

**Can Quality Improvement Activities
Encourage Physicians to Adopt Best Practices
in the Delivery of Care? Evidence from a
Quality Improvement Project
in Washington State**

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Key Problems in Workers' Compensation Health Care

- High costs
- Poor quality
- High dissatisfaction
 - patients
 - employers
 - providers

Disability Prevention: Bad News--Good News

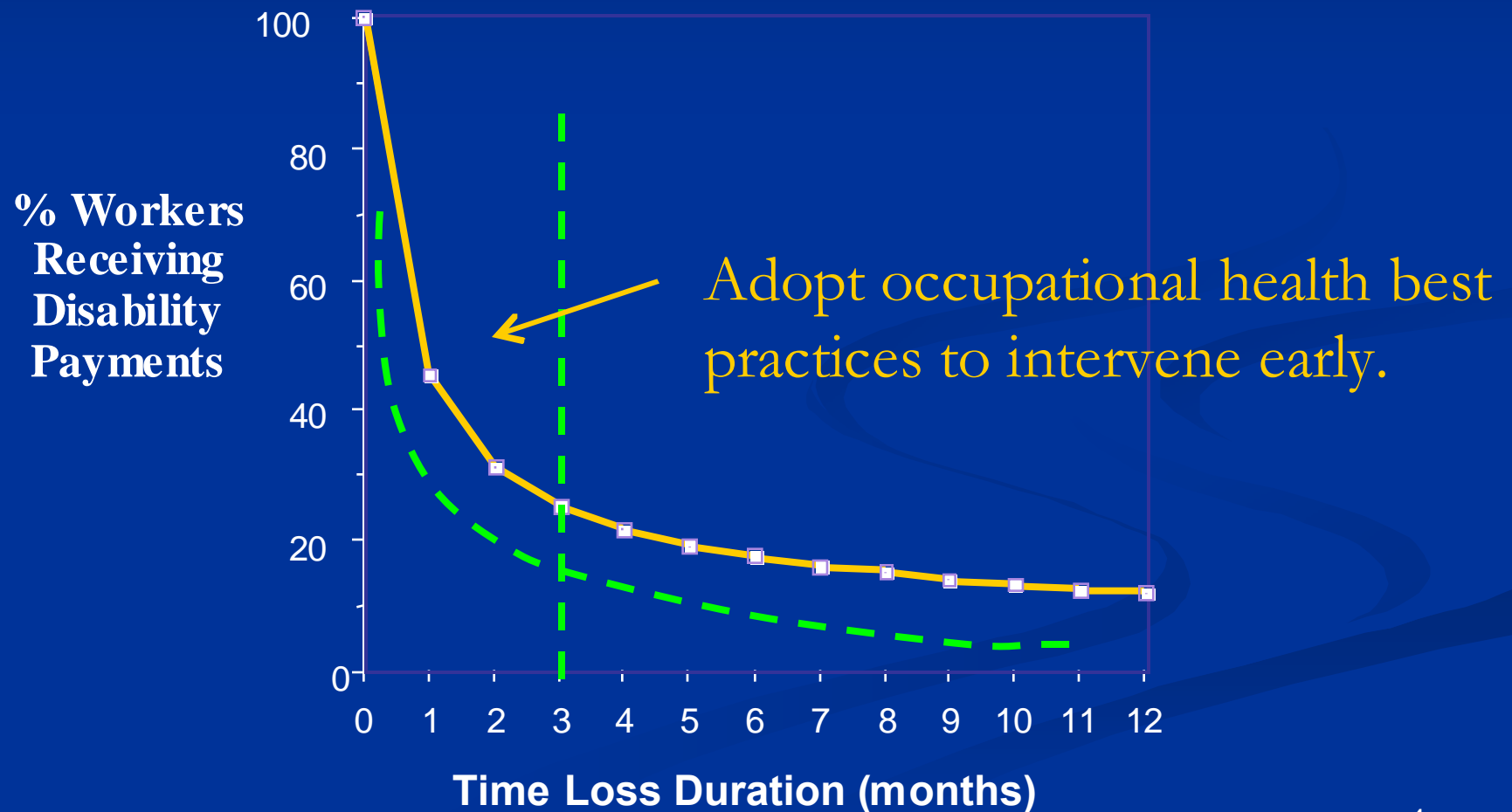
Bad News

- Workers who remain on disability for longer than 2-3 months have greatly reduced chance of returning to work

Good News

- Effective occupational health care can reduce the likelihood of long-term disability

