Who claims for injury?

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  - Trent Smith (Economics, UO)
  - Michael Keall (Public Health, UOW)
  - Isabelle Sin (Motu)
  - Steven Stillman (Economics, unibz)

Stats NZ Disclaimer

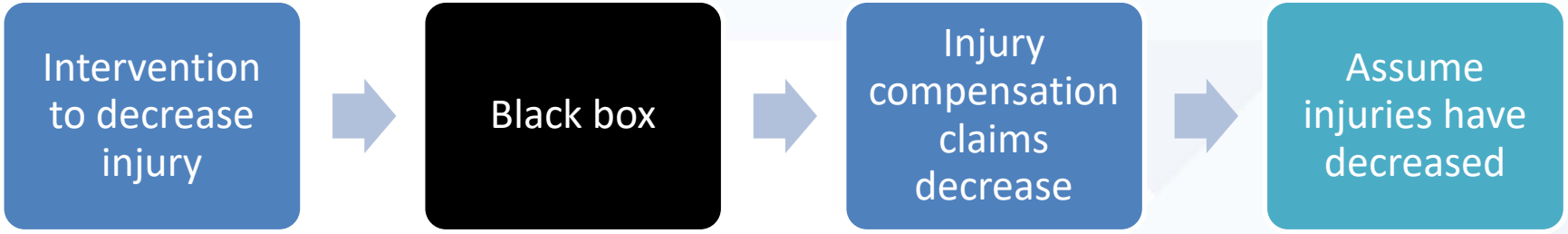
Access to the anonymised data used in this study was provided by Statistics New Zealand in accordance with security and confidentiality provisions of the Statistics Act 1975.

The findings are not Official Statistics. The results in this paper are the work of the authors, not Statistics NZ, nor the Accident Compensation Corporation, nor WorkSafe New Zealand and have been confidentialised to protect individuals from identification

Outline

- Motivation
- Preview of findings
- A universal claims environment
- Data and Method
- Results
- Implications

Motivation



If the intervention impacts on other factors associated with making a claim, claims might decrease without a corresponding decrease in injury.

Financial Incentives of Experience Rating in Workers' Compensation

New Evidence From a Program Change in Ontario, Canada

Emile Tompa, PhD, MBA, Sheilah Hogg-Johnson, PhD, Benjamin C. Amick III, PhD, Ying Wang, MSc, Enqing Shen, MSc, Cam Mustard, ScD, Lynda Robson, PhD, and Ron Saunders, PhD

Given that we are using claims data, we cannot be certain that the associations observed represent true reductions in injuries and illnesses or simply reduced reporting. This is an important limitation to keep in mind.

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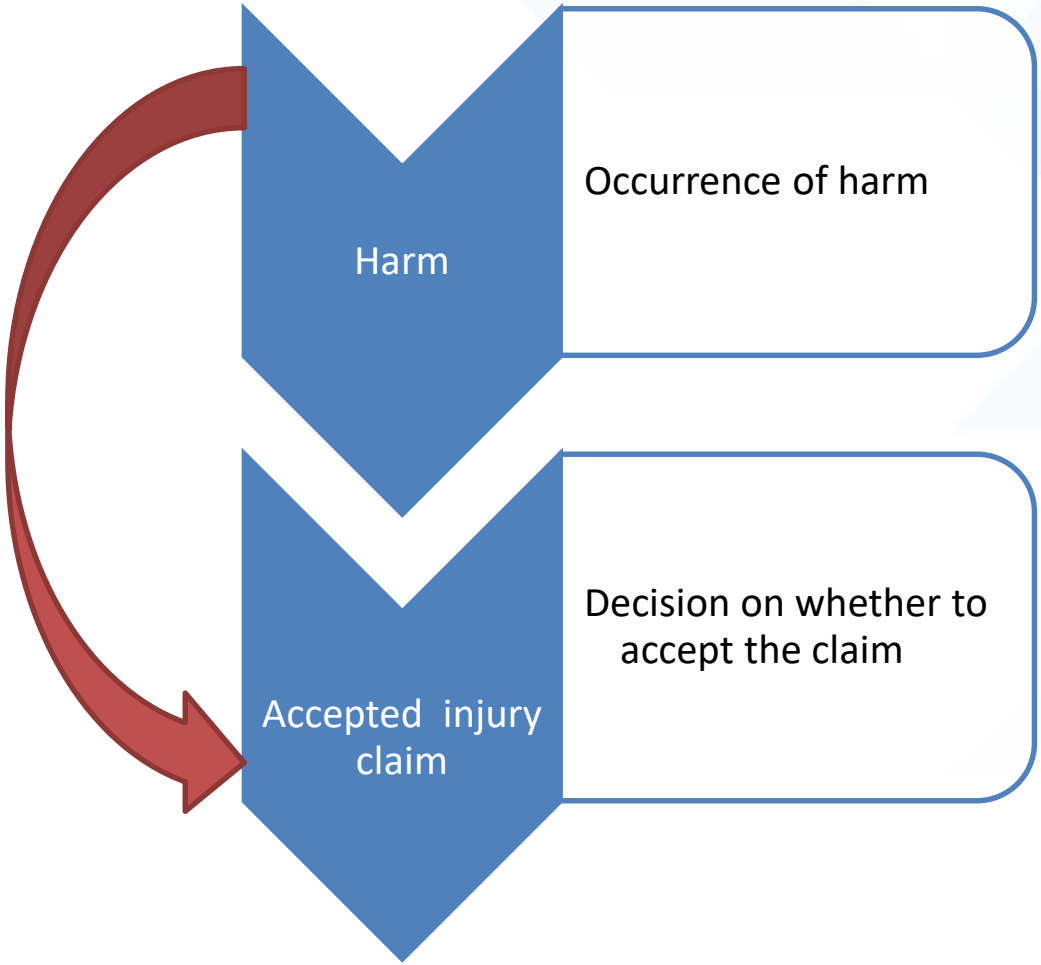
#Claims=#Harm?


