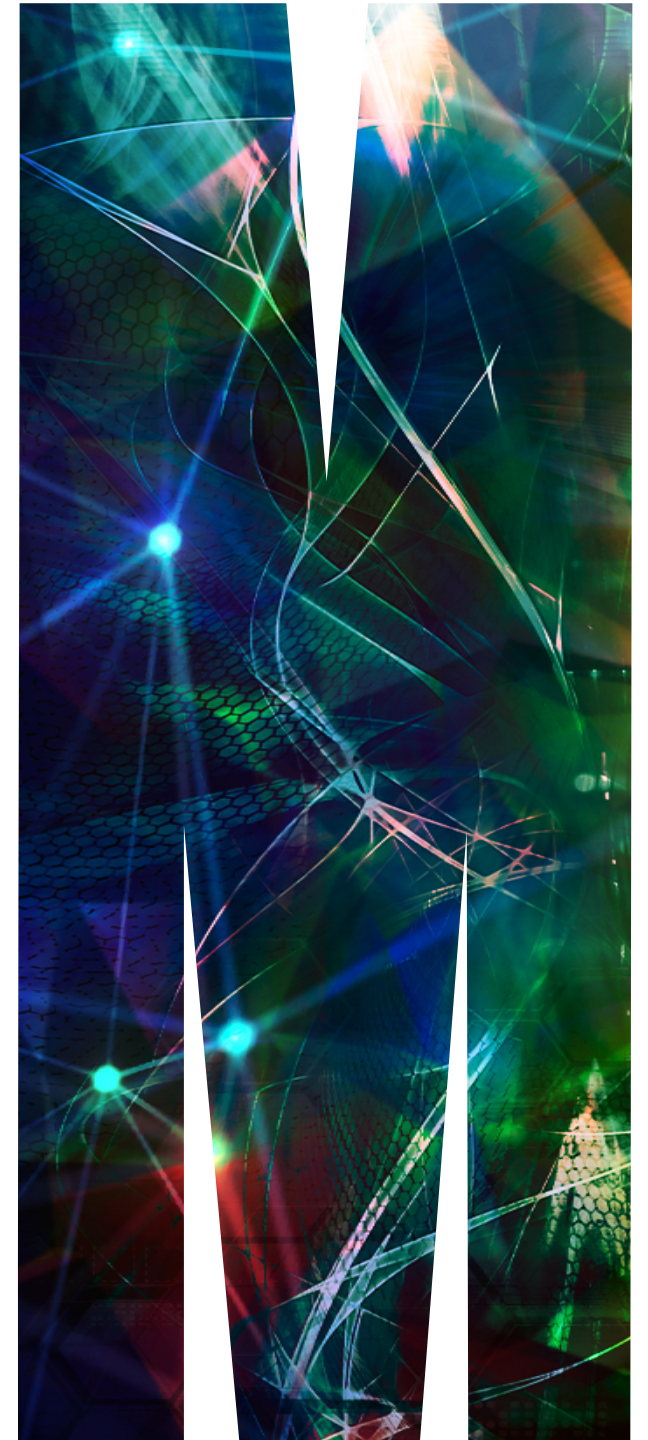


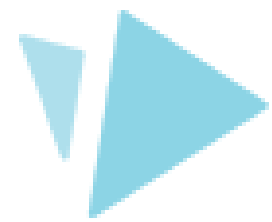


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 @EmergTrauma





VideoScribe

VICTORIAN CONTEXT



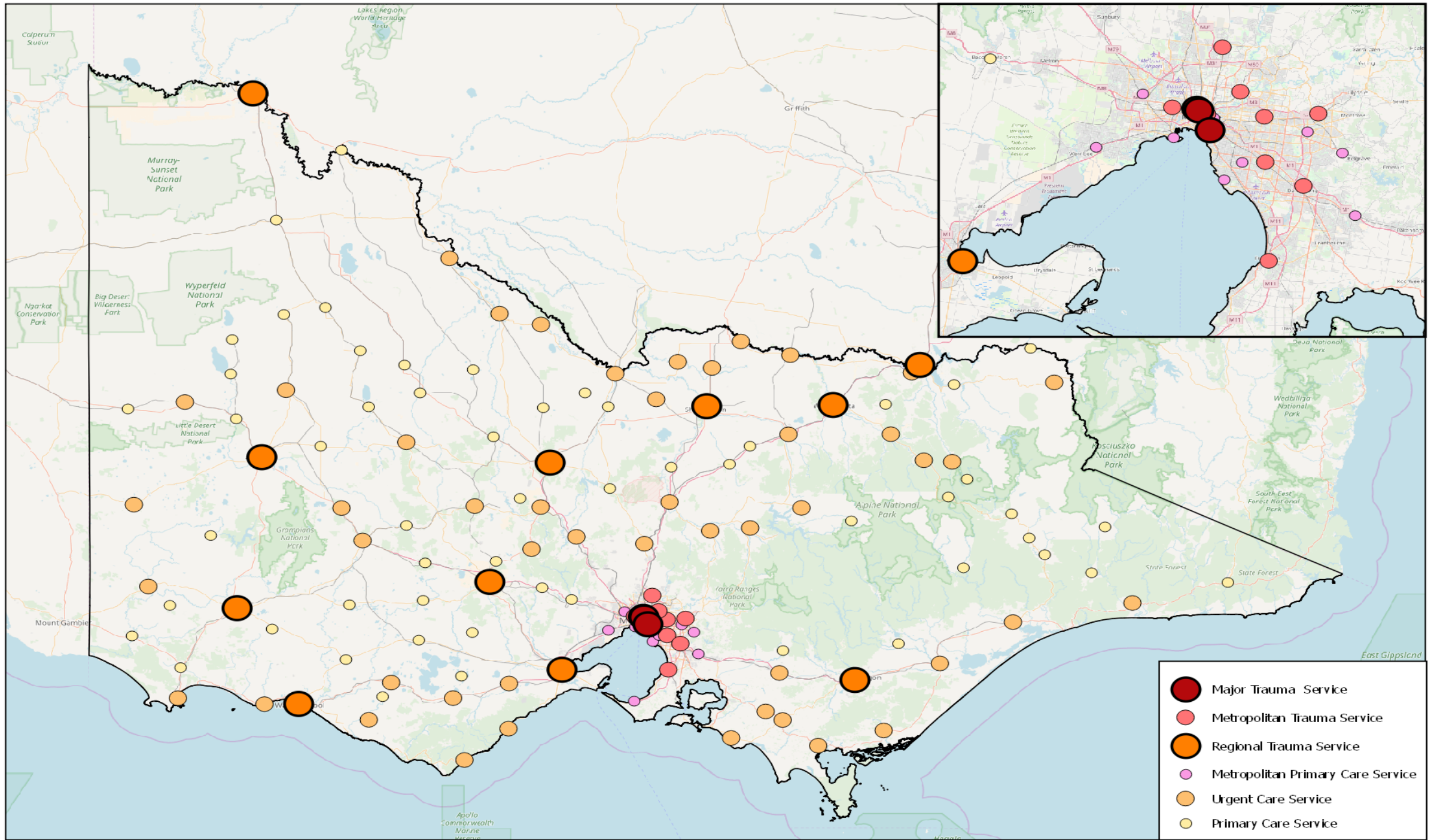
,

- 6.4 million people
- 5 million in Melbourne
- 227,416 km²
- Integrated trauma system
 - Single ambulance service (road and air)
 - 3 major trauma centres
- Third party no-fault insurers for road traffic (TAC) and work (WSV) injury, and universal healthcare (Medicare)
- State funds pre-hospital and acute care while rehabilitation and aged care is funded federally

