

# Analysis of California Workers' Compensation Reforms

## Part 3: MPNs and Medical Benefit Delivery—Preliminary Results

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### EXECUTIVE SUMMARY

In April 2004, Governor Schwarzenegger signed SB 899, landmark legislation that called for the most significant overhaul of the California workers' compensation system in the 92-year history of the program. A key element of that reform was the introduction of Medical Provider Networks (MPNs), which were phased into operation beginning in January 2005. State lawmakers expected MPNs would boost the enlistment of networks of preferred providers to treat injured workers, and in so doing, hoped to expand employer medical control over workers' compensation claims, while encouraging appropriate types, levels and quality of care, reduced costs, and improved efficiency and coordination of treatment.<sup>1</sup>

These anticipated outcomes of SB899 were first analyzed by CWCI in Part 1 of this reform analysis series.<sup>2</sup> That analysis, published in January 2007, confirmed significant reductions in workers' compensation medical utilization and payments for many outpatient services at 12 and 24 months post injury. Among physical therapy claims, for example, both the average number of visits and the average payments per claim for PT services at 18 months post injury fell 58 percent. Less dramatic reductions were observed in four of the five additional medical service categories included in the analysis.

Because the 2002 – 2004 workers' compensation legislation enacted in California included several key medical care reforms, it is difficult to attribute the observed changes to any single element of reform. However, it is likely that the establishment of MPNs helped fuel the successful implementation of other reforms, including evidence-based medicine guidelines, 24-visit caps on chiropractic care, physical therapy and occupational therapy, mandatory second opinions for spinal surgery, and mandatory utilization review.

SB 899 contained provisions to allow employees to opt out of an MPN and retain medical control of their claims by predesignating a personal physician prior to the injury; otherwise an employer that offers an MPN is granted medical control for the life of the claim – a considerable expansion of the 30-day medical control allowed in most situations prior to the reforms. In addition, the law includes some flexibility for employees covered by MPNs, allowing them to change to a different medical provider within the network any time after the first visit; to obtain second and third medical opinions when there are disputes over treatment; and to request an independent medical review if there is still a treatment dispute after the third opinion.

- 1 A 1993 legislative attempt at introducing managed care into the system through the development of preferred provider networks known as Health Care Organizations (HCOs) had been compromised by the complexity of the HCO approval process, and met with only marginal success.
- 2 Analysis of California Workers' Compensation Reforms, Part 1: Medical Utilization and Reimbursement Outcomes. CWCI Research Update, January 2007.

Although HCOs failed to gain widespread acceptance in the California workers' compensation system,<sup>3</sup> public policymakers and industry professionals were optimistic that MPNs would better facilitate the integration of managed care principles that help contain workers' compensation medical care costs. Anticipating that MPNs, along with other medical care reforms enacted in 2002 and 2004 (including expansion of utilization review, removal of the physician's presumption of correctness, and adoption of a medical treatment utilization schedule) would have a significant impact on the workers' compensation system and help bring down premium rates, the Legislature required that the effects of the reforms be monitored.<sup>4</sup>

In response to that mandate, the Workers' Compensation Insurance Rating Bureau (WCIRB) asked the Institute to assist in a study measuring the nature and extent of changes in preferred provider network utilization in workers' compensation following the introduction of MPNs. Using the Industry Claims Information System (ICIS) database, CWCI compiled medical visit data for a large sample of pre- and post-MPN services, and measured changes in the proportion of services rendered by network providers. Those results were broken out for medical services across six sections of the Official Medical Fee Schedule. The findings suggest that pre-2005 reform PPO networks and post-reform MPNs played an increasing role in medical service delivery from accident year (AY) 2002 through AY 2005. Among the preliminary results:

- Overall utilization of network providers in California workers' compensation climbed from about 32 percent of all first-year outpatient medical care visits on AY 2002 claims to nearly 48 percent of all first-year visits on AY 2004 claims. The trend continued in AY 2005 – the year that MPNs were introduced – when the network utilization rate rose to 63 percent of outpatient treatment visits – twice the level noted just two years earlier.
- Use of networks for evaluation and management (E&M) services increased from about 57 percent of first-year E&M visits on AY 2002 claims to nearly 62 percent on AY 2004 claims. In AY 2005, with the advent of MPNs, the trend accelerated, with networks accounting for 74 percent of all first-year E&M visits in California workers' compensation.

