

A photograph of an emergency scene on a road. A red and yellow helicopter is parked in the center of the road. To its right is a white fire truck with 'FIRE' written on its side. Several emergency responders in high-visibility vests are standing around the helicopter. In the foreground, a red and white speed limit sign with the number '30' is visible, along with a red and white traffic cone. The background shows a road with other vehicles and trees.

National Trauma Network **Strategic Plan** 2023-2027

National Trauma
Network

22 February 2022

Introduction

This Strategic Plan sets out the direction for the National Trauma Network (the 'Network') to achieve over the next 5-years.

The Network has made great strides toward achieving a contemporary trauma system in New Zealand. Since its establishment in 2012, trauma care and outcomes have transformed from very average performance to being amongst the best performers in the world. Progress to date will be detailed, but the focus of this plan is to confirm the goals of the Network and describe the key areas of focus to take us into the future.





Highlights of this Plan

- The four-part framework of service excellence, enablers, analytics and research, and governance remain the same
- There is stronger emphasis on the regional trauma networks and activities, with a balance between local innovation and national consistency
- ISS threshold reduces to >8
- Quality improvement focus on TBI (continuing), pain management, chest injuries, mangled limbs, and PTSD
- Continuing focus on rehabilitation, and specifically the transition of care and early planning between acute and rehabilitation services

We have three goals for all people injured in New Zealand:

1

Reduce preventable
mortality

2

Improve the recovery
of those that survive

3

Achieve system
efficiencies

These goals are just as relevant today as they were at the inception of the Network. The well-being of injured patients is the primary focus of our work and particularly those patients who have a greater burden of injury including young Māori. There are considerable social and financial benefits resulting from reducing the burden of injury.

“Our mission is to develop New Zealand’s trauma system into an exemplar of best practice care, delivering benefits to patients, the population and achieving efficiencies in the health system.”

Why

Reduce trauma deaths and long-term complications, and achieve cost savings

What

To achieve a contemporary trauma system in New Zealand

How

Demonstrate excellence across the trauma system through a data driven approach

Who

Patients, whānau, providers of trauma services, and government agencies



Patient focussed

Putting patients at the centre of care and co-design of initiatives



System led

Delivering a consistent approach supported by good data and evidence



Performance driven

We hold ourselves accountable and seek performance improvement

History of the National Trauma Network

In most other OECD countries formal systems of trauma care were introduced from the early 1990's following evidence from the military and civilian fields that demonstrated significant improvements in outcomes for injured patients. Despite these benefits being demonstrated through empirical research, New Zealand's efforts lagged behind other countries with initiatives started and stopped, then started again. It was not until a couple of sentinel cases were investigated that found young, fit healthy people who had been injured later died in hospital, but should have survived if the system of care had performed better.

In 2011 the Minister for Health mandated the establishment of a national trauma network following clinical evidence which found high mortality rates and variable quality of care across the country. The (then named Major Trauma National Clinical Network) Network was subsequently established in 2012, initially funded by the Ministry of Health. In 2015 ACC took the lead in funding and support as it recognised the benefits of a formal trauma system not only impacted on the delivery of acute care but also on mortality and long-term outcomes for those that survive including earlier return to work.

New Zealand is now in a privileged position with a population-based registry which holds information on all injured patients which meet the severity threshold. The registry data is showing a steady decline in trauma mortality and there is emerging evidence of cost savings resulting from a more structured system of care.

There is a formal governance structure in place which consists of stakeholder groups including the regional networks and the data governance group. Oversight of the national programme is provided by the Trauma Governance Group which has multi-agency representation from health, quality, transport and ACC reflecting the complex and multi-faceted nature of injury care.

