

RESEARCH UPDATE

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California Workers' Compensation Medical Network Utilization

AY 2004 – AY 2011 Experience

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Medical Provider Networks (MPNs) were introduced into California workers' compensation by Senate Bill 899, the workers' compensation reform legislation passed by state lawmakers and signed by Governor Schwarzenegger in 2004. This reform allowed insurers or employers to establish an MPN which, unless an employee had pre-designated a personal treating physician, extended the employer's control over the injured employee's medical treatment to the life of the claim, compared to the maximum of 30 days of medical control that was typically allowed under the prior system.

Last fall, following months of negotiations between labor and employer representatives and members of the Brown Administration, state legislators passed and Governor Brown signed into law another comprehensive workers' compensation reform bill: SB 863. This most recent reform measure contained several elements affecting medical provider networks, including:

- Eliminating employer liability for the cost or consequences of out-of-network treatment if it is determined that the employee is not entitled to treat outside of the MPN;
- Precluding the use of self-procured medical reports outside the MPN as the sole basis of an award for compensation, but requiring that issues raised in such reports be addressed by either the primary treating physician or a qualified medical evaluator;
- Requiring that an employer with an MPN be granted an expedited hearing within 14 days if an employee seeks out-of-network treatment; and
- Disallowing failure to provide adequate notice of an MPN as a sufficient basis for an injured worker to seek treatment outside of the network unless it is proved that the failure resulted in a "denial of care."

At the same time, SB 863 contained other provisions intended to make MPNs more user friendly, accountable, and efficient, including:

- Mandating that MPNs provide “medical access assistants” to help injured workers get treatment and schedule appointments;
- Streamlining standards governing medical access, deleting a percentage of network providers who primarily treat non-occupational injuries, and setting new timeframes and standards for MPN approvals and reapprovals;
- Establishing written acknowledgment requirements for contracting network providers other than those in a medical group that elects to be in the network;
- Requiring online updates of MPN physician rosters at least quarterly;
- Mandating continuous reviews of MPN quality of care, personnel performance, service and facility utilization, and costs; and
- Granting state regulators the right to investigate complaints or randomly investigate MPNs; and to order penalties, probation, suspension, or revocation of an MPN’s approval for failure to meet state requirements.

In the eight years since MPNs were introduced into California workers’ compensation, several studies have documented the continued growth in the use of network providers to deliver medical care to injured workers. The most recent Institute study on network provider utilization, published in November 2011, found that network providers accounted for a record 75 percent of all first-year treatment visits associated with accident year 2009 claims – confirming that MPNs have become the dominant means of workers’ compensation medical delivery in California.

This study follows up on that earlier work, and given the recently enacted changes to MPNs -- some of which are already in effect, but most of which will be fleshed out in regulations that must be adopted by July 1, 2013 -- the results will provide important benchmarks for monitoring the impact of SB 863. As in prior network utilization studies, the authors used the CWCI Industry Claims Information System (ICIS) database to derive first-year medical service data for a large sample of pre- and post-MPN services, then measured the changes in the network utilization rates both overall, and for services broken out across three major sections of the Official Medical Fee Schedule (OMFS): Evaluation and Management; Surgery (excluding injections); and Physical Therapy. Each medical “service” was identified through a unique combination of the billing provider tax ID number and the date of service within an OMFS section.

BACKGROUND

Findings from the Initial Studies

In February 2008, the Institute published an analysis of medical network utilization that documented the increased use of network providers in California workers' compensation from 2002 through 2006, measuring the use of Preferred Provider Organization (PPO) and Health Care Organization (HCO) network providers across the entire 5-year span of the study, as well as the use of MPN providers following the introduction of those networks in January 2005.¹ Specifically, that analysis showed that the overall network provider utilization rate in California workers' compensation increased from 32 percent of first-year outpatient medical care services for accident year (AY) 2002 claims to just under half of the first-year services on AY 2004 claims; then continued to grow following the introduction of MPNs, climbing to nearly 62 percent of first-year outpatient services on AY 2005 claims – nearly double the level noted just two years earlier.

The February 2008 study also tracked network provider utilization for medical services in six key sections of the Official Medical Fee Schedule (Evaluation and Management, Surgery excluding injections, Radiology, Medicine Section, Physical Therapy, and Chiropractic Manipulation) and found significant growth in the use of network providers within each of these treatment areas. Because MPNs allowed employers to extend their medical control from the pre-reform 30-day timeframe to the life of the claim, the authors also measured changes in the proportion of visits to network providers within and beyond 30 days of injury. The results of the analysis by fee schedule section showed that in all six categories, the increase in network provider utilization was greatest for services beyond the first 30 days post-injury, suggesting a strong link between the growth in network services during the first year of treatment and the expansion of medical control afforded by MPNs. However, because MPNs were still relatively new, and the earlier analysis only included data on claims with injury dates through mid-2006, the issue was marked for future study as more developed data became available.

A second Institute report published at the end of 2008 extended the timeline of medical network provider analysis through December 2007.² That study revealed that the growth in the network provider utilization rate for first-year physician-based treatment had continued to expand, accounting for 63 percent of all first-year services on AY 2006 claims. A third report, published in May 2010, once again extended the analysis, providing data through the first quarter of 2009.³ That study showed that network providers accounted for 73 percent of all first-year services on AY 2008 claims. The most recent report, published in 2011, examined claims through the first three quarters of 2011 and showed that network providers accounted for 75 percent of first-year services in AY 2009.⁴

1 Swedlow, A., Ireland, J. Analysis of California Workers' Compensation Reforms Part 3: Medical Provider Networks and Medical Benefit Delivery. CWCI February 2008.

