

**Underlying Causes for Variations
in California Workers' Compensation
Outcomes**

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President
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Key Variables Driving Outcome Variation

- A. Claim Characteristics
 - Claim Type
 - Claim Notification
 - Claim Duration
- B. Opioid Utilization & Cost
- C. Cumulative Trauma
- D. Friction Costs Dispute Resolution
 - Attorney Involvement
 - IMR Decisions

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One State, Many Outcomes

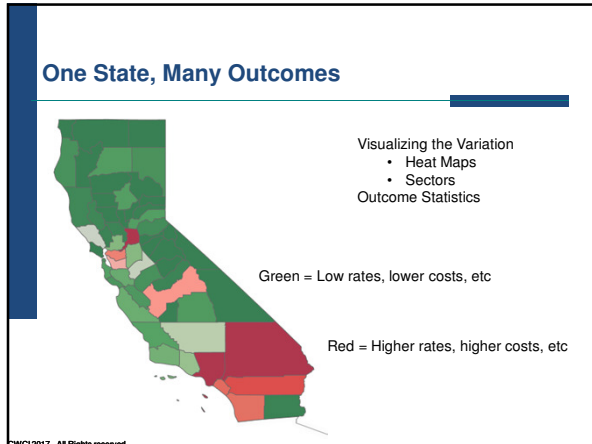


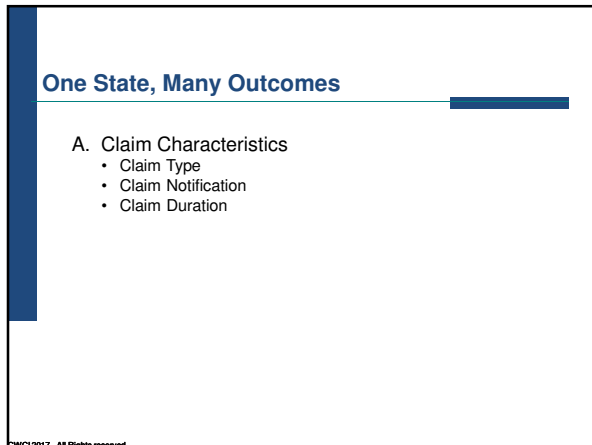
Visualizing the Variation

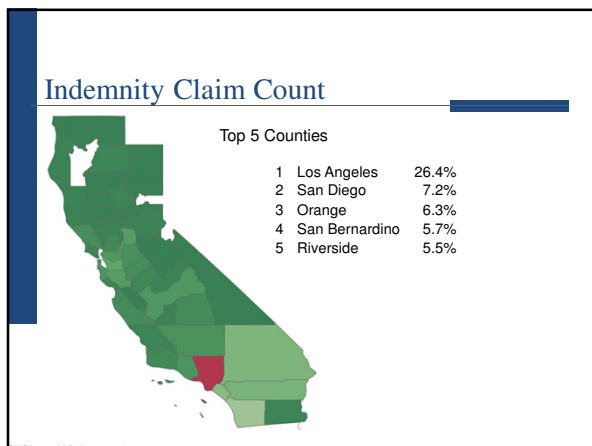
- Heat Maps
- Sectors

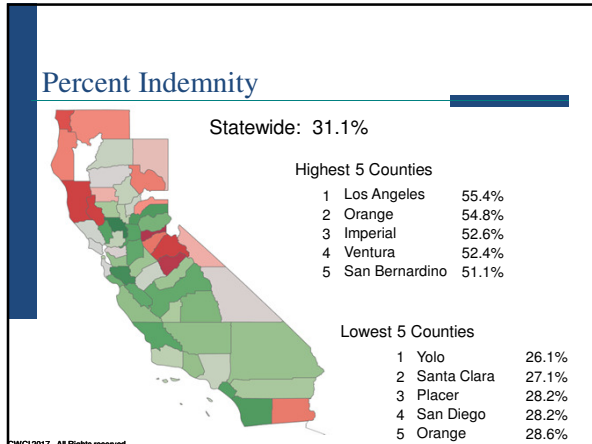
Outcome Statistics

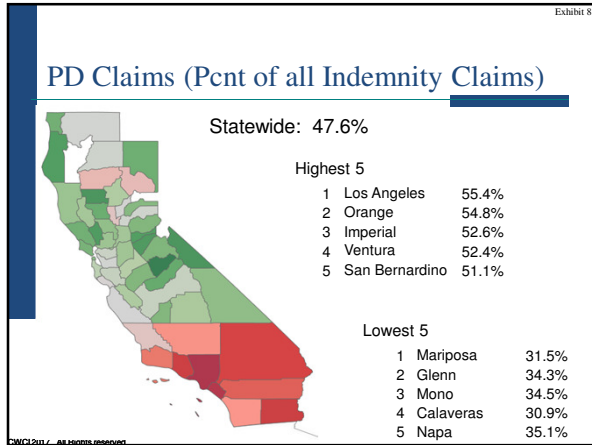
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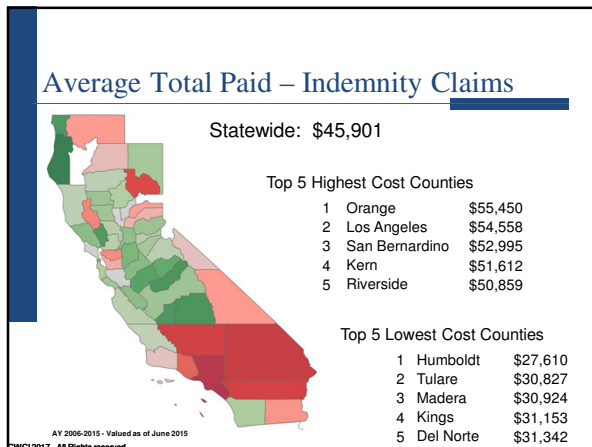


