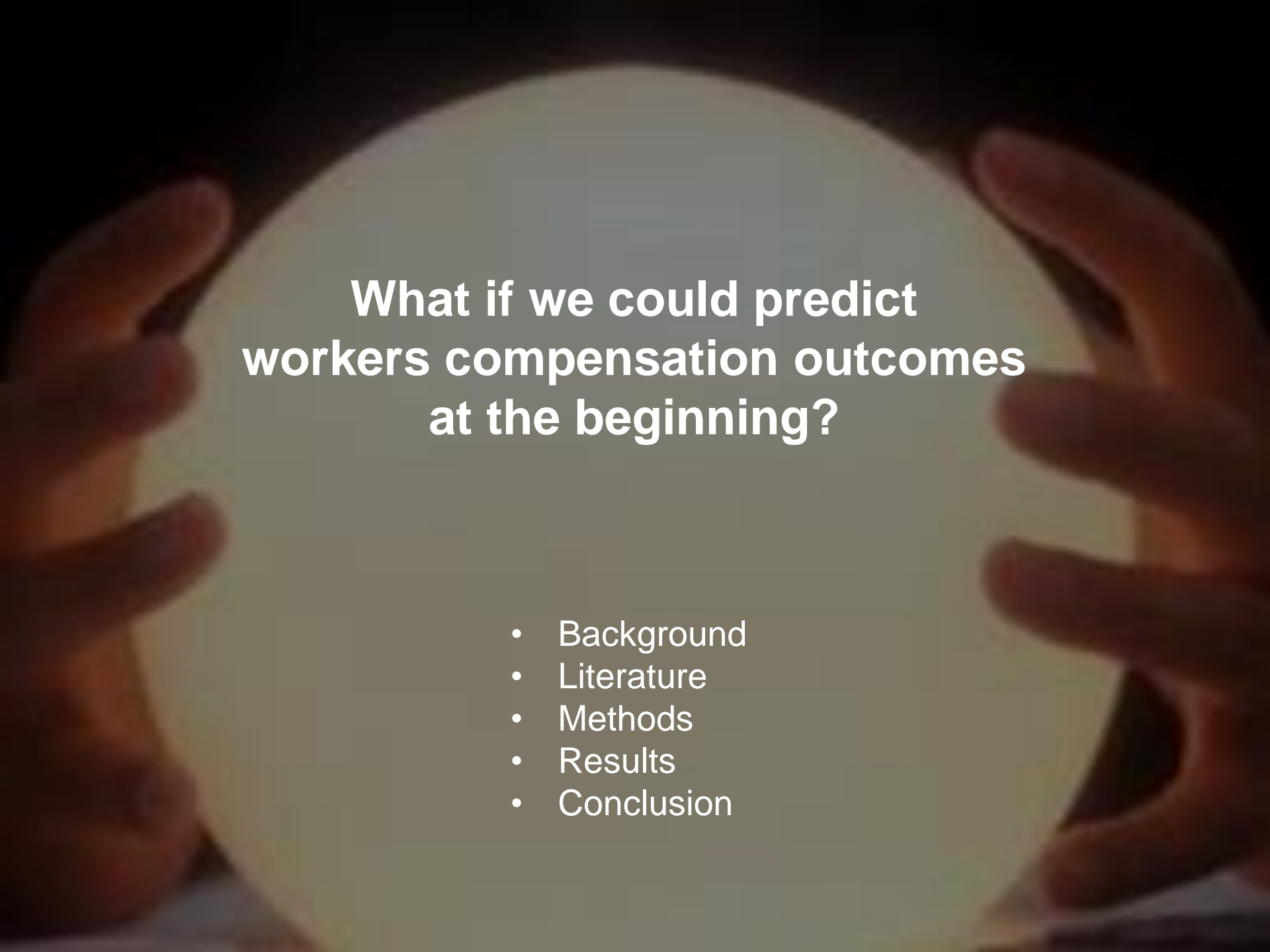


**Predicting
return to work (RTW) and claim cost outcomes
at the Certificate of Capacity (CoC) level
in the NSW workers compensation system**

**Dr Prasad Abeydeera
Ramazzini Presentation
RACP Congress, Auckland
6 May 2019**

A pair of hands is shown holding a glowing, translucent sphere. The sphere is the central focus and contains white text. The background is dark, making the glowing sphere stand out.

