California Workers' Compensation Institute

Research Update

California Workers' Compensation Medical & Indemnity Benefit Trends AY 2002-2014

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Background

California's most recent workers' compensation reform bill, SB 863, was signed by Governor Brown in September 2012, and its provisions are being implemented over time as the state adopts regulations required to fill in critical details. In addition to increasing permanent disability benefits, the 2012 reforms included a number of changes affecting medical benefit delivery that were intended to increase the quality of care and lower costs. Among the most prominent medical reforms was a mandate that the state replace the workers' compensation physician fee schedule with a schedule based on Medicare's Resource-Based Relative Value Scale (RBRVS), phased in over a four-year period that began in January 2014. The expectation was that the annual adjustment factor included in the RBRVS schedule would increase costs somewhat over time, though the more significant effect would be a redistribution of workers' compensation medical payments, with more money going to primary care physicians and less to specialists.

Other SB 863 medical reforms that have taken effect in the last two years include the repeal of pass-through payment allowances for spinal surgery implants from the Inpatient Hospital Fee Schedule, which were partially eliminated in 2013 and completely repealed in 2014; and the reduction in ambulatory surgery center facility fee allowances from 120 percent to 80 percent of Medicare's hospital outpatient department fees (effective for services on or after January 1, 2013). Additional changes that have just taken effect or that are in development include the new copy service fee schedule, which was promulgated earlier this year and took effect July 1; the yet to be revised fee schedule for interpreter services; and new fee schedules for home health care services, and vocational expert services which are still being developed through the regulatory process.

SB 863 also required that the DWC adopt new processes and fees to address medical treatment and medical billing disputes. The Independent Bill Review (IBR) process limits the time for medical providers to object to medical payments, and Independent Medical Review (IMR) establishes a new system for handling disputes over the medical necessity of proposed treatment, including new timelines and requirements for authorizing medical requests.

To address the backlog of medical liens that plagued the system for several years and created long delays at the Appeals Boards where claims are adjudicated, SB 863 established new lien requirements. To inhibit the filing of frivolous liens, the statute reinstituted a lien filing fee for new liens, created a lien activation fee for current liens, limited the length of time after a service is provided that a lien may be filed, and required that disputes over medical necessity and medical payments be addressed by IBR and IMR rather than through liens.

SB 863 also called for revisions to streamline the Medical Provider Network (MPN) application process and MPN notifications for employees; introduced Medical Access Assistants to help injured workers find and schedule appointments with MPN physicians, and added penalties for MPN infractions. MPN regulations adopted in August 2014 revised the access standards based on physician specialty, and initiated new processes for obtaining physician acknowledgements and updating MPN rosters.

While the medical reforms in SB 863 called for the most significant overhaul of workers' compensation medical delivery in nearly a decade, in many cases they represented attempts to bolster earlier reforms enacted between 2002 and 2004 that contained several key provisions to control the growth of medical utilization and costs. Most notably, those reforms partially repealed the Primary Treating Physician's (PTP) presumption of correctness in matters of medical treatment, which studies had associated with increased medical utilization and cost,[1] and laid the groundwork for the adoption of managed care principals in California workers' compensation. Beginning in January 2004, AB 227 and SB 228, the reform bills signed by Governor Davis in 2003, called for the implementation of utilization management controls featuring medical treatment guidelines, beginning with the American College of Occupational and Environmental Medicine (ACOEM) Guidelines, as well as 24-visit caps on physical therapy, occupational therapy and chiropractic manipulation; an expansion of the Official Medical Fee Schedule – including a revised pharmacy fee schedule and a generic drug substitution requirement; a requirement that injured workers receive a second opinion prior to spinal surgery; and life-time medical control for employers that utilize MPNs. Prior research on the outcomes of those reforms showed a sharp reduction in medical costs following their implementation, though within two years, overall medical costs were again trending up.[2] A 2008 Workers' Compensation Insurance Rating Bureau (WCIRB) analysis of insured claims noted that the post-reform decline in medical payments ended in accident year (AY) 2006, and that average medical payments were on the rise,[3] while subsequent CWCI studies in 2009,[4] 2011,[5] 2012,[6] 2013[7] and 2014[8] all confirmed the short post-reform decline and the subsequent surge in insured medical losses.

Reductions in medical costs associated with the 2002-2004 reforms were relatively short-lived, but the reforms had a more enduring impact on indemnity payments, particularly permanent disability (PD). For example, SB 899 required that as of 2005, PD determinations must be based on a formula reflecting the injured worker's loss of earning capacity rather than their ability to compete in the open labor market. SB 899 also required that beginning in AY 2005, workers with PD ratings of 0.25 to 15 percent receive one less week of payments for each 1 percent of PD, and that all PD reports consider the portion of disability attributable to work, limiting an employer's liability to the percentage directly caused by the work injury.

CWCI's 2014 reform monitoring research also showed that both during and after the implementation of the 2004 reforms, average indemnity payments in the first 24 months post-injury increased slowly but steadily, but in later stages of a claim (more than two years after an injury), average indemnity payments remained below pre-reform levels. These reductions – at least in part -- likely reflect the changes in the calculation of PD benefits following the 2004 reforms.

1. Gardner L, Swedlow A. The Effect of 1993 – 1996 Legislative Reform Activity on Medical Cost, Litigation and Claim Duration in the California Workers' Compensation System. Research Note. CWCI. May 2002.
2. Swedlow A., Ireland, J. Analysis of California Workers' Compensation Reforms, Part 1: Medical Utilization & Reimbursement Outcomes AY 2002-2006 Claims Experience. CWCI. December 2007.
3. WCIRB Summary of September 30, 2008 Insurer Experience, December 9, 2008
4. Swedlow, A., Ireland, J., Gardner, L., Analysis of Workers' Compensation Reforms, Part 4: Changes in Medical Payments, AY 2002 to 2007 Cl Claim Experience, June, 2009
5. Ireland, J, Swedlow, A, Medical Development Trends in California Workers' Compensation Accident Years 2002 – 3Q 2010 Claims, September 2011
6. Ireland, J., Swedlow, A., Medical Development Trends in California Workers' Compensation Accident Years 2002 – 2011 Claims, December 2012.
7. Pre-Reform Trends in California Workers' Compensation Medical and Indemnity Benefit Payments: AY 2002-2012, August 2013.
8. California Workers' Compensation Medical and Indemnity Benefit Trends AY 2002-2014, November 2014.

