



**KOI TŪ:
THE CENTRE FOR
INFORMED FUTURES**

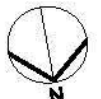
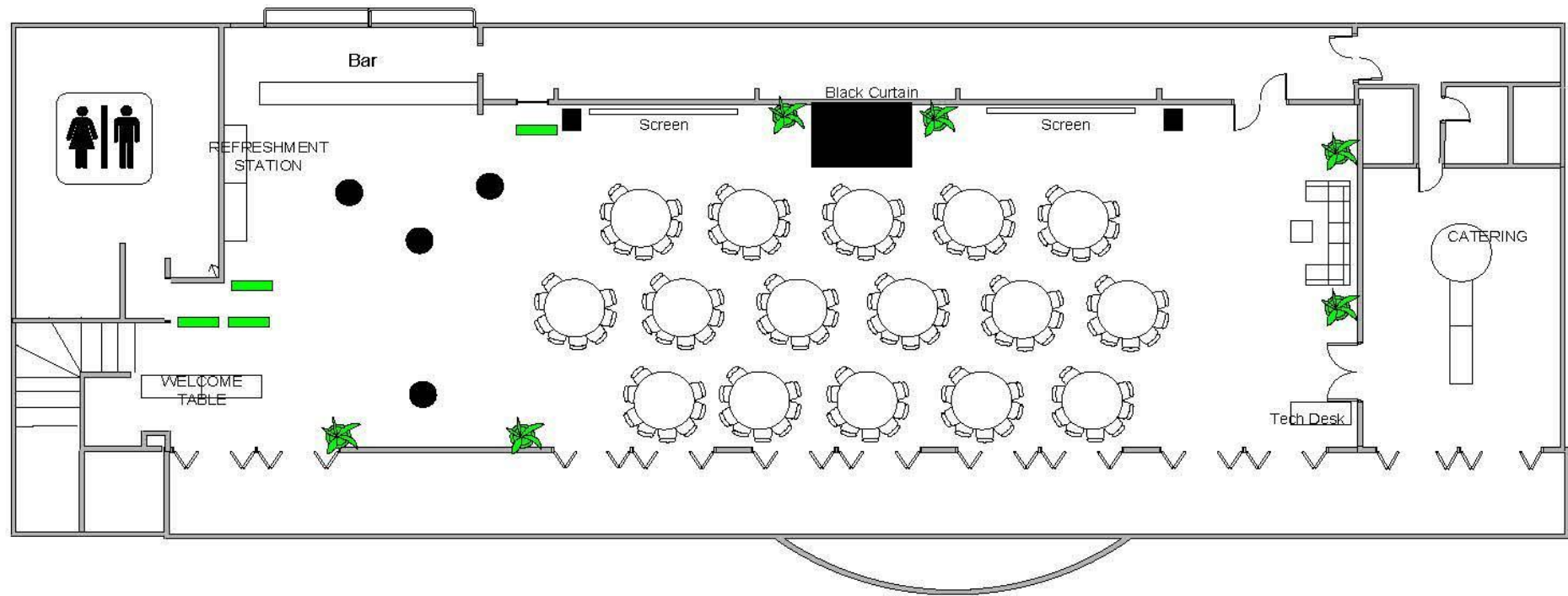


