Workers' Compensation Insurance Rating Bureau of California®

California Medical Payment Development Up to 30 Years Post-Injury

Released: July 8, 2015

Gregory Johnson, Ph.D. Director, Medical Analytics



Notice

This report on *California Medical Payment Development Up to 30 Years Post-Injury* (Report) was developed by the Workers' Compensation Insurance Rating Bureau of California (WCIRB) for the convenience of its users. The WCIRB has made reasonable efforts to ensure the accuracy of this Report. You must make an independent assessment regarding the use of this Report based upon your particular facts and circumstances.

© 2015 Workers' Compensation Insurance Rating Bureau of California. All rights reserved.

No part of this work may be reproduced or transmitted in any form or by any means, electronic or mechanical, including, without limitation, photocopying and recording, or by any information storage or retrieval system without the prior written permission of the Workers' Compensation Insurance Rating Bureau of California (WCIRB), unless such copying is expressly permitted in this copyright notice or by federal copyright law. No copyright is claimed in the text of statutes and regulations quoted within this work.

Each WCIRB member company, including any registered third-party entities (Company), is authorized to reproduce any part of this work solely for the following purposes in connection with the transaction of workers' compensation insurance: (1) as necessary in connection with Company's required filings with the California Department of Insurance; (2) to incorporate portions of this work, as necessary, into Company manuals distributed at no charge only to Company employees; and (3) to the extent reasonably necessary for the training of Company personnel. Each Company and all agents and brokers licensed to transact workers' compensation insurance in the state of California are authorized to physically reproduce any part of this work for issuance to a prospective or current policyholder upon request at no charge solely for the purpose of transacting workers' compensation insurance and for no other purpose. This reproduction right does not include the right to make any part of this work available on any website or on any form of social media.

Workers' Compensation Insurance Rating Bureau of California, WCIRB, WCIRB California, WCIRB Online, X-Mod Direct, eSCAD and the WCIRB California logo (WCIRB Marks) are registered trademarks or service marks of the WCIRB. WCIRB Marks may not be displayed or used in any manner without the WCIRB's prior written permission. Any permitted copying of this work must maintain any and all trademarks and/or service marks on all copies.

To seek permission to use any of the WCIRB Marks or any copyrighted material, please contact the Workers' Compensation Insurance Rating Bureau of California at customerservice@wcirb.com.

Acknowledgements

Acknowledgements

The author would like to thank the following people for their assistance in preparing this study.

- David Bellusci, Executive Vice President, Chief Operating Officer and Chief Actuary
- Ward Brooks, Vice President, Research
- · Tony Milano, Vice President, Actuarial Services
- Tim Basuino, Medical Analytics Specialist

About the Workers' Compensation Insurance Rating Bureau of California

For 100 years, the WCIRB has been a trusted, objective and integral component of the California workers' compensation system.

As a licensed rating organization and the California Insurance Commissioner's designated statistical agent, the WCIRB performs a number of functions, including collection of premium and loss data on every workers' compensation insurance policy, examination of policy documents, inspections of insured businesses, and test audits of insurer payroll audits and claims classification. This data is used to advise the Insurance Commissioner and other stakeholders of the costs of providing workers' compensation benefits.

The WCIRB is a California unincorporated, private, nonprofit association comprised of all companies licensed to transact workers' compensation insurance in California, and has over 400 member companies. No state money is used to fund its operations.

For more information, please visit www.wcirb.com.

Introduction

Introduction

California workers' compensation claims have the most prolonged medical payout patterns in the nation. Table 1, based on information published in the National Council on Compensation Insurance (NCCI) 2014 Annual Statistical Bulletin, indicates that 61% of ultimate California accident year medical payments are paid more than 36 months after the beginning of the year of injury. This is far higher than the countrywide average of 33%.

100%
80%
NCCI States
Average 67%

40%
20%

Zum = 0.70.5 % T. 0.4 % X. J. 4 % 0.5 E. D. 3.0 V. N. X. 3.4 4 E. B. W. X. 4.4 Z. E. E. X. Z. J. S. D. B. E. 4.4 X. J. S. D. B. D. S. D. J. S. D. B. D. S. D. S

Table 1: Percent of Ultimate Accident Year Medical Losses Paid at 36 Months

Source: NCCI Annual Statistical Bulletin (2014 Edition) for 2009 accident year.

California does not have more hazardous jobs, more serious injuries, an older workforce or more serious occupational medical conditions than other states. In large part, the slower medical payout appears to be driven by a pattern of medical treatment which enables more prolonged claims. For example, in California, it currently takes 11 years to settle 95% of the indemnity claims arising from a particular year, far longer than any of the other states included in a recent WCIRB interstate comparison of claim closing patterns, as shown in Table 2.