Reforms enacted since 2002 also affected temporary disability (TD) weekly rates, which in turn, impacted the average amount of indemnity paid per claim and the total amount of indemnity paid within the system. For example, prior to the enactment of SB 899 in April 2004, temporary partial disability (TPD) payments for single injury claims were capped at a maximum of 240 compensable weeks within five years from the date of injury. SB 899 expanded that cap to encompass temporary total disability (TTD) payments and to revise the time limit to 104 weeks of paid TD within 2 years of the first TD payment date.[9] The TD cap for most injuries was further altered by AB 338 in 2007, which for all claims with dates of injury on or after January 1, 2008, allowed up to 104 weeks of TD to be paid within five years of the injury date.

This annual report takes an updated look at California workers' compensation medical and indemnity loss trends, comparing paid losses on claims from AY 2002 through AY 2014. It begins with a review of average paid medical losses on indemnity claims from each of these 12 accident years at various levels of development, then takes a closer look at growth trends for four subcategories of medical services. The final section of the report examines the growth patterns for average indemnity payments at 7 development benchmarks, again using data from AY 2002 through AY 2014 claims. The primary focus of the study is on lost-time (indemnity) claims, which account for the vast majority of costs in the system, though comparable results for all claims (indemnity plus medical-only cases) are provided in the appendices.

Data and Methods

This report is based on data from CWCI's Industry Claims system,[10] which includes policy, claim, benefit and medical service detail for California injured workers with dates of injury between January 2002 and September 2014, and medical payment and medical bill review transactions through December 2014. The final data set encompassed medical and indemnity benefit transaction data from 2.1 million claims with $33.8 billion in benefit payments. The data set was evaluated and determined to be representative of California insured claims, so the study's findings provide an accurate assessment of the overall outcomes of indemnity and medical benefit payment transactions and sub-categories of medical benefits.

The author used the date of injury and the benefit transaction date on each benefit payment to calculate the average benefit payments for claims from each accident year[11] at 3, 6, 12, 24, 36, 48 and 60 months post-injury. The results were then used to examine loss development by accident year. This payment data also was classified into four subcategories: medical treatment, pharmacy and durable medical equipment, medical management/medical cost containment and med/legal reports, with average paid losses calculated at each valuation point to gauge loss development for each medical cost component.[12]

Average Paid Medical Per Indemnity Claim: Average medical paid per indemnity claim at each valuation point is noted below. These figures exclude payments for medical management/medical cost containment (MCC) such as utilization review, medical bill review and MPN access. The payment database ends on December 31, 2014, which is the date from which the valuation points were calculated, so the three-month valuation ends with claims with injury dates no later than September 30, 2014, allowing three months (to December 31) for payment data to accumulate while the 60-month valuation ends with claims with injury dates no later than December 31, 2009 – five years before December 31, 2014.

9. The 2004 reform also allowed an exception for specified injuries that usually require extended medical treatment and recuperation, including hepatitis, amputations, and severe burns, allowing up to 240 weeks of TD within 5 years of the injury date for these injuries.
10. This proprietary database, maintained by CWCI, contains detailed data, including employer and employee characteristics, medical service detail, and benefit and other administrative cost data on over 5 million workplace injuries with dates of injury between 1993 and 2015(v16B).
11. Due to the December 2014 benefit data cutoff in the Industry Claims System database (version 16B), the analysis of accident year 2014 was limited to claims with dates of injury through September 2014 to allow 3rd quarter claims 3 months of development.
12. For this calculation, outlier medical benefit payments were truncated at $500,000.

Exhibit 1: Avg. Medical w/o MCC Paid Per Claim @ 3, 6, 12, 24, 36, 48, and 60 Months, AY 2002 – 2014 Indemnity Claims							
Accident Year	**Avg Med 3 Mos**	**Avg Med 6 Months**	**Avg Med 12 Months**	**Avg Med 24 Months**	**Avg Med 36 Months**	**Avg Med 48 Months**	**Avg Med 60 Months**
2002	$1,517	$3,415	$5,859	$9,445	$12,324	$14,169	$15,667
2003	$1,436	$2,847	$5,554	$9,458	$11,989	$14,031	$15,684
2004	$1,535	$3,029	$4,918	$7,735	$10,189	$12,249	$13,733
2005	$1,608	$2,890	$4,709	$7,661	$10,456	$12,496	$14,150
2006	$1,707	$3,204	$5,282	$8,927	$11,911	$14,304	$16,370
2007	$1,566	$3,425	$5,863	$9,778	$13,210	$16,154	$18,379
2008	$2,094	$3,771	$6,161	$10,634	$14,879	$18,164	$20,940
2009	$2,150	$4,014	$6,785	$12,017	$16,564	$20,550	$23,430
2010	$2,383	$4,371	$7,286	$12,624	$17,567	$21,814	
2011	$2,185	$4,014	$6,988	$12,843	$17,797		
2012	$2,115	$4,100	$7,353	$13,578			
2013	$2,325	$4,368	$7,631				
2013 (adjusted)[13]	$2,757	$4,988					
2014	$2,599	$4,639					
AY 02-05 % Change	6.0%	-15.4%	-19.6%	-18.9%	-15.2%	-11.8%	-9.7%
AY 05-06 % Change	6.2%	10.9%	12.2%	16.5%	13.9%	14.5%	15.7%
AY 06-07 % Change	-8.3%	6.9%	11.0%	9.5%	10.9%	12.9%	12.3%
AY 07-08 % Change	33.7%	10.1%	5.1%	8.8%	12.6%	12.4%	13.9%
AY 08-09 % Change	2.7%	6.4%	10.1%	13.0%	11.3%	13.1%	11.9%
AY 09-10 % Change	10.8%	8.9%	7.4%	5.0%	6.1%	6.2%	
AY 10-11 % Change	-8.3%	-8.2%	-4.1%	1.7%	1.3%		
AY 11-12 % Change	-3.2%	2.1%	5.2%	5.7%			
AY 12-13 % Change	9.9%	6.5%	3.8%				
AY 13-14 % Change	-5.7%	-7.0%					
AY 05-End Point % Change	61.7%	60.5%	62.0%	77.2%	70.2%	74.6%	65.6%
AY 02-End Point % Change	71.4%	35.8%	30.3%	43.8%	44.4%	54.0%	49.5%

Exhibit 1 shows that between AY 2002 and AY 2013, the average amount paid on indemnity claims at 12 months post injury for medical benefits (excluding MCC expenses), increased by 30.3 percent (from $5,859 to $7,631). The sharp reduction in paid medical losses following the 2002 to 2004 reforms noted in earlier analyses is reaffirmed by the latest numbers, which show average first-year medical payments per indemnity claim fell 19.6 percent, from $5,859 on AY 2002 claims to $4,709 on AY 2005 claims.

