EML
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SWISS RE: EXCELLENCE & INNOVATION IN RETURN TO WORK AWARD IN 2015/16

WORK INJURY SCREENING AND EARLY INTERVENTION STUDY (**WISE**)

we help people get their lives back

EXECUTIVE SUMMARY

Key facts and achievements:

- Work-related musculoskeletal injuries represent the most common workers compensation claims in Australia
- 24% of screened injured workers were identified as being at high-risk
- As a result of the WISE study to help identify patients for whom early intervention could improve return to work outcomes, a state-based intervention protocol has been developed for NSW Health and icare
- 22% total savings on claims were realised in an intervention group compared to controls
- The average number of days lost for a high-risk intervention group was 30 days, compared with 56 days for the control group

The Work Injury Screening and Early Intervention (WISE) study was a partnership between NSW Health, EML, University of Sydney and icare. It focused on early intervention in relation to major at-risk musculoskeletal injuries. The intervention embraced a holistic approach involving close cooperation between the workplace, psychologists, NTD and EML to address identified individual obstacles for RTW.

The study revealed wide potential benefits for workers and the Government. It resulted in meaningful improvements for workers in returning to good work, significant premium reductions and a proven protocol that can be used extensively in improving Return to Work (RTW) outcomes in future.

This protocol considers the physical, social, psychosocial and emotional needs of the worker. In addition, it identifies and manages factors that increase the risk of developing long-term disability.

22%

TOTAL SAVINGS ON CLAIMS WERE REALISED IN AN INTERVENTION GROUP COMPARED TO USUAL CARE CONTROLS

30 DAYS

THE AVERAGE NUMBER OF DAYS LOST FOR THE INTERVENTION GROUP

"THE SUCCESS OF THE WISE PROTOCOL IS THAT IT GIVES US A MECHANISM FOR IDENTIFYING WORKERS WHO MAY NEED OR WANT ASSISTANCE DUE TO POTENTIAL PSYCHOSOCIAL RISKS THAT OTHERWISE MAY IMPEDE THEIR RECOVERY. "

STEVEN
EML TEAM LEADER

BACKGROUND

- **The aim was to help workers return to 'good' work earlier**
- **The WISE study was developed as an innovative way to address the growing cost of musculoskeletal injuries which become complex long-term injuries**

NSW HEALTH'S SPIRALLING COSTS

NSW Health has over 110,000 full-time staff, comprising about 28% of the NSW General Government sector budget.

Premiums to cover workplace injuries for NSW Health, as for all agencies, are covered by the cost of weekly benefit payments (currently 45% of all payment types). Health had experienced a steady increase in the number of days lost per person since 2009. RTW durations showed that, on average, workers were away from work for 44 days within the first six months of a claim. If a claim extended to two years, 26 weeks were lost on average.

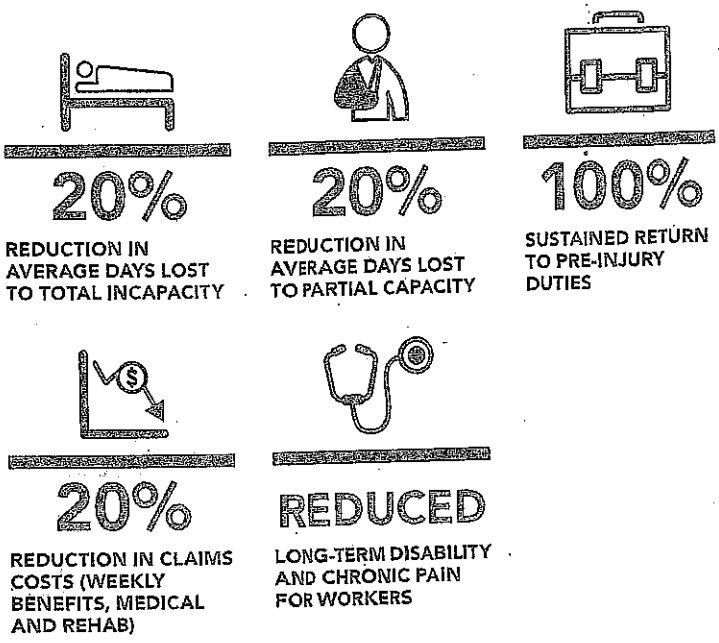
As a result, the cost of weekly benefits for Health grew to $69 million in 2011. This affected target premiums for the following year, which for Health resulted in a $24 million (15% increase) in premiums, rising to $181 million in 2012/13.

