

Victorian State Trauma Outcome Registry and Monitoring Group (VSTORM)

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Overview of presentation

1. Describe the role of VSTORM
2. Introduce the Victorian State Trauma Registry (VSTR)
3. Provide examples of how the VSTR data are used for monitoring of serious road injury
4. Discuss the linkage capacity of the VSTR

What is VSTORM?

- Data analysis entity which is administratively independent of the Department of Health
- Provides independent and objective analysis of data pertaining to the Victorian State Trauma System (VSTS)
- Data custodian of the VSTR
- Guided by a Steering Committee of expert clinicians, trauma service providers, funding stakeholders and researchers, representing different components of the VSTS
- Reports to the Department of Health and the State Trauma Committee

What does VSTORM do?

- Monitoring of the VSTS through the analysis of data in the VSTR
- Analyses the effectiveness of the VSTS in reducing preventable death and permanent disability
- Identifies current deficiencies and opportunities for improvement in trauma care
- Assists the trauma services to undertake continuous improvement
- Integrates available electronic databases to provide maximum benefit in evaluating the VSTS
- Uses the VSTR to conduct research to improve our understanding of trauma incidence and burden, inform improvements in trauma care, guide injury prevention initiatives and enhance the effectiveness of the VSTS.

What is the VSTR and how does it work?

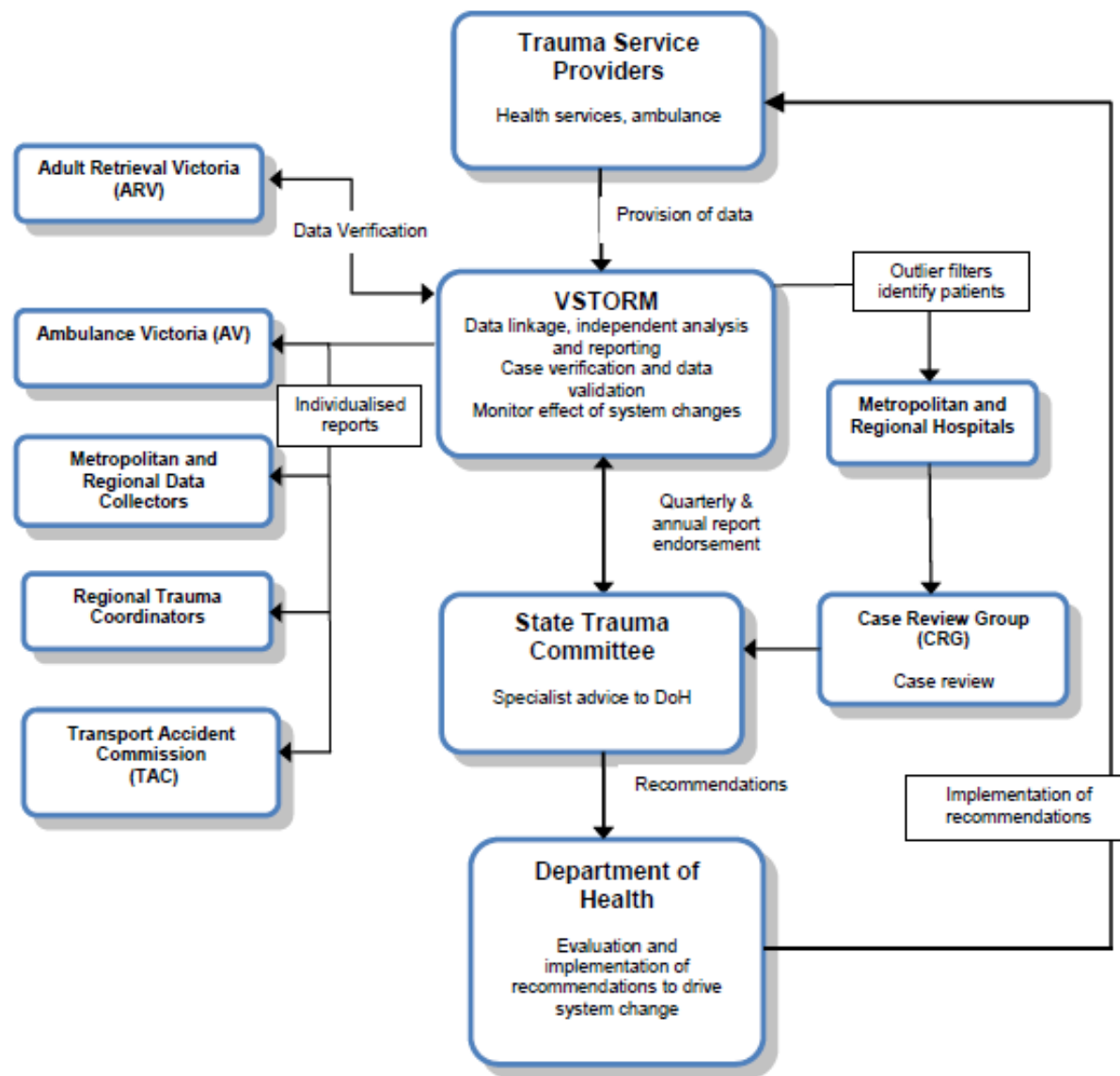
- Population-based trauma registry, integrated into the VSTS
- Receives data from all trauma-receiving hospitals in the state (n=138)
- Uses an opt-off consent process
- Collecting data since July 2001
- Data collected includes pre-hospital (ambulance), all acute hospital admissions, and post-discharge outcomes
- Also reports on trauma-related deaths from the National Coroner's Information Service
- Unique registry due to the focus on all phases of care and the routine collection of long term functional, quality of life and return to work outcomes