2 Swedlow, A., Ireland, J. Analysis of California Workers' Compensation Reforms Part 2: Medical Provider Networks and Medical Benefit Delivery AY 2002 – 2007 Experience. CWCI, December 2008.

3 Ireland, J., Swedlow, A. Research Update: Medical Provider Network Utilization in California Workers' Compensation, CWCI, May 2010.

4 Ireland, J., Swedlow, A. Medical Benefit Delivery in Workers' Compensation: Changes in Network Utilization and Reimbursement Accident Years 2004 – 2010. CWCI, November 2011.

Key Findings from the Current Study

This report extends the timeline of analysis by examining the delivery of medical services through December 2011 for claims with dates of injury through September 2011. The findings reveal continued growth in network provider utilization within the California workers' compensation system in the following areas:

- 1) **Workers' Compensation Medical Care Overall:** Use of network providers increased from 51 percent of physician-based first-year services for AY 2004 claims to 80 percent of first-year services for AY 2010 claims.
- 2) **Evaluation and Management:** Among claims from AY 2004 – the last year prior to the introduction of workers' compensation MPNs -- the network provider utilization rate for first-year evaluation and management services was 64 percent. After MPNs became operational in 2005, that rate began to grow, and by AY 2010, network providers accounted for nearly 86 percent of injured workers' first-year E/M services.
- 3) **Surgery:** Network provider utilization for first-year surgery services grew from about 56 percent of the services for AY 2004 claims to more than 76 percent of the services for AY 2010 claims – a relative increase of 36.6 percent -- primarily due to the increased use of network providers after the first 30 days.
- 4) **Physical Therapy:** Network provider utilization for first-year physical therapy (PT) services jumped from 41 percent for AY 2004 claims to 56 percent for AY 2005 claims -- the first year of MPNs. Use of network providers for PT then increased slowly but steadily, rising to more than 70 percent for AY 2010 claims.

DATA AND METHODS

The authors used the CWCI Industry Claims Information System⁵ (ICIS) database to derive first-year medical service data for a large sample of pre- and post-MPN services across major sections of the Official Medical Fee Schedule.⁶ This analysis measures changes in the percentage of injured worker outpatient treatment by network providers (the network utilization rate) by timeframe and by type of medical service. The study examines provider-based medical treatment data on claims from AY 2004 through the third quarter of AY 2011, with "services" identified through a unique combination of billing provider tax ID number, fee schedule section, and date of service. The analysis generates the following:

- Network provider utilization rates for services within the first 30 days of injury
- Network provider utilization rates for services after the first 30 days of injury
- Overall network provider utilization rates for one pre-MPN accident year (2004) and seven post-MPN accident years (AY 2005 – 2010, as well as the first three quarters of AY 2011); and

5 ICIS is a proprietary database maintained by the California Workers' Compensation Institute that contains detailed information, including employer and employee characteristics, medical service information, and benefit and other administrative cost information on more than 3 million workplace injuries with dates of injury between 1993 and 2011 (v13B).

6 California Code of Regulations, §§ 9789.10-9789.111.

- Network provider utilization rates by type of service, broken out across three fee schedule categories: Evaluation and Management, Surgery (excluding injections), and Physical Therapy.

Claim Sample

For this analysis, the authors compiled medical transaction data from claims filed by 962,202 California injured workers with January 2004 through September 2011 dates of injury. These claims involved more than 14.6 million medical services for outpatient, provider-based medical treatment. Aggregate payments for these medical services totaled nearly \$2.1 billion.

To assure comparable treatment utilization data from the eight accident years, services for each claim were truncated at 12 months post date of injury,⁷ so as in the authors' earlier network utilization analyses, all of the data in this study reflects first-year treatment experience. The medical service data also were grouped into four categories based on network versus non-network providers and service date (whether the treatment was rendered within the first 30 days after injury or more than 30 days after injury.)

Network Provider Identification

The authors compiled the dataset on medical services from claims information submitted by national and regional workers' compensation insurance carriers. The data contributors are a representative sample of the entire California workers' compensation insured market, incorporating a broad and similarly proportional distribution of injured worker demographic variables and geographic locations. Each data contributing organization used a PPO network in 2004, as well as an MPN from 2005 through 2011.

⁷ Because medical visit data in the data set was current through December 2011, the 2011 sample of claims for visits within 30 days of injury was limited to claims with dates of injury from January 1 to September, 2011. The sample of claims for visits within one year of injury was limited to claims with dates of injury before January 1, 2011.

