

Analysis of California Workers' Compensation Reforms

Part 2: Temporary Disability Outcomes

Accident Years 2002 – 2006 Claims Experience

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EXECUTIVE SUMMARY

Two years ago, the Workers' Compensation Insurance Rating Bureau of California requested CWCI's assistance in analyzing changes in temporary disability (TD) outcomes following implementation of SB 899 – the workers' compensation reform legislation signed by Governor Schwarzenegger in 2004. Several SB 899 reforms undoubtedly affected TD outcomes for claims with injury dates on or after the April 19, 2004 effective date of the legislation. These included the mandate that treatment be authorized within one working day of receipt of a claim form; new return-to-work requirements; changes to the permanent disability rating schedule; increased reliance on utilization review; and the introduction of medical provider networks. The element of SB 899 that most directly addressed temporary disability, however, was the TD payment cap, which established a maximum of 104 weeks of paid TD within two years of the first TD payment for most injuries.¹

In April 2007, the Institute released its initial report on post-reform TD outcomes.² Those preliminary results, based on data from nearly 260,000 TD claims from accident years 2002 through 2004, compared several aspects of pre- and post-reform claims experience at 20 months post-injury, noting post-reform reductions in average TD payments and duration, injury reporting times, and the proportion of claims exempt from the 2-year cap, and estimating total TD savings of 11 percent under the reform. This report expands on those preliminary findings using data from a sample of nearly 279,000 TD claims from accident years 2002 through 2005, with claims experience measured up to 24 months post injury. The findings include:

- 1. Days to Employer and Claims Administrator Notification:** TD claims reported in the post-reform (SB 899) time period were associated with significant reductions in the average amount of time between the date of injury and employer notification (-44 percent) and claims administrator notification (-31 percent) when compared to pre-899 TD claims.
- 2. Average TD Payments:** After adjusting for statutory benefit increases, first-year TD payments on temporary disability claims with post-reform injury dates averaged 11 percent less than those with pre-reform injury dates, while at 24 months post injury, TD payments on the post-reform claims averaged 15 percent less.
- 3. Average Duration (Paid TD Days):** TD claims with post-reform injury dates averaged about 80 days of paid temporary disability within 12 months of the first payment, compared to an average of 92 paid TD days for pre-reform claims (-13 percent). Average TD

1 State lawmakers exempted a short list of injuries, e.g., amputations, severe burns and chronic lung disease, which typically require extended recuperation. In these cases, up to 240 weeks of TD could be paid within 5 years of the date of injury.

2 Analysis of California Workers' Compensation Reforms, Part 2: Temporary Disability Benefits. CWCI, April 2007.

duration measured at 24 months from the first payment declined by nearly three weeks (-17 percent), from 118 days prior to the reforms, to 97.5 days after the reforms.

4. **Exempt Injury Categories:** There was no material change in the proportion of claims involving medical diagnoses that are exempt from the 2-year TD cap exemption.
5. **TD Payments Under the Revised 2-Year TD Cap:** Expanding the TD cap to a maximum of 104 weeks of TD within five years of the date of injury (per AB 338, effective for injuries on or after January 1, 2008) will increase total costs by an estimated 6.5 percent.

BACKGROUND

The Temporary Disability Payment Cap

Prior to the passage of SB 899 in April 2004, temporary partial disability payments for single injuries in the California workers' compensation system were limited to 240 compensable weeks within a period of five years from the date of injury, but for more than 25 years temporary total disability payments – the most common type of TD claim in the system -- had not been subject to a cap. SB 899, which took effect April 19, 2004, amended Labor Code Section 4656 to revise the limit to 104 weeks of paid temporary disability within 2 years of the first TD payment date, and to expand the cap to include temporary total disability payments. SB 899 allowed an exception for specified injuries that usually require extended medical treatment and recuperation, including hepatitis, amputations, severe burns, chronic lung disease and others, which are eligible for 240 weeks of TD payments within 5 years of the date of injury.