THE CONCORD STUDY

In 2008 a preliminary study was conducted at Concord Hospital by Mr Andrew McGarity (Rehabilitation Coordinator) and Dr Garry Pearce (Medical Director). This served as a 'blueprint' for the WISE study.

The Concord study sought to quantify the effectiveness of implementing an early intervention approach for workers with soft tissue injuries who were identified by a short screening questionnaire within days of their injury. Its results were promising, showing that an early intervention protocol could reduce costs for high-risk claims. Overall there was a 14% reduction in claims costs for the intervention group as a whole, saving approximately $1,524 per claim.

BACKGROUND



A UNIQUE PARTNERSHIP

The WISE study was developed to substantiate the initial findings and to develop protocols that could be applied on a larger scale across NSW Health and the broader icare portfolio. It involved a unique partnership[1] between the NSW Ministry of Health, University of Sydney, EML and icare. NSW Health was the 'Client,' Sydney University was 'The Study Manager,' icare was the 'Project Sponsor' and EML was 'Project Administrator'. It was a strong partnership with key stakeholders having a deep commitment to improving outcomes for workers with high-risk injuries and helping them return to 'good' work.

During the course of the study, the stakeholders developed close relationships with treating practitioners. The project manager worked closely with and supported the RTW Coordinators, psychologists, general practitioners and independent medical consultants and physiotherapists to effectively apply the early intervention approach.

A highly regarded and well-published international panel of researchers also provided additional advice and support. Experts from the US, UK, Netherlands, Sweden and Sydney helped reinforce the credibility of the project.

Fundamental to the success of the partnership and project was the creation of a steering committee, a governance structure and good partnerships between the project advocates.

THE WISE STUDY'S GOALS

The overall aim was to determine if implementation of an early identification and intervention protocol for high-risk cases would result in better outcomes compared to usual care (current practice) for workers who sustained a soft tissue injury that required at least a week off work.

The chief objectives of the project were:

1. For the high-risk intervention group (as compared to control):
   - Earlier return to work for injured workers
     - 20% reduction in average days lost to total incapacity (section 36/37)
     - 20% reduction in average days lost to partial capacity (section 38, s40)
   - Sustained return to work for workers
     - 100% sustained return to pre-injury duties (at six months cessation of weekly benefit payments).

   Flow on benefits:
   - 20% reduction in claims costs (weekly benefits, medical and rehab)
   - Reduced long-term disability and chronic pain for workers
2. A functional early intervention protocol that can be effectively adapted to sites across Health in the first instance and across government agencies more generally in future.

1. Table 2 & Table 3

RETURNING TO WORK TO IMPROVE HEALTH OUTCOMES

- **WISE protocol encourages workers to return to work to prevent poor health outcomes associated with long-term absence.**

NSW Health, EML and care providers are aware of the health benefits of good work and the negative impact that an extended absence from the workplace can have. To reduce the risk of self-perpetuating absence and the associated negative health outcomes, the WISE study tested protocols to intervene in the negative cycle.

This required a fundamental shift in thinking by workers, treating practitioners, NSW Health and EML.

THE WISE STUDY: A HOLISTIC APPROACH TO THE PROBLEM

The WISE study ran from 1 January 2014 until 30 June 2016 and involved a total of 580 injured workers from 17 hospitals around NSW. It embraced a holistic approach incorporating:

- **Screening questionnaire** (Claims Manager)
- **RTW Coordinator** liaising with workplace manager, NTD, psychologist, Claims Manager and injured worker
- **Psychologist** assessing and treating psychosocial obstacles for RTW
- **Independent Medical Consultant** to confirm diagnosis and reassure injured worker about recovery and treatment
- **Independent physiotherapy consultant** to review appropriateness of requests to continue physiotherapy treatments

This approach considered the physical, social, psychological and emotional needs of the worker and required identification and management of risk factors that increased the risk of developing long-term disability such as depression.

A shortened Orebro Musculoskeletal Pain Screening Questionnaire was used to estimate risks for developing pain-related disability and long-term work absence. The questionnaire investigated pain levels, self-perceived function, distress, return-to-work expectancy and fear-avoidance beliefs.