Harm
Occurrence of harm
Accepted injury claim
Decision on whether to accept the claim

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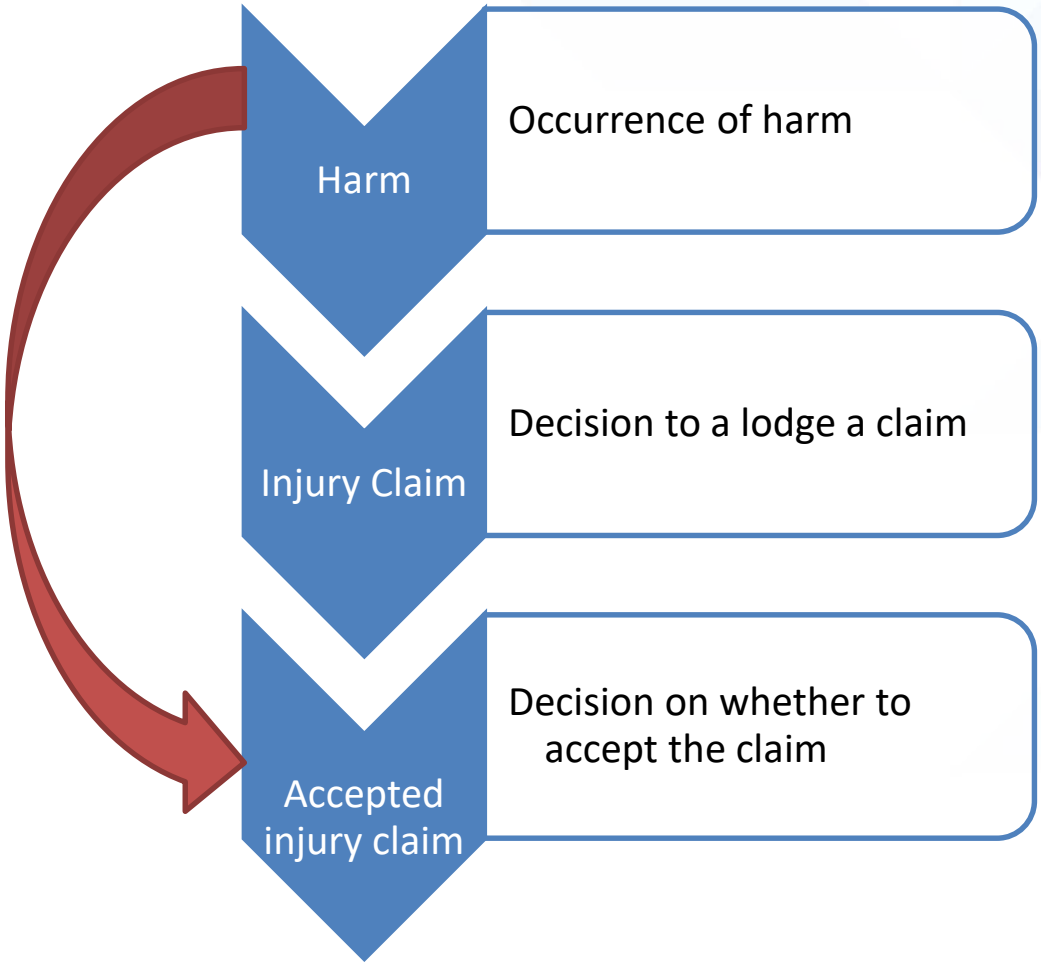

