

# STUDY FINDINGS

TRAUMATIC BRAIN INJURY INCIDENCE, CAUSES,  
AND COSTS OVER TIME AND SERVICE ACCESS IN NEW ZEALAND (BIONIC2)

AUT

## THANK YOU!

*As a participant in the BIONIC2 study, you have helped researchers and professionals in the traumatic brain injury (TBI) community to learn more about helping adults and children who have experienced a TBI.*

*By sharing your experiences, you have helped to answer important questions about healthcare following TBI. Researchers are now working to share study findings with community groups, health providers and policy makers. These groups will use the findings to help them make decisions about the delivery of TBI healthcare and to identify the areas of greatest need.*

*The research team thank you for your time and willingness to share your healthcare experiences with us. This research would not have been possible without your support. We have prepared this summary of the results for you. We hope it helps you to understand and feel proud of your key role in TBI research.*



Timeframe: October 2020 – September 2023

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## CAN YOU REMIND ME ABOUT THE PURPOSE OF THE STUDY?

As you may know, TBI can significantly impact the lives of people and their family/whānau. The BIONIC2 study aimed to identify how many people have a TBI each year in Hamilton and the Waikato, as well as to learn more about people's experiences of healthcare services following injury. We were also interested to see if anything has changed about the nature of TBI in New Zealand since the first BIONIC study was undertaken in 2010-2011.



## WHAT'S HAPPENED SINCE I WAS IN THE STUDY?

The research team tried to contact all people in Hamilton and the Waikato who had a TBI between May 2021 and April 2022. Like you, people who were contacted were invited to complete a survey about their (or their child's) healthcare experiences. In total, 258 adults and parents (and a small number of children) completed a survey.

The study finished in September 2023. Since then, researchers have reviewed all the information collected and have created a report of the results. This is a summary of that report.



## WHAT WERE THE STUDY RESULTS?

Study figures suggest that for every 100,000 people in Aotearoa New Zealand, about 852 people (including adults and children) will have a TBI each year. Nearly half of all TBI were caused by falls (i.e., trips and slips) and occurred in a private home. People were about 13 times more likely to have a mild TBI than a more severe TBI.

People aged 65 years and over were more likely to have a TBI than younger people. Boys and men were more likely to have a TBI than girls and women. People living in Hamilton were more likely to have a TBI than people living in the surrounding Waikato area.

Compared to the first BIONIC study, the numbers of TBI (total, mild and moderate-severe) were similar in BIONIC2, including among Māori. TBI increased among females, Hamilton residents and people aged 65 years and over, while there were less TBI among males, Waikato residents and children.

## WHAT WERE PEOPLE'S EXPERIENCES OF HEALTHCARE SERVICES?

When we asked about what went well when getting healthcare after TBI, people often mentioned that staff were kind (despite working under pressure) and valued the separate children's emergency department at Waikato Hospital. When asked about what could have been better, people mentioned wait times, communication, physical surroundings (i.e., noise, lighting, privacy), and impacts of Covid-19.

## WHAT HAPPENS NOW?

Study findings are now being shared and discussed with key stakeholders, including TBI healthcare providers. Your valuable input will ultimately help these groups in efforts to prevent people having a TBI and to improve healthcare services for TBI in Aotearoa New Zealand.

This research was undertaken by researchers at AUT and the Universities of Auckland and Waikato.

## ON BEHALF OF THE RESEARCH TEAM, THANK YOU AGAIN FOR PARTICIPATING.



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Dr. Braden Te Ao



Prof. Alice Theadom



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Prof. Shanthi  
Ameratunga



Prof. Nicola Starkey



Dr Irene Zeng

*Ehara taku toa i te toa  
takitahi, engari he toa  
takitini. Success is not the  
work of an individual, but  
the work of many.*

## WHERE CAN I LEARN MORE ABOUT THIS STUDY?

This summary of the findings of BIONIC2 and other information about the study are available online at



[https://nisan.aut.ac.nz/  
our-research/acquired-  
brain-injury](https://nisan.aut.ac.nz/our-research/acquired-brain-injury)

## CONTACT

A link to the full research paper will be added to the above webpage once the findings have been published. If you have any questions about the results, please feel free to speak with the lead researcher Kelly Jones –



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