Changes in Disability Status among Injured Workers in WA State



Occupational Health Services (OHS) Project

- WA State OHS Project initiated in 1998 by Dep't of Labor & Industries (DLI):
 - To improve quality and outcomes in workers' compensation system
- OHS is not “managed care”
- No restrictions placed on provider choice
- Injured workers have first-dollar coverage for occupational injuries/illnesses and choice of any provider

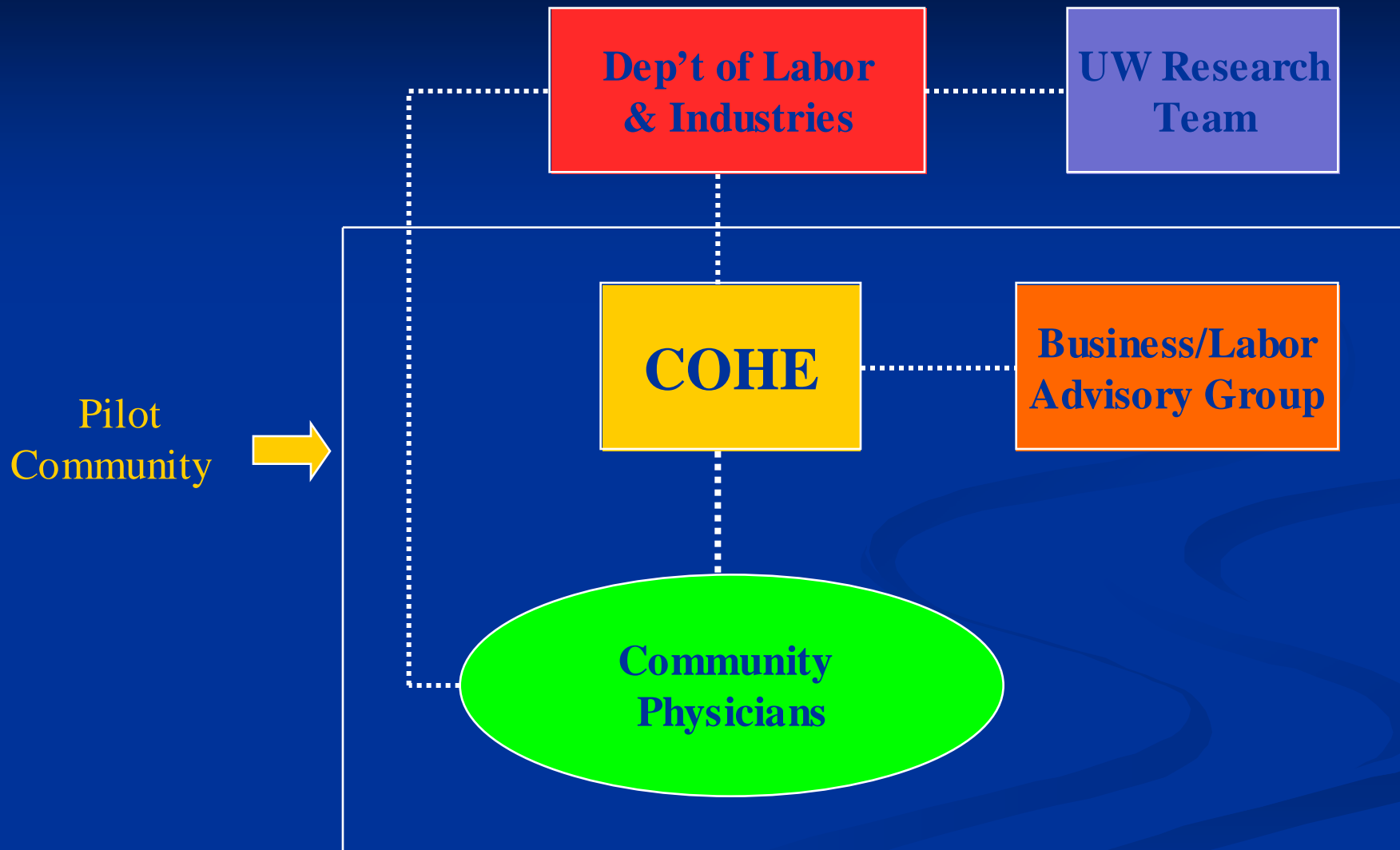
System Redesign through OHS

- Develop quality indicators
- Develop financial incentives (P4P)
- Establish community-based pilot centers of occupational health and education (COHEs):
 - Support and direct quality improvement activities
 - mentoring and CME for community MDs
 - disseminate treatment guidelines and best practice information
 - Identify and provide care for high-risk cases

