Return to Work After Work Injury: A Comparative Policy Effectiveness Study

Professor Alex Collie\textsuperscript{1,2}, Dr Tyler Lane\textsuperscript{1}, Dr Chris McLeod\textsuperscript{3}

1. Institute for Safety Compensation and Recovery Research, Monash University
2. School of Public Health and Preventive Medicine, Monash University
3. Partnership for Work Health and Safety, University of British Columbia

Email: alex.collie@monash.edu | Twitter: @axcollie
Acknowledgments

• Project funders:
  – SafeWork Australia
  – WorkSafe Victoria

• Contributors
  – Dr Behrooz Hassani-Mahmooei
  – Dr Jason Thompson
  – Mr Adrian Buzgau
  – A/Prof Peter Smith

• Data & in-kind support
  – SafeWork Australia
  – WorkSafe Victoria
  – Workcover Tasmania
  – State Insurance Regulatory Office, NSW
  – Office of Fair and Safe Work, QLD
  – Workcover WA
  – ReturnToWork SA
  – NT WorkSafe
  – ACT government
Work Injury Globally

• 2.3 million work-related deaths annually

• 313 million work-related accidents annually

• Every 15 minutes:
  – 1 worker dies
  – 153 have accidents

• www.ilo.org (International Labour Organisation)
Work Injury in Australia – 2013/14

N injured workers ('000)

NSW, 143.6
QLD, 108.7
WA, 62.4
VIC, 138.5
SA, 44.6
TAS, 16.8
NT, 5.1
ACT, 12.2

Rate of work-related injury per 1000 persons

NSW 37.2
VIC 43.6
QLD 43.4
SA 50.9
WA 42.9
TAS 65.7
NT 43.6
ACT 54.3
Australia 42.6

Source: ABS 6324.0 - Work-Related Injuries, Australia, JUL 2013 TO JUN 2014
Work Injury in Australia

- Common work-related conditions (back pain, MSK, neck pain) are 3 of the 5 leading causes of disability.

- Among working age people, these conditions create the greatest burden of disability.

- Est 532,000 work related injuries in 2013/14 (one per minute).

- Work-related injury impacts:
  - physical and mental health
  - workplace productivity
  - family and social relationships
  - economic security of the worker
  - potential for intergenerational effects of long-term worklessness

Efficient and effective return to work policy is very important for society.
Workers’ Compensation in Australia

- 10 major systems (6 State, 2 Territory, 2 Commonwealth)

- Common objectives
  - Return to work
  - Financial sustainability

- Common funding model:
  - Funded by employer premiums
  - Insurance model seeks to balance cost to society with benefits

- But, substantial differences in how the schemes seek to achieve their objectives:
  - System design
  - Macro to micro level policy and practice

- A natural experiment (?!)

Institute for Safety, Compensation and Recovery Research
Compensation Policy And Return to Work Effectiveness (ComPARE) Study

• Research questions
  – Does compensation system policy and practice have an impact on RTW outcomes?
  – If so, what are effective and ineffective policy and practice settings?

• Comparative effectiveness study
Study data

- Primary dataset (used for most analyses)
  - National dataset of compensation based statistics
  - ~3.54 million claims over a 10 year period 2003/4 to 2012/13

- Secondary datasets (used for some analyses)
  - Australian Bureau of Statistics Work Related Injury Survey 2013/14
  - SafeWork Australia National RTW Survey
  - Victorian Compensation Research Database (WorkSafe Victoria only)

- Future dataset (to be established)
  - National Comparable Claims Database (multiple Australian jurisdictions)
Can we use the NDS to examine RTW outcomes?
A note on measuring RTW

- There are many potential RTW outcomes measures across 3 broad categories:
  - Self-report / survey
  - Administrative data / benefit payments
  - Work function / Work-ability

- None are perfect

- Cumulative duration of time loss considered best RTW estimate when data source is administrative / claims data (Krause et al, 1999).
Cumulative time lost

• National Dataset of Compensation based Statistics (NDS) includes measures of:
  – Number of hours income compensation paid in follow-up period
  – Number of hours normally worked prior to injury

• Outcome = cumulative compensated weekly time loss = N hours paid / N hours normally worked
Impact of Age on Compensated Time Loss

Comparison group of 25 to 34 year old workers

Adjusted Odds Ratio

15 to 24 years
35 to 44 years
45 to 54 years
55 years and over
Impact of Injury on Compensated Time Loss

Adjusted Odds Ratio

Fractures
Other trauma
Back pains/strains
Mental health disorders
Other diseases

Comparison group of workers with MSK conditions
VIC recovery curve using 2 different data sources

Percentage of accepted time loss claims (> 2 weeks) vs. Working time lost in cumulative weeks

VIC - NDS
VIC - CRD
Summary

- The NDS is a valid dataset for evaluating compensated time loss.

- We can use the NDS for the next phase of analyses.
Does workers’ compensation scheme design and management have an impact on RTW outcomes?
Return to Work Recovery curves by jurisdiction

Percentage of accepted time loss claims vs. Cumulative Compensated Working Time Lost

- NSW
- VIC
- QLD
- SA
- WA
- TAS
- NT
- ACT

- 52% at Four weeks
- 37% at Three months
- 25% at Six months
- 16% at One year
- 6% at Two years
- 1% at Three years
Adjusted Odds Ratio (99% CI), working time lost by jurisdiction

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Victoria</th>
<th>Queensland</th>
<th>South Australia</th>
<th>Western Australia</th>
<th>Tasmania</th>
</tr>
</thead>
<tbody>
<tr>
<td>Four weeks</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Three months</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Six months</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>One year</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Two years</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Summary of regression analyses

- After adjusting for age, gender, injury type, occupation, industry, socio-economic status, remoteness and work status (part or full time).....

- State or territory of claim had a significant impact on duration of compensated time loss.

- The magnitude of this effect was as large or larger than that associated with other factors.

- The effect appeared to become stronger in longer duration claims.

- Scheme design and management (policy and practice) have a major impact on time loss duration / RTW.
Are jurisdictional effects consistent across worker cohorts?
Fractures

Percentage of accepted time loss claims (> 2 weeks)

Compensated cumulative working time lost

- NSW
- VIC
- QLD
- SA
- WA
- TAS
- NT
- ACT

Institute for Safety, Compensation and Recovery Research
Mental health conditions

Percentage of accepted time loss claims (>2 weeks)

Compensated cumulative working time lost

NSW
VIC
QLD
SA
WA
TAS
NT
ACT
Conclusions

• There are highly significant differences in compensated time away from work between Australian workers’ compensation jurisdictions; and

• These differences appear to be a result of scheme design and management (policy & practice)
  – The differences remain after taking into account the impact of other factors known to influence duration of time loss.

• The magnitude of the effect is as or more substantial as that associated with factors commonly considered to result in longer duration compensation claims (e.g., mental health claims).
Implications

• Some factors affecting duration of time loss are not modifiable or are very difficult to modify
  – age, gender, injury type, social circumstances of injured person

• Scheme design and management are modifiable AND have a large impact on duration of time off work.

  ➢ Changing scheme policy and practice is the best option for improving RTW outcomes.

• Next step = determine which macro level policy settings are important for RTW outcomes.
Get in touch…

W: iscrr.com.au
E: alex.collie@monash.edu
@ISCRR
@axcollie