

Medical Care Provided to California's Injured Workers



Barbara Wynn and Andrew
Mulcahy

CHSWC Commission
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Today's Presentation

- Present highlights from our monitoring of system performance using billing data
 - Decomposition of cost drivers affecting annual changes in medical spending
 - Changes in per claim utilization, spending, return to work, access and quality
 - Medical-legal evaluation billing patterns
- Update on the medical necessity dispute resolution process study

Monitoring of System Performance

Study Objectives

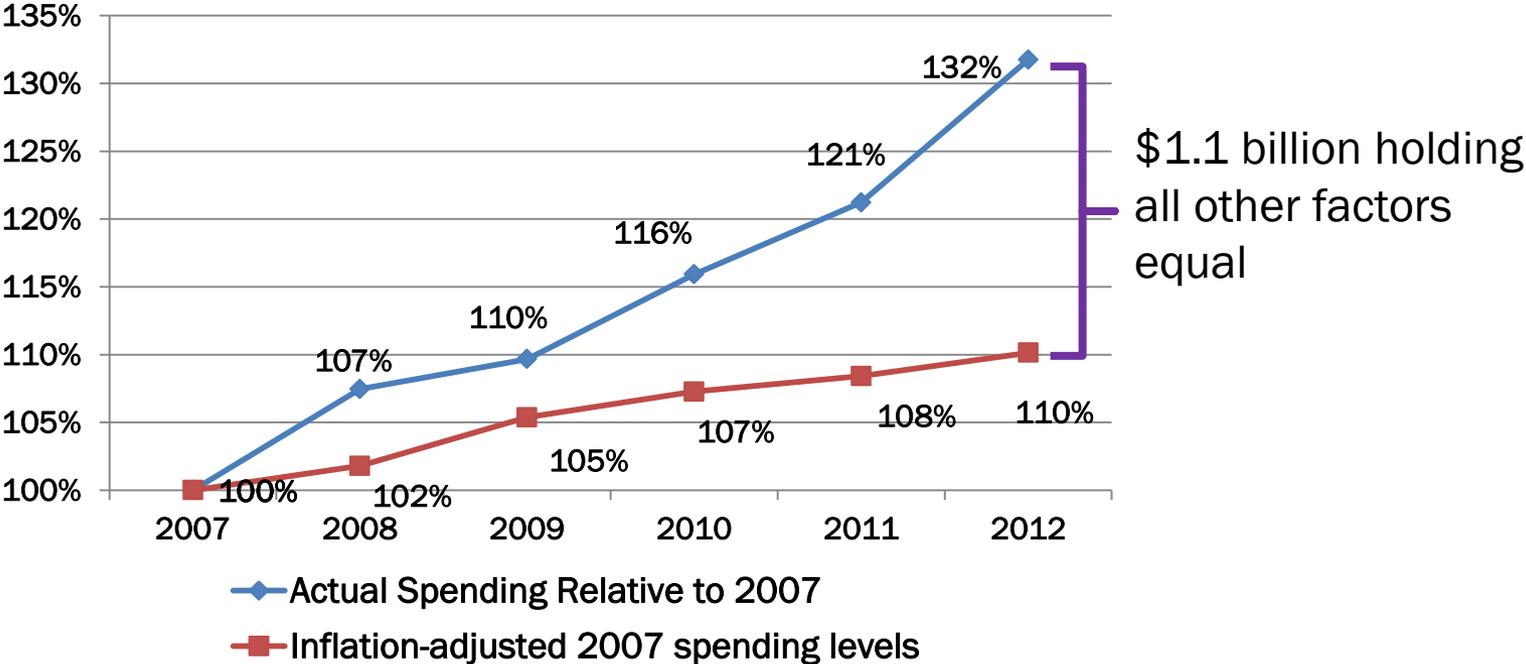
- Decompose spending trends to identify the cost drivers for medical spending increases from 2007-2012
- Explore the feasibility of using Workers' Compensation Information System (WCIS) data for on-going monitoring
- Examine selected topics on ad hoc basis

Goal: understand the drivers of changes in annual WC medical spending

- We measured observable changes in potential cost drivers holding all other factors constant
 - Employment
 - Claims rate (WC claims per covered employee)
 - Nature of injury (including body part)
 - Price inflation (fee schedule increases)
- After accounting for these factors, the residual is attributable to changes in service utilization and intensity and unmeasured case mix changes

Systemwide spending rose much faster than predicted based on price inflation

Systemwide Service Year Spending Relative to 2007 Levels



This presentation is based on preliminary results being reviewed under RAND's quality assurance process. Do not cite or quote without permission.

Key Findings from Cost Driver Analyses

- Predicted spending decreases for fewer WC claims more than offset predicted increases for price inflation
- Changes in nature of injury and body part had minor impact on changes in service year spending
- Estimated residual spending = \$1.6 B
 - Increases in payments to individuals accounted for nearly 2/3 of residual spending increase
- Residual spending increases highlight need for on-going monitoring of system performance

Limitations of Cost Driver Analyses

- Relies on available WCIS data
 - Data are representative but incomplete
 - Could only analyze changes beginning in 2007
 - Assumes 2007 spending patterns are an appropriate baseline
- Could not reliably examine impact of changes in type of claims (e.g., medical only) or occupational mix
- Additional analyses needed to understand reasons for large residual change

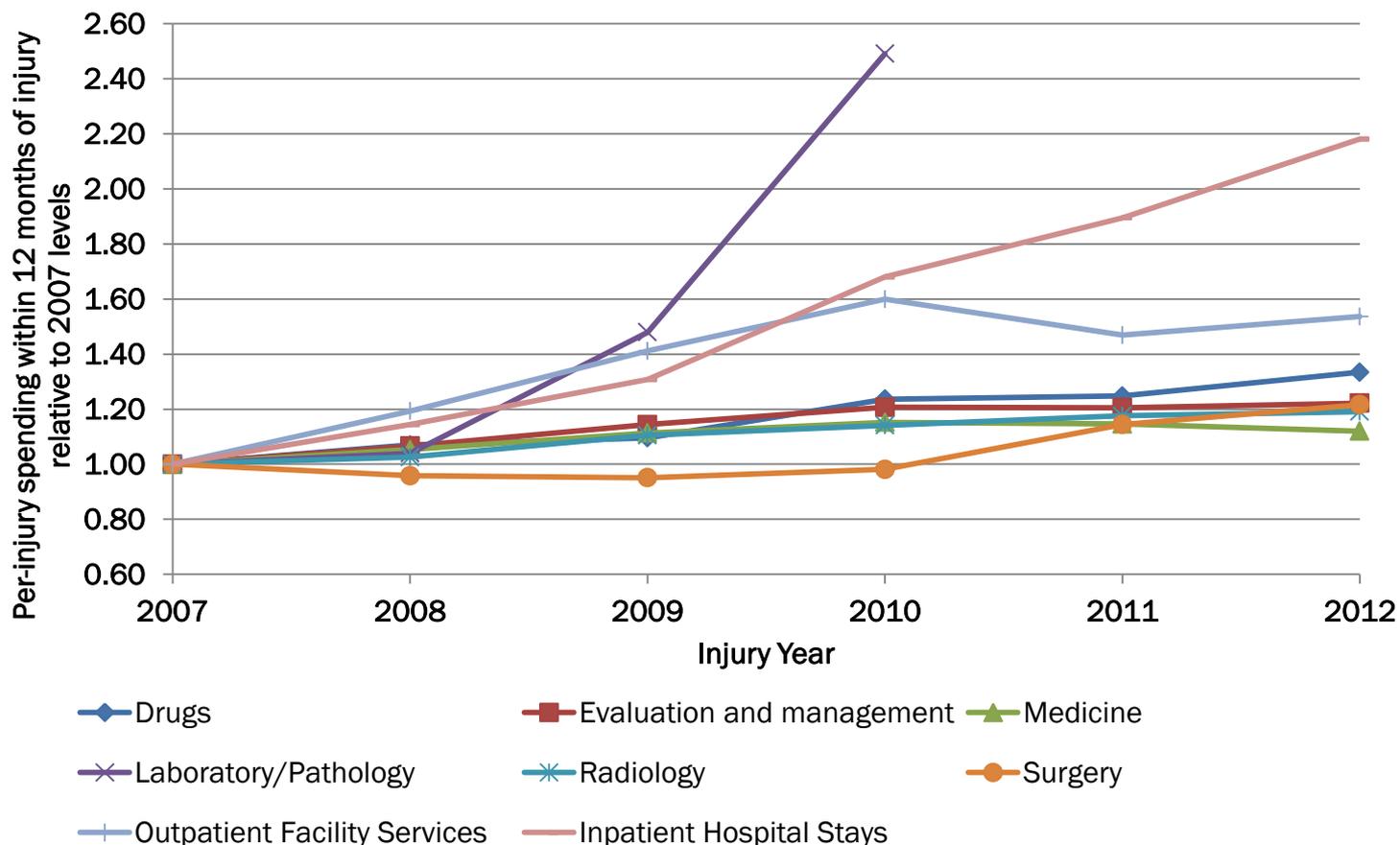
Monitoring Analyses Use WCIS to Investigate Residual Spending Increases

- Trends in medical care 2007-2012
 - Per claim utilization and spending within 12, 24 and 36 months of injury by service category
 - Return to work during first 8 quarters following injury
 - Quality and access to care indicators
- Separate analyses by claim characteristics
 - Type of injury and selected conditions
 - Insured/self-insured (private and gov't) employer
 - Geographic region
- Medical-legal expense analyses

