



MONASH University
Accident Research Centre

The Victorian Serious Injury Inquiry: Core findings and initiatives

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Serious Injury Expert Panel

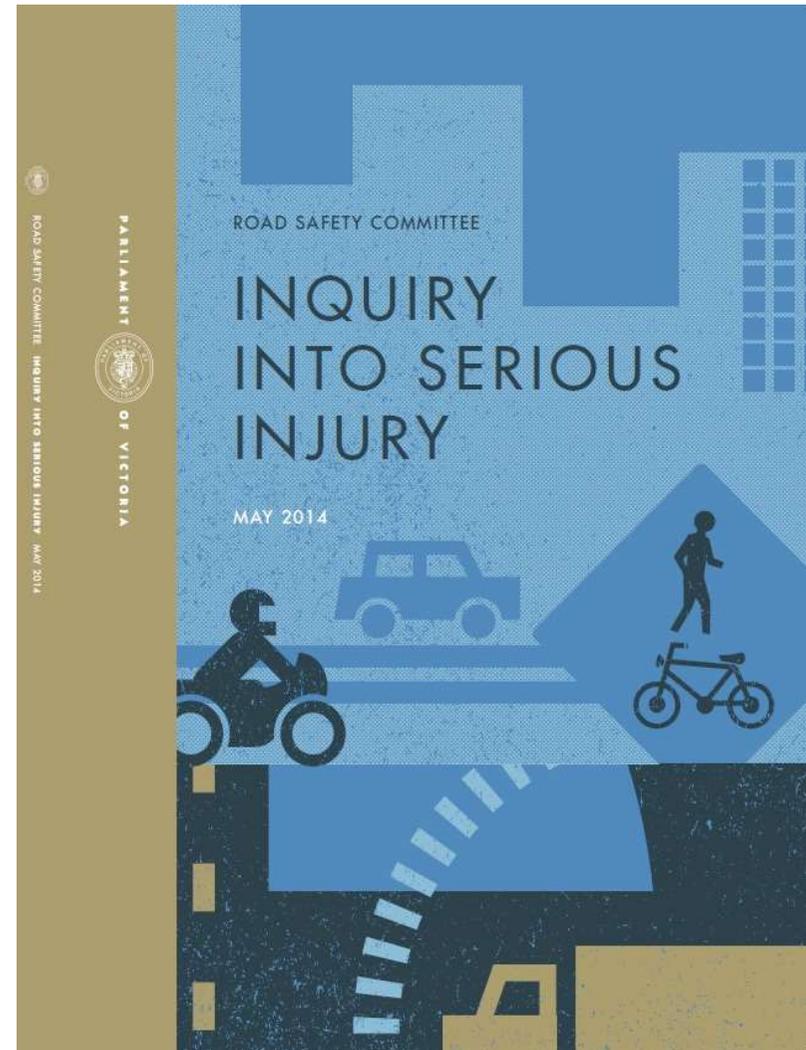
Graham Hartley Boardroom, Level 13 Capital Hill, 83-85 George St, Brisbane

19 April 2016



The Victorian SI Inquiry

- Established in November 2012
- Initially to report in December 2013, but extended to no later than June 2014
- To report on *the nature and extent of SI in Victoria*
- Terms of reference were clear, but Inquiry was ambitious in timeframe
- Drew large number of submissions and held a number of sittings to receive expert feedback
- Made a series of recommendations on ToR



Terms of Reference

- (a) determine the appropriate methodology to identify the cost of a serious injury to the Victorian community and economy;
- (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;**
- (c) consider 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 in Victoria;**
- (d) determine the correlation between reductions in fatalities and serious injuries (including for different levels of severity) resulting from different road safety countermeasures;
- (e) identify cost effective countermeasures to reduce serious injury occurrence and severity; and
- (f) identify best practice in managing long term reductions in serious injury including raising the profile of the serious injury burden.

Recommendations

- **Total of 43 recommendations, including:**
 - Formulation of working group to assess appropriate injury definitions and metrics
 - Strong support for hospital admissions as a key reporting, as well as police to report on full spectrum of crashes
 - The use of VSTORM as a key resource on serious injuries, including metrics, reporting, secretariat support, among others
 - Integration of appropriate cost measures of injury into government road safety strategy and RIS', such as the hybrid human capital approach
 - ¼ & yearly publishing data

My view: report was of use in starting a conversation about serious injury metric, but ultimately leave many fundamental questions unanswered, as well as having technical concerns

Diagram 2: Proposed tiered trauma definition structure



Initiatives post Report

- Agency response to Report was to establish a Technical Working Group in early 2015, led by TAC and VicRoads
 - Key personnel: Prof Ian Johnston (Chair), Michael Nieuwesteeg (TAC)
 - Accountable to the Victorian Road Safety Executive Group (TAC, VicRoads, Department of Justice, VicPol, Department of Health and Human Services)
 - Established to consider issues around injury severity data (including definitions) and data linkage, *as well as uses of road safety data, and potential future uses*
 - *Task was to conduct an Audit of road safety data uses and requirements*
 - *Audit of metrics and definitions*