What if we could predict workers compensation outcomes at the beginning?

- Background
- Literature
- Methods
- Results
- Conclusion

Australian Workers' Compensation Statistics Report 2015-16

Key findings

Serious claims 2000-01 and 2014-15



Median time lost for
a serious claim
increased by
33% from 4.2 working
weeks to 5.6



The median compensation
paid for a serious claim
increased by
30%* from \$5,200
to \$6,800
*adjusted for wage inflation

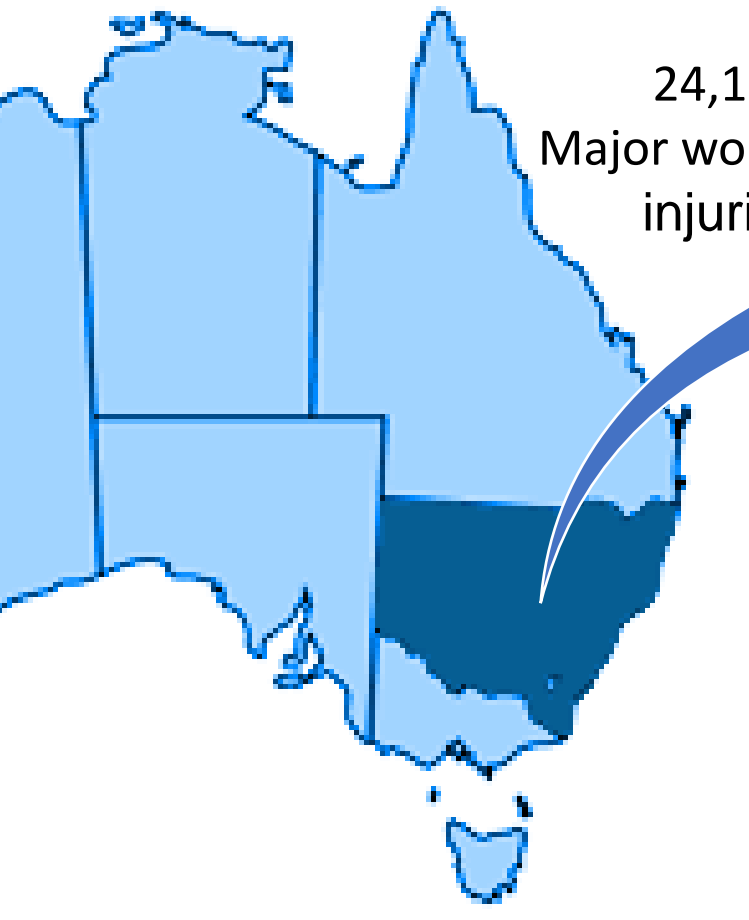