Harm
Occurrence of harm
Injury Claim
Decision to a lodge a claim
Accepted injury claim
Decision on whether to accept the claim

Who claims for injury?

Question: How well do claims data proxy for injury in a universal claims environment?

Method: I use matched data on self-reported injury and injury compensation claims.

- Estimate the % of injured people who claim.
- Compare to estimates under a workers' compensation environment
- Linear probability model looking at characteristics associated with whether injured people have a claim

Preview of findings

- 30 percent of people who had an injury at work did not have a compensation claim.
- Consistent with estimates produced in other jurisdictions.
- 33 percent of people who had an injury did not have a compensation claim.

Universal Claims Environment

- Universal no-fault accident insurance

Literature estimates of percent who do not claim

WI = Work-related Injury
HPDI = Health Professional Diagnosed Illness
WI&I=Work-related injury or illness
MSK = Musculoskeletal gradual process injury

Survey of Family, Income & Employment (SoFIE)

- Panel data, 8 annual waves, October 2002 to September 2010
- 15,100 households randomly selected
- Wave 1 sample: 22,200 adults living in 11,500 households
- Face-to-face interviews
- Health module in waves 3,5,7

Survey of Family, Income & Employment (SoFIE)

"In the last 12 months, have you had an injury that stopped you from doing your usual activities for more than a week? An injury includes burns, near drownings, and poisoning."

"Where did it happen?"

- at home;
- at work;
- at another place.

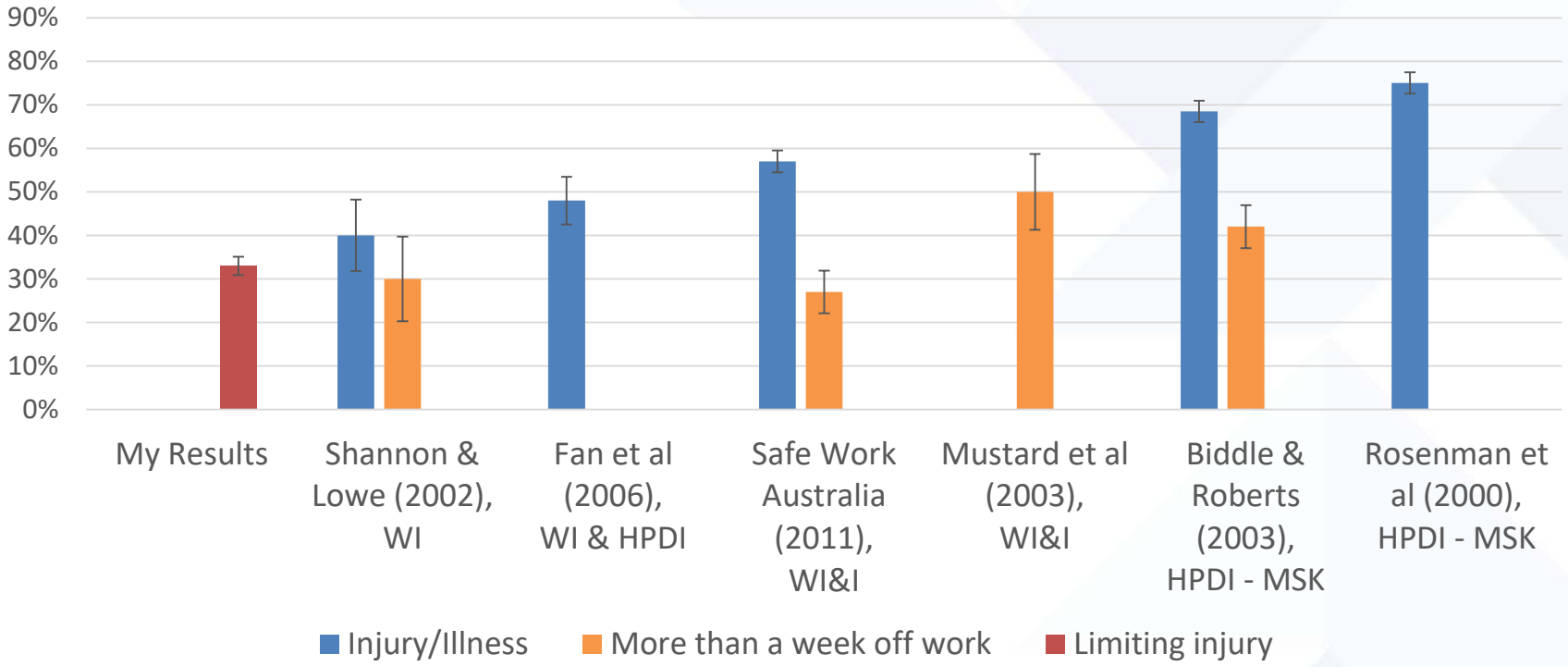
Integrated Data Infrastructure (IDI)