Measures of burden collected by the VSTR

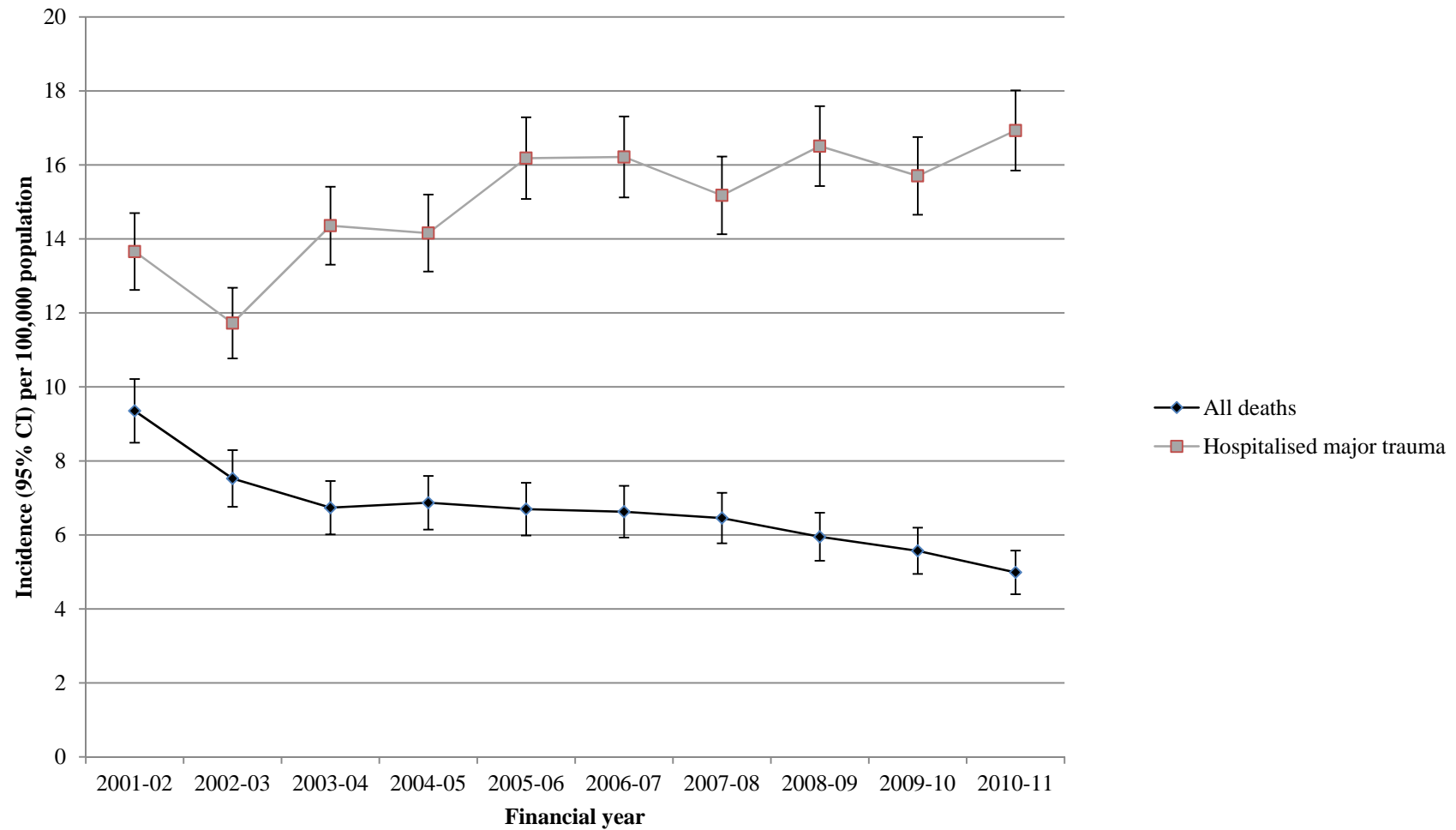
- Mortality
 - Incidence
 - Long term mortality risk (via linkage with deaths registry)
 - Years of life lost (YLLs)
- Non-fatal injury
 - Functional outcome (GOS-E and KOSCHI)
 - Return to work and work disability
 - Pain
 - Health-related quality of life (SF-12, EQ-5D, and PedsQL)
 - Self-reported disability
 - Years Lived with Disability (YLDs)
- Other
 - DALYs
 - Costs