Study Protocol

Participating hospitals were designated as intervention or control groups to maintain blinding of screen results for the control group. Injured workers with soft tissue injuries who took >3 days off their usual duties were screened over the telephone by specially trained claims teams at EML. Those who scored >50 were deemed to be at high risk. If a worker screened high risk at an intervention hospital, the Return to Work Coordinator and EML Case Manager were notified and the Return to Work Coordinator offered the intervention protocol to the worker. Those who declined were excluded from the trial and their claim was managed in the usual way. If a worker at a control hospital screened high risk, the Return to Work Coordinator and the EML Case Manager remained blinded to their status and the claim was managed in the usual way.

The protocol included offering an early psychological assessment and up to six treatment sessions with a specified psychologist engaged by the project based on known pain management skills. The EML Case Manager booked an independent medical assessment for around four weeks from claim notification, which is much earlier than usual under the WorkCover guidelines. The independent medical assessment was an expert second opinion designed to assure the worker and the rehabilitation team that there was no serious pathology and that an early return to work at an appropriate capacity was the best way to manage the injury. If there was ongoing physiotherapy, the EML Case Manager booked an independent physiotherapy assessment towards the end of the current Physiotherapy Management Plan to provide guidance regarding the content and necessity of ongoing treatment.

This scientifically valid study resulted in meaningful improvements for workers in returning to 'good' work, along with premium reductions and an approved protocol that can be used extensively in future.

Table 1
Figure 1

RETURNING TO WORK TO IMPROVE HEALTH OUTCOMES

RETRAINING

The intervention required a change in approach to the injury management process. To this end:

- The University of Sydney provided training for health professionals to actively encourage individuals to return to the workplace insofar as their capacity allowed.
- NSW Health embraced a positive workplace culture by facilitating new soft skills training for staff and supervisors to better manage the return to work process.
- Workers participated in the program and were encouraged to take an active role in their own rehabilitation and return to work. This included a requirement to proactively take on exercises and activities recommended by the treating team.

To ensure that the interventions were applied consistently, a series of training sessions were held with over 100 EML case managers, NSW Health local health district risk managers, workers compensation managers and rehabilitation coordinators. The claims teams were familiarised with the protocol to ensure each worker was fully supported throughout the process.

HOW THE PROJECT WAS MANAGED

A dedicated project manager was recruited to:

- Provide ongoing support to all parties involved
- Track the intervention across sites
- Train and record the performance of stakeholders
- Liaise with treating practitioners

The project manager played an integral role in ensuring all participants worked together and gathered results for analysis.

BUILDING A NETWORK OF SUITABLE PSYCHOLOGISTS ACROSS THE STATE

Building the network of suitable psychologists required EML to identify practitioners across the state whose approach and experience aligned strongly with worker recovery and return to work outcomes. This was important to prove that the protocols could be implemented state-wide.

Feedback from participating workers:

"The clinical psychologist was excellent and was a huge part of my recovery. She was just amazing and it really did help."

"I felt like I got special treatment [compared to the previous experience] and looked after well. I think this should be done for everyone."

"The psychologist was unexpected but good. It changed my view on how to manage the pain and made a real difference."

RESULTS

Key results include:

- 24% of claims identified as high-risk
- 22% total savings for Intervention vs Control group[4]
- At 18 months the average cost of claims was $15,723 for the intervention group and $20,148 for the control group[5]
- The average number of days lost for the high-risk intervention group was 30 days, compared with 56 days for the control group.[6]

INCREASED INITIAL INVESTMENT FOR LONG-TERM BENEFIT

The early intervention protocol required an additional spending on high-risk claims (~ $2,500). However these costs were recouped due to the shorter claim lifecycle. At 18 months the average total cost of claims was $20,148 for the control group and $15,723 for the intervention group, a difference of $4425 and a saving of 22% (targeted saving was 20%) over the life of the claim.[7]

IMPROVEMENTS IN THE RISK OF LONG-TERM ABSENCE

The average number of lost days for the high-risk intervention group was 30 days, compared with 56 days for the control group.

A shortened orebro musculoskeletal pain screening questionnaire was used to estimate risk for developing pain related disability. It did this by questioning pain levels, self-perceived function, distress, return to work expectancy and fear-avoidance beliefs. The high-risk cut-off point on the screening questionnaire was a score of ~ 50. Prior to the intervention the average score of high-risk workers in the intervention group was 60, but after treatment their average score was 37, which meant participants had become low-risk for psychosocial factors that could delay recovery.