- Network utilization for physical therapy increased from 23 percent of all visits on AY 2002 claims to 37 percent of all visits on AY 2004 claims, then climbed to 50 percent in AY 2005. Networks consistently accounted for a much smaller proportion of chiropractic care in workers' compensation, though the network utilization rate for these services did increase sharply after MPNs were introduced. Network providers accounted for just 8 percent of injured worker chiropractic visits on AY 2002 claims, and 11 percent on AY 2004 claims, but by AY 2005, the percentage of chiropractic visits associated with network providers nearly tripled to 31.9 percent.

For all six medical service categories, the data show that the increase in network provider utilization was greatest for treatment visits beyond the first 30 days post injury. However, because medical provider networks are still relatively new to California workers' compensation, and data for this analysis does not extend beyond AY 2005 -- the first year in which MPNs became operational -- the authors urge caution in interpreting and applying these preliminary results.

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## BACKGROUND

### Medical Control and Benefit Delivery in California Workers' Compensation

Prior to 2005, employers in California had the right to control their injured workers' medical care for the first 30 days after learning of a job injury -- often through the use of preferred provider organizations (PPOs). There were exceptions. First, an employee had the right to predesignate a personal physician any time prior to an injury. Also, under legislation enacted in 1993, employers or insurance carriers could establish a Health Care Organization (HCO), which extended the period of medical control to as much as 180 days after an injury, while limiting care to a pre-selected panel of medical providers.

The workers' compensation reforms enacted in 2004 (SB 899) did not remove an employer's right to exert 30-day control, nor did it eliminate HCOs. It did, however, modify rules for predesignation, and beginning in January 2005, provided employers that offer group health a new alternative for extended medical control by allowing them to establish MPNs to treat their injured workers.<sup>5</sup>

3 Nearly a decade after they were introduced, the California Commission on Health, Safety and Workers' Compensation reported a total of 14 certified HCOs in the state, with an estimated 380,000 enrollees out of the roughly 15 million workers covered by the California workers' compensation system. (CHSWC 2002-2003 Annual Report, Calif. Dept. of Industrial Relations, December 2003).

4 LC 138.65

5 Labor Code section 4616

Under SB 899, the mix of providers in an MPN must include physicians who primarily treat occupational injuries, as well as physicians who primarily treat non-occupational injuries.<sup>6</sup> All care provided by network providers must be consistent with the American College of Occupational and Environmental Medicine (ACOEM) treatment guidelines, or a subsequent Medical Treatment Utilization Schedule (MTUS) adopted by the Administrative Director of the Division of Workers’ Compensation. An employer offering an MPN arranges an injured worker’s initial medical evaluation, after which the employee may choose another network physician. If an employee disputes an MPN provider’s diagnosis or treatment, the employee may obtain a second and third opinion from within the network. If the dispute persists, the employee may appeal to an Independent Medical Reviewer (IMR) assigned by the Administrative Director, who will issue an opinion on whether the disputed medical services are consistent with the MTUS/ACOEM guidelines. If so, the worker may receive those services from either within or outside the network.

Between January 2005 and April 2007, the California Division of Workers’ Compensation (DWC) approved 1,166 medical provider networks. MPNs range in size from very small (less than 1,000 providers) to large (greater than 50,000 providers). According to the DWC, MPNs must meet specific access standards<sup>7</sup> to ensure that workers have a choice of primary and specialty providers within a reasonable distance from their homes or worksites. These standards require a choice of: three primary care physicians within 30 minutes or 15 miles of each covered worker’s residence or workplace; and three specialists within 60 minutes or 30 miles of each covered worker’s residence or workplace. Primary care physicians include those engaged in family and general practice and occupational medicine. Specialty care practices include orthopedics, internal medicine, chiropractic, neurology/neurosurgery, and other specialties used in treating common work injuries.<sup>8</sup>

## DATA AND METHODS

This analysis measures changes in the percentage of injured worker outpatient treatment visits to network providers by timeframe and type of medical service. The study examines

provider-based medical treatment data from AY 2002 through AY 2005 claims, with “visits” identified through a unique combination of the billing provider’s tax ID number and the date of service. The analysis generates the following:

- network utilization rates for visits within the first 30 days of injury and for visits after the first 30 days;
- overall network utilization rates for three pre-MPN accident years (2002 - 2004), and a post-MPN network utilization rate for AY 2005; and
- network utilization rates by type of service, with results broken out across six fee schedule categories: Evaluation and Management; Surgery (excluding injections); Radiology; Medicine Section services; Physical Therapy; and Chiropractic Manipulation.

