Exhibit 1

Casualty Actuarial Society
Spring Meeting

Monitoring California Workers' Compensation Reforms:

Is the System Evolving or Unraveling?

Alex Swedlow, California Workers' Compensation Institute
Laura B. Gardner, MD, Ph.D., MPH, Axiomedics Research

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Exhibit 2

Agenda

- Pre-Reform Issues
- Elements of 2002 – 2004 Reforms
- Post Reform Scorecard
- Evolving Issues

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Exhibit 3

Pre-Reform Issues

Prior to 2003 – 2004 reforms

- California WC system was plagued by high rates and excessive variability in benefits.
- Permanent disability rating system was considered by many as too subjective and unpredictable.
- Average insurer rates per $100 of payroll increased from $2.30 in 1999 to $6.45 in 2003
  ➔California WC system is referred to as a "job killer."
- Historic increases in medical benefit payments

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Exhibit 4

Pre-Reform Issues

Prior to 2003 – 2004 reforms (continued)

- Premium failed to keep pace with losses.
- Some insurers left the state, ceased writing WC, or were involved in M&As
- 28 others carriers became insolvent & CIGA assumes oversight

Results - Overburden of CIGA and fewer insurers

- Mostly large, national carriers aside from State Fund.
- State Fund share of WC premium grew from 20% to 50%.
- CIGA becomes the second largest WC claims administrator in the state.

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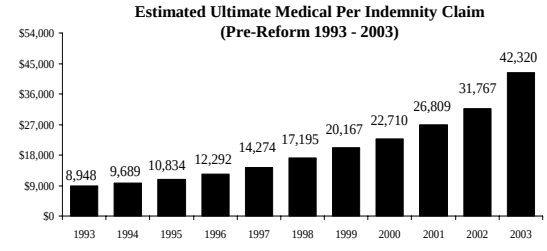
Exhibit 5

Pre-Reform Medical Development



Source: WCIRB as of March 31, 2003; 2004-2007 CWCI Projections based on adjusted trend analysis

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Exhibit 6

Monitoring California Workers' Compensation Reforms:
Is the System Evolving or Unraveling?

Agenda

- Pre-Reform Issues
- Elements of 2002 – 2004 Reforms
- Post Reform Scorecard
- Evolving Issues

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Exhibit 7

Elements of 2002 – 2004 Reforms

The reforms focused on many areas of system dysfunction.

- Medical benefit costs and quality of care.
- Temporary and permanent disability benefit rates.
- Return-to-work and other areas.

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Exhibit 8

Reform Summary (1 of 2)

2002 Legislation (AB 749)

- Primary Solutions: Increase WC benefits:
  death benefits, temporary and permanent disability benefits (with indexing and COLA features).

2003 Legislation (SB 228/AB 227)

- Primary Legislative Solutions: Medical Control:
  - Presumption of correction for evidence based medicine,
  - Use American College of Occupational & Environmental Medicine (ACOEM)
  - Limit chiropractic and physical therapy services, and
  - Update fee schedules (outpatient surgical facility fees, Rx).

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Exhibit 9

Reform Summary (2 of 2)

2004 Legislation (SB 899)

- Primary Legislative Solutions: Expand medical control
  - Medical Provider Networks for "life of claim"
  - Completely eliminate the treating physician presumption
  - Restructure PD rating from disability to impairment system
    - AMA (5th Ed) diminished future earnings capacity multiplier (FEC).
  - Apportionment based on causation.
  - 15% minus/plus impact on PD benefits that return/not return injured workers to workplace.

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Exhibit 10

Monitoring California Workers' Compensation Reforms:
Is the System Evolving or Unraveling?

Agenda

- Pre-Reform Issues
- Elements of 2002 – 2004 Reforms
- Post Reform Scorecard
- Evolving Issues

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Exhibit 11

Data Sources

1. WCIRB
2. Industry Claim Information System (V10A)
   - January 2002 – September 2008
   - 1.7 Million Claims
   - Total Benefits: $14.8B
     - Indemnity Benefits: $7.2B
     - Medical Benefits: $7.6B
       - ✓ Medical Benefit Payments
       - ✓ Medical Services (MBR)

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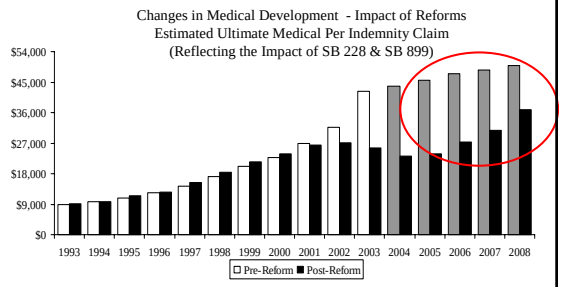
Exhibit 12