Deliberative forum on the future of transport in Auckland

Day 1
2 September 2023

Housekeeping

THE MARITIME ROOM EVENT SUITE



Mentimeter

- www.menti.com
- Code: **47831507**
- QR code on your tables



Your facilitators for this session



Anne Bardsley



Tatjana Buklijas



Finlay Harvey



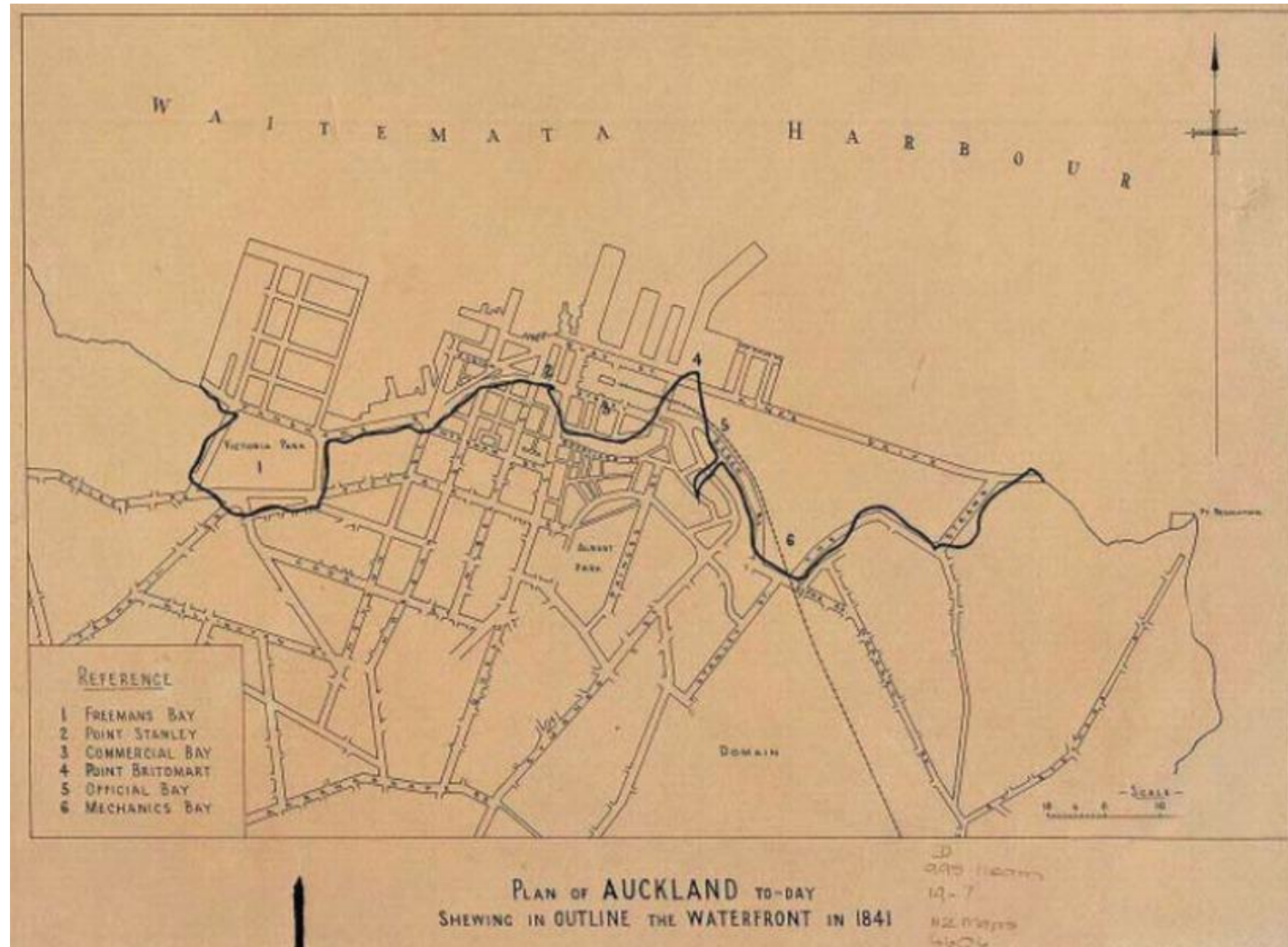
Kristiann Allen