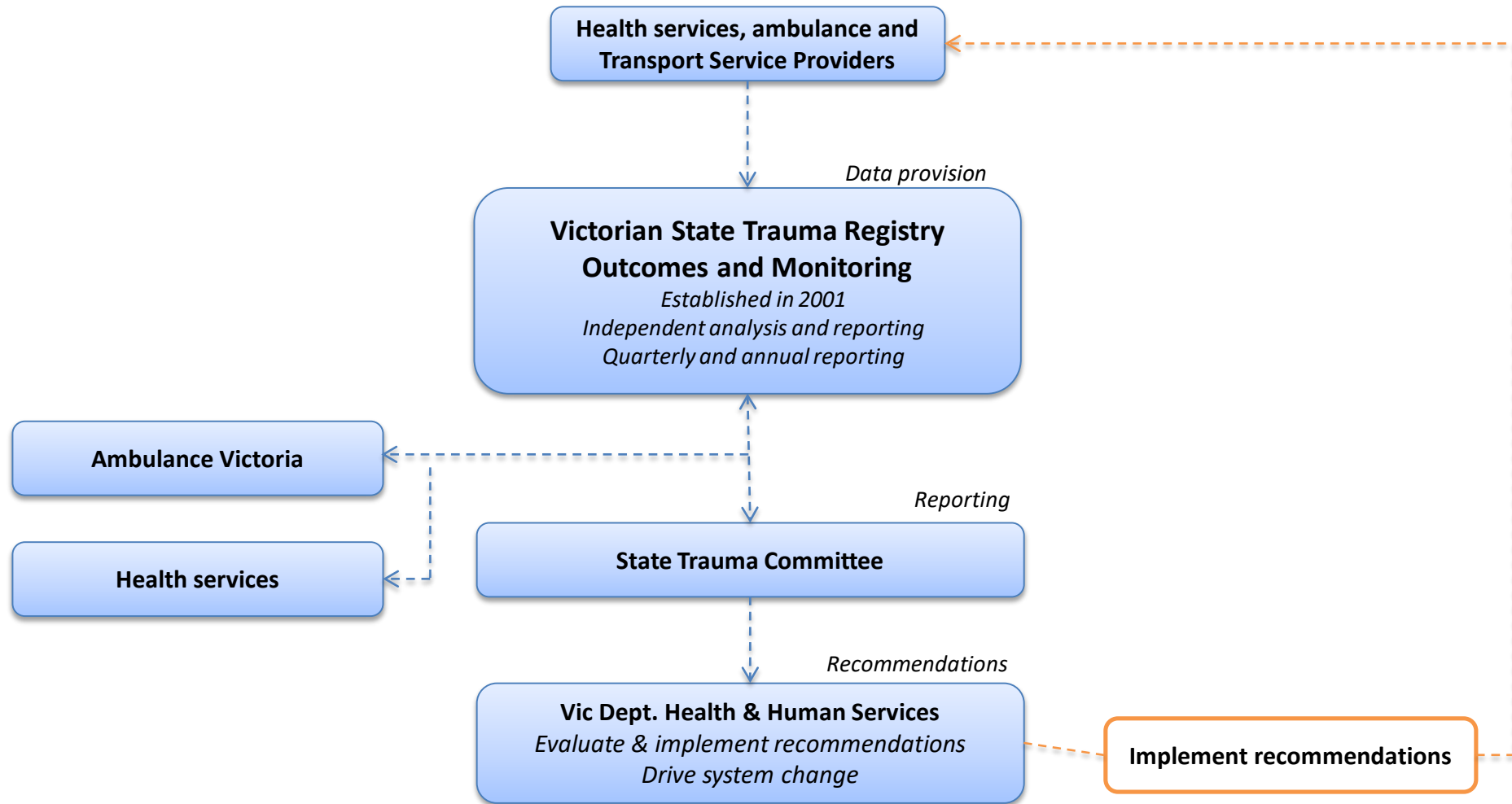




- Aims to reduce mortality and morbidity associated with trauma
- Designed to ensure that the right patient is transported to the right hospital in the shortest timeframe
- Consider the patient's journey from the time of injury through pre-hospital care, acute care, rehabilitation and community integration
- 138 trauma receiving health services
- Monitored using the Victorian State Trauma Registry



- Major Trauma Service
- Metropolitan Trauma Service
- Regional Trauma Service
- Metropolitan Primary Care Service
- Urgent Care Service
- Primary Care Service



Ambulance
Victoria

Referral Hospitals

Retrieval services

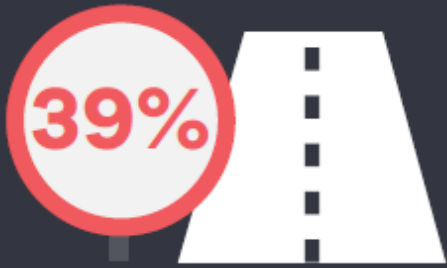
Definitive hospital

Discharge
destination

Post-discharge outcomes

- Population-based
- Since July 2001
- Opt-off
- Independent of health services and government
- Representative Steering Committee
- ~ 3400 major trauma patients per year
- System monitoring

Adults	<p>SF-12 12 item WHODAS (January 2016)</p> <p>EQ-5D-3L (added in 2009) EQ-5D-5L (July 2018)</p> <p>Glasgow Outcome Scale – Extended (GOS-E)</p> <p>Numerical rating scale (NRS) for pain</p> <p>Return to work and work disability questions</p> <p>Global disability questions</p>
Paediatric	<p>King's Outcomes Scale for Closed Head Injury (KOSCHI)</p> <p>Pediatric Quality of Life Inventory (PedsQL) EQ-5D-Y (July 2018)</p>
Linkage	<p>Victorian Registry of Births, Deaths and Marriages</p> <p>Transport Accident Commission</p> <p>Department of Health and Human Services</p>



39% of trauma cases in 2016–17 were transport-related. It continues to be the category with the highest percentage of cases.