DATA & METHODS

While the preliminary report on the effects of SB 899 on TD used data from CWCI's Industry Claims Information System (ICIS) database on TD payments and other claim elements through December 2005 – the latest available at the time -- this Research Update offers an expanded view by utilizing ICIS data through December 2006. The latest results include:

1. The top 20 diagnostic categories for pre- and post-reform TD claims
2. The mean and median number of days from the date of injury to employer notification
3. The mean and median number of days from date of injury to claims administrator notification
4. The mean and median number of days from employer to claims administrator notification
5. The mean and median amounts of TD paid within 12 and 24 months of the first TD payment
6. The mean and median number of paid TD days within 12 and 24 months of the first TD payment
7. The proportion of TD claims involving diagnoses exempt from the 2-year cap

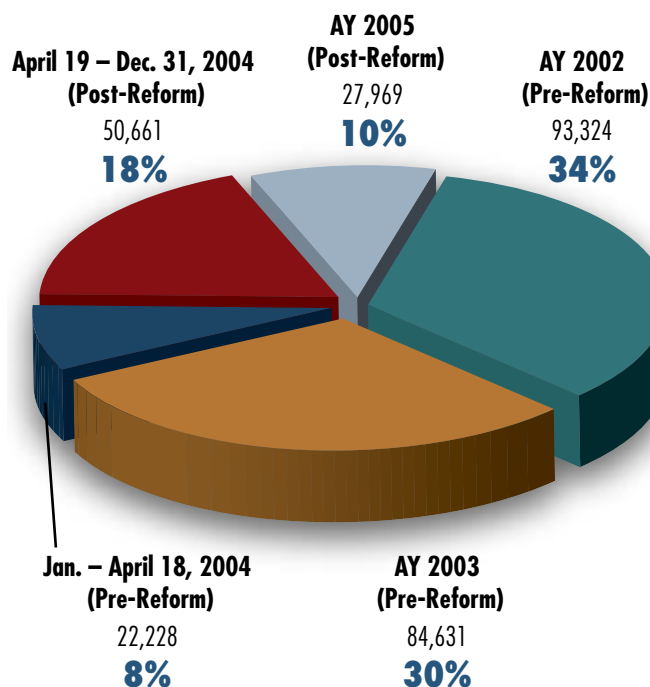
The goal of this research was to isolate the impact of the TD changes included in SB 899 rather than to contemplate reform changes after 2004. In October 2007, however, the governor signed AB 338, once again modifying the TD cap for most injuries to a maximum of 104 compensable weeks within five years of the injury date. In November 2007, the Institute conducted an analysis to estimate the impact of this change on loss costs.³ Given the relevance of the results to this study, the Institute has included a summary of that analysis in this report.

The Claim Sample

For this analysis, the Institute compiled a sample of 278,813 claims with 2002 through 2005 dates of injury from the ICIS database. Data on TD payments and other claim elements from the sample were available through December 31, 2006. To isolate pre- and post-reform claim experience, the Institute grouped the claims by month and year of injury. Chart 1 shows the distribution of pre- and post-reform claims within the sample.

3 Comparison of SB 899 and AB 338 2-Year Temporary Disability Caps. CWCI Bulletin, November 9, 2007

Chart 1: Distribution of Claim Sample by Date of Injury (Pre- vs. Post-Reform)



RESULTS

The authors compared several characteristics of pre- and post-reform claims. The duration of disability varies widely across different diagnoses, so the Institute used medical bill detail to assign each claim in the study sample to a diagnostic category.⁴ Table 1 lists the top 20 diagnostic groups for pre- and post-reform work injuries.

Table 1: Top 20 Diagnostic Categories – TD Claims (Pre- vs. Post-Reform)