Post-Reform Post Reform Scorecard
Medical Development



Source: Pre-Reform - WCIRB as of March 31, 2003; 2004-2007 CWCI Projections based on adjusted trend analysis
Post Reform - WCIRB as of March 2007; released June 2008

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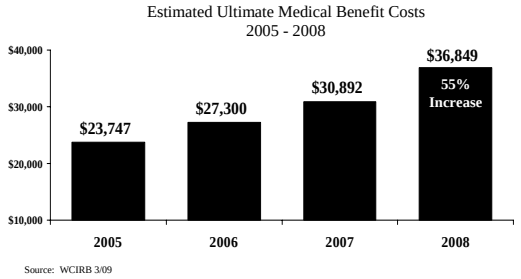
Exhibit 13

Post Reform Medical Development



Source: WCIRB 3/09

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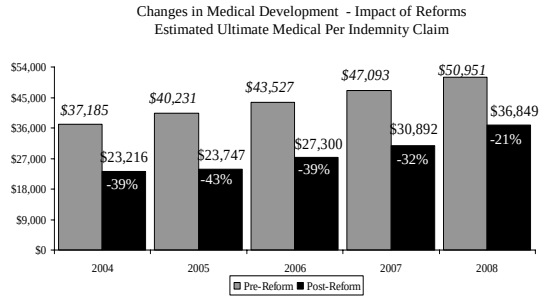
Changes in Medical Payments & Utilization

Exhibit 14

Medical Development in Context



Source: Pre-Reform - WCIRB as of March 31, 2003; 2004-2007 CWCI Projections based on adjusted trend analysis
Post Reform - WCIRB as of March 2009

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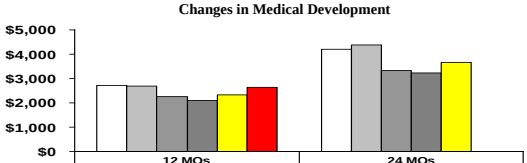
Exhibit 15

Post Reform Scorecard
Changes in Medical Development



	12 MOs	24 MOs
2002	$2,719	$4,217
2003	$2,697	$4,393
2004	$2,256	$3,331
2005	$2,100	$3,243
2006	$2,337	$3,655
2007	$2,649	

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Exhibit 16

Direct Costs of Implementing Medical Reforms

Medical Management/Medical Cost Containment

- Medical Bill Review
- MPN Access
- Utilization Review

CWCI 2008/09 Study

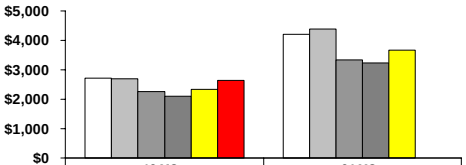
Medical Benefits : MCC

CWCI 2008. All rights reserved

Exhibit 17

Medical Management: Preliminary Results

Average Medical Benefit Payments by Injury Year - All Claims



	12 MOs	24 MOs
2002	$2,719	$4,217
2003	$2,697	$4,393
2004	$2,256	$3,331
2005	$2,100	$3,243
2006	$2,337	$3,655
2007	$2,649	

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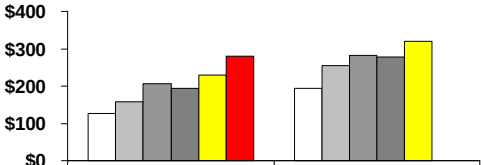
Exhibit 18

Medical Management: Preliminary Results

Average Med Mgt Cost per Claim by Injury Year –



	12 MOs	24 MOs
2002	$127	$193
2003	$158	$255
2004	$206	$283
2005	$194	$278
2006	$229	$321
2007	$279	

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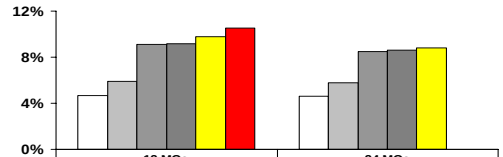
Exhibit 19

Medical Management : Preliminary Results

Percentage of Medical Benefit Payments



	12 MOs	24 MOs
2002	4.7%	4.6%
2003	5.9%	5.8%
2004	9.1%	8.5%
2005	9.2%	8.6%
2006	9.8%	8.8%
2007	10.5%	

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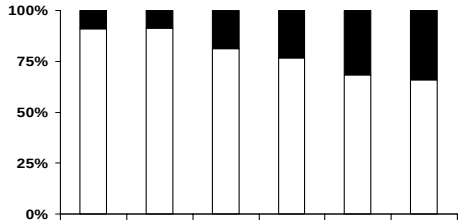
Exhibit 20