## Claim Sample

For this analysis, the Institute used its ICIS database to compile data from 828,635 California workers’ compensation claims with 2002 through 2005 dates of injury. These claims involved a total of nearly 12.9 million visits for outpatient, provider-based medical treatment. Table 1 summarizes the number of claims and associated medical visits used in the analysis, and sorts the data into pre-MPN (AY 2002 – AY 2004) and post-MPN (AY 2005) categories.

**Table 1: Distribution of Claims & Visits – Network Study Sample**

| Year of Injury     | Number of Claims | Percent of Claims | Number of Visits  | Percent of Visits |
|--------------------|------------------|-------------------|-------------------|-------------------|
| 2002 (Pre-MPN)     | 249,590          | 30.1%             | 5,001,262         | 38.9%             |
| 2003 (Pre-MPN)     | 220,774          | 26.6%             | 4,106,460         | 31.9%             |
| 2004 (Pre-MPN)     | 208,779          | 25.2%             | 2,464,575         | 19.1%             |
| 2005 (Post-MPN)    | 149,492          | 18.0%             | 1,296,032         | 10.1%             |
| <b>Grand Total</b> | <b>828,635</b>   | <b>100.0%</b>     | <b>12,868,329</b> | <b>100.0%</b>     |

To assure comparable treatment utilization data from the four different accident years, visits for each claim in the sample were truncated at 12 months post date of injury.<sup>9</sup> The medical visit 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 the injury).

6 In outlining the composition of MPNs, LC 4616 noted that “The goal shall be at least 25% of physicians primarily engaged in the treatment of nonoccupational injuries.”

7 California Code of Regulations Section 9767.5 Medical Provider Network Access Standards (available at [http://www.dir.ca.gov/t8/9767\\_5.html](http://www.dir.ca.gov/t8/9767_5.html))

8 A recent CWCI study (Swedlow A., California Workers’ Compensation Medical Care Reform & Access to Medical Care. A Report to the Industry. CWCI. August 2006) concluded that approximately 95 percent of all injured workers analyzed had adequate access to a choice of three primary and specialty providers within close proximity to their homes before and after managed care reform implementation.

9 At the time of the study, not all claims were developed through the end of 2006. To assure that all AY 2005 claims had the same opportunity to develop at least 12 months, a special 2005 dataset was compiled. This 2005 data sample contained a sufficient number of claims (see table 1) and the sample was further analyzed to confirm that employer and employee characteristics were statistically similar to the pre-MPN 2002-2004 samples. The declining claim and visit counts between 2002 and 2005 (Table 1) are consistent with overall declines in claim frequency (as measured by WCIRB 2007) and utilization reductions (CWCI January 2007).

### Network Identification

The Institute compiled the medical services dataset from claims information from 10 national and regional workers' compensation insurers and large self-insured employers. Each data contributor used a PPO network in the AY 2002 – 2004 timeframe, and an MPN in AY 2005. MPNs were phased in at various points beginning in January 2005, so to create a uniform comparison of the 2002 – 2004 PPO utilization to 2005 MPN utilization, the authors counted all visits to MPN physicians for any 2005 service date, regardless of the actual MPN approval or implementation date. Thus, a January 1, 2005 visit to "Dr. Jones," a provider in the MPN used by Payor #1, which was approved by the DWC on March 1, 2005 and implemented on June 1, 2005, would count as a "network" visit.

## RESULTS

### Visits Within and Beyond 30 Days of Injury

One of the most fundamental changes in the use of networks was the expansion of payor control over medical care. As mentioned above, before MPNs, payors' ability to channel patients to physicians was typically limited to the first 30 days after injury (or up to 180 days for HCOs). SB 899 gave payors with MPNs the ability to direct care for the life of the claim.

