Parliamentary Road Safety Committee Inquiry into Serious Injury 22 July 2013

Bruce Prosser
Director, Information and Funding Systems, Hospital & Health Service Performance Division, Department of Health

Dr Martin Lum
Medical Director, Hospital & Health Service Performance Division, Department of Health

Peter Carver
Project Director, Health Strategy, Strategy and Policy Division, Department of Health

Departmental functions related to Serious Injury Inquiry

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- **Custodian of major hospital datasets which include emergency presentations and admissions for injuries treated in public and private hospitals**
  * Victorian Admitted Episode Dataset (VAED)
    2.5 million records in 2011/12
  * Victorian Emergency Minimum Dataset (VEMD)
    1.48 million records in 2011/12

✓ cost and health burden of serious injury

- **Data linkage infrastructure and expertise (Victorian Data Linkages)**

✓ insights into cost and outcomes associated with interventions

- **Management of major trauma care through the Victorian State Trauma System (VSTS) and performance management of Victoria's public hospital system**

✓ immediate impact of road and other trauma and tertiary prevention

Focus of Department of Health's submission

- **Contribution of VSTS to best practice in managing long-term reductions in serious injury**
- **Role and capability in linkage of hospital data to other collections for policy development, research and reporting purposes**
- **Observations on methodological issues and assessment of cost-effective countermeasures**

Improvement in major trauma care and outcomes since VSTS introduced

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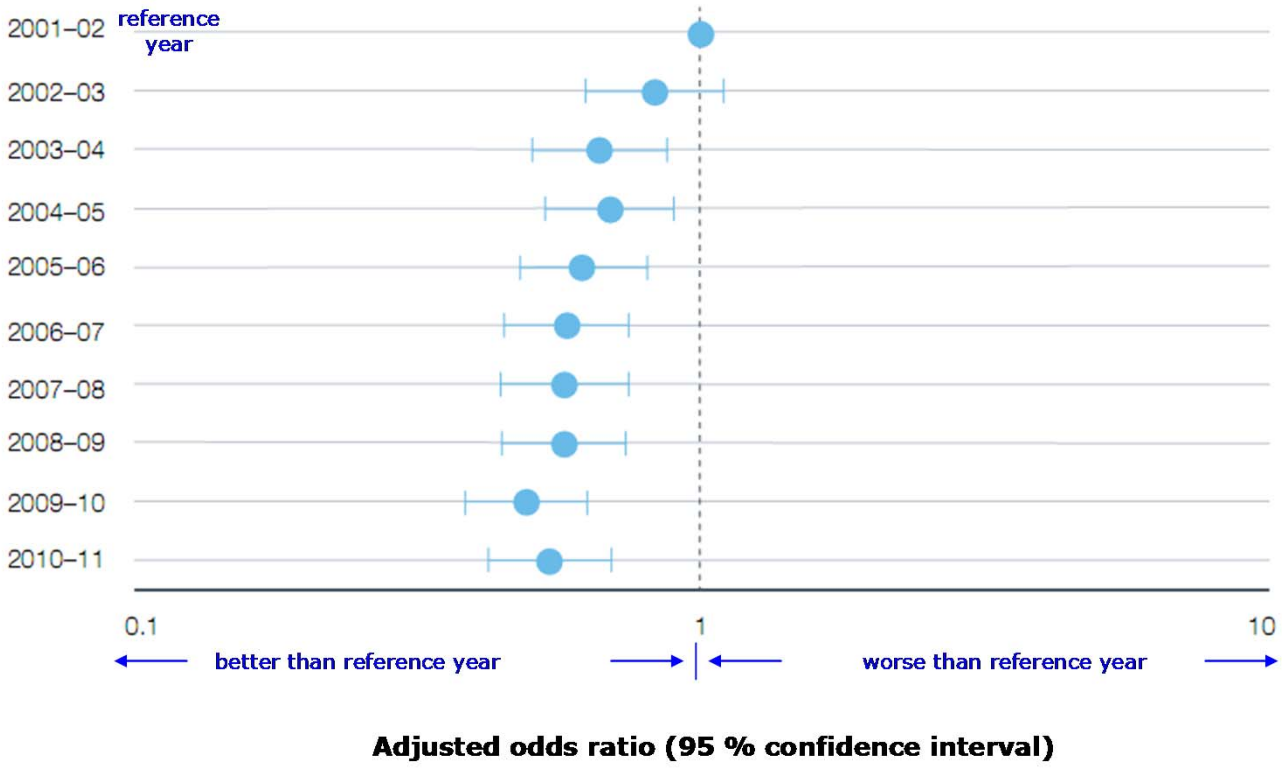
- **Survival chances (“adjusted odds of in-hospital death”) for major trauma patients have improved since 2001–02**