Medical Management : Preliminary Results

Percent of Payments by Type of Intervention (by Trans Date)



	2002	2003	2004	2005	2006	2007
Util Rvw	8.9%	8.6%	18.8%	23.2%	31.6%	34.2%
MBR/PPO	91.1%	91.4%	81.2%	76.8%	68.4%	65.8%

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Exhibit 21

Medical Utilization

Measure changes in

- Inpatient admissions 2002 – 2006
- Outpatient utilization from 2002 – 2007

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Exhibit 22

Changes in Inpatient Utilization

Inpatient Admissions per Year

- Follow-up to 2001 study
- Utilization of Inpatient Services
- Analysis of Back Surgery
- Comparison to other health systems
  - Group Health
  - MediCare
  - Medi-Cal

➔ Surgical Implants (Preliminary Results)

Source: CWCI 2008

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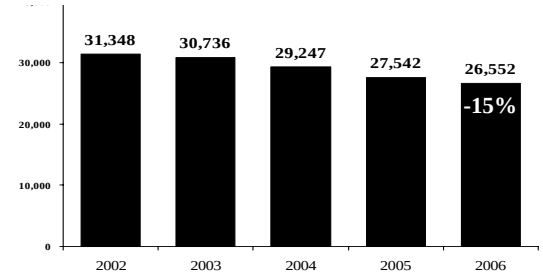
Exhibit 23

Changes in Inpatient Utilization
Inpatient Admissions per Year

Inpatient Admissions
CY 2002 - 2006



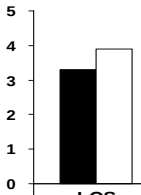
Source: CWCI 2008

CWCI 2008. All rights reserved

Exhibit 24

Changes in Inpatient Utilization
Inpatient Admissions per Year

WC vs. Non-WC Inpatient Surgical Back Profile
Case-mix Adjusted; 2002 - 2006



	LOS	All Proc	Surg Proc
■ WC	3.3	3.3	2.5
□ All Other	3.9	3.5	2.6

Source: CWCI 2008

CWCI 2008. All rights reserved

Exhibit 25

Cost Analysis of Surgical Implants: Preliminary Results

- **Special database with implants (2005-2007)**
- **Compare implant costs against 2001 Study[1]**
- **OSHPD discharge database**

Back DRGs Eligible for Pass-through	2006 Cases
496 - Combined Anterior/Posterior Fusion	731
497 - Spinal Fusion Except Cervical w cc	967
498 - Spinal Fusion Except Cervical w/o cc	1378
519 - Cervical Spinal Fusion w cc	359
520 - Cervical Spinal Fusion w/o cc	1341
	4,776

[1] Kominsky & Gardner, CHSWC, 2001

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Exhibit 26

Cost Analysis of Surgical Implants: Preliminary Results

Double Payment for Surgical Implants

Inpatient Hospital Fee Schedule pays 120% MediCare's global FS (includes surgical implants)

Plus

Pass-through payment for surgical implants
Documented paid cost plus 10%

- RAND suggests pass-through incents shift from Outpatient to Inpatient settings
- Structure of pass-through provides little incentive to manage selection or cost of implants

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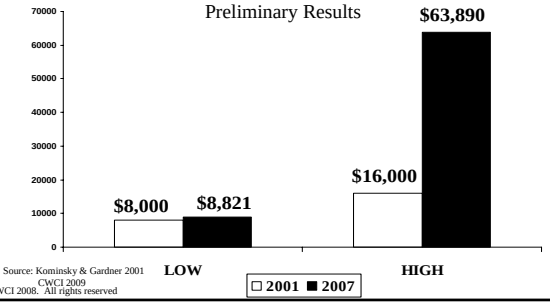
Exhibit 27

Cost Analysis of Surgical Implants: Preliminary Results

DRG 496 - Combined Anterior/Posterior Fusion Range of Surgical Implant Payments

Preliminary Results



Source: Kominsky & Gardner 2001
CWCI 2009

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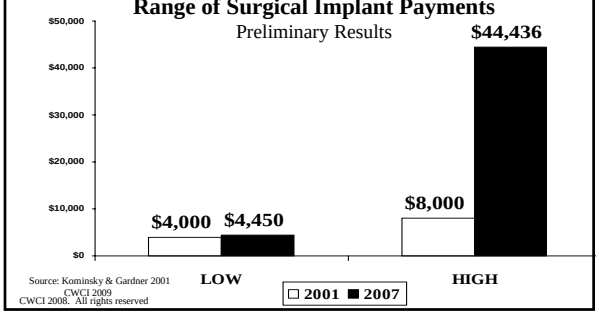
Exhibit 28