P4P and Occupational Health Best Practices

- 4 quality indicators, representing best practices, were developed by panels of clinician experts in 1999
 - Submission of report of accident in 2 days
 - Provider-employer phone communication
 - Use of special activity prescription form to formalize treatment and rehab plan and work
 - Assessment to identify impediments to return to work
- New fees were established for the above 4 services

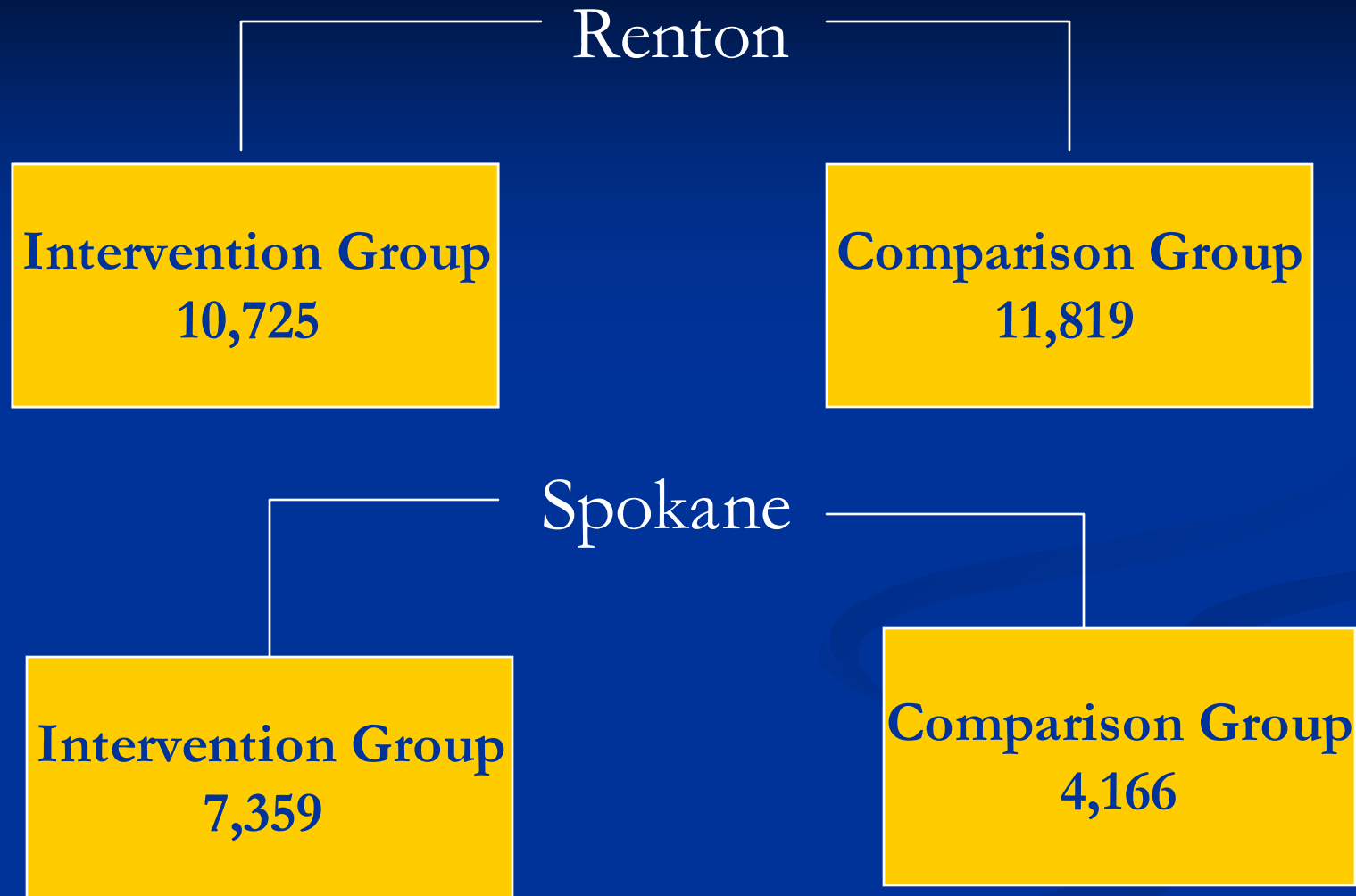
OHS-COHE Organization



OHS Pilot Sites

- Renton, Washington
 - Valley General Hospital
 - Pilot implementation started July 2002
 - > 130 MDs recruited for pilot in target area
- Spokane, Washington
 - St. Luke's Rehabilitation Institute
 - Pilot implementation started July 2003
 - > 200 MDs recruited for pilot in target area