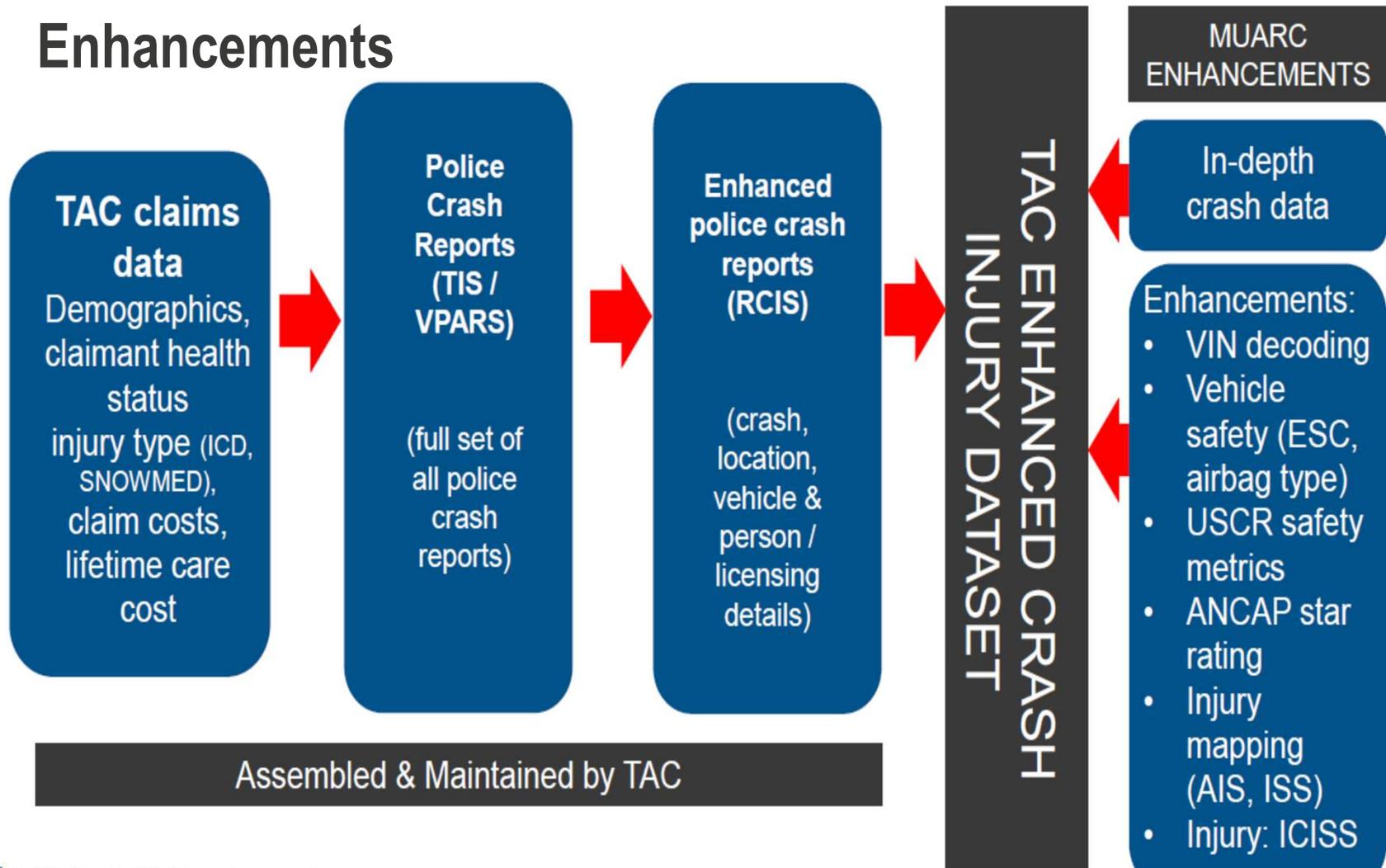
Initiatives post Report – focus area #1

- Task was to conduct an Audit of road safety data uses and requirements. This was a proforma survey in Excel designed to capture
 1. Program development
 1. Issue identification
 2. Countermeasure development
 3. Policy / strategy development
 4. Academic Research
 5. Evaluation
 6. Short / long-term resource allocation
 2. Reporting
 1. Government
 2. Media
 3. Monitoring
 1. Trends
 2. Operational intelligence