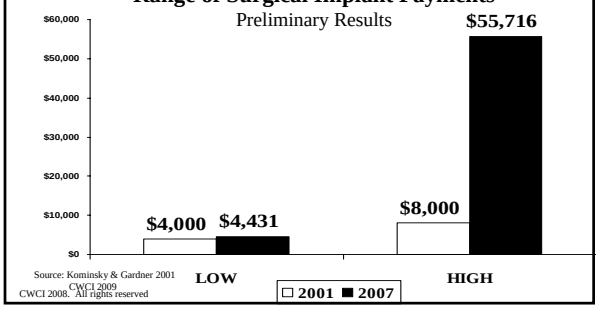
Cost Analysis of Surgical Implants:
Preliminary Results



Source: Kominsky & Gardner 2001
CWCI 2009
CWCI 2008. All rights reserved

Exhibit 29

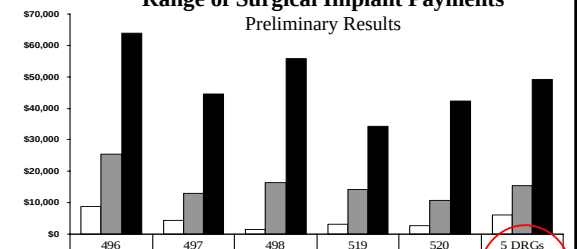
Cost Analysis of Surgical Implants:
Preliminary Results



Source: Kominsky & Gardner 2001
CWCI 2009
CWCI 2008. All rights reserved

Exhibit 30

Cost Analysis of Surgical Implants:
Preliminary Results

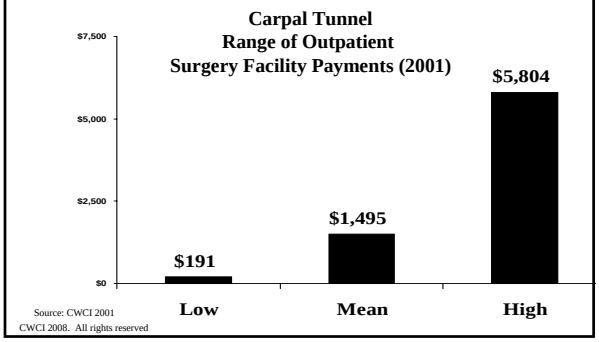


	496	497	498	519	520	5 DRGs
LOW	$8,821	$4,450	$1,431	$3,185	$2,643	$6,137
MEAN	$25,478	$13,092	$16,416	$14,239	$10,870	$15,409
HIGH	$63,890	$44,436	$55,716	$34,387	$42,266	$49,304

Source: CWCI 2009
CWCI 2008. All rights reserved

Exhibit 31

Prior Example of Excess Cost Variation
Outpatient Surgery Facility Payments



Source: CWCI 2001

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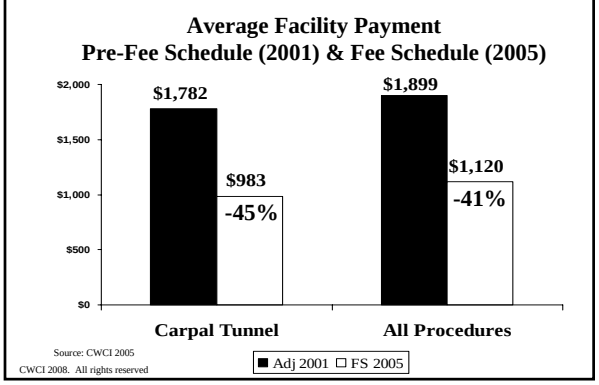
Exhibit 32

Prior Example of Excess Cost Variation
Outpatient Surgery Facility Payments



Source: CWCI 2005

CWCI 2008. All rights reserved

Exhibit 33

Medical Utilization

Outpatient Utilization

Outpatient Physician Services: 8 fee schedule sections

- E&M
- Surgery
- Radiology
- Medicine
- DME
- PT
- Chiro
- Special Services

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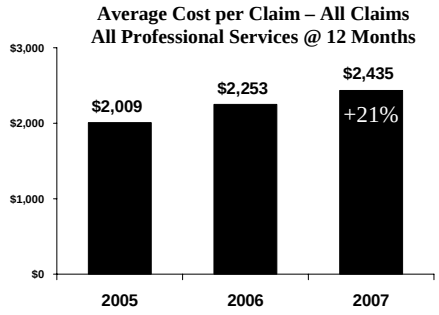
Changes in Outpatient Utilization
All Professional Services