Utilization and Spending per Claim within 12 months of Injury

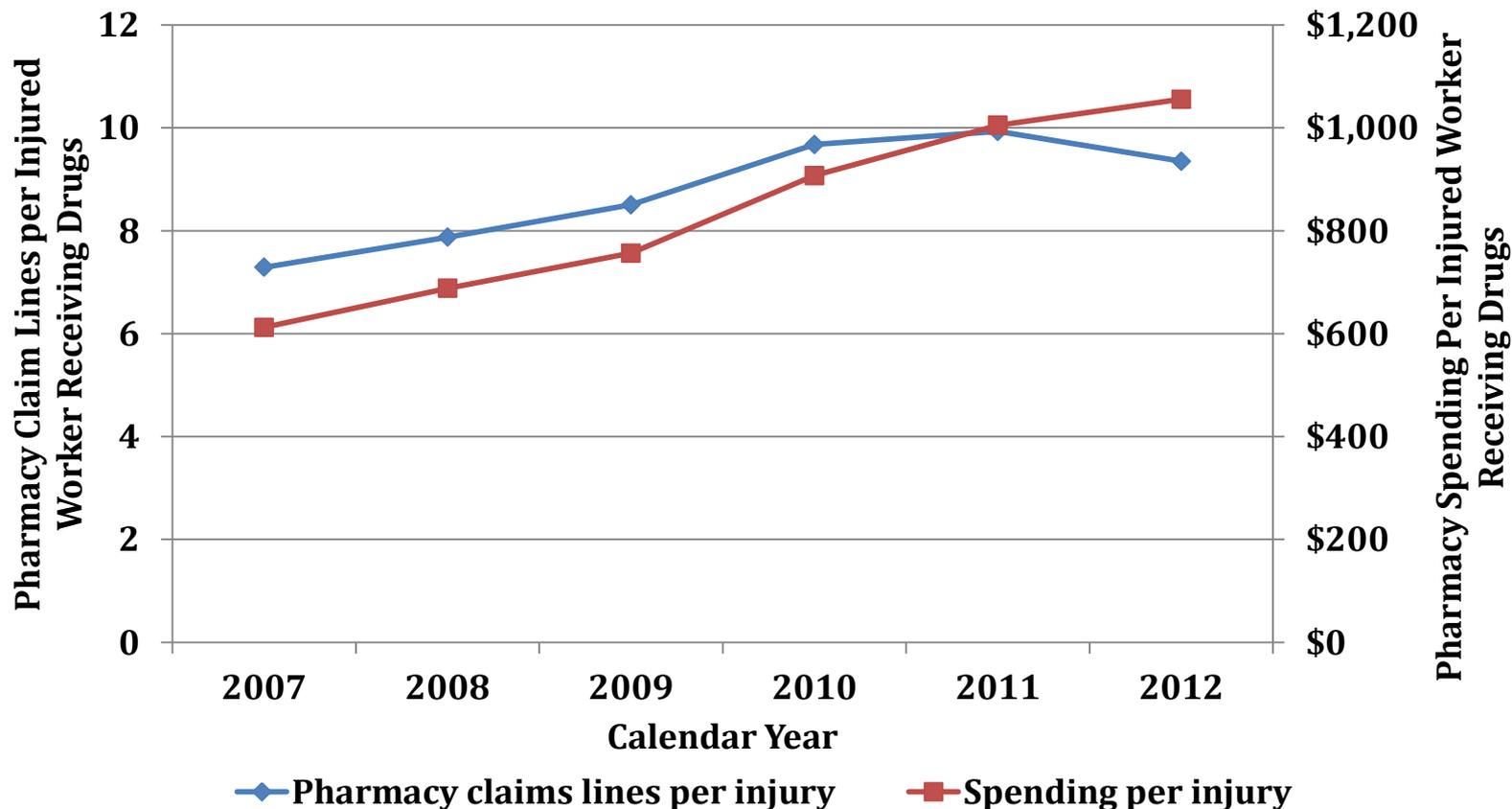
- Large increases in spending for drug testing (14 times increase), particularly for workers covered by private self-insured plans
- Decline in hospital inpatient and outpatient utilization but relatively high increase in cost per user for inpatient hospital services
- Drug utilization and spending increased through 2011. Utilization declined in 2012 but spending continued to increase.

Average Spending per User within 12 months of Injury Relative to 2007 Levels, by Service Category



Note: Laboratory services reported for 2007 through 2010 injury years only. Relative spending for 2011 and 2012 injuries was 3.83 and 4.00, respectively.

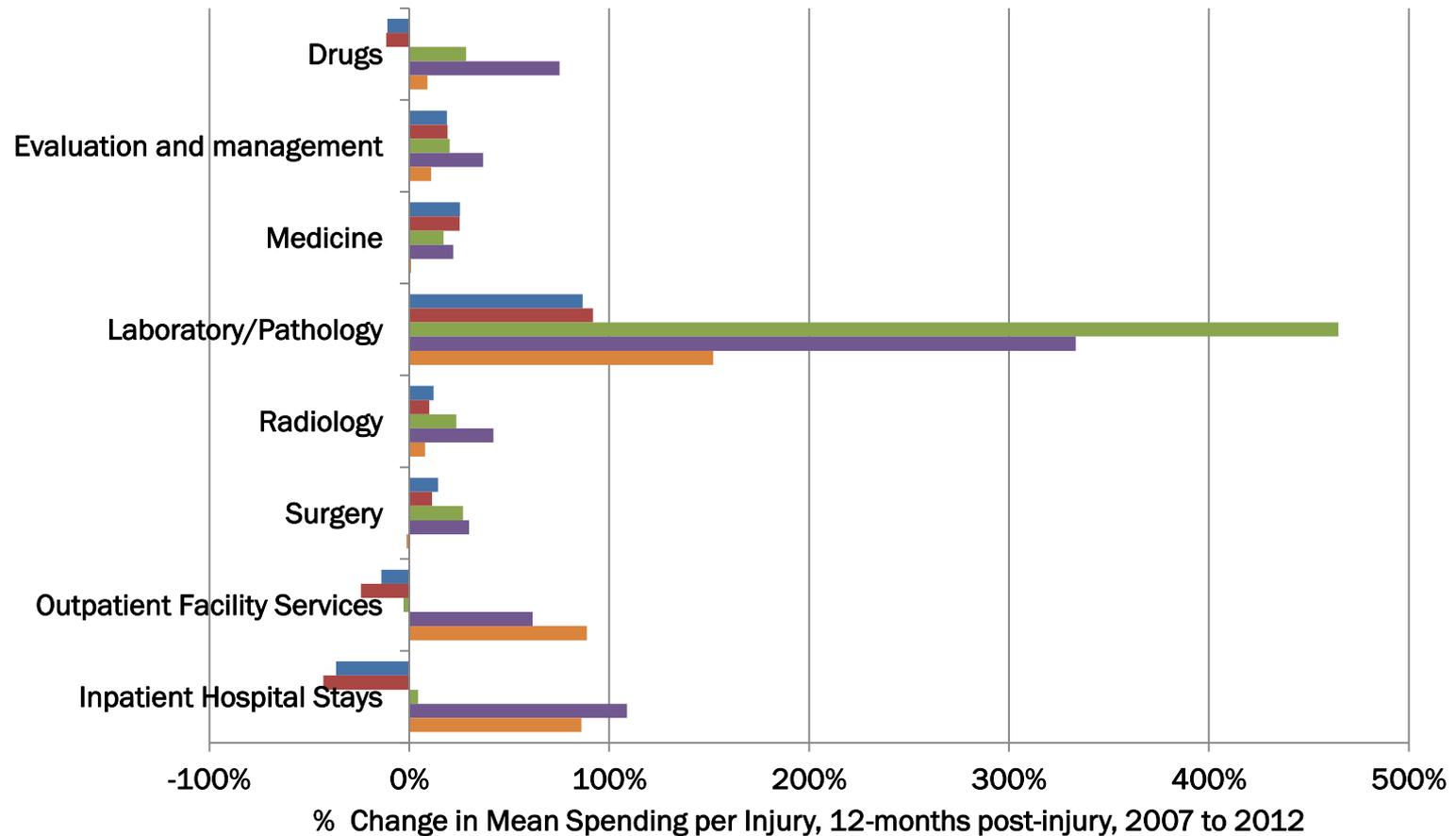
Prescription claim lines and payments per injured worker receiving drugs, 2007 to 2012.



Opioid prescriptions increased from 1.19 per user to 2.1 and 1.9 in 2011 and 2012, respectively

Spending Increases Typically Higher for Self-Insured Public Employers Than Other Payers

2007 to 2012 Change in Per Claim Spending within 12 Months of Injury,
By Type of Payer



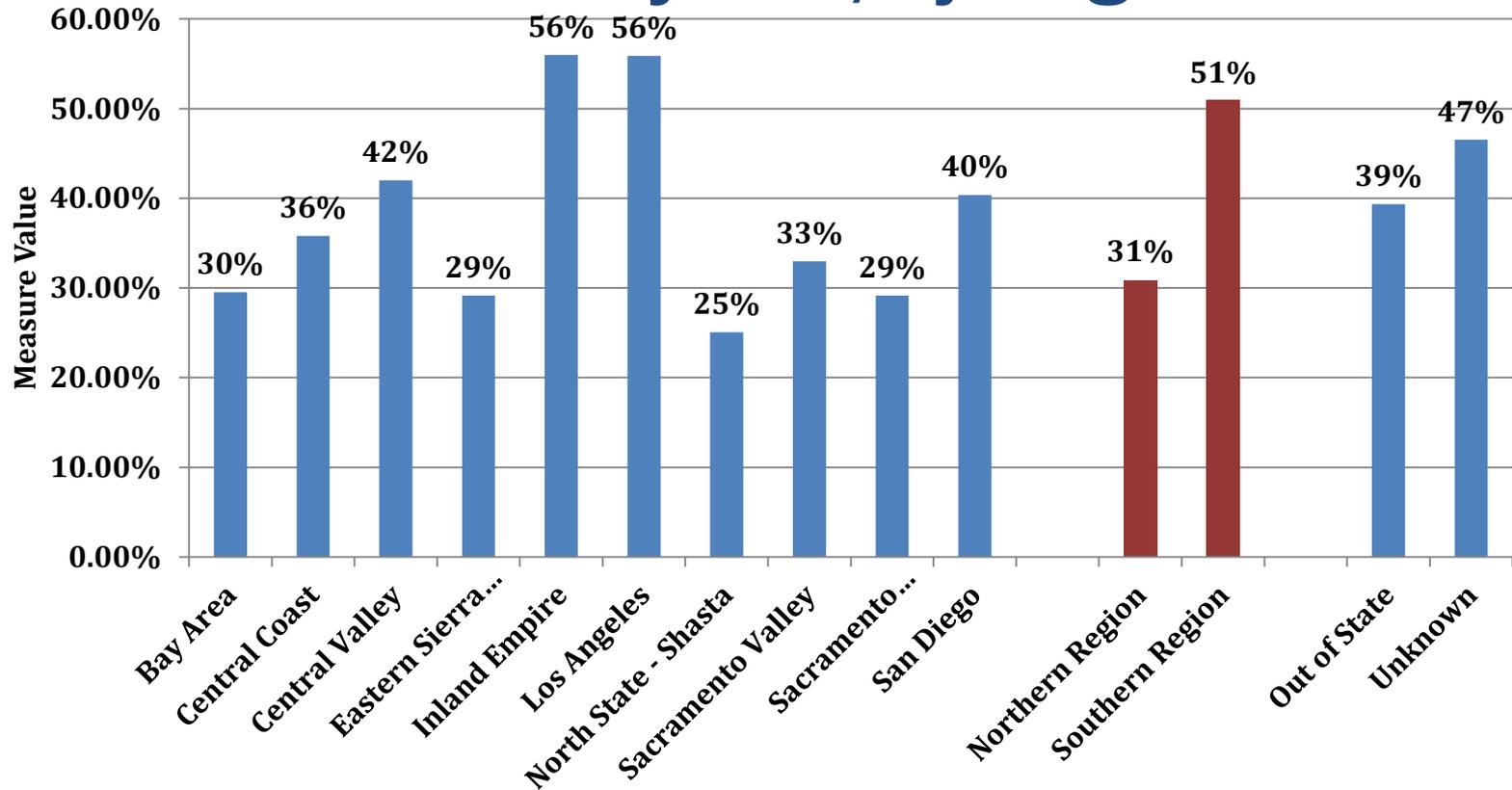
■ All ■ Non-self insured ■ Self-insured, private ■ Self-insured, public ■ State of California