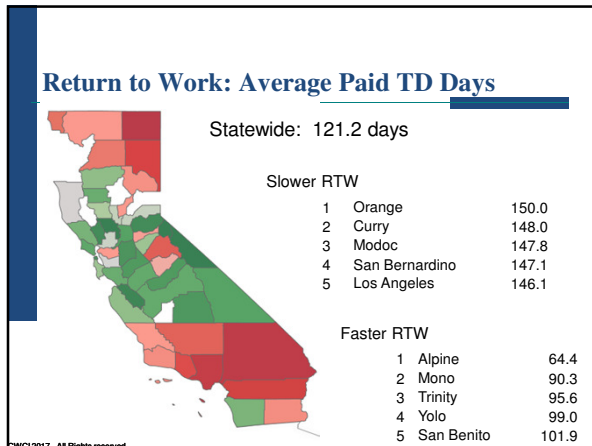


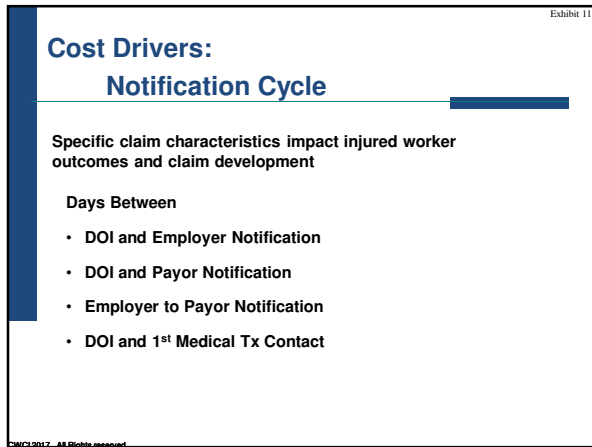


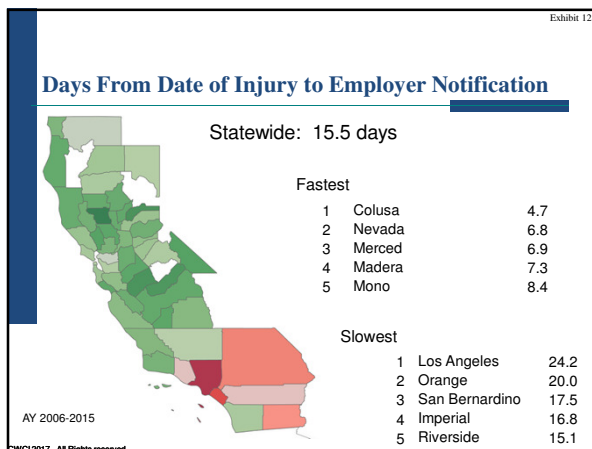


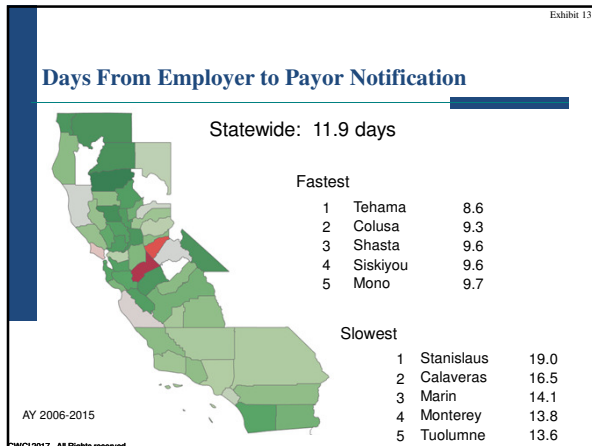


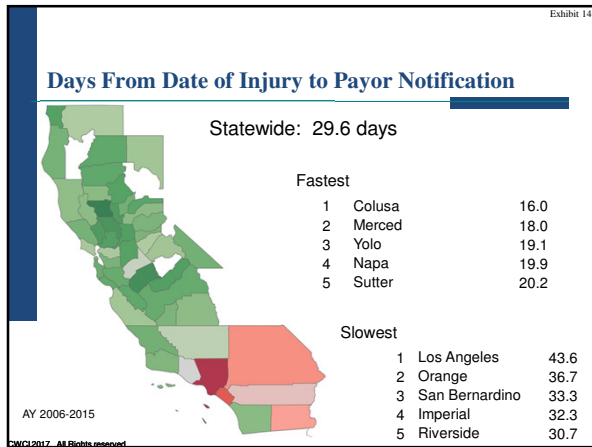












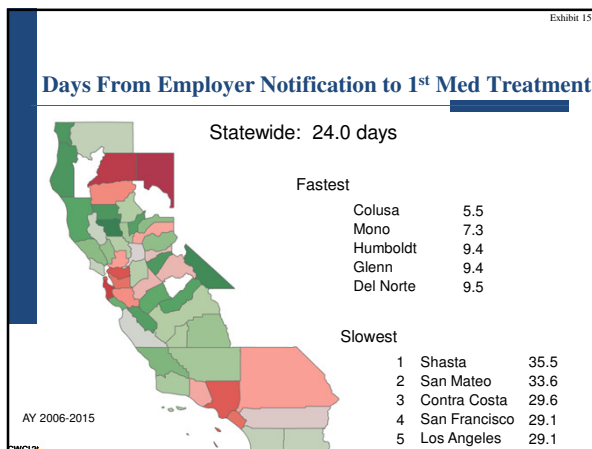


Exhibit 16

Other Cost Drivers