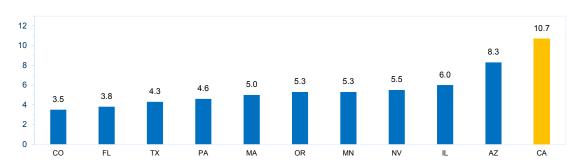


Table 2: Number of Years Until 95% of Indemnity Claims are Settled

Source: WCIRB aggregate data calls, NCCI, and other independent rating bureaus $\,$

To better understand this issue, this study examines California claims currently receiving medical treatment by claim duration (the length of time a claim has remained open since the date of injury). This study analyzes recent calendar years' medical payments for claims up to 30 years post-injury (since January 1985).

Approach

Approach

- 1. We examined the WCIRB's medical transaction data on payments for medical services made from July 1, 2012 through February 28, 2015. This database is comprised of one million unique claims, 50 million paid transactions and \$4.4 billion in medical payments.
- 2. The study population includes claims up to 30 years post-injury (injuries since January 1985).¹ We divided the database into seven "Service Development Cohorts" defined as years from date of injury to date of medical treatment. Rather than a longitudinal study of specific claims, this approach identifies changes in large groups of claims to illustrate differences in patterns of medical cost by claim duration.

We carried out this work in two phases:

Phase One: Analysis of California Medical Payments by Claim Duration

In Phase One, we identify differences in medical treatment patterns by age of claim that might help explain why California claims are uniquely prolonged.

Phase Two: Analysis of Late-Term Medical Payments for Claims 20 to 30 Years Old In Phase Two, we compare medical cost characteristics of California late-term claims to findings from a 2013 NCCI study of late-term claims in 35 other states. This comparison was facilitated by the fact that both the NCCI and WCIRB capture medical bill transaction data in the same formats.²

Tables 3A and 3B summarize the cohorts for each phase.

Table 3A: California Claims Only

Service Delivery Cohort Greater Than or Equal (GTE), Less Than (LT)	Approximate Injury Dates by Year	% of Study Claims
0-1 years (GTE 0, LT 1)	2014	67%
1-3 years (GTE 1, LT 3)	2012-2013	17%
3-6 years (GTE 3, LT 6)	2009-2011	8%
6-10 years (GTE 6, LT 10)	2005-2008	4%
10-15 years (GTE 10, LT 15)	2000-2004	3%
15-20 years (GTE 15, LT 20)	1995-1999	1%
20-30 years (GTE 20, LT 30)	1985-1994	0.5%

Table 3B: NCCI Comparison Study, Late Term Claims Only

Late Term Claims	Approximate Injury Dates by Year	Location
NCCI 20-30 years (GTE 20, LT 30)	1980-1989	35 States
20-30 years (GTE 20, LT 30)	1985-1994	California

¹ Claims that are more than 30 years old are not required to be collected in Medical Data Call (MDC). Also, not all payments are reported in MDC, for example, payments made directly to injured workers or that might not otherwise have gone through bill review may not be reported in MDC.

² NCCI, Medical Services for Claims 20 or More Years Old, January 2013.

Phase One: Analysis of California Medical Payments by Claim Duration

Table 4 shows the distribution of the study claims for California by age of claim or Service Development Cohort. The data indicates that 17% of all claims in the study are receiving medical services 3 or more years post injury. These claims account for 35% of all medical payments during the 32-month study period. The intensity of medical services generally increases with the age of the claim. For the 5% of claims more than 10 years old, the average paid per claim during the 32-month study period of \$12,259 is almost three times the overall average of \$4,532. Moreover, these payments reflect only the most recent 32 months of medical services and are a small portion of the total medical costs over the life of the claim on these older claims.

Table 4: Distribution of Claims and Medical Payments by Service Development Cohort*

Service Delivery Cohort Greater Than or Equal (GTE), Less Than (LT)	Claims**	% of Total	Paid Medical	% of Total	Paid per Claim***
GTE 0. LT 1	756,334	67%	\$1,894 M	43%	\$2,504
GTE 1, LT 3	187,387	17%	\$1,017 M	23%	\$5,427
GTE 3, LT 6	86,330	8%	\$576 M	13%	\$6,666
GTE 6, LT 10	46,668	4%	\$394 M	9%	\$8,433
GTE 10, LT 15	29,100	3%	\$341 M	8%	\$11,716
GTE 15, LT 20	9,865	1%	\$132 M	3%	\$13,378
GTE 20, LT 30	5,507	1%	\$77 M	2%	\$13,925
All	977,494		\$4,430 M	100%	\$4,532