Initiatives post Report – focus area #2

- Task was to *identify, assess and recommend the most suitable injury definitions, inclusive of threat to life and burden of injury measures.*
- Measures discussed at the Serious Injury Inquiry, including:
 - Resource measures (e.g., hospital bed days, attended by ambulance, treated by major trauma unit)
 - ICD and SNOMED CT
 - AIS and derivative measures of threat to life (e.g., MAIS3+, New Injury Severity Score)
 - ICD-based Injury Severity Score (ICISS)
 - DALYs, QALYs
 - Health outcome measures (e.g., SF12)
- Questions posed to experts included:
 - When is it appropriate to use them (for what purpose)?
 - How are they derived (in Victoria and/or elsewhere), or how could they be derived?
 - Advantages and disadvantages, limitations of use, other measures

Work in progress: TAC Linked Dataset, with MUARC Enhancements

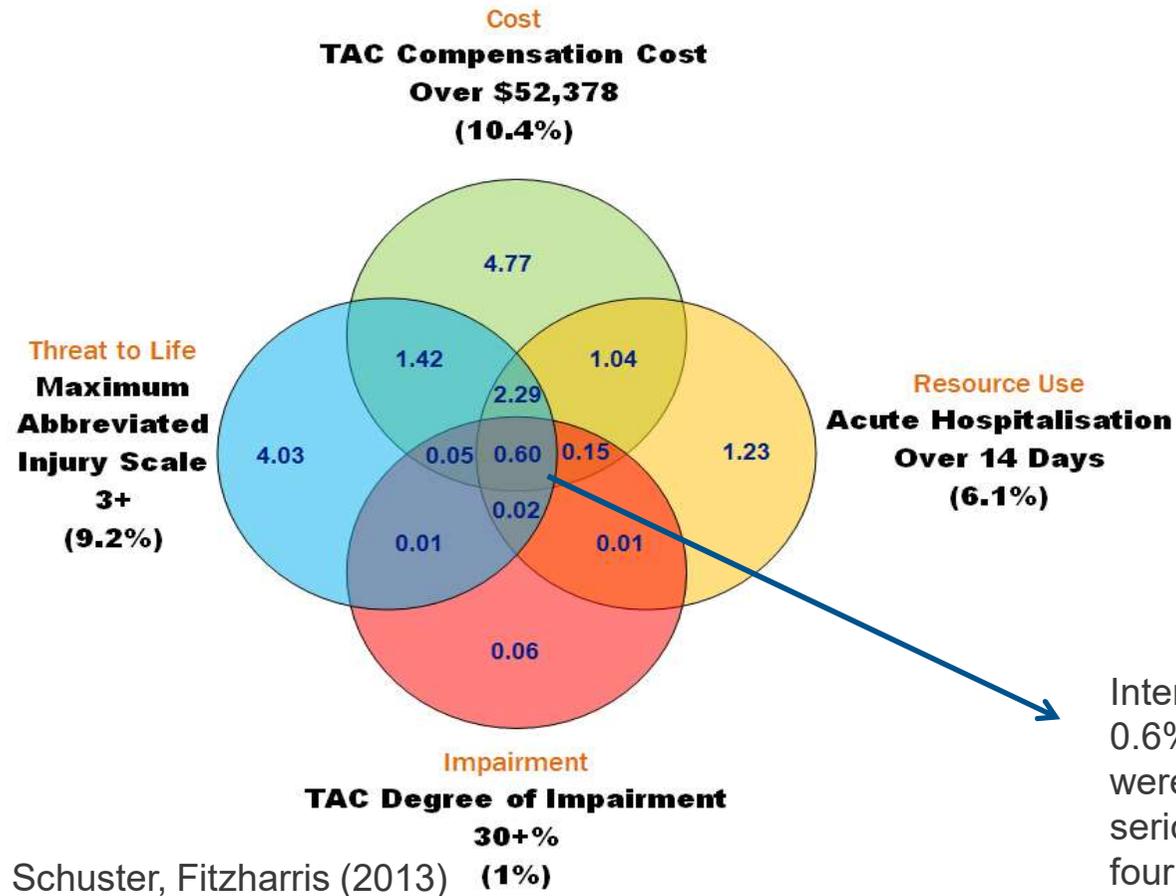


Why definitions matter... it depends on the purpose

Aspect	Measure of Injury Severity	Cut-off Point	% of claims classified as serious injury
Threat to Life	Maximum Abbreviated Injury Scale	≥ 3	9.2
Impairment	Degree of impairment	$\geq 30\%$	1
Resource Use	TAC claim with an admission to hospital within 7 days from the road crash	> 14 days continually admitted	6.1
Cost	Estimated lifetime compensation payout by TAC for no-fault benefits	A cut-off cost (\$52,378) was chosen that 75% of all TAC liabilities cost greater than this	10.4