5%

of cases involved pedal cyclists.



2%

of major trauma was from burns.



Motor vehicle crashes accounted for approximately one quarter of severe head injuries. (28% in 2016–17).



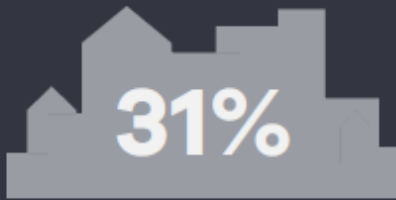
Deaths due to falls exceeded transport deaths for the fifth consecutive year.



Major trauma occurring in the home increased over the five-year period.



The most common injury group was multiple trauma (excluding serious neurotrauma), which accounted for 42 per cent of patients in 2016–17.



The home was the second most common place of injury.



7%

of all hospitalised major trauma patients in 2016–17 had a severe head injury.



79%

of major trauma patients received definitive care at an appropriate trauma service as defined by the major trauma guidelines.

89%



of transferred patients received definitive care at an appropriate trauma service as defined by the major trauma guidelines.



The incidence of major trauma in regional Victoria has been higher than metropolitan Victoria each year.

438



major trauma primary helicopter transports from the scene to a major trauma service.



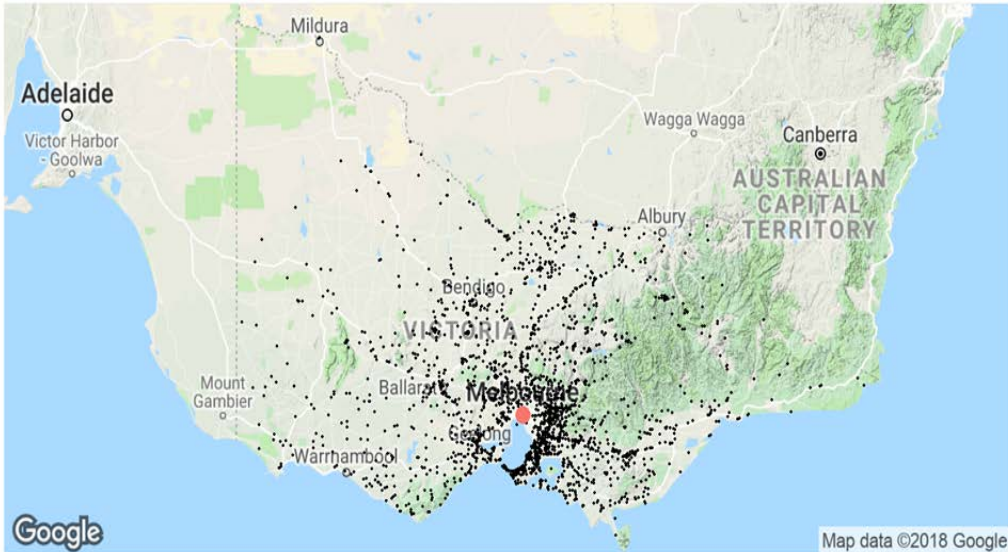
Overall, the median inter-hospital transfer time (excluding transfers from an MTS) in 2016–17 was similar to previous years.



The median hospital length of stay decreased slightly from 6.9 days in 2012–13 to 6.5 days in 2016–17.



The median ambulance response time (measured from time of ambulance call to arrival at scene) has increased since 2012–13.



Improved Functional Outcomes for Major Trauma Patients in a Regionalized, Inclusive Trauma System

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Mark C. Fitzgerald, MBBS, FACEM, MRACMA,‡§ Rodney Judson, MBBS, FRACS, FRCS, FACS,||
and Peter A. Cameron, MBBS, MD, FACEM*†

Objective: To describe outcomes of major trauma survivors managed in an organized trauma system, including the association between levels of care and outcomes over time.

Background: Trauma care systems aim to reduce deaths and disability. Studies have found that regionalization of trauma care reduces mortality but the impact on quality of survival is unknown. Evaluation of a trauma system should include mortality and morbidity.

Methods: Predictors of 12-month functional (Glasgow Outcome Scale—Extended) outcomes after blunt major trauma (Injury Severity Score >15) in an organized trauma system were explored using ordered logistic regression for the period October 2006 to June 2009. Data from the population-based Victorian State Trauma Registry were used.

Results: There were 4986 patients older than 18 years. In-hospital mortality decreased from 11.9% in 2006–2007 to 9.9% in 2008–2009. The follow-up rate at 12 months was 86% (n = 3824). Eighty percent reported functional limitations. Odds of better functional outcome increased in the 2007–2008 [adjusted odds ratio (AOR): 1.22; 95% CI: 1.05, 1.41] and 2008–2009 (AOR: 1.16; 95% CI: 1.01, 1.34) years compared with 2006–2007. Cases managed at major trauma services (MTS) achieved better functional outcome (AOR: 1.22; 95% CI: 1.03, 1.45). Female gender, older age, and lower levels of education demonstrated lower adjusted odds of better outcome.

Conclusions: Despite an annual decline in mortality, risk-adjusted functional outcomes improved over time, and cases managed at MTS (level-1 trauma centers) demonstrated better functional outcomes. The findings provide early evidence that this inclusive, regionalized trauma system is achieving its aims.

(*Ann Surg* 2012;255:1009–1015)

trauma victims. The consequences of patients' surviving injuries that would have previously resulted in death in hospital are not known.

There is some evidence to suggest that management at a trauma center results in improved functional outcomes 1 year after injury for cases of major lower limb trauma when compared with non-trauma centers.⁶ Although this strengthens the case for transport to trauma centers for care, the findings were limited to serious lower limb trauma, and the overall impact of improved survival across a system of care or population could not be determined. Efforts are needed to quantify the population burden of nonfatal injury and further our knowledge of the impact of trauma systems and trauma center care on the quality of survival of trauma patients.^{6–9} Ideally, evaluation of a trauma system should show a reduction in both mortality and morbidity over time to demonstrate successful implementation. The primary aim of this study was to describe predictors of outcomes of major trauma survivors managed in an inclusive, regionalized trauma system. This included examining the association between level of trauma care and outcomes over time.

METHODS

Setting

The state of Victoria in Australia has a population of 5.4 million, representing 25% of the national census. To ensure timely and appropriate matching of the needs of the patient with the service-providing definitive care, an inclusive, regionalized trauma system was implemented in 2000.¹⁰ The Victorian State Trauma System (VSTS) coordinates prehospital services and acute care across the

- Fundamental component of trauma systems is management at a specialised trauma service
- Adjusted odds of a better functional outcome were 22% higher for patients managed at major trauma services

Reduced Population Burden of Road Transport-related Major Trauma After Introduction of an Inclusive Trauma System

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Objective: To describe the burden of road transport-related serious injury in Victoria, Australia, over a 10-year period, after the introduction of an integrated trauma system.

