

# Latest Research on Early Psychosocial detection and intervention to improve return to work outcomes

## Presented by:

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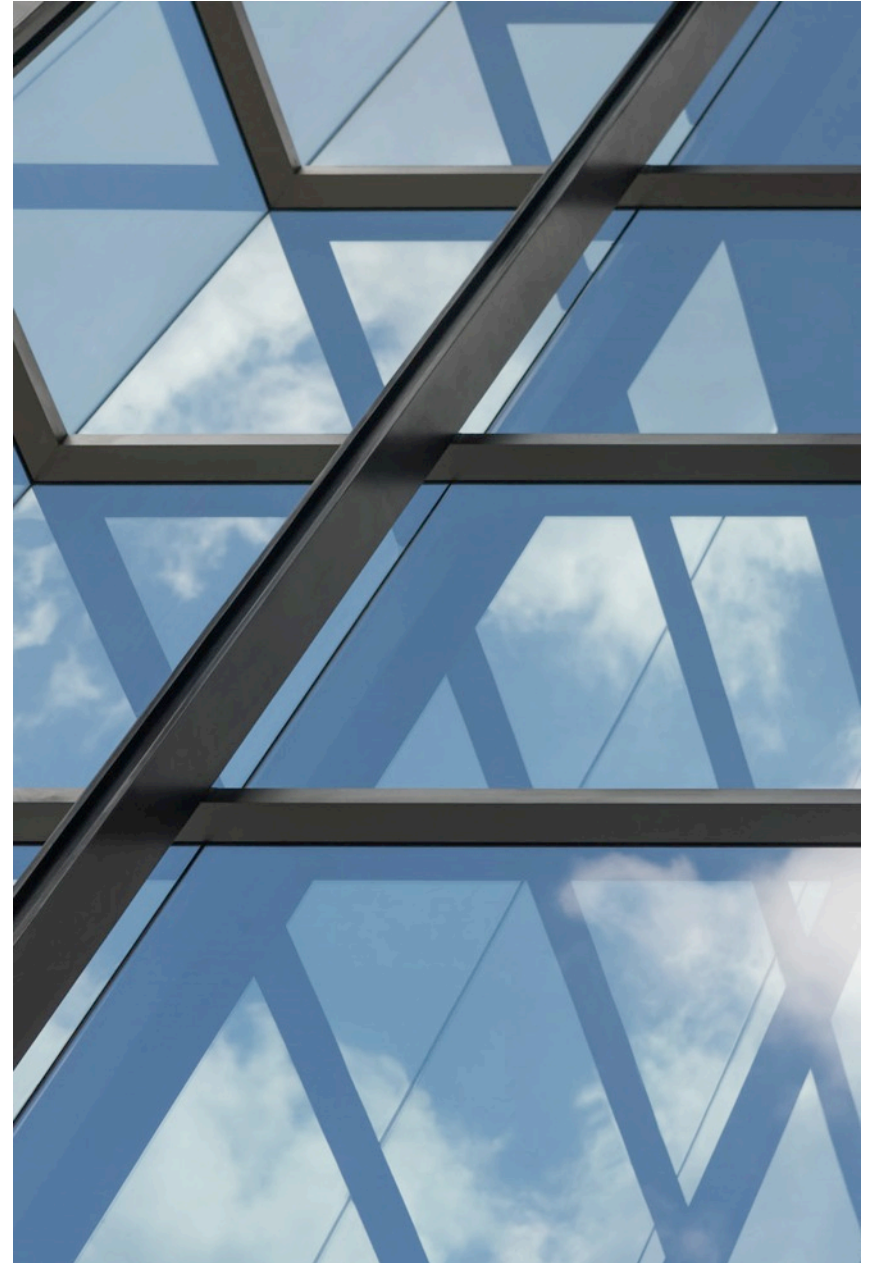
## On behalf of:

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Director, Pain Education and Pain Management Programs  
Pain Management Research Institute



THE UNIVERSITY OF  
**SYDNEY**



# Summary

- Background to WISE (Work Injury Screen Early) study
- Update on outcomes
- Key “learnings” for next steps
- Importance of: Early screening and Protocol for responding

# Background - in NSW

- Soft-tissue injuries account for a significant proportion of workers compensation injuries (53% for 2011–12).
  - For NSW Health (69% for 2011–12).
- Vast majority RTW rapidly, but those who don't = higher costs
- NSW Health's 2012–13 workers compensation premium increased by \$24m to \$181m (15%)

A key reason:

- **An increase in the length of time injured workers were away from work**

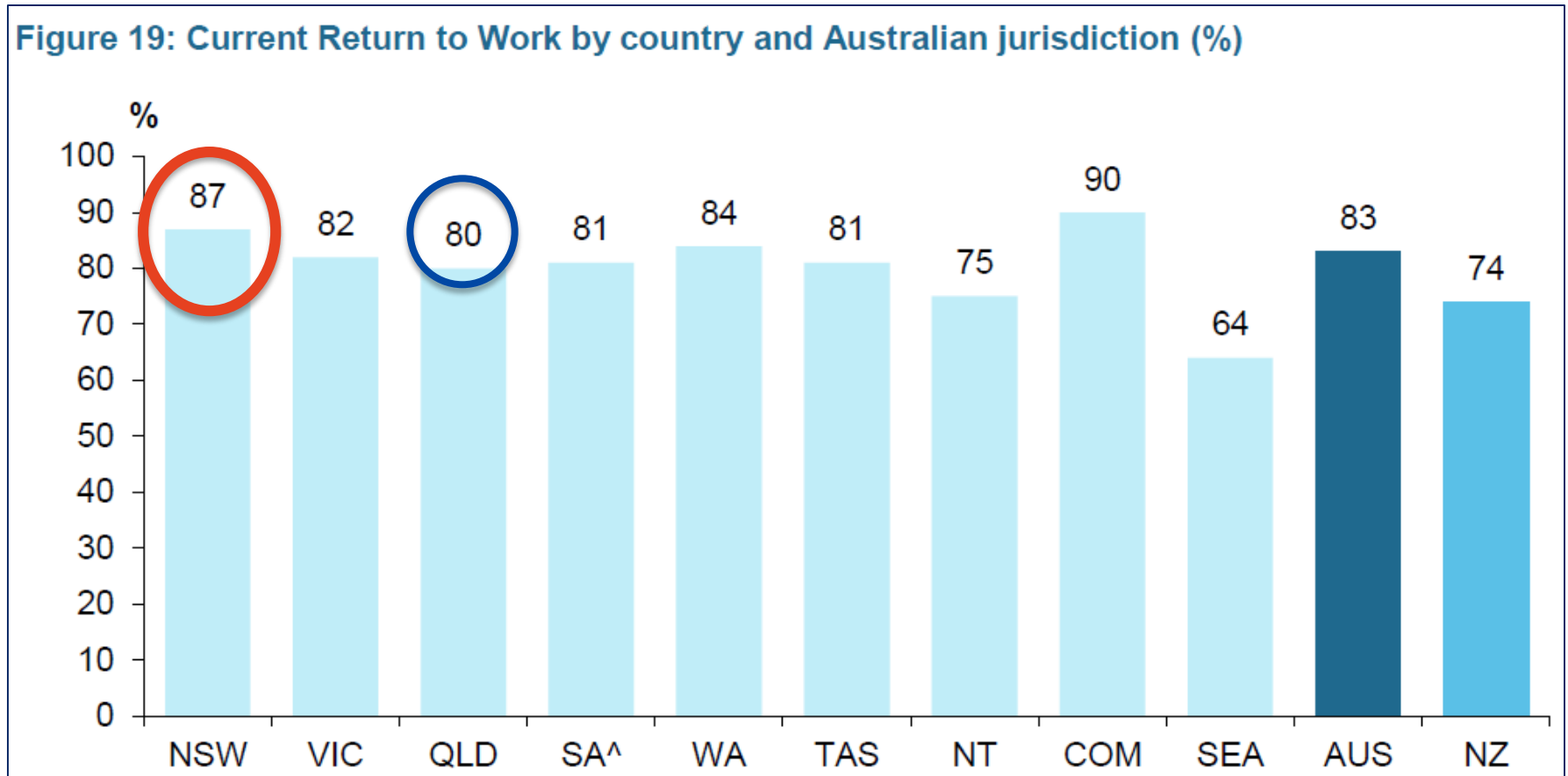
# Return to Work Survey

## 2016 Summary Research Report (Australia and New Zealand)

August 2016

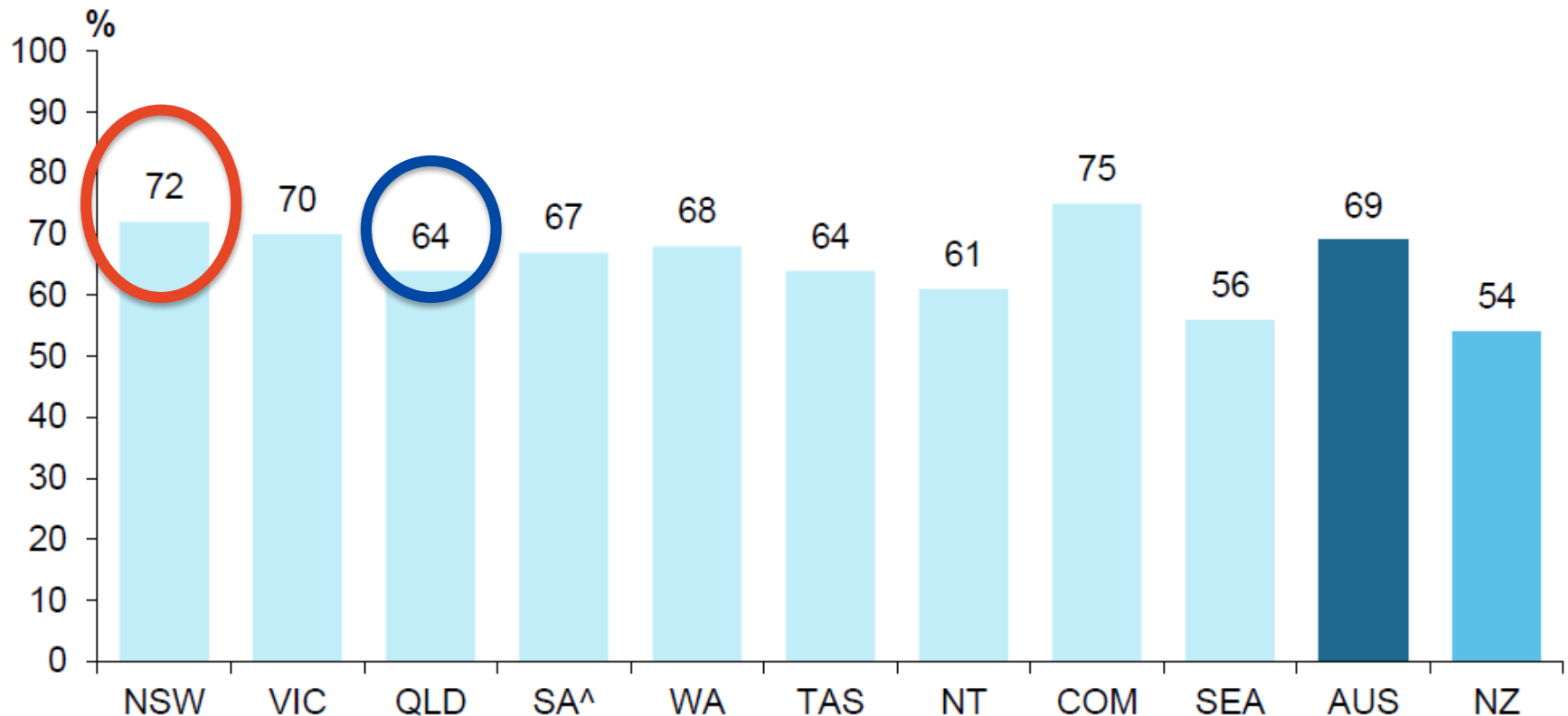
Safe Work Australia – Return to Work Survey  
Summary Report (Australia and New Zealand)  
Prepared by the Social Research Centre