Which cases are included in the VSTR?

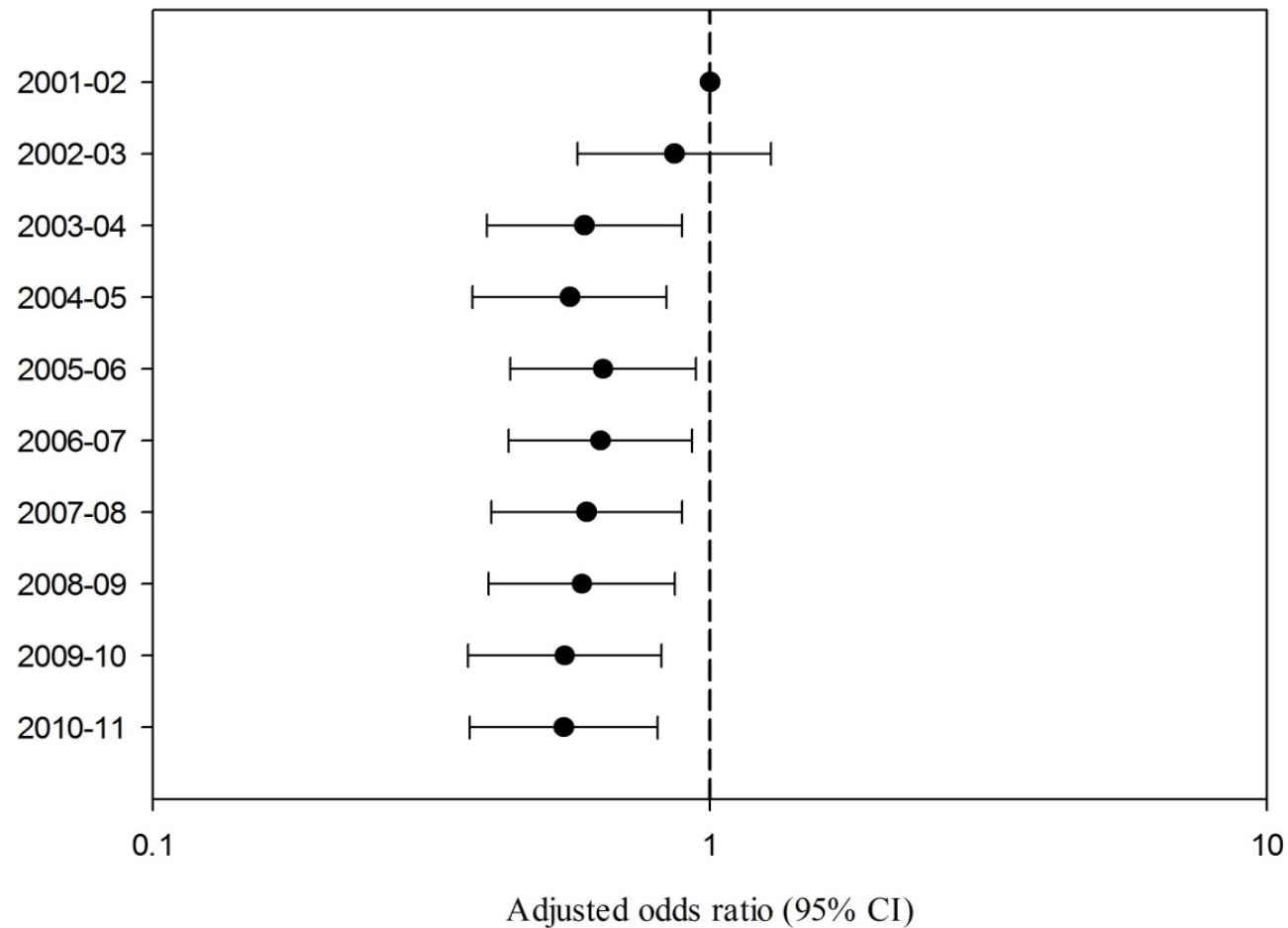
1.	All deaths after injury
2.	All patients admitted to an intensive care unit or high-dependency area for more than 24 hours and mechanically ventilated after admission
3.	Significant injury to two or more ISS body regions (an AIS of 2 or more in two or more body regions) or an ISS greater than 12
4.	Urgent surgery for intracranial, intrathoracic or intraabdominal injury, or fixation of pelvic or spinal fractures
5.	Electrical injuries, drowning and asphyxia, admitted to an intensive care unit and having mechanical ventilation for longer than 24 hours or death after injury
6.	All patients with injury as their principal diagnosis whose length of stay is three days or more – unless they meet exclusion criteria
7.	All patients with injury as their principal diagnosis transferred or received from another health service for further emergency care or admitted to a high dependency area – unless they meet exclusion criteria



