03 December 2018



Anthony Jordan fyi-request-9010-ecac999f@requests.fyi.org.nz

Dear Mr Jordan

Ref: 0053110

#### **Official Information Act Request**

Thank you for your email of 6 November 2018 asking for the following information under the Official Information Act 1982 (the Act):

Please provide a copy of the draft 'Standards for Head Injury Services' prepared in September 1995

#### Our Response

Unfortunately, despite reasonable efforts to locate the *Standards for Head Injury Services* draft prepared in 1995, ACC has been unable to locate this document. For this reason, we refuse your request under section 18(e) of the Act.

#### Injury Strategy

We can however, provide some information that you may find helpful. The *Traumatic Brain Injury Strategy and Action Plan (2017-2012)* is guiding ACC to prevent and reduce the incidence, severity and impacts of traumatic brain injury. This supersedes the *Standards for Head Injury Services* with updates and guidelines, reflecting best rehabilitation practice. I have attached a copy of this document to this letter.

#### Questions

If you have any questions about the information provided, ACC will be happy to work with you to resolve these. Please send your questions by email to <u>GovernmentServices@acc.co.nz</u>.

You also have the right to seek an investigation and review of this response, by the Ombudsman. Information about how to make a complaint is available at <u>www.ombudsman.parliament.nz</u> or by phoning 0800 802 602.

Yours sincerely Government Engagement & Support



# Traumatic Brain Injury Strategy and Action Plan (2017 – 2021)

Improve the quality of life of New Zealanders by reducing the incidence, severity and impacts of traumatic brain injury.

Traumatic Brain Injury Strategy and Action Plan 2017–2021 Published in September 2017 by ACC Wellington, New Zealand ACC7819 September 2017 This document is available at www.acc.co.nz

## Foreword



Traumatic brain injuries can happen to anyone, at any time, with life-changing impacts – for those who sustain the injury, their whānau and our wider society.

At ACC, we want to do everything we can to help prevent these injuries, and to ensure that those who are injured get the best treatment and rehabilitation possible. We know we can achieve better results through partnering and collaboration with others, to improve the quality of life of New Zealanders.

This document describes our strategic direction for the next five years. It includes a strong focus on injury prevention, children, and mild traumatic brain injury, which complements the work done since 2012 to improve outcomes for adults with moderate to severe traumatic brain injuries.

The refreshed strategy is bold and ambitious. It has practical actions that target improvements across the system and working with other government agencies. Importantly, at the heart of it lies a strong client and whānau focus. This demonstrates a high level of commitment by government agencies to work together to achieve positive change and improve outcomes for people at risk of, or who have, traumatic brain injuries.

I would like to acknowledge everyone who has contributed their time, knowledge and experience to the development of this important strategy and action plan. We have had expert advice from many people who have sustained traumatic brain injuries and their whānau, as well as service providers and government agencies.

For all of us, reducing the incidence, severity and impacts of traumatic brain injury for New Zealanders is a significant priority. I am confident that this strategy and action plan will help deliver on this vision.

Jim Stabback Deputy Chief Executive

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### Acknowledgement

ACC would like to thank the many people who contributed to the development of this Traumatic Brain Injury Strategy and Action Plan and willingly shared their time, personal experience and vast wealth of knowledge. The input of many individuals, whānau and organisations with personal and professional experience of traumatic brain injuries was vital in shaping this strategy and action plan.

# Why New Zealand needs a TBI Strategy and Action Plan

### Kupu arataki: introduction

This Traumatic Brain Injury Strategy and Action Plan reflects the Accident Compensation Corporation's (ACC's) continued commitment to addressing the challenges of preventing and managing traumatic brain injury (TBI), while working alongside cross-government partners, service providers, ACC clients and their whānau.

TBIs can have a profound effect on the person and their whānau. When a TBI affects a person's quality of life it also affects the community and the economy.

#### Definition

TBI is defined as an alteration in brain function, or other evidence of brain pathology, caused by an external force (Carroll, Cassidy, Holm, Kraus, and Coronado, 2004). It can be caused by a blow, shake or jolt to the head or body or a penetrating injury that disrupts the function of the brain.

#### **TBIs occur frequently**

International evidence, including a recent New Zealand study, suggests that TBI among the general population is significantly undercounted because people with mild TBIs do not always seek medical treatment (Feigin et al., 2013). In New Zealand it is estimated that up to 36,000 people suffer TBIs each year, of which 95% are mild. The majority do not seek medical assistance or report this to ACC.

ACC statistics show that nearly 14,000 people are treated for TBIs each year. The cost of TBI-related claims was \$83.5 million in the 2015 financial year. TBI is a growing problem in New Zealand, with over half of ACC's serious injury claims relating to TBI. The New Zealand Treasury has identified that TBIs are second only to stroke for their impacts on employment and income (Dixon, 2015). Mild TBIs are commonly referred to as concussions. ACC held data indicates that of those people with mild TBIs, 10-12% need extra support beyond primary healthcare monitoring after their injuries. Approximately 1,200-1,500 people suffer moderate TBIs and 1,750 people suffer moderate to severe TBIs each year. Five hundred of these people go on to receive specialised residential rehabilitation. About one in every 8-10 people will not seek medical assistance or report their TBI to ACC.

About 20% of concussions/mild TBIs in sport are missed. This increases the risk of sustaining a more severe TBI. To minimise the risk of second-impact syndrome, where a second injury to the brain occurs before the first fully resolves, preventing and identifying concussion in sports is a current focus for ACC.

While TBIs can affect men and women of all ages, males are twice as likely as females to sustain moderate or severe TBIs. People living in rural areas also have more than twice the risk of moderate or severe TBIs than people who live in urban areas, mainly due to transport accidents.

Infants, children and adolescents are at greater risk of TBIs than any other age groups. Māori and Pacific people are overrepresented in TBI statistics (Lagolago et al., 2015). Māori were found to have a 23% greater risk of mild TBIs than New Zealand Europeans in the Bionic Study<sup>1</sup> (Feigin et al., 2013).

#### **TBIs have multiple causes**

The leading causes of TBI in New Zealand are falls, mechanical forces, driving-related accidents and assaults<sup>2</sup>.

Just over 20% of all TBIs in New Zealand are sustained through sport-related activity.

Most TBIs occur in communities and homes.

<sup>1</sup> The Brain Injury Outcomes New Zealand in the Community (BIONIC) study identified all cases of TBI within a one year period in the Hamilton and Waikato regions of New Zealand. The study has been assessing people over the course of their recovery journeys (latest assessments conducted at four years post-injury).

<sup>&</sup>lt;sup>2</sup> Refers to physical injuries purposefully inflicted onto a person. Other terms used in the document that also refer to physical injuries due to assaults are non-accidental injuries and intentional injuries.

#### **TBIs have significant impacts**

TBIs can range from mild concussion (a brief change in mental status or consciousness) to severe (an extended period of unconsciousness and/or memory loss after the injury). The effects can be temporary or permanent. Recent evidence suggests that recovery after a mild TBI has a longer trajectory than previously thought (Barker-Collo et al., 2015; Theadom et al., 2015). Many people who experience TBIs have long-term or lifelong disabilities that affect their whānau, the community and the economy.

TBI can affect a person's quality of life due to the cognitive, behavioural, emotional and physical effects on their ability to live independently, maintain relationships and return to work or education and leisure activities.