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Quality Indicators for Care

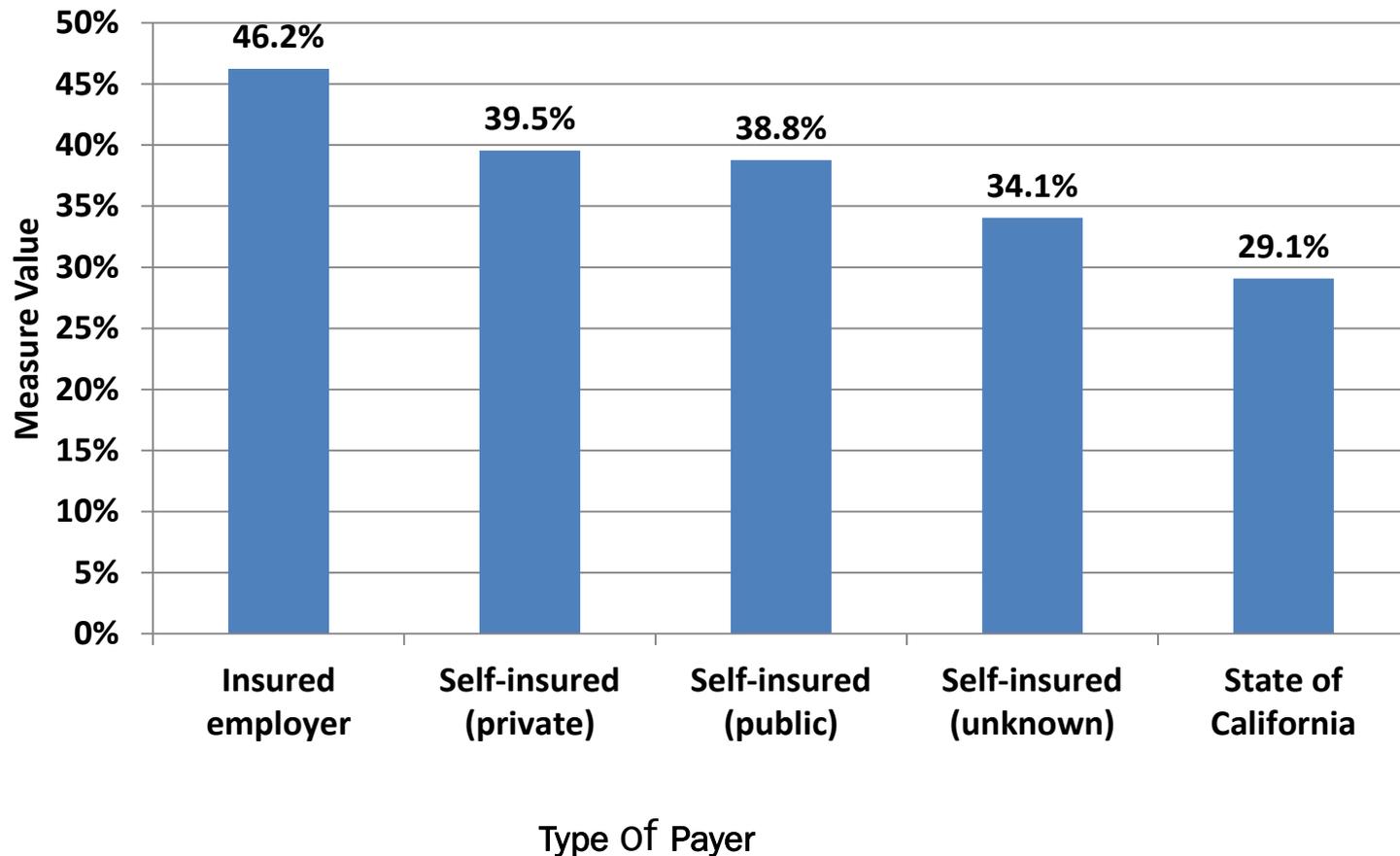
- Selected 7 evidence-based measures for selected conditions that could be applied using WCIS medical data
- Overall findings
 - Substantial opportunity for improvement
 - Most trends were in the wrong direction through 2011; some improvement in 2012
 - Little use of multidisciplinary team for chronic pain management (less than 12 percent in 2012)
 - Variation across geographic regions and by payer status

Mean Rate of Potential Overuse of Imaging Studies, 2007 to 2012 Pooled Data, Lower Back Injuries, by Region



Indicator identifies whether a patient who had an ambulatory encounter with low back pain diagnosis, with no similar encounters in the prior 180 days, had an imaging study performed within 28 days of the ambulatory encounter.

Mean Rate of Potential Overuse Use of Imaging Studies, 2007 to 2012, Lower Back Injuries, by Type of Payer

