



# Preventing Chronic Pain and Long Term Disability Through Early Stepped Care Management: Centers for Occupational Health and Education

Symposium on Emerging Practices on Collaborative Care Management of Chronic Pain: Equipping Primary Care and the Community to Manage an Epidemic

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# Objectives

- Review history of Centers for Occupational Health and Education (COHE) as a large-system transformation
- Examine key design features of COHE
- Summarize research on COHE outcomes
- Discuss COHE as a “system platform” for collaborative care management of chronic pain
- Consider future challenges



# Washington State Workers' Compensation

- WA State WC is organized as a “state fund” system administered by Dep’t of Labor & Industries (DLI)
- All employers who don’t self-insure must by law purchase WC insurance through DLI
  - DLI is the **single payer** for WC health care
- DLI insures 2/3 of the state non-federal workforce



# What Is Large-System Transformation?

- Best et al. (Milbank Quarterly, 2008):  
“Large-system transformations in care are interventions aimed at coordinated, systemwide change affecting multiple organizations and care providers, with the goal of significant improvements in the efficiency of health care delivery, the quality of patient care, and population-level patient outcomes.”



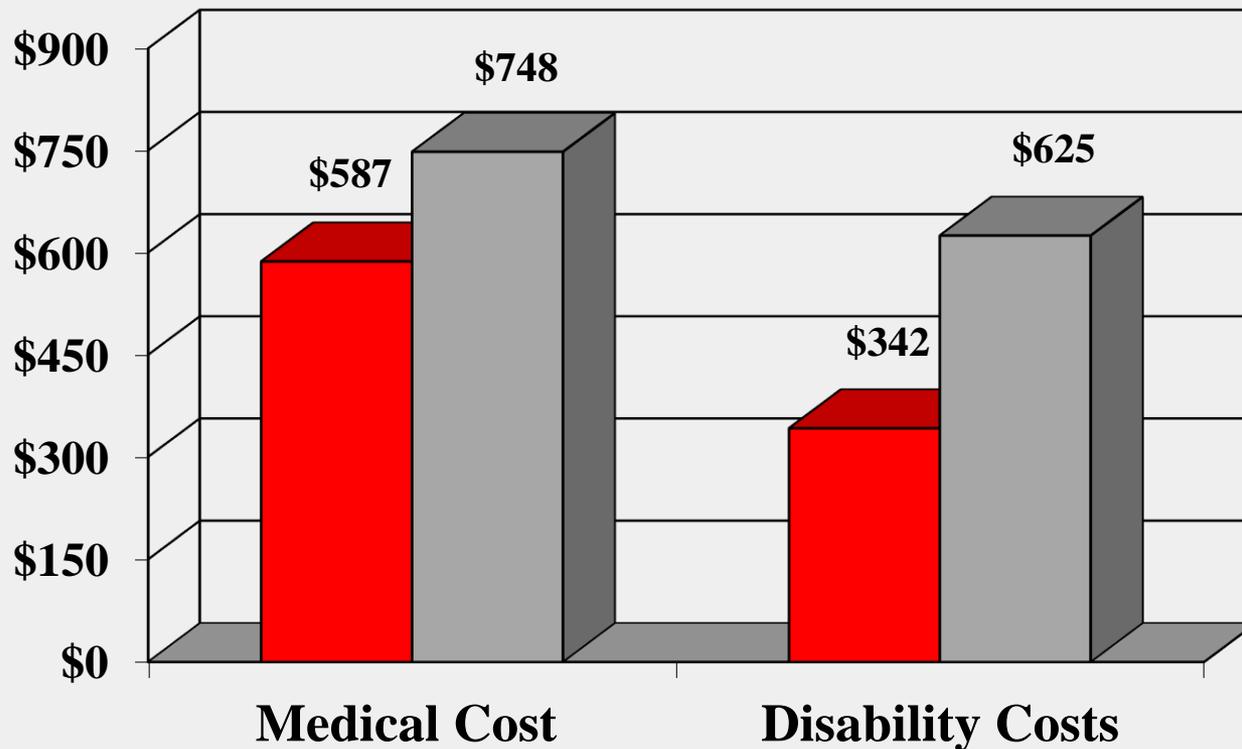
# Building on Experience

- COHE built on earlier managed care pilot
- Aim was to determine whether organizing care delivery through managed care could
  - Reduce disability
  - Improve health and cost outcomes
  - Increase worker and employer satisfaction