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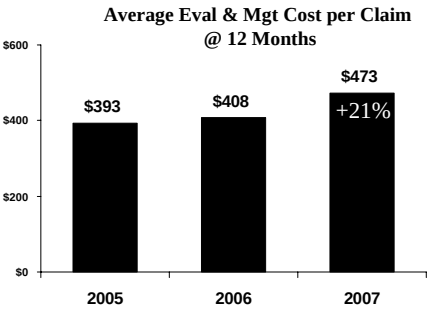
Changes in Outpatient Utilization
Evaluation & Management



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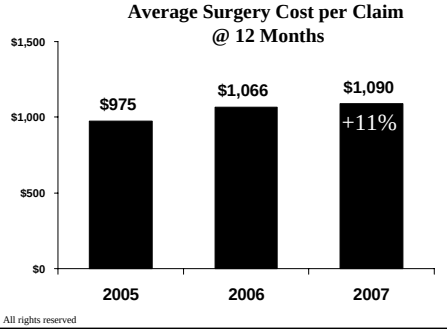
Changes in Outpatient Utilization
Surgery



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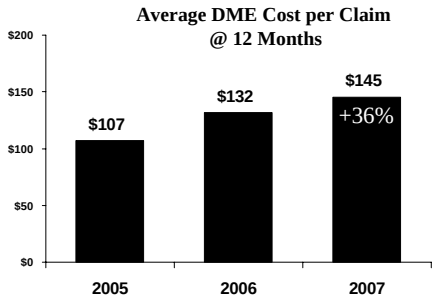
Changes in Outpatient Utilization

Medical Supplies/Durable Medical Equipment



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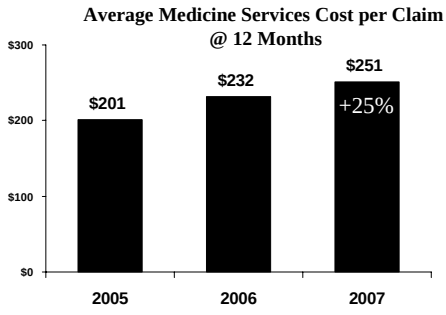
Changes in Outpatient Utilization

Medicine Services



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Changes in Outpatient Utilization

Medical Legal

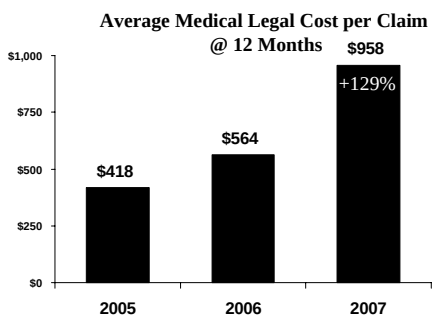

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Exhibit 40

MPN Network Outcomes

Ongoing CWCI 2008 Study

Medical Networks: Physician and claim level analysis

- Pre- and post-reform differences
- Utilization of networks
- Network Links
- Cost & RTW outcomes
- Experience factor of providers
- Treatment comparisons to EBM