Diagnostic Categories	# of Claims		% of Claims		Total # of Claims	% of Total
	Pre- SB 899	Post- SB 899	Pre- SB 899	Post- SB 899		
Med Back w/o Spinal Cord Involvement	51,043	18,706	27.2%	26.0%	69,749	26.9%
Minor Wounds & Skin Injuries	14,871	7,771	7.9%	10.8%	22,642	8.7%
Other Injuries, Poisonings & Toxic Effects	19,131	2,797	10.2%	3.9%	21,928	8.5%
Wound/Fracture of Shoulder, Arm, Knee, Lower Leg	12,595	6,460	6.7%	9.0%	19,055	7.3%
Ruptured Tendon, Tendonitis, Myositis & Bursitis	11,464	4,203	6.1%	5.8%	15,667	6.0%
Degenerative, Infective & Metabolic Joint Disorder	9,291	9,291	3.6%	5.0%	12,942	5.0%
Spine Disorders w/Spinal Cord or Root Involvement	7,807	2,332	4.2%	3.2%	10,139	3.9%
Trauma of Fingers & Toes	6,663	3,265	3.6%	4.5%	9,928	3.8%
Cranial & Peripheral Nerve Disorders	5,043	1,176	2.7%	1.6%	6,219	2.4%
Carpal Tunnel Syndrome	4,345	1,402	2.3%	1.9%	5,747	2.2%
Hernia	3,831	1,784	2.0%	2.5%	5,615	2.2%
Other Diagnoses of Musculoskeletal Systems	3,368	1,187	1.8%	1.7%	4,555	1.8%
Head & Spinal Injury w/o Spinal Cord Involvement	1,735	640	0.9%	0.9%	2,375	0.9%
External Eye Disorders	1,424	659	0.8%	0.9%	2,083	0.8%
Burn Injury, 2nd or 3rd Degree or >=20%	1,220	634	0.7%	0.9%	1,854	0.7%
Cellulitis, Soft Tissue Infections	1,076	619	0.6%	0.9%	1,695	0.7%
Other Mental Disturbances	1,171	474	0.6%	0.7%	1,645	0.6%
Vaccination, Prophylaxis or History of Disease	819	806	0.4%	1.1%	1,625	0.6%
Trauma of Pelvis, Hip & Femur	992	523	0.5%	0.7%	1,515	0.6%
Top 20 Sub-Total	180,870	69,177	96.5%	96.2%	250,047	96.4%

⁴ The authors used the DxCat™ grouping system, a proprietary clinical assessment and grouping technology developed specifically for workers' compensation injuries.

The top 20 diagnostic categories comprised more than 96 percent of all TD claims both before and after the implementation of SB 899, though there were some shifts among the top 20 rankings after the reforms took effect. Most notably, “Other Injuries, Poisonings and Toxic Effects” moved from the third most frequently diagnosed injury category (10.2 percent of pre-reform TD claims) to the eighth most frequent diagnosis (3.9 percent of post-reform TD claims), while “Sprains of the Shoulder, Arm, Knee, or Lower Leg” increased from 12.3 percent to 14.0 percent of the TD claims, “Minor Wounds and Skin Injuries” increased from 7.9 percent to 10.8 percent, and “Wounds and Fractures of the Shoulder, Arm, Knee, Lower Leg” rose from 6.7 percent to 9.0 percent.

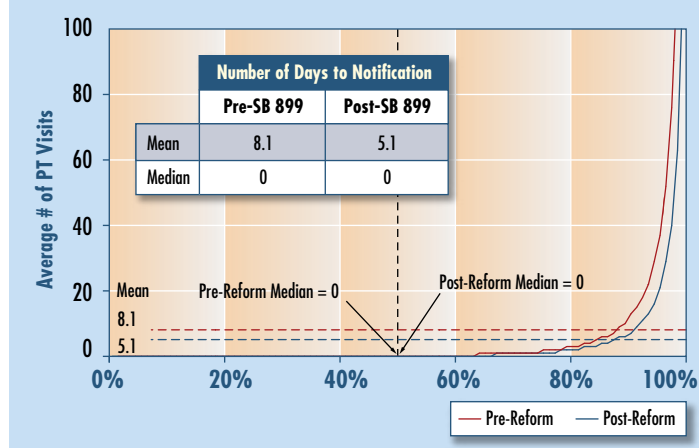
REPORTING AND PAYMENT MILESTONES

To determine whether there has been any change in how quickly TD claims are reported since SB 899 took effect, the Institute calculated the mean (average) and median⁵ number of days between three key reporting milestones:

- 1) Date of injury to employer notification
- 2) Date of injury to claims administrator notification
- 3) Number of days between employer notification and claims administrator notification.

Charts 2-4 compare the pre- and post-reform distribution curves for each of these three reporting milestones. In all three cases, the average reporting times declined after the reforms were in place, but the median values were virtually unchanged.

Chart 2: Days from Date of Injury to Employer Notification



⁵ A median is the midpoint in a series of numbers. For example, the median value of 0 days from the date of injury to employer notification means that in half of the claims in the sample, the employer was notified on the day of injury.