Source: WCIRB medical transaction data valued as of February 28, 2015

Table 5 shows the age at injury for each of the Service Development Cohorts. Late-term claimants are more likely to have been injured at earlier ages while more recent claims are older at age of injury. This finding is partly affected by the impact of mortality on some late-term claimants who were injured at older ages. On an overall basis, this data reflects the gradual aging of the national and California workforces.³

Table 5: Payment Shares by Age at Injury and Service Development Cohort

Service Development Cohort			Age a	t Injury			
Greater Than or Equal (GTE), Less Than (LT)	20 and Under	21-30	31-40	41-50	51-60	61 and above	Total Share all Cohorts
GTE 0, LT 1	0.7%	16%	23%	25%	24%	10%	43%
GTE 1, LT 3	0.3%	10%	22%	29%	28%	10%	23%
GTE 3, LT 6	0.3%	8%	20%	34%	30%	8%	13%
GTE 6, LT 10	0.1%	7%	23%	38%	26%	6%	9%
GTE 10, LT 15	0.1%	14%	25%	36%	20%	5%	8%
GTE 15, LT 20	0.4%	11%	37%	32%	15%	4%	3%
GTE 20, LT 30	1.4%	22%	40%	24%	11%	2%	2%
Age Range Share of Total	0.4%	12%	22%	30%	26%	9%	100%

Source: Medical Transaction Data valued as of February 28, 2015

^{*} Defined as years from Date of Accident to Date of Medical Treatment

^{** 15%} of the unique claims populate more than one Service Development Cohort

^{***} Payment amounts on the claim during the period July 1, 2012 through February 28, 2015 (Generally not all medical payments on the claim)

³ California Employment and Development Department, *The New Workforce: Age and Ethnicity Changes*, 2014.

Table 6 displays the age at treatment for each of the Service Development Cohorts. Across the entire database, 15% of the medical payments during the 32-month study period (\$660 million) were delivered to claimants over the age of 60. The majority of these payments were for claims ten or more years in duration. These findings suggest the potential magnitude of Medicare Set-Aside Arrangements.

Table 6: Payment Shares by Age at Treatment by Service Development Cohort

Service Development Cohort			Ag	e at Treat	ment			
Greater Than or Equal (GTE), Less Than (LT)	30 and under	31-40	41-50	51-60	61-70	71-80	81 and above	Total Share all Cohorts
GTE 0, LT 1	17.6%	22.0%	26.2%	24.7%	8.1%	1.1%	0.2%	43%
GTE 1, LT 3	8.4%	20.2%	29.4%	30.5%	10.4%	1.0%	0.1%	23%
GTE 3, LT 6	3.8%	15.6%	29.8%	35.5%	14.3%	1.0%	0.1%	13%
GTE 6, LT 10	1.2%	10.9%	26.4%	39.0%	19.2%	3.2%	0.1%	9%
GTE 10, LT 15	0.1%	9.2%	23.2%	37.8%	24.0%	5.4%	0.2%	7%
GTE 15, LT 20	0.0%	2.9%	17.2%	41.9%	26.8%	9.6%	1.6%	3%
GTE 20, LT 30	0.0%	0.1%	11.7%	38.4%	31.0%	15.8%	3.1%	2%
Age Range Share of Total	10.1%	17.9%	26.7%	30.4%	12.6%	2.1%	0.3%	100%

Source: Medical Transaction Data valued as of February 28, 2015

Table 7 shows primary current medical condition as defined as the diagnosis (ICD-9) code with the most payments on the claim in the current data. Payments for acute injuries (fractures, wounds, dislocations, sprains and strains) decline as the cohorts age. Chronic musculoskeletal problems (such as arthritis) tend to increase over time. The late-term claims generate more payments related to the medical problems of aging (heart disease, respiratory problems and digestive conditions) that are likely unrelated to the original injury. Other diagnoses that are likely not associated with initial injuries (complications of medical care) gradually increases with each cohort, a trend also identified in the NCCI comparison study (Phase 2, below).

Table 7: Payment Shares for Current Primary Medical Condition*** by Service Development Cohort

				Curr	ent Prim	ary Medi	ical Cond	dition			
Service Development Cohort Greater Than or Equal (GTE), Less Than (LT)	Chronic Musculoskeletal Problems	Sprains and Strains	Non-Musculo skeletal *	Traumatic Injury**	Fractures	Complications of Medical Care	Open Wound	Dislocations	Intracranial	Spinal Cord	Other
GTE 0, LT 1	34.2%	27.0%	7.9%	5.4%	6.8%	0.8%	4.6%	2.9%	1.3%	0.9%	8.3%
GTE 1, LT 3	56.8%	14.4%	10.8%	8.1%	1.2%	1.7%	0.5%	2.0%	1.6%	0.2%	3.0%
GTE 3, LT 6	54.6%	9.2%	13.0%	10.7%	0.4%	4.1%	0.5%	1.1%	2.9%	0.1%	3.4%
GTE 6, LT 10	51.0%	6.2%	16.1%	13.0%	0.6%	5.5%	0.7%	0.6%	2.6%	0.4%	3.3%
GTE 10, LT 15	50.1%	4.4%	14.0%	14.8%	0.8%	6.3%	0.8%	0.5%	4.3%	0.2%	3.9%
GTE 15, LT 20	41.3%	5.5%	20.8%	15.4%	0.2%	7.5%	0.5%	0.2%	3.5%	0.4%	4.6%
GTE 20, LT 30	41.0%	1.9%	19.5%	17.2%	1.5%	5.4%	0.9%	0.4%	7.1%	0.5%	4.7%
Share of Total	45.2%	17.6%	10.8%	8.4%	3.4%	2.4%	2.3%	2.0%	2.0%	0.5%	5.5%

