s)** (specify: _____)

24. What reasons are physicians giving, if any, for not wanting to contract for workers' compensation care?

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

Physician Reimbursement

These next questions are about physician reimbursement rates.

25. In general, in comparison with the Official Medical Fee Schedule (OMFS), at what rate does your company (or the network your company contracts with) compensate physician services? Is it: [**CHECK ONLY ONE**]

- ____ At fee schedule
- ____ Below fee schedule

26. Approximately by what percent below fee schedule does your company (or the network your company contracts with) compensate physicians? [ENTER 0 IF YOU NEVER PAY BELOW FEE SCHEDULE]

_____ % below fee schedule

27. Which physician types or specialties are generally paid **below** fee schedule?
CHECK ALL THAT APPLY.

- ____ Acupuncture
- ____ Allergy and Immunology

- Anesthesiology
- Chiropractic
- Dermatology
- Dentistry
- Emergency Medicine
- Family Medicine
- General Practice
- General Surgery
- Internal Medicine
- Neurology
- Neurosurgery
- Occupational Medicine
- Ophthalmology
- Optometry
- Orthopedic Surgery
- Physical Medicine & Rehabilitation
- Plastic Surgery
- Podiatry
- Psychiatry
- Psychology
- Radiology
- Toxicology
- Urology
- Other, SPECIFY: _____
- None

28. Approximately by what percent above fee schedule does your company (or the network your company contracts with) compensate physicians? **[ENTER 0 IF YOU NEVER PAY ABOVE FEE SCHEDULE]**

_____ % above fee schedule

29. Which physician types or specialties are generally paid **above** fee schedule?
CHECK ALL THAT APPLY

- Acupuncture
- Allergy and Immunology
- Anesthesiology
- Chiropractic
- Dermatology
- Dentistry
- Emergency Medicine
- Family Medicine
- General Practice
- General Surgery

- Internal Medicine
- Neurology
- Neurosurgery
- Occupational Medicine
- Ophthalmology
- Optometry
- Orthopedic Surgery
- Physical Medicine & Rehabilitation
- Plastic Surgery
- Podiatry
- Psychiatry
- Psychology
- Radiology
- Toxicology
- Urology
- Other, SPECIFY: _____
- None

30. Which physician types or specialties are generally paid **at** fee schedule? **CHECK ALL THAT APPLY**

- Acupuncture
- Allergy and Immunology
- Anesthesiology
- Chiropractic
- Dermatology
- Dentistry
- Emergency Medicine
- Family Medicine
- General Practice
- General Surgery
- Internal Medicine
- Neurology
- Neurosurgery
- Occupational Medicine
- Ophthalmology
- Optometry
- Orthopedic Surgery
- Physical Medicine & Rehabilitation
- Plastic Surgery
- Podiatry
- Psychiatry
- Psychology
- Radiology
- Toxicology
- Urology

___ Other, SPECIFY: _____
___ None

31. Does the compensation rate paid for physician services by your company (or the network your company contracts with) differ by region of the state?

___ Yes
___ No [GO TO 33]

32. In which regions of the state is the compensation rate paid for physician services higher? **CHECK ENTIRE REGIONS OR MARK INDIVIDUAL COUNTIES WITHIN REGIONS, AS APPLICABLE**

___ **North Coast, North Inland, and Sierras** - Alpine, Amador, Butte, Calaveras, Colusa, Del Norte, Glenn, Humboldt, Inyo, Lake, Lassen, Mariposa, Mendocino, Modoc, Mono, Nevada, Plumas, Shasta, Sierra, Siskiyou, Sutter, Tehama, Trinity, Tuolumne, Yuba

___ **Sacramento Area** - El Dorado, Placer, Sacramento, Yolo

___ **Greater San Francisco Bay Area** - Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma

___ **San Joaquin Valley** - Fresno, Kern, Kings, Madera, Merced, San Joaquin, Stanislaus, Tulare

___ **Central Coast** - Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz, Ventura

___ **Los Angeles County**

___ **Orange County**

___ **Inland Empire** - Riverside, San Bernardino

___ **San Diego Area** - Imperial, San Diego

___ **Other, more specific region(s)**
(specify: _____

Standards for Access to Quality Medical Care

33. Does your company (or the network your company contracts with) have standards for any of the following measures to insure access to quality medical care for injured workers? **CHECK YES OR NO FOR EACH MEASURE. IF YES, PLEASE FILL IN STANDARD**

	Complete if you have any MPN products	Complete if you have any Non-MPN products
A. Days to first appointment with primary treating physician?	___ No ___ Yes, ___# days	___ No ___ Yes, ___# days
B. Days from referral to first appointment with specialist/consulting physician?	___ No ___ Yes, ___# days	___ No ___ Yes, ___# days
C. Distance to primary treating physician?	___ No ___ Yes, ___ miles	___ No ___ Yes, ___ miles
D. Distance to specialist/consulting physician?	___ No ___ Yes, ___ miles	___ No ___ Yes, ___ miles
E. Provider performance measures?	___ No ___ Yes, please describe each: 1. _____ 2. _____ 3. _____ 4. _____ 5. _____	___ No ___ Yes, please describe each: 1. _____ 2. _____ 3. _____ 4. _____ 5. _____