The burden of TBI in New Zealand is substantial and linked to other health and social factors. The impacts of TBI are only partly determined by the nature and severity of the injury. Other equally important factors include the person's age, their health prior to the injury, their living situation and their socio-cultural and economic circumstances.

TBI is a leading cause of long-term disability among children and young adults.

#### **Current system**

According to people with TBIs, and their whānau, the current system is fragmented and does not support the achievement of the best possible results. These views are depicted in the diagram below.

#### **Current work to prevent TBIs**

A number of significant partnerships and programmes, as well as data and research, are helping to prevent TBI and improve outcomes for those with TBIs.

Most injury prevention programmes involve agencies and groups working in partnership, taking a personcentred approach to achieving population-level reductions in the incidence and severity of injuries. The injury prevention programmes most relevant to TBI target caregivers of infants, children and older people, alcohol and drug-related harm, and sport. Prevention activities are also directed towards the workforce to equip them to contribute to reducing the incidence, severity and impacts of TBI. Appendix 2 has a brief description of these programmes.



## Current work to improve the client journey

ACC is part of the Whole of Pathways TBI Collaborative – a programme in the Auckland region that uses Collective Impact<sup>3</sup> working alongside clients, whānau, consumer organisations, rehabilitation providers, primary healthcare providers, district health boards and the Ministry of Health to achieve improvements in the client journey for adults with moderate to severe TBIs. Changes to date that have the potential to directly affect client outcomes include improvements in:

- access to information about TBIs for clients and whānau
- how providers work together to ensure an integrated approach
- processes between ACC and district health boards
- transitions between services to avoid delays and maintain rehabilitation momentum for clients.

Work is also underway to improve the collection and use of data that provides a system-level view using the six domains<sup>4</sup> of healthcare quality.

The Whole of Pathways TBI Collaborative provides a useful platform for developing and testing improvements that can then be applied nationally.

#### **Previous strategy**

ACC first developed a TBI Strategy in 2012, providing a direction for several significant improvements in TBI services for adults with moderate and severe TBIs, including residential rehabilitation.

Phase two of the TBI Strategy was undertaken in 2014. It introduced a focus on children, injury prevention and the full spectrum of TBIs and was used as the basis of this TBI Strategy and Action Plan.

The TBI Strategy and Action Plan (2017–2021) builds on the previous strategy's successful programmes and initiatives, while striving to achieve more than incremental improvements by establishing key partnerships that recognise the role of whānau, the need for a systems approach<sup>5</sup> and the need to target Māori who are at higher risk of TBI.

Almost 400 people worked alongside ACC to refresh the TBI Strategy and develop the action plan. They included people with TBIs, their whānau, service providers, support organisations and other government agencies.

### Ngā honohono: linkages

The development of this TBI Strategy and Action Plan recognises that a focus on TBI is a national health priority.

Its initiatives do not stand alone; they link with several other strategies, plans and work programmes within ACC and across government that share a focus on injury prevention and strengthening services, support and workforce capabilities.

These include:

- ACC's Injury Prevention Strategy
- the New Zealand Health Strategy 2016<sup>6</sup>
- the Healthy Ageing Strategy<sup>7</sup>
- He Korowai Oranga: Māori Health Strategy<sup>8</sup>
- Whāia Te Tika: ACC's Māori Strategy
- Whānau Ora<sup>9</sup>
- the New Zealand Disability Strategy 2016-2026<sup>10</sup>
- the New Zealand Carers' Strategy Action Plan for 2014 to 2018"
- ACC's Transformation Programme<sup>12</sup>
- the ACC Provider Service Delivery Health Sector Strategy
- the Children's Action Plan
- Better Public Services targets relevant to health and injuries (Ministry of Health, June 2017)<sup>13</sup>
- the Transformation Programme for the Ministry for Vulnerable Children, Oranga Tamariki.<sup>14</sup>
- <sup>3</sup> Collective Impact is an innovative and structured approach to making collaboration work across funders, providers, other organisations, clients and their whānau to achieve significant and lasting change.
- <sup>4</sup> Six domains of healthcare quality uses the Institute of Medicine (IOM) framework which considers safety, effectiveness, patient-centred, timeliness, efficacy and equity.
- <sup>5</sup> A whole of systems approach considers the entire pathway of care improving coordination of professional and organisational boundaries to achieve high-quality services irrespective of their location where the combined impact of a range of services is greater than any single service.
- <sup>6</sup> See http://www.health.govt.nz/publication/new-zealand-health-strategy-2016
- 7 See http://www.health.govt.nz/publication/healthy-ageing-strategy
- $^{\rm s} {\rm ~See~http://www.health.govt.nz/publication/he-korowai-oranga-maori-health-strategy}$
- <sup>9</sup> See https://www.tpk.govt.nz/en/whakamahia/whanau-ora
- $^{\circ\circ} See https://www.odi.govt.nz/assets/New-Zealand-Disability-Strategy-files/pdf-nz-disability-strategy-2016.pdf$

- <sup>13</sup> Well Child/Tamariki Ora workforce development.
- <sup>14</sup> See https://www.mvcot.govt.nz/about-us/who-we-are/

 <sup>&</sup>lt;sup>n</sup> See http://www.msd.govt.nz/documents/about-msd-and-our-work/work-programmes/policy-development/carers-strategy/carers-strategy-2014-18-update.pdf
 <sup>2</sup> See https://www.acc.co.nz/about-us/media-releases/latest-news/acc-focused-on-delivering-quality-service/

# Ngā hiahia: our aims

### Te wawata: vision

The TBI Strategy's vision is to improve the quality of life of New Zealanders by reducing the incidence, severity and impacts of TBI.

### Te aronga: purpose

The overarching purpose of the TBI Strategy and Action Plan is to guide key initiatives that will:

- deepen the focus of injury prevention activities specific to TBI that ultimately contribute to reducing the incidence and severity of moderate to severe TBI
- work with Māori and other ethnicities who are overrepresented in all TBI statistics
- enable people with TBIs to achieve maximum and satisfying participation at home, school and work and in the community, consistent with their rehabilitation goals
- recognise the interdependent relationship between people with TBIs and their whānau
- improve cross-government and systems integration that in turn improves access to, and the coordination of, services and support
- strengthen and extend workforce capabilities to achieve best practice in the prevention, recognition and management of TBI
- reduce the economic burden of TBI.

### Ngā whai tikanga: priorities

The priorities for the TBI Strategy and Action Plan have been based on:

- engagement meetings with ACC clients and their whānau, rehabilitation providers, consumer groups and organisations, district health boards, universities and government agencies as part of a co-design process
- current partnerships and work programmes in the wider sector
- the extent to which TBI is unique in the issues and opportunities identified
- the ability to make or influence change.

To achieve the vision, the following strategic priorities have been identified.

Each priority has interrelated aspects and associated goals:

#### **TBIs are prevented**

- TBI is prioritised within existing and future ACC injury prevention activities, driving changes that positively influence risk-taking behaviours associated with TBI.
- New injury prevention initiatives are established that target TBI prevention.

## TBI prevention, diagnosis, treatment and rehabilitation are effective

- Best practice informs nationally consistent assessment/diagnosis and the delivery of TBI services and support.
- Services are culturally responsive and inclusive of whānau.
- Outcomes and experiences of service delivery are collected and used to support improvements.
- Government agencies work together to achieve an integrated approach.