Background: Road traffic injury is a leading cause of death and disability worldwide. Efforts to improve care of the injured are important for reducing burden, but the impact of trauma care systems on burden and cost of road traffic injury has not been evaluated.

Methods: All road transport-related deaths and major trauma (injury severity score >12) cases were extracted from population-based coroner and trauma registry data sets for July 2001 to June 2011. Modeling was used to assess changes in population incidence rates and odds of in-hospital mortality. Disability-adjusted life years, combining years of life lost and years lived with disability, were calculated. Cost of health loss was calculated from estimates of the value of a disability-adjusted life year.

Results: Incidence of road transport-related deaths decreased (incidence rate ratio 0.95, 95% confidence interval: 0.94-0.98), whereas the incidence of hospitalized major trauma increased (incidence rate ratio 1.03, 95% confidence interval: 1.02-1.04). Years of life lost decreased by 43%, and years lived with disability increased by 32%, with an overall 28% reduction in disability-adjusted life years over the decade. There was a cost saving per case of A\$633,446 in 2010-2011 compared with the 2001-2002 financial year.

Conclusions: Since introduction of the trauma system in Victoria, Australia, the burden of road transport-related serious injury has decreased. Hospitalized

major trauma cases increased, whereas disability burden per case declined. Increased survival does not necessarily result in an overall increase in nonfatal injury burden.

Keywords: burden of injury, costs, disability-adjusted life years, outcomes, trauma

(Am Surg 2015;261:565-572)

Road traffic crashes claimed the lives of 1.3 million people globally, and accounted for 34% of all years lived with disability (YLDs) attributed to injury, in 2010.^{1,2} Over the last 40 years or so, there has been a substantial reduction in road traffic fatality rates in high-income countries,³ including dramatic improvements in Australia⁴ attributed to legislation (eg, mandatory seat belt legislation, compulsory motorcycle and bicycle helmets, reduced speed limits, and random breath testing for alcohol) and widespread public health campaigns. Primary prevention and efforts to improve care of the injured are important for reducing injury burden,⁵ but the impact of system-based approaches to trauma care on burden and cost of road traffic injury has not been evaluated.

Traumatic injury is described as a time-sensitive disease, with rapid provision of high-quality care critical to prevent death and disability.⁶ People involved in road traffic crashes often sustain multiple injuries of higher complexity, commonly in rural or remote

Road safety: serious injuries remain a major unsolved problem

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The known Road traffic injuries are a major cause of death and disability.

The new The disability burden associated with road traffic-related incidents declined during 2007-2015 for motor vehicle occupants, motorcyclists and pedestrians, primarily because the incidence of deaths decreased; there was no change in the rate of serious trauma. The incidence of serious trauma and the number of disability-adjusted life-years increased for pedal cyclists.

The implications Increased emphasis on reducing the substantial burden of road traffic-related serious injury is needed, with particular focus on protecting pedal cyclists.

In 2013, road traffic injuries caused 1.4 million deaths around the world, and were the main contributors to injury-related disability-adjusted life-years (DALYs).¹ In Australia, road traffic injuries are the second leading cause of injury-related hospitalisations and deaths,² and the incidence of hospitalisation for major trauma caused by road traffic events is increasing.³ As the likelihood of surviving serious injury rises,⁴ reducing the burden of non-fatal injury should be a priority.⁵

Quantifying the burden of injury informs the development of primary prevention strategies for reducing fatal and non-fatal injury rates. Prevention strategies should target specific road user groups. Data on temporal trends in the incidence of road traffic fatalities, serious injuries, and the burden of injury that is stratified by road user type are therefore needed. This is particularly important because injury rates may be increasing among vulner-

Abstract

Objective: To investigate temporal trends in the incidence, mortality, disability-adjusted life-years (DALYs), and costs of health loss caused by serious road traffic injury.

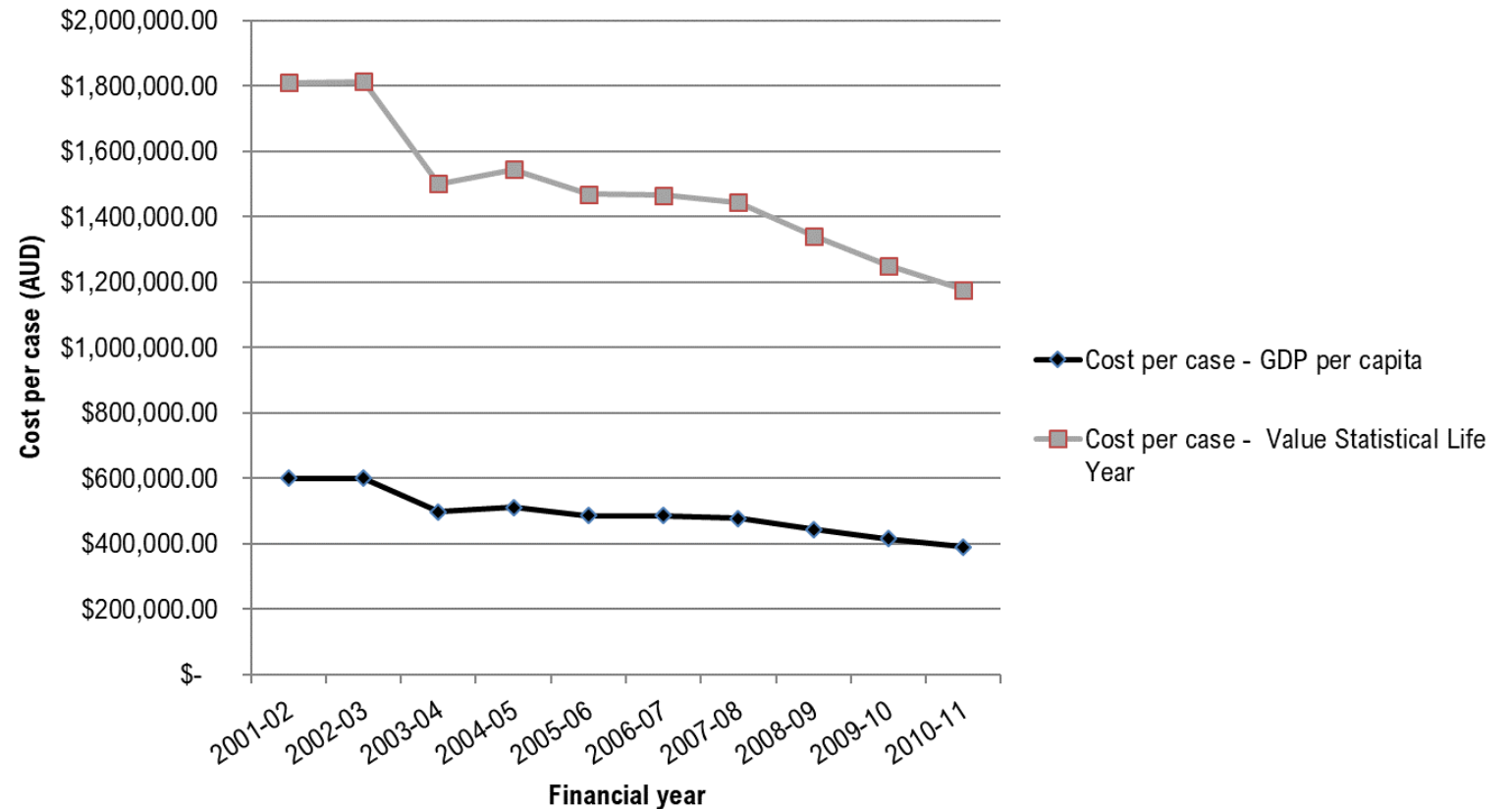
Design, setting and participants: A retrospective review of data from the population-based Victorian State Trauma Registry and the National Coronial Information System on road traffic-related deaths (pre- and in-hospital) and major trauma (Injury Severity Score > 12) during 2007-2015.