Figure 19: Current Return to Work by country and Australian jurisdiction (%)



# But, sustained RTW not so good (3-months)

Figure 21: 3-month Stable Return to Work by country and Australian jurisdiction (%)



**WorkCover (NSW) Soft Tissue Injury Guidelines uses such a questionnaire:**

**Orebro Musculoskeletal Pain Screening Questionnaire (OMPSQ) – 24 items after 4-12wks.**

If High risk, then refer for further assessment

**Bit like parenting – maybe at times we need to intervene sooner!**


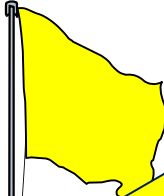
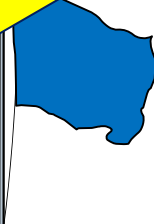



# Key features of the WISE study

- Based on evidence that RTW after injury is influenced by many modifiable factors:
- Injury itself (especially **pain severity**)
- The **workplace response to injured worker**
- The **claims management process**
- The **treatment process**
- The **psychological, behavioural, and social characteristics** of the injured worker
- **Importantly, a brief screening scale required to identify most at risk cases**



## Screening questionnaire needs to capture modifiable risk for delayed RTW after injury

<p><b>Biological</b></p>		<ul style="list-style-type: none"> <li>• <b>Serious pathology (injury requiring surgery)</b></li> </ul>
<p><b>Psychosocial</b> (Personal and environmental factors)</p>		<ul style="list-style-type: none"> <li>• <b>Depression</b></li> <li>• <b>PTSD</b></li> <li>• <b>Unhelpful (eg. avoidant) coping strategies (eg. resting)</b></li> <li>• <b>Emotional distress</b></li> <li>• <b>Passive role in recovery</b></li> </ul>
		<ul style="list-style-type: none"> <li>• Perceived low social support at wk</li> <li>• Perceived unpleasant work</li> <li>• Low job satisfaction</li> <li>• Perception of excessive demands</li> </ul>
<p><b>Systemic/context</b> (Main, Sullivan, Watson, 2008)</p>		<ul style="list-style-type: none"> <li>• <b>Legislative criteria for compensation</b></li> <li>• <b>Nature of workplace (eg. heavy work)</b></li> <li>• <b>Compensation system</b></li> </ul>

