RESEARCH UPDATE

Analysis of Post-Reform Outcomes: Changes in Pharmaceutical Utilization and Reimbursement In the California Workers' Compensation System

by Alex Swedlow, MHSA and John Ireland, MHSA

EXECUTIVE SUMMARY

A new CWCI study was conducted to assess the association between recent statutory and regulatory reforms and changes in pharmaceutical utilization and reimbursement patterns in the California workers' compensation system. Some of the key findings include:

- Increases in pharmacy utilization and reimbursements in the California workers' compensation system led to the adoption of a pharmacy fee schedule and other cost containment reforms in 2004, but the new data show significant post-reform growth in both the average number of prescriptions and the average payments per claim for prescription medications. Between calendar years 2005 and 2007, the number of prescriptions per claim in the first year following a work injury increased 25 percent, while first-year pharmaceutical payments per claim increased 36 percent.
- The recent increase in pharmacy reimbursements per claim is associated with an increase in the proportion and price of prescriptions that are sole source or "brand" drugs. Average payments for brand drugs increased 31 percent between 2005 and 2007.
- From calendar year 2005 through 2008, prescriptions for schedule II drugs, which the government categories as having a high potential for abuse and addiction, increased from 0.9 percent to 5.9 percent of outpatient prescriptions in the California workers' compensation system and from 2 percent to 18 percent of total pharmaceutical payments in the system.
- Prescriptions and average payments for repackaged drugs, once a significant driver of pharmaceutical costs in the California workers' compensation system, declined 90 percent from 2005 levels following 2007 changes in the pharmaceutical regulations intended to close the repackaged drug loophole.

Public policy reforms such as modified fee schedules and non-differential pricings for repackaged drugs have curbed some of the cost driving excesses in the system. At the same time, because of the fluid nature of pharmaceutical utilization and pricing, and the lack of formulary controls in California workers' compensation, new cost drivers have emerged, as evidenced by the growing use and cost of brand drugs and schedule II medications noted in this study. In addition to these findings, anecdotal reports suggest other trends which have yet to be quantified, such as the increased use of compound drugs, co-packs and medical foods that may hinder efforts to ensure both the high quality of treatment and the reasonable cost of pharmaceuticals in the California workers' compensation system.

BACKGROUND

Beginning in the mid-1990s, California workers' compensation pharmaceutical costs began to increase rapidly, and by the end of that decade, reimbursements for pharmaceuticals under the workers' compensation Official Medical Fee Schedule were well above federal and group health levels.[1] By 2000, the cost of providing prescription medications to injured workers had become one of the fastest growing medical cost drivers in the system, and concern among public policymakers and the community was mounting. To address those concerns, CWCI, the Commission on Health and Safety and Workers' Compensation (CHSWC) and the Department of Industrial Relations conducted a study to examine the underlying issues of these various reimbursement systems and to quantify the extent of the cost differences. The study estimated that California workers' compensation prescription drug costs, which had totaled $114 million in 1996, could rise to $212 million per year in 2000 and to $374 million in 2005. Subsequent estimates from the Workers' Compensation Insurance Rating Bureau of California showed insurer pharmacy payments climbed from $206 million in 2000 to $478 million in 2004 – a 132 percent increase.[2] Most of that huge cost increase took place under a regulatory system that remained in place until 2003. Under that system, workers' compensation pharmacy fees were governed by formulae included in the General Instructions of the Official Medical Fee Schedule (OMFS). OMFS maximum reasonable fees for generic medications were set at 140 percent of the average wholesale price (AWP) plus a $7.50 dispensing fee, and for brand name pharmaceuticals, maximum reasonable fees were set at 110 percent of the average wholesale price plus a $4 dispensing fee.

In response to the sharply rising cost of providing medications to injured workers, in 2002 state lawmakers enacted the first of several reforms designed to modify the delivery of pharmacy benefits in workers' compensation and to rein in prescription drug costs. Within the next two years, the state had adopted reforms that included the following mandates:

- Create a pharmacy fee schedule by July 1, 2003
- Channel injured employees to contracted pharmacy networks
- Require pharmacies to substitute generic drugs for brand drugs unless the physician specified in writing that no substitution should be made
- Cap maximum reimbursement for pharmacy services and drugs at 100 percent of the Medi-Cal allowance
- Establish maximum fees for drugs not covered by Medi-Cal – with fees not to exceed the Medi-Cal fees for comparable drugs