Intervention & Comparison Groups



Comparison-group: all cases treated by MDs in COHE target area not participating in pilot

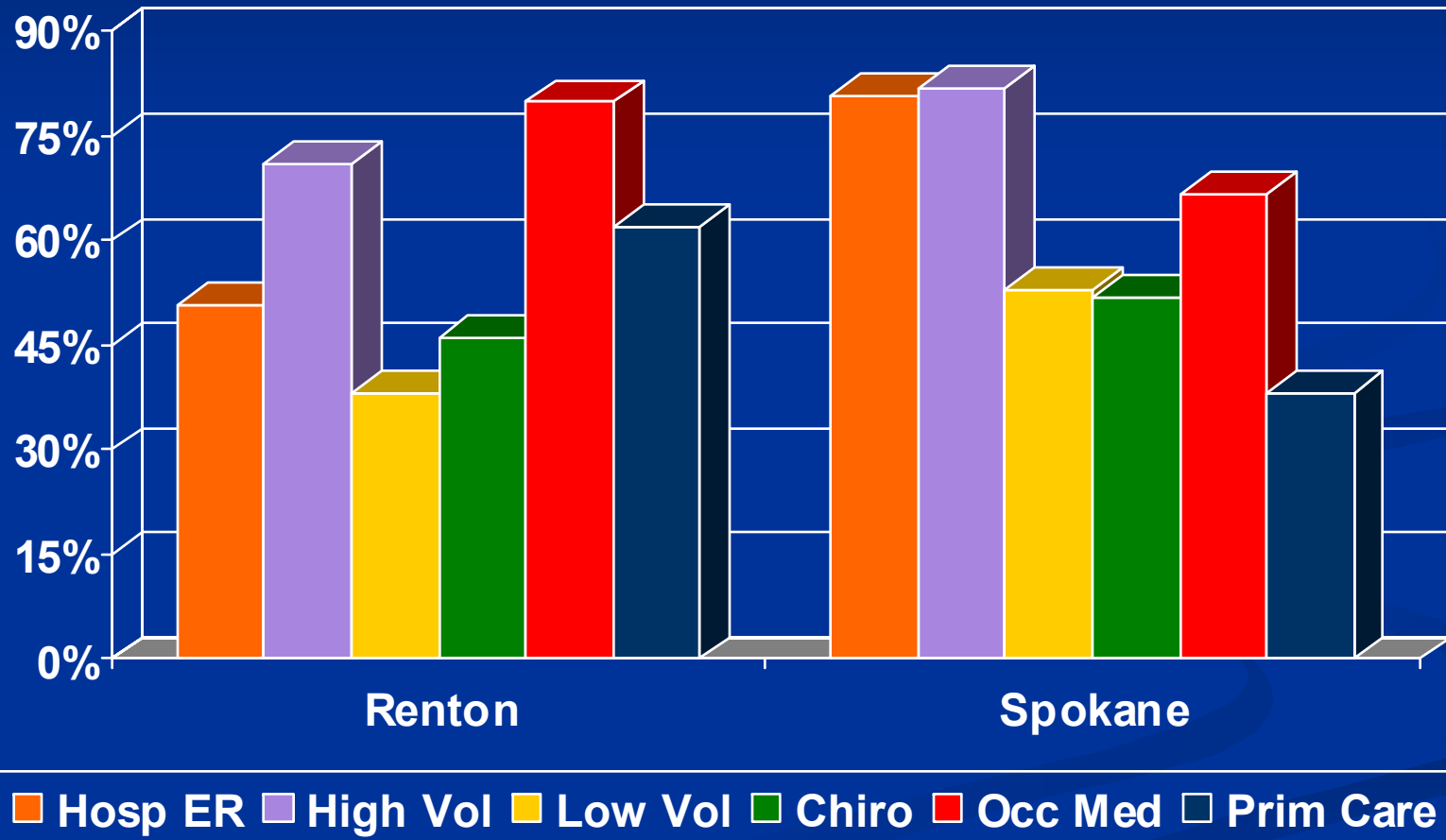
Data & Measures

- Administrative claims data provided by DLI supplemented by patient and provider surveys
- Process & outcome measures:
 - Adoption of occupational health best practices (process)
 - Incidence of (time loss) disability (> 3 days lost work time)
 - On time loss at 365 days post claim receipt
 - Disability costs, medical costs & total costs