Modifiable

# Short Form of OMPSQ - developed and published 2011

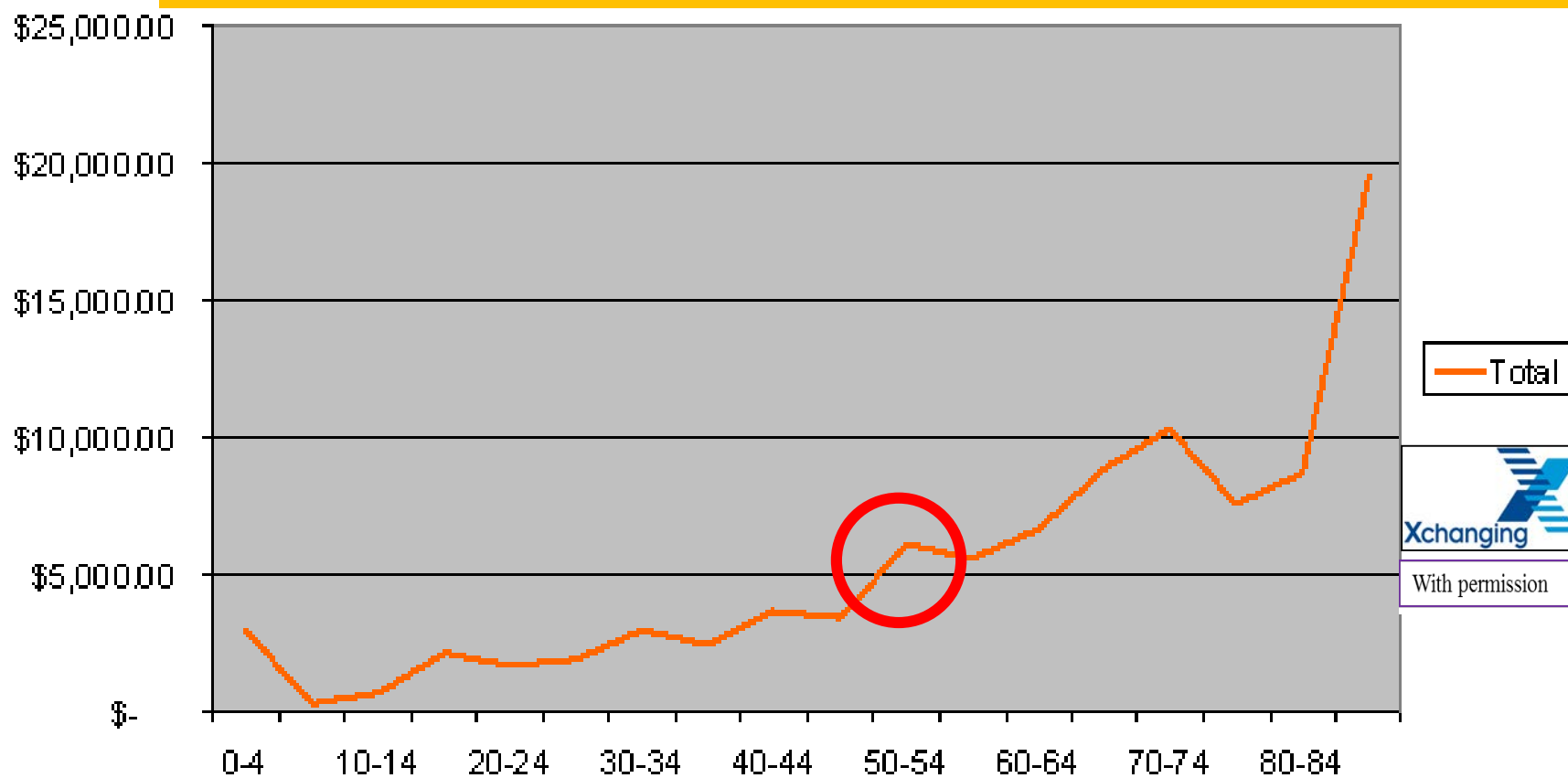


- 10-items
- High correlation with long form of OMPSQ (24 items)
- Scores  $\geq 50$  able to predict 85% long-term sick leave within next year

# How practical?

## Can it be done over phone by Claims staff?

Higher scores at baseline = higher costs at 6 mths



With permission

OMPSQ-SF scores

# OMPSQ-10 activity

## Örebro Musculoskeletal Pain Screening Questionnaire (Short)

Name: \_\_\_\_\_ Date of Birth: \_\_\_\_\_

Are you:  Male  
 Female

1. How long have you had your current pain problem? Tick (✓) one.

0-1 weeks [1]  1-2 weeks [2]  3-4 weeks [3]  4-5 weeks [4]  6-8 weeks [5]  9-11 weeks [6]  3-6 months [7]  6-9 months [8]  9-12 months [9]  over 1 year [10]

2. How would you rate the pain that you have had during the past week? Circle one.

0 1 2 3 4 5 6 7 8 9 10  
No pain Pain as bad as it could be

Please circle the one number which best describes your current ability to participate in each of these activities.

3. I can do light work for an hour.

0 1 2 3 4 5 6 7 8 9 10  
Can't do it because of the pain problem Can do it without pain being a problem

10-x

4. I can sleep at night.

0 1 2 3 4 5 6 7 8 9 10  
Can't do it because of the pain problem Can do it without pain being a problem

10-x

5. How tense or anxious have you felt in the past week? Circle one.

0 1 2 3 4 5 6 7 8 9 10  
Absolutely calm and relaxed As tense and anxious as I've ever felt

6. How much have you been bothered by feeling depressed in the past week? Circle one.

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

7. In your view, how large is the risk that your current pain may become persistent?

0 1 2 3 4 5 6 7 8 9 10  
No risk Very large risk

8. In your estimation, what are the chances you will be working your normal duties in 3 months

0 1 2 3 4 5 6 7 8 9 10  
No chance Very Large Chance

10-x

Here are some of the things which other people have told us about their pain. For each statement please circle one number from 0-10 to say how much physical activities, such as bending, lifting, walking, or driving affect your pain.

9. An increase in pain is an indication that I should stop what I'm doing until the pain decreases.

0 1 2 3 4 5 6 7 8 9 10  
Completely disagree Completely agree

10. I should not do my normal work with my present pain.

0 1 2 3 4 5 6 7 8 9 10  
Completely disagree Completely agree

SUM:

## Scoring the short version of the Örebro Musculoskeletal Pain Screening Questionnaire (ÖMPSQ)

The short version of the ÖMPSQ includes 10 items selected from the full version (see Linton, Nicholas & MacDonald, 2011). These items are scored 0-10, where 0 refers to absence of impairment and 10 to severe impairment. However, three items need to be reversed in order for all the questions to be oriented in the same direction.