Specific claim characteristics impact injured worker outcomes and claim development

- Comorbidities (obesity, substance abuse, etc.)
- Industry Mix
- Proportion of PD claims

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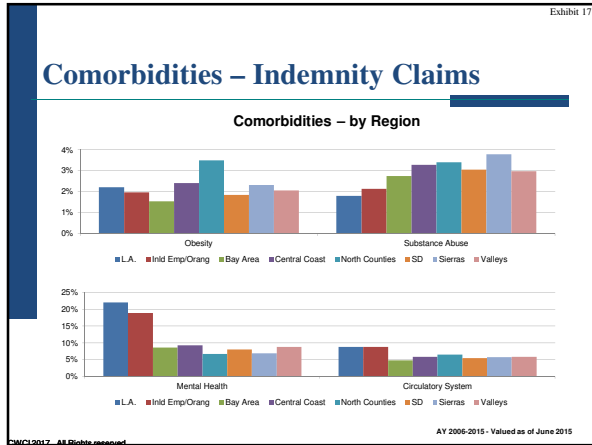
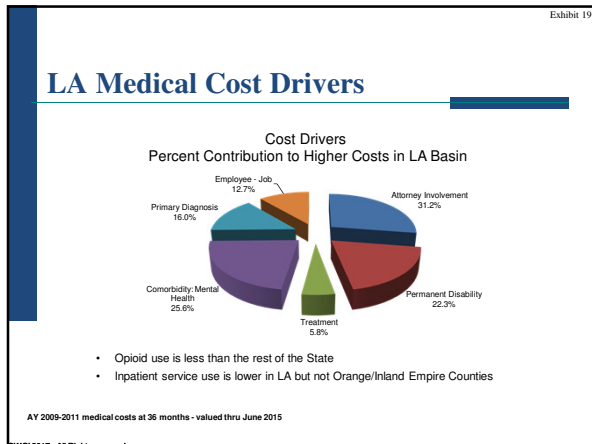