**Chart 1: Distribution of Outpatient Physician-Based Treatment Visits From the Date of Injury**

Within 30 Days vs. Post 30 Days, AY 2002 – 2005 Claims

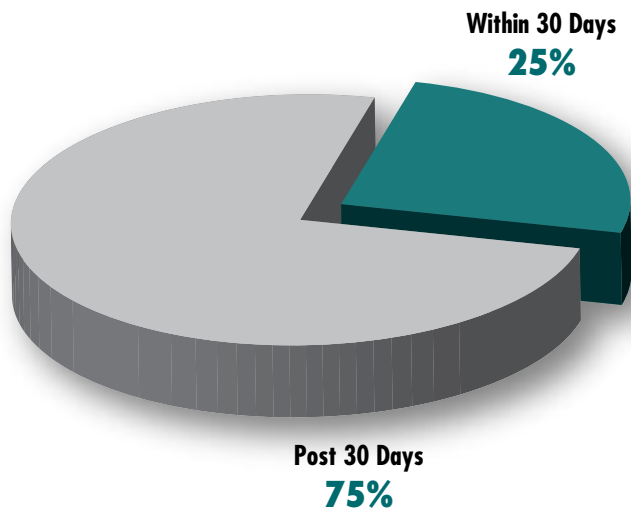


Chart 1 shows that among the AY 2002 – 2005 claims, one quarter of all first-year medical service visits occurred within 30 days of injury, while three out of four visits occurred between the 31st day post injury and one year post injury.

### Network Penetration

Table 2 shows the percentage of visits to a network provider for claims with 2002 through 2005 dates of injury. The results were divided into services rendered within the first 30 days of injury and those rendered more than 30 days post injury.

**Table 2: Percentage of All Physician-Based Outpatient Visits to Network Providers – Pre- vs. Post-MPN**

| Physician-Based Outpatient Visits (N=12,868,329)      | Network Utilization Rate |         |         |          |
|---|--------------------------|---------|---------|----------|
|   | Pre-MPN                  |         |         | Post-MPN |
|   | AY 2002                  | AY 2003 | AY 2004 | AY 2005  |
| <= 30 Days  | 62.6%                    | 63.9%   | 65.7%   | 72.5%    |
| > 30 Days   | 21.9%                    | 22.4%   | 33.8%   | 52.6%    |
| <b>All 1st-Year Physician-Based Outpatient Visits</b> | 32.1%                    | 32.6%   | 47.6%   | 63.2%    |

Across all physician-based outpatient treatments rendered within the first 30 days of injury, the percentage of visits to network providers was relatively stable between AY 2002 and AY 2004, ranging from 62.6 to 65.7 percent of all visits, then increased to 72.5 percent of all visits in AY 2005. Thus, most of the growth in workers' compensation network utilization within the first year of injury was due to the increased use of network providers *after* the first 30 days. For example, Table 2 shows that among AY 2002 claims, network providers handled just under 22 percent of medical visits after the first month, and by AY 2004, that percentage grew to 33.8 percent. After MPNs were put into place in 2005, however, network providers accounted for more than half of all medical visits beyond the initial 30 days. The aggregate network utilization rates displayed in Table 2 show that during the pre-MPN period, reliance on network providers to render services to California injured workers within the first year of injury increased from 32 percent of all visits in AY 2002 to nearly 48 percent in AY 2004; but after the MPNs became operational in AY 2005, the network utilization rate for all first-year visits jumped to 63 percent.

## Network Visits by Fee Schedule Section

While nearly two out of three injured worker visits for physician-based outpatient services in AY 2005 involved network providers, network utilization varied based on the types of services rendered. To gain a better sense of how networks are being used to deliver workers' compensation medical care, the Institute calculated the network utilization rates for the six fee schedule service categories. The following sections summarize the changes in network utilization for the six categories.

### Evaluation & Management

Most Evaluation & Management (E&M) services involve brief to extended encounters with new or established patients in an office or other setting. Because E&M codes include office visits, they are present in virtually every claim, making them one of the most common types of medical services billed and paid in California workers' compensation. The Institute's initial analysis in this research series<sup>10</sup> found that across five different valuation points, ranging from 3 to 18 months post injury, there were only marginal net changes in the average number of E&M visits following enactment of SB 899.

Table 3 shows that among AY 2002 – 2004 claims, the network utilization rate for E&M services within 30 days of the date of injury remained virtually unchanged: 72 percent in 2002 and 73 percent in 2004; though after the introduction of MPNs in AY 2005, that rate increased to 77 percent. At the same time, the percentage of E&M visits to network providers for services more than 30 days after injury rose from less than 43 percent on AY 2002 claims to 48 percent on AY 2004 claims, then increased sharply to nearly 69 percent once the MPNs began to operate in AY 2005.