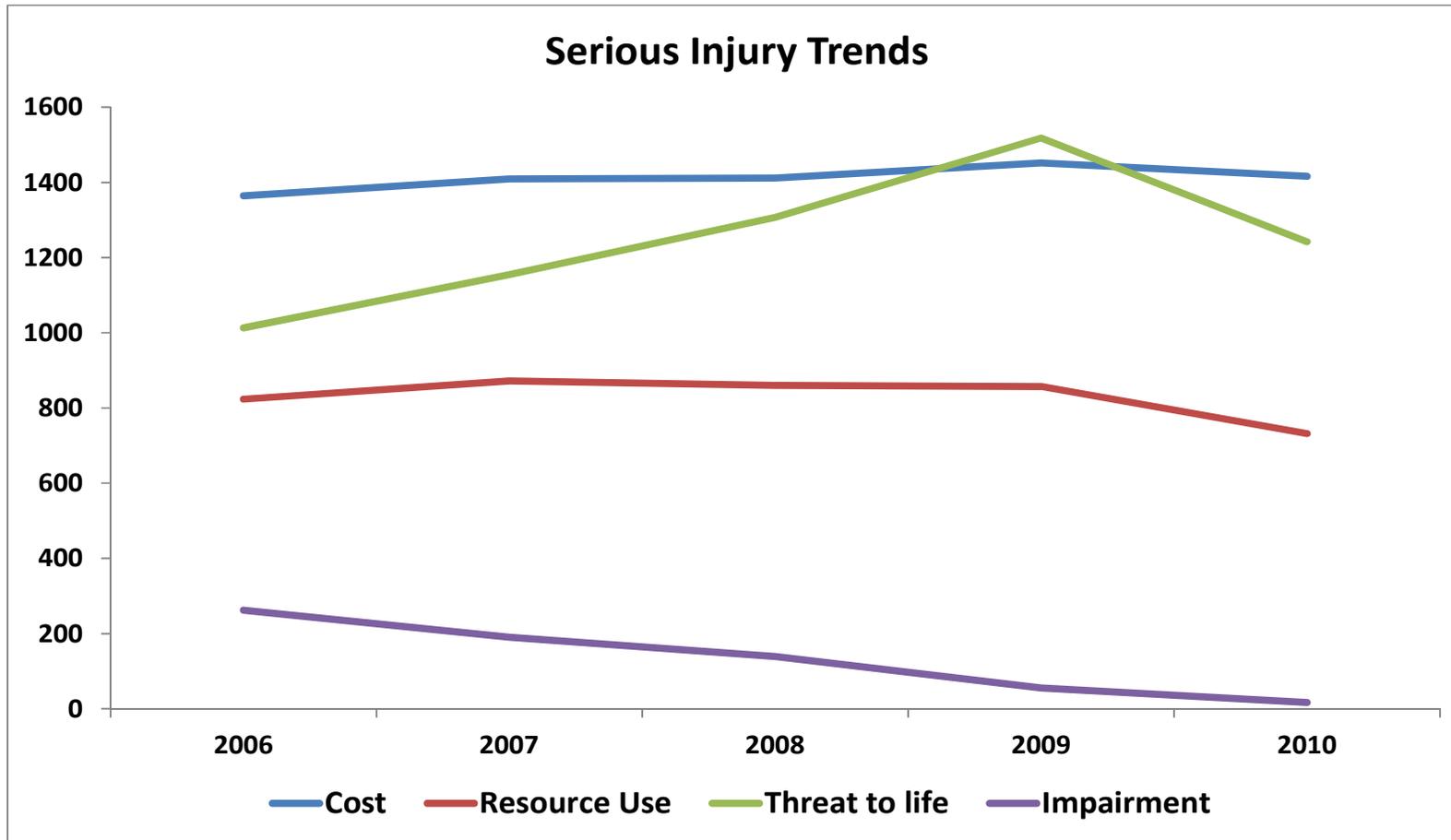
67,797 claimants; 2006 to 2010 Nieuwesteeg, Alavi, Schuster, Fitzharris (2013)

Definitional overlap



Nieuwesteeg, Alavi, Schuster, Fitzharris (2013)

Why the measure matters: trend analysis



Nieuwesteeg, Alavi, Schuster, Fitzharris (2013)

On-going work in Victoria

- The Victorian agencies are continuing to work towards an integrated data system, with linkage 'in-house' of relevant datasets
 - Issues of data custodians
 - Access rights
 - Legal / inter-government agreement
 - Privacy laws and unique identifiers
- At the same time, an assessment of the appropriate measures is being undertaken
 - Assessment and practical assessment of injury severity metrics
 - Keeping an eye of developments in the EU on reporting, and mapping tools under development by AAAM for ICD9/10 to AIS
- Assessment of reporting metrics & historic baseline, with MUARC
- High level of 'agency' and ownership of the process by RSEG and strong progress
- Understanding of implications of shift to serious injury metrics on road safety strategy and 'claims strategy' growing, especially with SSRIP and MUARC-TAC ECIS initiatives