Source: Department of Health. (2012). Victorian State Trauma Registry, 1 July 2010 to 30 June 2011 Summary report. Adapted from Figure 2a, p. 15.

Victorian State Trauma System achievements underpinning improved outcomes

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Overall achievements:

- Implementation of ROTES recommendations is virtually complete
- Development of standard processes for triage and transfer
- 85 per cent of all major trauma patients are treated at an MTS;
- High compliance with major trauma guidelines
  – the right patient to the right hospital
- Improved outcomes:
  ✓ Reduction in mortality rates with fewer than expected deaths;
  ✓ Positive trends in preventable deaths;
  ✓ Reduced length of stay in hospitals;
  ✓ More major trauma patients being discharged home, rather than to rehabilitation;
- Wide stakeholder engagement in the implementation and monitoring of the system
- Participation of all Victorian health services in the VSTR.

Department of Health role in data linkage

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What is data linkage?

Data linkage is a method of bringing together information about people, places, and events in a way that protects the privacy of individuals.

...but it is also a collaborative and tightly governed process

Data linkage is a collaborative process involving data custodians , data linkers and researchers that manages increased access to the information held by data custodians in a way that ensures that the information that is disclosed to data linkers and researchers, respectively, is limited to what they need to do their jobs.

Role clarity is important in data linkage

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- **Data custodians**

People who work within a government department or agency are responsible for the secure collection, use and disclosure of data.

- **Data linkers**

People who work in a data linkage unit that is either within, or associated with, a government agency and create the linkage IDs that allow data to be linked within and between data collections.

- **Researchers**

People who use the data for the purposes of analysis and research, after an extensive application process and approval by all relevant data custodians and (where applicable) a Human Research Ethics Committee (HREC).