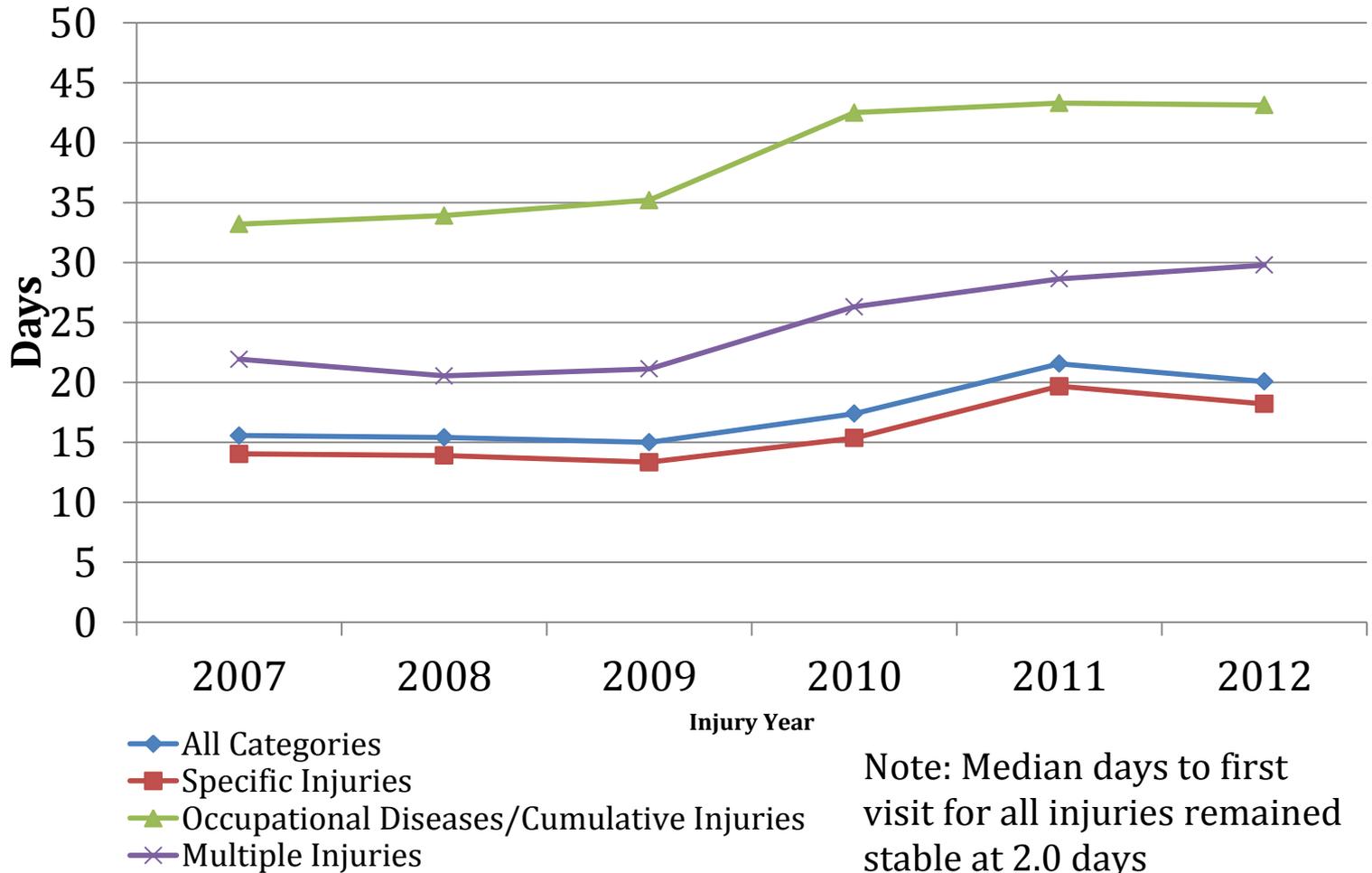


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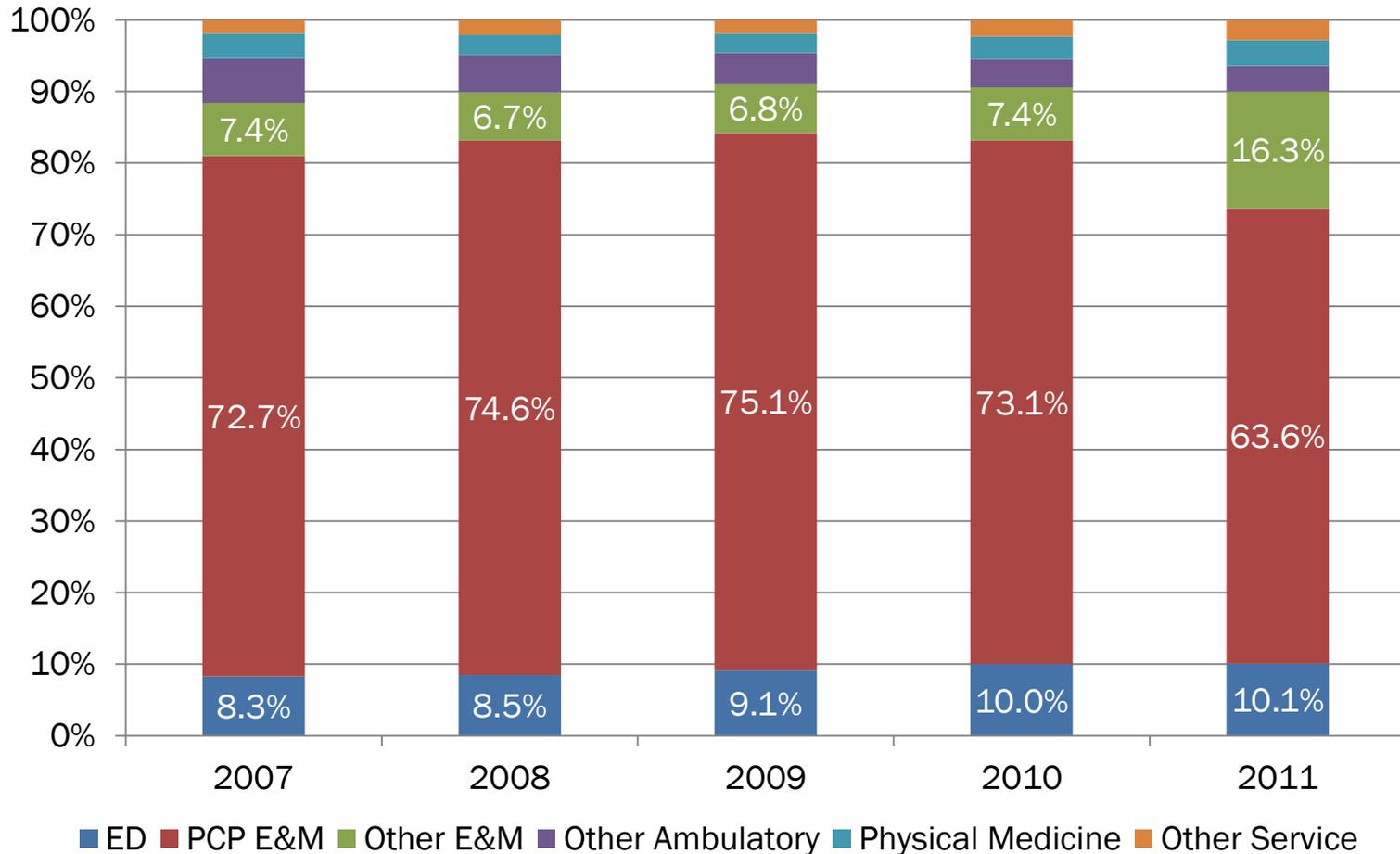
Access Indicators Track Trends in Care Provided During First 12-months Post-Injury

- Tracked several types of access measures
 - Timeliness of non-emergency initial care
 - Proportion of workers who change primary care providers during first 12 months
 - Pathways to initial and follow-up care
- Overall Findings
 - Increase in average time from injury to initial evaluation and management visit ; median days stable for all injuries at 2.0 days
 - Modest but upward trend in number of primary care physicians seen in the first year

Average Number of Days from Injury to First Non-Emergency Visit by Nature of Injury

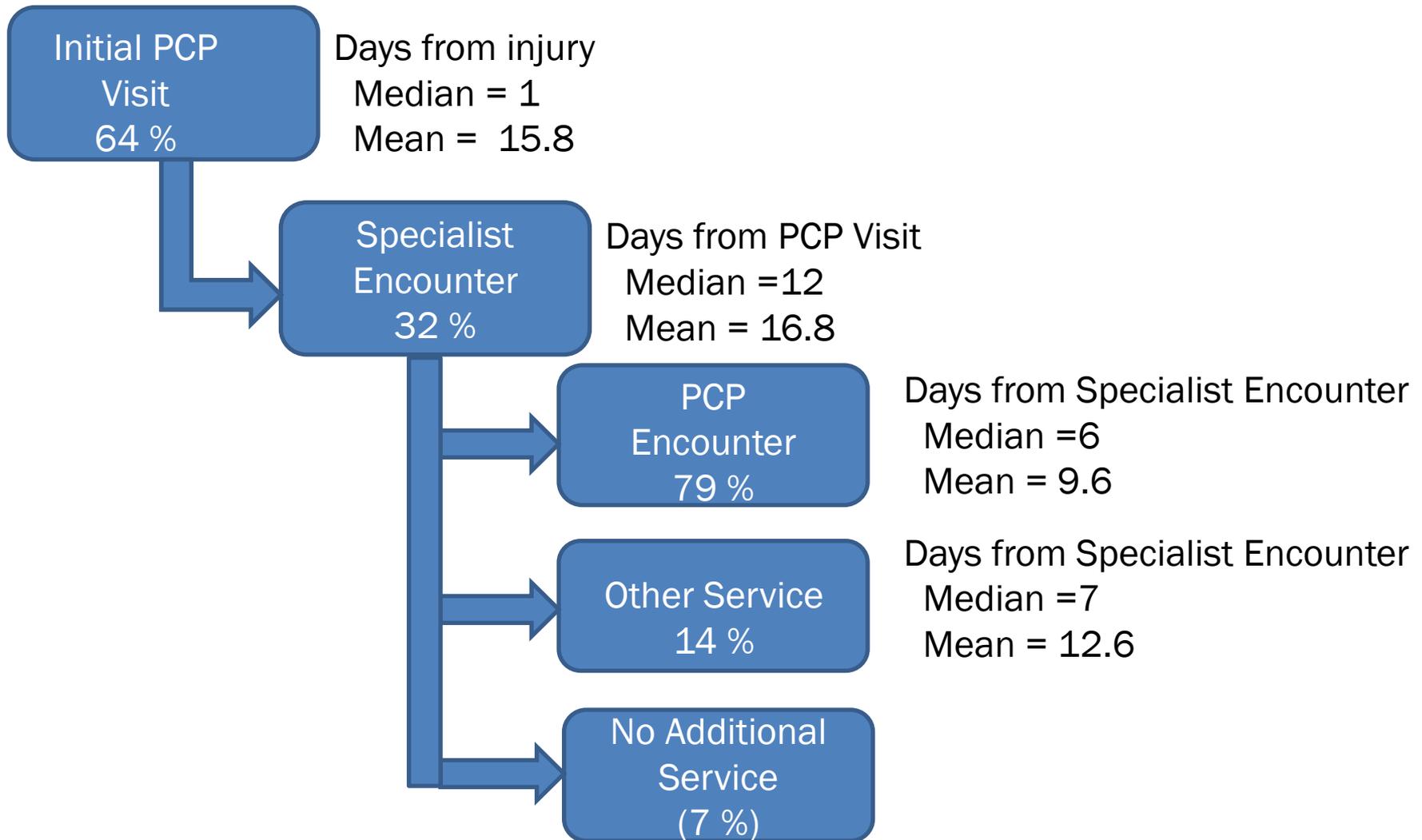


Trends in Type of First Encounter in WCIS Following Injury



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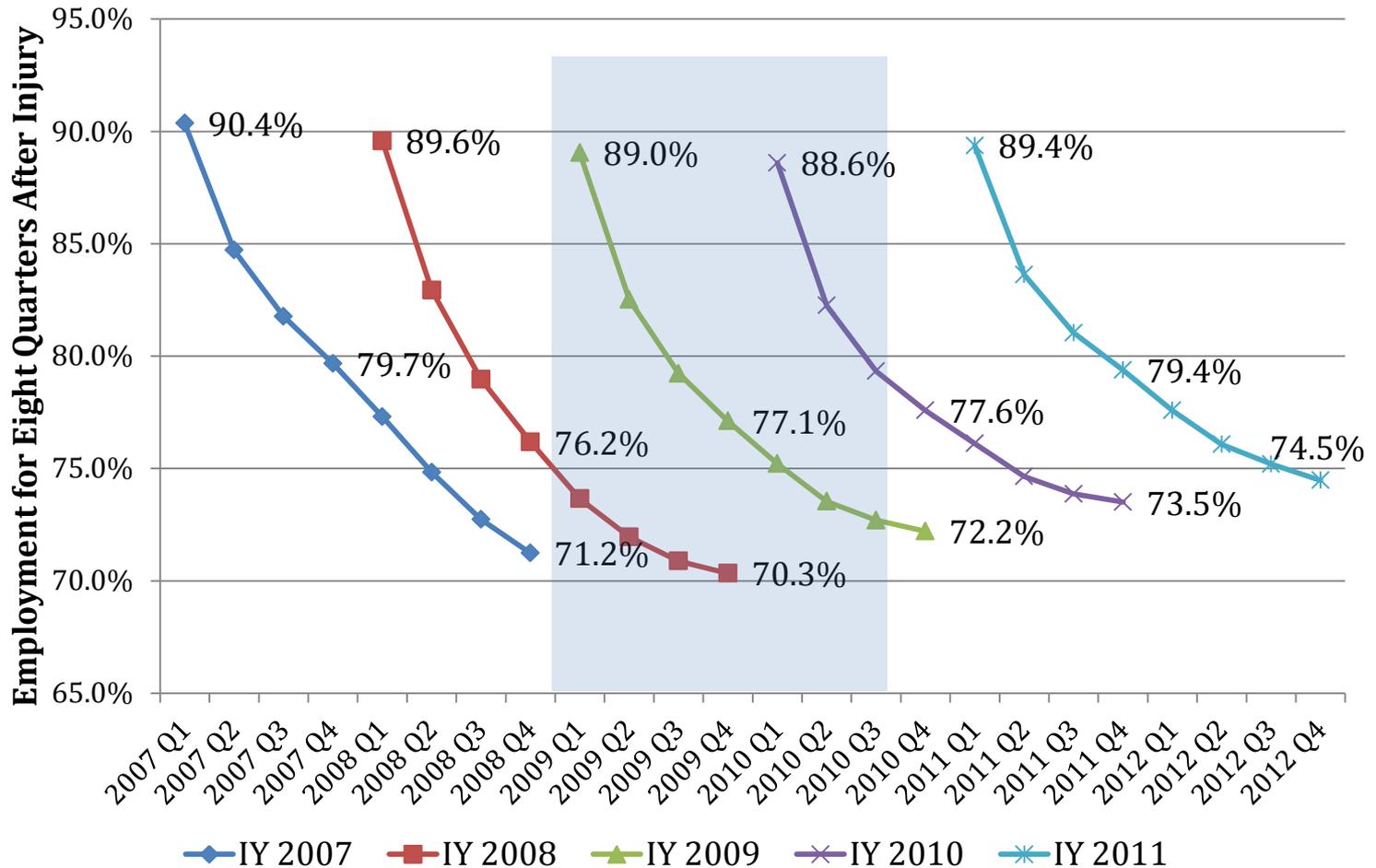
Pathway of Care for Referral to Specialist after PCP Visit - 2011 Injuries