13. There was concern that the 2013-14 increase was overstated as AY 2014 claims had not had enough time to establish indemnity payments, so many claims that would eventually become indemnity cases were noted as med-onlys. To level the playing field CWCI tagged AY 2013 claims as indemnity cases only if indemnity was paid by 12/31/13. This procedure mirrors the AY 2014 claims that were tagged as indemnity only if they had an indemnity payment by 12/31/14, the last day that data was collected in the dataset used for the analysis.

By AY 2006, however, the trend reversed, as average first-year medical benefit payments rose 12.2 percent to $5,282, which turned out to be the first of five consecutive annual increases. In AY 2011, the average medical payments on indemnity claims at the 12-month valuation registered a brief decline, falling 4.1 percent to $6,988, before climbing back up again over the next two years, rising 5.2 percent to $7,353 in AY 2012, then another 3.8 percent to $7,631 in AY 2013.

Similar patterns of medical benefit payment development for indemnity claims can be seen at each of the other valuation points as well, with the exception of the 3-month data, which represents the cost of the injured worker's medical experience in the first 90 days following their injury. Even after the 2002-2004 reforms took effect, payments for initial treatment on indemnity claims continued to rise through AY 2006, but then declined by 8.3 percent in AY 2007, before suddenly jumping by 33.7 percent from $1,566 to $2,094 in 2008. Since then, the initial medical payment growth trends as measured by the 3-month valuations diverge from the growth trends for longer-term care as measured by the later valuations. This suggests that the various reforms enacted over the past several years have impacted injured workers' initial care delivery. Average medical payments at the 3-month valuation have fluctuated recently, registering a 2-year decline of 11.2 percent between AY 2010 and AY 2012 (from $2,383 to $2,115), followed by a 9.9 percent increase between AY 2012 and AY 2013, then culminating with a 5.7 percent decrease between AY 2013 and 2014.

Given the timing of the implementation of the various SB 863 reforms and the reductions in average medical payments at the 3- and 6-month benchmarks between AY 2013 and AY 2014, the recent results suggest that key provisions of the SB 863 medical reforms (i.e., the phase-in of the RBRVS fee schedule beginning in January 2014; the reinstatement of lien filing fees, the reductions in ambulatory surgery center fees, and the adoption of the IMR dispute resolution process) did have an immediate effect on the cost of medical services rendered during the initial period following the injury. The ultimate impact of the 2012 reforms on longer term treatment costs remains to be seen, and will require continued monitoring of more developed data.

A comparable exhibit tracking the average medical loss payment growth trends for all claims (medical-only and indemnity cases) is in Appendix 1.

Average Paid at 12 and 24 Months -- Medical Benefit Sub-Categories, AY 2002-13 Indemnity Claims

In addition to measuring the growth in overall medical costs, the author also calculated the average loss payments on indemnity claims at 12 and 24 months for four medical subcategories: medical treatment; pharmacy and durable medical equipment; MCC;[14] and medical legal report fees. The medical payment transaction data required to calculate the average amounts paid at 12 months post injury were available for accident years 2002 through 2013, while the data needed to calculate the average amounts paid at 24 months post injury were available for accident years 2002 through 2012. Exhibit 2 shows the breakdown of the average 12- and 24-month payments for these four medical subcategories by accident year, with the percentage changes in average payments across various time frames noted at the bottom of the table.

14. WCIRB modified the designation of medical management (aka medical cost containment) fees from a medical benefit to a loss adjustment expense for all policy year claims on or after July 1, 2010. For the purposes of this analysis, the authors maintained medical management fees as a medical benefit to allow for uniform trending before and after the reporting rule change.

Exhibit 2: Avg. Medical Paid per Claim at 12 and 24 Months by Medical Benefit Sub-Category
AY 2002 - 2013 Indemnity Claims

	Medical Treatment		Rx/DME		Medical Mgmt/ Cost Containment		Medical-Legal		Total	
Accident Year	**12 Mo**	**24 Mo**	**12 Mo**	**24 Mo**	**12 Mo**	**24 Mo**	**12 Mo**	**24 Mo**	**12 Mo**	**24 Mo**
2002	$5,419	$8,490	$389	$803	$435	$685	$148	$401	$6,392	$10,379
2003	$4,998	$8,233	$430	$825	$530	$838	$212	$601	$6,170	$10,498
2004	$4,393	$6,640	$321	$610	$659	$932	$266	$610	$5,638	$8,793
2005	$4,295	$6,765	$281	$594	$648	$1,003	$204	$568	$5,428	$8,930
2006	$4,760	$7,878	$351	$732	$899	$1,334	$305	$749	$6,315	$10,693
2007	$5,260	$8,366	$409	$833	$1,059	$1,585	$339	$838	$7,067	$11,623
2008	$5,550	$9,194	$433	$941	$1,239	$1,887	$357	$896	$7,579	$12,917
2009	$6,083	$10,256	$530	$1,162	$1,389	$2,161	$371	$1,041	$8,373	$14,620
2010	$6,435	$10,613	$653	$1,421	$1,491	$2,241	$386	$1,015	$8,965	$15,290
2011	$6,246	$10,707	$714	$1,766	$1,458	$2,237	$343	$965	$8,761	$15,675
2012	$6,255	$10,727	$907	$2,204	$1,485	$2,333	$310	$985	$8,927	$16,263
2013	$6,511		$936		$1,623		$373		$9,453	
AY 02-05 % Change	-20.7%	-20.3%	-27.7%	-26.0%	48.8%	46.5%	37.8%	41.6%	-15.1%	-14.0%
AY 05-End Point % Change	51.6%	58.6%	232.6%	271.1%	150.6%	132.6%	82.8%	73.3%	74.2%	82.1%
AY 02-End Point % Change	20.2%	26.3%	140.5%	174.6%	272.9%	240.7%	152.0%	145.4%	47.9%	56.7%
AY 12-13 % Change	4.6%		3.2%		9.3%		20.3%		5.9%	
AY 11-12 % Change		0.2%		24.8%		4.3%		2.0%		3.7%