Chart 3: Days from Employer Notification to Claims Administrator Notification

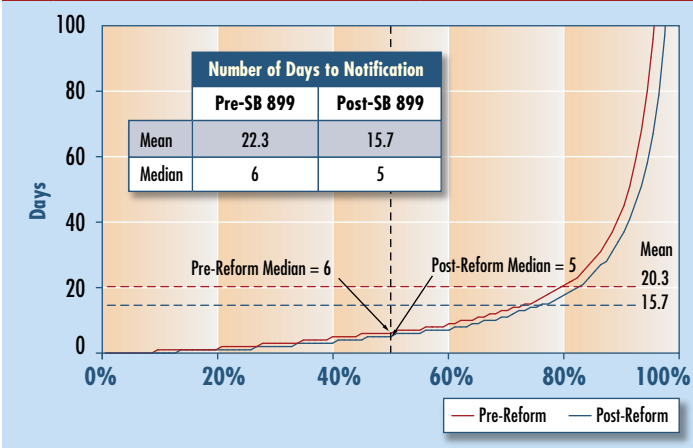
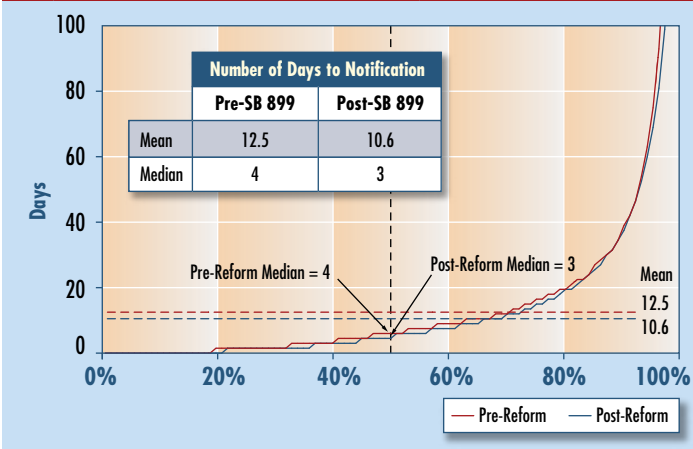


Chart 4: Days from Date of Injury to Claims Administrator Notification



The average time lag between the date of injury and the employer notification was nearly cut in half, declining from 9.9 days prior to SB 899 implementation to 5.5 days after the reforms took effect. The elapsed time from the date of injury to claims administrator notification also improved, declining by nearly one-third from an average of more than 22 days to just over 15 days, while the notification time from employer to claims administrator improved 26 percent from a pre-reform average of 12.3 days to a post-reform average of 9.1 days. In contrast, however, there was little to no change in the median number of days for all three of these reporting time benchmarks. The lack of change in the median number of reporting days indicates that the reductions in the average reporting times after SB 899 took effect were due to reductions in the number and/or the magnitude of reporting outliers rather than a fundamental shift in reporting processes.

Average TD Payment and Paid TD Days within 12 and 24 months of the First TD Payment

The TD payment cap included in SB 899 set a maximum of 104 compensable weeks of TD (both temporary total and temporary partial disability benefits) that could be paid within two years of the date of the first TD payment for most single injuries. An exception was made for 9 specific injury categories that usually require extended medical treatment and recovery time:

- Acute and chronic hepatitis B
- Acute and chronic hepatitis C
- Amputations
- Severe burns
- HIV
- High-velocity eye injuries
- Chemical burns to the eyes
- Pulmonary fibrosis
- Chronic lung disease

Claims involving these 9 types of injuries were allowed up to 240 compensable weeks of TD within 5 years of the date of injury.

To assess the effect of the SB 899 TD cap on temporary disability payments and duration, the Institute used the 2002 – 2005 claim sample to calculate and compare the average amounts of temporary disability paid per claim and the average number of paid TD days for the pre- and post-reform claim samples. Because the 2002 workers' compensation reform bill increased the weekly temporary disability benefit rates in 2003, 2004 and 2005, the Institute applied adjustment factors⁶ provided by the Workers' Compensation Insurance Rating Bureau to control for the statutory benefit changes, bringing TD payment data from the accident year 2002 through 2004 claims to 2005 levels.