Moreover those who attended the psychology sessions reported reduced emotional distress (DASS – depression anxiety and stress scale), reduced disability (BPI – brief pain inventory), reduced worry (PCS – pain catastrophising scale), and improved confidence in performing tasks despite residual pain (PSEQ – pain self-efficacy questionnaire).

4 Graph 3 & 4
5 Graph 5
6 Graph 6
7 Table 1

$337K

THE CONSORTIUM'S INITIAL INVESTMENT IN THE RESEARCH PROJECT OVER 2 YEARS

66

THE NUMBER OF HIGH-RISK CLAIMS SCREENED IN THE CONTROL GROUP

AVERAGE COST AFTER 18 MONTHS: $20K

56

THE NUMBER OF CLAIMS SCREENED IN THE INTERVENTION GROUP

AVERAGE COST AFTER 18 MONTHS: $16K

22%

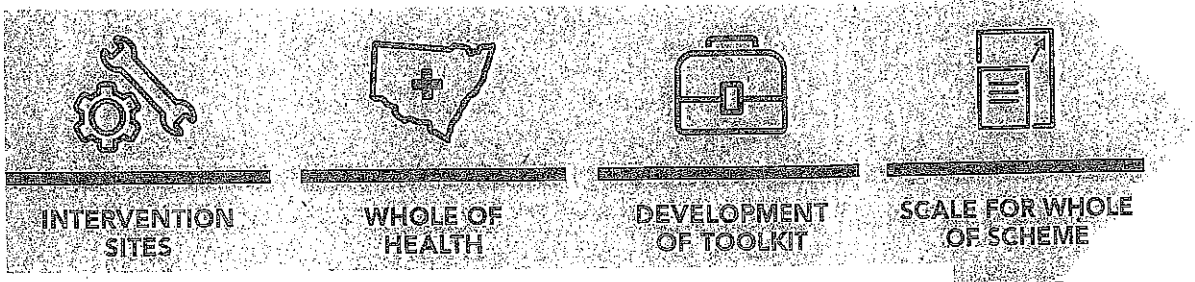
THE AVERAGE SAVINGS ON IMPLEMENTING THE SCREENING TOOL AND PROTOCOLS ON HIGH-RISK CLAIMS

RESULTS

"IN IDENTIFYING THESE INDIVIDUALS EARLY, WITHIN THE FIRST SEVEN DAYS, WE ARE ABLE TO DELIVER THE RIGHT SUPPORT AND THE APPROPRIATE INTERVENTIONS TO THESE WORKERS IN A TIMELY MANNER. IT'S REALLY MAKING A DIFFERENCE BY GIVING CONSIDERATION TO THE WHOLE PERSON AND NOT JUST THE INJURY."

DYLAN
EML TEAM LEADER

ONGOING BENEFITS



ALL INTERVENTION SITES WILL CONTINUE WITH THE HIGH-RISK SCREENING AND PROTOCOLS FOR HIGH-RISK CLAIMS

THE STAGED ROLL OUT ACROSS NSW HEALTH HAS COMMENCED AND WILL CONTINUE FOR THE NEXT SIX MONTHS

ASSISTING ICARE WITH THE DEVELOPMENT OF A TOOLKIT THAT WILL HELP THAT WILL ENABLE ALL TMF AGENCIES TO IMPLEMENT THIS PROTOCOL ACROSS THEIR BUSINESSES

TO HELP WITH THE SCHEME-WIDE ROLLOUT WE HAVE PROVIDED OUR KNOWLEDGE AND TOOLKIT TO ENSURE THE PROTOCOL IS SCALED UP AND THE BENEFITS ARE REALISED ACROSS THE SCHEME