Effective January 1, 2004, the state set maximum reasonable allowances for pharmacy services and drugs at the Medi-Cal rates, which in 2004 were at least 10 percent below the AWP. For drugs or pharmaceutical services not covered by Medi-Cal (e.g. repackaged drugs dispensed in a physician's office), however, maximum reasonable fees were still governed by the OMFS that was in effect in 2003, which at 140 percent and 110 percent of the AWP for generic and brand name drugs allowed significantly higher fees than the Medi-Cal rates. Subsequent regulatory action by the Division of Workers' Compensation addressed the repackaged drug loophole in 2007, though even with the enactment of this revision and the 2004 reforms, recent data from the Workers' Compensation Insurance Rating Bureau, as well as anecdotal data from claims administrators, suggests that California workers' compensation pharmaceutical costs are again on the rise.

This analysis measures the changes in utilization and reimbursement for prescription medications in the California workers' compensation system before and after the implementation of the California's 2004 workers' compensation medical and pharmaceutical reforms and the closure of the repackaged drug loophole in 2007. Specifically, the study analyzes changes in the average number of prescriptions per claim, average prescription payments per claim, average payments per prescription, and distributions of brand, generic, repackaged and schedule II & schedule III drugs.

1 Neuhauser, F., Swedlow, A., Gardner, L., Edelstein, E. A Study of the Cost of Pharmaceuticals in Workers' Compensation. A Special Report for the State of California, Commission on Health and Safety and Workers' Compensation, May 2000.

2 WCIRB Reports on California Workers' Compensation Losses and Expenses 2000 and 2004. These are payments to pharmacies for drugs and other equipment for 2000 and 2004 regardless of date of injury or date of service.

DATA

The Institute compiled a special version of its Industry Claim Information System (ICIS)[3] database containing prescriptions filled between January 2002 and June 2008. The database contained information on 1,088,758 claims involving 4,047,861 prescriptions and $313 million in pharmaceutical payments.

RESULTS

As noted in the earlier studies, pharmacy utilization and reimbursement in the California workers' compensation system were on the rise prior to the reforms, but the new data show they continued to increase following the adoption of the pharmacy fee schedule and the enactment of medical reforms in 2004. Table 1 lists the average number of prescriptions within 12 months of injury grouped by accident year. It also lists the average amount paid per claim for prescription medications within 12 months of injury, and the average paid per prescription, with separate breakouts showing the average amount paid per generic prescription and the average amount paid per brand prescription.

Table 1: Average Prescriptions & Payments per Claim by Accident Year (valued at 12 months)

Accident Year	Scripts Per Claim	RX Paid Per Claim	Avg Paid Per Script	Avg Paid Per "Generic" Script	Avg Paid Per "Brand" Script
2002	3.3	$269.05	$81.08	$76.83	$104.18
2003	3.7	$289.54	$78.91	$70.47	$115.19
2004	3.8	$293.41	$77.04	$69.47	$112.31
2005	4.0	$340.57	$85.35	$73.96	$124.02
2006	4.1	$313.36	$76.02	$51.13	$141.04
2007	5.0	$461.90	$93.00	$57.33	$162.25
02-07 % Change	+ 51.5%	+ 71.7%	+ 14.7%	- 25.4%	+ 55.7%

The pre-reform data show that the average number of first-year prescriptions filled per claim increased 15 percent from 3.3 for AY year 2002 claims to 3.8 for AY 2004 claims, while total first-year prescription drug payments per claim rose 9 percent during this period (from $269.05 to $293.41). Notably, the average number of prescriptions was increasing at a faster pace than average prescription payments per claim, and the average amount paid for each prescription was declining. This indicates that there was a shift toward less expensive generic medications, as the average amount paid for generic drugs fell nearly 10 percent during this period, while the average reimbursement for a brand name medication was up almost 8 percent.