Burden of injury in NZ

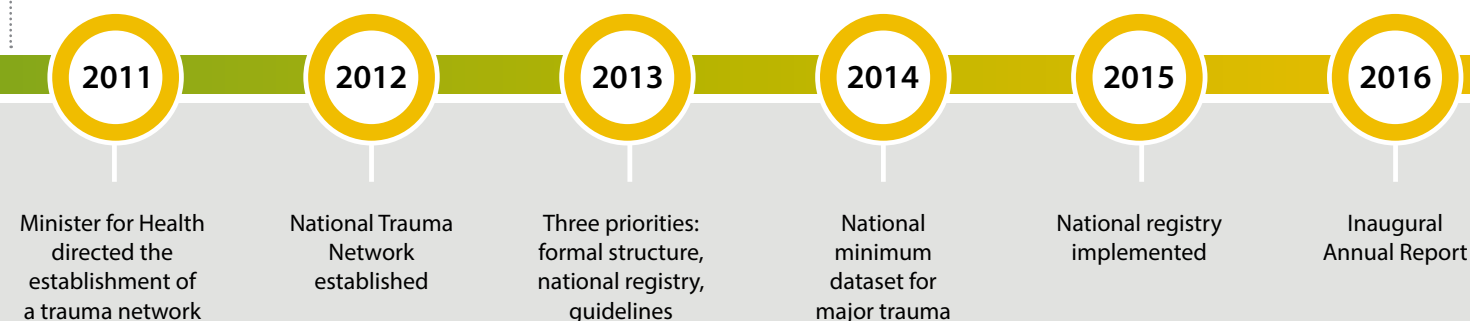
Approximately 2,400 patients are seriously injured each year. People who are working age are injured more than any other age groups, although injury in the elderly is increasing. Transport related injuries comprise just over half of all injuries involving mainly cars, motorcycles and pedal cycles. Falls account for nearly 30% of all injuries, followed by being struck by an object or another person.

Process of care indicators such as time to CT scan, transfer from scene to definitive care hospital and collection of blood alcohol have improved over time, and there is less variance between regions. There are opportunities to improve processes such as initiation of a trauma call on arrival to hospital and completion of tertiary survey after admission.

Mortality rates have fallen since 2015 when the NZTR started. This equates to approximately 35 patients each year who survive, who would previously had died. Information on long-term outcomes post injury is pending, however there are indications that access to rehabilitation services is slow, reaches only a small proportion of the seriously injured, and is variable across the country.