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Exhibit 41

MPN Utilization

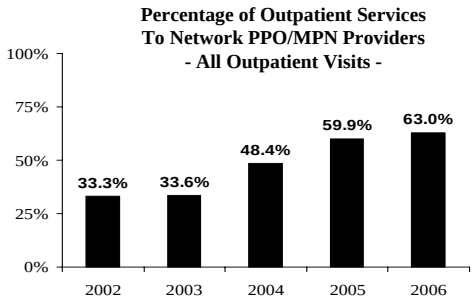

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Exhibit 42

MPN Utilization

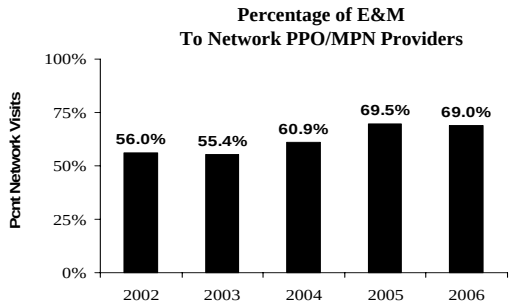

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Exhibit 43

MPN Utilization

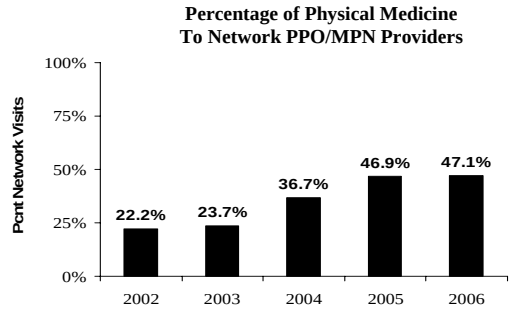

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Exhibit 44

MPN Utilization

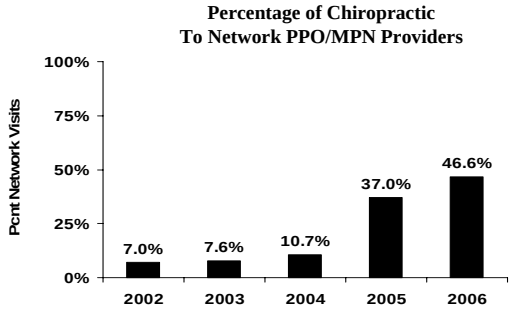

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Exhibit 45

Changes in Pharmaceutical Utilization & Cost

1. Repackaged Drugs
2. Sole Source (Brand) v. Multi-source (Generic)
3. Opioids

CWCI 2008. All rights reserved

Exhibit 46

Changes in Pharmaceutical Utilization & Cost

Repackaged Drugs (pre-reform)

- Exempt from MediCal fee schedule
- Reimbursement level reverts to prior FS
  - ➔110% of AWP for brand
  - ➔140% of AWP for generics
- Repackagers set AWP

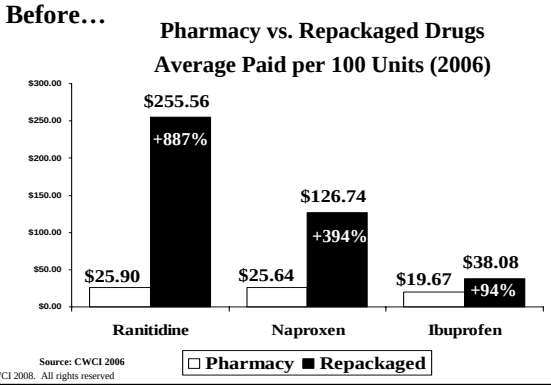
Source: CWCI 2005

CWCI 2008. All rights reserved

Exhibit 47

Changes in Pharmaceutical Utilization & Cost

Before…



Source: CWCI 2006

CWCI 2008. All rights reserved

Exhibit 48

Changes in Pharmaceutical Utilization & Cost

Repackaged Drugs Update

- DWC regulation implemented March 2007
- Eliminates the repackage "loop-hole"
- Sets price at pharmacy fee schedule

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Exhibit 49

Changes in Pharmaceutical Utilization & Cost

After…

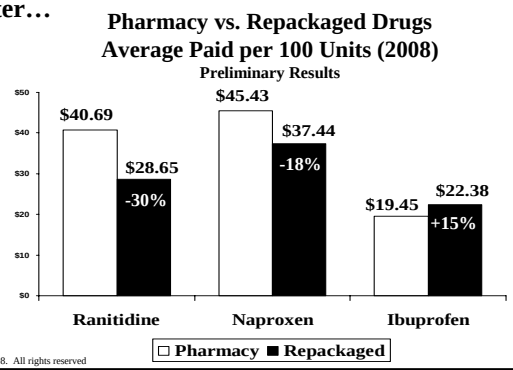

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Exhibit 50

Changes in Pharmaceutical Utilization & Cost

Post Reform Use and Cost of Repackaged Drugs: Preliminary Results:

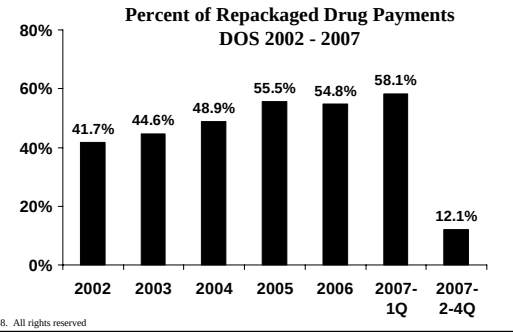

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Exhibit 51

Changes in Pharmacy Utilization

Preliminary Results: Utilization of Sole Source (Brand) Drugs

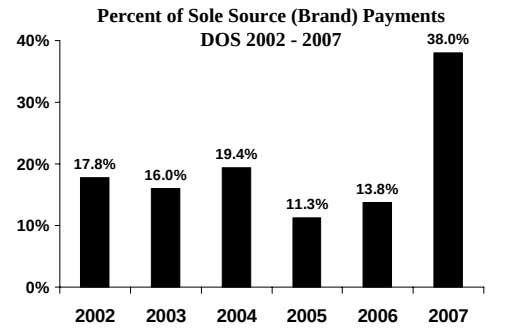

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Exhibit 52

Average Cost of Pharmaceuticals

@ 12 Months
Preliminary Results

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Exhibit 53

Changes in Pharmaceutical Utilization & Cost
Pain Management & Opioids

Class-II Prescriptions

- High potential for abuse
- Strictly controlled
- May lead to severe psychological/physical dependence
- Pending FDA Program for Extended Release Opioids
- Growing use of Class-II drugs in CA WC
  Oxycodone, Fentanyl, Endocet, Methadone, Actiq, Demerol, Morphine