ADDITIONAL BENEFITS

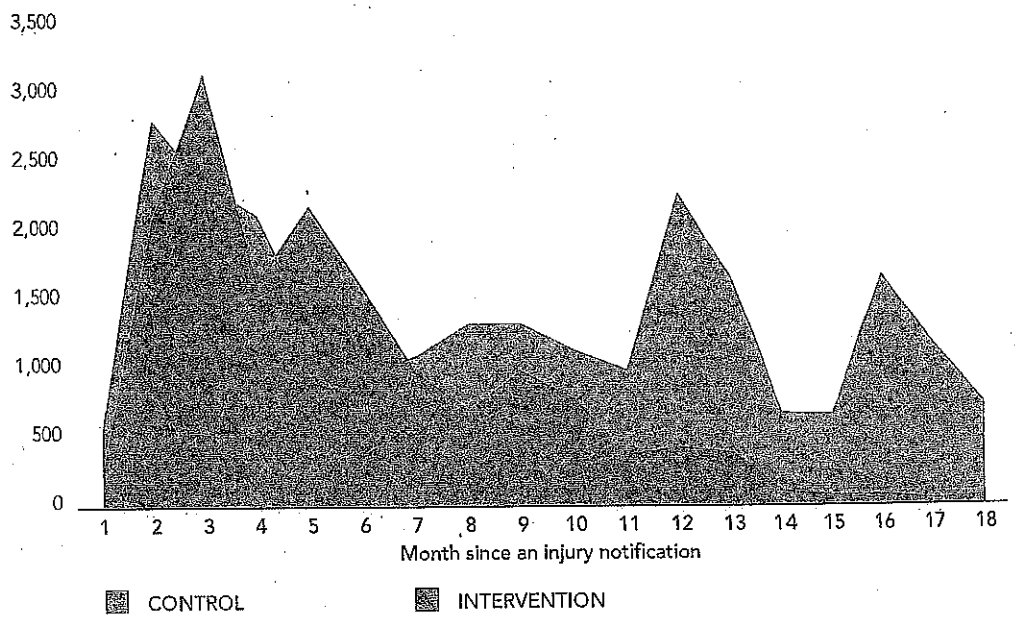
- Incorporating physical and psychological practitioners and their strategies led to a less 'silo-oriented' approach to managing ongoing injury
- Group of accredited psychologists skilled in early intervention service delivery brought expertise
- Upskilling of staff in delivery of early RTW strategies
- Case managers better able to manage caseloads through improved skills in identifying priority cases and where intervention was most beneficial
- The ability to identify soft tissue injury claims early that are at high risk of delayed RTW due to psychosocial factors
- Provides a proven early intervention protocol to effectively manage these claims, the training on how to use it, and the engagement of service providers to support protocols
- Improved outcomes leading to increased workforce participation and improved quality of life

CURRENT STATUS

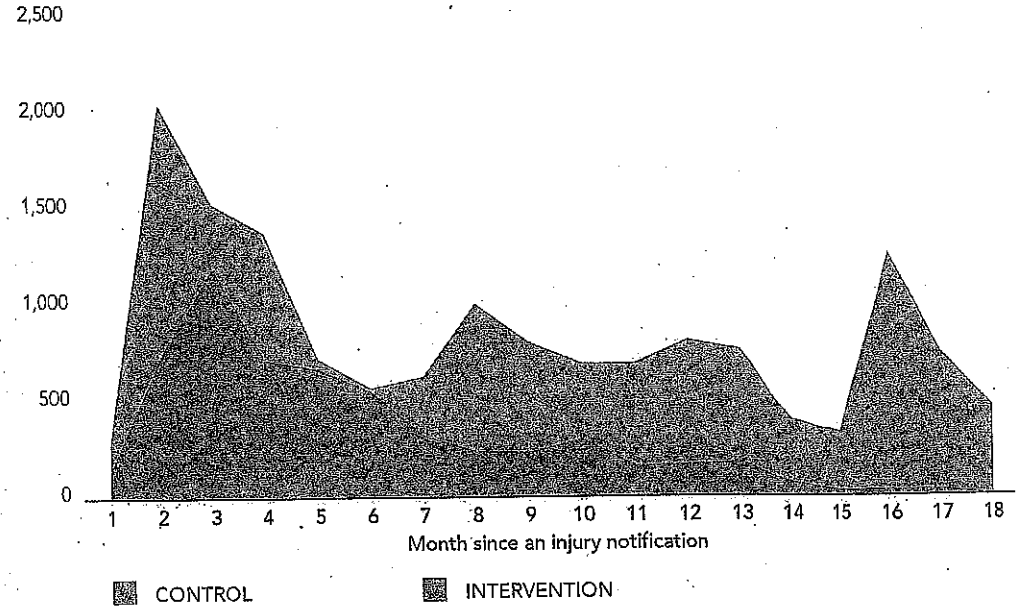
- NSW Health is rolling out the WISE protocol across its entire portfolio, and is due to be business-as-usual by 31 December 2016
- Final results and report to be released – this will incorporate the one-year follow-up data that has been collected

APPENDIX: ADDITIONAL INFORMATION

GRAPH 1 - WISE: TOTAL COST OF CLAIM OVER TIME ($)