#### People with TBIs and their whānau experience good outcomes

- · People with TBIs and their whanau understand and adapt to their changing circumstances.
- Rehabilitation momentum is maintained when people move within or between services and support.

#### Workforce capability in TBI is developed

- Workforce resources and skills match the needs of people requiring TBI services.
- · Government agencies and others working with people with TBIs improve their knowledge of TBI.

Each goal has one or more actions, which are informed by current work programmes and areas identified as part of the engagement and co-design of this strategy and action plan.

### Ngā tohutohunga: guiding principles

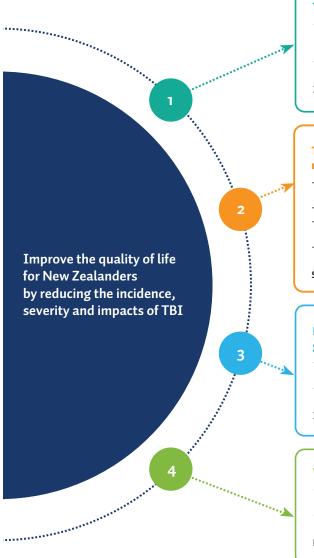
The following principles guide decision-making and the way the TBI Strategy and Action Plan is implemented. These principles are important as the New Zealand health and disability system continues to shift from a siloed system towards a more integrated system that considers each person in their context, and wider determinants of health.

#### **Principles**

- 1. Uphold the principles of Whāia Te Tika: ACC's Māori Strategy.
- Uphold the principles of the Convention on the 2. Rights of Persons with Disabilities.
- 3. Uphold the principles of the United Nations Convention on the Rights of the Child.
- Identify the right areas of focus and investment 4. by being informed by evidence.
- Achieve a person and whānau-driven focus 5. across services and support.
- Improve the consistency and quality of services 6. to maximise outcomes for people with TBIs and their whānau.
- Commit to improving health equity that 7. addresses multiple determinants of health that we can influence.
- Involve our customers in setting priorities and 8. co-designing service changes.
- Work in partnership with other agencies 9. to achieve a more integrated and holistic approach to preventing and reducing the impacts of TBI.

The principles of Whāia Te Tika: ACC's Māori Strategy, the Convention on the Rights of Persons with Disabilities and the United Nations Convention on the Rights of the Child can be found in Appendix 1.

## Strategy on a page



#### **TBIs are prevented**

- TBI is prioritised within existing and future ACC injury prevention activities, driving changes that positively influence risk-taking behaviours associated with TBI
- New injury prevention initiatives are established that target TBI prevention

Incidence and severity of TBI is reduced

### TBI prevention, diagnosis, treatment and rehabilitation are effective

- Best practice informs nationally consistent assessment/diagnosis and delivery of TBI services and support
- Services are culturally responsive and inclusive of whānau
  Outcomes and experiences of service delivery are collected and
- used to support improvements • Government agencies work together to achieve an integrated
- approach

Severity and impacts of TBI are reduced

### People with TBIs and their whānau experience good outcomes

- People with TBIs and their whānau understand and adapt to their changing circumstances
- Rehabilitation momentum is maintained when people move within or between services and support

Impacts of TBI are minimised and people live well with TBIs

#### Workforce capability in TBI is developed

- Workforce resources and skills match the needs of people requiring TBI services
- Government agencies and others working with people with TBIs
   improve their knowledge of TBI

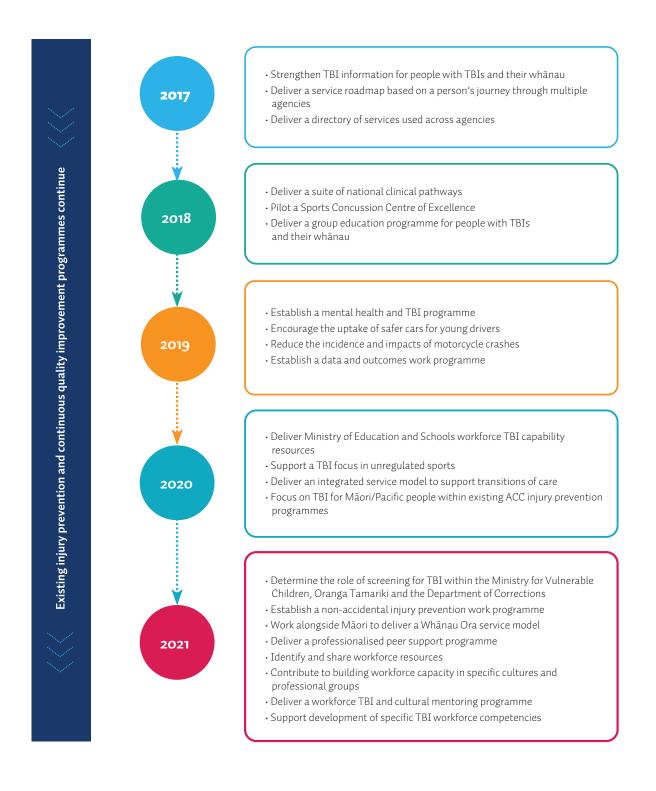
#### People with TBIs are able to maximise their potential

#### **Principles**

Uphold the principles of Whāia Te Tika: ACC's Māori Strategy Uphold the principles of the Convention on the Rights of Persons with Disabilities Uphold the principles of the United Nations Convention on the Rights of the Child Identify the right areas of focus and investment by being informed by evidence Achieve a person and whānau-driven focus across services and support Improve the consistency and quality of services to maximise outcomes for people with TBIs and their whānau Commit to improving health equity that addresses multiple determinants of health that we can influence Involve our customers in setting priorities and co-designing service changes Work in partnership with other agencies to achieve a more integrated and holistic approach to preventing and reducing the impacts of TBI

# **Action timeline**

A timeline for the intended completion of activities, or moving programmes into business as usual, of 22 actions associated with the priorities is shown below.



# **Implementation and governance**

#### **Systems view**

Improved quality of life

A systems approach is required to achieve effective changes. ACC needs to co-design changes with people with TBIs and their whānau, working alongside other government agencies and organisations.

A responsive system will support achieving the TBI Strategy's vision.

#### **Stakeholder relationships**

To achieve a systems approach, existing partnerships with ACC client groups, funders, health professionals and other providers of support for people with TBIs need to be maintained. Other relationships, such as those with some government agencies, need to be developed and strengthened.

#### I'm aware

- Precautions taken to prevent TBI
- Early recognition and treatment

#### It's about me

- Treatment considers personal circumstances
- Impacts on families are considered
- Timely rehabilitation

#### I'm receiving the best

- Services match my needs
- $\cdot$  Other services are responsive and coordinated
- $\cdot$  My experience of TBI services makes a difference

#### I understand

 Information empowers and improves access to services and support

#### Governance

ACC is responsible for implementing the TBI Strategy and Action Plan. Successful implementation is dependent on:

- shared cross-sector leadership and accountability for implementation
- partnering with people who are at risk and have TBIs, and their whānau
- working alongside service providers, other organisations and government agencies.

ACC will establish a governance group to provide direction to, and oversight of, the work programmes that arise from the TBI Strategy and Action Plan. The members will include ACC clients (or representatives) and representatives of government agencies and other organisations.