The post 2002-2004 reform payment pattern noted in prior studies was again evident in the latest data, which shows the average amount paid per indemnity claim for medical treatment at 12 months post injury declined by 20.7 percent as the 2002-2004 reforms were implemented, falling from an average of $5,419 on AY 2002 claims to a post-reform low of $4,295 on AY 2005 claims. Average first-year treatment payments began trending up starting with AY 2006 claims, then increased in 7 out of the next 8 years, climbing 51.6 percent over that 8-year span, hitting a record $6,511 in AY 2013. The 2006 to 2013 increase more than offset the brief decline in treatment payments that occurred following the 2002-2004 reforms, and resulted in a net increase of 20.2 percent between AY 2002 and AY 2013. The latest figures show a 4.6 percent increase in average first-year treatment payments between AY 2012 and AY 2013, so unlike the 3- and 6-month results, the 12-month data have yet to show any reduction in overall treatment payments associated with the 2012 reforms. The data on average medical treatment payments at 24 months post injury show a similar pattern, with a decline of about 20 percent between AY 2002 and AY 2005, followed by 7 consecutive increases that produced a net increase of 58.6 percent between AY 2005 and AY 2012. As noted in Exhibit 2, the average amount paid for treatment on AY 2012 claims at 24 months was a record $10,727, which was up 26.3 percent from the AY 2002 level.

The average amounts paid at 12 and 24 months post injury for pharmaceutical and durable medical equipment (DME) followed a similar growth pattern, with first-year payments declining 27.7 percent immediately following the 2002-2004 reforms, and the 24-month payments declining 26 percent. Those declines ended with AY 2005 claims, however, and average pharmaceutical/DME payments at both the 12- and 24-month valuations have significantly

risen every year since. As shown in Exhibit 2, average pharmacy/DME payments on indemnity claims at 12 months post injury increased 232.6 percent from AY 2005 through AY 2013, while the average paid at 24 months rose 271.1 percent from AY 2005 through AY 2012, making pharmaceuticals and DME the fastest growing workers' compensation medical component since 2005. Average pharmaceutical/DME payments at 12 months post injury reached a record $936 on AY 2013 claims, and although that was up only 3.2 percent from AY 2012, it was up 140.5 percent from the AY 2002 level, even after accounting for the post-SB 899 decline. At the 24-month benchmark the increase in the average amount paid for pharmaceuticals and DME on indemnity claims was even more significant, as the 24-month total rose to $2,204 on AY 2012 claims, which was up 24.8 percent from the prior year, up 271.1 percent from AY 2005 and up 174.6 percent from AY 2002.

The 2002 to 2004 legislative reforms, which called for the adoption of several managed care mechanisms in California workers' compensation – including mandatory utilization review beginning in 2004 and the introduction of workers' compensation Medical Provider Networks in 2005, led to a rapid escalation in MCC expenses. In adopting these programs, state lawmakers were aware of the potential costs, but expected that more efficient medical delivery, increased medical control for employers and reductions in unnecessary and potentially harmful treatment would generate savings that would more than offset the additional costs. At the 12-month benchmark, average MCC payments per claim increased from $435 per indemnity claim in AY 2002 to $648 in AY 2005 (+48.8 percent), then rose 150.6 percent over the next 8 years, hitting a record $1,623 in AY 2013 – producing a net 272.9 percent increase from the pre-reform level of 11 years earlier. Measured at 24-months post injury, average MCC payments rose from $685 in AY 2002 to $1,003 in AY 2005 (+46.5 percent), then increased over the next 7 years to a record $2,333 in AY 2012 -- a net increase of 240.7 percent from AY 2002.

A different growth pattern is noted in the average amounts paid for medical/legal reports, where the trend has been far less consistent than for other medical cost components. For example, average first-year med-legal report payments on indemnity claims increased from $148 in AY 2002 to $266 in AY 2004 (+79.7 percent), but then fell 23.3 percent to $204 in AY 2005. These payments increased in each of the next 5 years, rising 89.2 percent before peaking at $386 per claim in 2010, then fell in both AY 2011 and AY 2012, declining by 19.7 percent over those two years to $310 before rebounding back up by 20.3 percent to $373 in 2013. The bottom line, after accounting for all of these fluctuations, was a net increase of 152 percent in the average amount paid for first-year med-legal reports between AY 2002 and AY 2013. A similar growth pattern was noted at the 24-month benchmark, with the average medical-legal payments per indemnity claim at this valuation increasing from $401 in AY 2002 to $985 in AY 2012 -- a net increase of 145.6 percent over that 11-year span.

Appendix 2 provides a comparable table showing the average 12- and 24-month payments by medical subcategory for all claims.

12- & 24-Month Medical Payment Distributions by Benefit Sub-Categories, AY 2002-2013

Although average amounts paid for medical treatment, pharmaceuticals and DME, MCC, and med-legal reports have all increased significantly since 2002, each of these medical sub-categories grew at different rates, which resulted in a redistribution of the workers' compensation medical dollar. Exhibit 3 shows the distribution of California workers' compensation medical payments at 12 and 24 months post injury by medical sub-category for AY 2002 through the most recent year included in the study (AY 2013 for the 12-month data, AY 2012 for the 24-month data).

Exhibit 3: Distribution of California Workers' Compensation Medical Payments at 12 and 24 Months Post Injury by Medical Expense Sub-Category, AY 2002-2013 Indemnity Claims

	Medical Treatment		Rx/DME		Medical Mgmt./ Cost Containment		Medical-Legal	
Accident Year	12 Mo	24 Mo	12 Mo	24 Mo	12 Mo	24 Mo	12 Mo	24 Mo
2002	84.8%	81.8%	6.1%	7.7%	6.8%	6.6%	2.3%	3.9%
2003	81.0%	78.4%	7.0%	7.9%	8.6%	8.0%	3.4%	5.7%
2004	77.9%	75.5%	5.7%	6.9%	11.7%	10.6%	4.7%	6.9%
2005	79.1%	75.8%	5.2%	6.6%	11.9%	11.2%	3.8%	6.4%
2006	75.4%	73.7%	5.6%	6.8%	14.2%	12.5%	4.8%	7.0%
2007	74.4%	72.0%	5.8%	7.2%	15.0%	13.6%	4.8%	7.2%
2008	73.2%	71.2%	5.7%	7.3%	16.4%	14.6%	4.7%	6.9%
2009	72.6%	70.1%	6.3%	7.9%	16.6%	14.8%	4.4%	7.1%
2010	71.8%	69.4%	7.3%	9.3%	16.6%	14.7%	4.3%	6.6%
2011	71.3%	68.3%	8.2%	11.3%	16.6%	14.3%	3.9%	6.2%
2012	69.7%	66.0%	10.2%	13.6%	16.6%	14.3%	3.5%	6.1%
2013	68.9%		9.9%		17.2%		3.9%	