Following the 2004 reforms, the number of first-year prescriptions per claim continued to grow, increasing from an average of 4.0 prescriptions for AY 2005 claims to an average of 5.0 prescriptions for AY 2007 claims (+25 percent). Meanwhile, the total amount paid per claim for first-year prescriptions declined almost 8 percent between 2005 and 2006, spurred by a 31 percent drop in the average amount paid per generic medication, which fell from nearly $74 to just over $51, even while the average paid for brand medications continued to rise, increasing nearly 14% to more than $141 per prescription. First-year prescription payments began to ratchet up again in 2007, however, as utilization continued to rise while the average amount paid for generic medications climbed 12 percent to $57.33, and the average reimbursement for brand drugs increased 15 percent to $162.25. Overall, the average number of first-year prescriptions per claim climbed 25 percent between AY 2005 and AY 2007, while pharmaceutical reimbursements per claim increased from $340.57 to $461.90 (+35.6 percent). Compared to AY 2002 claims, the average number of first-year prescriptions on AY 2007 claims was up 51.5 percent; the average reimbursement per prescription was up 14.7 percent (the net effect of a 25.4 percent decline in the average amount paid for generics and a 55.7 percent increase in the average paid for brand drugs); resulting in a five-year increase of nearly 72 percent in total prescription payments per claim.

3 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 over 2.5 million workplace injuries with dates of injury between 1993 and 2008(v10).

Schedule II & Schedule III Drugs

The United States Controlled Substances Act (CSA), enacted in 1970, governs the manufacturing, distribution and dispensing of certain types of powerful and controversial drugs, which may or may not have a pure medical purpose. The Federal Drug Enforcement Administration and the Food and Drug Administration categorize these controlled drugs based on their potential for abuse or addiction. For example, Schedule II drugs include morphine and cocaine, which are considered to have a high potential for abuse or addiction, but which also have accepted medical uses. Schedule III drugs include intermediate-acting barbiturates, anabolic steroids, and hydrocodone/codeine compounded with a non-steroidal anti-inflammatory drug, which have less potential for abuse or addiction than Schedule II drugs, and also have accepted medical purposes. In recent years, there has been growing concern about the increased use of these controlled substances – especially Schedule II drugs -- to treat injured workers in California.

Table 2 tracks the changing proportion of California workers' compensation prescriptions and prescription payments for Schedule II and Schedule III drugs, and shows the changes in the average amounts paid per prescription for these medications. The data are broken out by year, from 2002 through the third quarter of 2008, based on the date on which the prescriptions were filled.

Table 2: Schedule II & Schedule III Drugs as a % of California WC Prescriptions & Payments by Fill Date

	Percent of Prescriptions		Percent of Payments		Avg Payment per Prescription	
Fill Date	S-II	S-III	S-II	S-III	S-II	S-III
2002	0.4%	15.5%	0.7%	8.9%	$97.73	$29.55
2003	0.7%	18.5%	1.5%	9.5%	$182.34	$40.48
2004	1.1%	18.6%	3.4%	7.9%	$234.48	$33.37
2005	0.9%	17.4%	2.0%	9.4%	$171.03	$41.39
2006	1.3%	18.8%	2.2%	10.1%	$148.41	$45.80
2007	2.9%	20.0%	8.4%	11.8%	$220.00	$45.10
1-3Q/2008	5.9%	21.7%	18.0%	10.8%	$279.75	$45.45

From calendar year 2002 through 2004, the prevalence of schedule II drugs (including oxycontin, fentanyl, morphine and short-acting barbituates) in California workers' compensation nearly tripled from 0.4 percent to 1.1 percent of all outpatient prescriptions, but usage then dipped to 0.9 percent of the prescriptions in 2005 (the first full year following enactment of SB 899). The increase in utilization resumed in 2006 however, with Schedule II drugs growing to 1.3 percent of injured worker prescriptions in 2006, then more than doubling to 2.9 percent in 2007 and doubling again to 5.9 percent by the third quarter of 2008.

In conjunction with the increased utilization of schedule II drugs, the percentage of workers' compensation prescription dollars paying for schedule II drugs also increased, increasing nearly five-fold from 0.7 percent in 2002 to 3.4 percent in 2004, then dropping back to 2.0 percent of the payments in the first full year under SB 899, before soaring from 2.2 percent to 18 percent of the prescription dollars between 2006 and the third quarter of 2008. Notably, the average amount reimbursed for these prescriptions nearly tripled from $97.73 in 2002 to $279.75 in 2008, so the increase in schedule II drugs as a percentage of California prescription payments outpaced the growth in schedule II drug utilization – with most of the increase occurring between 2005 and 2008, after the reforms were enacted.