RESULTS

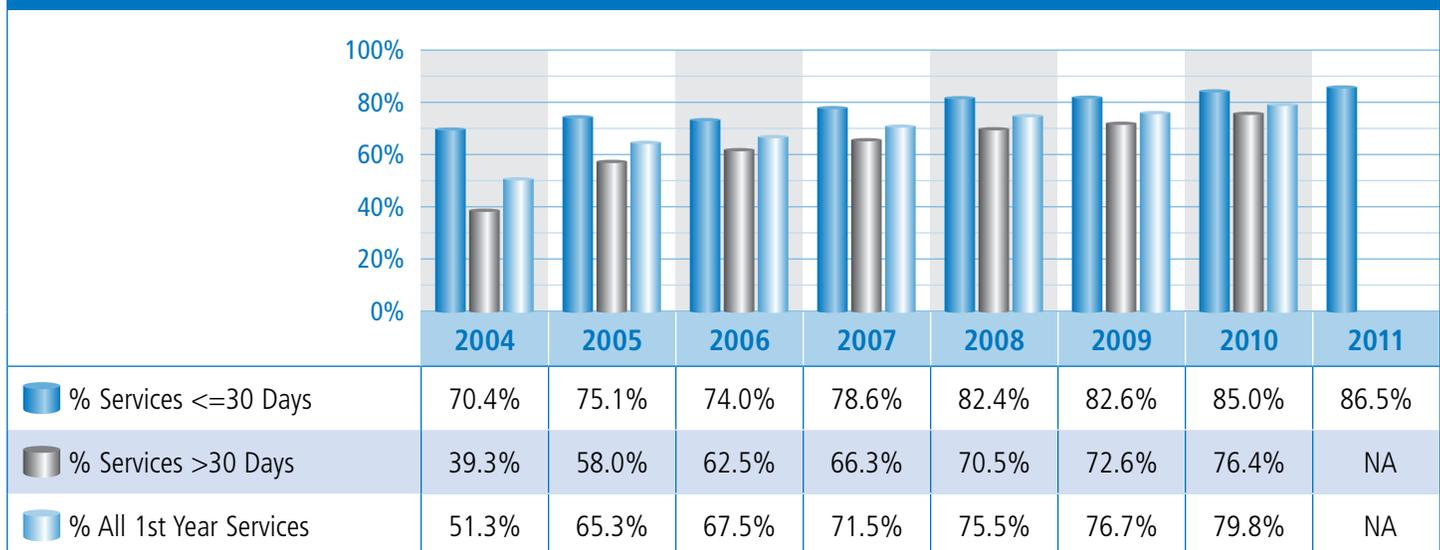
Services Within 30 Days of Injury and Post 30 Days of Injury

One of the key reform components brought about through the introduction of Medical Provider Networks in California workers' compensation was the extension of payor control over medical treatment. As mentioned previously, before MPNs, a payor's ability to channel patients to physicians was limited to the first 30 days post injury (or up to 180 days for Health Care Organizations, which were used infrequently), but under SB 899, payors with MPNs were able to direct care for the life of the claim.

Changes in Network Provider Utilization

Exhibit 1A compares the pre- and post-MPN network provider utilization rates for first-year physician-based services⁸ from the AY 2004 – 2011 claim sample of medical services. Network provider utilization for AY 2004 reflects services rendered by HCO or PPO providers, while network provider utilization for AY 2005 – 2011 reflects the use of providers in an HCO, a PPO, or an MPN. Exhibit 1A also breaks out the results based on when the services were rendered, showing the proportion of services that took place within and beyond 30 days of the injury date.

Exhibit 1A: Network Provider Utilization Rates: 1st Year – All Services*



* "All services" includes evaluation and management, anesthesiology, surgery, medicine, laboratory/pathology, radiology, physical medicine, chiropractic, special services, orthotics/prosthetics, pharmacy & DME, medical-legal reports, clinical laboratory, and "other miscellaneous services."

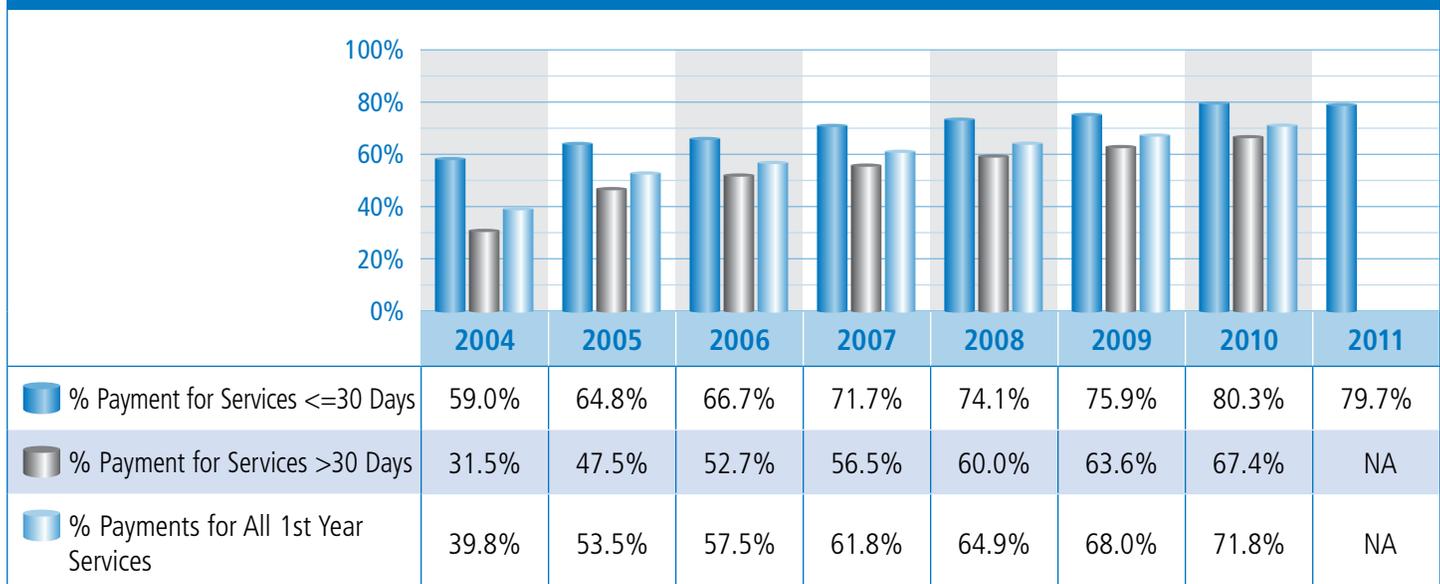
The aggregate results for all first-year services were compiled from 13 service categories. Overall, the use of network providers to treat injured workers in the first year after injury increased sharply over the study period, climbing from about 51 percent of the services for AY 2004 claims to almost 80 percent of the services for AY 2010 claims. The AY 2004 and AY 2005 data shown in Exhibit 1A also reveal that most of the early increase

⁸ Labor code 3209.3. Definition of a "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.

in network provider utilization resulted from greater use of network providers for services beyond the first month. The network provider utilization rate for post-30 day services grew from 39.3 percent in AY 2004 to 58.0 percent in AY 2005, a relative increase of 47.6 percent. Meanwhile, the network provider utilization rate for services within the first 30 days of injury grew by a relatively small 6.7 percent over the same one-year time period, increasing from 70.4 percent in AY 2004 to 75.1 percent in AY 2005.