The results are noted in Table 2, which shows the average (mean) and median TD payment amounts at 12 and 24 months after the first TD payment for the pre- and post-reform claims, as well as the percentage changes in the average and median amounts.

Table 2: TD Paid within 12 & 24 Months of First TD Payment*

	Pre-SB 899 TD Claims	Post-SB 899 TD Claims	% Change
TD @ 12 Months			
Mean	\$6,694	\$5,929	-11.4%
Median	\$2,888	\$2,227	-22.9%
TD @ 24 Months			
Mean	\$8,403	\$7,144	-15.0%
Median	\$3,047	\$2,293	-24.7%

* Payments adjusted to 2005 rate levels

After controlling for the statutory benefit increases, the Institute found the average amount paid in temporary disability benefits within 12 months of the first payment for post-SB 899 claims (\$5,929) was 11.4 percent less than the average for the pre-899 TD claims (\$6,694), while the median amount of paid at 12 months was 22.9 percent less. At the 24-month valuation, the average amount paid in TD fell 15 percent, from \$8,403 for the pre-reform claims to \$7,144 for the post-reform claims, while the median amount of TD paid dropped nearly 25 percent.

Table 3: Number of Paid TD Days within 12 and 24 months of First TD Payment

	Pre-SB 899 TD	SB 899	% Change
TD @ 12 Months			
Mean	92.2	79.9	-13.3%
Median	43	34	-20.9%
TD @ 24 Months			
Mean	118.0	97.5	-17.4%
Median	56	44	-21.4%

Table 3 shows that at the 12-month valuation, the post-reform temporary disability claims averaged 12.3 fewer days of paid TD than the pre-reform claims (-13.3 percent), while the median number of paid TD days dropped from 43 to 34 days (-20.9 percent). Data from the more mature claims show those gaps continued to widen with time. At the 2-year valuation, the post-reform claims averaged nearly 21 fewer days of paid TD (down 17.4 percent from the pre-reform level), while the median number of paid TD days fell from 56 to 44 days (-21.4 percent).

⁶ WCIRB estimated the average TD weekly benefit increased 7.7% on January 1, 2003, 4.6% on January 1, 2004, and 2.4% on January 1, 2005.

Percentage of Claims Involving Exempt Diagnostic Categories

The Institute also examined the pre- and post-reform data to note any change in the proportion of temporary disability claims involving the 9 diagnostic categories exempted from the two-year TD payment cap. Table 4 shows the distributions of the pre- and post-SB 899 TD claims across these 9 categories.

Diagnostic Category	Pre-SB 899	SB 899
Amputation	1.8%	1.5%
Burns	1.4%	1.2%
Eye Burns	0.2%	0.1%
Eye Injury	0.7%	0.5%
Hepatitis	0.1%	0.1%
HIV	0.0%	0.0%
Lung Disease	1.1%	0.9%
Pulmonary Fibrosis	0.1%	0.0%
Non-Exempt Subtotal	94.7%	95.6%
Exempt Sub-Total	5.3%	4.4%
Total	100.0%	100.0%

After SB 899 took effect, the percentage of TD claims exempt from the 2-year cap remained small, decreasing from 5.3 percent of the pre-reform TD claims to 4.4 percent of the post-reform TD claims.

TD Payments Beyond the 2-Year Cap

State lawmakers intended the 2-year cap on temporary disability payments to encourage prompt return to work and to reduce indemnity costs. Table 5 displays the percentage of non-exempt temporary disability claims with benefit payments beyond 2 years from the initial TD benefit payment for a sample of pre-reform claims (April 19 – June 30, 2002 injury dates) and post-reform claims (April 19 – June 30, 2004 injury dates). The time frame for the post-reform claim sample represents the first 2-1/2 months in which claims would have been subject to the cap, and was chosen to allow a sufficient period for payments beyond 2 years to be reliably measured with available data.⁸

Table 5: TD Claims Exempt from the 2-Year Cap⁹

	Total Claims	> 2 Years	Percentage
April 19 – June 30 2002	23,363	1,972	8.4%
April 19 – June 30 2004	14,589	397	2.7%

For the 2002 sample of non-exempt TD claims, 8.4 percent of the claims had payments beyond 104 weeks following the initial TD benefit payment. In the post-reform 2004 period, that percentage dwindled to 2.7 percent.⁹

REFORMING THE 2004 TD REFORMS: AB338

This updated analysis of temporary disability claims outcomes following the implementation of the SB 899 shows the post-reform claims are associated with faster reporting times, reductions in TD duration, and reductions in the average amount of TD paid per claim. In addition, the top 20 diagnostic groups continue to account for more than 96 percent of all TD claims, and the proportion of TD claims involving injuries that are exempt from the 2-year cap remains very low, and has actually declined slightly since the reforms took effect.