Members of the group will have decision-making authority and the ability to approve the allocation of resources for the completion of actions.

It is important that the governance group monitors progress in implementing the TBI Strategy and Action Plan at least twice yearly. This will also provide opportunities to modify actions in response to sector changes that may occur over the five year period.

#### **Implementation approach**

It is recommended that a steering group be established to ensure that activities across multiple actions are aligned.

Existing programmes, such as the Whole of Pathways TBI Collaborative work programme, can be extended as one means of gaining early traction on meeting some of the strategic goals within each priority.

#### **Evaluating effectiveness**

An early task to support the implementation of the TBI Strategy and Action Plan will be developing a framework for measuring the effectiveness of each goal's implementation, to ensure that:

- targets and indicators are identified, eg impacts and outcomes
- information sources are identified and data-gathering methods are agreed (and meet privacy of information requirements)
- decisions are made on how often data will be collected and who will be responsible for collecting it
- meaningful engagement continues with TBI clients, their whānau and the wider sector
- proxy measures are developed where suitable data is not available.



# Priority 1: TBIs are prevented

Hazel and Matt are first-time parents of a four-week-old baby, Manu. They were excited and nervous about becoming parents. Hazel attended antenatal classes and Matt went with her whenever he could. The antenatal classes prepared them for birthing and also provided information about infant development. They learned that babies cry a lot and about things they could do to cope with the crying. The classes provided information that could be taken home and shared with friends and family. This was great for Matt as he could catch up on missed classes.

Hazel and Matt have friends who are parents and often talk to them about parenting. They are finding that their experience of parenting is really different from those of their friends, as Manu was born five weeks premature. Matt's work requires travelling for days at a time and Hazel is often alone with the baby.

Manu has recently started crying a lot more often. This has left Hazel feeling as if she isn't a good mother and too ashamed to ask for help. She has been feeling exhausted as well. When her midwife comes to visit, she asks Hazel how she is coping with the baby's crying – whether she has been able to figure out what the baby needs, and what she does if the baby keeps crying. The midwife reassures Hazel that it is normal for babies to cry and for her to feel overwhelmed and stressed out by this.

The midwife helps Hazel to explore some ways she can deal with her stress and identify support for her and Matt. She also advises Hazel to see her GP about Manu's crying. The midwife asks Hazel to put her plan on what to do if Manu doesn't stop crying on the fridge and to let Matt know about it. This has helped Matt, as whenever he has to travel he makes up a roster with their friends so that someone comes in every day to give Hazel some company, or help out if she needs it.

#### Context

ACC has a comprehensive approach to injury prevention. This includes collaborating with a range of stakeholders, a cross-government and crosssector injury prevention work plan, using evidence and data to design programmes, and targeting areas of focus within injury prevention portfolios.

Existing injury prevention programmes that have a focus on preventing TBI are outlined below.<sup>15</sup>

- Improving falls and fracture service outcomes for older people.
- Sports concussion in New Zealand.
- Road safety programmes, including education and training for young drivers and motorcycle training programmes.
- Well Child/Tamariki Ora workforce development in injury prevention, age and stage appropriate, including TBI rehabilitation.
- Plunket's child falls prevention training for its staff.
- The Plunket Board Injury Prevention Framework.
- Safekids Aotearoa's 'Make Your Home a Safety Zone' campaign, with a focus on Māori and Pacific families and priority areas across New Zealand.
- St John, Wellington Free Ambulance and the National Telehealth Service – TBI injury prevention resource development.
- Investment in Power to Protect a shaken-babysyndrome prevention programme managed by the Ministry of Health.
- A harm reduction campaign with WorkSafe New Zealand.
- Cross-sector Child Injury Prevention Advisory Group.
- GP/Primary healthcare education.
- · Coaching education.
- ASB St John in Schools <sup>16</sup> injury prevention, first aid, emergency preparedness and responding in an emergency, with a focus on preventing TBI in children.

- ACC is developing an Alcohol and Drug Strategy that includes actions to reduce severe and catastrophic injuries, of which TBI will be a part.
- ACC is working with the Institute of Environmental Science and Research (ESR) to co-design an ACC-wide family violence and child protection policy that incorporates a prevention and response system.
- ACC suicide prevention service design with Waikato District Health Board.
- ACC is a member of the Ministerial Group on Family Violence and Sexual Violence. This includes Integrated Safety Response pilots in Christchurch and Waikato involving local ACC teams at an operational level.

As significant injury prevention work already includes a consideration of TBI, the following areas have been identified as having additional impacts on preventing TBI.

#### Goals

#### TBI is prioritised within existing and future ACC injury prevention activities, driving changes that positively influence risk-taking behaviours associated with TBI

Although most current injury prevention programmes include TBI, there is an opportunity to further prioritise TBI prevention – eg by including further targeting of Māori and Pacific people within existing and future ACC injury prevention activities.

### New injury prevention initiatives are established that target TBI prevention

The Ministerial Group on Family Violence and Sexual Violence work programme focuses on stopping family and sexual violence from occurring and reducing harm caused by it. The work programme aims to improve and coordinate existing services to ensure they lead to lasting change, and make sure that people get the right service at the right time. ACC, as a member of the group, has a role in the follow-up response and long-term recovery.

As assaults are a strong predictor for TBI, ACC proposes to establish an intentional/non-accidental injury prevention work programme.

<sup>&</sup>lt;sup>15</sup> Refer to Appendix 2 for more information on key injury prevention initiatives.

<sup>&</sup>lt;sup>16</sup> See http://www.stjohn.org.nz/What-we-do/Community-programmes/ASB-St-John-in-Schools-Programme/

#### Actions

The following actions have been prioritised.

- Maintain or improve the focus on TBI, including for Māori and Pacific people, within existing ACC injury prevention programmes.
- Consider how 'unregulated' sports can be further supported to implement injury prevention programmes that reduce the incidence and severity of TBI.
- Establish a non-accidental injury prevention work programme.
- Encourage the uptake of safer cars for young drivers.
- Reduce the incidence and impacts of motorcycle crashes.

#### **Outcomes**

TBI has an overt focus in injury prevention programmes where TBI incidence could be reduced.

High-risk, low-volume sports that are unregulated are supported to prevent TBI.

Families with children know and understand the risks of falls in the home and respond appropriately to prevent or reduce those risks.

Those in the workforce delivering injury prevention interventions know how to reduce TBI and take action accordingly, and people are safer as a result.

TBI prevention interventions are person-centric and seamless.

TBI prevention via emergency services such as St John, Wellington Free Ambulance and the National Telehealth Service is connected and consistent.

Young drivers use safer vehicles.

Motorcycle crashes causing TBI are reduced.



# Priority 2: TBI prevention, diagnosis, treatment and rehabilitation are effective

Clinical staff recognised the importance of our whānau's Māori cultural identity when my brother had a severe TBI. They introduced us to their Māori cultural advisor and included important cultural practices, such as Māori greetings, a two-way process of making connections (whakawhanaungatanga) and Māori cultural blessings (karakia), as part of being respectful (taha wairua) of our culture. Staff explained clinical terminology to whānau in a way we could understand (taha hinengaro) and used the Te Whare Tapa Whā model to develop a mutually beneficial relationship.