Return to Work Outcomes

- We used Employment Development Department (EDD) data to track the proportion of injured workers who were still employed after first 8 calendar quarters
- Rates fall over time because proportion of workers- injured or not- falls due to exits from the labor force
- Patterns across injury years were similar
 - Magnitude of impact of recession was small
 - Important differences across nature of injury
 - More likely to be employed in No. CA than So. CA

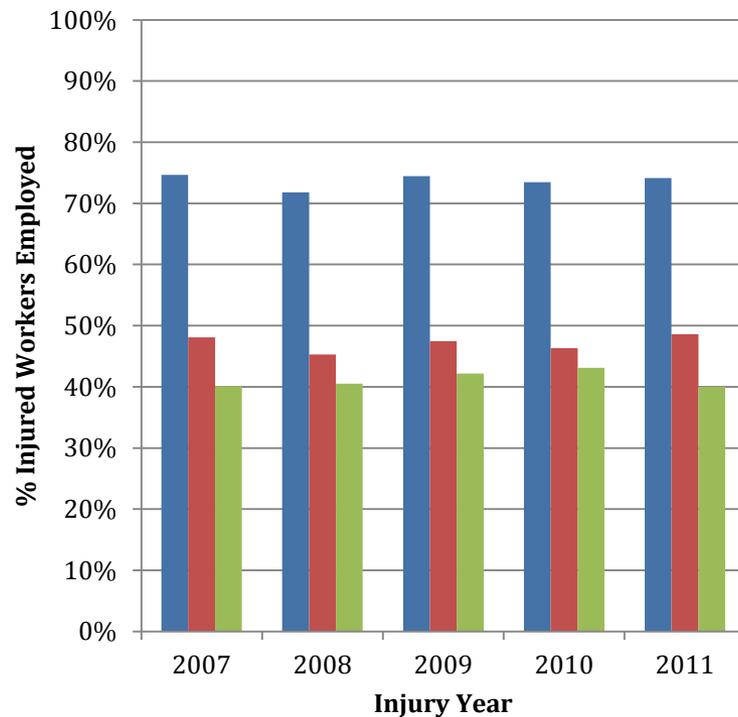
Return to Work Outcome, by Injury Year, All Injuries



Note: Calendar quarters most affected by recession are shaded

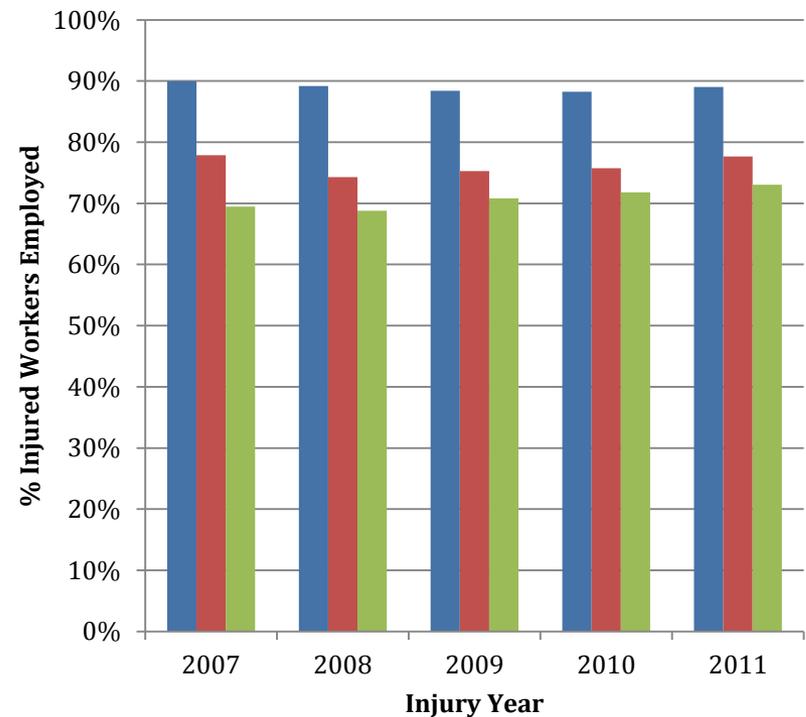
Return-to-Work Outcomes by Injury Year, Chronic Pain and Lower Back Pain

Chronic Pain Injuries



■ Q1 After Injury ■ Q4 After Injury ■ Q8 After Injury

Lower Back Pain



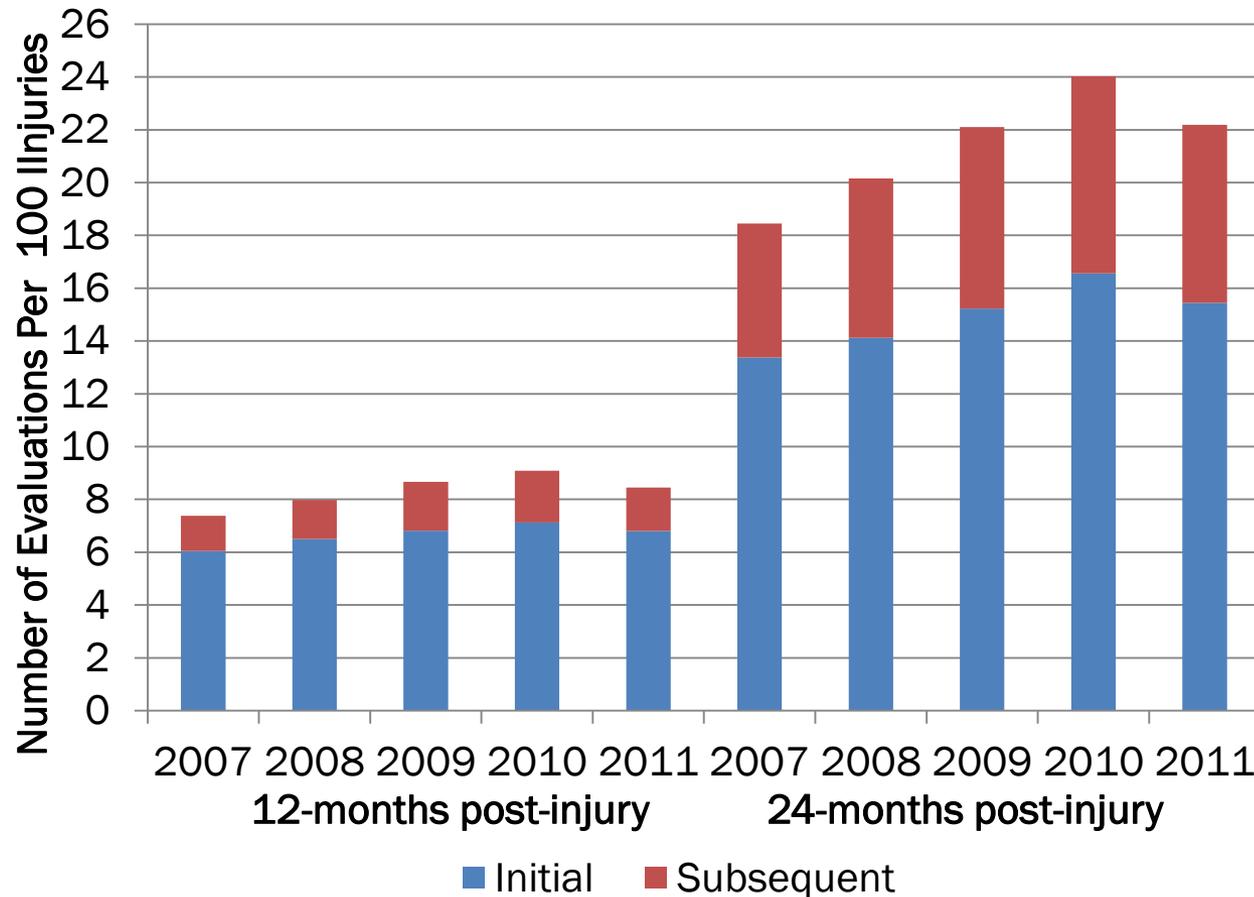
■ Q1 After Injury ■ Q4 After Injury ■ Q8 After Injury

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Analyses of Medical-Legal Evaluations