# WA State Managed Care Pilot Cost Outcomes, 1992 - 1994 (n=2,217)

Cost per claim



←  
Unexpected finding



# Disability Prevention: Good News—Bad News Story

## Bad News

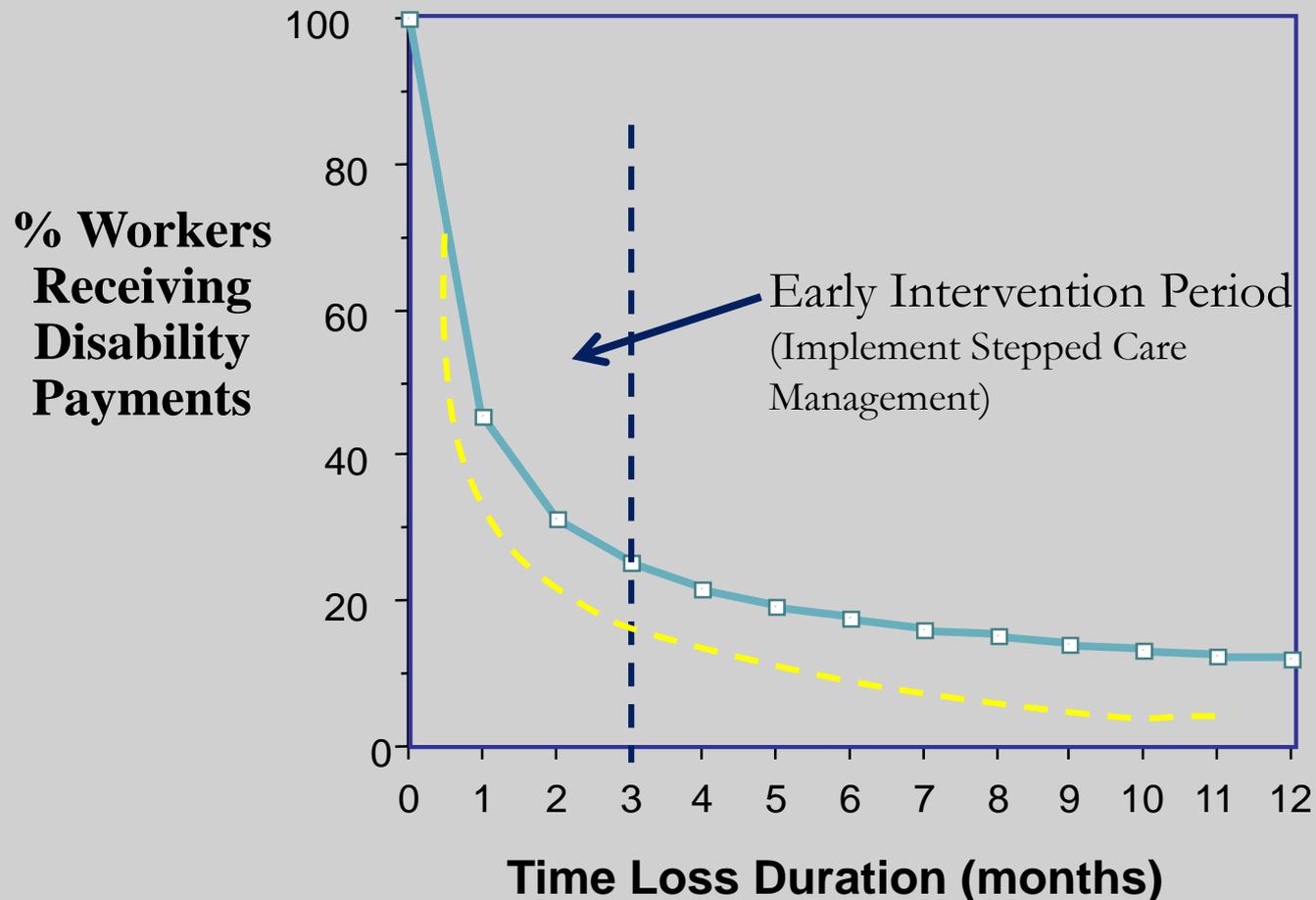
- Workers who remain on disability for longer than 2-3 months have greatly reduced chance of returning to work