Number of serious Australian workers' compensation claims in 2015-16

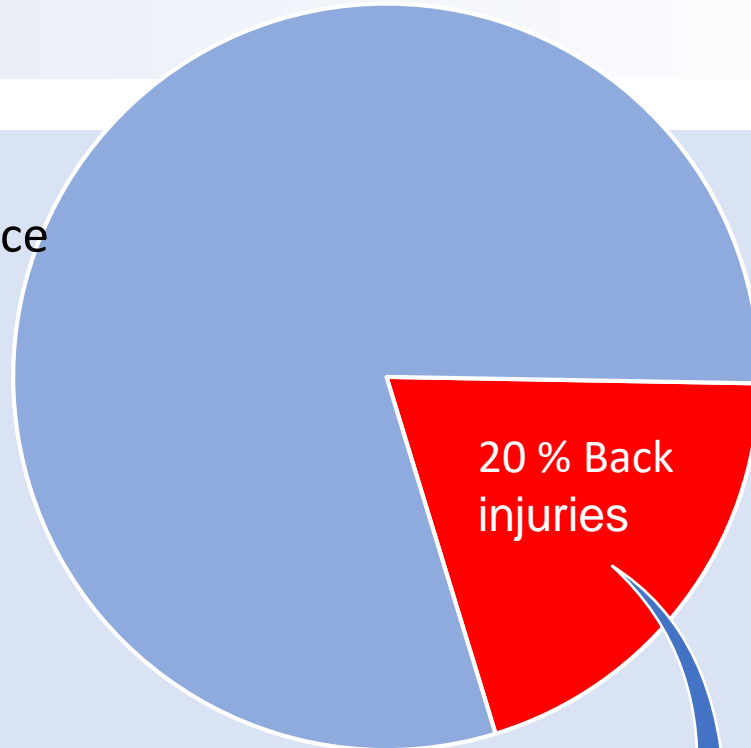
there were 104,770

BACKGROUND

NSW



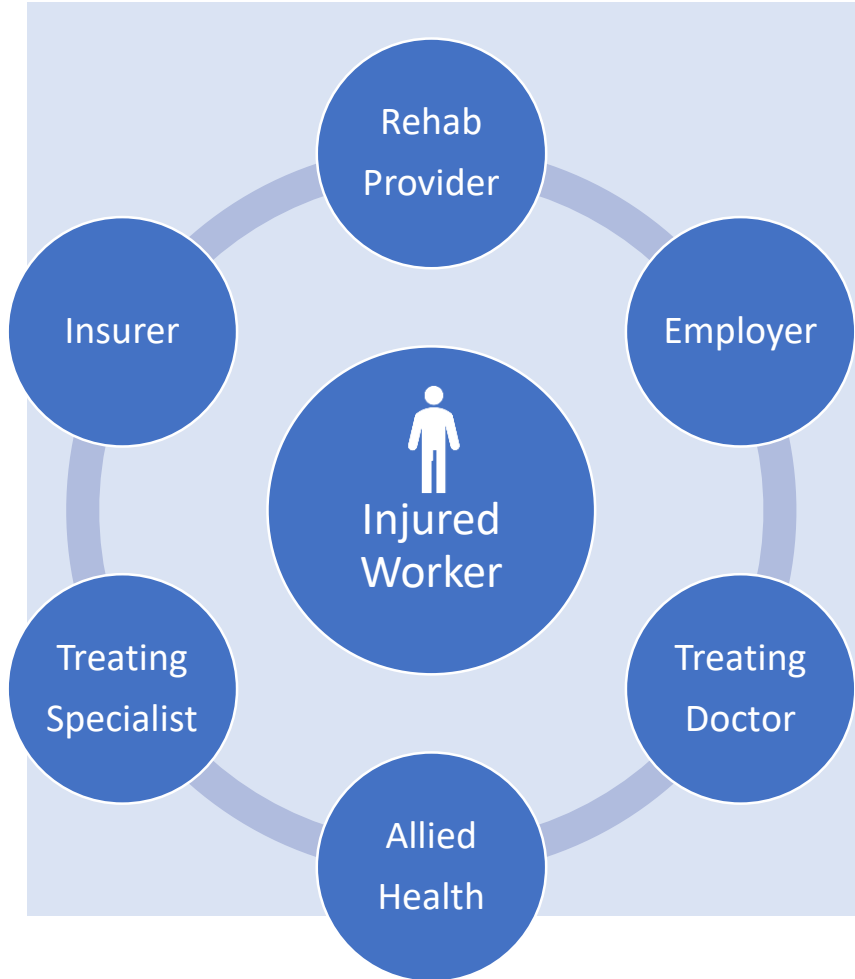
24,153
Major work place
injuries



- Cost \$99 million
- Lost time 47, 042 weeks

BACKGROUND

NSW Certificate of Capacity



The image displays several overlapping copies of the 'WorkCover NSW - certificate of capacity' form. The top-most form is clearly visible and includes the following sections:

- NSW WorkCover logo**
- WorkCover NSW - certificate of capacity**
- PLEASE ensure all sections are completed. Tick if this is the initial certificate for this claim**
- PART A - MAY BE COMPLETED BY PATIENT**
 - Patient's first name, Last name
 - Date of birth (DDMM/YYYY)
 - Patient's address
 - Date number
 - Medicare number
 - Shaded areas to be completed for initial certificate only
 - Employer's name and contact details
 - Consent to my treating medical practitioner, my employer, the insurer, other treating practitioners, workplace rehabilitation providers and WorkCover exchanging information for the purpose of management of my injury and workers compensation claim. I understand that this information will be used by WorkCover and insurers to fulfil their functions under the workers compensation legislation.
 - Signature of patient, Date (DDMM/YYYY)
- PART B - TO BE COMPLETED BY NOMINATED TREATING DOCTOR OR TREATING SPECIALIST MEDICAL PRACTITIONER**
 - MEDICAL INFORMATION**
 - Language of work related injury/disease
 - Patient stated date of injury
 - Shaded areas to be completed for initial certificate only
 - Patient was first seen at the practice/hospital for this injury/disease on
 - Injury/disease is consistent with patient's description of cause
 - How is the injury/disease related to work?
 - Detail any pre-existing factors which may be relevant to this condition
 - WORK SAFE HOME SAFE**
 - Pushing/pulling ability, Bending/lifting/carrying ability, Driving ability, Other (please specify) as applicable, see notes, clear and dry
 - Next review date (if greater than 28 days, please provide clinical reasoning)
 - Comments
 - TREATING MEDICAL PRACTITIONER DETAILS**
 - I have read and I/we agree to the terms and conditions of the ongoing management of this worker's injury and return to work.
 - I certify that the nominated treating doctor treating specialist and I have examined this patient. The information and medical opinions contained in this certificate of capacity are, to the best of my knowledge, true and correct.
 - Signature, Date (DDMM/YYYY)
 - Name (practice stamp, if available)
 - Address
 - Telephone number, Facsimile number
 - I declare that the details I have given on this declaration are true and correct, knowing that false declarations are punishable by law.
 - Signature of worker, Date (DDMM/YYYY)

Literature review



Research

Sickness certification of workers compensation claimants by general practitioners in Victoria, 2003–2010

Alex Collie
BA, BAppS(Hons), PhD,
Chief Research Officer¹

Rasa Ruseckaite
BSc, MSc, PhD,
Research Fellow²

Bianca Brijnath
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NHMRC Early Career Public
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BA, MA, PhD,
Research Fellow⁴

Danielle Mazza

The past decade has seen substantial health policy reform aimed at increasing labour force participation by injured and ill workers. Underpinning these reforms is a growing body of evidence showing that safe work is good for health,^{1,2} and that return to work (RTW) after injury or illness can promote recovery.^{3,4} General practitioners play a key role in the RTW process, being the first point of contact with the health care system.

Abstract

Objective: To examine patterns of the sickness certification of workers compensation claimants by general practitioners in Victoria, Australia, by nature of injury or illness.

Design, setting and patients: Retrospective analysis of Victorian workers compensation data for all injured and ill workers with an accepted workers compensation claim between 2003 and 2010.

Main outcome measures: Type (unfit for work, alternative duties, or fit for work) and duration of initial medical certificates relating to workers compensation claims that were issued by GPs, in six categories of injury and illness.

Results: Of 124 424 initial medical certificates issued by GPs, 74.1% recommended that workers were unfit for work and 22.8% recommended

“ nearly 75% medical practitioners recommended that the workers were unfit for work “

Alex Collie, Rasa Ruseckaite, Bianca Brijnath, Agnieszka A Kosny and Danielle Mazza, Sickness certification of workers compensation claimants by general practitioners in Victoria, 2003–2010, *Med J Aust* 2013; 199 (7): 480-483. DOI: 10.5694/mja13.10508

 **RESEARCH ONLINE** University of Wollongong Research Online

University of Wollongong Thesis Collection University of Wollongong Thesis Collections