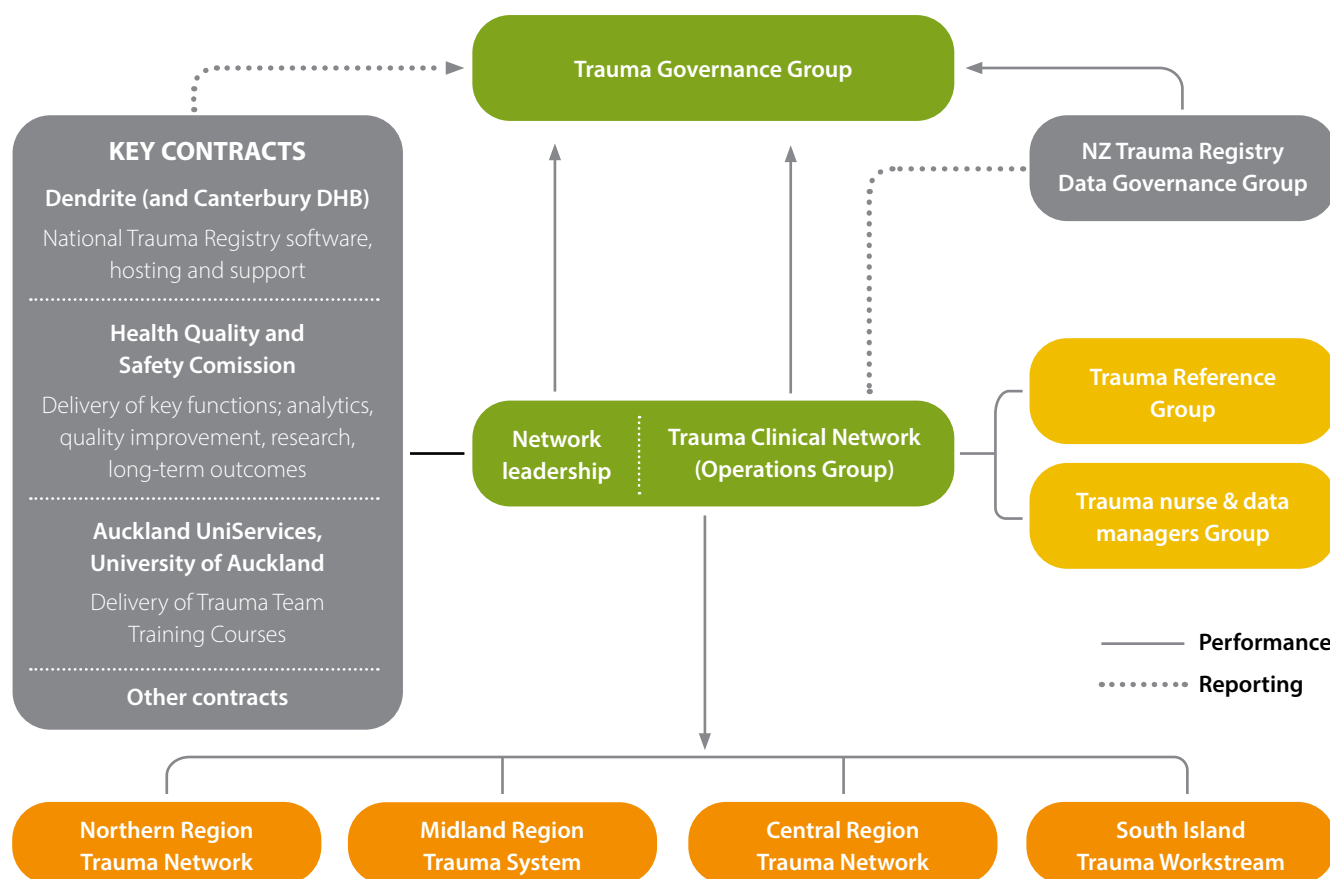
Pre 2011

High mortality, variable outcomes across the country, ad hoc approaches to trauma



Across all timelines:

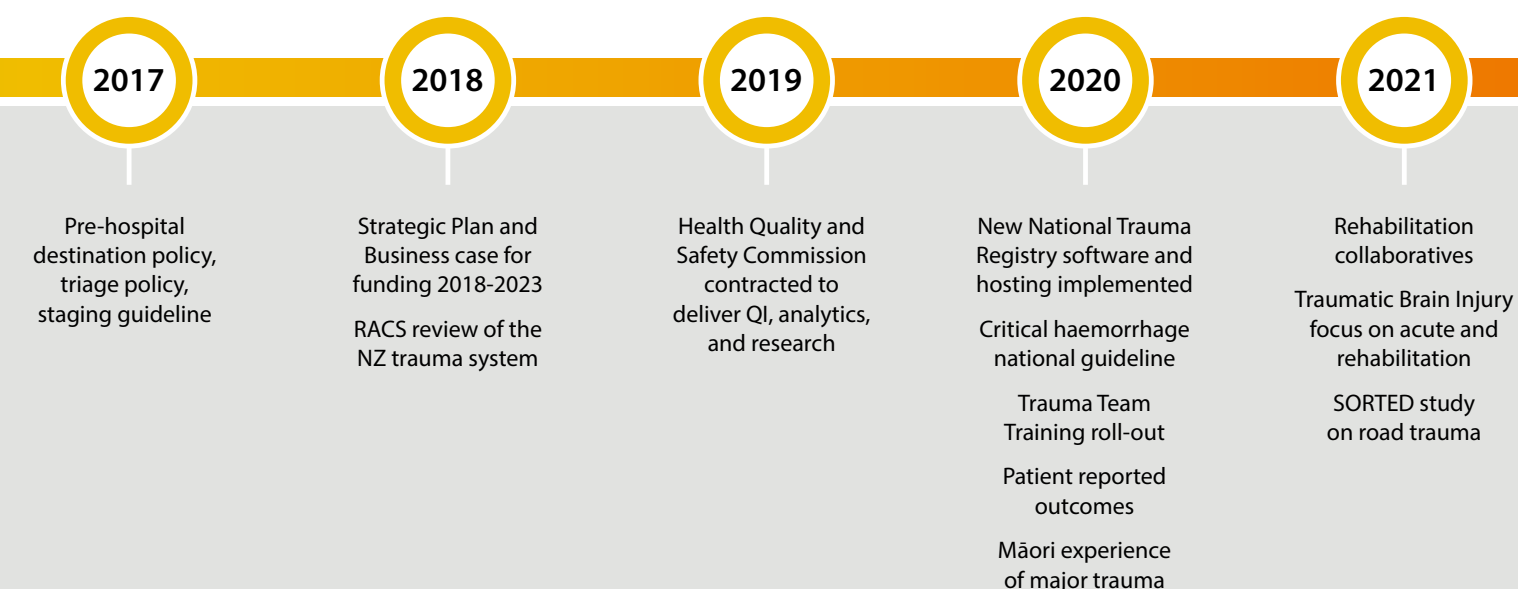
- Sector engagement
- Site visits and road shows
- Trauma education and symposiums
- Benchmarking with Australian trauma registry
- Cross-sector engagement
- Research
- Trauma team training national roll-out