- Linked longitudinal dataset
- Deterministic and probabilistic linking
- Managed by Statistics New Zealand.
  - 93 percent of claims link to the IDI spine.
  - 98 percent of sofie health module observations link to the spine
  - 51,147 observations pooled over three waves

Integrated Data Infrastructure (IDI)

- 13 percent had a limiting injury (6,441 observations)
- 33% of these did not have a claim
- Of workers with a limiting injury who made a claim
  - most did not receive compensation for time off work or home help (71%)

Literature estimates of percent who do not claim



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Model: Linear regression

- Sample: People who had a limiting injury in the last 12 months, three waves pooled
- Linear probability model

$$Y = \beta X + \varepsilon$$

Y= binary variable as to whether the injured person had a claim or not

X = a vector of demographic, economic and health variables

ε = random term

Variables

- Gender
- Age
- Ethnicity
- Born in NZ
- Social marital status
- Highest qualification
- Urban location

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- Deferred doctor visit
- As healthy as others
- Would visit PHP
- Hospital admission

Table 1: OLS predicting whether a person had an ACC claim in the last 12 months, given they had a limiting injury in the last 12 months

VARIABLES	(1)	(2)	(3)
Age (10yrs)	-0.015***	-0.013***	-0.0194***
	(0.00384)	(0.00423)	(0.00456)
NZ European (reference)			
Other European	0.0454	0.0499	0.0332
	(0.0356)	(0.0356)	(0.0363)
Māori	-0.115***	-0.115***	-0.116***
	(0.0294)	(0.0296)	(0.0303)
Samoan	-0.0547	-0.0713	-0.0811
	(0.0624)	(0.0630)	(0.0718)
Chinese	-0.231***	-0.228***	-0.292***
	(0.0755)	(0.0756)	(0.0777)
European & Māori	-0.0351	-0.0360	-0.0231
	(0.0325)	(0.0322)	(0.0333)
Other ethnicity/ies	-0.0716**	-0.0736**	-0.088***
	(0.0305)	(0.0308)	(0.0316)
Main urban area (reference)			
Secondary urban area	-0.0526**	-0.0595**	-0.0603**
	(0.0265)	(0.0268)	(0.0267)
Minor urban area	-0.0296	-0.0322	-0.0386
	(0.0226)	(0.0228)	(0.0235)
Rural area	-0.0216	-0.0406*	-0.0606**
	(0.0230)	(0.0244)	(0.0253)
Observations - weighted	1,052,700	1,044,200	956,500
R-squared	0.018	0.022	0.035
Controls			
Demographic characteristics	y	y	y
Work characteristics		y	y
Health characteristics			y

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Table 1: OLS predicting whether a person had an ACC claim in the last 12 months, given they had a limiting injury in the last 12 months (cont.)