Source: Medical Transaction Data valued as of February 28, 2015

Table 8 displays the types of medical treatment by Service Development Cohort. As the cohorts age, a greater proportion of medical dollars is devoted to prescription drugs. After three years, drugs are the most significant type of medical treatment, approaching 40% of medical paid on older claims, while drugs

^{*} Includes Circulatory, Cerebral Vascular, Respiratory, Digestive and Urinary Tract Problems

^{**} Includes Unspecified Conditions

^{***} Defined as the ICD-9 code with the most payments on the claim in current data

are less than 10% of medical costs on first year claims. Of the \$1.5 billion spent on claimants beyond three years post injury, a total of \$456 million (approximately one third) is spent on prescription drugs.

The payment shares for a number of other services that are more prevalent earlier in the life of a claim, such as office visits, general medicine, surgery, imaging and physical medicine decline as the cohorts age. Conversely, the share of costs for both home services and facilities tend to increase for the longer term claims.

Table 8: Payment Shares by Type of Medical Treatment by Service Development Cohort

rable of raymont onarce by Type of	·	· · · · · · ·	inone is	<i>y</i>	00 20.	отории	onic G G				
				Т	ype of N	∕ledical ٦	reatme	nt			
Service Development Cohort Greater Than or Equal (GTE), Less Than (LT)	Drugs	Facilities	Office Visits	Surgery	Supplies	Implants Orthotics	General Service	Home Service	Physical Medicine	Imaging	Other
GTE 0, LT 1	6.7%	16.3%	26.3%	14.1%	2.7%	1.7%	4.2%	0.5%	12.5%	7.5%	7.4%
GTE 1, LT 3	16.0%	15.6%	17.3%	14.8%	4.9%	1.4%	5.7%	1.0%	8.6%	5.2%	9.5%
GTE 3, LT 6	24.1%	17.4%	15.5%	10.5%	4.5%	1.3%	5.2%	2.6%	5.0%	3.9%	9.9%
GTE 6, LT 10	32.4%	18.8%	12.8%	7.3%	3.7%	1.5%	3.8%	4.9%	3.0%	2.9%	8.8%
GTE 10, LT 15	37.1%	20.5%	10.3%	5.9%	3.2%	1.3%	2.9%	6.2%	2.3%	2.1%	8.2%
GTE 15, LT 20	36.7%	21.0%	7.6%	5.2%	3.8%	1.0%	2.3%	10.5%	1.9%	1.7%	8.4%
GTE 20, LT 30	38.4%	21.7%	8.3%	5.9%	3.7%	1.4%	2.7%	6.5%	2.0%	2.2%	7.1%
Share of Total	17.2%	17.1%	19.5%	12.1%	3.6%	1.5%	4.4%	2.2%	8.5%	5.4%	8.4%

Source: Medical Transaction Data valued as of February 28, 2015

Using the specific drug names reported in a prior NCCI study of prescription drugs across 35 states, the WCIRB assessed the prevalence of these drugs in California. Table 9 displays the top 10 drugs in the NCCI study for California claimant by Service Development Cohort. The WCIRB also identified drugs classified as Schedule II narcotics by the Drug Enforcement Agency. This data indicates that \$102 million was spent on prescribed narcotics in the past 32 months. Moreover, the use of narcotics progressively grows as the cohorts age. For example, Oxycontin comprises more than 10% of drug costs for claims more than ten years old but only 1% of drugs cost of claims less than three years old.