In 2018 ACC funded the five-year business case for 2017-23 which saw a significant step increase in the funding and available resources. This case enabled delivery of the 2017-23 Strategic Plan.

Issues in the current trauma system

Notwithstanding the gains made of the past 10 years, there remain issues around variability in outcomes for some population groups such as Māori, and some injury diseases, such as outcomes from chest trauma and mangled limbs. Pain management, a necessary requirement for all injured patients is not provided in a consistent fashion throughout the country. Ineffective acute pain management may lead to chronic pain which has a dramatic affect on quality of life and return to work for trauma patients. Similarly, mental health needs post-injury are poorly managed and delay return to work. Further quality improvement focus is needed to address these issues and to continue to deliver benefits to people who are injured and to society.



Governance

2022-2027

Strategic outcomes

Sustainable business platform

Effective governance

Focus areas

Strengthen the system

- Integrate Te Tiriti o Waitangi through the national work programme and adopt a strengths based approach to reduce the burden of injury on Māori
- Incorporate consumer engagement and co-design in key areas of work
- Secure five-year business case funding
- Advocate for policy and other changes as indicated to achieve sustainable system changes

New opportunities

- Align to the New Zealand Health Inc and Māori Health Authority structure
- Joint initiatives with other agencies, e.g. transport, justice e.g. transport related injuries, the justice sector to identify and manage people in the criminal justice system with traumatic brain injury, and public health agencies on broader determinants of health

Equity

- Integrate Te Tiriti o Waitangi and consumer engagement and co-design through the national trauma programme
- Māori engagement and leadership through all levels of the national trauma system

System Excellence 2022-2027

Strategic outcomes

Better outcomes for injured patients, their whānau and society, and the health system

Reduce variation

Equity of care for injured Māori

Focus areas

Across the trauma pathway

- Extend Patient Reported Outcomes to continual cycle and include paediatrics
- Continue QI in existing areas: TBI and rehabilitation
- New QI focus on mangled limbs, chest injury
- Population groups: Māori, young and elderly
- Promulgate innovations and successful initiatives
- Lead audits of trauma deaths and where systemic issues have arisen
- Pilot interventions to address alcohol and psychoactive drug use in trauma patients

Pre-hospital

- Strengthen staging policy
- Audit and update current policies
- Collaborate to achieve an effective land and air ambulance system

Hospital

- Hospital designation for major trauma
- Admitting services in tertiary hospitals
- Case management of complex trauma patients
- Local quality improvement initiatives

Injury prevention

- Collaborate and support ACC Injury Prevention initiatives
- Contribute to NZ's understanding of the causes and contributing factors of injury
- Collaborate with road transport agencies to support safe transport in line with Government active transport policies
- Promote consistent trauma care in designated trauma hospitals
- Advocate for effective Inter-Hospital Transfer processes

Rehabilitation

- Structured approach to transitioning complex patients between acute services, rehabilitation providers, and ACC
- Pathways and guidelines for PTSD, pain management, and concussion
- Rehabilitation in-reach to acute services
- Explore opportunities to improve rehabilitation outcomes for vulnerable population groups such as rangatahi
- Develop information material for patients and their whānau
- Support the development of pathways for complex trauma patients requiring long-term rehabilitation in collaboration with ACC and primary care

Enablers

2022-2027

Strategic outcomes

National Trauma Registry

Regional Networks

Workforce capacity
and capability

Focus areas

National Trauma Registry

- Continue a population-based registry collection
- Lower the threshold for major trauma to ISS over 8
- Transition to AIS 2015
- Integration of the Registry with other systems
- Maintain policy documents and AIS training
- Dashboard reporting

Regional trauma networks

Strengthen the regional trauma networks to deliver:

- Consistent approaches
- Inter-hospital transfer guidelines
- Strategic plans
- Standardised approach to clinical audit
- Innovations

Workforce

- Grow the future leaders
- Minimum resource requirements and roles
- Continue education and training
 - Trauma Team Training
 - AIS training
 - National Trauma Symposium
- Support new trauma Nurse Practitioner roles
- Support a workforce that can integrate effective Māori health approaches
- Develop special interest groups for Allied Health in rehabilitation

Research and data science 2022-2027

Strategic outcomes

Transform data into information
for quality improvement

Grow injury research
in New Zealand

Focus areas

Transforming data into information

- Business intelligence tools
- Ad hoc reports to support the Service Excellence initiatives
- National performance and reporting
- Bi-national benchmarking with the Australian Trauma Registry
- Support sector with data analytics
- Cross sector intelligence on trauma related issues e.g. road injury, TBI in the justice sector, psychoactive drugs and injury

Research

- Deliver a prioritised research programme with a focus on Māori, children, the elderly, and vulnerable road users
- Promote injury research with academic institutions
- Build and support research capacity
- Identify research opportunities and gaps
- Support early career injury researchers
- Promote the use of trauma data for research

Key performance indicators

How do we know we have succeeded?

Development of KPIs will be undertaken as part of the business case, and is likely to involve the following:

- Case fatality rate (in-hospital)
- Reduction in average cost per claim
- Improvement in the percentage of people returning to work at 12 months
- Improvement in the percentage of people living independently at 12 months
- Reduced unwarranted variation in long-term outcomes
- Equity in outcomes for Māori for mortality and long-term outcomes
- Monitoring of the quality of the trauma system with a focus on avoidable deaths and system issues
- Quality Improvement approaches embedded across all parts of the trauma system to ensure a process of continual improvement
- Pathways of care implemented across pre-hospital, hospital and rehabilitation
- Structured and consistent hospital designation for major trauma



How does this Strategic Plan address the principles of Te Tiriti o Waitangi?

Using the five principles outlined in Whakamaua Māori Health Action Plan 2020-2025, we describe the strategic directions which aim to improve equity and long-term outcomes for all Māori who have been injured, and particularly the rangitahi.

Tino rangatiratanga

Māori are represented at all levels of governance of the national trauma work programme to ensure a strong Māori voice and ensuring that the prioritisation of work will improve equity for Māori. The philosophy of the Network is to develop a strong evidence base and the data which is collected through the NZTR is used to understand where gaps in equity exist, and also where they don't exist. This understanding allows us to direct resources where they are most needed.

Equity

Inequity in care has been identified in specific areas of the trauma journey, and several initiatives are planned to address these. Clinical audits of Māori who died from TBI, and their processes of care, are signalled, and the focus on access to timely rehabilitation for Māori will continue. Equity will be supported by changes in other parts of the system and particularly ACC which is providing access to kaupapa Māori rehabilitation services.

Active protection

Building on previous work to understand Māori experiences of major trauma, this strategic plan has signalled routine referral of Māori patients in hospital to Māori liaison teams. While there is variability in how each hospital provides Māori support, we see an opportunity with the new Māori Health Authority to provide a more consistent (and resourced) approach to supporting Māori trauma patients while in hospital. We will also be exploring how the Te Whare Tapa Wha model could be used to help Māori patients and their whānau to recover from their injury as quickly as possible. Incorporating whānau into care is an opportunity which we do not fully utilise currently. Encouraging trauma teams to invest in whanaungtanga with Māori patients is a focus.

Options

While a by Māori for Māori workforce is the ideal, this is not achievable in trauma services in the short term. Our strategic plan signals building the cultural competency of the trauma workforce using simple guidelines to reflect what is important for Māori, and being accountable for this in the same way as being accountable for good clinical care. Proactively referring Māori patients to ACC kaupapa Māori rehabilitation services is an emerging opportunity.

Partnership

While Māori are represented at all levels of governance, and the consumer voice is strong particularly in the quality improvement areas, we are particularly concerned about the rangatahi voice. Information for patients on the expected recovery and peer support are signalled in this plan, and we will continue to seek opportunities from successful initiatives applied in other areas which can be adapted and used for rangitahi who have been injured.