Main outcomes and measures: Temporal trends in the incidence of road traffic-related major trauma, mortality, DALYs, and costs of health loss, by road user type.

Results: There were 8056 hospitalised road traffic major trauma cases and 2588 road traffic fatalities in Victoria over the 9-year study period. There was no change in the incidence of hospitalised major trauma for motor vehicle occupants (incidence rate ratio [IRR] per year: 1.00; 95% CI, 0.99-1.01; $P = 0.70$), motorcyclists (IRR: 0.99; 95% CI, 0.97-1.01; $P = 0.45$) or pedestrians (IRR: 1.00; 95% CI, 0.97-1.02; $P = 0.73$), but the incidence for pedal cyclists increased 8% per year (IRR: 1.08; 95% CI, 1.05-1.10; $P < 0.001$). While DALYs declined for motor vehicle occupants (by 13% between 2007 and 2015), motorcyclists (32%), and pedestrians (5%), there was a 56% increase in DALYs for pedal cyclists. The estimated costs of health loss associated with road traffic injuries exceeded \$14 billion during 2007-2015, although the cost per patient declined for all road user groups.

Conclusions: As serious injury rates have not declined, current road safety targets will be difficult to meet. Greater attention to preventing serious injury is needed, as is further investment in road safety, particularly for pedal cyclists.

- Measuring DALYs requires incidence data, duration data and disability weights
- Capture of EQ-5D allows context specific calculation of duration and disability weights to apply to the population incidence data of the registry



Impact of the introduction of an integrated adult retrieval service on major trauma outcomes

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Received 4 October 2014
 Revised 2 August 2015
 Accepted 30 August 2015
 Published Online First 18 September 2015

ABSTRACT

Objectives The primary aim of this study was to examine the impact of the introduction of an integrated adult critical care patient retrieval system in Victoria, Australia, on early clinical outcomes for major trauma patients who undergo interhospital transfer. The secondary aims were to examine the impact on quality and process measures for interhospital transfers in this population, and on longer-term patient-reported outcomes.

Methods This is a cohort study using data contained in the Victorian State Trauma Registry (VSTR) for major trauma patients >18 years of age between 2009 and 2013 who had undergone interhospital transfer. For eligible patients, data items were extracted from the VSTR for analysis: demographics, injury details, hospital details, transfer details, Adult Retrieval Victoria (ARV) coordination indicator and transfer indicator, key clinical observations and outcomes.

Results There were 3009 major trauma interhospital transfers in the state with a transfer time less than 24 h. ARV was contacted for 1174 (39.0%) transfers. ARV-coordinated metropolitan transfers demonstrated lower adjusted odds of inhospital mortality compared with metropolitan transfers occurring without ARV coordination (OR 0.39, 0.15 to 0.97). Adjusting for destination hospital type demonstrates that this impact was principally due to ARV facilitation of a Major Trauma Service as the destination for transferred patients (OR 0.41, 0.16 to 1.02). The median time spent at the referral hospital was lower for ARV-coordinated transfers (5.4 h (3.8 to 7.5) vs 6.1 (4.2 to 9.2), $p < 0.0001$).

Conclusions In a mature trauma system, an effective retrieval service can further reduce mortality and improve long-term outcomes.

Key messages

What is already known on this subject?