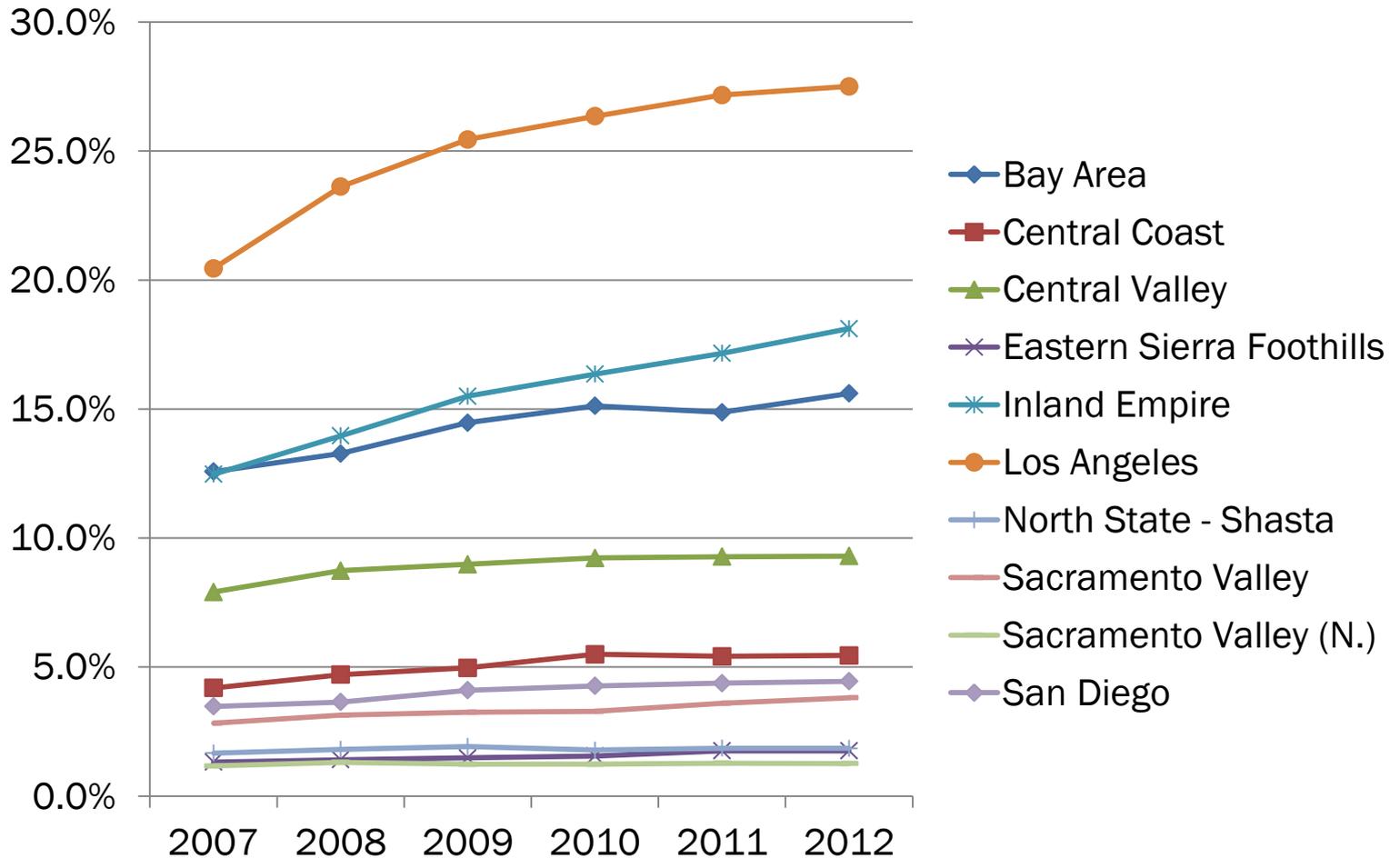
- We focused on trends in the number and number of ML evaluations by type
 - Could not evaluate the number of physicians who are performing ML services because large portion of billings are by ML management organizations
 - Separate report will examine fee schedule issues
- Overall findings
 - Number of evaluations per claim and average payment per claim have increased
 - Payment increases fueled by increase in number of units billed per evaluation
 - Substantially more evaluations in LA than elsewhere

Number of ML evaluations at 12 and 24-months post injury by injury year

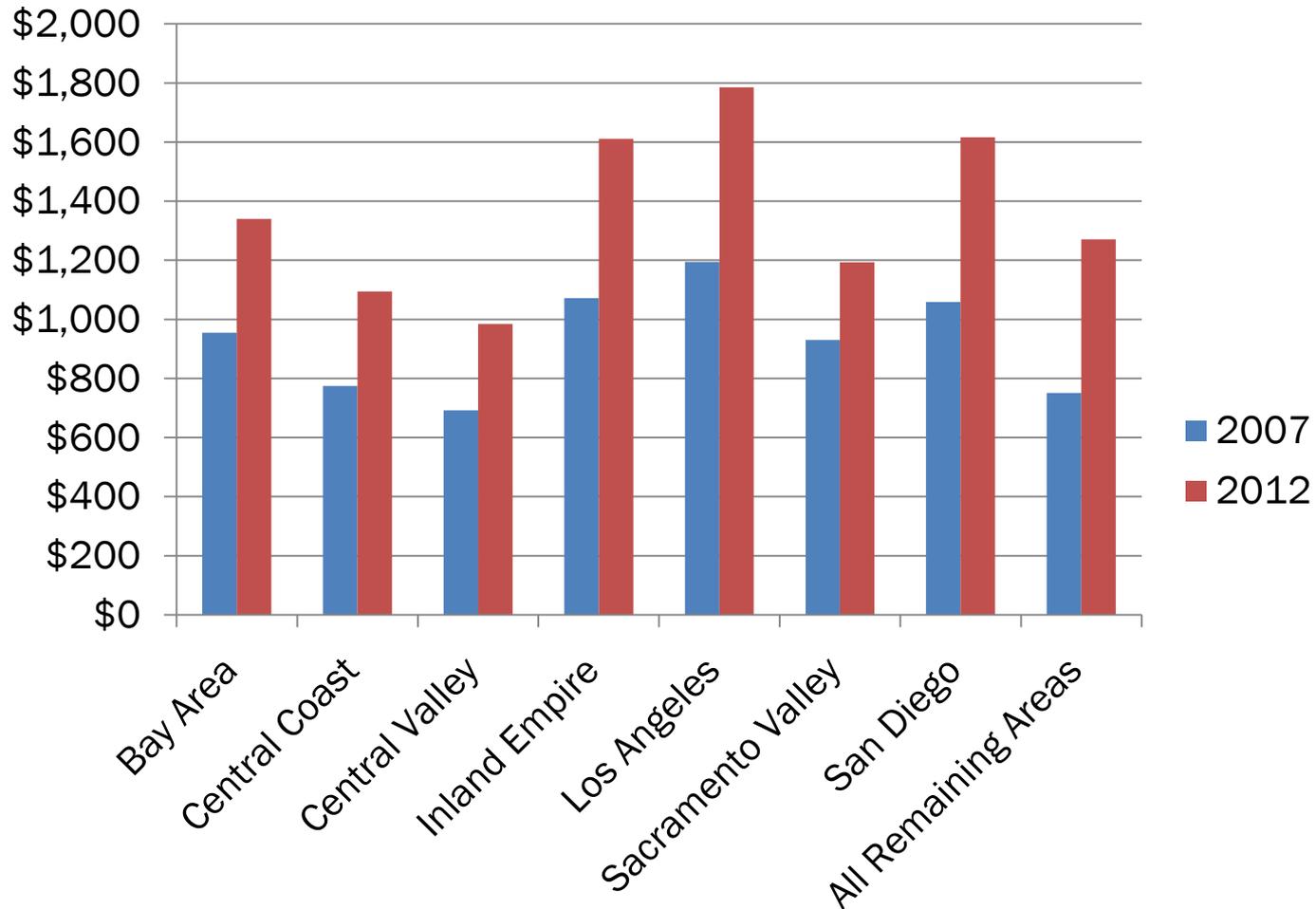


Note: 2011 evaluations at 24 months may be underreported

Proportion of injured workers with medical-legal services by region by service year



Average paid amount per ML service by region, 2007 and 2012



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Conclusions from Monitoring Analyses

- WCIS contains a wealth of information that can be used to monitor trends in system performance
 - Ability to “drill down” to investigate issues
 - Many quality indicators cannot be generated from billing data
- Trends provide a baseline for assessing SB 863 impact
 - 2012 results need to be confirmed with more recent data
- Value could be increased through benchmarking to group health medical data and analyses of factors influencing trends

Policy Implications from Analyses

- Incomplete WCIS reporting should be addressed through enforcement penalties
- Some potential issues may have been addressed but warrant close monitoring
 - Drug testing fee schedule changes
 - Opioid treatment guidelines
- Some issues warrant policy review
 - Medical-legal expenses
 - Growth in hospital inpatient payments
 - Chronic care management
 - Payments to individuals



Back-up Slides

Overall Approach to Decomposing Increases

- Systemwide spending estimates based on CHSWC annual report estimates exclusive of medical cost containment expenses
- WCIS data used to estimate the effect of changes in injury year measures on service year spending relative to 2007
 - Injury year is the calendar year in which an injury occurred
 - Service year spending is the spending in a calendar year for all WC claims for which medical care was provided
- Predicted impact of cost drivers other than inflation affect only the portion of service year spending attributable to injuries occurring in 2008 and later

WCIS Service Year Nominal Spending by Injury Year (\$ mils)

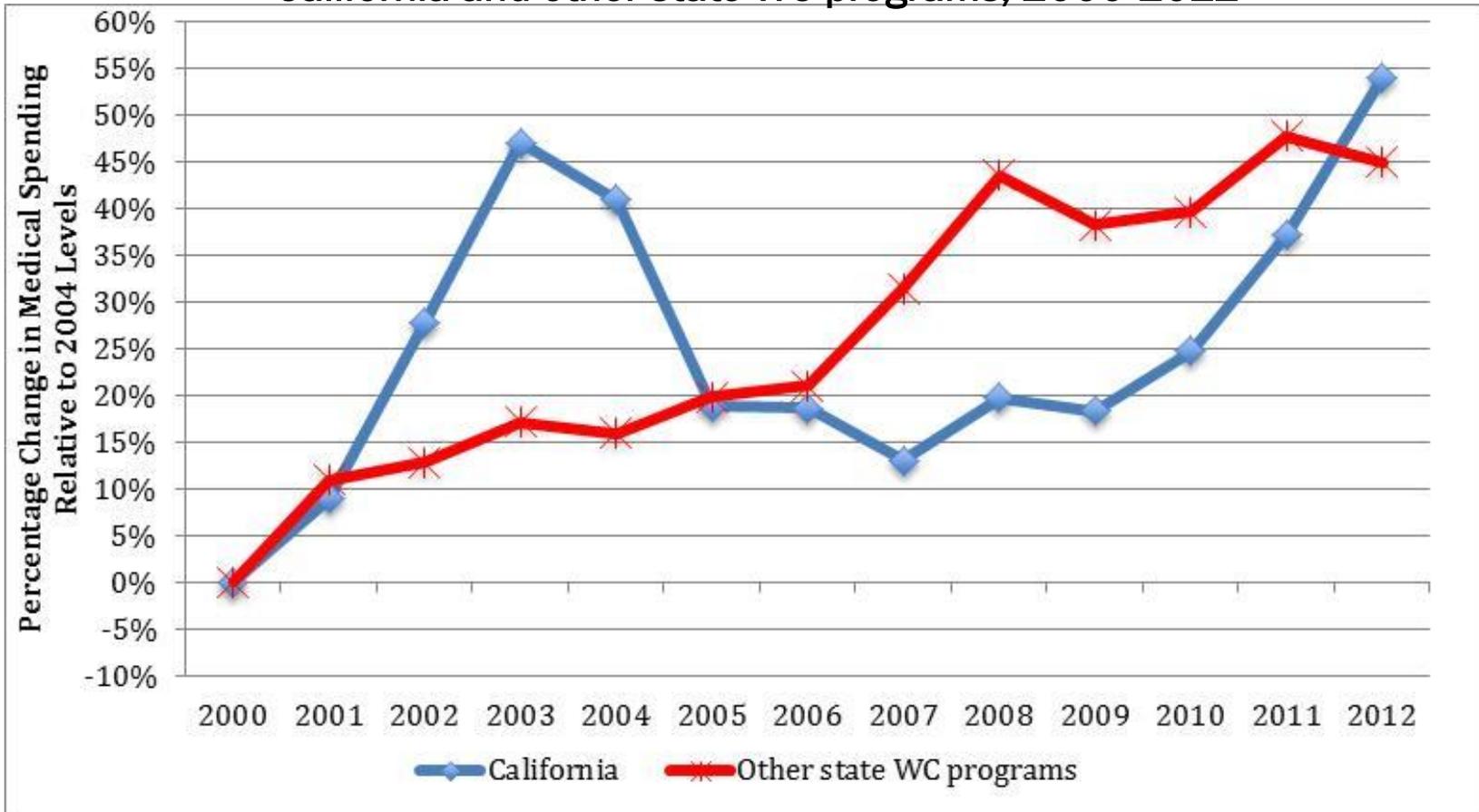
	Service Year					
Injury Year	2007	2008	2009	2010	2011	2012
pre-2007	1487	1070	862	768	730	635
2007	723	534	336	249	205	166
2008		701	537	361	293	217
2009			645	531	399	307
2010				547	499	382
2011					490	480
2012						539
Total	2,210	3,375	3,242	3,224	3,347	3,359