Exhibit 1B shows the proportion of dollars paid for first-year services that were made to network providers for each of the eight accident years studied. The payment results are also broken out for services rendered within and beyond 30 days of the injury date.

Exhibit 1B. Percent of 1st Year Service Payments to Network Providers – All Services



Percentage changes in network provider payments between AY 2004 and AY 2011 are consistent with the growth pattern for network provider utilization. Overall, payments to network providers climbed from 39.8 percent of all reimbursements for first-year services on AY 2004 claims to 71.8 percent of the total paid for first-year services on AY 2010 claims. Once again, in the first year of the MPN era, that increase was primarily driven by the growing use of network providers for services beyond the first 30 days. Network providers accounted for 31.5 percent of the payments for AY 2004 services that took place more than a month after injury, but that percentage climbed to 47.5 percent in AY 2005, then steadily increased to 67.4 percent in AY 2010. In contrast, network providers already accounted for 59 percent of all payments for services within the first 30 days of injury in AY 2004, but that proportion grew to almost 65 percent in AY 2005, then continued up to 79.7 percent in the first three quarters of AY 2011.

The percentages of payments to network providers are consistently below the corresponding network provider utilization rates based on service volume. This pattern could be explained by discounts frequently offered by network providers, but might also be a result of a shift in the mix of services provided.

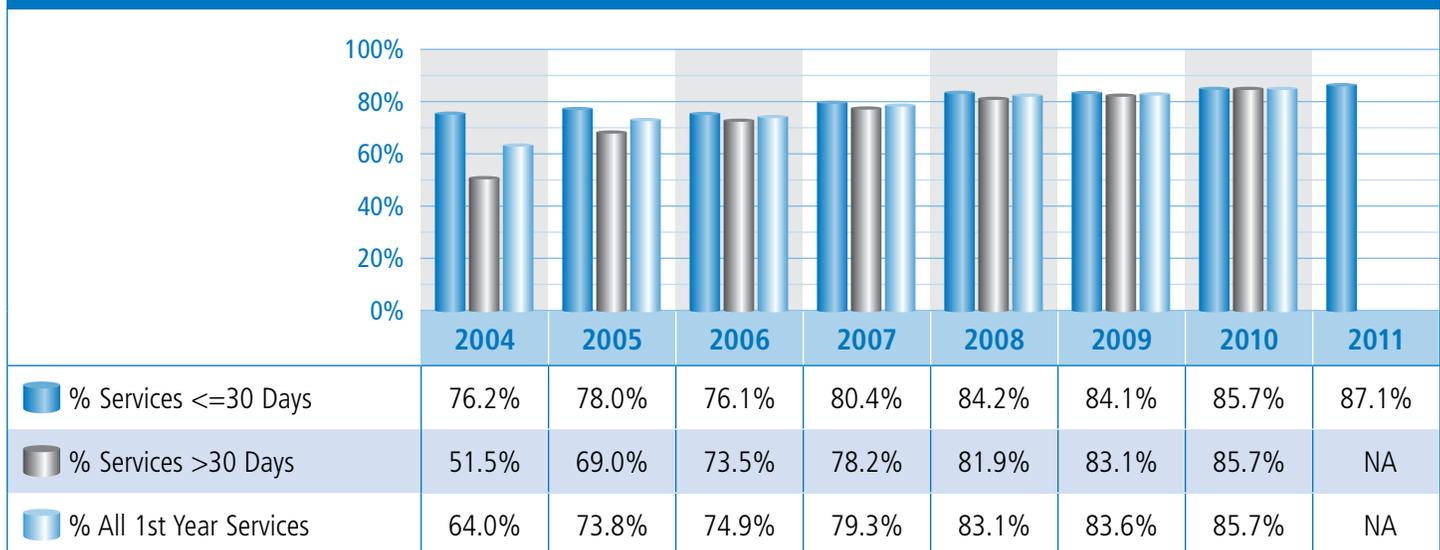
NETWORK UTILIZATION AND REIMBURSEMENT BY OMFS Section

As noted in Exhibit 1A, the most recent post-MPN data on first-year treatment of injured workers (from AY 2010 claims) show that network providers now account for 85.0 percent of services for physician-based visits within the first month of injury, and 76.4 percent of services beyond the first 30 days. The overall result is that nearly eight out of every ten physician service visits are now with network providers. However, the use of network providers varies by type of service. To gauge the extent to which network providers are being used for a select set of heavily utilized treatment services, and to assess how that has changed since the introduction of MPNs, the authors calculated the network provider utilization rates for three key treatment categories across each of the eight accident years. The following sections compare the pre- and post-MPN network provider utilization rates for treatment visits for services within these three categories, as well as changes in the proportion of payments to network providers by category.