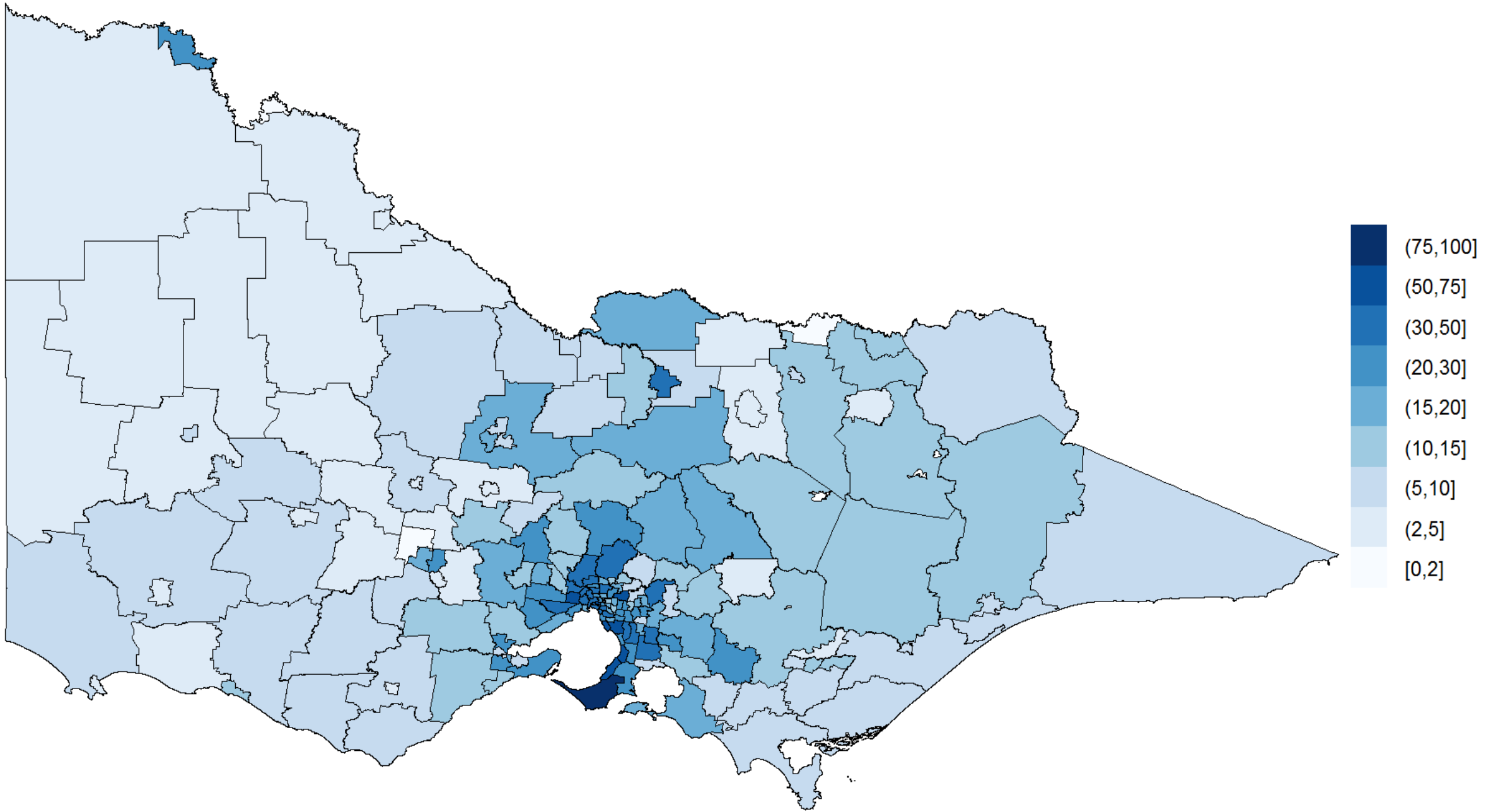
Multiple studies have determined that trauma systems improve patient outcomes. Further observational studies identify that the interhospital transfer of trauma patients within trauma systems is complex and high risk. Yet to date, there has not been any data published that evaluates the implementation of any model of interhospital patient retrieval within an integrated trauma system to help health services plan and develop their trauma systems.

What might this study add?

This retrospective study demonstrated that severely injured patients who have their interhospital transfer coordinated by a centralised and specialised patient retrieval service have reduced risk-adjusted odds of inhospital mortality and improved long-term functional outcomes when compared with patients who are transferred between hospitals without retrieval service contact. The principal impact of retrieval coordination lies in the determination of a major trauma service as the destination. The uses of highly skilled staff overseeing the retrieval process improved logistical coordination, central coordination of destination choice and appear to contribute to the benefit.

However, for the purposes of this paper, it is

Outcome		Adjusted* OR (95% CI)
In-hospital death	Not ARV and metropolitan hospital (reference)	1.00
	Not ARV and regional hospital	0.83 (0.52, 1.33)
	ARV coordinated and regional hospital	0.69 (0.45, 1.05)
	ARV coordinated and metropolitan hospital	0.39 (0.15, 0.97)
Return to work at 6-months	Not ARV and metropolitan hospital (reference)	1.00
	Not ARV and regional hospital	0.91 (0.63, 1.30)
	ARV coordinated and regional hospital	1.06 (0.76, 1.48)
	ARV coordinated and metropolitan hospital	1.03 (0.48, 2.23)
GOS-E score at 6-months	Not ARV and metropolitan hospital (reference)	1.00
	Not ARV and regional hospital	1.03 (0.86, 1.23)
	ARV coordinated and regional hospital	1.17 (0.99, 1.38)
	ARV coordinated and metropolitan hospital	1.47 (1.01, 2.14)





- Common assumption that there is no improvement in outcome after 12 months
- >8,000 major trauma patients
 - 23% had achieved a good functional recovery
 - 70% had returned to work/study
 - Significant improvement in functional and return to work outcomes from 12 months to 24 months post-injury

Return to Work and Functional Outcomes After Major Trauma

Who Recovers, When, and How Well?

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 Shanthi Ameratunga, MBChB, MPH, PhD,§ Jennie Ponsford, MA, PhD,¶
 Mark Fitzgerald, MBBS, MD, FACEM, AFACMA,||** Rodney Judson, MBBS, FRACS, FRCS,††
 Alex Collie, PhD,*‡‡ and Peter A. Cameron, MBBS, MD, FACEM*§§

Objective: To describe the long-term outcomes of major trauma patients and factors associated with the rate of recovery.

Background: As injury-related mortality decreases, there is increased focus on improving the quality of survival and reducing nonfatal injury burden.

Methods: Adult major trauma survivors to discharge, injured between July 2007 and June 2012 in Victoria, Australia, were followed up at 6, 12, and 24 months after injury to measure function (Glasgow Outcome Scale—Extended) and return to work/study. Random-effects regression models were fitted to identify predictors of outcome and differences in the rate of change in each outcome between patient subgroups.

Results: Among the 8844 survivors, 8128 (92%) were followed up. Also, 23% had achieved a good functional recovery, and 70% had returned to work/study at 24 months. The adjusted odds of reporting better function at 12 months was 27% (adjusted odds ratio 1.27, 95% confidence interval [CI] 1.19–1.36) higher compared with 6 months, and 9% (adjusted odds ratio 1.09, 95% CI, 1.02–1.17) higher at 24 months compared with 12 months. The adjusted relative risk (RR) of returning to work was 14% higher at 12 months compared with 6 months (adjusted RR 1.14, 95% CI, 1.12–1.16) and 8% (adjusted RR 1.08, 95% CI, 1.06–1.10) higher at 24 months compared with 12 months.

Conclusions: Improvement in outcomes over the study period was observed, although ongoing disability was common at 24 months. Recovery trajectories differed by patient characteristics, providing valuable information for informing prognostication and service planning, and improving our understanding of the burden of nonfatal injury.

Keywords: disability, function, long-term outcome, major trauma, recovery, return to work

(*Ann Surg* 2016;263:623–632)

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Author contribution statement: Belinda Gabbe contributed to the conception and design of the study, acquisition of the data, data analysis and interpretation, drafting of the manuscript, revision of the manuscript, and gave final approval of the version to be published; Pamela Simpson analyzed the data, participated in drafting and revising the manuscript, and gave final approval of the version to be published; James Harrison contributed to the conception and design of the study, interpretation of the data, drafting and revision of the manuscript, and gave final approval of the version to be published; Ronan Lyons contributed to the conception and design of the study, interpretation of the data, drafting and revision of the manuscript, and gave final approval of the version to be published; Shanthi Ameratunga contributed to the conception and design of the study, interpretation of the data, drafting and revision of the manuscript, and gave final approval of the version to be published; Jennie Ponsford

RESEARCH ARTICLE

Long-term health status and trajectories of seriously injured patients: A population-based longitudinal study

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Abstract

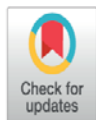
Background

Improved understanding of the quality of survival of patients is crucial in evaluating trauma care, understanding recovery patterns and timeframes, and informing healthcare, social, and disability service provision. We aimed to describe the longer-term health status of seriously injured patients, identify predictors of outcome, and establish recovery trajectories by population characteristics.