Table hosts

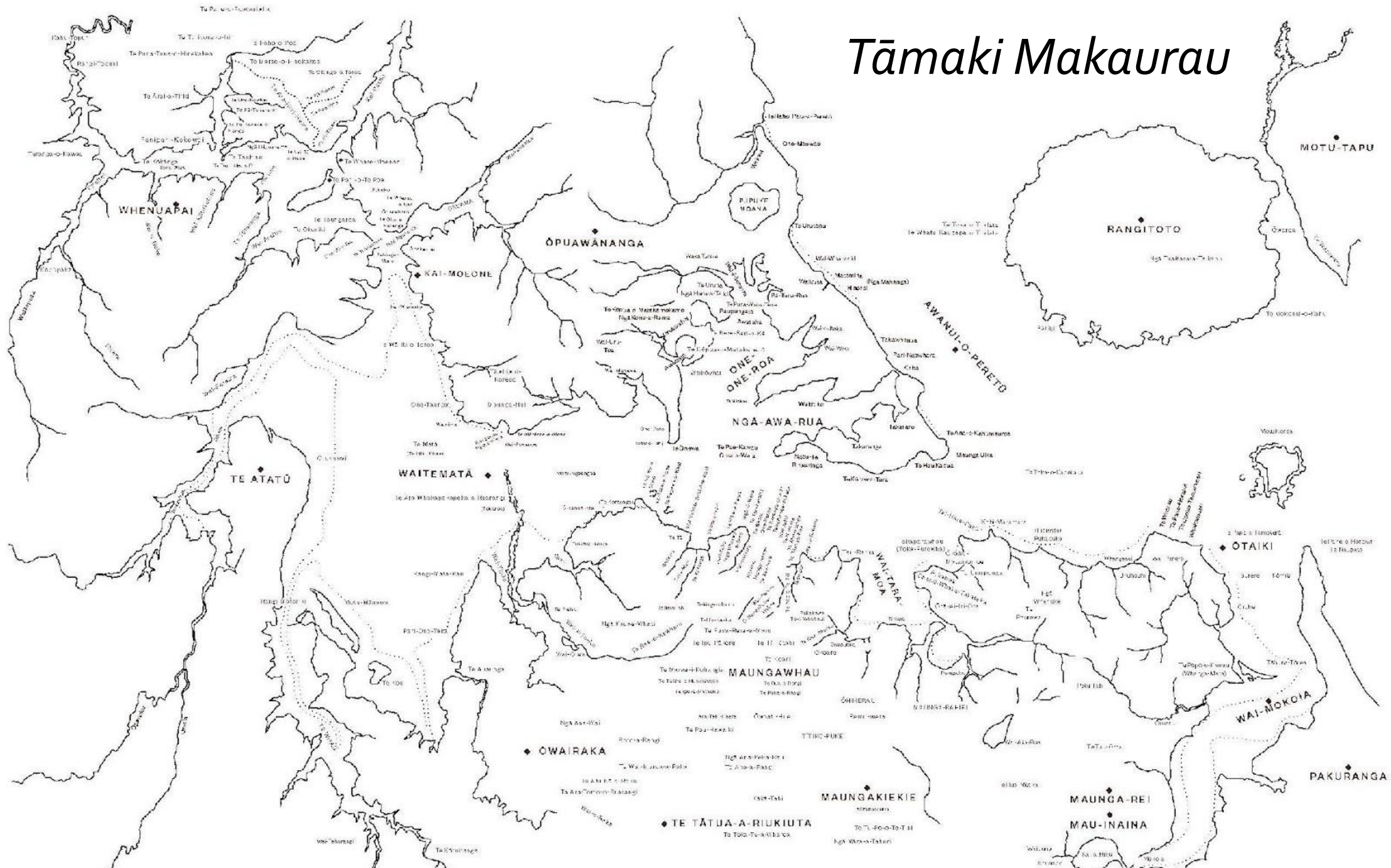
- Imogene Woodmass
- Rizky Wijaya
- Pokpak Limboonngam
- Keith Salarda
- Julia Albuquerque-Vajda
- Jillian Hildreth
- Parsa Kaviani
- Teofilo Eugenio
- Calvin Mann
- Campbell Guy
- Jess Stubbing
- Aimee Brock
- Connie Rowe
- Josephine Newman
- Carol Hayward
- Helene Pacalin
- Jean Cathcart
- Rochelle Pethybridge