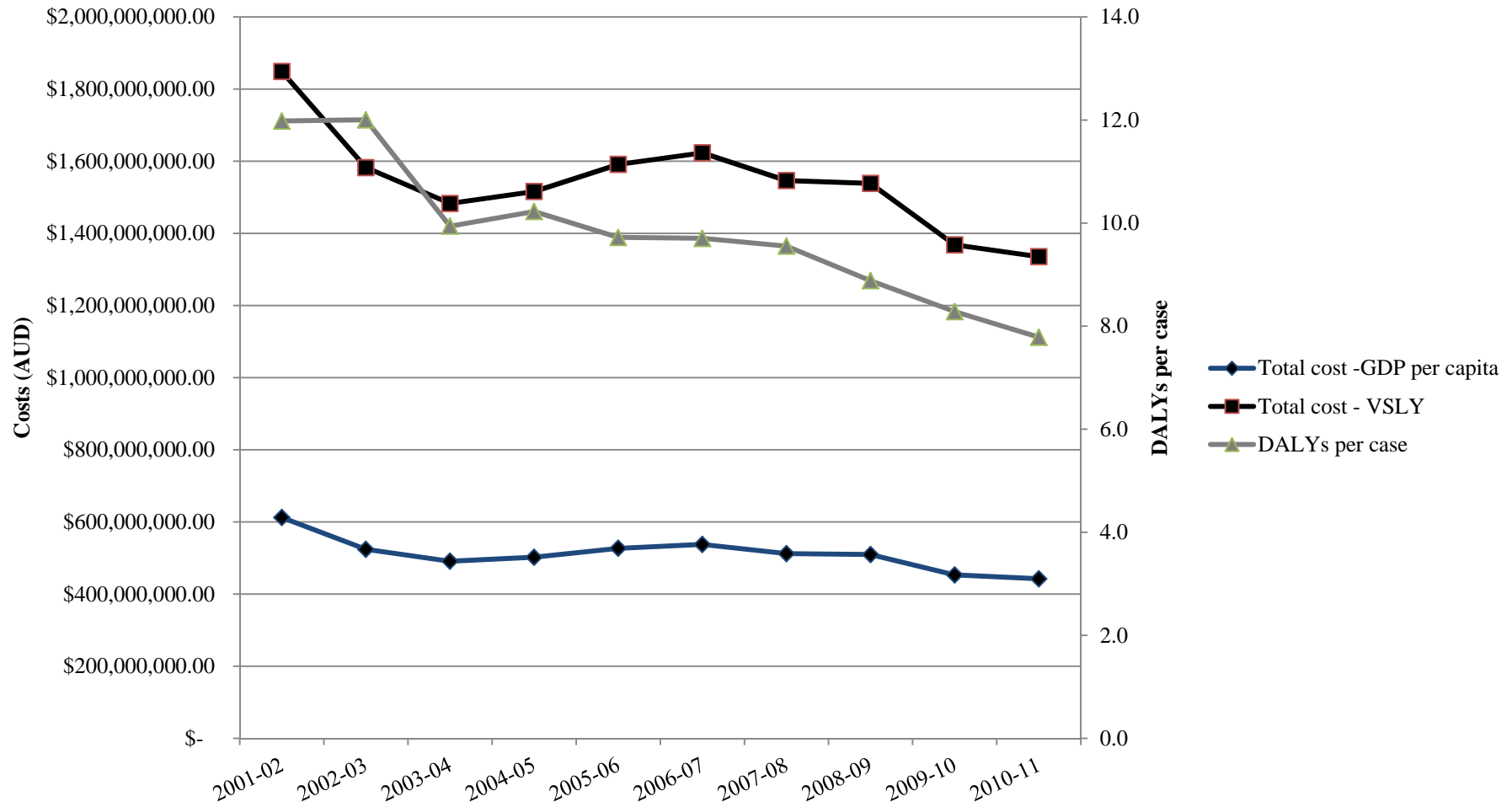
Incidence of road transport-related major trauma and death



Risk-adjusted odds of mortality for hospitalised road transport-related major trauma



Costs of health loss and DALYs per case for road transport-related major trauma and death



What is the data linkage capacity of the VSTR?

Identifiers for linkage

- Patient name and address
- Date of birth
- Date of injury, admission, etc.
- Hospital UR number
- Ambulance record number
- TAC claim number

Linkages

Established

- VACIS
- ARV
- TAC claims data
- Victorian Registry of Deaths

In discussion

- VAED and VEMD
- Rehabilitation

Potential

- Victoria Police
- VicRoads

Victorian Orthopaedic Trauma Outcomes Registry (VOTOR)

- Sentinel site registry – 4 hospitals
 - The Alfred, RMH, Geelong Hospital, Northern Hospital
- All orthopaedic trauma admissions with a length of stay >24h
- Integrated into the VSTR but funded by the TAC through ISCRR
- Collecting data since late 2003 (approx. 5000 cases per year)
- Follow-up of all patients at 6 and 12-months post-injury (now extended to 24-months)
- Multi-disciplinary Steering Committee with extensive clinical engagement
- Linkages with TAC and deaths registry

Key messages

- VSTR captures deaths (pre-hospital and in-hospital) and all major trauma patients in the state
- Definition of major trauma established by the ROTES report
- Extensive dataset focused on population incidence, quality of trauma care provided, injury prevention, and the burden of fatal and non-fatal injury
- VSTR and VOTOR are the only trauma registries worldwide to capture post-discharge outcomes and longer term burden of non-fatal injury
- VSTR is fully integrated into the VSTS with routine reporting and advice to the Department and STC
- Substantial data resource for research, policy and planning
- Already established linkages and capacity to link with many databases



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