Evaluation & Management

Most Evaluation & Management (E/M) services are office visits for new and established patients. They involve everything from minor to severe medical problems. E/M services include Emergency Department visits, consultation services, inpatient visits, team conferences and prolonged services. Exhibit 2A shows the network utilization rates for E/M services during the first 12 months after the date of injury for claims from AY 2004 through the third quarter of AY 2011.

Exhibit 2A: Network Utilization Rates: 1st Year Services – Evaluation & Management

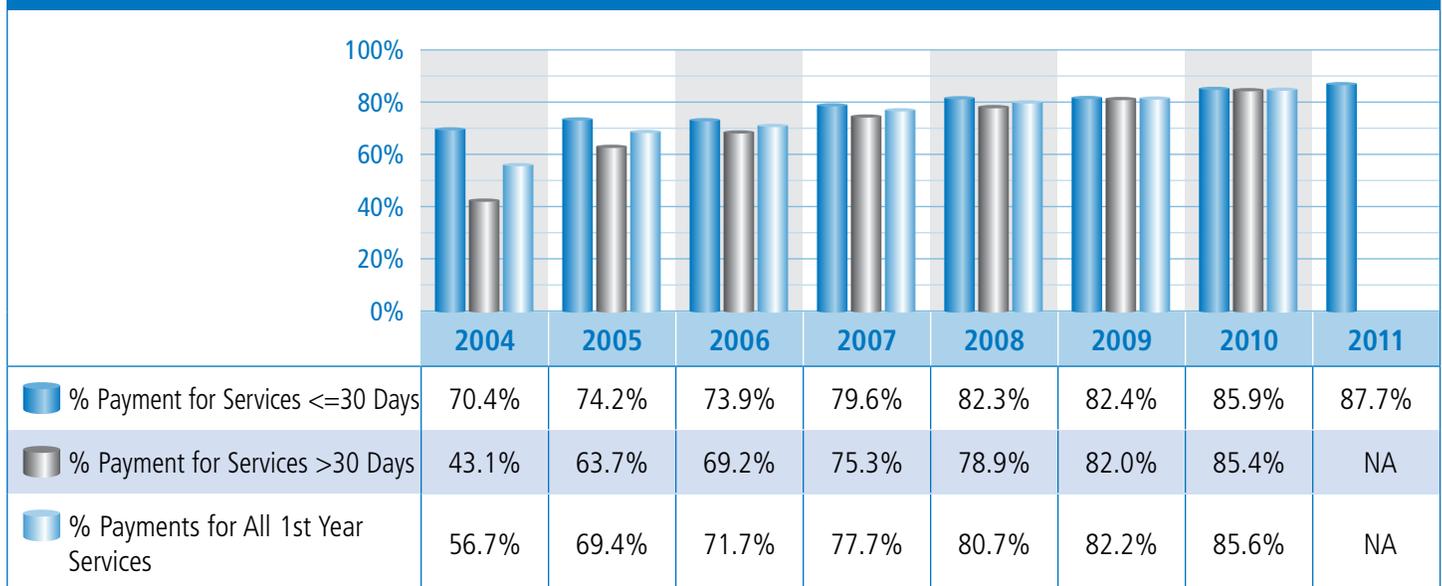


Network provider utilization for E/M services rendered to injured workers during the first 30 days following an injury has been consistently high. Exhibit 2A shows that for E/M services within 30 days of the injury date, the network provider utilization rate gradually increased from 76.2 percent in AY 2004 to 87.1 percent in the first three quarters of AY 2011.

The use of network providers for E/M services after the first 30 days showed more significant growth, climbing from 51.5 percent in AY 2004 to 69.0 percent once MPNs began operations in AY 2005, then continuing up to 85.7 percent in AY 2010 – the same level as services within 30 days of injury. As a result, the overall network provider utilization rate for first-year E/M services grew from 64.0 percent for AY 2004 claims to 85.7 percent for AY 2010 claims – a relative increase of 33.9 percent.

Exhibit 2B tracks the changes in the proportion of evaluation and management payments to network providers over the same period.

Exhibit 2B. Percent of 1st Year Service Payments to Network Providers – Evaluation & Management