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CA Medical Spending Increased Significantly in 2007 -2012

Percentage change in WC medical spending for non-federal employees,
California and other state WC programs, 2000-2012

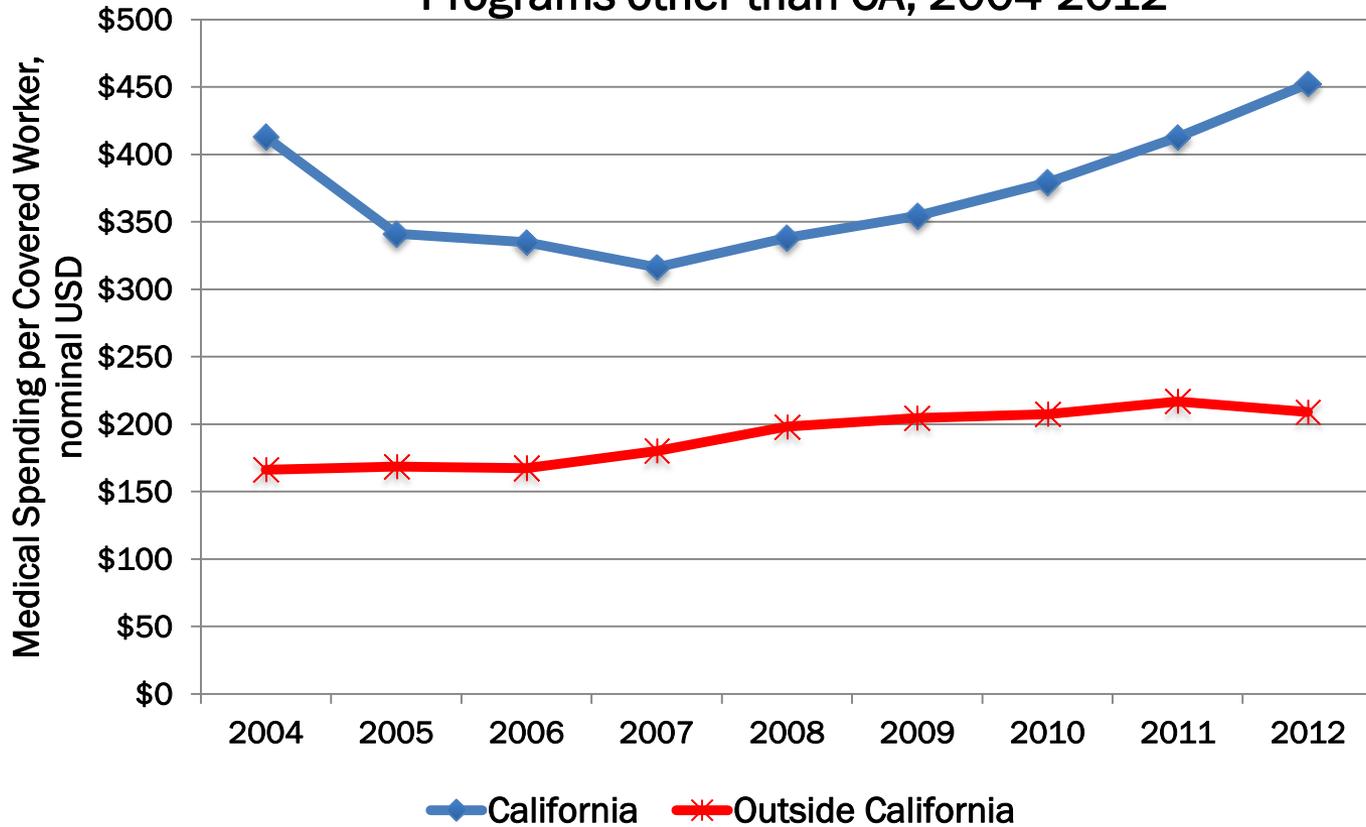


Source: RAND analysis of NASI Annual WC Reports

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CA Spending per Covered Worker Is Substantially Higher than Other States

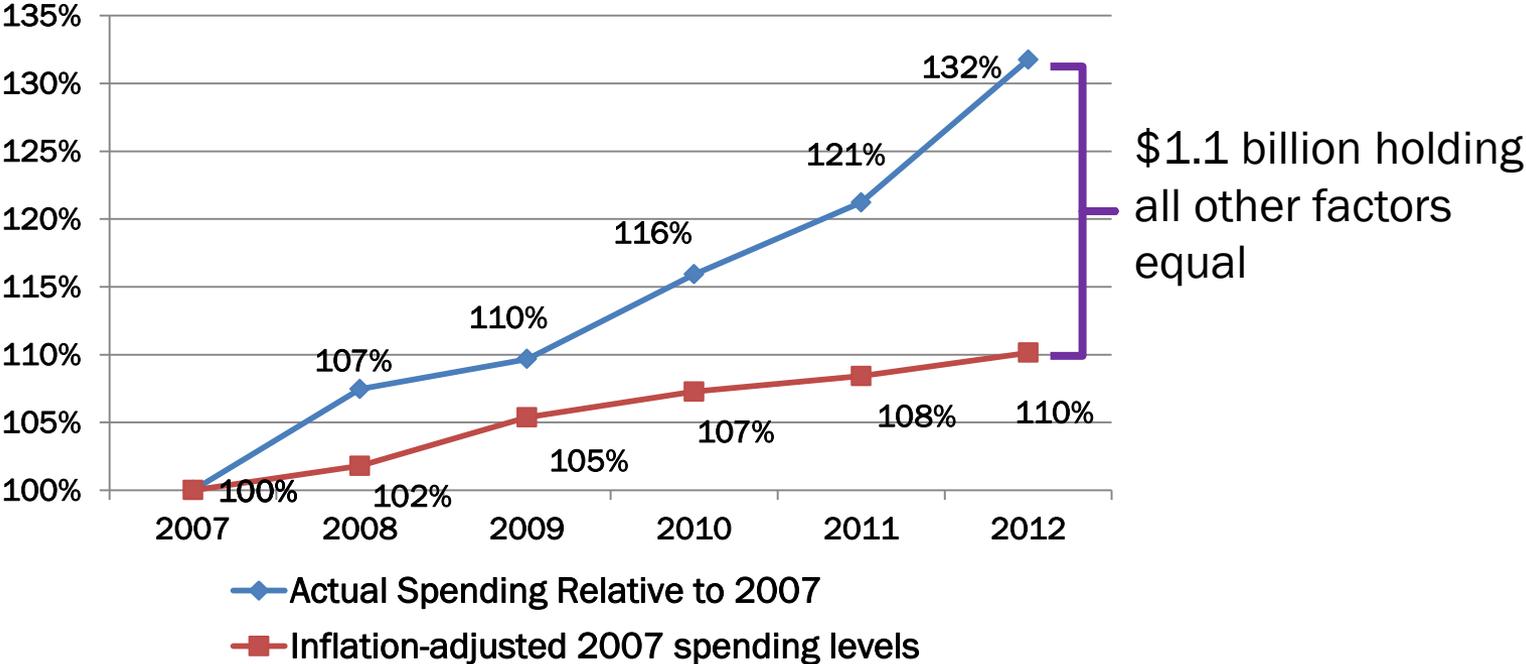
Average Medical Spending per Covered Worker, CA and All State Programs other than CA, 2004-2012