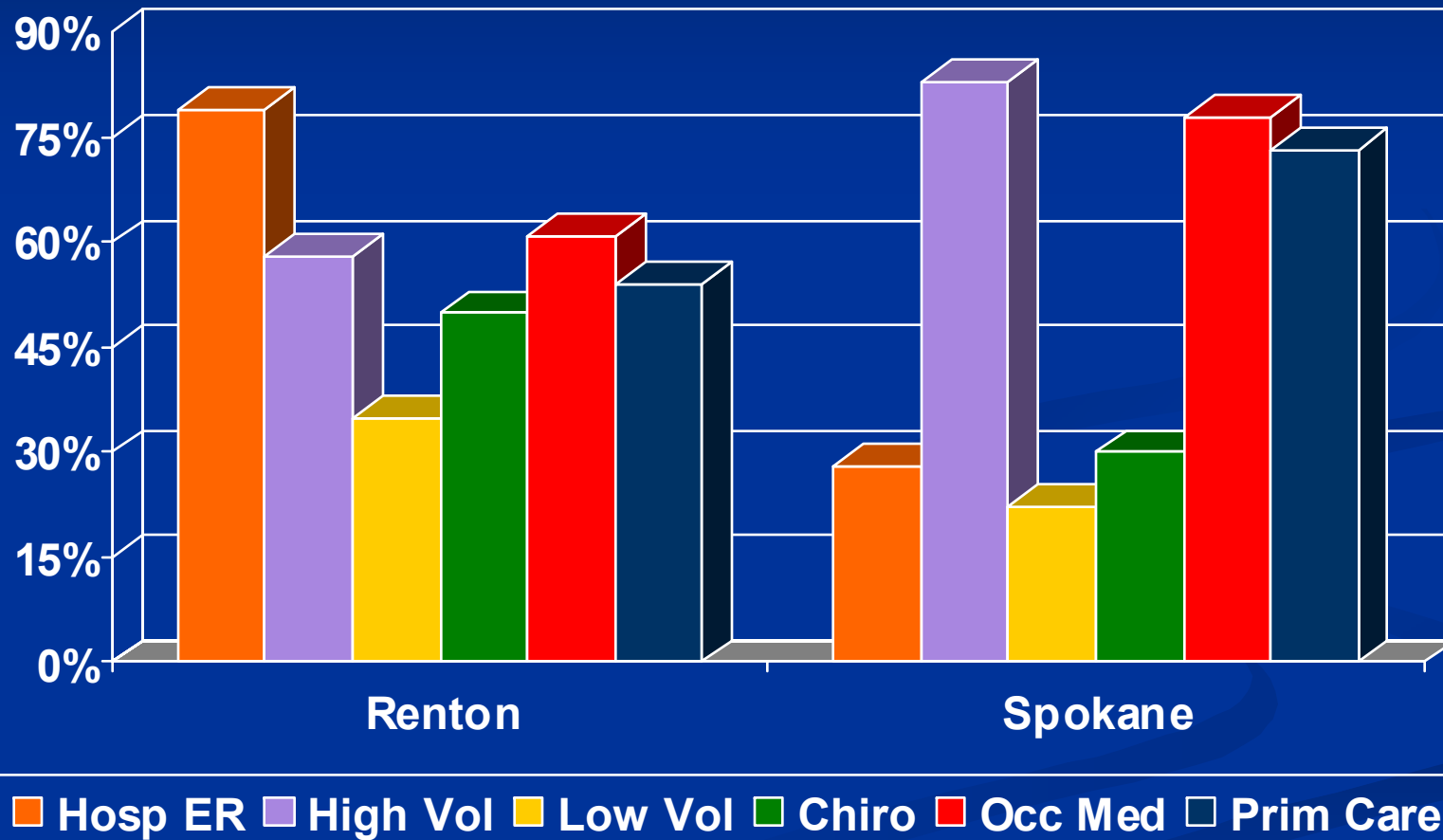
Statistical Techniques

- Evaluation tested series of regression models
 - Logistic regression models
 - Multiple linear regression models
 - Linear probability models
- Covariates included:
 - Age and sex
 - Type of injury
 - Type of provider
 - Baseline provider costs (disability and medical)
 - Industry
 - Firm size (FTE workers)