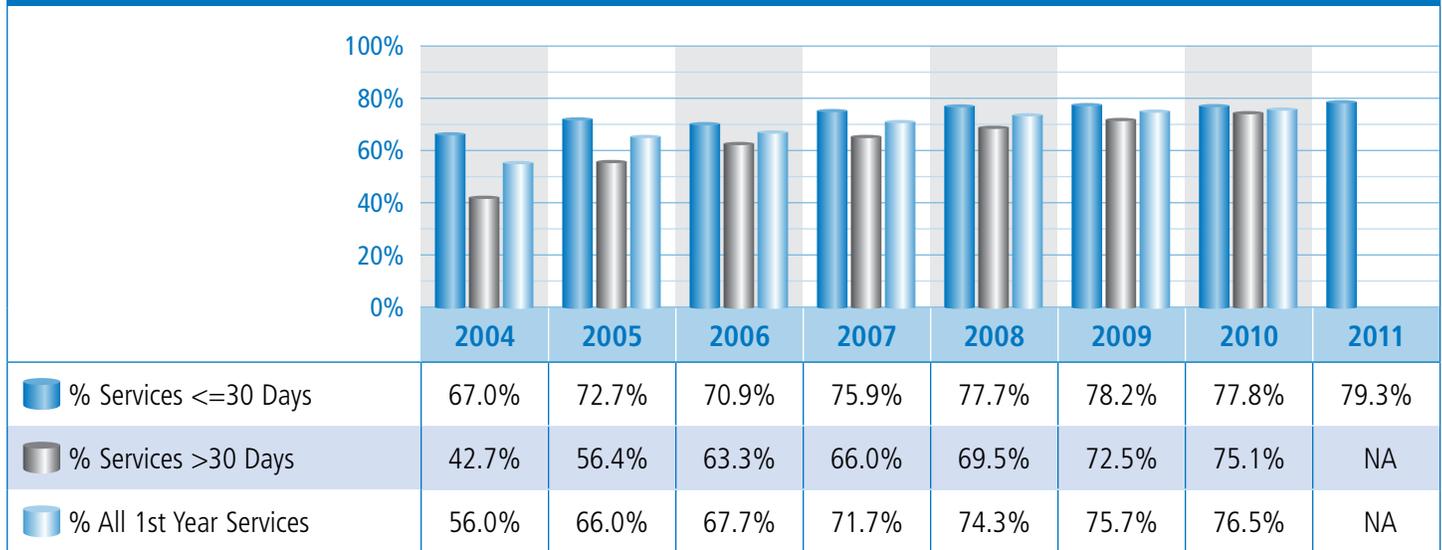


E/M payment patterns to network providers were similar to the service patterns, but the relative percentages were consistently lower, except for services within 30 days of injury for AY 2010 and 2011 claims. This suggests that network providers are paid less on a per service basis, which likely reflects discounts often accepted by network providers, although these results also could be impacted by changes in the mix of E/M services across the different accident years. Also note, with each successive year, the difference between the percentage of first-year services to a network provider and the percentage of first-year payments to networks narrowed. For example, the percent of first-year E/M services to networks was 7.3 percentage points higher than the percent of first-year payments in AY 2004 (64.0 percent versus 56.7 percent), but only 0.1 percentage points higher by AY 2010 (85.7 percent versus 85.6 percent). This suggests that the mix of services either became increasingly similar over the study period, or that network provider discounts have decreased. Overall, payments to network providers increased from 56.7 percent of the total amount paid for first-year E/M services in AY 2004 to 85.6 percent of total first-year E/M reimbursements in AY 2010; a relative increase of 51.0 percent.

Surgery

The study included a wide range of services found in the Surgery section of the Official Medical Fee Schedule, though surgical injections were excluded from the study sample. Exhibit 3A shows the network provider utilization rates for first-year surgical services excluding injections.

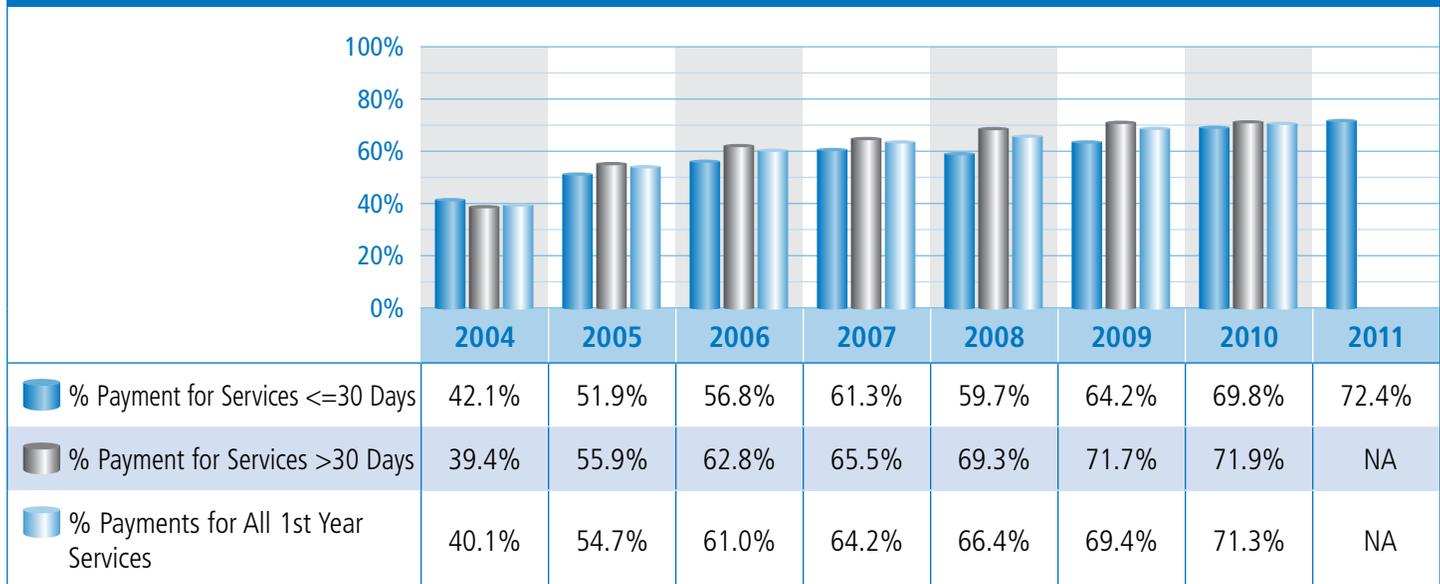
Exhibit 3A: Network Provider Utilization Rates 1st Year Services -- Surgery



Immediately after MPNs took effect, the overall network provider utilization rate for Surgery services increased from 56.0 percent in AY 2004 to 66.0 percent in AY 2005, a relative increase of 17.9 percent. The use of network providers for surgery services after the first 30 days showed the most significant increase from AY 2004 to AY 2005, a 32.1 relative increase from 42.7 to 56.4 percent. Since AY 2005, network provider utilization for workers' compensation surgery services beyond the first 30 days has continued to increase, climbing to a new high of 75.1 percent in AY 2010. Thus, the overall network provider utilization rate for first-year surgery services grew from 56 percent of the services in AY 2004 to 76.5 percent in AY 2010 – a relative increase of 36.6 percent -- primarily driven by the increased use of network providers after the first 30 days.