## Good News

- Health outcomes can be improved and long-term disability reduced by:
  - Effective care coordination
  - Organizational support
  - Strong administrative/clinical leadership
  - Aligned financial/non-financial incentives



# Changes in Disability Status among Injured Workers in WA State





# System Redesign through COHE

- Four quality indicators, representing occupational best practices, linked to physician payment incentives
  - Each time a physician performed a best practice he/she received added payment
- Community-based COHEs
  - Quality improvement (QI) activities:
    - Care coordination
    - Mentoring and CME for community MDs
    - Disseminate treatment guidelines and best practices information
    - Medical leadership

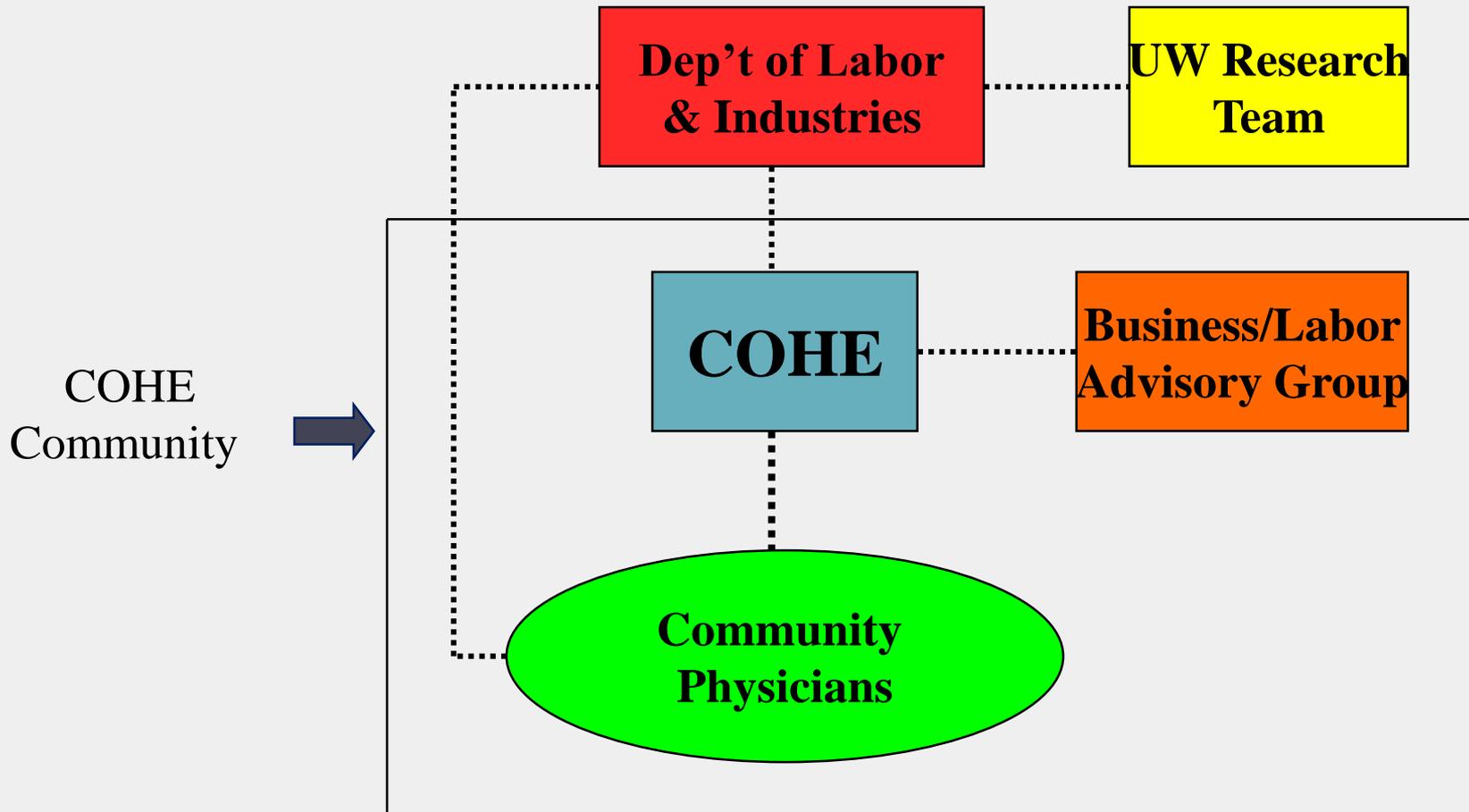


# Intervention Components

<u>Quality Improvement Component</u>	<u>Quality Improvement Objective</u>
<u>Structural Change Components</u>	
<ul style="list-style-type: none"><li>• Physician Continuing Medical Education (CME)</li></ul>	<ul style="list-style-type: none"><li>• Enhance physician knowledge and training in treating occupational injuries</li></ul>
<ul style="list-style-type: none"><li>• Health Services Coordinators</li></ul>	<ul style="list-style-type: none"><li>• Improve care coordination</li><li>• Improve communication with employers to promote return to work</li><li>• Reduce provider administrative burden</li></ul>
<ul style="list-style-type: none"><li>• Information technology</li></ul>	<ul style="list-style-type: none"><li>• Improve patient tracking</li></ul>
<u>Financial Incentive Component</u>	
<ul style="list-style-type: none"><li>• Enhanced provider payment</li></ul>	<ul style="list-style-type: none"><li>• Promote best practices<ul style="list-style-type: none"><li>- Submission of accident report</li><li>- Use of activity prescription form</li><li>- Communication with employer</li><li>- RTW impediments assessment</li></ul></li></ul>



# Initial COHE Pilot Organization



COHEs serve as “integrators” for quality improvement within the pilot community (Donald Berwick, Health Affairs 2008: The Triple Aim).