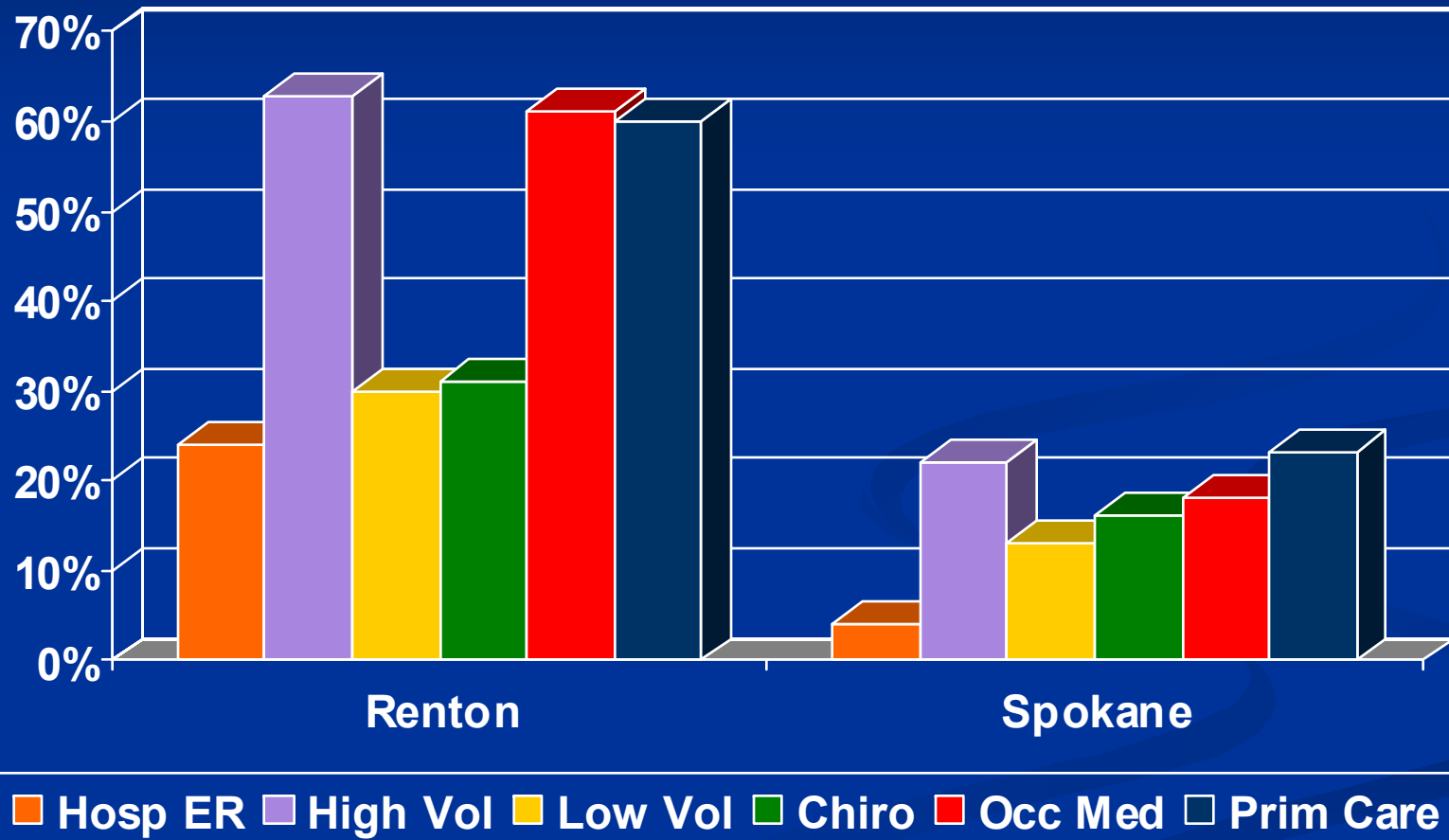
% Time ROA Submitted within 2 Business Days during Evaluation Year