**Table 3: Percentage of E&M Visits to Network Providers – Pre- vs. Post-MPN**

| E&M Visits<br>(N=3,901,956)        | Network Utilization Rate |         |         |          |
|------------------------------------|--------------------------|---------|---------|----------|
|                                    | Pre-MPN                  |         |         | Post-MPN |
|                                    | AY 2002                  | AY 2003 | AY 2004 | AY 2005  |
| <= 30 Days                         | 72.3%                    | 73.7%   | 72.9%   | 77.3%    |
| > 30 Days                          | 42.7%                    | 41.6%   | 48.0%   | 68.6%    |
| <b>All 1st-Year E&amp;M Visits</b> | 56.7%                    | 55.9%   | 61.6%   | 74.1%    |

The net effect of these changes was that the network utilization rate for all E&M visits within 12 months of injury climbed from about 57 percent in AY 2002 to nearly 62 percent in AY 2004, then rose to 74 percent in AY 2005, a relative increase of more than 20 percent in the first year that MPNs took effect.

## Surgery

Surgery services can range from the simple (injections) to the most invasive and expensive types of treatment in workers' compensation, and in many cases, recommendations for surgery services are not made until the possibility of other forms of treatment have been fully explored. Notably, the initial report in this research series found that following enactment of SB 899, there was little change in the utilization of surgery services within the first 18 months following injury.

In examining changes in the delivery of surgery services, this analysis found that the percentage of surgical visits to network providers in the first 30 days held steady at about 2 out of every 3 visits between AY 2002 and AY 2004, but that proportion increased to nearly 3 out of every 4 visits with the introduction of MPNs in AY 2005 (Table 4). That works out to a relative increase of 12 percent from 2004. Meanwhile, the percentage of surgery visits to network providers for services more than 30 days after injury rose from 36 percent in AY 2002 to more than 39 percent in AY 2004, then climbed to more than 58 percent in AY 2005, a relative increase of 48 percent in the first year that MPNs became operational.

**Table 4: Percentage of Surgery Visits to Network Providers – Pre- vs. Post-Reform**

| Surgery Visits<br>(N=581,675)      | Network Utilization Rate |         |         |          |
|------------------------------------|--------------------------|---------|---------|----------|
|                                    | Pre-MPN                  |         |         | Post-MPN |
|                                    | AY 2002                  | AY 2003 | AY 2004 | AY 2005  |
| <= 30 Days                         | 67.3%                    | 68.8%   | 65.8%   | 73.9%    |
| > 30 Days                          | 36.2%                    | 36.5%   | 39.4%   | 58.4%    |
| <b>All 1st-Year Surgery Visits</b> | 51.7%                    | 52.6%   | 55.7%   | 69.5%    |

The combined effect of these changes was that the network utilization rate for all surgery visits in the first year following injury increased from just over half of all visits in AY 2002 and 2003 to about 56 percent in AY 2004, then rose to nearly 70 percent in AY 2005. That is a relative increase of nearly 25 percent in the network utilization rate for surgery services in the first year that MPNs were available.

10 Analysis of California Workers' Compensation Reforms, Part 1: Medical Utilization and Reimbursement Outcomes. CWCI Research Update, January 2007.

**Radiology**

The first report in this series also showed that following the implementation of SB 899, there were marginal reductions in the average number of radiology visits (e.g., x-rays, MRIs, CAT scans) in the first 18 months after an injury.

Data from the current analysis (Table 5) shows that the use of networks to deliver such services within the first 30 days of injury registered little change in the pre-MPN period (AY 2002 – 2004), with network providers accounting for about 6 out of 10 first-month radiology visits across the 3-year span. In 2005, however, network providers accounted for 2 out of 3 radiology visits during the first 30 days – a 10 percent increase from the pre-MPN period. The pattern was similar for radiology visits beyond the first 30 days, with network providers accounting for less than 30 percent of these visits in AY 2002-2004, after which the rate rose to nearly 44 percent in AY 2005 – a relative increase of more than 50 percent.

**Table 5: Percentage of Radiology Visits to Network Providers – Pre- vs. Post-MPN**

| Radiology Visits<br>(N=932,567)      | Network Utilization Rate |         |         |          |
|--------------------------------------|--------------------------|---------|---------|----------|
|                                      | Pre-MPN                  |         |         | Post-MPN |
|                                      | AY 2002                  | AY 2003 | AY 2004 | AY 2005  |
| <= 30 Days                           | 60.6%                    | 61.9%   | 59.8%   | 65.6%    |
| > 30 Days                            | 29.4%                    | 28.8%   | 28.8%   | 43.6%    |
| <b>All 1st-Year Radiology Visits</b> | 45.8%                    | 45.8%   | 47.2%   | 58.5%    |

The aggregate result of these changes was that the network utilization rate for all radiology visits in the first year hovered between 46 - 47 percent between AY 2002 and AY 2004; then jumped to nearly 59 percent after the MPNs were in place in AY 2005 – a relative increase of nearly 24 percent from the pre-MPN 2004 time period.