They knew that although my brother had sustained a TBI requiring specialised healthcare to heal his body (taha tinana), the TBI also had spiritual (taha wairua) impacts that needed to be acknowledged and considered.

The assessments had Māori content, which meant we better understood their relevance. Staff used these assessments and worked with us to develop a culturally responsive rehabilitation programme. The service embraced Māori cultural practices that were user-friendly and accessible to Māori.

#### Context

A range of specialised services support people with TBIs in New Zealand. They include communitybased concussion services and specialised TBI rehabilitation provided in residential settings. These services, together with injury prevention programmes and the Whole of Pathways TBI Collaborative programme, create a good foundation for further work to improve the effectiveness of TBI prevention, treatment and rehabilitation.

A strong focus is needed on improving access to services by Māori, who are overrepresented in statistics but underutilise current services.

#### Goals

#### Best practice informs nationally consistent assessment/diagnosis and delivery of TBI services and support

Except for two recently developed Head Injury and Concussion in Children pathways, there is an absence of user-friendly clinical pathways that are applicable to the New Zealand health context. Improving the diagnosis and management of TBI requires a suite of clinical pathways that can be easily accessed and used.

Child protection processes are followed when assessing and diagnosing non-accidental injuries.

## Services are culturally responsive and inclusive of whānau

To meet the needs of Māori, TBI health and disability services need to be reconfigured to include a Whānau Ora option.

Changes to service models should also consider the needs of Pacific people.

## Outcomes and experiences of service delivery are collected and used to support improvements

Outcome measures are important in assessing the status of a person's recovery and rehabilitation. Information can help in monitoring progress, identifying effective interventions and demonstrating the effectiveness of services. Currently information on some functional outcome measures is collected in residential rehabilitation through the Australasian Rehabilitation Outcomes Centre. However, some measures used in the sector are not comparable or shared between health providers, which makes it difficult to monitor a person's progress and the overall effectiveness of services.

Within existing measures little has been done to measure the experience of services. Measuring experience provides an opportunity to highlight and address aspects of the care experience that need improvement, meet people's expectations, enhance strategic decision-making and effectively manage and monitor healthcare performance that can be benchmarked.

## Government agencies work together to achieve an integrated approach

One of the Government's priorities is to deliver better public services. This has resulted in several work programmes that provide a good platform for ACC involvement in targeting improvements related to TBI, including Better Public Services. In particular, Result 2 Healthy Mums and Babies; and Result 3 Keeping Kids Healthy (Ministry of Health, June 2017).

Working across the sector provides an opportunity to take a more holistic approach and address some challenging issues shared by government agencies – eg identifying youth who may have undiagnosed TBIs that have contributed to criminal offences and led to their involvement with the youth justice system; and working with mental health services to improve rehabilitation outcomes among people with extreme, persistent behavioural symptoms.

Through this work there may be an opportunity to extend screening and services to the general prison population.

#### Actions

The following actions have been prioritised.

- Develop and implement a suite of national clinical pathways.
- Pilot a Sports Concussion Centre of Excellence.
- Work alongside Māori to develop and implement a Whānau Ora model of service delivery.
- Establish a data and outcomes work programme.
- Develop a roadmap of services based on a person's journey through multiple agencies.
- Develop a directory of services used across agencies.
- Establish a joint mental health and ACC programme.
- Determine the role of screening and management within the Ministry for Vulnerable Children, Oranga Tamariki and the Department of Corrections.

#### Outcomes

Clinical pathways drive national consistency and best practice in service delivery. This in turn improves the diagnosis and management of TBI, including preventing re-injury through safe return to activity and the delivery of effective rehabilitation programmes across the continuum of care.

Māori and other cultures are able to receive a Whānau Ora TBI-focused service based on the cultural values and norms for whānau (rather than individuals), empowering them using a strengthsbased approach to connect with a range of services and support.

The effectiveness of services in achieving client outcomes is measured through a national outcomes framework that spans each client's journey. This includes measuring the client experience and their reported outcomes. This information is used to drive improvements.

A broad range of services and support (not just health) typically needed by a person with TBI is readily identified throughout their journey.

Behavioural needs following TBI are met through a partnered approach with mental health and ACC-funded services.

Children and young people in the care and protection and youth justice systems have their TBI needs assessed and met at the earliest opportunity.



# Priority 3: People with TBIs and their whānau experience good outcomes

My partner had a serious TBI. He finished treatment after many months at a residential rehabilitation centre, then came home with a range of community support. At every stage the quality of care was very good.

Eventually he became less in need of intensive clinical inputs, and one day these were finished. I found myself being his sole carer and I soon found the relentless role overwhelming. That's when the enormity of the situation became apparent. I felt inadequate but still solely responsible. I thought I was able to handle it. I wasn't. My partner who had been my rock was now my responsibility and had little insight into his situation.

Fortunately, I was referred to a spouse, family and carers support group. Joining this group was a godsend, a tremendous relief. I realised that I was not alone and that the grieving cycle was a very good compass. I have made good friends and we continue to learn new coping skills together. Our injured partners and family members are included in activities we arrange as a group. It's a more manageable life, not perfect but now supported by good friends who are on the same lifelong journey.

#### Context

TBI services in New Zealand support the achievement of good outcomes for people with TBIs.

Early detection to improve the management and reduce the severity of TBI is a current priority within the injury prevention concussion programme. The TBI Strategy and Action Plan and the introduction of clinical pathways will also have positive impacts on reducing the severity of TBI.

There are opportunities to improve services that extend to whānau, taking a more holistic approach.

As people's responses to TBI vary, depending not only on their injury responses but their individual circumstances, it is important that they have access to information and social support during their rehabilitation.

#### Goals

## People with TBIs and their whānau understand and adapt to their changing circumstances

Although informal support is important, outcomes for people with TBIs and their whānau will be strengthened with formal programmes and additional resources.

The risks of further harm and injury are identified and mitigated for non-accidental injuries.

#### Rehabilitation momentum is maintained when people move within or between services and support

Work has been undertaken through the Whole of Pathways Collaborative to improve transitions between TBI services and create a more integrated model. More work is required to extend this work programme, which also considers the role of coordination.

#### Actions

The following actions have been prioritised.

- Develop a group education programme for people with TBIs and their whānau.
- Develop a professionalised peer support programme.
- Strengthen information about TBI for people with TBIs and their whānau.
- Develop an integrated service model that supports transitions of care.

#### **Outcomes**

People with TBIs and their whānau feel informed and prepared to meet the challenges that come with TBI. Through improved understanding and networking with others who have had similar experiences, they gain knowledge that supports self-determination and the new ways of living needed in facing the challenges associated with TBI.

Information about TBI and what to expect is available in multiple languages and formats.

When needed, people with TBIs and their whānau have ready access to people who can coordinate or facilitate transitions between services and access to other services and support (not necessarily health related).

Transitions between services and support are planned, with all the necessary information handed to the onward provider. This ensures that rehabilitation programmes continue uninterrupted, and people with TBIs and their whānau feel reassured and confident when things change.



# Priority 4: Workforce capability in TBI is developed

Twelve-year-old Susan had been admitted to hospital for a week with a TBI following a road accident. Prior to her discharge, a specialist in TBI rehabilitation provided Susan's mother with information on Susan's likely changes in behaviour and educational needs, advice on how to manage them and details of a contact person if she had any difficulties. A school meeting was also arranged to discuss Susan's requirements for re-entry to school.