Adding value through data linkage in health

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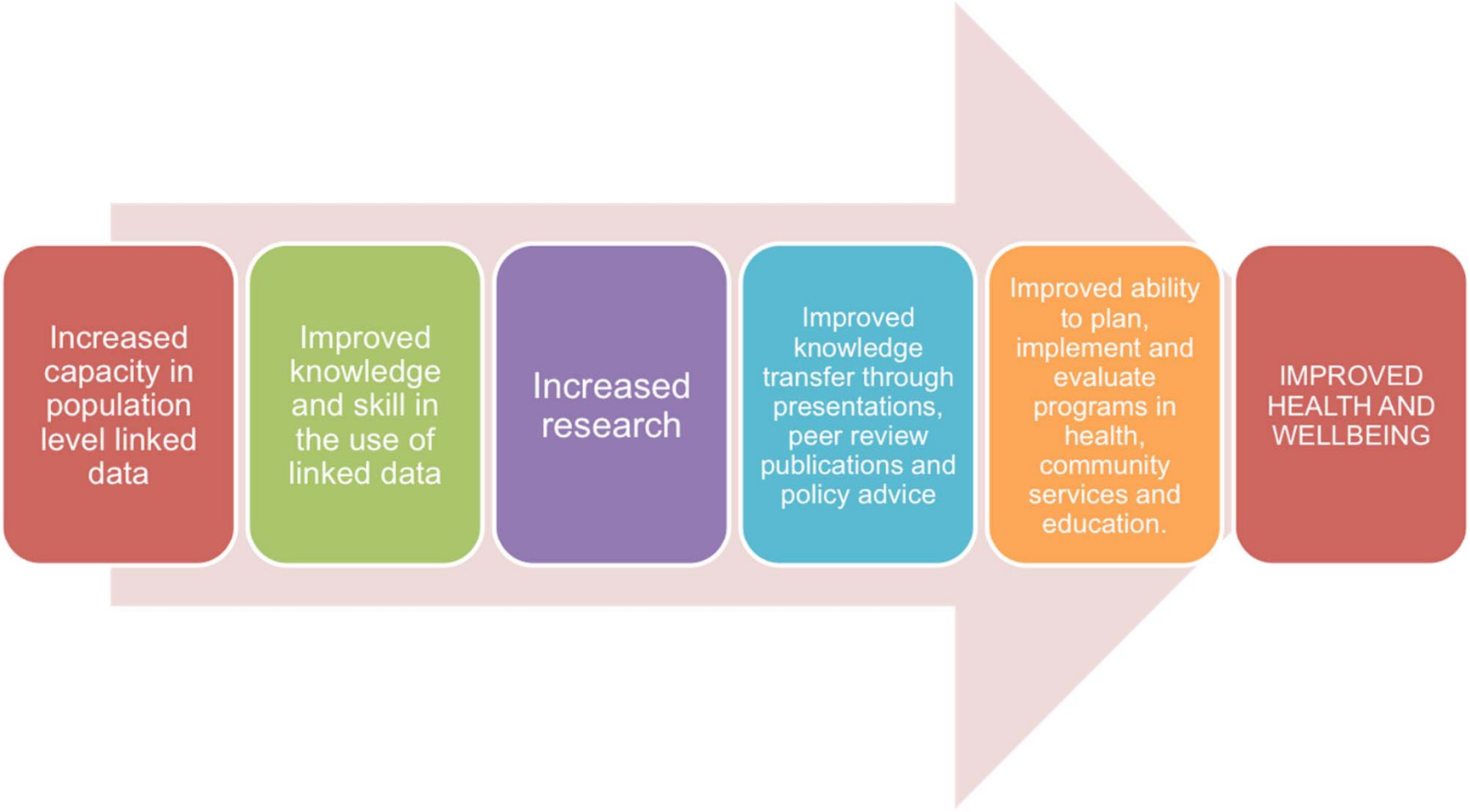
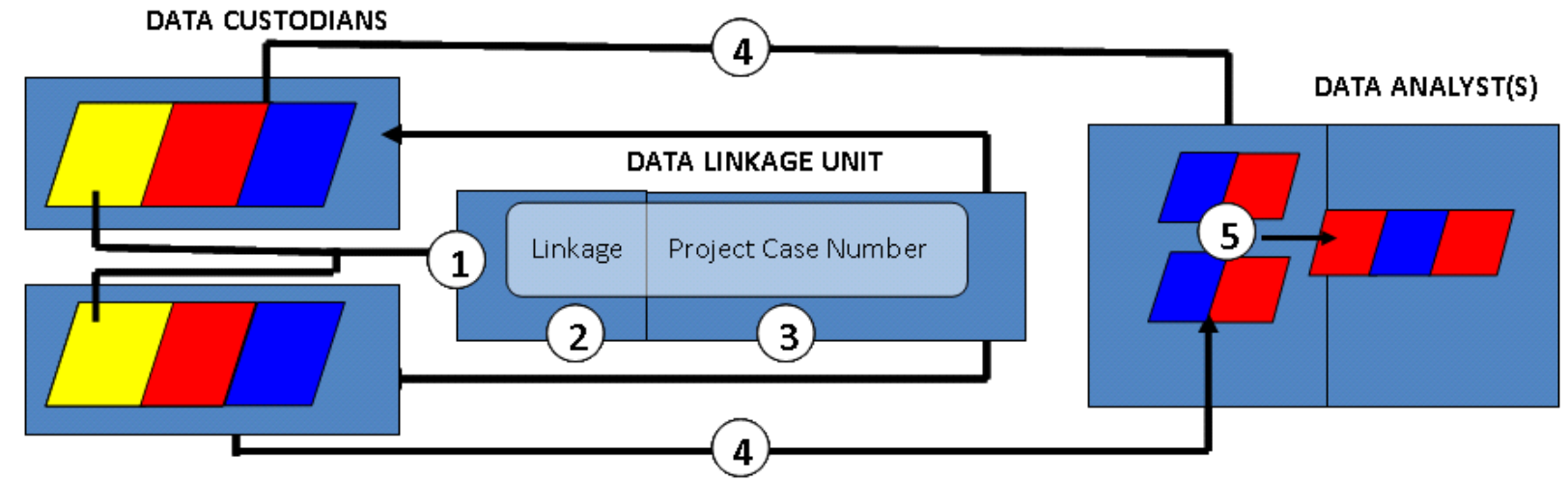