Exhibit 3B shows the changes in the proportion of surgery payments to network providers.

Exhibit 3B. Percent of 1st Year Service Payments to Network Providers – Surgery



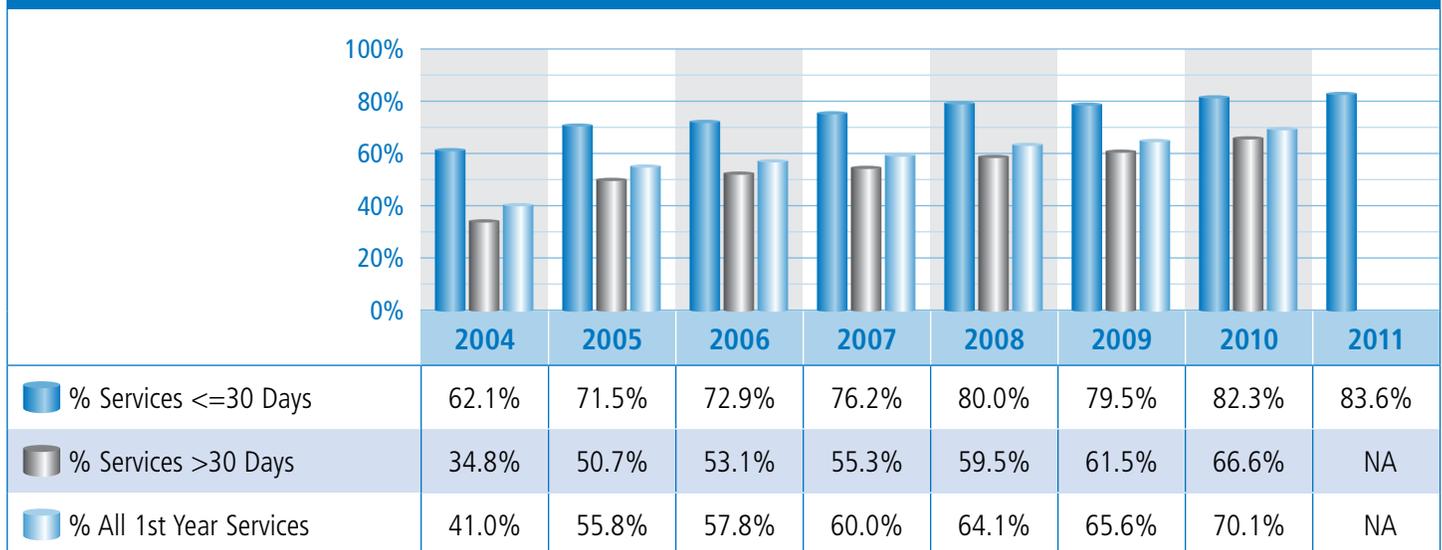
Between AY 2004 and AY 2010, network providers accounted for a growing share of the total dollars paid for surgery services after 30 days of injury, which tracks with the growth noted in the network provider utilization rate during that period. However, the growth in the percentage of payments to network providers for surgery services within 30 days was far greater than the growth in the network provider utilization rate for these services. As noted in Exhibit 3A, the network provider utilization rate for surgical services within 30 days of injury increased from 67.0 percent in AY 2004 to 79.3 percent in the first three quarters of AY 2011 (+18 percent), while the percentage of payments to network providers for those services increased from 42.1 percent in AY 2004 to 72.4 percent in the first three quarters of AY 2011 (+72 percent).

As a result, the relative difference between the percentage of services and the percentage of payments to networks providers changed dramatically. In AY 2004, the spread between the network utilization rate for surgery services and the percentage of surgery payments to network providers was 40 percent -- far greater than the 13 percent difference noted for E/M services. By AY 2010, the gap between the network provider utilization rate for surgery services and the percentage of total amount paid for those services that went to network providers had narrowed significantly, falling to just over 7 percent. In contrast, the network provider utilization rate for E/M services was virtually the same as the percentage of payments for those services, and the spread between the network provider utilization rate for all workers' compensation medical treatment services and the proportion of all payments that went to networks was 11 percent.

Physical Therapy

Physical Therapy (PT) is the most common medical service in California workers' compensation, though prior studies have documented significant reductions in the use of these services since the implementation of the 2004 reforms, which included not only MPNs, but utilization review requirements, the adoption of a medical treatment utilization schedule, and 24-visit caps on physical therapy, occupational therapy, and chiropractic care. Exhibit 4A shows the network provider utilization rates for first-year Physical Therapy services for claims from AY 2004 through the first three quarters of AY 2011.

Exhibit 4A: Network Provider Utilization Rates 1st Year Services, Physical Therapy