The school meeting was attended by Susan's current teacher and an education specialist, trained in the educational needs associated with TBI. The group developed a plan for Susan's re-entry to the school system.

When Susan re-entered school her classroom teacher had undertaken TBI training, a modified education plan was in place and the teacher was fully aware of Susan's potential difficulties (educational, social and behavioural). The classroom teacher had the support of a specialist teacher who could be called on if difficulties arose.

Susan's educational needs were regularly evaluated, with particular care taken to ensure that each teacher was trained in TBI and had someone to support them when they needed it.

#### Context

While there are specialised services available for preventing, treating and rehabilitating people with TBIs in New Zealand, not everyone with a TBI needs or receives them.

Those in the health and disability services workforce and the wider government sector need a number of skills to work with people with TBIS – including the ability to provide culturally appropriate services to Māori and people from other cultures. Some simple but effective strategies, such as those already used for injury prevention, are needed.

ACC has a separate work programme for its staff that includes providing resources to support ACC case owners in improving their knowledge of, and approach to, clients who have or are suspected of having a TBI.

#### Goals

### Workforce resources and skills match the needs of people requiring TBI services

Mentoring is an established and positive way of supporting people to improve their confidence and develop new skills in the work environment. It is also effective in establishing relationships between people and organisations that strengthen communication and integrated ways of working.

Workforce capabilities in preventing TBI are developed.

## Government agencies and others working with people with TBIs improve their knowledge of TBI

Teachers and educators have a key role in helping students to return to school after their recovery from TBI. Where return to school is part of a wider rehabilitation programme, teachers and educators need to support that programme.

Many government agencies are involved in providing services to people with TBIs. ACC will work to share its resources more widely with them.

#### Actions

The following actions have been prioritised.

- Use mentoring programmes to build skills in TBI and cultural responsiveness.
- Identify and recommend key resources for rehabilitation following TBIs specific to different workforces.
- Contribute to building the capabilities and capacity of people from specific cultures and professional groups needed in the field of TBI.
- Support the development of specific competencies in the wider TBI workforce.
- Develop resources to build teachers' and educators' capability to support students with TBIs returning to early childhood education or school.

#### **Outcomes**

People with TBIs receive services and support from culturally competent providers.

People delivering TBI services and support are knowledgeable and adapt appropriately to meet the needs of people with TBIs.

Resources that help different workforces to provide responsive and appropriate services to people with TBIs are identified and shared.

ACC is actively involved in supporting workforce capacity development among those from specific cultures and professional groups needed for the delivery of TBI services and support.

Children returning to school following TBIs are supported by teachers and school staff to achieve their rehabilitation goals.



# Roadmap: Planning to support the implementation of actions

#### **Priority 1: TBIs are prevented**

Action	Key points to implement	Indicative completion
Maintain or improve the focus on TBI, including for Māori and Pacific people, within existing ACC injury prevention programmes	Develop and implement a monitoring framework specific to TBI for each programme	2020
Consider how		2020
'unregulated' sports can be further supported to implement injury prevention programmes that reduce the incidence and severity of TBI	Use the ACC injury prevention prioritisation process to determine next steps	
Establish a non-accidental injury prevention work programme	Review ACC's current practices and policies to develop opportunities to identify the risk of, and prevent further harm from, non-accidental injuries with ACC clients and staff	2021
Encourage the uptake of safer cars for young drivers	<ul><li>Investigate the opportunity to encourage young drivers to:</li><li>drive the safest family cars</li><li>purchase safe cars</li></ul>	2019
Reduce the incidence	Increase the uptake of motorcycle training (prevention)	2019
and impacts of motorcycle crashes	Investigate opportunities to increase the wearing of full- faced motorcycle helmets	
Actions led by:	ACC Injury Prevention	

### Priority 2: TBI prevention, diagnosis, treatment and rehabilitation are effective

Action	Key points to implement	Indicative completion
implement a suite and ot of national clinical Telehe pathways enhan · adul · chilo · rura Review flowch Suppo and Co	<ul> <li>Partner with clinical pathway groups, expert clinicians and others such as ambulance services and the National Telehealth Service to support the development or enhancement of clinical pathways for: <ul> <li>adult assessment and management in primary healthcare</li> <li>children's acute management in district health boards</li> <li>rural locations</li> </ul> </li> </ul>	2018
	Review the adult acute management clinical pathway flowchart for district health boards, and promote its use	
	Support the evaluation of the Northern Region Head Injury and Concussion in Children pathway with the view to supporting its national adoption	
	Recommend and promote awareness of clinical pathways	
	Ensure that clinical pathway effectiveness monitoring includes achieving health equity for Māori	
Pilot a Sports Concussion Centre of Excellence	Complete a business case and evaluation plan supported by data	2018
	Describe the service required and supporting processes	
	Implement and evaluate a pilot to determine next steps	
Work alongside Māori to develop and implement a Whānau Ora model of service delivery	Work with Te Pou Matakana and Te Pūtahitanga o Te Waipounamu, and with interested stakeholders, to develop a Whānau Ora model of service delivery that meets the needs of Māori whānau with TBIs	2021
	Describe the scope, objectives and resources, including community relationships, required to implement the model	
	Complete any research or business cases required to support proposed approaches and the data needed to evaluate effectiveness	
	Determine how effectiveness will be monitored and the model evaluated	
	Complete service development, including supporting processes	
	Test the Whānau Ora service model with the intention of national implementation	
	Gather data to support an evaluation	
	Evaluate and determine the next steps to inform a national roll-out	

## Priority 2: TBI prevention, diagnosis, treatment and rehabilitation are effective (continued)

Action	Key points to implement	Indicative completion
Establish a data and outcomes work programme	Establish a project group (or link to the Whole of Pathways Collaborative work programme)	2019
	Identify and engage with other government agencies (such as the agencies identified in this document and the Health Quality and Safety Commission) needed to support implementation and align with work in the wider health and social sectors	
	Determine what needs to be measured and what data is required and how it will be collected and used (include an analysis of data by ethnicity, deprivation, age, gender, disability and location)	
	Consider the role of the person with TBI and their whānau's experience of services as part of the data collection	
	Consider the relationship between currently collected outcome measures and this work programme to extend measures	
	Complete business cases and privacy impact assessments as indicated	
	Ensure that infrastructure needs are met in order to implement	
	Develop protocols and supporting documentation as indicated	
	Test, implement, review the results and refine	
	Move towards benchmarking to support best practice and service improvements	
Develop a roadmap of services based on a person's journey through multiple agencies	Develop a conceptual map of the life course of people with moderate and severe TBIs to identify key points in the pathway where cross-agency involvement is likely to be required	2017
	Consider entry and re-entry to services and shared plans	
	Consider how any legislative gaps between agencies can be addressed through policy	
	Collaborate to publish and distribute roadmaps as appropriate	
	Determine a process for keeping maps up to date and for monitoring effectiveness	