How is data linked for research?



Identifying data

service or clinical data

Project Case Number

1 acquire data necessary to map the datasets from data custodians

2 map identifying data from the respective datasets to identify cases that belong together

3 enable data custodians to approve and release service or clinical data only to data analyst(s)

4 enable data custodians to release minimum service/clinical data (*with no identifiers*) necessary for project to data analyst(s)

5 enable data analyst(s) to join up and analyse linked data

How is data linked for research (cont)?

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A short video on the process of data linkage (courtesy of SA-NT DataLink, the Data Linkage Unit for South Australia and the Northern Territory) is available at:

http://www.youtube.com/v/vLYGcbxrIPA&hl=en_US&feature=player_embedded&version=3

SA·NT DataLink

Agencies and content data relevant to road-related Serious Injury Policy

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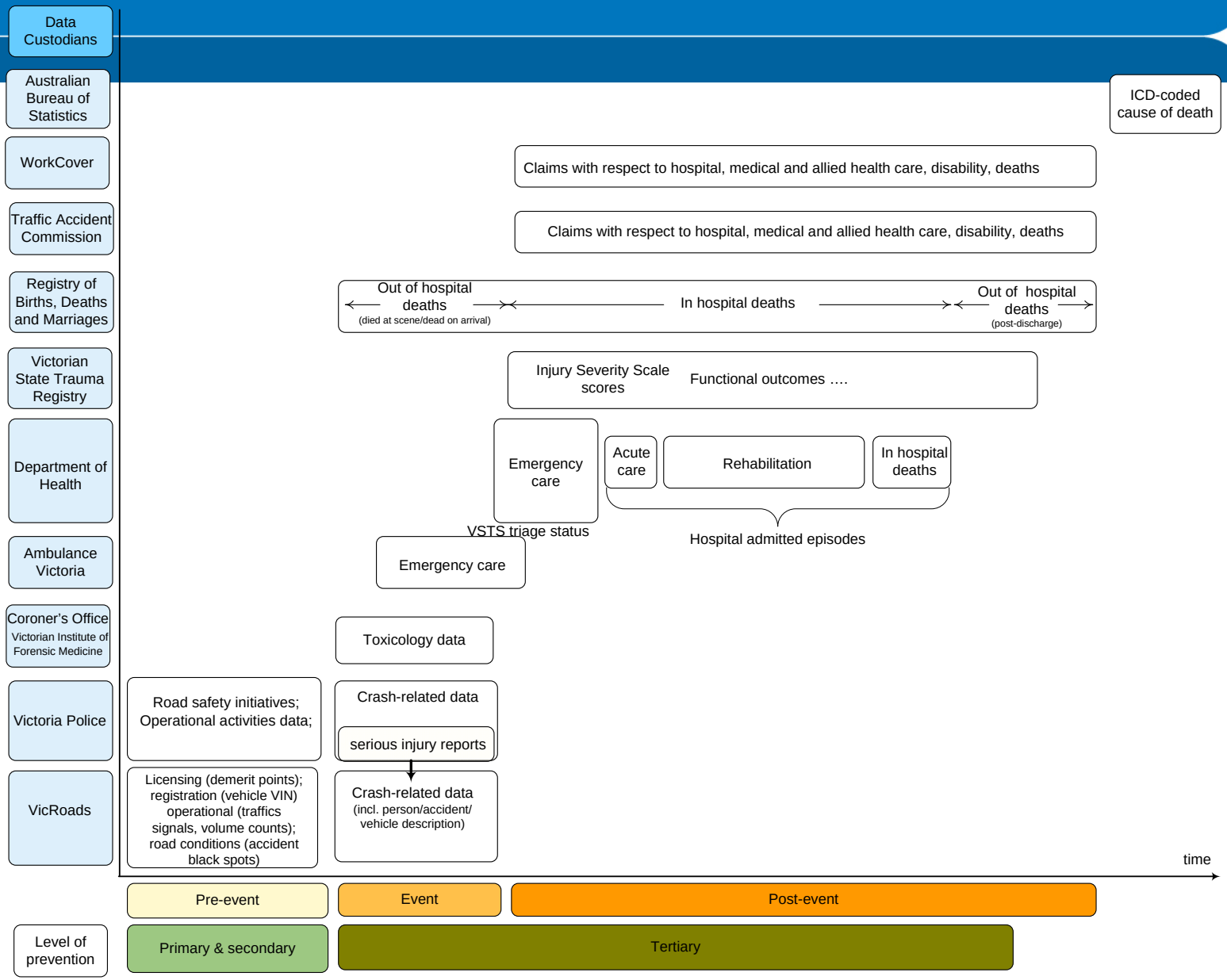

Best practice protocol

- To maximise the protection of individual privacy
- To provide linked data files to only nominated researchers involved in approved research projects
- To provide researchers with no more than the datasets required for their specific project
- To assure data custodians that the data they are responsible for will be used appropriately and security obligations met

Stage 1

- Memorandum of understanding (MoU) and ethics approval
- Production of the linkage key file

Stage 2

- Project approvals
- Extraction of a subset of data for each project

C.W. Kelman, A.J. Bass and C.D.J Holman, 'Research use of linked health data — a best practice protocol', *Australian and New Zealand Journal of Public Health*, 2002; 26(3): 251–255.