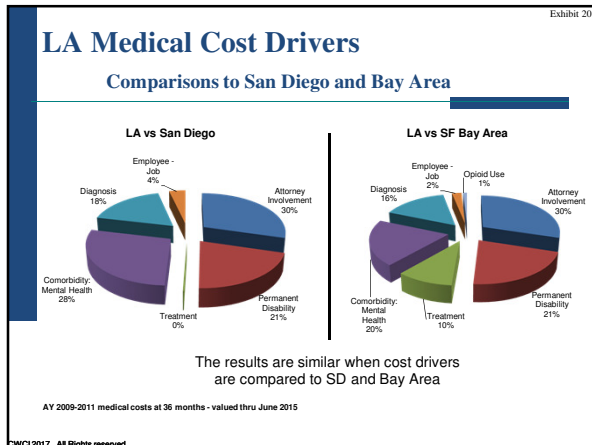
Exhibit 18

Medical Cost Drivers for Indemnity Claims

<ul style="list-style-type: none"> ■ Employee / Job Characteristics ↑ <ul style="list-style-type: none"> ■ Industry, Age, Gender, Job Tenure ■ Claim Status and Type ↑ <ul style="list-style-type: none"> ■ Attorney Involvement ■ Permanent Disability ■ Injury Characteristics ↓ <ul style="list-style-type: none"> ■ Nature of Injury ■ Cause of Injury ■ Body Part 	<ul style="list-style-type: none"> ■ Medical Diagnosis ↑ <ul style="list-style-type: none"> ■ Mental Health Diagnosis ■ Other Diagnoses and Other Comorbidities ■ Treatment Differences <ul style="list-style-type: none"> ■ Opioid Use ↓ ■ Psychotropic Drug Use ↑ ■ Inpatient Stays —
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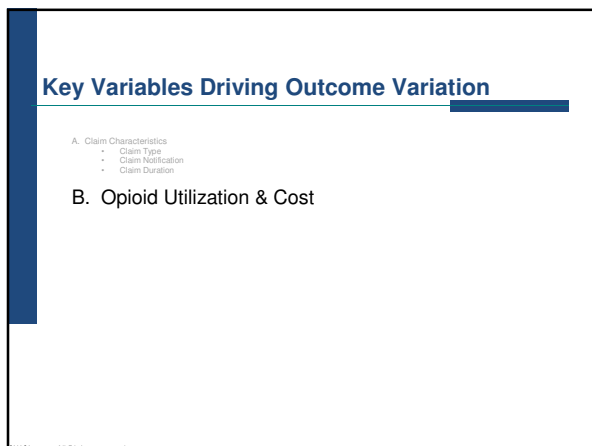


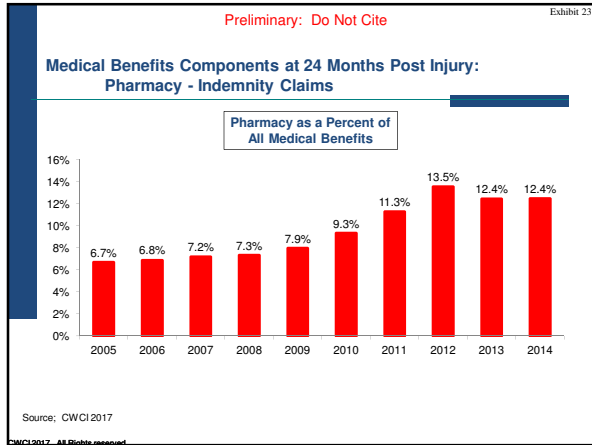
Exhibit 22

Areas of CWCI Rx Research

Changing Role of Rx in Workers' Compensation

1. Trends in pharmaceuticals
2. Opioids & Pain Management
3. Compound Drugs
4. Physician Dispensed Repackaged Drugs

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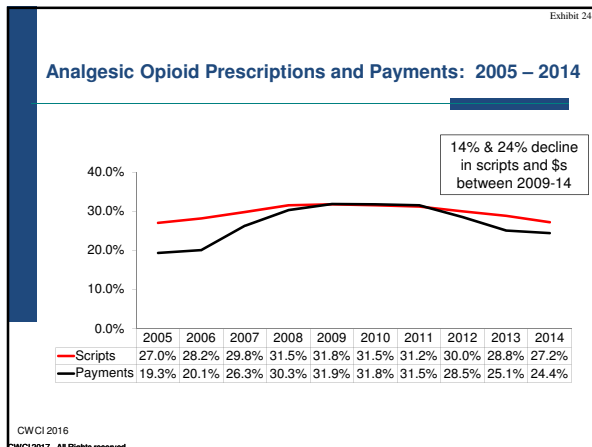



Exhibit 25

Rx & Pain Management

Report to the Industry

What is the association between the use of narcotics on low back pain on:

- Average Benefit Costs
- RTW



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Exhibit 26

Pain Mgt and the Use of Opioids

Study Population

- 166,336 injured workers in California
- Medical back conditions without spinal cord involvement
- A total of 854,244 opioid prescriptions were dispensed
- 25% of the study population received one or more prescriptions for opioid analgesics; an overall average of 5.2 prescriptions per claim.