# Priority 2: TBI prevention, diagnosis, treatment and rehabilitation are effective (continued)

Action	Key points to implement	Indicative completion	
Develop a directory of services used across	Link with work underway in a cross-government project that identifies the services and support available across agencies		
agencies	Identify processes for developing a common plan where multiple agencies need to interface with each other to support people with TBIs		
	Collaborate to publish the directory as a resource for consumers and other agencies		
	Determine a process for keeping the directory up to date and for monitoring its effectiveness		
Establish a joint	Identify cross-government partners in this work programme		
mental health and ACC programme	Describe the problems that are common to mental health and TBI services that could be better managed using a shared care arrangement. This includes people with mental health issues prior to their injuries and those that develop mental health problems after their injuries		
	Review relevant literature		
	Describe a programme to address the problems (including process mapping the current and future states)		
	Develop a pilot programme or introduce a new way of working		
	Determine how changes to the current system will be measured		
	Develop any business cases required		
	Implement changes		
	Measure effectiveness, report and refine		
Determine the role	Identify cross-government partners in this work programme	202	
of screening and management within the Ministry for Vulnerable Children, Oranga Tamariki and	Review existing research related to screening for TBI in the youth justice population (Ministry for Vulnerable Children, Oranga Tamariki) and the adult justice population (Department of Corrections)		
Oranga Tamariki and the Department of Corrections	Scope the opportunity/purpose and role of screening in the youth justice population (Ministry for Vulnerable Children, Oranga Tamariki) and the adult justice population (Department of Corrections)		
	Determine what tools would be used and when		
	Determine who would administer the tools		
	Determine how data would be used to respond to screening findings		
	Map a pathway for access to services for people identified as having TBIs requiring medical and/or social rehabilitation services funded by ACC		
	Consider a pilot programme to test the process and effectiveness		
	Determine the next steps following a pilot		
Actions led by:	ACC Provider Service Delivery in partnership with the Clinical Service Directorate and Injury Prevention	25	

### Priority 3: People with TBIs and their whānau experience good outcomes

Action	Key points to implement	Indicative completion
Develop a group education programme	Form a working group linked to the Whole of Pathways collaborative	2018
for people with TBIs and their whānau	Review the Brain Injury Coping Skills Group programme and adapt for New Zealand use	
	Identify resource requirements to implement the programme nationally	
	Determine demand for the programme	
	Determine how effectiveness will be measured	
	Develop a business case (if required) before contracting for the delivery of the service	
	Contract and monitor effectiveness	
	Embed into business as usual activities	
	Evaluate effectiveness post-implementation	
Develop a professionalised peer	Support research programmes currently underway to develop a TBI peer support programme	2021
support programme	Review international research and work undertaken to establish other professionalised peer support programmes in New Zealand	
	Work with Brain Injury New Zealand and other interested groups to develop a professionalised peer support programme that may include a facilitation component	
	Develop a business case (if required) before contracting for the delivery of the service	
	Contract and monitor the service's effectiveness	
	Embed the service into business as usual activities	
	Evaluate its effectiveness post-implementation	
Strengthen information about TBI for people with TBIs	Extend the Whole of Pathways work programme to further identify and develop resources for whānau, including interpreted resources	2017
and their whānau	Determine the role of other information delivery methods, such as mobile phone applications	
Develop an integrated service model that	Extend the Whole of Pathways work programme to develop the transition work to establish an integrated service model	2020
supports transitions of care	Consider the role of facilitation and coordination in an integrated service model	
Actions led by:	Co-led by ACC Provider Service Delivery and the Clinical Services partnership with Injury Prevention	Directorate in

### Priority 4: Workforce capability in TBI is developed

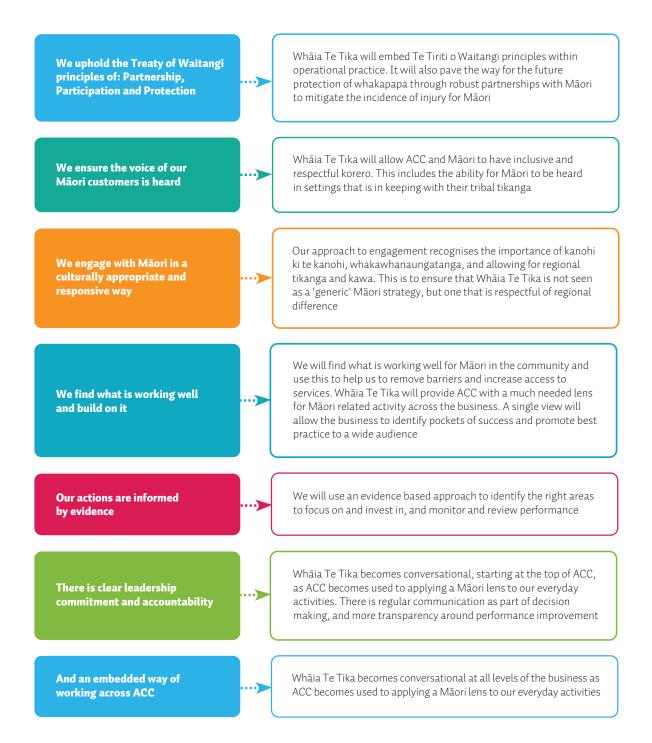
Action	Key points to implement	Indicative completion
Use mentoring programmes to build skills in TBI and cultural	Partner with Māori service providers with health and/ or disability experience to develop and deliver a Māori mentoring programme to ACC suppliers that provide services to people with TBIs	2021
responsiveness	Partner with specialist TBI services to deliver a mentoring programme to general services that provide services and support to people with TBIs	
	Develop a business case (if required) and agree criteria and an evaluation method	
	Determine a procurement method and evaluate its effectiveness	
	Transition to business as usual if effectiveness is supported	
Identify and recommend key resources for rehabilitation following TBIs specific to different workforces	Work alongside clinical experts and clinical pathway developers to identify key resources that ACC should recommend	2021
	Develop a process for recommending clinical resources to ACC suppliers	
	Work with other government agencies to identify their information needs relating to TBI, and share resources, including ACC's internal TBI resources as appropriate	
Contribute to building the capabilities and capacity of people from specific cultures and professional groups needed in the field of TBI	Work with the sector to identify workforce needs specific to the Māori workforce and allied health workers (particularly psychologists and speech language therapists)	2021
	Actively promote the recruitment of a Māori health workforce	
	Determine how ACC can contribute to building workforce capacity in priority areas identified (particularly Māori, psychologists and services for children and young people)	
	Contribute to a whole-of-system response to building workforce capacity in areas of critical need	
	Contribute to building workforce capabilities, promoting the inclusion of TBI prevention, diagnosis and management in training programmes (eg medical, nursing, social work, teachers' colleges)	

Priority 4: Workforce capability in TBI is developed (continued)	Priority 4:	: Workforce	capability i	i <mark>n TBI is de</mark> v	veloped (	(continued)	)
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Action	Key points to implement	Indicative completion
Support the development of specific competencies in the wider TBI workforce	Review existing complementary competencies (eg Let's Get Real) and development programmes that may assist the wider workforce (including family carers) to develop access to the specific skills needed when working alongside people with TBIs	2021
	Determine how ACC can support competency development in these areas and progress accordingly	
	Share with others resources being developed to improve ACC's internal capabilities (as appropriate)	
Develop resources to build teachers' and educators' capability to support students with TBIs returning to early childhood	Set up a working party with the Ministry of Education, the Specialist Paediatric and Adolescent Rehabilitation Service and specialist children's health and rehabilitation community providers to develop resources to build teachers' and educators' capabilities in supporting students with TBIs returning to early childhood education or school	2020
education or school	Determine how the resources should be implemented and support the implementation	
	Determine how the effectiveness of such resources should be monitored and measured	
Actions led by:	Co-led by ACC Provider Service Delivery and the Clinical Services partnership with Injury Prevention	Directorate in

# Appendix 1: Additional principles

Principles of Whāia Te Tika: ACC's Māori Strategy



#### Principles of the Convention on the Rights of Persons with Disabilities

- 1. Respect for inherent dignity, individual autonomy including the freedom to make one's own choices, and independence of persons
- 2. Non-discrimination
- 3. Full and effective participation and inclusion in society
- 4. Respect for difference and acceptance of persons with disabilities as part of human diversity and humanity
- 5. Equality of opportunity
- 6. Accessibility
- 7. Equality between men and women
- 8. Respect for the evolving capacities of children with disabilities and respect for the right of children with disabilities to preserve their identities.