Table 9: California Payment Shares of Top 10 NCCI Drugs** by Service Development Cohort

				Sp	ecific Dru	ug Name	es					
Service Development Cohort Greater Than or Equal (GTE), Less Than (LT)	Oxycontin*	Lidoderm	Vicodin*	Lyrica	Celebrex	Fentanyl*	Cymbalta	Percocet*	Oxycodone HCL*	Duragesic*	Total Top 10	Total Narcotics In Top 10*
GTE 0, LT 1	0.3%	1.1%	5.6%	0.7%	2.1%	0.4%	0.1%	0.0%	0.1%	0.0%	10.3%	6.4%
GTE 1, LT 3	1.2%	1.8%	5.6%	2.0%	2.4%	1.6%	0.3%	0.1%	0.3%	0.0%	15.2%	8.8%
GTE 3, LT 6	3.0%	2.5%	5.9%	3.3%	2.6%	3.2%	0.9%	0.2%	0.6%	0.1%	22.3%	12.9%
GTE 6, LT 10	5.9%	3.1%	5.6%	4.5%	2.9%	3.5%	1.6%	0.6%	0.9%	0.5%	29.2%	17.1%
GTE 10, LT 15	9.9%	3.1%	5.2%	4.1%	3.9%	3.4%	2.5%	0.6%	1.0%	0.8%	34.5%	20.9%
GTE 15, LT 20	10.3%	2.9%	4.0%	3.7%	4.3%	2.7%	2.6%	0.6%	1.0%	1.3%	33.7%	20.1%
GTE 20, LT 30	10.9%	2.0%	3.8%	3.3%	4.3%	2.3%	2.3%	1.0%	0.9%	1.7%	32.6%	20.6%
Drug Total	4.7%	2.3%	5.4%	3.0%	2.9%	2.4%	1.2%	0.3%	0.6%	0.4%	23.2%	13.8%

Source: Medical Transaction Data valued as of February 28, 2015

^{*} Classified as Class II Narcotics by the Drug Enforcement Agency

^{**} Top 10 Drugs in a 2013 NCCI study of workers compensation pharmacy trends in 35 states

Table 10 displays the distribution of payments by drug category and Service Development Cohort. Analgesics increase in usage with claim age comprising more than 40% of drug costs for claims more than 20 years old, but less than 20% for claims less than three years old. Payments for psychoactive drug categories also increase with claim age comprising between 10% and 12% of drug costs for claims older than 3 years, but only 6% for claims between one and three years and 2% for claims less than one year. The categories include psychotherapeutics (primarily anti-depressives), central nervous system drugs (primarily stimulants) and sedative-hypnotics (primarily sleeping pills). A February 2015 Johns Hopkins study documented how prescribed psychoactive drug use dramatically increased the length and cost of claims for claimants previously receiving prescribed narcotics.⁴

Table 10: Payment Shares by Drug Category by Service Development Cohort

					Dr	ug Cat	egories	3					
Service Development Cohort Greater Than or Equal (GTE), Less Than (LT)	Analgesics	Psychotherapeutics	Anti-Arthritics	Gastrointestinal	Skin Treatments	Muscle Relaxants	Cardiovascular	Central Nervous System Drugs	Anti-Asthmatics	Sedative-Hypnotics	Anti-Infectives	Other	All Drugs Share of Total Medical Paid
GTE 0, LT 1	16.2%	2.0%	22.2%	12.7%	15.2%	10.4%	0.2%	0.0%	0.5%	0.4%	4.8%	15.3%	6.7%
GTE 1, LT 3	18.7%	5.7%	14.9%	14.1%	16.8%	9.0%	0.6%	0.2%	0.6%	1.0%	0.8%	17.7%	16.0%
GTE 3, LT 6	23.7%	10.3%	10.9%	12.3%	14.4%	7.2%	1.3%	0.5%	0.7%	1.8%	0.8%	16.2%	24.1%
GTE 6, LT 10	30.5%	11.9%	8.1%	9.9%	11.1%	6.0%	2.1%	1.0%	0.9%	2.4%	1.2%	14.8%	32.4%
GTE 10, LT 15	37.9%	10.9%	7.8%	7.8%	8.6%	5.0%	2.1%	2.0%	0.9%	2.6%	0.7%	13.5%	37.1%
GTE 15, LT 20	38.9%	11.5%	7.1%	7.0%	7.4%	3.9%	3.1%	2.6%	1.2%	2.8%	1.0%	13.3%	36.7%
GTE 20, LT 30	40.8%	11.3%	6.9%	6.1%	5.1%	4.4%	4.4%	2.1%	2.9%	2.3%	1.2%	12.3%	38.4%
Drug Category Total	26.7%	8.4%	12.2%	10.9%	12.6%	7.2%	1.5%	0.9%	0.8%	1.7%	1.5%	15.3%	17.2%

Table 11 depicts the distribution of payments by place of service. The percentage of payments for facilities (Inpatient and Outpatient Hospitals, Ambulatory Service Centers and Emergency Rooms) remain fairly stable as cohorts age. Reflecting the patterns of drug use shown in prior tables, the use of pharmacies increases as cohorts age. However, when compared to Table 6 above, pharmaceuticals represent 17.2% of all spending while Table 11 indicates that pharmacies as a place of service represent 12.3% of payments. The difference (4.9% or \$40 million) is largely attributable to physician dispensing.