**Medicine Section Services**

As with the radiology services, the initial report in this research series found the utilization trend for services covered by the Medicine Section of the fee schedule was relatively flat following the implementation of SB 899, though the current analysis shows significant shifts in how those services were rendered (Table 6).

During the pre-MPN period of the study (AY 2002 – AY 2004), the network utilization rate for Medicine Section services within 30 days of injury remained around 70 percent, but that rate rose to more than 78 percent in AY 2005 – an 11 percent growth rate in the first year that MPNs were available. The growth in network utilization for Medicine Section services rendered after the first 30 days was much more significant, rising from 23 percent of all visits in AY 2002 to more than 28 percent in 2004, then increasing to nearly 53 percent in AY 2005, a relative increase of 85 percent once the MPNs were in place.

**Table 6: Percentage of Medicine Section Visits to Network Providers – Pre- vs. Post-MPN**

| Medicine Section Visits<br>(N=356,744)      | Network Utilization Rate |         |         |          |
|---|--------------------------|---------|---------|----------|
|   | Pre-MPN                  |         |         | Post-MPN |
|   | AY 2002                  | AY 2003 | AY 2004 | AY 2005  |
| <= 30 Days                                  | 68.7%                    | 70.6%   | 70.6%   | 78.4%    |
| > 30 Days                                   | 23.0%                    | 22.5%   | 28.4%   | 52.5%    |
| <b>All 1st-Year Medicine Section Visits</b> | 39.9%                    | 39.9%   | 49.3%   | 70.1%    |

The combined results show the network utilization rate for all Medicine Section services within the first year jumped from about 40 percent in AY 2002 to almost 50 percent in AY 2004, then climbed to more than 70 percent in AY 2005. That translates to a one-year growth rate of more than 42 percent from the pre-MPN 2004 time period.

### Physical Therapy

Physical therapy (PT) is the most common medical service in California workers' compensation, though the initial study in this research series noted that following SB 899 implementation (which included 24 visit caps on PT and chiropractic care, as well as utilization review requirements) there were significant reductions in the average number of PT visits. These reductions ranged from 3 fewer PT visits at 3 months post injury (-31 percent), to 16.3 fewer visits at 18 months post injury (-58 percent).

In exploring changes in PT delivery (Table 7), this study found that during the pre-MPN period, the use of network providers for PT services in the first 30 days increased from just over half of all visits in AY 2002 to nearly 58 percent in AY 2004. As MPNs opened up in 2005, the trend toward network providers continued, with networks accounting for 2 out of 3 first-month PT visits in AY 2005, up more than 14 percent from 2004.

The growth in network utilization was even more dramatic for PT visits beyond 30 days post injury. The pre-reform data show the use of networks for these visits rose from less than 1 in 5 visits in AY 2005 to 29 percent of the visits in AY 2004, then increased again to 43 percent in AY 2005 – a growth rate of nearly 50 percent once the MPNs were in place.

| Physical Therapy Visits (N=5,482,174)       | Network Utilization Rate |         |         |          |
|---|--------------------------|---------|---------|----------|
|   | Pre-MPN                  |         |         | Post-MPN |
|   | AY 2002                  | AY 2003 | AY 2004 | AY 2005  |
| <= 30 Days                                  | 51.9%                    | 52.7%   | 57.7%   | 65.9%    |
| > 30 Days                                   | 19.2%                    | 19.4%   | 29.0%   | 43.1%    |
| <b>All 1st-Year Physical Therapy Visits</b> | 23.3%                    | 23.5%   | 36.7%   | 50.3%    |

Overall, the percentage of total PT visits to network providers in the first year following injury increased from less than a quarter of the visits in AY 2002 to nearly 37 percent of the visits in AY 2004. With the advent of MPNs in 2005, the shift toward network utilization for PT continued, with half of all PT visits in the first year involving network providers – up 37 percent from the pre-MPN 2004 time period.