% Time Provider Billed for Activity Prescription Form during Evaluation Year



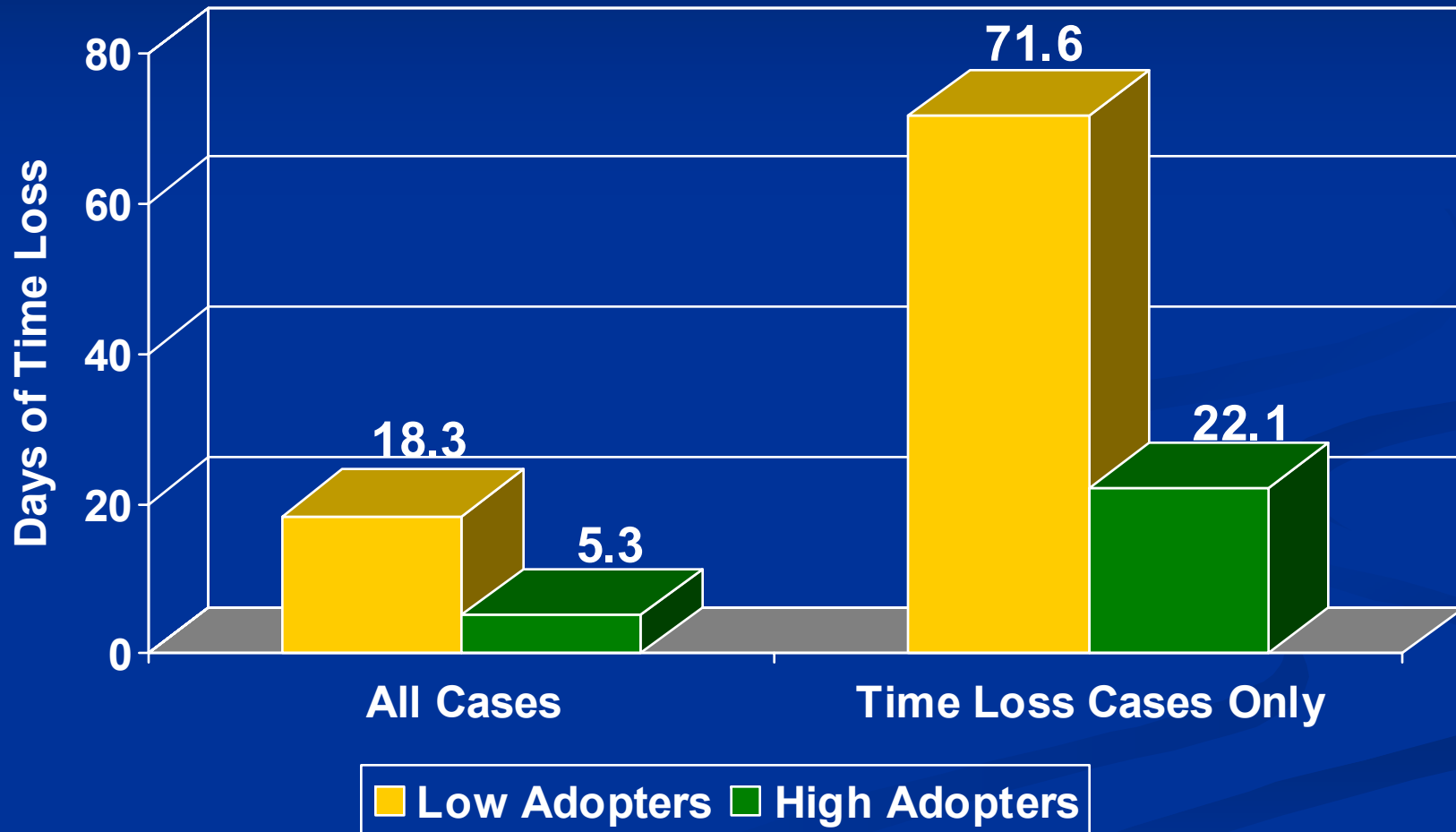
% Time Provider Billed for Phone Call during Evaluation Year