GRAPH 2 - WISE: WAGE REIMBURSEMENTS OVER TIME



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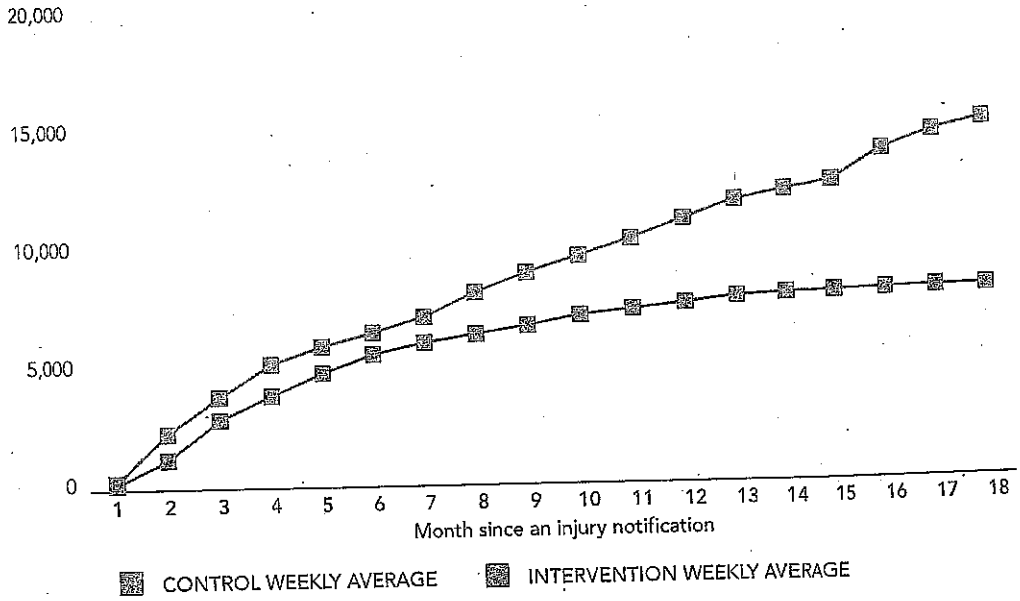
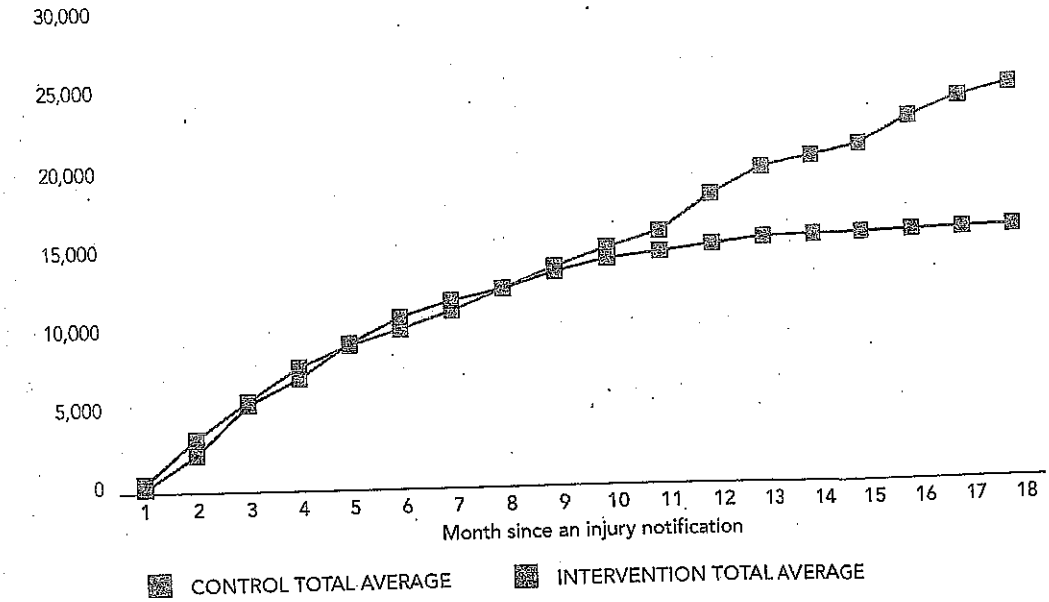
GRAPH 3 - AVERAGE WEEKLY BENEFITS COST