Methods and findings

A population-based, prospective cohort study using the Victorian State Trauma Registry (VSTR) was undertaken. We followed up 2,757 adult patients, injured between July 2011 and June 2012, through deaths registry linkage and telephone interview at 6-, 12-, 24-, and 36-months postinjury. The 3-level EuroQol 5 dimensions questionnaire (EQ-5D-3L) was collected, and mixed-effects regression modelling was used to identify predictors of outcome,

	Mobility	<p><i>Increasing age</i> <i>Claiming compensation for injury</i> <i>Lower level of education</i> Not working prior to injury</p>	<p>Serious comorbidity (CCI weight >1) Spinal cord injury Low fall</p>
	Self-care	<p><i>Increasing age</i> <i>Claiming compensation for injury</i> <i>Lower level of education</i> Not working prior to injury</p>	<p>Serious comorbidity (CCI weight >1) Spinal cord injury Low fall</p>
	Usual activities	<p><i>Increasing age</i> <i>Claiming compensation for injury</i> <i>Lower level of education</i> Serious comorbidity (CCI weight >1)</p>	<p>Spinal cord injury or orthopaedic injuries Pedal cyclist/pedestrian (better outcome) Female gender</p>
	Pain or discomfort	<p><i>Increasing age</i> <i>Claiming compensation for injury</i> <i>Lower level of education</i> Lower socioeconomic status</p>	<p>Spinal cord injury, orthopaedic injury, multiple injuries Female gender</p>
	Anxiety or depression	<p><i>Decreasing age</i> <i>Claiming compensation for injury</i> <i>Lower level of education</i> Not working prior to injury Assault or intentional self-harm</p>	<p>Lower socioeconomic status Female gender Pre-existing mental health, drug or alcohol condition</p>



OPEN ACCESS

Citation: Gabbe BJ, Simpson PM, Cameron PA, Ponsford J, Lyons RA, Collie A, et al. (2017) Long-term health status and trajectories of seriously injured patients: A population-based longitudinal study. *PLoS Med* 14(7): e1002322. <https://doi.org/10.1371/journal.pmed.1002322>

Academic Editor: Karim Brohi, Barts and the London School of Medicine & Dentistry Queen Mary University of London, UNITED KINGDOM

Received: January 11, 2017

Accepted: May 11, 2017

Published: July 5, 2017

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Data Availability Statement: Requests for access to data from the RECOVERY after Serious Trauma-

Patterns and Predictors of Return to Work After Major Trauma

A Prospective, Population-based Registry Study

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 Shanthy Ameratunga, PhD,§ Jennie Ponsford, PhD,¶|| Roman A. Lyons, MD,†** Sandra Braaf, PhD,†
 Andrew Nunn, MBBS,†† James E. Harrison, MBBS,‡‡ and Belinda J. Gabbe, PhD†**

Objective: To characterize patterns of engagement in work during the 4-year period after major traumatic injury, and to identify factors associated with those patterns.

Background: Employment is an important marker of functional recovery from injury. There are few population-based studies of long-term employment outcomes, and limited data on the patterns of return to work (RTW) after injury.

Methods: A population-based, prospective cohort study using the Victorian State Trauma Registry. A total of 1086 working age individuals, in paid employment or full-time education before injury, were followed-up through telephone interview at 6, 12, 24, 36, and 48 months post-injury. Responses to RTW questions were used to define 4 discrete patterns: early and sustained; delayed; failed; no RTW. Predictors of RTW patterns were assessed using multivariate multinomial logistic regression.

Results: Slightly more than half of respondents (51.6%) recorded early sustained RTW. A further 15.5% had delayed and 13.3% failed RTW. One in 5 (19.7%) did not RTW. Compared with early sustained RTW, predictors of delayed and no RTW included being in a manual occupation and injury in a motor vehicle accident. Older age and receiving compensation predicted both failed and no RTW patterns. Preinjury disability was an additional predictor of failed RTW. Presence of comorbidity was an additional predictor of no RTW.

Conclusions: A range of personal, occupational, injury, health, and compensation system factors influence RTW patterns after serious injury. Early identification of people at risk for delayed, failed, or no RTW is needed so that targeted interventions can be delivered.