	Complete if you have any MPN products	Complete if you have any Non-MPN products
F. Patient satisfaction measures?	<input type="checkbox"/> No <input type="checkbox"/> Yes, please describe: <hr/> <hr/>	<input type="checkbox"/> No <input type="checkbox"/> Yes, please describe: <hr/> <hr/>
G. Any other standards?	<input type="checkbox"/> No <input type="checkbox"/> Yes, please describe each: 1. <hr/> 2. <hr/> 3. <hr/> 4. <hr/> 5. <hr/> <hr/>	<input type="checkbox"/> No <input type="checkbox"/> Yes, please describe each: 1. <hr/> 2. <hr/> 3. <hr/> 4. <hr/> 5. <hr/> <hr/>

34. Does your company (or the network you contract with) monitor whether the standards described above are being met? **CHECK ONE ONLY**

- Yes, all standards are monitored
- Yes, some standards are monitored (please list below)
- No, no standards are monitored [**GO TO SECTION C**]
- Don't know [**GO TO SECTION C**]

35. Does your company (or the network you contract with) take any specific action if your monitoring efforts indicate that any of the above standards are not being met?

- Yes
- No
- Don't know

C. CLAIMS MANAGEMENT

This section is about the ability of employees to access care from physicians in your MPN(s) (if your company has one) or from physicians in general (if your company does not have an MPN) for their workers' compensation claim.

IF THE PERSON ANSWERING THIS SECTION IS DIFFERENT FROM THE PERSON ANSWERING PREVIOUS SECTION, COMPLETE 36-38. OTHERWISE, GO TO 39.

36. What is your current job title? _____

37. How long have you been in this position? _____years, _____months

38. How long have you been working in Workers' Compensation in California?
_____years, _____months

39. Since the beginning of 2004, do your claims adjusters report that it is easier, harder, or the same for workers' compensation patients to get in to see a **primary treating physician**?

- easier
- harder
- the same [**GO TO 41**]

40. Why has it become easier or harder?

Reasons it is easier: _____

Reasons it is harder: _____

41. Since the beginning of 2004, do your claims adjusters report that that it is easier, harder, or the same for workers' compensation patients to get in to see a **specialist physician**?

- ____ easier
- ____ harder
- ____ the same [**GO TO 43**]

42. Why has it become easier or harder?

Reasons it is easier: _____

Reasons it is harder: _____

43. What reasons are physicians currently giving, if any, for not wanting to take workers' compensation patients?

1. _____
2. _____
3. _____
4. _____

44. Are certain types or specialties of physicians refusing to take workers' compensation patients?

- ____ Yes
- ____ No [**GO TO 46**]
- ____ Don't know [**GO TO 46**]

45. Which types or specialties of physicians are more likely to refuse to take workers' compensation patients?

PLEASE CHECK ALL THAT APPLY

- Acupuncture
- Allergy and Immunology
- Anesthesiology
- Chiropractic
- Dermatology
- Dentistry
- Emergency Medicine
- Family Medicine
- General Practice
- General Surgery
- Internal Medicine
- Neurology
- Neurosurgery
- Occupational Medicine
- Ophthalmology
- Optometry
- Orthopedic Surgery
- Physical Medicine & Rehabilitation
- Plastic Surgery
- Podiatry
- Psychiatry
- Psychology
- Radiology
- Toxicology
- Urology
- Other, SPECIFY: _____

46. Are there particular regions of the state where physicians are refusing to take workers' compensation patients?

- Yes
- No [**GO TO 48**]
- Don't know [**GO TO 48**]

47. In which regions of the state are physicians more likely to refuse to take new workers' compensation patients? **CHECK ENTIRE REGIONS OR MARK INDIVIDUAL COUNTIES WITHIN REGIONS, AS APPLICABLE**

- North Coast, North Inland, and Sierras** - Alpine, Amador, Butte, Calaveras, Colusa, Del Norte, Glenn, Humboldt, Inyo, Lake, Lassen, Mariposa, Mendocino, Modoc, Mono, Nevada, Plumas, Shasta, Sierra, Siskiyou, Sutter, Tehama, Trinity, Tuolumne, Yuba

- Sacramento Area** – El Dorado, Placer, Sacramento, Yolo
- Greater San Francisco Bay Area** - Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma
- San Joaquin Valley** - Fresno, Kern, Kings, Madera, Merced, San Joaquin, Stanislaus, Tulare
- Central Coast** - Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz, Ventura
- Los Angeles County**
- Orange County**
- Inland Empire** - Riverside, San Bernardino
- San Diego Area** – Imperial, San Diego
- Other, more specific region(s)** (specify: _____)
_____)

48. Do you have a mechanism for reporting access issues (e.g., patients having problems finding a doctor to take their case, long waiting times for appointments, long distances to physicians) back to your network administrator(s)?

- Yes
- No [**GO TO 50**]
- Don't know [**GO TO 50**]

49. What is this mechanism?

50. What do you consider to be the three main barriers, if any, in providing access to medical care within the current Workers' Compensation system?

1. _____

2. _____

3. _____

51. Since the beginning of 2004, do you believe that access to medical care for workers' compensation patients is better, worse, or the same?

- better
- worse
- the same [**GO TO 53**]

52. Please explain why access to medical care is better or worse.

53. Do you have any additional comments on access to care for injured workers in the current workers' compensation system?

Thank you for your participation!

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