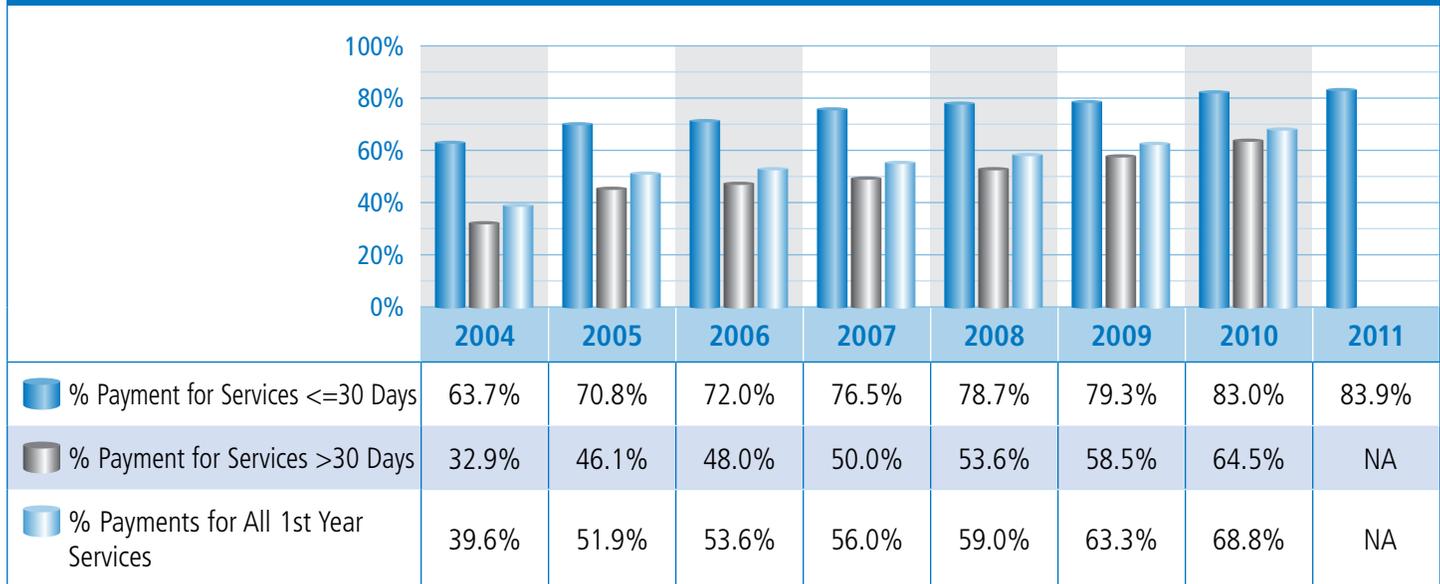


Immediately after MPNs began operating in 2005, the utilization of network providers for physical therapy services increased, with network providers accounting for 71.5 percent of the first-month PT services in AY 2005, and 83.6 percent of the first-month PT services for the first three quarters of AY 2011. As with other fee schedule sections, much sharper increases were noted in network provider utilization rates for PT services beyond 30 days post injury, which climbed from 34.8 percent in AY 2004 to 50.7 percent after the opening of MPNs in AY 2005, then continued up to 66.6 percent by AY 2010.

Overall, the percentage of total first-year PT services by network providers increased from 41.0 percent of the AY 2004 services to 55.8 percent of the AY 2005 services (a relative increase of 36.1 percent), then continued to increase to 70.1 percent of the AY 2010 services – a relative increase of 71 percent over the span of the study.

Exhibit 4B shows the growing proportion of first-year physical therapy payments to network providers from accident year 2004 through AY 2010.

Exhibit 4B. Percent of 1st Year Service Payments to Network Providers – Physical Therapy



Network providers received 83.0 percent of the total amount paid for PT services within 30 days of injury in AY 2010, 64.5 percent of the total paid for PT services beyond the first 30 days, which works out to 68.8 percent of the total paid for all PT services in the first year following injury. The growing proportion of physical therapy payments to network providers is similar to the network provider utilization pattern for these services, with the most significant increase occurring immediately after MPNs were introduced in AY 2005, with the uptrend continuing through AY 2011.

The relative difference between the percentage of physical therapy services and the percentage of physical therapy dollars paid to network providers (a gap of 3.5 percent in AY 2004 and 1.9 percent in AY 2010) is narrower than the comparable difference noted for all medical services (28.9 percent in AY 2004 and 11.1 percent in AY 2010). However unlike surgery, evaluation and management and all medical services, between AY 2004 and AY 2010, the spread between the network provider utilization rate for PT services and the percentage of PT payments to network providers remained virtually constant. This suggests that physical therapy services in the post-MPN era are as likely to be discounted as they were prior to the introduction of MPNs.

SUMMARY

Since medical provider networks (MPNs) were first introduced into the California workers' compensation system in 2005, the use of network providers to render treatment to injured workers has continued to increase in all observed areas of provider-based outpatient medical treatment. Given that MPNs extended employer medical control from 30 days to the life of the claim, the use of network providers for treatment beyond 30 days from the date of injury clearly offered the greatest opportunities to affect the course of treatment and produce savings, and as in the authors' earlier studies, the results of this analysis confirm that the post-thirty day services are where the network providers continue to have the greatest impact.

Whether the steady growth in network provider utilization in workers' compensation will continue remains to be seen. This analysis documents ongoing increases in the network provider utilization rates for services within the first 30 days of injury, both overall and for specific types of services rendered to injured workers, which indicates a continuing maturation of the MPN program, with more comprehensive and careful direction of injured workers to network providers and an increased likelihood that a network provider will render treatment beginning with the first visit following an injury. On the other hand, SB 863 called for the first major refinements to the MPN program since the networks were introduced into California workers' compensation eight years ago, including some which could make it easier for an injured worker to wrest medical control away from their employer, so the Institute will continue to monitor network provider utilization to gauge whether the 2012 reforms have a material effect on workers' compensation medical benefit delivery in the future.

ABOUT CWCI

The **California Workers' Compensation Institute**, incorporated in 1964, is a private, nonprofit organization of insurers and self-insured employers conducting and communicating research and analyses to improve the California workers' compensation system. Institute members include insurers that collectively write more than 87 percent of California workers' compensation direct written premium, as well as many of the largest public and private self-insured employers in the state.



California Workers' Compensation Institute

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