GRAPH 4 - TOTAL AVERAGE COST OF CLAIMS



APPENDIX:
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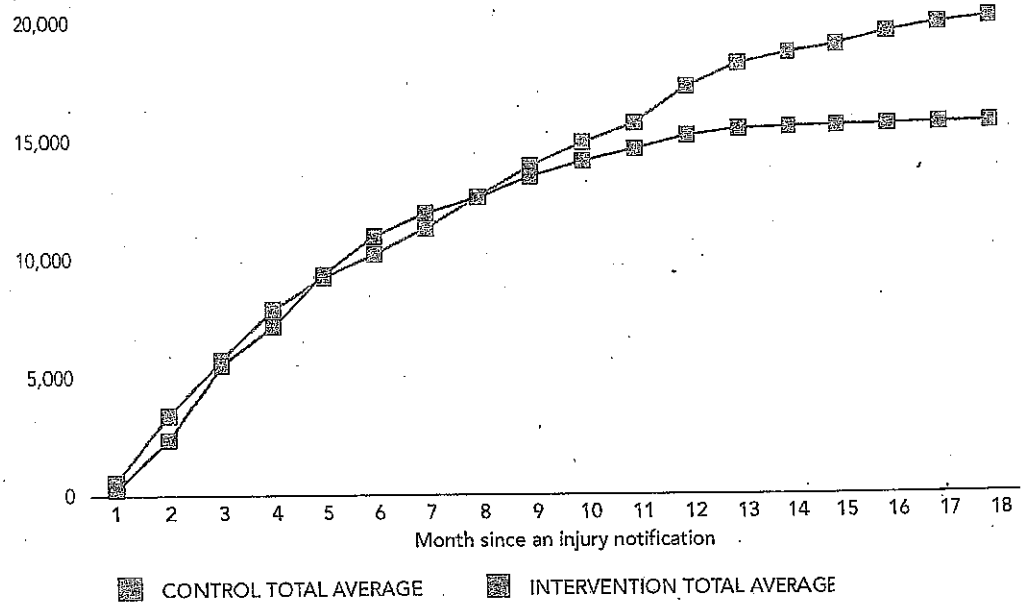
GRAPH 5 - TOTAL AVERAGE CLAIMS COST ($)



GRAPH 6 - TOTAL AVERAGE DAYS PAID PER CLAIM (30/6/15)

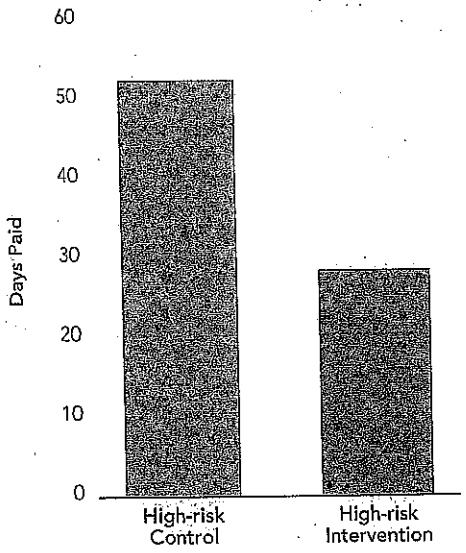


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TABLE 1 - ADDITIONAL COSTS FOR HIGH-RISK INTERVENTION

Additional costs for high-risk intervention	
Average psych spent	$1,004
Injury Management Consultant (IMC)	$1,000
Independent Physio Consultant (IPC)	$260
Total additional cost	**$2,264**

TABLE 2

NSW Ministry of Health (NSW Health)	
The TMF agency whose workers compensation costs increased by 15 per cent in 2012-13 largely due to a steady increase in the average number of days lost for claims reaching 2 years.	NSW Health is a member of the TMF. NSW Health's annual contribution to the TMF for 2012-13 year represented 52 per cent of TMF's total contributions from member agencies. NSW Health's workers compensation insurance is managed by EML
EML	
The TMF Service provider keen to see improved return-to-work and claims outcomes through evidenced based innovation and continuous improvement	EML is one of icare's four claims management service providers contracted to provide services as icare agent to TMF agencies over the period of 2011-16. NSW Health is a major client of EML
Sydney University	
The independent research unit commissioned to manage the study because of their direct involvement in the 2008 Concord Hospital Study	The Pain Management Research Institute (PMRI) is part of the Sydney University Medical School (Northern) based at Royal North Shore Hospital. Professor Michael Nicholas from the PMRI will lead a group of clinicians and researchers through the implementation, management and evaluation of the study.
icare Self Insurance	
The administrator of the Treasury Managed Fund (TMF) focused on reducing the state's risk exposures and claim costs through a range of strategies including prompt and effective early intervention delivered through a world-class model of person-centred care.	icare delivers insurance and care services to the people of New South Wales through the following schemes: Dust Diseases Care, Lifetime Care, Self Insurance (including the Home Building Compensation Fund), Workers Insurance and Sporting Injuries Insurance. Insuring more than 270,000 employers and 3.3 million employees, icare is one of the largest insurance providers in Australia. Administered by icare Self Insurance (the largest public-sector self-insurer in Australia), the TMF provides workers compensation, health and general liability, property, motor vehicle accident, and other miscellaneous cover to NSW government agencies and their employees.