Source: RAND analysis of NASI Annual WC Reports

Systemwide spending rose much faster than predicted based on price inflation

Systemwide Service Year Spending Relative to 2007 Levels

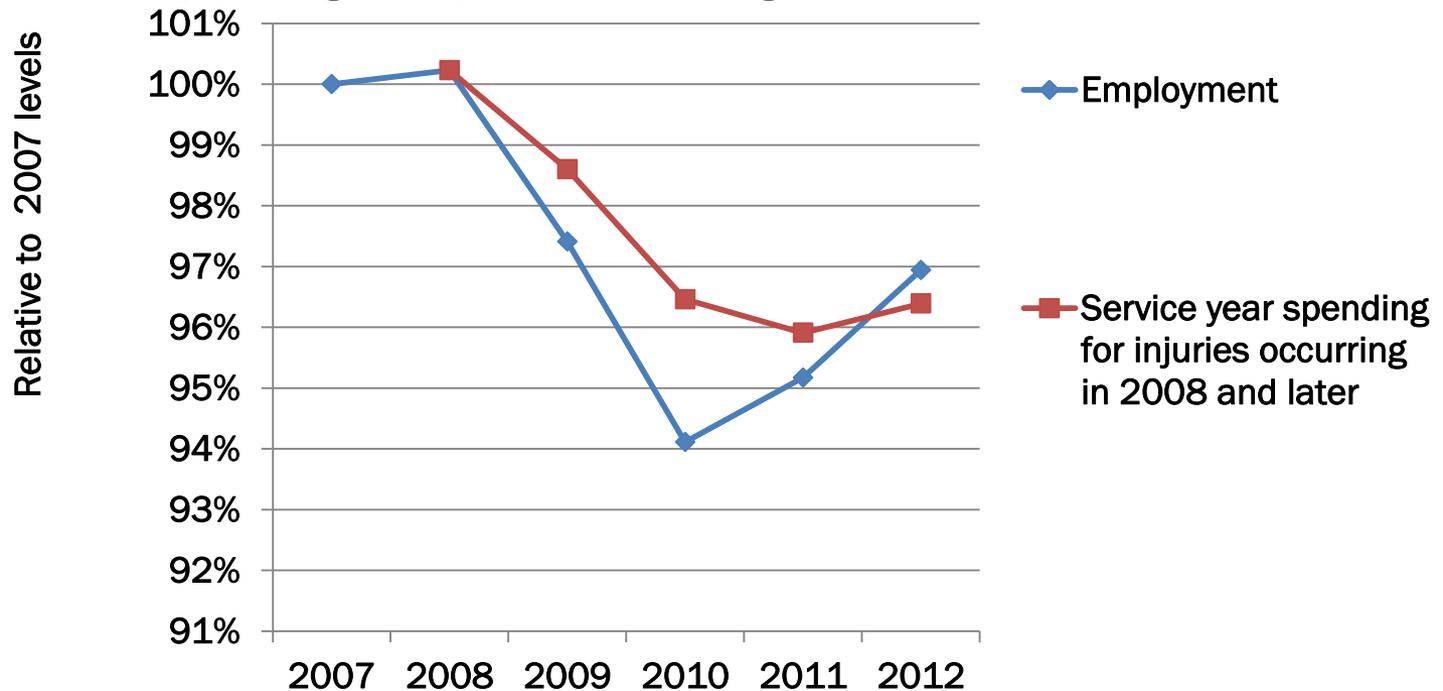


	2008	2009	2010	2011	2012
Predicted systemwide impact of price level inflation on service year spending relative to 2007 levels (\$ mils)	92.4	274.6	371.7	430.7	519.1

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Employment declines predict lower service year spending for injury years 2009 and later

Changes in Employment and Predicted Service Year Spending for Injuries Occurring in 2008 and later



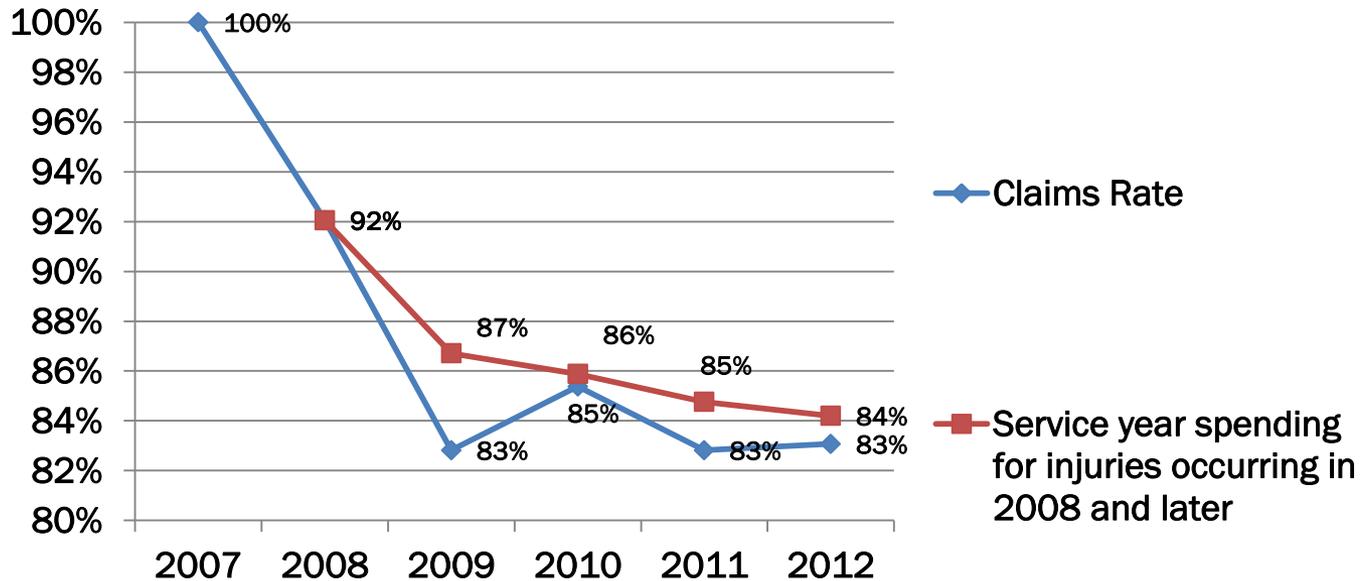
	2008	2009	2010	2011	2012
Predicted systemwide impact on service year spending relative to 2007 levels (\$ mils)	3.2	-34.2	-108.3	-143.8	-140.5

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Falling claims rates predict lower service year spending for injury years 2008 and later

Changes in Claims Rate and Predicted Service Year Spending for Injuries Occurring in 2008 and later

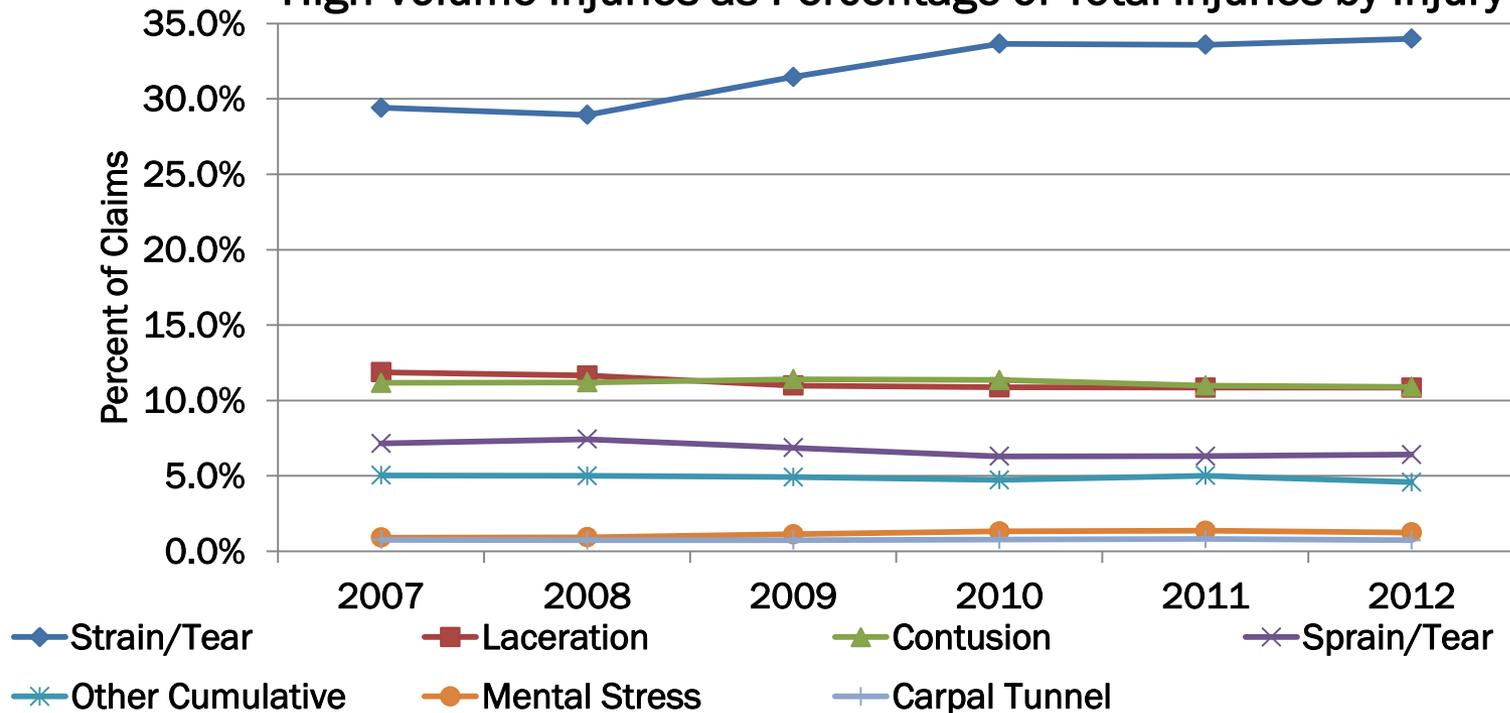


	2008	2009	2010	2011	2012
Predicted systemwide impact on service year spending relative to 2007 levels (\$ mils)	-112.3	-324.3	-433.3	-536.3	-615.3

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Relatively stable injury mix has less than a 1 percent impact on service year spending

High Volume Injuries as Percentage of Total Injuries by Injury Year



	2008	2009	2010	2011	2012
Predicted systemwide impact on service year spending relative to 2007 levels (\$ mils)	2.9	10.1	18.7	31.3	43.9

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Estimated Residual Spending Increase after Accounting for Cost Drivers Is \$1.6 B

	2008	2009	2010	2011	2012
Total Medical Spending	5,501	5,614.1	5,934	6,205	6,744.
Change in Spending Relative to 2007	382.3	496.3	815.3	1,086.3	1,625.3
Cost Driver Contributions to Change					
Medical Services Spending : Total	-0.3	-17.9	-61.9	-107.6	-110.3
Injury year 2007 and earlier	44.7	101.3	110.6	105.6	103.6
Injury year 2008-2012	-45.0	-119.2	-172.5	-213.2	-213.9
Payments to Individuals: inflation	29.7	56.2	85.5	112.6	146.2
Total Medical Spending	29.4	38.3	23.6	5.0	36.0
Residual Change					
Medical Services	242.5	111.4	451.2	516.9	621.7
Payments to Individuals	110.3	345.8	340.5	564.4	967.8
Total Medical Spending	352.8	457.2	791.7	1,081.3	1,589.4