Since the passage of SB 899 in 2004, various stakeholders have debated the merits and shortcomings of specific reforms, with much of the attention focused on one key element – facilitating return to work. While some stakeholders argued that the 2-year cap on TD was fulfilling the legislative mandate by lowering costs and facilitating earlier return to work, which was confirmed by the Institute's initial analysis of early returns, others pointed out the 2-year TD cap did not offer adequate compensation to all injured workers, especially those who attempted to return to work, but whose injuries required additional time off after the two-year clock had elapsed.

AB 338, introduced earlier this year, initially proposed that for single injuries on or after January 1, 2008, the temporary disability cap should be revised to provide up to 156 compensable weeks (three years) of TD, with payments allowed any time within five years of the injury date. In August 2007, a CWCI study estimated that expanding the number of weeks of TD as well as the time frame in which the benefit could be received would increase aggregate TD costs by 11 percent,

⁷ This report features the use of an expanded list of medical ICD-9 diagnosis codes than the table used in the 2006 study (Swedlow A. Ireland, J. Analysis of California Workers' Compensation Reforms Part 2: Temporary Disability Benefits. CWCI April 2007.) Appendix A provides the table of ICD-9 codes used to categorize the exempt categories.

⁸ The data used in this measurement was valued at December 31, 2006.

⁹ The 2.7 percent of non-exempt TD claims that received TD beyond two years from the date of first payment could reflect lost-time payments made for medical exams and/or initial uncertainties over the trigger date for the cap. Nevertheless, this result suggests that the 2-year limit was correctly applied in more than 97 percent of the initial TD claims that were subject to the cap.

eliminating nearly half of the savings generated by SB 899's TD cap. On October 13, the governor signed an amended version of AB 338 that modified the TD cap for most injuries to a maximum of 104 compensable weeks (two years) within five years of the injury date. The revised cap applies to all claims with dates of injury on or after January 1, 2008, except those involving injuries from the nine exempt diagnostic categories, where the law still allows up to 240 compensable weeks of TD to be paid within five years from the date of injury.

To estimate the impact of the revised TD cap on loss costs, the WCIRB asked the Institute to model historical data from a sample of pre-SB 899 TD claims. Using the ICIS database, CWCI analysts compiled a sample of more than 155,000 pre-SB 899 TD claims from accident years 2000 and 2001, then compared the total amount of TD that would have been paid under the SB 899 cap to the amount that would have been paid under the new AB 338 cap. Exhibit 11 summarizes the results.

	Pre-SB 899 TD	SB 899
1. # of TD Claims in the Sample		155,463
2. TD Benefits Paid through December 31, 2006		\$1.316 billion
3. TD Benefits Paid through 2 Years from 1st TD Payment (SB 899)		\$1.096 billion
4. Percentage of TD Payments Eliminated (SB 899 Limitation)		16.6%
5. TD Benefits Paid to 104 Weeks w/in 5 Years from DOI (AB 338)		\$1.168 billion
6. Percentage of TD Payments Eliminated (AB 338 Limitation)		11.2%
7. Additional TD Payments under AB 338 Limitation		\$71 million
8. Indicated AB 338 Percentage TD Cost Increase		6.5%
9. WCIRB Estimate of AB 338 Impact on Pure Premium Rates		1 percentage point

Total TD payments for the claim sample through December 2006 amounted to \$1.316 billion. The model estimated that SB 899 would have reduced that amount by \$219 million or 16.6 percent from the pre-reform (SB 899) payment levels. On the other hand, by extending the period in which TD payments could be made and changing the trigger point to the date of injury, the AB 338 cap would have resulted in total TD payments of \$1.168 billion for this claim sample – \$71 million (6.5 percent) more than under the SB 899 cap -- reducing the SB 899 TD savings from 16.6% to 11.2%. The model also considered the impact of exempt injuries as well as the effect of faster return to work in the post-reform period, but found no material change in the results due to these factors.