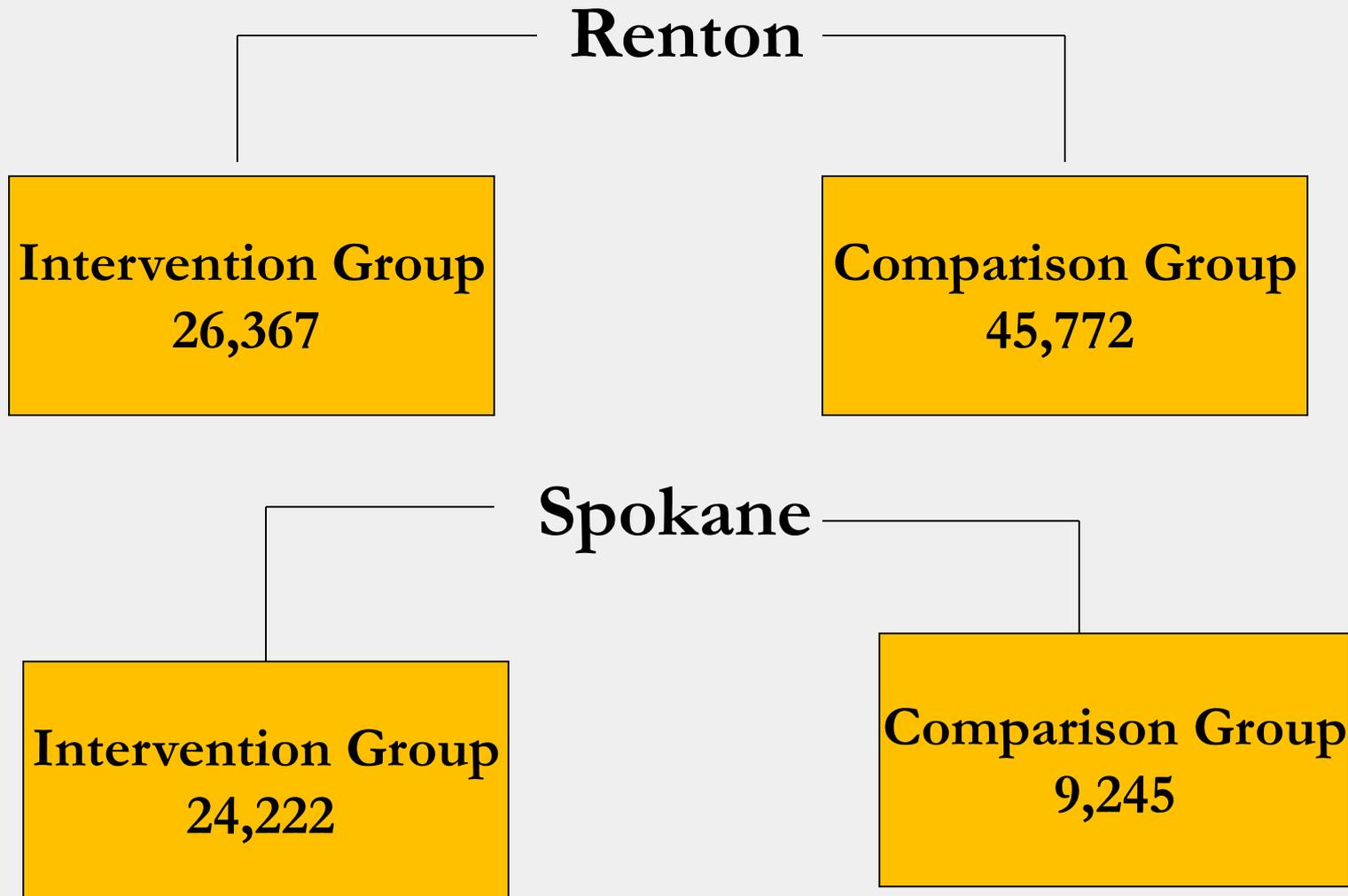


# COHE Pilot Evaluation

- Performed rigorous evaluation of COHE pilot to determine effects on work disability and costs
- Two key sub-analyses performed for:
  - Back sprain cases (high cost and long disability)
  - COHE physicians: high vs low adopters of best practices



# Intervention & Comparison Groups



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



# Descriptive Data on Outcome Measures

Measure	COHE Group		Comparison Group	
	Baseline Year	Outcome Year	Baseline Year	Outcome Year
% on disability at 1 year	2.0 (3.9)+	2.2 (3.4)	2.7 (3.7)	3.5 (4.8)
Disability days	14.4 (24.7)	14.3 (20.1)	19.5 (25.0)	23.1 (29.3)
Disability costs	\$758 (\$1,370)	\$748 (\$1,060)	\$1,038 (\$1,342)	\$1,344 (\$1,722)
Medical costs	\$1,636 (\$3,259)	\$2,076 (\$3,559)	\$1,979 (\$3,564)	\$2,646 (\$4,347)

+ Parentheses show descriptive data for back sprain cases.



# COHE Pilot Evaluation: (One-Year) Results

Measure	Regression Estimates		
	All Cases	Back Sprain Cases	High Adopter vs. Lower Adopter Cases
On disability at 1 year (OR)	.79 *	.63 *	.63 *
Disability days	- 3.3 days *	- 8.1 days *	- 6.9 days *
Disability costs	- \$267 *	- \$542 *	- \$384 *
Medical costs	- \$145	- \$191	- \$372

\* P < .01    ROI > 3:1



# COHE Pilot Evaluation: Long-Term Results

- Current analysis to determine long-term (8-year) outcomes in progress
- Preliminary results:
  - 26% reduction in risk of exiting from labor force and going on SSDI for workers with back sprain or other sprains:
  - Unadjusted differences in mean disability days and days per 10,000 injured workers over 8-year follow up:
    - 35.7 disability days versus 58.9 disability days
    - 231,500 days/10,000 (634 years of productive work time lost)



# Current State of COHE

- In March 2011, legislature passed a law expanding COHE on a permanent statewide basis
- 6 COHE sites, with over 2,500 physicians providing occupational health care to 60% of injured workers covered by DLI
  - Care coordination becomes billable service
  - Risk assessment performed to identify high risk cases
- COHE system provides a system platform to support delivery of stepped care management



# COHEs and Stepped Care Management

- COHE sites provide desirable clinical settings to incorporate stepped care management/ collaborative care (SCM-CC) within delivery of routine occupational health care
- SCM-CC within COHE is an early work in progress
- COHE sites are implementing new processes, procedures and tools to support SCM-CC