The proportion of workers' compensation medical payments for medical treatment has registered the biggest decline since 2002, falling from 84.8 percent of first-year medical payments on AY 2002 claims to 68.9 percent of the first-year paid medical losses on AY 2013 claims. Likewise, at the 24-month valuation, medical treatment payments have declined from 81.8 percent of the medical dollar in AY 2002 to 66.0 percent in AY 2012.

The medical sub-category with the biggest percentage increase since AY 2002 has been MCC, which reflects the adoption of the managed care mandates included in the 2002 to 2004 reforms. It should be noted, however, that most of that shift occurred in the first three years following the passage of SB 899 in 2004 as claims organizations committed resources into the initial development of their UR programs and establishment of MPNs. Since AY 2008, the percentage of workers' compensation medical payments going toward medical cost containment has been relatively stable, ranging between 16.4 percent and 17.2 percent of paid medical losses at the 12-month valuation, and between 14.3 to 14.8 percent of paid medical losses in the first two years following the injury. The declining percentage of overall medical payments going toward treatment coincided with increases in MCC and pharmacy payments. Though it is difficult to measure with precision how much treatment costs might have increased without MCC, as shown in Exhibit 2, from AY 2008 through AY 2013, average first-year treatment costs increased from $5,500 to $6,511, a total increase of 18.4 percent over the 5-year span, which translates to an annual rate of 3.7 percent. So, while the MCC efforts have not eliminated the growth in treatment costs, they have helped contain the double-digit growth in medical payments that led to their adoption more than a decade ago.

On the other hand, pharmaceutical/DME expenditures as a percentage of medical payments showed only a brief decline following the adoption of the 2002-2004 reforms, with the 12-month data on indemnity claims showing pharmaceutical/DME payments bottoming out at 5.2 percent of total workers' compensation medical spend in AY 2005, then nearly doubling to around 10 percent in both AY 2012 and AY 2013. Likewise, pharmaceutical/DME payments measured at the 24-month benchmark fell to a post-reform low of 6.6 percent in AY 2005, but then rose steadily over the next 7 years, doubling to 13.6 percent of the workers' compensation medical dollar in AY 2012 – outpacing the growth in every other medical expense component during that period.

The variation in average medical-legal report payments since AY 2002 reflects a number of factors, including changes in the fee schedule, the mix of med-legal report complexity, and the number of reports per claim. Exhibit 3 shows that these payments represented a growing proportion of the medical payments on indemnity claims from AY 2002 to AY 2004, declined briefly following the enactment of SB 899, increased in AY 2006 following changes in the med-legal fee schedule, then held fairly steady for 3 years, fluctuating less than 1 percentage point until AY 2010. Since AY 2011, reimbursements for med-legal reports as a percentage of medical expenditures have been fairly stable, accounting for 3.5 to 3.9 percent of first-year medical payments, and 6.1 to 6.2 percent of total medical payments at the 24-month benchmark.

A table showing the distribution of medical payments by subcategory for all claims is in Appendix 3.

Indemnity Benefit Development

Exhibit 4 tracks the growth in the average amount of indemnity paid per claim at the seven valuation points, and indemnity benefit development from 3 months post injury to 60 months post injury.

Exhibit 4: Average Indemnity Paid per Claim by Accident Year – Indemnity Claims

	Average Indemnity Paid Per Claim at:						
Accident Year	**3 Mo**	**6 Mo**	**12 Mo**	**24 Mo**	**36 Mo**	**48 Mo**	**60 Mo**
2002	$1,386	$2,585	$4,637	$9,834	$14,851	$17,662	$19,509
2003	$1,323	$2,273	$4,845	$11,410	$15,945	$18,811	$20,627
2004	$1,551	$2,825	$5,153	$9,414	$12,660	$14,666	$15,976
2005	$1,533	$2,669	$4,789	$8,792	$11,539	$13,369	$14,638
2006	$1,736	$3,044	$5,452	$9,700	$12,510	$14,534	$16,259
2007	$1,740	$3,029	$5,459	$9,956	$13,123	$15,679	$17,512
2008	$1,769	$3,119	$5,699	$10,650	$14,798	$17,768	$19,902
2009	$1,718	$3,114	$5,860	$11,855	$16,215	$19,325	$21,486
2010	$1,796	$3,286	$6,238	$12,030	$16,242	$19,639	
2011	$1,713	$3,164	$6,040	$11,846	$16,125		
2012	$1,780	$3,304	$6,501	$12,867			
2013	$1,961	$3,773	$7,391				
2013 (adjusted)	$2,489	$4,565					
2014	$2,287	$4,276					
AY 02-05 % Change	10.6%	3.3%	3.3%	-10.6%	-22.3%	-24.3%	-25.0%
AY 05-06 % Change	13.3%	14.1%	13.8%	10.3%	8.4%	8.7%	11.1%
AY 06-07 % Change	0.2%	-0.5%	0.1%	2.6%	4.9%	7.9%	7.7%
AY 07-08 % Change	1.7%	3.0%	4.4%	7.0%	12.8%	13.3%	13.6%
AY 08-09 % Change	-2.9%	-0.2%	2.8%	11.3%	9.6%	8.8%	8.0%
AY 09-10 % Change	4.5%	5.5%	6.4%	1.5%	0.2%	1.6%	
AY 10-11 % Change	-4.7%	-3.7%	-3.2%	-1.5%	-0.7%		
AY 11-12 % Change	3.9%	4.4%	7.6%	8.6%			
AY 12-13 % Change	10.2%	14.2%	13.7%				
AY 13-14 % Change	-8.1%	-6.3%					
AY 05-End Point % Change	49.2%	60.2%	54.3%	46.3%	39.7%	46.9%	46.8%
AY 02-End Point % Change	65.1%	65.4%	59.4%	30.8%	8.6%	11.2%	10.1%