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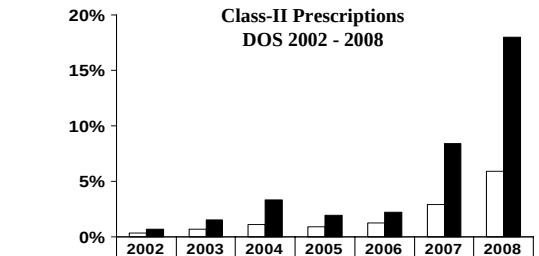
Exhibit 54

Changes in Pharmacy Utilization

Preliminary Results: Utilization of Class-II Opioids Drugs



	2002	2003	2004	2005	2006	2007	2008
□ Scrips	0.4%	0.7%	1.1%	0.9%	1.3%	2.9%	5.9%
■ Payments	0.7%	1.5%	3.4%	2.0%	2.2%	8.4%	18.0%

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Exhibit 55

Changes in Pharmaceutical Utilization & Cost
Pain Management & Opioids

June 2008 CWCI Study

- 166,336 injured workers with medical back conditions without spinal cord involvement
- 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 56

Changes in Pharmaceutical Utilization & Cost
Pain Management & Opioids

Key Findings

- Injured workers who received modest levels of opioids had outcomes similar to those who received none.
- Opioid use for back injuries frequently exceeded recommended levels.
- High levels of opioids were associated with detrimental effects on injured workers with medical back conditions.
- Prolonged use of opioids impedes, rather than facilitates, recovery from disabling back conditions.

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Exhibit 57

Post-Reform Medical Development

Unadjusted & Case-mix Adjusted Medical Costs: Preliminary Results

Unadjusted Costs
- Actual payments

Case-mix adjustment
- Measures relationships between outcome (dependent) variables and predictor (independent)
- Adjusts for factors that might bias the results.

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Exhibit 58

Average Medical Payments @ 12 months

Unadjusted vs. Case-mix Adjusted Outcomes

Preliminary Results

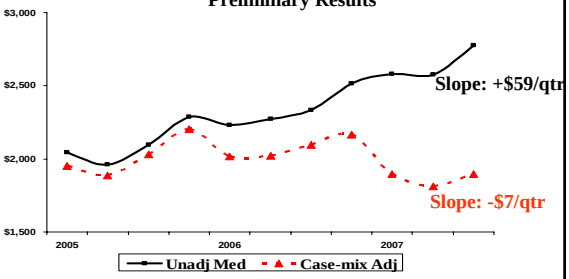

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Exhibit 59

Why would Case-mix Adjusted trend have lower trend and slope?

Possible Reasons:

There are one or more factors in the case-mix adjusted model associated with:

1. Rising costs over time
2. Rising cost factors becoming more common over time
3. Lower costs becoming less common over time

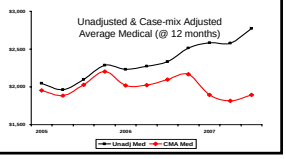

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Exhibit 60

Preliminary analysis suggests:

- Influence of inpatient admissions
- Accelerating medical costs (indemnity claims)
- Changing mix of ER, EE and injuries

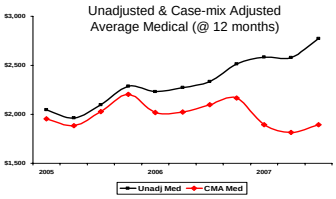

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Exhibit 61

Temporary Disability Reform Background

- 2-year cap on TD benefits
- Exemptions for specific injuries

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Exhibit 62

Temporary Disability

Average Adjusted TD Paid at 12 and 24 Months Post 1st TD Payment Date

		TD Paid (12 & 24 Months Post 1st TD Payment)		
		Pre-899 (Adjusted)	SB 899 (Adjusted)	Pcnt Diff
TD @ 12 Months				
	Mean	$6,536	$6,366	-2.60%
	Median	$2,860	$2,408	-15.80%
TD @ 24 Months				
	Mean	$8,378	$7,863	-6.10%
	Median	$3,015	$2,493	-17.30%

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Exhibit 63

Temporary Disability

Average Adjusted TD Paid at 12 and 24 Months Post 1st TD Payment Date by Year of Injury