Table 11: Payment Shares by Place of Service and Service Development Cohort

abio ilii ayiiloik ollaroo by .									
Service Development Cohort Greater Than or Equal (GTE), Less Than (LT)	Pharmacy	Inpatient Hospital	Office	Home	Outpatient Hospital	Ambulatory Surgical Centers	ER	Long Term Care	Other
GTE 0, LT 1	3.6%	14.5%	51.4%	2.2%	9.9%	8.4%	2.0%	0.3%	7.6%
GTE 1, LT 3	9.8%	16.3%	46.7%	4.2%	7.3%	9.1%	0.2%	0.6%	5.9%
GTE 3, LT 6	16.6%	17.8%	40.5%	6.2%	5.0%	5.9%	0.2%	0.9%	6.9%
GTE 6, LT 10	25.1%	15.5%	32.9%	8.3%	3.8%	4.6%	0.2%	2.2%	7.4%
GTE 10, LT 15	31.5%	15.1%	26.3%	9.2%	3.7%	3.8%	0.2%	3.1%	7.1%
GTE 15, LT 20	33.2%	15.3%	19.8%	13.6%	3.6%	2.5%	0.2%	4.1%	7.8%
GTE 20, LT 30	35.7%	17.8%	19.5%	10.6%	5.1%	2.2%	0.5%	2.1%	6.5%
Place of Service Total	12.3%	15.6%	43.8%	4.7%	7.4%	7.3%	1.0%	1.0%	7.1%

Source: Medical Transaction Data valued as of February 28, 2015

⁴ E. Bernacki, et.al., *Association of The Use of Opioid and Psychotropic Drugs with Workers' Compensation Claims Costs and Lost Time*, Journal of Occupational and Environmental Medicine, February 2015.

Phase One: California Claims Up to 30 Years Post-Injury Preliminary Conclusions

Table 12 shows the gradual increase in home care services as cohorts age. Other services, such as Durable Medical Equipment, supplies and orthotics remain stable across age cohorts. The finding that home care services represent 1.8% of all medical costs is likely understated because, in the absence of a home health fee schedule in California, some of these services are not coded as such. A more complete picture will emerge when California completes the process of adopting a home health fee schedule.

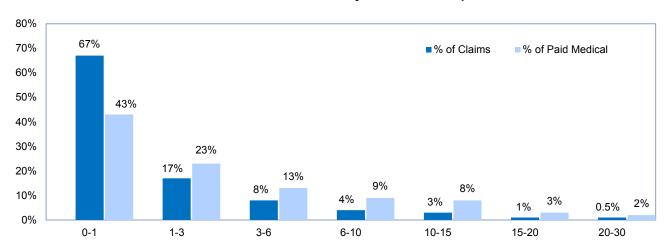
Table 12: Payment Shares for Home Services and Supplies by Service Development Cohort

Service Development Cohort Greater Than or Equal (GTE), Less Than (LT)	Home Services	Durable Medical Equipment (DME)	Non-DME	Implants/Orthotics
GTE 0, LT 1	0.5%	1.6%	0.6%	1.7%
GTE 1, LT 3	0.8%	1.9%	1.5%	1.4%
GTE 3, LT 6	2.1%	1.5%	1.6%	1.3%
GTE 6, LT 10	4.0%	1.4%	1.5%	1.5%
GTE 10, LT 15	5.6%	1.3%	1.2%	1.3%
GTE 15, LT 20	9.4%	1.6%	1.5%	1.0%
GTE 20, LT 30	6.2%	1.3%	1.5%	1.4%
Total	1.8%	1.6%	1.1%	1.7%

Phase One: California Claims Up to 30 Years Post-Injury Preliminary Conclusions

Approximately 17% of the claims receiving treatment during the WCIRB's 32-month study period are more than three years old, accounting for 35% of total medical payments. This group of claims represents the most prolonged workers' compensation medical treatment in the nation. Table 13 depicts the shares of claim counts and medical payments by age of claim (Service Development Cohort) in the study.

Table 13: Share of Claims and Share of Medical Paid by Service Development Cohort



Service Development Cohort

Why does California have such a long-term medical payment pattern? The answer to this question is partly based on the type of medical treatment received by its injured workers.

- 1. Injured workers with claims lasting beyond three years receive a marked increase in narcotics. This pattern is sustained for injured workers through 30 years after injury.
- 2. As claims age, injured workers receive a higher rate of analgesics and psychotherapeutics, include anti-depressives, stimulants and sleeping pills.

- 3. After the first six years, primary diagnoses gradually shift toward chronic medical problems of aging, rather than the acute diagnoses usually related to original injuries.
- 4. Complications of medical care gradually increase over time.