VARIABLES	(1)	(2)	(3)
Put off visiting a doctor in last 12 months because of cost			-0.0279
			(0.0190)
Definitely as healthy as others (reference)			
Mostly as healthy as others			-0.00392
			(0.0155)
Neither as healthy as others or not			-0.0656***
			(0.0236)
Mostly not as healthy as others			-0.0639**
			(0.0272)
Definitely not as healthy as others			-0.0613*
			(0.0333)
Admitted to hospital in last 12 months			0.0687***
			(0.0169)
Constant	0.743***	0.627***	0.690***
	(0.0350)	(0.0977)	(0.110)
Observations - weighted	1,052,700	1,044,200	956,500
R-squared	0.018	0.022	0.035
Controls			
Demograhic characteristics	y	y	y
Work characteristics		y	y
Health characteristics			y

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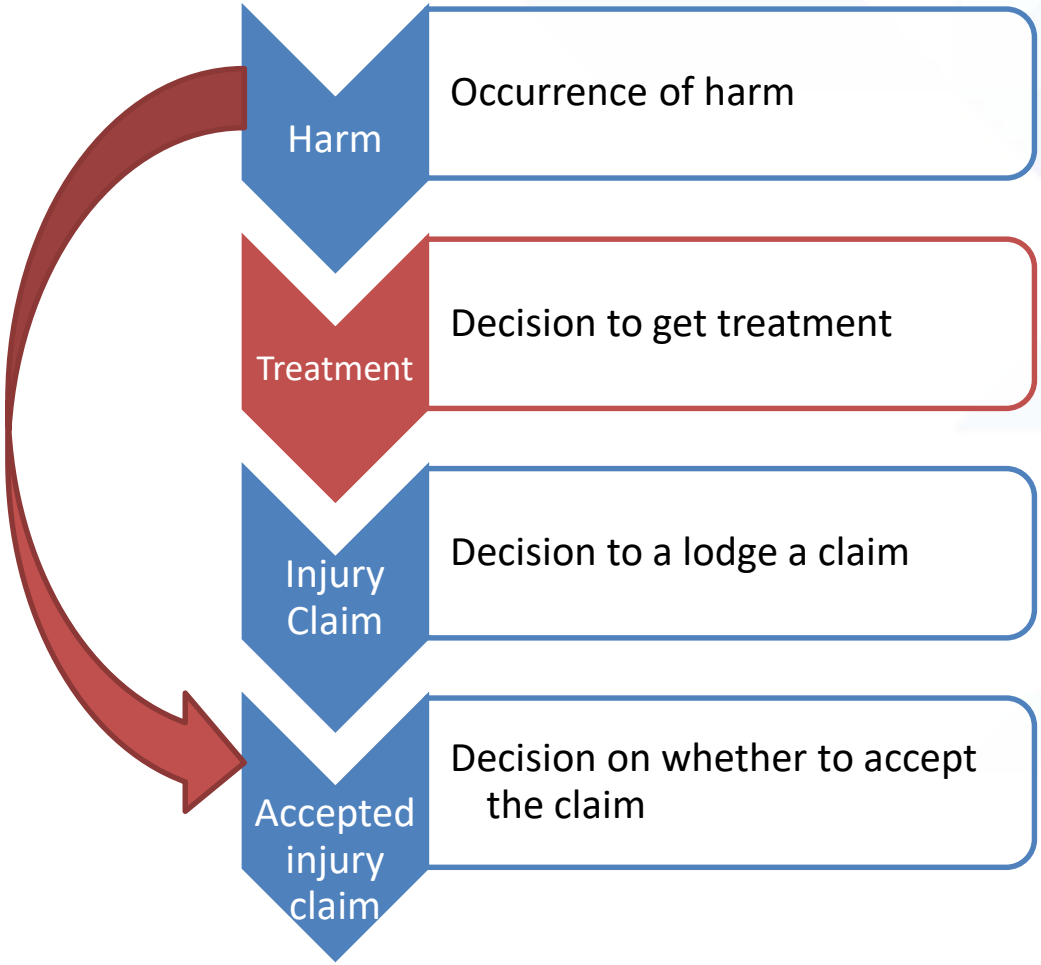
Harm
Occurrence of harm
Treatment
Decision to get treatment
Injury Claim
Decision to a lodge a claim
Accepted injury claim
Decision on whether to accept the claim

Barriers to treatment

- cost,
- time availability (e.g., caring for others),
- geographic distance,
- waiting times,
- availability of after-hours treatment,
- lack of culturally appropriate services, and
- language differences

(J. R. Barnett & Coyle, 1998; R. Barnett, 2000; Bierman & Clancy, 2000; Ellison-Loschmann & Pearce, 2006; Jatrana & Crampton, 2009).

Conclusion

- Injury claims data are likely to be better at capturing injuries of groups with better access to the health system
- In particular, people of Chinese ethnicity are underrepresented in the NZ claims data
  - Reducing language and cultural barriers to health services may increase uptake.