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Exhibit 27

Pain Mgt and the Use of Opioids

Distribution by Category of Number of Morphine Equivalents

Category	Average Number of Morphine Equivalents in Category	Range of Number of Morphine Equivalents in Category
No MEs	0	0
Level 1	124	3-240
Level 2	406	241-650
Level 3	1,207	651-2100
Level 4	14,870	2,101 and up

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Exhibit 28

Pain Mgt and the Use of Opioids

Methods

Case-Mix adjusted for the following variables:

- Injured Worker Demographics
 - Age
 - Gender
 - Occupation
 - Average weekly wage
 - Tenure
- Injury Characteristics
 - Diagnosis
 - Nature of injury
 - Body part
 - Cause of injury
- Year of Injury
- Region
- Employer Characteristics
 - Industry class of the employer
 - Employer size
- Claim Process Measures
 - Days to carrier notification

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Exhibit 29

Pain Mgt and the Use of Opioids

Average Benefit Cost Outcomes

	Total Benefits	Medical	Indemnity
No MEs	\$6,733	\$3,207	\$3,526
Level 1	\$6,499	\$2,938	\$3,561
Level 2	\$10,550	\$4,411	\$6,139
Level 3	\$14,950	\$6,356	\$8,594
Level 4	\$20,389	\$9,488	\$10,901

Source: CWCI 2008

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Exhibit 30

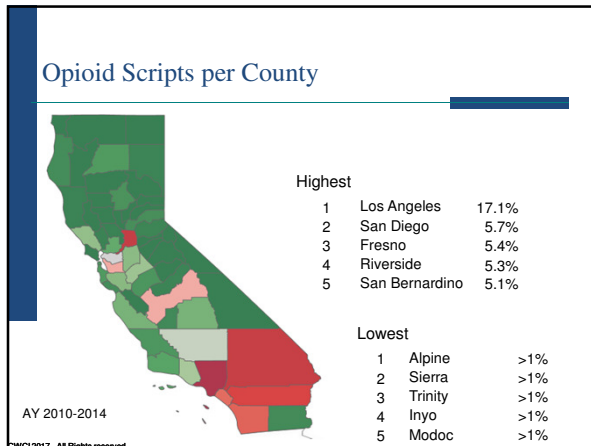
Pain Mgt and the Use of Opioids

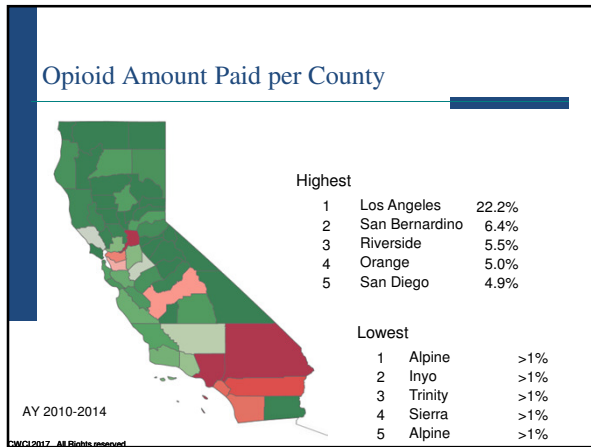
Return to Work: Paid Temp Disability Days

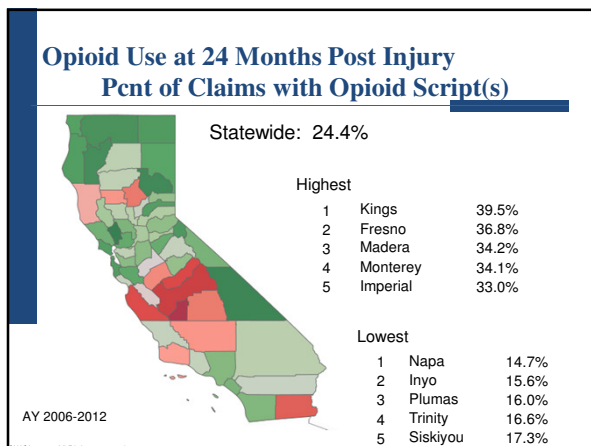
	All Claims	Indemnity Claims
No MEs	21.3	62.9
Level 1	21.3	66.9
Level 2	38.8	84.2
Level 3	60.6	102.3
Level 4	99	138