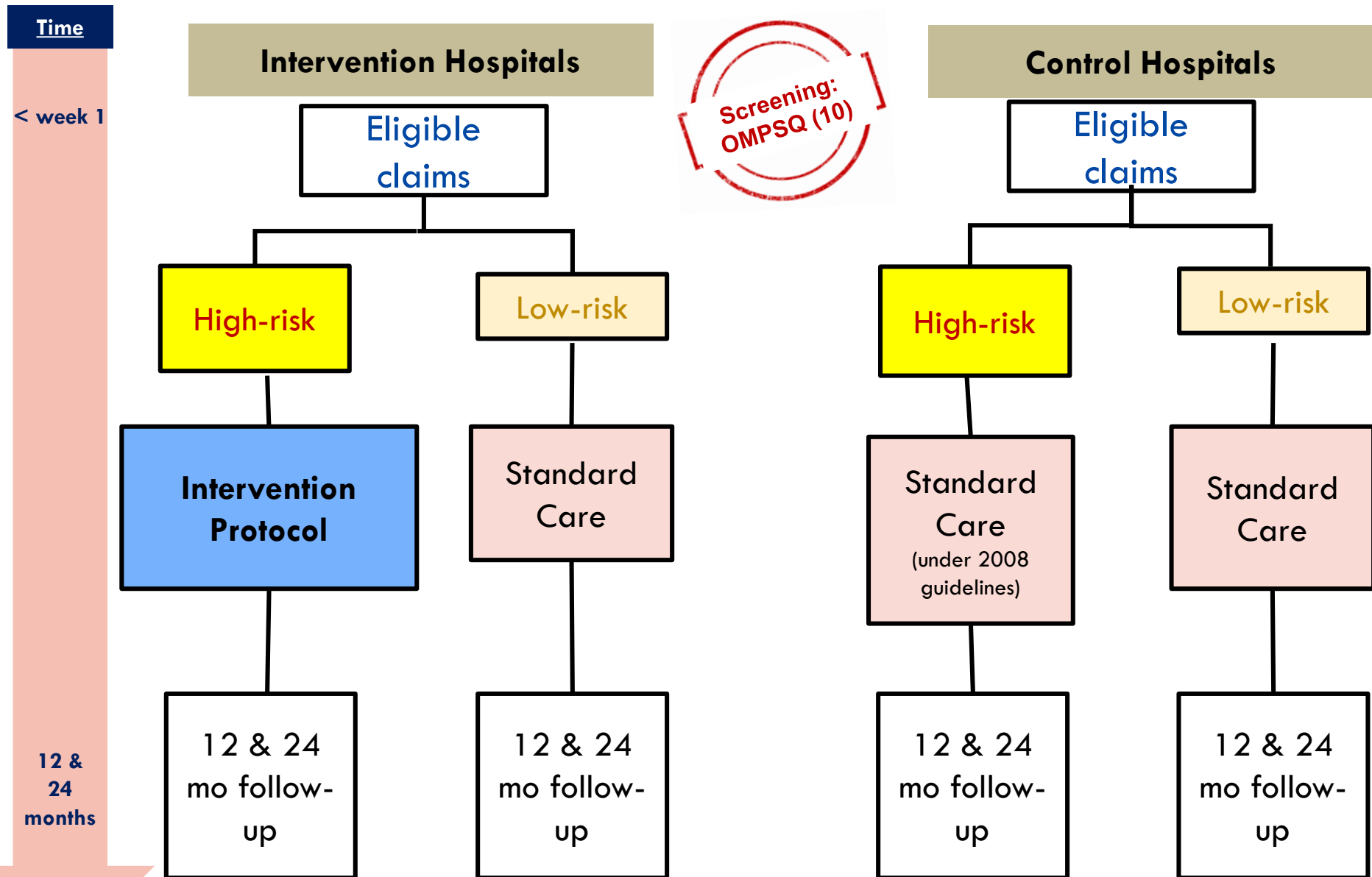
The scoring method has been built into the questionnaire and scoring boxes are provided to the right of each item:

- Item 1, on pain duration, the categories 1-10 represent periods of time ranging from "0-1 week" (first box on the left) to "over 1 year" (last box to the right). Thus, "6-8 weeks", for example, would be scored "5";
- Items 2, 5, 6, 7, 9, and 10 the score is the number circled;
- Items 3, 4, and 8 the score is 10 minus the number circled. These items are marked with "10-x" above the scoring box;
- Write the score for each item in the shaded scoring box;
- Add all the scores to obtain the total score and write it in the last shaded box.

The total score will range between 1 and 100, with a score >50 indicating higher estimated risk for future work disability (Linton, Nicholas & MacDonald, 2011).

Linton, S. J., Nicholas, M., MacDonald, S. (2011). Development of a Short Form of the Örebro Musculoskeletal Pain Screening Questionnaire. *Spine*, 36, 1891-1895. doi: 10.1097/BRS.0b013e3181f8f775