The use of schedule III drugs in the treatment of injured workers also increased during the study period. Schedule III drugs (including vicodin and intermediate-acting barbituates) increased from 15.5 percent to 18.6 percent of all California workers' compensation prescriptions from 2002 to 2004, though that percentage dropped back to 17.4 percent in 2005, before it started to climb again the following year, rising from 18.8 percent in 2006 to 21.7 percent of prescriptions from 2006 to the third quarter 2008. Schedule III drug reimbursements as a percentage of all workers' compensation prescription payments showed less variation than schedule II drugs, ranging from a low of 7.9 percent in 2004 to 11.8 percent in 2007, as the average amount paid for these drugs was also far less volatile, rising from a low of $29.55 in 2002 to $41.39 in 2005, before leveling off at between $45 and $46 per prescription between 2006 and the third quarter of 2008.

4 "Early Returns on Workers' Compensation Medical Reforms," ICIS Says, November 2005.

Repackaged Drugs

In November 2005, CWCI published its initial study examining pharmaceutical utilization, payment and access following implementation of the 2002-2004 workers' compensation reforms. That study noted that the savings anticipated following the adoption of the workers' compensation pharmacy fee schedule in January 2004 had yet to materialize due to a shift toward more expensive brand name drugs and repackaged drugs dispensed by doctor's offices rather than pharmacies.

Due to the loophole in the 2003 reform bill (SB 228) and the regulations that initially established the new pharmacy fee schedule, repackaged drugs dispensed from physician offices and clinics were not included in the Medi-Cal database, so providers who dispensed repackaged drugs were able to obtain significantly higher payments than pharmacies received for dispensing the same drugs. As a result, the Institute's 2005 study found that repackaged drugs accounted for 43 percent of the California workers' compensation pharmaceutical dollars billed in 2004, and more than half of all pharmaceutical dollars paid.

In 2007, the Division of Workers' Compensation revised the adopted regulations and largely closed the repackaged drug loophole, effective in March of that year. Table 3 shows that regulatory action had an immediate and profound effect on both the volume and the cost of repackaged drugs in California workers' compensation.

Table 3: Repackaged Drugs as a % of California WC Prescriptions & Payments by Fill Date

	Percent of Prescriptions		Percent of Payments	
Fill Date	Non-Repackaged Drugs	Repackaged Drugs	Non-Repackaged Drugs	Repackaged Drugs
2002	51.1%	48.9%	43.5%	56.6%
2003	52.2%	47.9%	40.2%	59.8%
2004	56.5%	43.5%	42.0%	58.1%
2005	47.9%	52.1%	42.9%	57.1%
2006	45.4%	54.7%	40.8%	59.2%
2007-1Q	63.0%	37.0%	60.1%	39.9%
2007-2Q	87.1%	12.9%	91.4%	8.6%
2007-3Q	89.5%	10.5%	91.7%	8.3%
2007-4Q	89.2%	10.8%	93.3%	6.7%
2008-1Q	90.9%	9.1%	94.6%	5.4%
2008-2Q	90.4%	9.6%	94.5%	5.5%
2008-3Q	91.9%	8.1%	94.2%	5.8%

Table 3 shows that in 2006, just prior to the closure of the loophole, repackaged drugs accounted for 54.7% of all California workers' compensation prescriptions, and 59.2% of the prescription dollars, but by the third quarter of 2007, they had dwindled to just 10.5% of the prescriptions and 8.3% of the payments. Those percentages have continued to decline, with the latest figures from the third quarter of 2008 showing repackaged drugs representing only 8.1% of all workers' compensation prescriptions, and 5.8% of the pharmaceutical payments.

SUMMARY

Pharmaceuticals remain a major cost driver in the California workers' compensation system, although public policy reforms such as modified fee schedules and non-differential pricings for repackaged drugs have curbed some of the cost driving excesses in the system. Yet, at the same time, other factors — the fluid nature of pharmaceutical utilization and pricing, limited generic substitution, the lack of formulary controls, and new challenges such as direct-to-consumer advertising and the growth of cottage industries focused on the manufacture of compound drugs, co-packs, and medical foods — have limited the California workers' compensation system's ability to optimize quality and control utilization and cost increases from year to year. In addition, the recent addition of a Pain Management treatment guideline to the Medical Treatment Utilization Schedule (MTUS) raises questions about the future use of pain medications and ancillary services. In 2010, CWCI will follow up this research with new studies that will examine the associations between pain management protocols, changes in pharmaceuticals, increased use of opioids and claim outcomes.

ABOUT THE AUTHORS

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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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