California injured workers may simply differ on the quantity of medical treatment delivered rather than the type of treatment delivered. To address this issue, we compared California late-term claims (20-30 years post-injury) to a similar cohort from a 2013 NCCI study. Phase Two of this study describes these comparisons.

Phase Two: Late Term Medical Payments California Compared to 35 Other States

Phase Two: Late Term Medical Payments California Compared to 35 Other States

In Phase Two of this study, the WCIRB used its medical transaction database to compare California late-term claims (20 to 30 years old) to a similar group of claims studied by the NCCI to document the characteristics of late-term medical care on data collected from 35 other states. Both organizations capture medical bill transaction data in the same formats. Neither collects information on claims more than 30 years old.

California claims included those with accident dates between 1983 and 1992 with paid medical services between July 2012 and June 2014, valued as of June 30, 2014. NCCI claims included those with accident dates between 1983 and 1992 with paid medical services between July 2010 and June 2012.

Tables 14 and 15 show that the overall demographic patterns for California late term claims are similar to that of the average of the rest of the country. The genders and ages at injury, and gender and ages at treatment, for late-term claimants are fairly similar in California to the NCCI 35 state averages, although California claimants receiving benefits in the study period were somewhat older with 53% of the injured workers receiving treatment aged 60 or above compared to 47% in the NCCI states.

Table 14: Gender and Age at Injury

	WCIRB Medi	cal Transaction	Data (California)	NCCI Medica	Transaction Da	ata (35 Other States)
Age at Injury	Female	Male	Both Genders	Female	Male	Both Genders
Under 20	0.4%	0.7%	1.1%	0.2%	0.8%	1.0%
20-29	4.9%	15.1%	20.0%	4.3%	13.2%	17.5%
30-39	10.9%	24.8%	35.7%	9.8%	24.0%	33.8%
40-49	10.2%	17.7%	27.9%	9.6%	20.1%	29.7%
50-59	4.0%	8.7%	12.7%	4.4%	10.8%	15.2%
Over 60	0.5%	1.6%	2.1%	0.8%	2.0%	3.0%
Total	31%	69%	100%	29%	71%	100%

Table 15: Gender and Age at Treatment

	a rige at treati						
Age at Treatment	WCIRB Medic	WCIRB Medical Transaction Data (California)			NCCI Medical Transaction Data (35 Other States)		
	Female	Male	Both Genders	Female	Male	Both Genders	
Under 50	1.9%	7.4%	9.3%	2.4%	13.4 %	15.8%	
50-59	10.1%	27.5%	37.6%	8.6 %	28.3%	36.9%	
60-69	9.9%	22.1%	32.0%	9.1 %	21.2 %	30.3%	
70-79	5.9%	11.1%	17.0%	3.3%	10.2%	13.5%	
Over 80	1.2%	2.7%	3.9%	0.8%	2.7%	3.5%	
Total	31%	69%	100%	29%	71%	100%	

Phase Two: Late Term Medical Payments California Compared to 35 Other States

Table 16 depicts the primary medical conditions for late-term claimants by gender. The patterns are similar for late-term claimants nationwide. Of note, are "complications from medical care," a primary diagnosis which appears at approximately the same rate across the nation.

Table 16: Gender and Current Primary Medical Condition*

Current Primary Medical Condition	WCIRB Medical Transaction Data (California)		NCCI Medical Transaction Data (35 Other States)	
	Female	Male	Female	Male
Musculoskeletal Disease	44%	38%	43%	32%
Traumatic Injury	20%	15%	18%	15%
Non-Musculoskeletal	16%	22%	13%	22%
Complications of Medical Care	5%	6%	7%	7%
Intracranial, No Skull Fracture	4%	10%	3%	5%
Open Wound	0%	1%	1%	3%
Sprains and Strains	2%	2%	3%	2%
Injury to Spinal Cord	1%	0%	0%	1%
Fractures	5%	1%	1%	1%
Dislocations	1%	0%	1%	1%
Other Conditions	3%	5%	11%	13%

^{*}Defined as the ICD-9 code with the most payments on the claim in current data.

Table 17 depicts the data according to the place of service. California claimants generate a higher proportion of facility payments than their counterparts elsewhere. This difference may at least in part reflect the higher costs for California facilities, especially hospitals. Moreover, the lower proportion of payments for home care in California may reflect that, unlike other states, California does not yet have a home care fee schedule, allowing many such services to be unrecorded in the data.