# WISE study launched 2013 – study plan



# Characteristics of injured workers studied

**TOTAL N = 580**

**Control Hospitals (6) = 214**

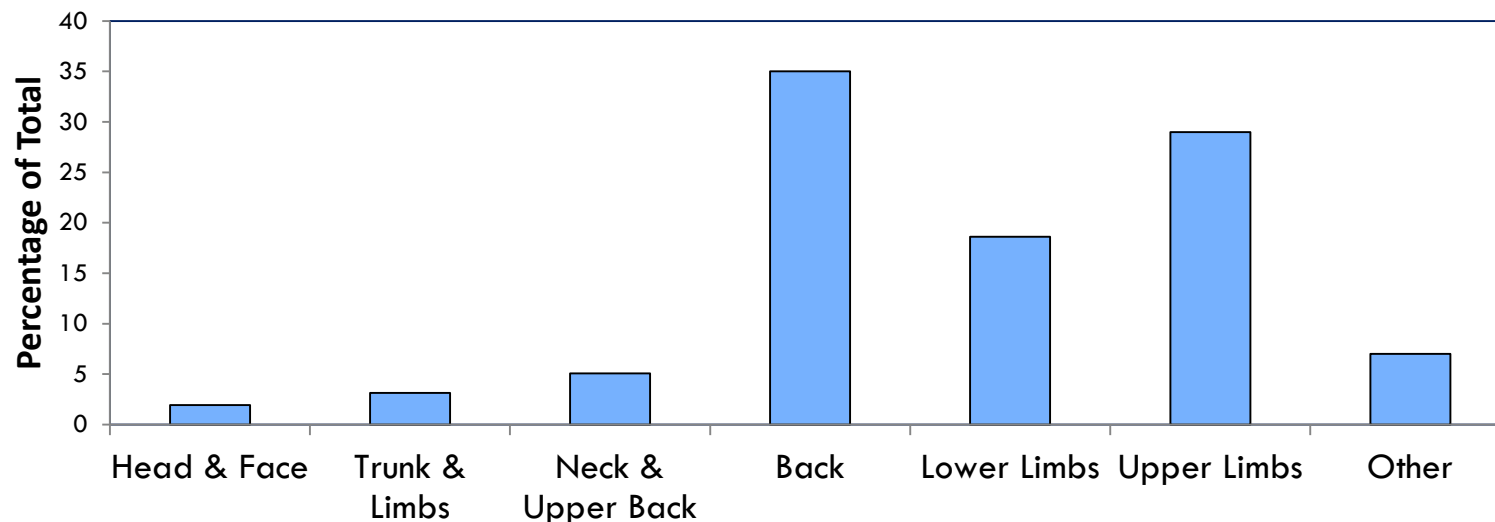
**Intervention Hospitals (11) = 366**

**High risk = 141 (24.4%)**

**Ages: 23-75; Mean age: 45**

**Gender: Male 20%; female 80% (most Health employees are women)**

**Main Injury Sites**



**Body Parts**

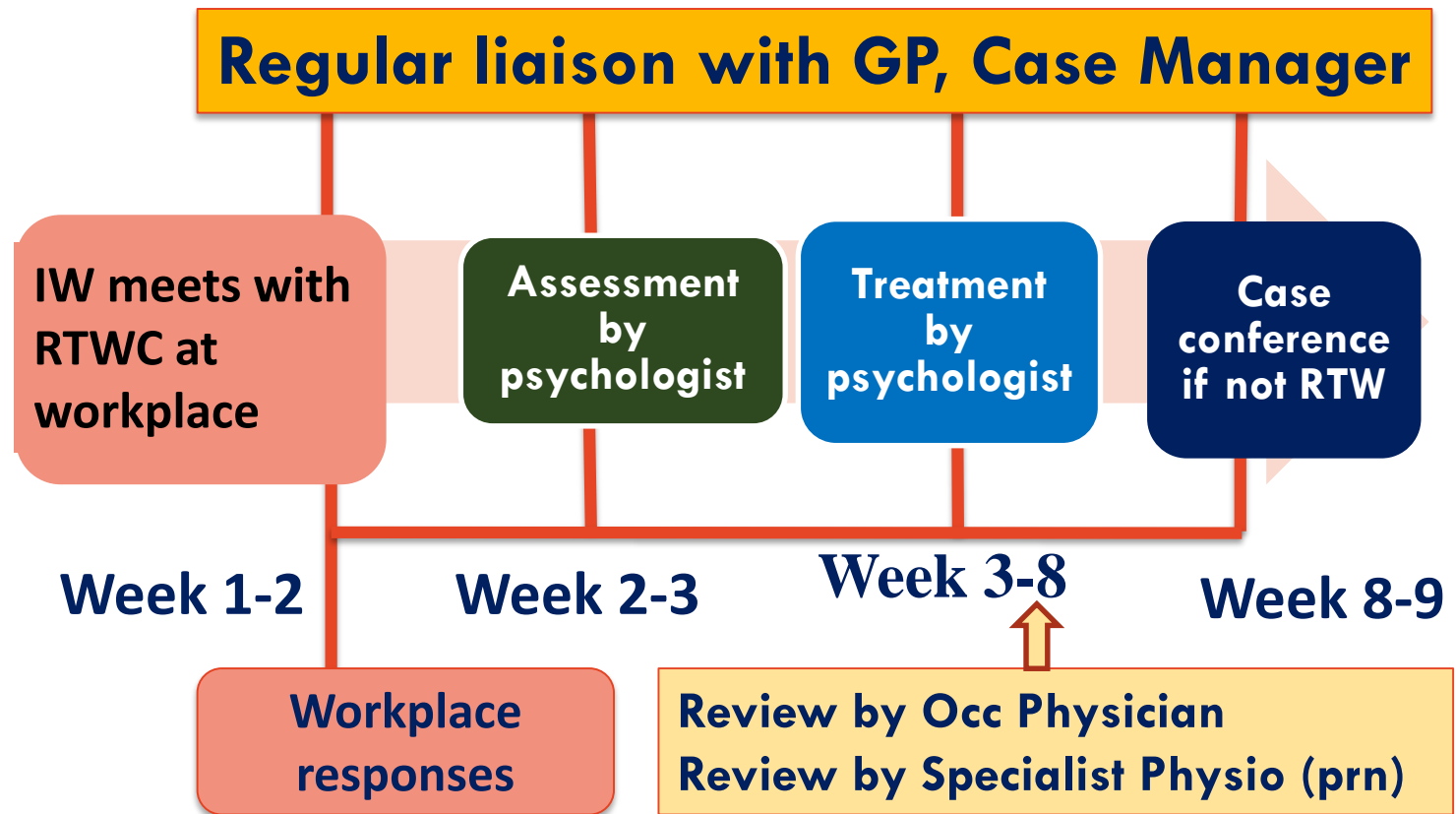
# Primary outcomes for WISE Study

1. Cost of claims

2. Initially sustained RTW in the 12 month follow-up. Now data on 33 month FU.

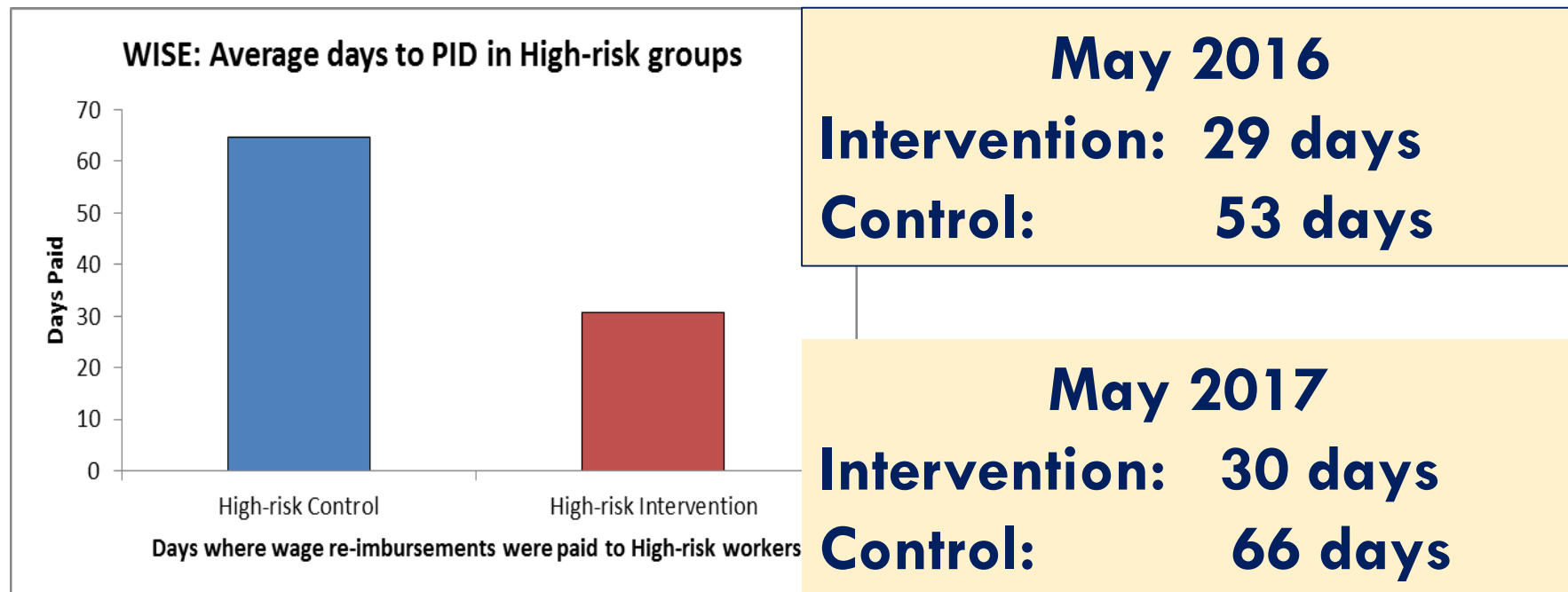
# Intervention protocol for high risk cases (>50 OMPSQ)