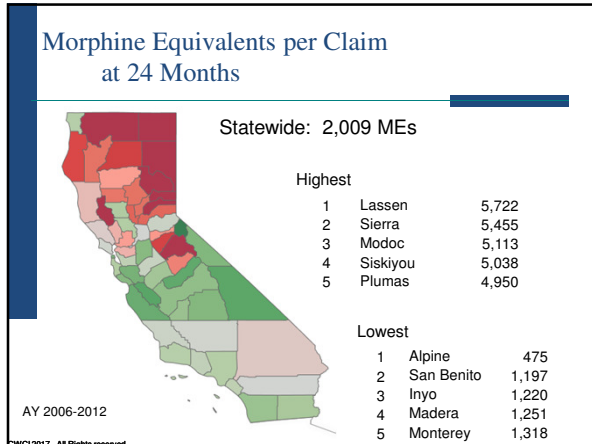
Source: CWCI 2008

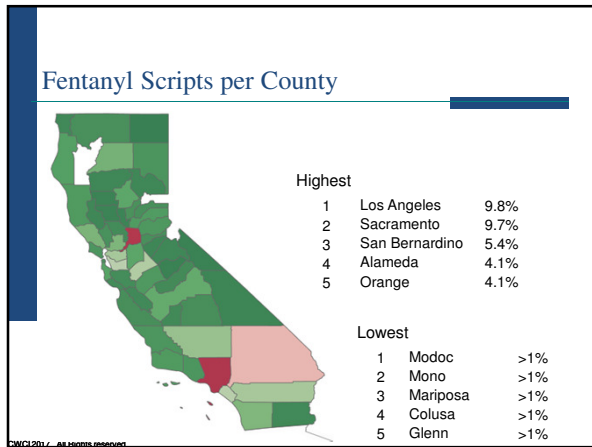
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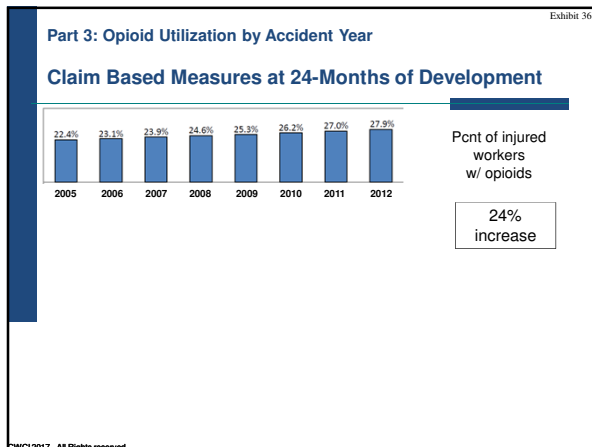