Indemnity payments may include TD payments, vocational rehabilitation/supplemental job displacement benefits, permanent partial disability or permanent total disability payments, or death benefits paid to the financial dependents of a worker who is killed on the job. During the early stages of a claim, TD benefits, which for most injuries can be paid for up to a maximum of 108 weeks if the injured worker is unable to return to work, usually account for most of the indemnity that is paid. It typically takes longer for an injured worker to become eligible for the other types of

indemnity benefits, as most of them are not determined and paid out after the injured worker's condition is deemed permanent and stationary, which is usually in the later stages of a claim. The most recent claims in the study sample for which a full 60 months of indemnity payment data were available were from AY 2009. Exhibit 4 shows indemnity payments on AY 2009 lost-time claims at 3 months averaged $1,718, most of which would represent TD payments. By comparison, at the 60-month valuation, average paid indemnity paid on an AY 2009 lost-time claim was $21,486, which would represent a much broader mix of indemnity benefits, including permanent disability.

Exhibit 4 also shows that in the 12-year period spanning AY 2002 through AY 2013, the average amount of indemnity paid on a lost-time claim at the 12-month valuation rose from $4,637 to $7,391, a net increase of 59.4 percent. However, average paid indemnity only rose 3.3 percent between AY 2002 and AY 2005 (from $4,637 to $4,789), so most of the 12-year increase occurred after AY 2005, with the largest increases occurring in 2006 (+13.8 percent), 2012 (+7.6 percent) and 2013 (+13.7 percent).

After reaching a post-reform low in AY 2005, average first-year indemnity payments rose for five consecutive years, climbing to $6,238 in AY 2010 before briefly retreating in AY 2011. The uptrend resumed in AY 2012 and AY 2013, as the average amount of indemnity paid per indemnity claim jumped to a record $7,391, an increase of 18.5 percent over that 2-year period.

The average indemnity payments per lost-time claim at the longer-term valuations (24, 36, 48 and 60 months post injury) declined between AY 2002 and AY 2005, which coincided with the permanent disability changes included in the 2004 reforms. Between AY 2002 and AY 2005, average indemnity payments at the 24-month benchmark fell by 10.6 percent; at the 36-month benchmark they fell by 22.3 percent; at the 48-month benchmark they fell by 24.3 percent; and at the 60-month benchmark they fell 25 percent. Beginning in AY 2006, average indemnity payments at these longer-term valuations began trending up again, with the most recent measurements representing all-time highs at the 24-, 48- and 60-month valuations. Looking at the results from post-SB 863 accident years, the average indemnity payments for AY 2014 claims at the 3- and 6-month valuations declined from the AY 2013 adjusted levels by 8.1 percent and 6.3 percent respectively.

Temporary Disability Payments Following the TD Cap

As noted earlier, temporary disability payments account for the lion's share of indemnity payments in the early stages of a claim. Prior to passage of SB 899 in April 2004, state law capped temporary partial disability (TPD) payments for single injury claims at 240 compensable weeks within five years of the injury date. SB 899 expanded that cap to include temporary total disability payments and to revise the time limit to 104 weeks of paid temporary disability within two years of the first TD payment date. The TD cap for most injuries was again modified in 2007 with the passage of AB 338, which allowed up to 104 weeks of TD payments to be paid within five years of the injury date, beginning with AY 2008 claims.

Until a physician determines that the injured worker can return to work or has reached maximum medical improvement, or until the maximum number of compensable weeks is reached, TD is paid at a weekly rate that is set by state law. The weekly TD rate is two-thirds (66 percent) of the employee's gross earnings, subject to minimum and maximum amounts set by law. For claims occurring in AY 2002 – the first year used in this study -- the maximum weekly TD rate was $490, but in 2002, the law was changed to increase cash benefits to injured workers by phasing in increases in the maximum TD rate over four years. In AY 2003 the maximum was increased to $602, in AY 2004 it was increased to $728, in AY 2005 it was increased to $840, and in 2006 and every year thereafter, both the minimum and maximum weekly TD rates were adjusted based on the percentage increase in the State Average Weekly Wage. As a result of these increases, the minimum weekly TD rate for AY 2014 (the most recent year included in the study) was $161.19, while the maximum weekly TD rate was $1,074.64.

The Industry Claims System database contains both policy and claim detail, including the dates of all disability payments, accumulated temporary disability payments and associated disability days. For this part of the analysis, the author used data compiled from 691,474 California workers' compensation TD claims with AY 2002 through 2013

injury dates to measure changes in the average amount of TD paid and in the average number of paid TD days at 12 months post injury for AY 2002 through AY 2013 claims, and at 24 months post injury for AY 2002 through AY 2012 claims. Total TD payments on those claims exceeded $6.3 billion, but as noted above, the string of statutory increases in TD benefit levels from 2002 through 2013 pushed the maximum weekly TD rate up by 119 percent over that 11-year period, so to control for the effect of those increases, all TD payments in the study sample were adjusted to the 2014 level. Each claim in the study was assigned to two subcategories (pre-SB 899, post-SB 899) based on the month and year of injury, and the average paid TD benefits were calculated at 12 months and 24 months from the date of the first payment.

As in earlier analyses, Exhibit 5 shows there was an immediate decline in average TD payments that coincided with the implementation of the 104-week cap in April 2004. Just prior to the implementation of the cap, average adjusted first-year TD payments were $6,505, but that average fell to $5,492 immediately after the cap took effect, then continued to decline in AY 2005, falling to $5,349. Similarly, adjusted 24-month TD payments for AY 2004 claims averaged $8,654 just prior to the adoption of the cap, but then fell to $7,510 right after the cap took effect. By AY 2005, however, average TD payments at 24 months had already started trending up again, and by AY 2006 average first-year payments were also up sharply.