		TD @ 12 Months	TD @ 24 Months
PRE-899	**2002**	$6,422	$8,097
	2003	$6,416	$7,806
	2004	$6,571	$8,125
SB-899	**2004**	$6,220	$7,592
	2005	$6,389	$7,910
	2006	$6,485	

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Exhibit 64

Temporary Disability

Distribution of TD Claims with 2-Year Cap Exemption

	Percent of Exempt Claims	
	Pre- SB 899	SB 899
Exempt Categories		
Amputation	1.70%	1.50%
Burns	1.40%	1.20%
Eye Burns	0.20%	0.10%
Eye Injury	0.70%	0.50%
Hepatitis	0.10%	0.10%
HIV	0.00%	0.00%
Lung Disease	1.00%	1.00%
Pulmonary Fibrosis	0.10%	0.00%
Exempt Sub-Total	5.10%	4.50%
Non-Exempt	94.90%	95.50%
Total	100.00%	100.00%

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Exhibit 65

Temporary Disability

Percentage of Non-Exempt TD Claims with More than 2 Years of TD Benefit Payments

	Non-Exempt Claims with TD Payments	Claims Beyond 2yr Cap	Pcnt of Total
April 19 - June 30 2002	19,163	1,745	9.10%
April 19 - June 30 2004	15,271	481	3.10%

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Exhibit 66

Post Reform Marketplace (continued)

Recent CWCI analysis associates the recent adverse development with several underlying events including:

- High cost of implementing and administering reforms
- Dilution of the medical treatment utilization schedule with competing (& often conflicting) guidelines
- Rising medical utilization and increased use of narcotics and surgical implants
- Shifting litigation frequency and cost.

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Exhibit 67

Monitoring California Workers' Compensation Reforms:
Is the System Evolving or Unraveling?

Agenda

- Pre-Reform Issues
- Elements of 2002 – 2004 Reforms
- Post Reform Scorecard
- Evolving Issues

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Exhibit 68

Regulations

- WCIS – data reporting regulations and penalties
- EAMS – case management regulation from WCAB & DWC
- Future Regulatory Issues

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Exhibit 69

Case Law

Medical Care

- Medical Provider Networks (MPN)
  - insufficient or improper notice to injured worker
  - treatment outside the network paid for by the injured worker
- Medical Treatment Utilization Schedule (MTUS)
  - validity of the presumption and "free choice"
  - transferring current treatment into the MPN
  - timely review, use of the UR opinion, denial of requested treatment
  - 24 visit treatment caps

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Exhibit 70

Case Law

Indemnity

- Temporary disability
  - constitutionality of the 104 week limit,
  - medical necessary treatment beyond the caps
- Permanent disability rating schedule
  - validity, application, and rebuttal
- Apportionment
  - work capacity v. causation
  - prior awards
  - substantial evidence and multiple injuries.

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Exhibit 71

En Banc Decisions

- Ogilvie v. City and County of San Francisco
- Almaraz v. Environmental Recovery Services & Guzman v. Milpitas Unified School District

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Exhibit 72

En Banc Decisions

Ogilvie v. City and County of San Francisco

- May apply to all cases rated under the 2005 PDRS
- Some cases reopened to reassess DFEC modifier .
- Claims administrator may need to reevaluate reserves.
- All costs paid by defendant
- Typical case:
  - ✓FEC challenge (use of a vocational expert)
  - ✓Low rating with significant current wage loss
  - ✓0% permanent disability rating without RTW
  - ✓Rating near life pension or permanent total disability (100%)

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Exhibit 73

En Banc Decisions

Almaraz v. Environmental Recovery Services & Guzman v. Milpitas Unified School District

- WCAB offers little direction to rebut the PDRS or establish a new "fair and accurate" disability assessment
- The proof offered will be subjective, unrestricted, and unpredictable
- Rating by analogy is unrestricted
- The Board opens the PD to:
  Other evidence of disability and medical literature or criteria
  AMA and other established medical organizations
  Other medical and non-medical information and vocational experts.

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Exhibit 74

En Banc Decisions

Assessing Ogilvie, Almaraz/Guzman

- Litigation could increase significantly.
- Work restrictions addressed by the medical legal evaluator.
- Actuaries & Claims administrator should:
  - ✓Determine the number of potential case rated by the 2005 PDRS
  - ✓Evaluate claim inventory: calculate the number of open claims including stipulated and F&A awards
  - ✓Assess characteristics of medical legal evaluator, the applicant's attorney, and the WCALJ
  - ✓Await activity by the applicant's attorney

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Exhibit 75

Monitoring California
Workers' Compensation Reforms:

Is the System Evolving or Unraveling?

Questions?

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