



THE GEORGE INSTITUTE

for Global Health AUSTRALIA



Parliament of Victoria Inquiry into Serious Injury

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The George Institute

- Not-for-profit medical research institute
- Research examining burden of chronic disease and injury
- Focus on high risk, disadvantaged populations
- Epidemiological, and public health research
- Significantly body of work in injury prevention, trauma and critical care
- Focus on road safety in Injury Division

Current work

- Trial of VicRide motorcycle coaching program (2400 riders)
- Aboriginal road safety research
 - Aboriginal people and road safety study
 - Driving Change – licensing support program
- Heavy vehicle case-control study
- Older Drivers Trial
 - Trial of program supporting older drivers to reduce or modify driving
 - Instrumented cars
- Analysis of crash and/or hospital data for various studies or contracts

a) Determine the appropriate methodology to identify the cost of a serious injury

Determining the cost of injury is complex; several approaches:

- **Human capital** (currently used, ex-ante or after the event)
- **Willingness to pay** (theoretically more sound, takes into account what people are prepared to pay to avoid death or serious injury, values all in community)

Willingness to pay recommended but:

- requires development of methodology to take into account all levels of injury
- requires coordination across other states and jurisdictions

b) Identify processes, including the exchange of data and information between agencies, that will facilitate accurate, consistent and timely reporting of road related serious injuries

In most jurisdictions, policy setting traditionally relied on injury data from police records – ie police attending scene of a crash

Issue include:

- under-reporting of crashes to police

- quality of data is dependent on police determining admission status of patient

- variable access to hospital data (TAC claims data also used to validate)

More accurate reporting from hospitalization data - Victorian Admitted Episode Dataset (VAED)

- more detailed information on injury (external cause, counterpart, body part, severity, length of stay)

- BUT less detailed information on context of crash, plus time lags

b) Identify processes, including the exchange of data and information between agencies that will facilitate accurate, consistent and timely reporting of road related serious injuries (2)

TAC claims data

- not all people eligible lodge claims with TAC
- some road related crashes (single vehicle cycle) not eligible for TAC claims

Victorian State Trauma Outcomes Registry (Vstorm) facilitates follow-up of trauma patients

- collects information about all patients from every hospital and health care facility (138 hospitals) managing trauma patients in Victoria
- detailed outcome information – allows understanding of functional outcomes by multiple factors including external cause, place and type of care
- potential source of serious injury data, including psychological injury which may have later onset

b) Identify processes, including the exchange of data and information between agencies, that will facilitate accurate, consistent and timely reporting of road related serious injuries (3)

In order to examine trends, and effectiveness of interventions requires necessarily detailed and accurate data

Could also be helpful to have timely data linkage of crash and hospitalisation data

Timely enough to permit analysis of trends, evaluate interventions

Recommendations:

1. Improve police data: development of clear processes for police to follow-up hospital admissions
2. Pilot data linkage, either by probabilistic processes or development of linkage key allowing deterministic linkage.

c) Best practice definitions and measures of road related serious injury and injury severity, and recommend how road related serious injuries and their severity should be identified and reported

Current:

Varied definitions across Australian jurisdictions

Target:

For comparability across states and internationally, use an internationally recognised standard definition and measure

Existing international measures:

ISS/AIS

DALYS

ICD injury code based Injury Severity Score (ICISS)

d) Determine the correlation between reductions in fatalities and serious injuries (including for different levels of severity) resulting from different road safety countermeasures

- Multiple interventions showed to reduce fatal crashes and/or injuries
- Requires accurate measures of serious injury
- Be mindful of shift from fatalities to severe injuries
- Importance of strategic, timely research
 - Make public all research to maximise lessons learned

e) Identify cost effective countermeasures to reduce serious injury occurrence and severity

- Safe systems approach
 - Shift in transport in urban settings – need to ensure forward planning for infrastructure and urban planning to ensure safety
 - Rural and remote
 - Enhance dialogue on speed in community
 - Broaden focus on alcohol beyond RBT
 - Safer roads, cars
- Refer to National and State road safety strategies
- Importance of evaluations building in measures of cost-effectiveness

f) Identify best practice in managing long term reductions in serious injury including raising the profile of the serious injury burden

Current:

- Low profile of serious injuries
- Targets set for fatalities and serious injuries combined

Target:

- High profile of serious injuries to increase community awareness of their risks and community demand on the government to do more for road safety
- Set targets for serious injuries independent of fatalities