# What is Stepped Care Management?

- SCM model based on work of Wagner et al. at Group Health to develop chronic care model to treat diabetes, heart failure, etc.
- More recently adapted for chronic pain prevention and management
- Tightly linked to population-based quality improvement initiatives
- SCM requires that care is **Proactive** and **Accountable**



# Principles of Collaborative Care (CC)

- Effective CC reflects 5 principles:
  - Patient-centered team care
    - focused on patient goals
  - Population-based care
    - patients don't "fall through the cracks"
  - Measurement based treatment to target
    - Outcomes measured to guide stepped care
  - Evidence-based care
    - Psychosocial and pharmacological treatments
  - Accountable care
    - Providers & patients held accountable for treatment goals



# COHEs Provide Screening for High-Risk Patients

- COHEs are implementing procedures to screen patients at risk for extended disability and provide appropriate SCM-CC interventions
- Screening tool is brief 6-item questionnaire (Functional Recovery Questionnaire)
- Developed from research conducted at UW (Fulton-Kehoe et al., JOEM 2008)



**FUNCTIONAL RECOVERY  
QUESTIONNAIRE**

Provider Name: \_\_\_\_\_  
(Print)

Provider ID (LMI) or NPI: \_\_\_\_\_

Patient Name:

Date of Injury: \_\_\_\_/\_\_\_\_/\_\_\_\_  
mm dd yyyy

Claim #:

Today's Date: \_\_\_\_/\_\_\_\_/\_\_\_\_  
mm dd year

To be completed by patient currently off work.

For office use

N = ✓

N = ✓

N = ✓

N = ✓

Total

1. During the past week have you worked for pay?

- No Please answer the remaining questions.
- Yes STOP here. You are done – thank you.

2. In the past week how much has pain interfered with your ability to work, including housework? (Please circle one number.)

0 1 2 3 4 5 6 7 8 9 10  
No interference Unable to carry on any activities

3. Please check any areas where you have persistent, bothersome pain:

- Low Back with pain, numbness, or tingling that travels down your leg
- Low Back without leg pain
- Head     Neck     Shoulder(s)
- Arms/Hands     Abdomen/Pelvic Area
- Hips/Buttocks     Legs/Feet
- Chest/Rib Cage     Upper/Mid Back
- No areas with persistent, bothersome pain

4. Since your injury, has your employer offered you light duty, part time work, a flexible schedule, special equipment, or other job modifications if needed to allow you to work?

- Yes     No

5. How certain are you that you will be working in six months. (Please circle one number.)

0 1 2 3 4 5 6 7 8 9 10  
Not at all certain    Extremely certain

6. Are you concerned that your work will make your injury or pain worse?

- Yes     No



Thank you for completing this questionnaire

For Health Care Provider use: Treatment Plan Notes if 3+ above (✓ on Questions 1-3)



# Care Coordination and COHE

- Effective SCM-CC requires **timely care coordination**
- Health Service Coordinators provide care coordination and track patient progress
- Care coordination in COHE is fostered through
  - Patient tracking systems that interface with claims administration systems
  - Alignment of financial incentives
    - During COHE expansion care coordination became a billable service



# Summary and Concluding Points

- History of COHEs demonstrate it is possible to:
  - Develop a large system transformation that improves quality and outcomes on a population basis, and reduces costs
  - Make real progress in achieving the Triple Aim
- Keys to success were:
  - Strong ongoing stakeholder support from business and labor
  - DLI organizational learning that created strong management support for COHE
  - Presence of “idea champions” supporting the intervention
  - Good evaluation science that produced credible results to support expansion via WA legislative action



# Summary and Concluding Points(2)

- COHE system is now refining and adapting new procedures and processes to support effective SCM-CC
- Key challenges include:
  - Aligning financial incentives to sustain effective SCM-CC procedures
  - Implementing IT and administrative systems to support SCM-CC
  - Sustaining strong support within COHE system to provide SCM-CC to address the opioid problem

**Thank You!** [Wickizer.5@osu.edu](mailto:Wickizer.5@osu.edu)