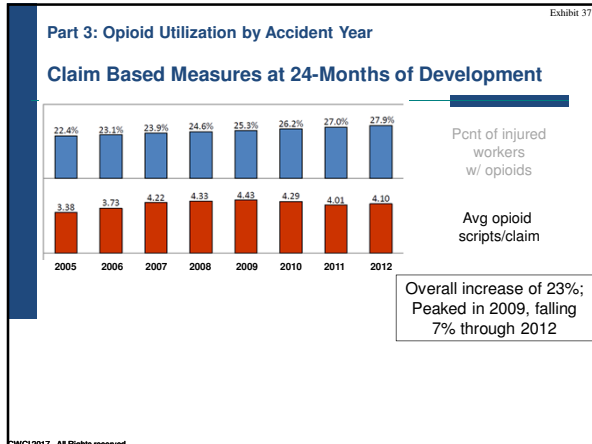


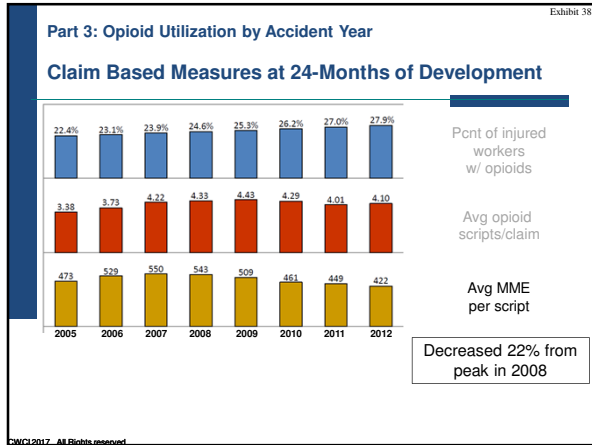


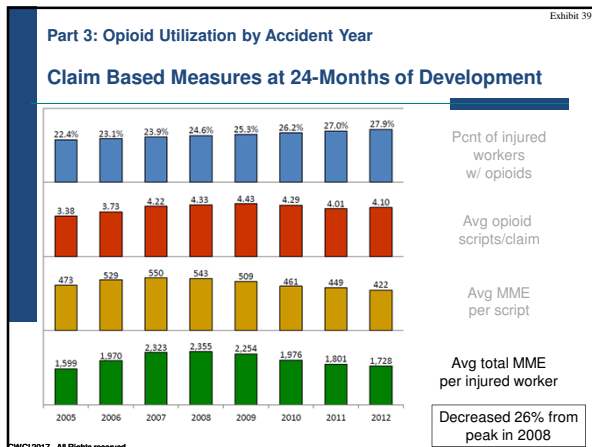


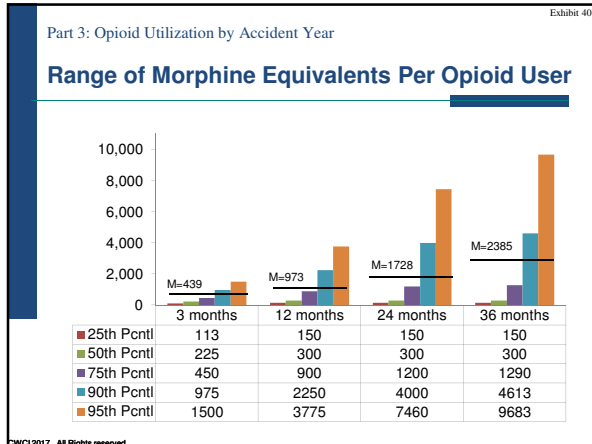












Key Variables Driving Outcome Variation

A. Claim Characteristics

- Claim Type
- Claim Notification
- Claim Duration

B. Opioid Utilization & Cost

C. Cumulative Trauma

- Dec 2016 Study
- Collaboration with WCIRB
- Analysis of CT and Non-CT Claim Characteristics and Outcomes
- DOI 2005 - 2013

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Agenda

Cumulative Trauma

- Dec 2016 Study
- Collaboration with WCIRB
- Analysis of CT and Non-CT Claim Characteristics and Outcomes
- DOI 2005 - 2013

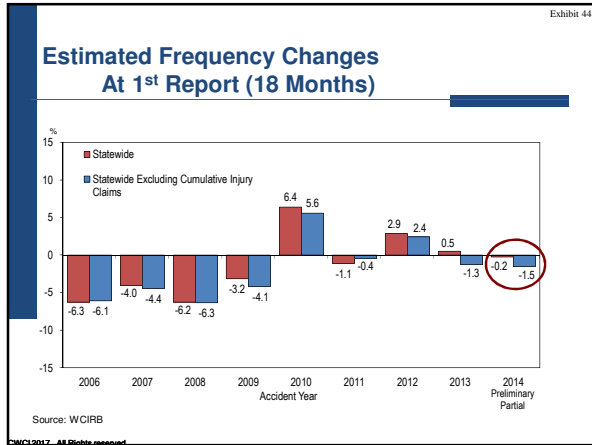
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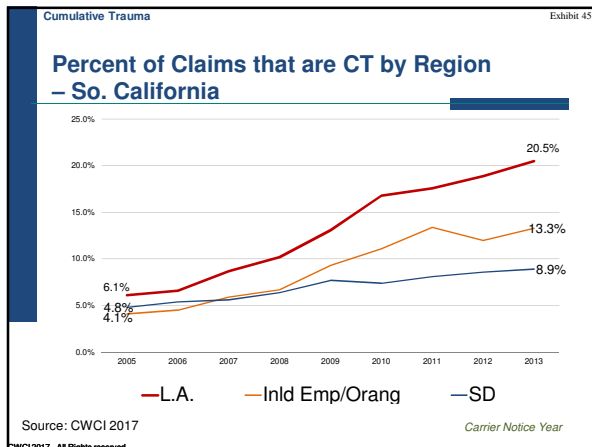
Exhibit 43