Exhibit 5: Pre- and Post-SB 899 Adjusted TD Payments and Average TD Days

	Adjusted Average TD Payments[15]		Average Paid TD Days	
Accident Year	**12 Months**	**24 Months**	**12 Months**	**24 Months**
Pre SB-899				
2002	$6,242	$8,466	85.1	114.1
2003	$5,754	$8,300	81.7	116.2
2004	$6,505	$8,654	88.0	117.5
Sub-total	**$6,167**	**$8,473**	**84.0**	**115.4**
Post SB-899				
2004	$5,492	$7,510	80.5	108.9
2005	$5,349	$7,772	75.5	108.0
2006	$5,901	$8,403	79.6	112.4
2007	$5,996	$8,616	78.4	111.5
2008	$6,331	$9,323	80.4	117.5
2009	$6,637	$10,469	83.0	129.6
2010	$7,055	$10,462	91.8	132.8
2011	$6,567	$10,232	84.2	128.5
2012	$7,117	$10,986	91.0	137.1
2013	$7,245		92.4	
Sub-total	**$6,199**	**$9,041**	**82.1**	**117.6**
Post SB-899 Difference	**0.52%**	**6.68%**	**-2.30%**	**1.96%**

15. The authors used the following WCIRB TD adjustment factors to adjust average TD benefits to the AY 2014 level: 2002, 1.172; 2003, 1.088; 2004, 1.066; 2005, 1.051; 2006, 1.041; 2007, 1.034; 2008, 1.027; 2009, 1.022; 2010, 1.017; 2011, 1.017; 2012, 1.012; 2013, 1.011.

Even though average adjusted TD payments were moving up within two years of the TD cap taking effect, Exhibit 5 shows it was not until AY 2008 that the 24-month TD benefits surpassed the pre-reform 2004 level, and it was not until AY 2009 that average first-year payments exceeded the pre-SB 899 amount. Notably, the most recent figures show the adjusted 12-month TD payments rose to an average of $7,245 for AY 2013 claims, while adjusted TD payments at 24 months averaged $10,986 for AY 2012 claims – both of which were record highs and significantly above the levels noted prior to the imposition of the TD cap in April 2004.

Despite the recent increases, a comparison of average TD payments for the overall pre- and post-reform periods shows that after adjusting for statutory benefit increases, TD payments in the first 12 months following the initial payment were up only 0.52 percent following the implementation of the TD cap (from an overall average of $6,177 for the pre-SB899 claims to $6,199 on the post-SB899 claims). The 24-month data tell a slightly different story, as the average amount of paid TD increased 6.68 percent (from $8,473 on the pre-reform claims to $9,041 on the post-reform claims). The average number of TD days at the 12-month valuation was down by 2.3 percent (from 84.0 days in AY 2002 - 2004 to 82.1 days in AY 2004 - 2013), while at 24 months the average number of TD days increased by 1.96 percent (from 115.4 days in AY 2002 - 2004 to 117.6 days in AY 2004 - 2012).

Summary

Workers' compensation law is molded through political discussion, finessed by the state's rules and regulations, interpreted by judges and implemented by a large array of insurers, employers, physicians, third party payers and other stakeholders. Reforming this process directly affects an injured worker's benefits and recovery. California's reputation as a high cost, high litigation state, with unique issues including 1.2 million liens in 2012, created an opportunity for significant solutions to inadequate benefit levels and excessive and inconsistent medical treatment decisions. Lessons from prior reforms have shown that it takes time to tease out the intended from unintended consequences.

The legislative intent of 2012's Senate Bill 863, the most recent California workers' compensation reform bill focused on increasing permanent disability benefits and the quality of care while reducing treatment costs. While it is too early to measure the post-reform changes in permanent disability benefits, the early returns provided by this report and others suggest that the efforts to curb medical inflation are working, with initial results on AY 2014 lost-time claims showing average paid medical losses at 3 months post-injury down 8.1 percent from the AY 2013 level, while at the 6-month benchmark they declined 6.3 percent. Prior studies by Jones showed significant reductions in the volume and cost of progress reports due to the implementation of the RBRVS schedule.[16,17] Also in 2014, Jones found that in 2013, the year in which SB 863 began to phase out pass-through payments for surgical hardware for spine surgery, the volume of spinal surgeries in California workers' compensation declined by 8.4 percent, the largest percentage decrease since 2008, with estimated savings ranging from $58-$92 million in calendar year 2013, and $53-$84 million in calendar year 2014.[18] Furthermore, the Workers' Compensation Insurance Rating Bureau projections show that the ultimate cost of medical losses for 2014 claims will decrease by 4.2 percent from the 2013 level.[19] While these results reflect the experience from the early stages of a claim and are preliminary, they do offer indications that SB 863 medical reforms are producing savings in overall medical payments.

There are remaining challenges. This report outlined that pharmaceutical costs as a percentage of all medical treatment delivered in the first two years of an injury more than doubled from 6.6 percent in 2005 to 13.4 percent in 2014, with an average cost increase of 25 percent between 2013 and 2014. Referrals to independent medical review, the key reform component of SB 863 designed to streamline the medical dispute process, registered 137,781

[16] Jones, S. The Price of Progress: Progress Reports in the California Workers' Compensation System. CWCI, November 2014
[17] Jones, S. Changes in Workers' Compensation Physician Reporting Under California's RBRVS Fee Schedule: Initial Results. Research Update. CWCI January 2015
[18] Jones, S., David R., "Inpatient Utilization in the California Workers' Compensation System." Research Update, CWCI. December 2014.
[19] Report on December 31, 2014 Insurer Experience. WCIRB, April 2015

decision letters in 2014, 3 to 4 times the expected volume.[20] In addition, the reductions in temporary disability payments that immediately followed the 2002-2004 reforms have been reversed, with average TD benefits now back above the pre-reform levels, even after controlling for the string of statutory benefit increases that have occurred over the past decade.

Public policy research, particularly in the measurement of California's workers' compensation system, takes time. Trends emerge slowly because California is unique in slow development. For example, at 6 years following injury, California has only accounted for approximately 55 percent of all eventual medical treatment costs, while other states are closer to 80 percent.[21] Early indications on medical trends play a role in helping to identify the need for additional reforms, rules and regulations so that the legislative intent of a statute can be realized. As noted above, prior reforms have been associated with significant short-term reductions in cost and utilization which within a few years were neutralized by emerging strategies, technologies and pharmaceuticals that could not have been anticipated at the time the reforms were enacted. SB 863 addressed many of those cost drivers in a fundamentally new way. Future reports, particularly in medical treatment, will offer additional insights on the fluid, almost improvisational environment that is California workers' compensation.

20 David, R., Jones, S., Swedlow, A. Independent Medical Review Outcomes In California Workers' Compensation. Research Update, CWCI. April 2015.