2011

Predicting workers compensation return-to-work outcomes at claim lodgement

Ross Irwin Mills
University of Wollongong

“ there is a strong correlation between time from injury to insurer notification and return to work outcomes “

Mills, Ross Irwin, Predicting workers compensation return-to-work outcomes at claim lodgement, Master of Computer Science - Research thesis, School of Computer Science and Software Engineering, University of Wollongong, 2011. <http://ro.uow.edu.au/theses/3472>

AIM



- To predict potential positive or negative RTW and claim cost outcomes at **initial** CoC level
- Analysing
 - level of completion
 - data quality
 - certification trends
- for workers with musculoskeletal low back injuries in NSW.

METHODOLOGY



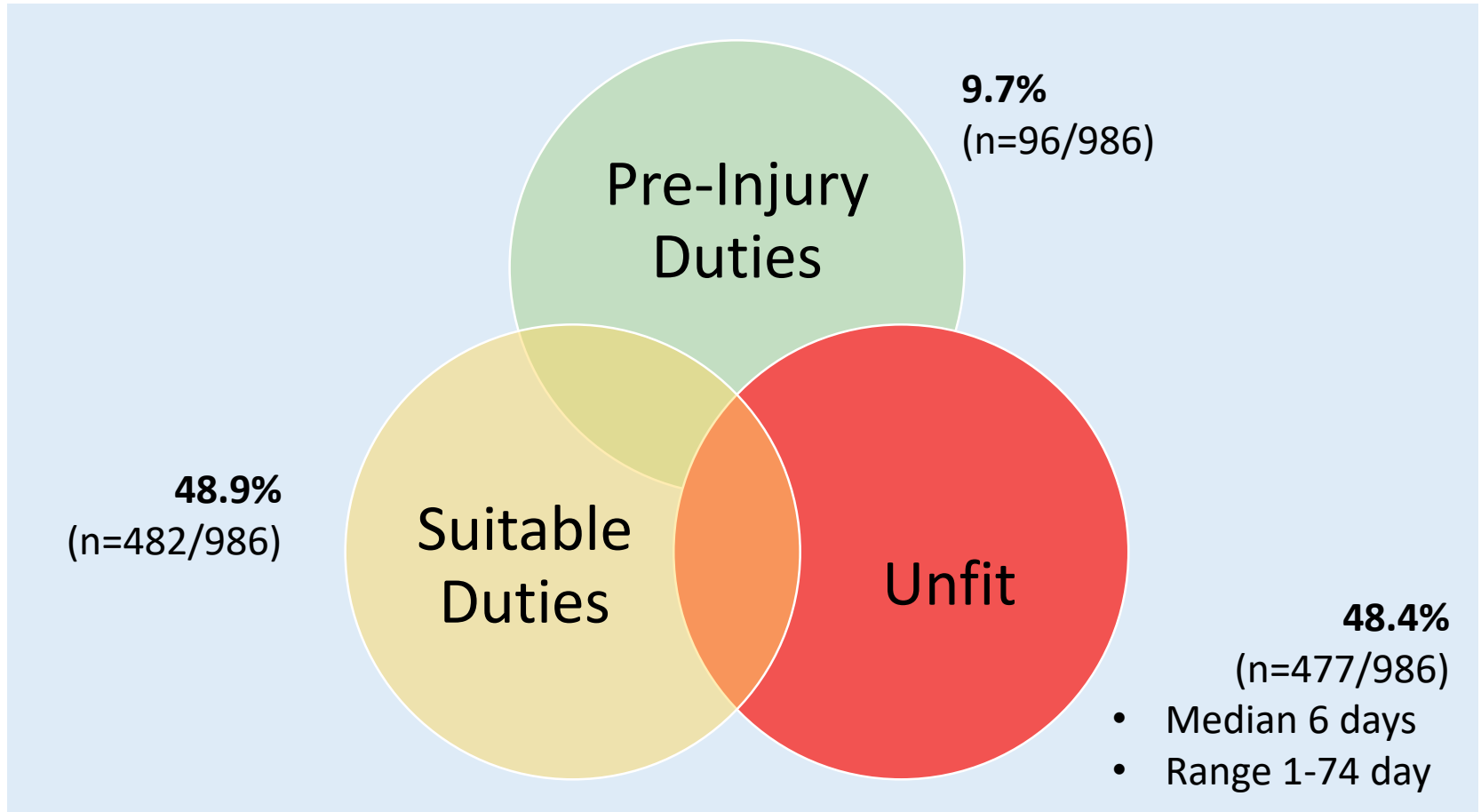
Ethics	NHMRC guidelines (2007, Updated May 2015)
Other clearances	icare and indemnity insurance
Inclusions	Initial certificate of capacity
	Work related MSK LB injury
	NSW
	2016 to 2017 financial year
Exclusions	Not initial certificate, other body parts
Sample size	1000
Sample collection	TOOCS 3.1
Other	Deidentified, randomized