Some observations on evaluating cost-effective countermeasures

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- A comprehensive approach to identifying, measuring and valuing costs and benefits is important to understanding the full societal impact of health and safety interventions
- Such an approach should guide the prioritisation of new countermeasures
  - Cost benefit and cost-effectiveness analysis take account of both inputs (resources) and outputs (changes in health and safety outcomes) simultaneously
  - Approach builds on formal assessments of the efficacy (i.e. can it work?) and effectiveness (i.e. does it work?) of interventions
  - Requires systematic analysis to clearly identify relevant alternatives and to measure relevant costs and consequences of an intervention

Department of Health Recommendations

1. Acknowledge the contribution of the Victorian State Trauma System (VSTS) to improving trauma outcomes and its ongoing role in tertiary prevention
2. Seek advice from the State Trauma Committee regarding useful classifications of measures of severe injury according to the immediacy of the purpose for which they are needed
3. Use economic evaluation as well as burden of injury and cost-of-illness approaches to inform the allocation of funding to road-related serious injury countermeasures or interventions
4. Relevant agencies should collaborate to:
   a) develop a data map across agencies with policy-relevant road-injury data collections; and
   b) identify one or two pilot linkage projects that can draw on the established data linkage capability of Victorian Data Linkages to demonstrate the policy insights that can be gained by optimising the use of the datasets held by different agencies