Effect of Adopting Occupational Health Best Practices on Disability

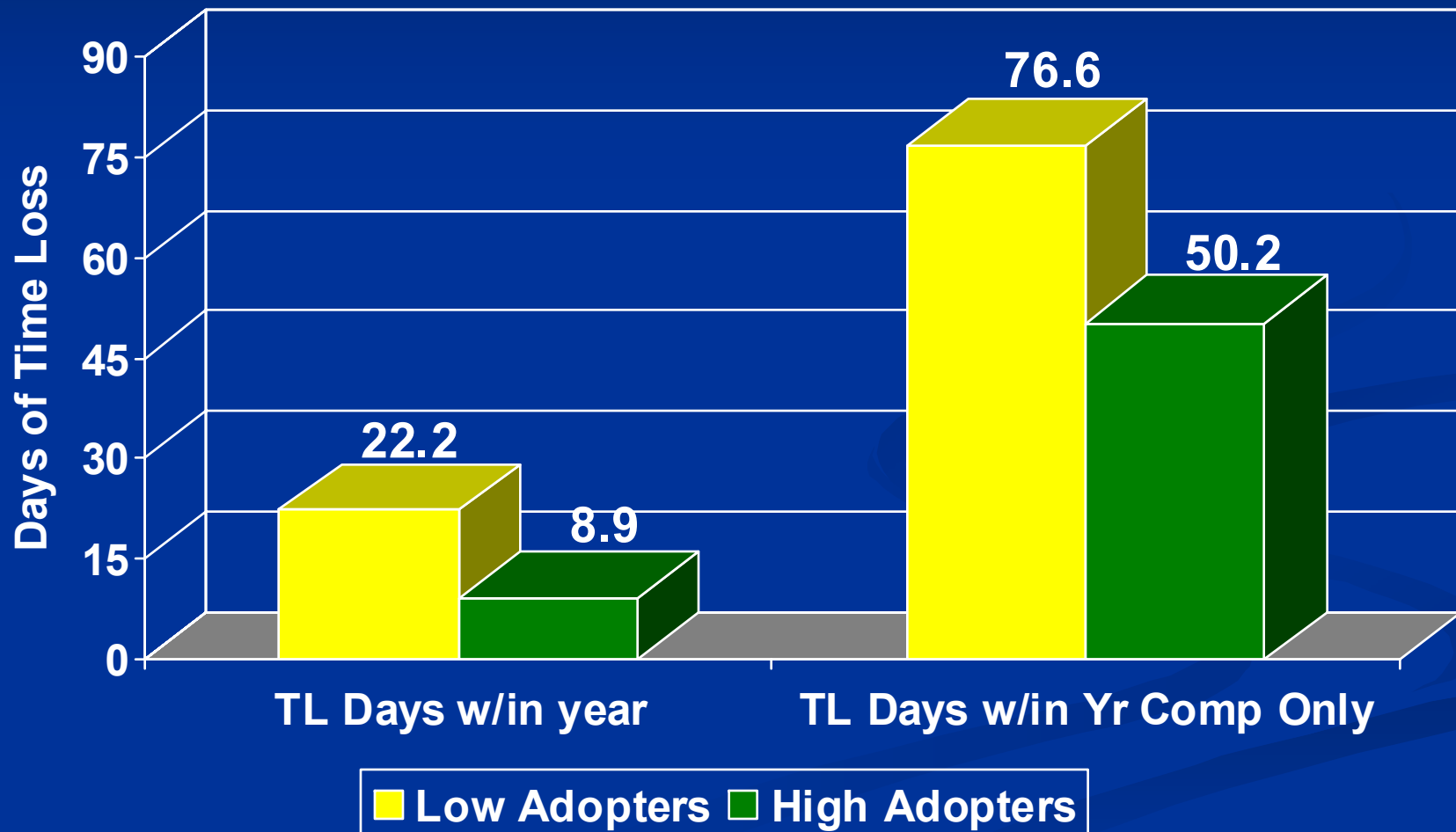
- COHE promoted 3 occ health best practices
 - Sending ROA within 2 business days
 - Completing activity prescription form
 - Contacting employer through phone communication
- An index for these 3 best practices was created to identify “high adopters” and “low adopters”:
 - High adopters were at or above 50th percentile of use for 2 out of 3 best practices
 - Low adopters were below 50th percentile of use for all 3 best practices

Time Loss Days for Providers Using Occupational Health Best Practices, Back Sprain Claims, Renton



Differences are statistically significant ($p < .05$).

Time Loss Days for Providers Using Occupational Health Best Practices, Back Sprain Claims, Spokane



Differences are statistically significant ($p < .05$).

Selected Findings

- Pilot disability effects:
 - Time loss incidence: **ORs \approx .75 - .80; $p < .01$**
 - Reduced disability days
 - All cases: **4.8 days to 6.0 days, $p < .01$**
 - Time loss cases only: **15.9 days to 18.0 days, $p < .01$**
 - Strongest effects: **Back sprains, other sprains, CTS**
- Pilot Cost savings:
 - Renton: **\$381 per claim, $p < .01$**
 - Spokane: **\$518 per claim, $p < .01$**
 - 60% - 70% of cost savings from reduced disability costs

Summary Points

- Improving processes of care by promoting occupational health best practices may improve outcomes, reduce disability for injured workers, and save costs
 - Modest financial incentives
 - Organizational support
 - Training
- Key is providing organizational support on a communitywide basis
- P4P alone may not lead to meaningful quality improvement