#### Principles of the United Nations Convention on the Rights of the Child (UNCRC)

UNCRC gives children and young people up to the age of 18 the right to

- 1. Life, survival and development
- 2. The government making sure that the best interests of the child are taken into account when making decisions about the child
- 3. Access to education and health care
- 4. Grow up in an environment of happiness, love and understanding
- 5. Protection from discrimination of any sort
- 6. Develop their personalities, abilities and talents
- 7. Protection from sexual exploitation, abuse and economic exploitation
- 8. Special measures to protect those that are in conflict with the law
- 9. An opinion and for that opinion to be heard
- 10. Be informed about and participate in achieving their rights
- 11. Special measures to protect those belonging to minority groups.

# Appendix 2: Current high relevance programmes

Short description of the programme	Relevance to TBI	Partners in this work programme	Measures of success
Improving falls and fracture service outcomes for older people A whole-of-system approach targeting interventions to prevent falls and fractures and optimise rehabilitation, enabling people to live well and independently in their own homes	Falls are the major cause of TBI in older people By preventing a fall, you can prevent a TBI	<ul> <li>Ministry of Health</li> <li>Health Quality &amp; Safety Commission</li> <li>District health boards</li> <li>Primary healthcare</li> <li>Osteoporosis New Zealand</li> <li>Local non- government organisations and community groups</li> </ul>	Outcomes framework with a dashboard to measure success, including reductions in fall claims, hip fractures and TBI
Sports Concussion in New Zealand: ACC National Guideline Evidence-based, best practice technical document	The appropriate management of concussion decreases the risk of a secondary moderate to severe TBI	<ul> <li>Sports Collaboration Group</li> </ul>	
<b>GP/Primary healthcare</b> <b>education</b> Education on best practice assessment and diagnosis of concussion	Contributes to a consistent standard of care and appropriate rehabilitation for TBI in New Zealand	<ul> <li>Sports Collaboration Group</li> <li>GPs</li> <li>Conference organisers</li> </ul>	
<b>Coaching education</b> Education on the recognition of concussion and roles and responsibilities	Appropriate early management of concussion can prevent more severe TBI and ongoing symptoms	<ul> <li>Sports Collaboration Group</li> <li>National Sports Organisations</li> <li>Secondary school sports coordinators</li> </ul>	

Short description of the programme	Relevance to TBI	Partners in this work programme	Measures of success
Safekids Aotearoa – Make Your Home a Safety Zone	One of the injury risks covered by the programme is the risk	<ul> <li>Safekids (and its community coalition partners)</li> </ul>	Direct reach of 90,000 families (170,000 children) per year
Safekids is training community coalition partners to deliver in-home injury prevention education	of serious/catastrophic head injuries caused by falls. Safekids community delivery partners will equip		Interventions are proven to generate behavioural change in parents
to parents Safekids also provides resources for parents to help them make simple changes to the home environment	parents with the skills, knowledge and resources to prevent TBIs in children (aged o-10)		Success will also be gauged by a measurable reduction in child injuries – particularly serious head injuries and TBI
Contributing funding	Infant crying and	<ul> <li>Ministry of Health</li> </ul>	Incidence of TBI
to Ministry of Health to deliver Power to Protect	parents'/caregivers' inability to deal with this is a key risk factor	<ul> <li>Te Puaruruhau – Auckland District Health Board</li> </ul>	Reach
The programme aims to prevent the incidence of shaken baby syndrome in New Zealand through educating parents and caregivers of newborn babies on how to deal with stress and cope with crying babies	for violently shaking babies, which can lead to fatality or TBI		
ASB St John in Schools	Concussion and	• St John	Reaching 480,000
ASB St John in Schools educators will be providing training in injury prevention, disaster preparedness and responding to	TBI prevention and emergency response are incorporated into this training		children, creating improved understanding and behavioural change among children who receive the intervention
an emergency to 480,000 preschool, primary school and intermediate-aged school children from 2015 to 2019			Success will also be gauged by a measurable reduction in child injuries – particularly serious head injuries and TBI

Short description of the programme	Relevance to TBI	Partners in this work programme	Measures of success
Alcohol and drug strategy Strategic work is underway around ACC's response to alcohol and drug-related harm. Work is in the early (discovery) phase, which involves a sector scan and understanding ACC's role in the sector response to alcohol and drug-related harm	Any future programmes/ investments in alcohol and drug-related harm prevention will be focused on the prevention of serious/ catastrophic injuries – which will include TBI	• Health sector partners	
Suicide prevention service design with Waikato District Health Board	Prevalence of 'wilfully self-inflicted' head/ neck/vertebrae injuries and concussions	• Waikato District Health Board	Reduction in re-injury and suicide mortality rates in the region
This is a partnership with the district health board to understand gaps in services for people who attempt suicide or deliberately self-harm, and reorient services to improve patient outcomes in order to prevent re-injury and/or fatality			
ACC's child protection and family violence prevention approach A co-design project to understand ACC's role in child protection and family violence prevention	Assault is one of the known causes of TBI in New Zealand, with many assaults occurring within familial settings. Reducing family harm through early identification and intervention will result in a reduced risk of resulting TBI	<ul> <li>Institute of Environmental Science and Research (ESR)</li> </ul>	Customer outcomes Time to get right help

Short description of the programme	Relevance to TBI	Partners in this work programme	Measures of success
Plunket – injury prevention capability building programme Partnership with Plunket to build the injury prevention capabilities of its staff, who have direct and trusted access to 92% of babies (o-5 years) and their families' homes each year	<ul> <li>Multi-phased capability build of Plunket staff</li> <li>Board Injury Prevention Framework – age and stage appropriate</li> <li>Capability build, training all Plunket staff to deliver injury prevention that is age and stage appropriate through all Plunket channels (PlunketLine, kaiawhina, Plunket nurses, parenting education programme etc.); initial modules will be on falls and shaken baby syndrome (both TBI prevention). Training based on deep customer insights and social marketing. Interventions will be targeted at parents and delivered as part of a broader social marketing programme about keeping babies safe</li> </ul>	• Plunket	Plunket staff trained and delivering a consistent standard of injury prevention education to parents that is age and stage appropriate as part of their Well Child service to over 90% of newborns and their families each year Success will also be gauged by a measurable reduction in child injuries – particularly serious head injuries and TBI
	The next steps of initiative scoping include developing Plunket's capability to provide TBI support during recovery in the home		

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