In the fall of 2007, the WCIRB incorporated the CWCI model into their pure premium rate calculations. As part of their rate filing activities, WCIRB applied the finding to all benefits in the California workers' compensation system, concluding that the effect of AB 338 would be equivalent to a 1 percentage point increase in the pure premium rate. On October 19, WCIRB amended its initial rate filing for policies incepting on or after January 1, 2008, increasing the recommended increase in advisory pure premium rates from 4.2 percent to 5.2 percent. Despite the CWCI findings and WCIRB's revised estimates, California Insurance Commissioner Steve Poizner issued a statement on November 28, 2007 recommending no change in California's pure premium rate.

RESEARCH SERIES

This Research Update is part of an annual series of analyses initiated by CWCI in 2006 to track changes in various aspects of the California workers' compensation system following the implementation of the 2002 – 2004 legislative reforms. The current 4-part series is based on accident year 2002 – 2006 claims data, and this is the second report in the series. The complete series will encompass the following topics:

- **Part I: Medical Utilization & Reimbursement**
- **Part II: Temporary Disability**
- **Part III: Medical Provider Networks**
- **Part IV: Medical Cost Containment**

Part 3 of the current series is scheduled to be released in the first quarter of 2008, and as noted above, will examine updated data and present new findings on the changing nature of medical provider network use.

Appendix A: Exempt Injury Categories and Associated ICD9 Codes		
Exempt Category	Associated ICD-9s	ICD-9 description
Acute and chronic hepatitis B	070.30	Hepatitis, viral, type B (acute)
	070.20	Hepatitis, viral, type B (acute), with hepatic coma
	V02.61	Hepatitis, viral, type B (acute), with claims administrator status
	070.32	Hepatitis, viral, type B, chronic
	070.41	Hepatitis, viral, type B, chronic with hepatic coma
Acute and chronic hepatitis C	070.51	Hepatitis, viral, type C (acute)
	070.41	Hepatitis, viral, type C (acute), with hepatic coma
	V02.62	Hepatitis, viral, type C (acute), with claims administrator status
	070.54	Hepatitis, viral, type C, chronic
	070.44	Hepatitis, viral, type C, chronic with hepatic coma
Amputations	997.6-997.69	Amputation, stump (surgical or post-traumatic), abnormal, painful or with late complication
	885-885.1	Amputation, traumatic, of thumb
	886-886.1	Amputation, traumatic, of other finger
	887-887.7	Amputation, traumatic, of arm and hand
	895-895.1	Amputation, traumatic, of toe
	896-896.3	Amputation, traumatic, of foot
	897-897.7	Amputation, traumatic, of legs
	878-878.9	Amputation, traumatic, of external genitals
	874.9	Amputation, traumatic, of head
Severe burns	940-940.9	Burn confined to eye
	941-941.5*	Burn of face, head or neck
	942-942.5*	Burn of trunk
	943-943.5*	Burn of upper limb, exc. wrist and hand
	944-944.5*	Burn of wrist and/or hand
	945-945.5*	Burn of lower limb
	946-946.5*	Burn of multiple specified sites
	948.2-948.9**	Burn, by extent of body surface
	949.2-949.5**	Burn, unspecified site
Human immunodeficiency virus (HIV)	042	HIV disease
	V08	HIV infection, without overt disease
	079.53	HIV, type 2 disease
High-velocity eye injuries	870.3-870.4	Penetrating wound of orbit of eye
	871-871.9	Open wound of eyeball, with laceration or penetration
	921.3, 921.9	Contusion of eyeball
Chemical burns to the eyes	940-940.9	Chemical burn of eye or eye area
Pulmonary fibrosis	515	Post-inflammatory pulmonary fibrosis
	011.4, 495.0-495.1, 500-505, 506.4, 508.1, 516.3	Pulmonary fibrosis, various causes
Chronic lung disease	490-496, 506.4, 508.1, 517-517.8, 518.3	Various causes

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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