Table 17: Payments by Place of Service

Place of Service	WCIRB Medical Transaction Data (California)	NCCI Medical Transaction Data (35 Other States)
Pharmacy	30.6%	34.3%
Inpatient Hospital	24.1%	17.5%
Office	19.1%	18.7%
Home	9.5%	11.5%
Outpatient Hospital	5.7%	9.3%
Ambulatory Surgical Centers (ASC)	2.3%	1.6%
Hospital Emergency Room	0.5%	0.2%
Long-Term Care	1.3%	1%
Other	7%	6%

Phase Two: Late Term Medical Payments California Compared to 35 Other States

Table 18 shows this data according to the type of services delivered. As in Table 17, California claimants receive more services in facilities and less via home care. Prescription drugs are the most frequent type of treatment delivered, at similar levels in California and nationally.

Table 18: Payments by Medical Service Category

Medical Service Category	WCIRB Medical Transaction Data (California)	NCCI Medical Transaction Data (35 Other States)	
Drugs	40%	38%	
Facilities	21%	13%	
Office Visits	8%	4%	
Surgery	6%	7%	
Home Services	6%	9%	
Supplies	4%	8%	
General Services	3%	8%	
Implants, Orthotics	2%	3%	
Physical Medicine	2%	3%	
Imaging	2%	2%	
Other	6%	5%	
Total	100%	100%	

Tables 19 and 20 show that patterns of drug use by overall category and by specific drugs in California is remarkably similar to the average of the rest of the country. Among the top 10 prescribed drugs, narcotics account for approximately 22% of costs in California and elsewhere.

Table 19: Payments by Drug Category

Drug Category	WCIRB Medical Transaction Data	NCCI Medical Transaction Data	
Drug Gutogory	(California)	(35 Other States)	
Analgesics	40.1%	38.2%	
Psychotherapeutics	11.1%	13.7%	
Anti-Arthritics	7.7%	6.5%	
Gastrointestinal	6.1%	6.3%	
Skin Treatments	5.3%	1.1%	
Muscle Relaxants	4.8%	6.3%	
Cardiovascular	4.4%	1.7%	
Central Nervous System Drugs	3.0%	9.4%	
Anti-Asthmatics	3.0%	1.9%	
Sedative Hypnotics	2.5%	3.3%	
Anti-Infectives	1.1%	1.0%	
Other, Unclassified	10.9%	7.3%	

Table 20: Payments for Top 10 NCCI Drugs

Name of Drug	WCIRB Medical Transaction Data (California)	NCCI Medical Transaction Data (35 Other States)
Oxycontin*	11.2%	11.3%
Lidoderm	2.5%	3.8%
Hydrocodone-Acetaminophen*	4.2%	2.0%
Lyrica	3.1%	3.0%
Celebrex	4.3%	3.8%
Fentanyl*	2.5%	2.9%
Cymbalta	3.0%	2.4%
Percocet*	1.0%	2.3%
Oxycodone HCL*	0.9%	2.0%
Duragesic*	1.9%	1.9%
NCCI Top 10: Total	34.6%	35.4%
* Narcotics Total	21.7%	22.4%

Phase Two Late-Term Medical Payments on Claims 20 to 30 Years Old

By comparing California long-term claimants to a similar cohort from 35 other states, we discovered that there are more similarities than differences between the two groups. Gender patterns at times of injury and treatment are similar, while claimants in the study were somewhat older in California than in the NCCI study. Current medical conditions of California late-term claimants are mirrored by their counterparts elsewhere. Most notably, 7% of the late-term claimants across the nation are diagnosed with complications from medical treatment. Also, patterns of prescription drug use, including narcotics, are similar nationwide.

Overall Summary

Overall Summary

Most long-term workers' compensation claims throughout the nation start as acute short term medical problems. These problems can be resolved or accelerated according to the type of medical treatment delivered. California does not have more hazardous employment, older workers, more severe injuries or worse medical conditions than other states. However, in California, medical treatment continues and claims remain open for a longer period than in other states. One factor may be the flexible "cure or relieve" standard in California. Additionally, cumulative injury claims are more prevalent in California than elsewhere. Given that many of these claims are reported well after the date of injury, medical service development may be artificially prolonged.

The 3- to 6-year time period post-injury is important because it seems to represent an acceleration period in sustaining longer term claims. Each age cohort after 3 years post-injury experiences a steady increase in the share of prescribed narcotics and psychoactive drugs. In addition, after 6 years post-injury, the primary diagnoses for these claims begins to shift from acute injury-related conditions to chronic conditions of aging. Primary diagnoses for cardiovascular, respiratory, circulatory and digestive problems which frequently appear in later term claims are seldom the cause of initial injuries.

_

⁵ Business Insurance, *Chronic Pain and Chronic Workers' Compensation Claims*, September 2011.



1221 Broadway, Suite 900 Oakland, CA 94612

Voice 415.777.0777 Fax 415.778.7007

www.wcirb.com wcirb@wcirb.com