ANALYSIS

Multiple Independent variables		Study factors	Outcome factors
CoC Part A	<ul style="list-style-type: none"> Workers demographic data Employer details Worker consent 	Data completeness/incompleteness <ul style="list-style-type: none"> complete partially complete blank Data quality <ul style="list-style-type: none"> Adequacy/inadequacy Accuracy/inaccuracy Specific/generic 	RTW at <ul style="list-style-type: none"> 0 months 1 months 3 months 6 months 12 months Cost <ul style="list-style-type: none"> Medical costs Claim cost
CoC Part B	<ul style="list-style-type: none"> Medical certification Management Capacity Practitioner details 		
CoC Part C	<ul style="list-style-type: none"> Workers demographic data Worker declaration 		
Software		SPSS 25	
Tests used		One-sample K-S test, non-parametric Mann-Whitney test, K-W test, Chi-square test, non-parametric Spearman's correlation	

RESULTS



RESULTS

Significant



- Pre-existing conditions (n=218, p=0.009)
- Rest prescription (n=171, p<0.001)
- Unfit certification (n=465, p<0.001)
- Longer review date (range -28 to 139, p<0.05)

- Prescription of activity (n=71, p=0.005)
- Certification of suitable duties (n=482/986, p<0.001)
- Occupational Medical Practitioner input (n=68/1000, p<0.001)



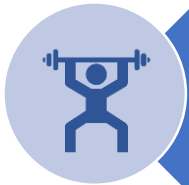
Negative outcomes

Positive outcomes

- Number of days seen after injury (Range -1 to 365, p<0.001)
- Exacerbation of past conditions (n=35, p=0.008)
- Longer review date (range -28 to 139 p<0.001)

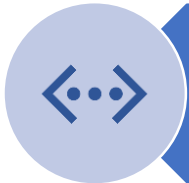
- Prescription of activity (n=71, p=0.002)
- Certification of suitable duties (n=482/986, p<0.001)

DISCUSSION



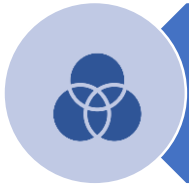
Strengths

- Sample size
- Randomisation
- Study replication ability with the new certificate



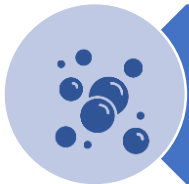
Limitations

- Multiple variable
- Varied certification practices
- Lack of claim outcomes



Bias

- Recall bias
- Data categorization bias
- Analysis bias as some subgroups were smaller



Confounders

- Lack of insight to injury severity
- Lack of input on RTW barriers
- Lack of input on bio-psycho-social factors

CONCLUSION



- Positive and negative RTW and claim cost outcomes could be predicted for a work place injury at the initial certificate of capacity level.
- Early allocation of appropriate services could optimise RTW and claim cost outcomes.
- Future study addressing limitations of this study may explore causes for discussed associations.

THANK YOU



Acknowledgements

- Dr Catherine Field (AFOEM Educational Supervisor)
- Dr Victoria Oey (Research Supervisor)
- Medical office, icare, NSW

(NSW government agency that provides insurance and care services including workers compensation)