1. Usual treatment by GP, physio, etc
2. Plus:





# Ave. Days to RTW (Pre-Injury Duties, PID) 2017



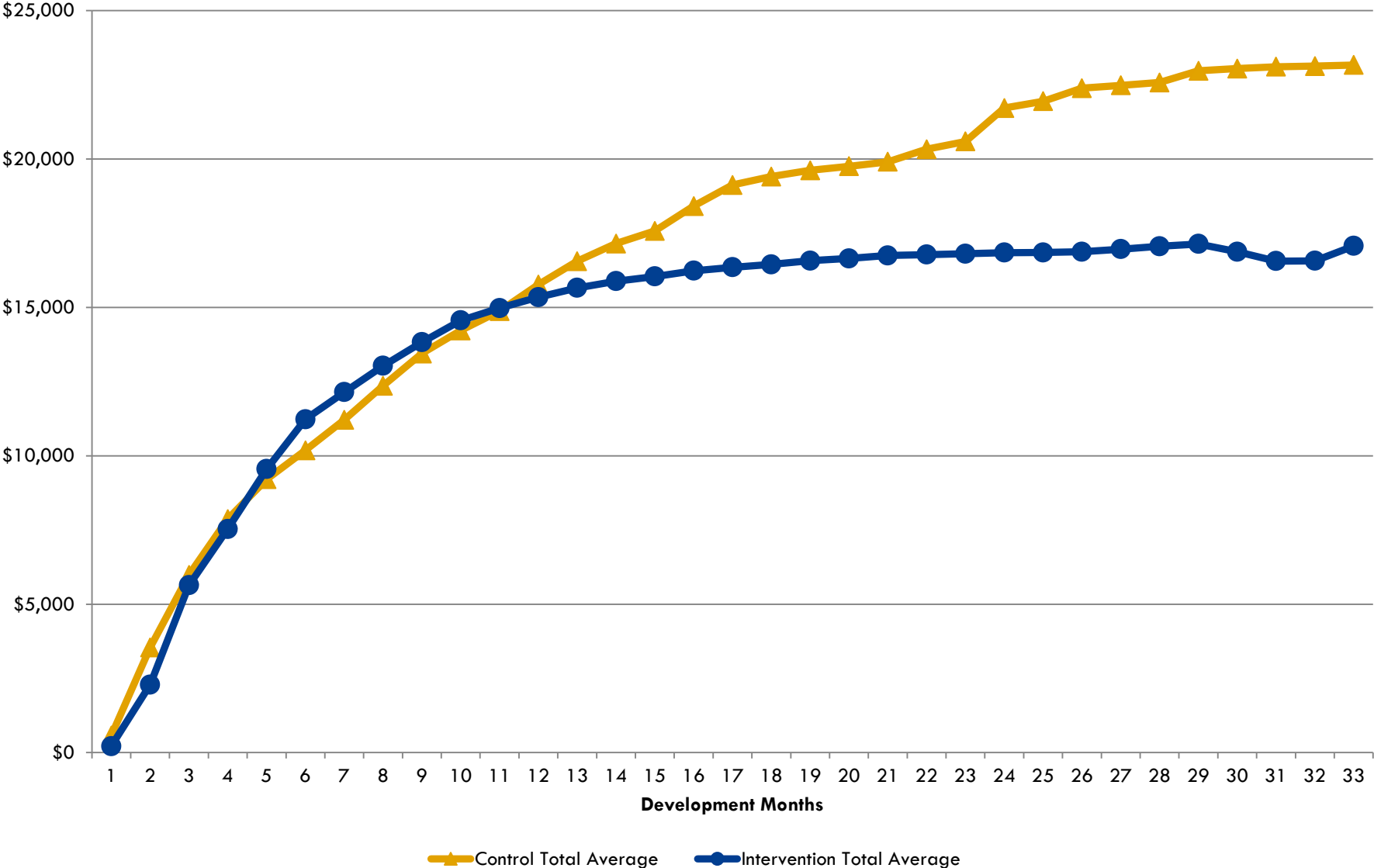
$(t(109)=2.13, p=.033)$

**Days to pre-injury duty > 90**

**Intervention: 3/54 (5.5%)**

**Control: 11/57 (19.3%) - 'Tail' still wagging after 2yrs**

# 2017 Results at 33 months (max)



# WISE study (2017)

- Gap continues to widen
- Complex and difficult to manage 'Tail' claims = 5.5% in Intervention, vs 19.3% in Control