### Chiropractic Manipulation

Results of the initial analysis in the worker's compensation reform series revealed that the biggest decline in medical utilization following SB 899 implementation was in chiropractic manipulation. Among claims involving chiropractic manipulation, the reductions in the average number of visits ranged from 2.6 fewer visits (-22 percent) at 3 months post injury to nearly 25 fewer visits (-67 percent) after 18 months.

The latest study shows that prior to the development of MPNs, only a small percentage of the chiropractic manipulation visits involved network providers.

A closer look reveals that during the pre-MPN period (AY 2002 – AY 2004), networks accounted for only 15 to 17 percent of injured workers' chiropractic manipulation visits in the first 30 days, though that rate doubled to nearly a third of all visits after the MPNs began to operate in AY 2005 (Table 8).

Similarly, the pre-MPN network utilization rate for chiropractic manipulation rendered after the first 30 days ranged from 7 to 9 percent of all visits, but then registered nearly a three-fold increase once the MPNs took effect.

| Chiropractic Manipulation Visits (N=1,613,213)       | Network Utilization Rate |         |         |          |
|--|--------------------------|---------|---------|----------|
|  | Pre-MPN                  |         |         | Post-MPN |
|  | AY 2002                  | AY 2003 | AY 2004 | AY 2005  |
| <= 30 Days   | 14.6%                    | 15.2%   | 16.6%   | 32.7%    |
| > 30 Days  | 7.5%                     | 7.3%    | 9.0%    | 31.7%    |
| <b>All 1st-Year Chiropractic Manipulation Visits</b> | 8.1%                     | 7.9%    | 11.2%   | 31.9%    |

Overall, the use of network providers increased from about 1 in 12 first-year chiropractic manipulation visits in AY 2002 to 1 in 9 visits in AY 2004 (a growth rate of nearly 14 percent during the pre-MPN period). The network utilization rate then surged to nearly 1 out of every 3 first-year chiropractic manipulation visits in AY 2005 – up 185 percent in the first year after MPNs were introduced.<sup>11</sup>

11 MPN regulations included requirements to assure injured worker access to medical providers, including chiropractors. Anecdotal reports suggest one likely factor contributing to the significant increase in the network utilization rate for chiropractic manipulation in AY 2005 is that MPNs have incorporated larger numbers of chiropractic providers than were included in earlier PPO networks.

## CONCLUSION

This preliminary analysis of changes in the level of network use in California workers' compensation suggests that pre-reform PPO networks and post-reform MPNs played an increasing role in medical service delivery between 2002 and 2005. For many types of medical services, use of physician networks increased between 2002 and 2004. With the introduction of MPNs in 2005, network use continued to increase in all six areas of provider-based outpatient treatment analyzed by the study, with the most significant increase in network utilization noted in visits beyond the first 30 days after injury. Because medical provider networks are still relatively new to workers' compensation, and this study only includes data on claims through AY 2005 – the first year in which MPNs became operational – the authors urge caution in interpreting and applying these preliminary results.

The Institute's initial analysis in this research series, as well as other public policy studies have noted associations between claims managed by preferred provider organizations and lower costs and less litigation. Later this year, CWCI will publish a follow-up analysis that explores characteristics of medical provider networks, including size, discount or no-discount fee arrangements, as well as access – and their association to key claim outcomes including:

- Quality of care indicators
- Delayed or facilitated return-to-work
- Medical and indemnity benefit costs

## RESEARCH SERIES

### California Workers' Compensation Post-Reform Outcomes

This analysis is the third in a four-part series that tracks changes in various aspects of the California workers' compensation system following the implementation of the 2002 – 2004 legislative reforms. The entire reform series examines the following topics:

**Part 1: Medical Utilization & Reimbursement**

**Part 2: Temporary Disability**

**Part 3: Medical Provider Networks**

**Part 4: Post-Surgical Use of Physical Therapy and Chiropractic Manipulation**

Part 4, the final report in the series, scheduled for release this summer, will explore the association between medical reforms and changes in the prevalence and utilization of post-surgical physical therapy and chiropractic treatment. The issue is particularly timely, and the need for empirical data has intensified, as state lawmakers are currently considering a proposal to exempt post-surgical cases from the 24-visit caps on physical therapy and chiropractic care imposed by SB 899.

## ABOUT CWCI

The California Workers' Compensation Institute, incorporated in 1964, is a private, non-profit 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.



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