21 WCIRB and NCCI, 2015

Appendix 1

Average Medical w/o MCC Paid per Claim at 3, 6, 12, 24, 36, 48 and 60 Months
All Claims: AY 2002 – 2014

	Average Medical Paid Per Claim at:						
Accident Year	**3 Mo**	**6 Mo**	**12 Mo**	**24 Mo**	**36 Mo**	**48 Mo**	**60 Mo**
2002	$772	$1,577	$2,525	$3,863	$4,927	$5,609	$6,163
2003	$754	$1,373	$2,462	$3,970	$4,937	$5,716	$6,348
2004	$741	$1,327	$1,997	$2,951	$3,771	$4,458	$4,953
2005	$740	$1,224	$1,853	$2,811	$3,701	$4,348	$4,873
2006	$768	$1,312	$1,994	$3,115	$4,017	$4,737	$5,359
2007	$735	$1,432	$2,248	$3,478	$4,539	$5,446	$6,133
2008	$970	$1,595	$2,402	$3,829	$5,168	$6,208	$7,097
2009	$1,047	$1,764	$2,734	$4,476	$5,978	$7,310	$8,277
2010	$1,174	$1,953	$2,999	$4,833	$6,524	$7,981	
2011	$1,096	$1,832	$2,920	$4,981	$6,712		
2012	$1,066	$1,879	$3,099	$5,350			
2013	$1,107	$1,909	$3,099				
2014	$1,147	$1,930					
AY 02-05 % Change	-4.1%	-22.4%	-26.6%	-27.2%	-24.9%	-22.5%	-20.9%
AY 05-06 % Change	3.7%	7.2%	7.6%	10.8%	8.5%	9.0%	10.0%
AY 06-07 % Change	-4.3%	9.1%	12.7%	11.6%	13.0%	15.0%	14.4%
AY 07-08 % Change	32.0%	11.4%	6.9%	10.1%	13.9%	14.0%	15.7%
AY 08-09 % Change	7.8%	10.6%	13.8%	16.9%	15.7%	17.8%	16.6%
AY 09-10 % Change	12.2%	10.7%	9.7%	8.0%	9.1%	9.2%	
AY 10-11 % Change	-6.7%	-6.2%	-2.6%	3.1%	2.9%		
AY 11-12 % Change	-2.7%	2.6%	6.1%	7.4%			
AY 12-13 % Change	3.9%	1.6%	0.0%				
AY 13-14 % Change	3.6%	1.1%					
AY 05-End Point % Change	54.9%	57.6%	67.3%	90.3%	81.4%	83.6%	69.9%
AY 02-End Point % Change	48.5%	22.4%	22.7%	38.5%	36.2%	42.3%	34.3%

Appendix 2

Average Medical Paid per Claim at 12 and 24 Months by Medical Expense Sub-Category
All Claims: AY 2002 - 2013

	Medical Treatment		Rx/DME		Medical Management/ Cost Containment		Medical-Legal	
Accident Year	**12 Mo**	**24 Mo**	**12 Mo**	**24 Mo**	**12 Mo**	**24 Mo**	**12 Mo**	**24 Mo**
2002	$2,346	$3,490	$153	$306	$177	$271	$62	$157
2003	$2,228	$3,476	$173	$325	$225	$344	$93	$245
2004	$1,798	$2,557	$118	$216	$257	$350	$101	$219
2005	$1,697	$2,497	$103	$204	$244	$359	$74	$193
2006	$1,798	$2,755	$126	$243	$325	$459	$109	$245
2007	$2,021	$2,996	$149	$282	$388	$554	$121	$278
2008	$2,167	$3,327	$160	$322	$461	$668	$131	$303
2009	$2,451	$3,838	$205	$414	$534	$791	$142	$366
2010	$2,660	$4,091	$252	$515	$589	$847	$149	$368
2011	$2,615	$4,184	$277	$643	$590	$865	$134	$356
2012	$2,643	$4,264	$357	$819	$604	$914	$129	$382
2013	$2,649		$356		$636		$153	
AY 02-05 % Change	-27.7%	-28.4%	-32.2%	-33.3%	37.7%	32.6%	20.2%	22.5%
AY 05-End Point % Change	56.1%	70.7%	243.7%	301.8%	161.2%	154.9%	106.6%	98.0%
AY 02-End Point % Change	12.9%	22.2%	132.9%	167.9%	259.7%	238.0%	148.3%	142.5%
AY 12-13 % Change	0.2%		-0.5%		5.3%		19.0%	
AY 11-12 % Change		1.9%		27.5%		5.7%		7.4%

Appendix 3

Distribution of Medical Payments at 12 and 24 Months by Medical Expense Sub-Category
All Claims: AY 2002 - 2013

	Medical Treatment		Rx/DME		Medical Management/ Cost Containment		Medical-Legal	
Accident Year	**12 Mo**	**24 Mo**	**12 Mo**	**24 Mo**	**12 Mo**	**24 Mo**	**12 Mo**	**24 Mo**
2002	85.7%	82.6%	5.6%	7.2%	6.5%	6.4%	2.3%	3.7%
2003	82.0%	79.2%	6.4%	7.4%	8.3%	7.8%	3.4%	5.6%
2004	79.0%	76.5%	5.2%	6.5%	11.3%	10.5%	4.5%	6.5%
2005	80.1%	76.8%	4.9%	6.3%	11.5%	11.0%	3.5%	5.9%
2006	76.2%	74.4%	5.4%	6.6%	13.8%	12.4%	4.6%	6.6%
2007	75.4%	72.9%	5.6%	6.9%	14.5%	13.5%	4.5%	6.8%
2008	74.2%	72.0%	5.5%	7.0%	15.8%	14.5%	4.5%	6.6%
2009	73.6%	70.9%	6.2%	7.7%	16.0%	14.6%	4.3%	6.8%
2010	72.9%	70.3%	6.9%	8.8%	16.1%	14.6%	4.1%	6.3%
2011	72.3%	69.2%	7.7%	10.6%	16.3%	14.3%	3.7%	5.9%
2012	70.8%	66.8%	9.6%	12.8%	16.2%	14.3%	3.5%	6.0%
2013	69.8%		9.4%		16.8%		4.0%	

California Workers' Compensation Institute

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 70 percent of California workers' compensation direct written premium, as well as many of the largest public and private self-insured employers in the state. Additional information about CWCI research and activities is available on the Institute's web site (http://www.cwci.org).

CWCI Research Notes are published by the California Workers' Compensation Institute.

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