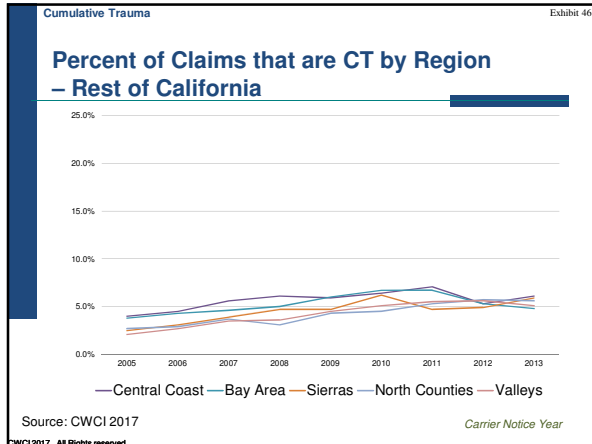
The peculiar problem of CT in CA

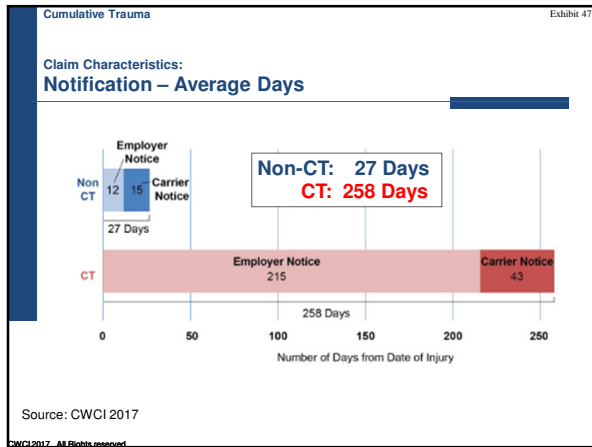
- A few states prohibit cumulative trauma claims altogether
- Some states impose a high standard of proof; **CA has a relatively low bar of 1% causation** required to obtain TD, PD, and medical treatment for all body parts included in CT claim
- **Other states** require that the employee prove that the cumulative injury occurred using a **standard of clear and convincing evidence**

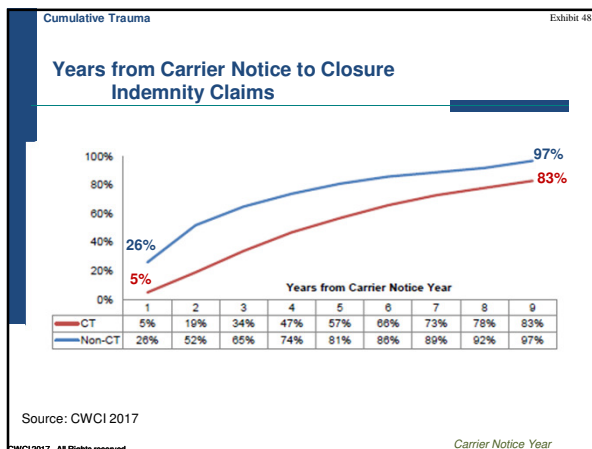
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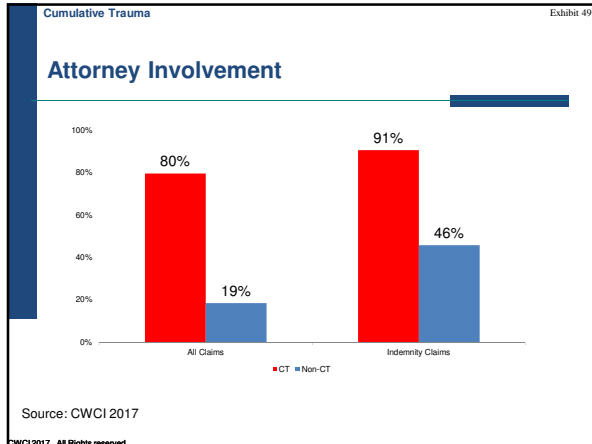


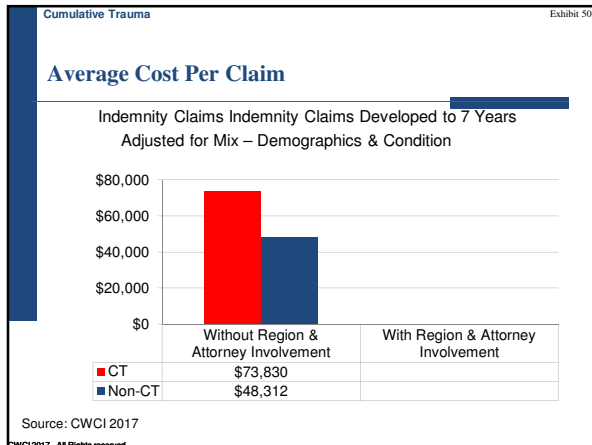


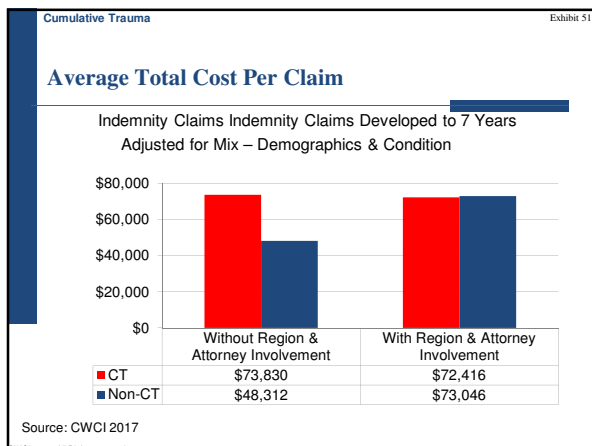












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