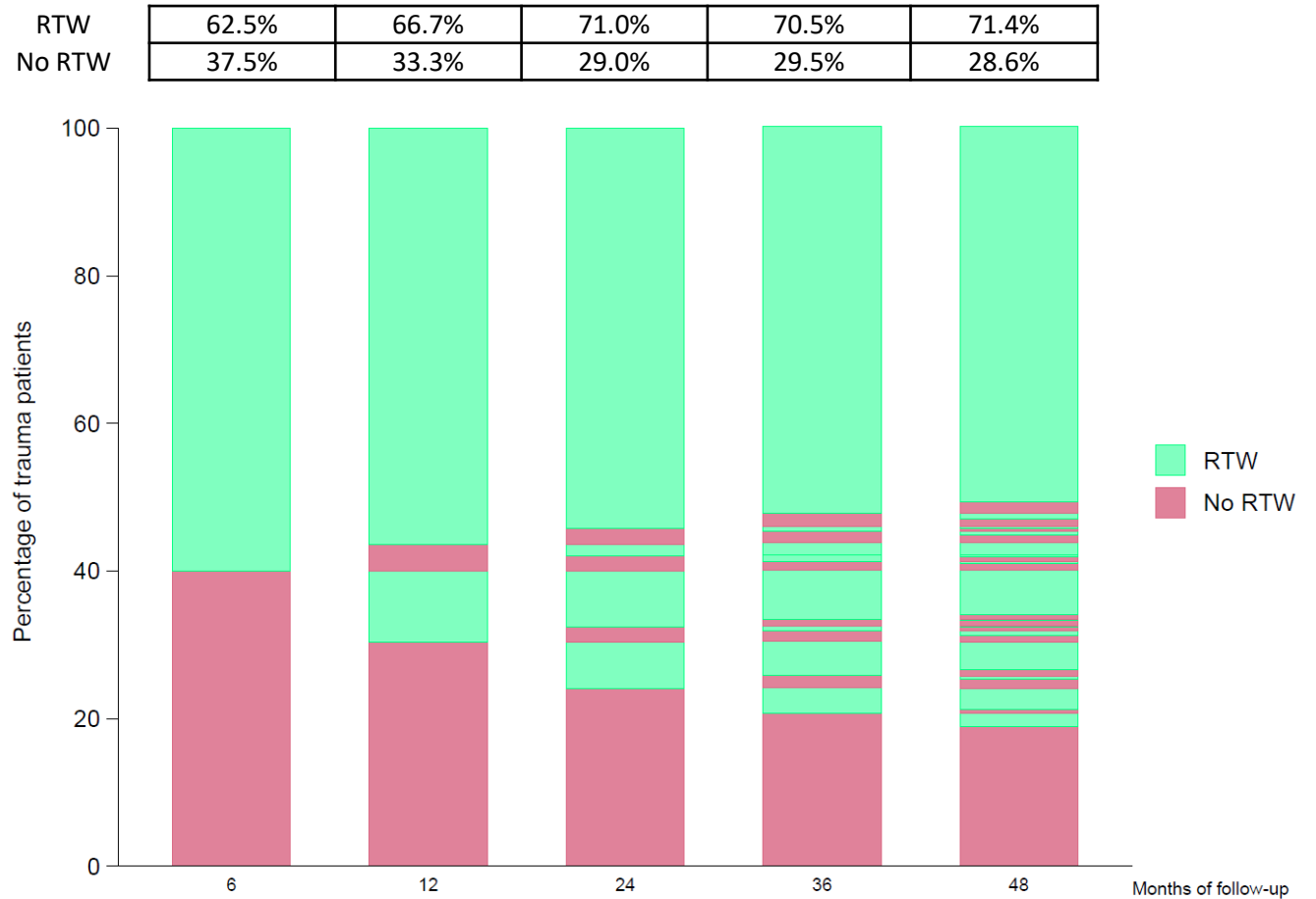
Keywords: employment, injury, return to work, trauma

(Ann Surg 2018;xx:xxx-xxx)

Employment is an important determinant of health status¹ and engagement in employment or return to work (RTW) is associated with recovery and improved health status after injury.² In developed countries, markers of functional recovery from injury, such as participation in employment, represent a key rehabilitation goal.^{3,4} This follows improvements in prevention and acute care that have contributed to significant increases in survival.^{5,6} Identifying the early prognostic factors associated with RTW can help avoid the personal, financial, and social impact of non-RTW, and may help alleviate the burden of injury through more effective occupational rehabilitation.

Studies of RTW after traumatic injury have been limited to specific mechanisms such as occupational or transport injury.^{7,8} RTW studies also typically assess employment status at a single time point after injury⁹ or in single centers.¹⁰ Follow-up is usually limited to the first year or 2 after injury.¹¹ In one of the few population-based studies of RTW after major trauma, Gabbe et al¹² reported improvements in RTW status up to 24 months after injury. Recovery trajectories differed by individual characteristics including sex, age, pre-existing conditions, socioeconomic status, injury type, and occupation. There is now evidence that recovery continues beyond these time points after major trauma,¹³ although we have little evidence of longer-term RTW outcomes.

Effective service planning and design of occupational rehabilitation interventions requires an understanding of the patterns of employment postinjury. Individuals may experience disrupted, delayed, or failed RTW before ultimately achieving a successful employment outcome.^{11,14} Others may fail to RTW at all or may



Patient perspectives of care in a regionalised trauma system: lessons from the Victorian State Trauma System

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Trauma is considered a “time-sensitive disease”, requiring integrated and timely treatment to reduce mortality and morbidity.¹ There is strong evidence that organised trauma systems reduce the risk of mortality,^{2,3} and there is increasing evidence to suggest that trauma centre care is cost-effective, and improves patient function and quality of life.⁴⁻⁶

After a review of trauma services in the state,⁷ Victoria introduced an organised trauma system in 2000.⁸ Over the past decade, there has been a reduction of risk-adjusted mortality² and improvement in functional outcomes for major trauma patients in the state.⁴ However, disability is prevalent for trauma patients, even 12 months after injury.^{4,9} Trauma care delivery can be improved by understanding patients’ experiences.¹⁰ The aim of this study was to investigate injured patients’ experiences of

Abstract

Objectives: To explore injured patients’ experiences of trauma care to identify areas for improvement in service delivery.

Design, setting and participants: Qualitative study using in-depth, semi-structured interviews, conducted from 1 April 2011 to 31 January 2012, with 120 trauma patients registered by the Victorian State Trauma Registry and the Victorian Orthopaedic Trauma Outcomes Registry and managed at the major adult trauma services (MTS) in Victoria.

Main outcome measures: Emergent themes from patients’ experiences of acute, rehabilitation and post-discharge care in the Victorian State Trauma System (VSTS).

Results: Patients perceived their acute hospital care as high quality, although issues with communication and surgical management delays were common. Discharge from hospital was perceived as stressful, and many felt ill prepared for discharge. A consistent emerging theme was the sense of a lack of coordination of post-discharge care, and the absence of a consistent point of contact for ongoing management. Most patients’ primary point of contact after discharge was outpatient clinics at the MTS, which were widely criticised because of substantial delays in receiving an appointment, prolonged waiting times, limited time with clinicians, lack of continuity of care and inability to see senior clinicians.

Conclusions: This study highlights perceived issues in the patient care pathway in the VSTS, especially those relating to communication, information provision and post-discharge care. Trauma patients perceived the need for a single point of contact for coordination of post-discharge care.

- Findings have been confronting for all stakeholders
- Prioritisation by the State Trauma Committee
- Engagement directly with policy makers
 - Funding and evaluation of Major Trauma Recovery Coordinator (MTReC) positions
 - Guiding TAC policy changes
 - Development of Better Health Channel content for major trauma
 - Driving outpatient policy change
 - Rebuild and evaluation of trauma ward at one MTS
 - Implementation and evaluation of an active rehabilitation model of allied health care

- Registry data is enormously powerful for driving system and clinical change
- Registry needs to evolve with time with changing incidence, population and opportunities
 - Priorities for research and evaluation
 - Data linkage and big data opportunities
- Engagement with government and clinical stakeholders critical
- Effective feedback loop essential

The logo consists of a large, dark grey 'V' shape. Inside the upper right portion of the 'V', there is a white triangular area containing seven black stars of varying sizes, arranged in a pattern similar to the Australian flag. The text 'State Government' is written in a white, sans-serif font across the middle of the 'V'. Below it, the word 'Victoria' is written in a much larger, white, serif font, also spanning the width of the 'V'.

State Government

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**This project is proudly supported by the
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