## Outcome:

- All Intervention sites wanted to maintain WISE protocol
- Since June 2015, NSWHealth has implemented WISE protocol across state for all public hospitals
- In late 2016 NSWHealth premiums declined

# Key lessons from WISE study:

- The WISE study shows we can improve outcomes
- No new treatments needed, just changing the way we work as a system – using an **agreed protocol**

## Key features:

- Use of a clear **protocol** (closely monitored /reinforced)
- Identifying those at risk due to psychosocial factors and providing access to help for modifying the risk factors

## In essence:

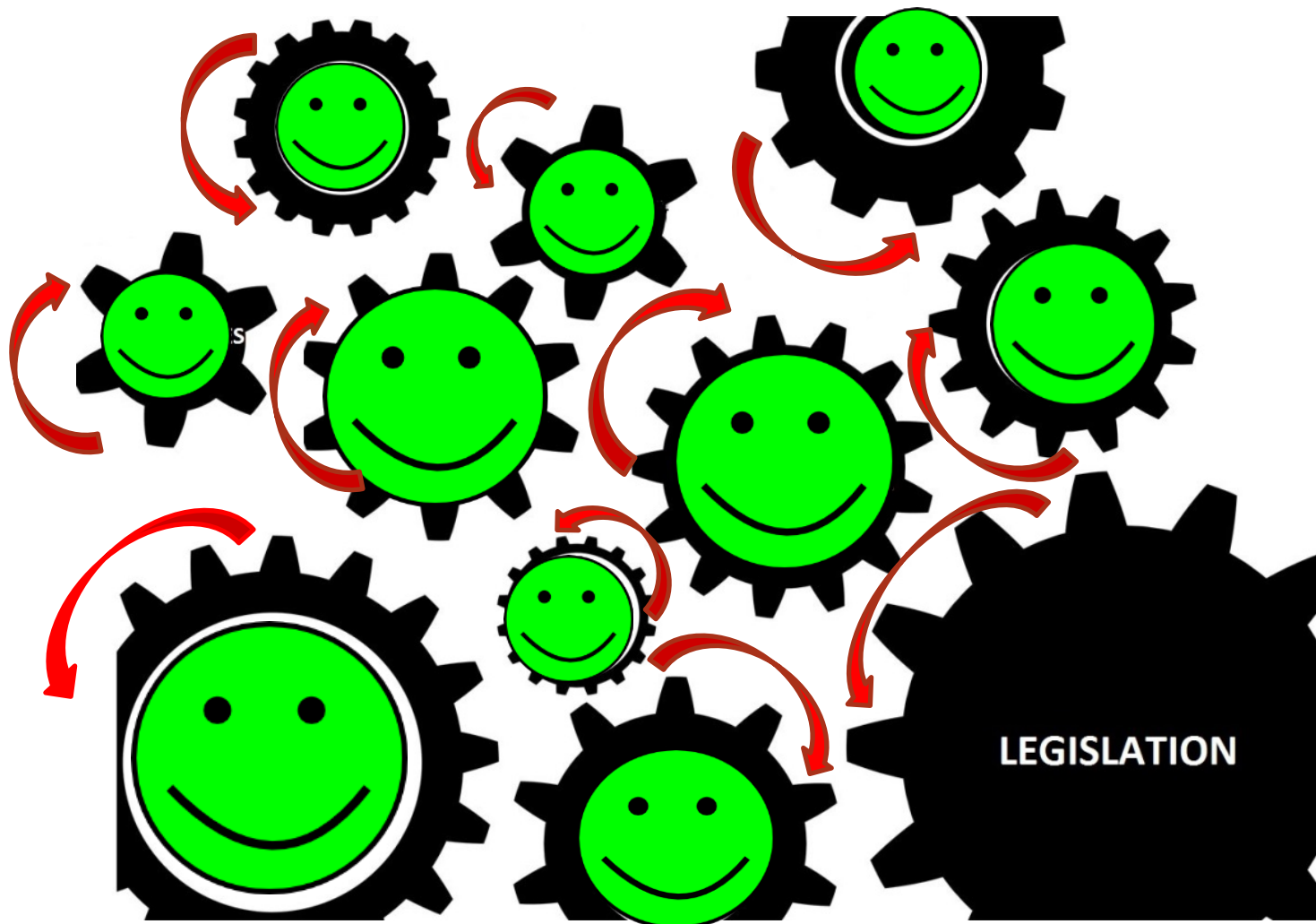
- Helping the injured worker (vs treating the injury alone)
- **Active involvement from employer and insurer**

# To Conclude

- From the moment of injury, psychological and social factors can influence outcomes
- Most can be identified easily (OMPSQ-10) within days of the injury
- While biomedical treatments are already provided early, psychosocial interventions are not
- Targeted, early psychosocial interventions for these cases yields better outcomes than usual care
- But, it is dependent on the key stakeholders cooperating and adhering to a protocol - this means: the employer, the insurer, the treatment providers

# To describe it graphically

But, if one player doesn't do their bit ....???



All this work was undertaken by Prof. Michael Nicholas and his collaborators

## Main Collaborators



Dr Garry Pearce, Dr Mick Gleeson, Dr Rafael Pinto,  
Dr Dan Costa



Karen Munk, Tamara Sprod, Rachel Elmes, and  
Claims managers & staff at EML



Robert Lloyd, Susan Rafty



Michele Murphy and RTW coordinators at each  
hospital

**International and Australian partners:** Steven Linton (Sweden); William Shaw (USA); Chris Main (UK);  
Rob Smeets (Netherlands); Chris Maher (USyd); James McAuley (UNSW); Fiona Blyth (USyd); Andrew McGarity (NSW Fire)