APPENDIX:
ADDITIONAL INFORMATION

TABLE 3

Project Partner	Contribution
NSW Health – The Client	▪ $70,000 (Plus gst) ▪ Project steering committee participation ▪ Control and intervention facilities / staff ▪ RTW/claims management staff ▪ Communication of the project with NSW Health ▪ Approval of access to relevant NSW Health data
EML – The Project Administrator	▪ $167,220 (Plus GST) ▪ Project steering committee participation ▪ Project administration (including accounts payable/receivable) ▪ Case management staff ▪ Tracking of claimants to ensure the early intervention protocol is systematically applied ▪ Operational reporting on intervention groups ▪ Claims data collection ▪ Provision of all agreed relevant data to Sydney University
Sydney University – The Study Manager	▪ Study management ▪ Project management and reporting ▪ Project steering committee participation ▪ Obtaining appropriate human ethics committee approval for study ▪ Training ▪ RTW/case management staff training ▪ Provision of support to RTW/case management staff (NSW Health and EML) in application of the early intervention protocol ▪ Oversight and support for external providers to ensure adherence to study protocol ▪ Data collection and analysis ▪ Preparation and delivery of interim and final project report ▪ Preparation and delivery of a conference presentation reporting on the study ▪ Completion of an article for an internationally recognised journal
Icare – The Project Sponsor	▪ $100,000 (Plus GST) ▪ Project steering committee participation (up to 2 hours per quarter) ▪ Project support (up to 2 hours per month) to include the following: - Project governance - Project-partnership development and support - Scheme-wide communications

APPENDIX:
ADDITIONAL INFORMATION

TABLE 4

Intervention/Control facilities	Screened		
	High-risk (completed or ongoing protocol)	High-risk (psych assessment refused)	Low-risk
Nepean	14	5	46
Blacktown/Mt Druitt	9	12	37
Westmead	21	24	65
St Vincents Health Network (St Vincent's, St Joseph's and Sacred Heart Hospice)	6	5	43
Wollongong Hospital	11	15	32
Orange Base Hospital	2	0	2
Bloomfield Hospital	0	0	0
Wagga Wagga Hospital	4	0	3
Dubbo Base Hospital	0	1	1
Royal Prince Alfred	20	-	42
St George Hospital	18	-	40
Sutherland Hospital	16	-	16
Prince Of Wales Prince	19	-	33
Royal Hospital For Women	1	-	4
The Sydney Hospital	0	-	2
Bega District Hospital	1	-	1
Broken Hill Base Hospital	0	-	1
TOTAL	**144**	**65**	**372**
Intervention	69	65	233
Control	75	-	139

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ADDITIONAL INFORMATION

FIGURE 1 – THE OREBRO MUSCULOSKELETAL PAIN SCREENING QUESTIONNAIRE

Örebro Musculoskeletal Pain Screening Questionnaire (Short-form)(Linton et al, 2010)

Name: _____ **Date:** _____

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*

For items 3 and 4, please circle the one number that best describes your current ability to participate in each of these activities.

3. I can do light work (or home duties) for an hour.

0 1 2 3 4 5 6 7 8 9 10 (10-)[ ]
Not at all *Without any difficulty*

4. I can sleep at night.

0 1 2 3 4 5 6 7 8 9 10 (10-)[ ]
Not at all *Without any difficulty*

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 (at home or work) in 3 months

0 1 2 3 4 5 6 7 8 9 10 (10-)[ ]
No chance *Very Large Chance*

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 (at work or home duties) with my present pain.

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

SUM:_____