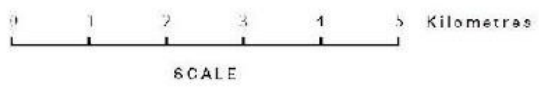
History of Tāmaki and transport

Robbie Paora



Tāmaki Makaurau



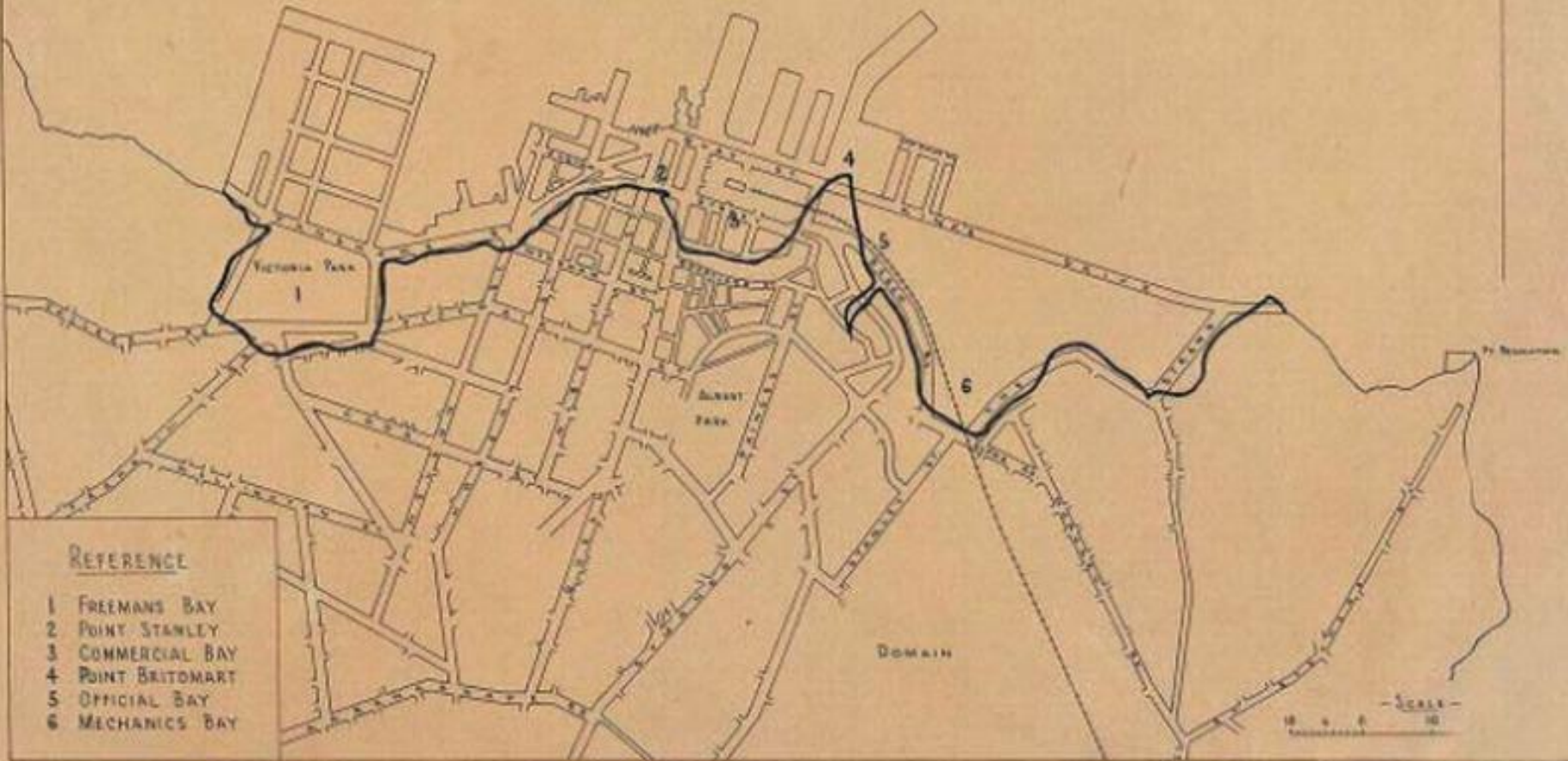


www

To Raki
|

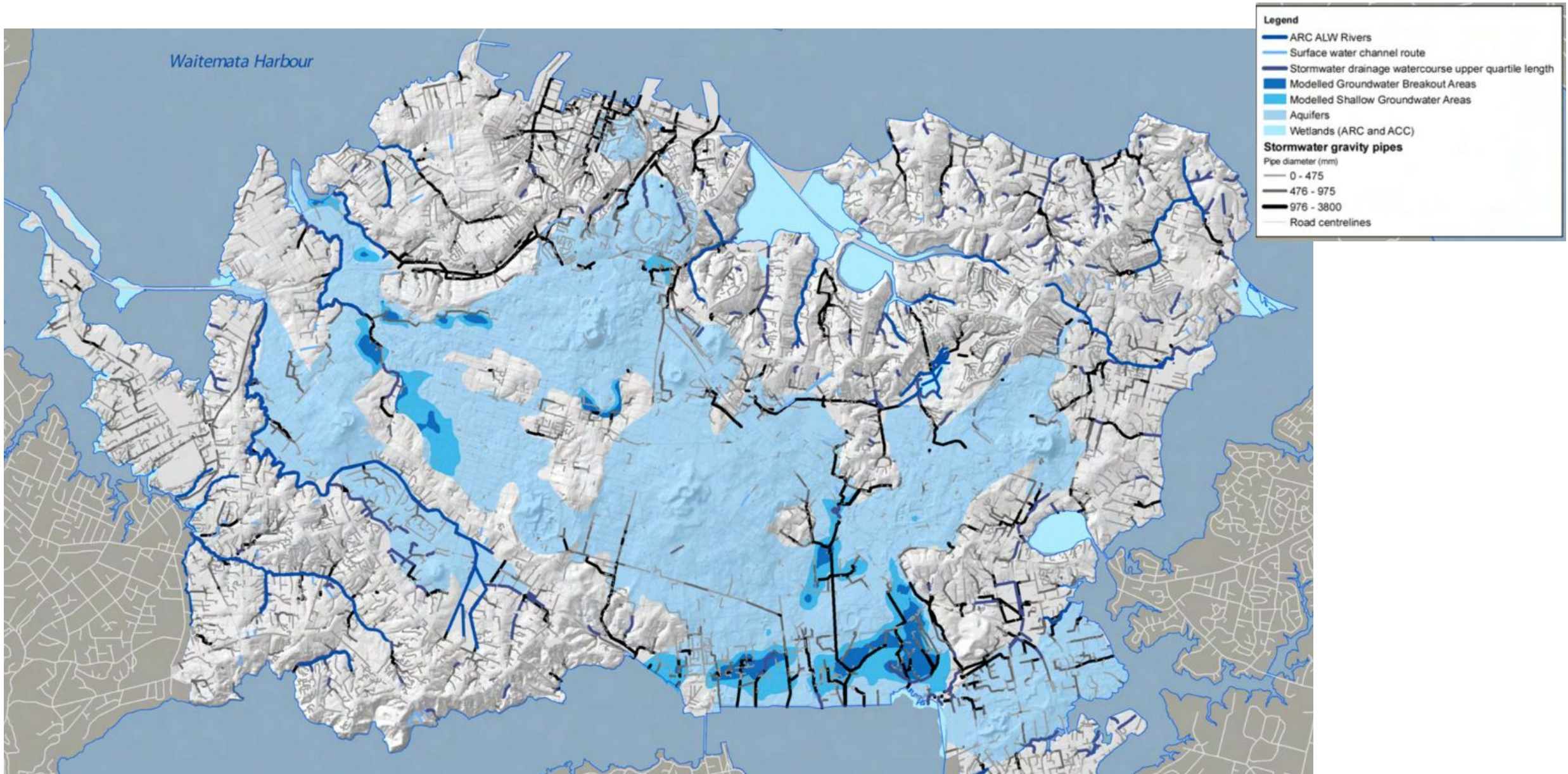
W A I T E M A T A

H A R B O U R



PLAN OF AUCKLAND TO-DAY
SHEWING IN OUTLINE THE WATERFRONT IN 1841

ED
225 1100m
19-7
H2 1100m
4626



Black lines are undergrounded streams and waterways. Light blue areas are aquifers. (Boffa Miskell / Auckland Council)



Where are those rivers now?
And their Taniwha?

Map by Tim Welch,
University of Auckland





Queen St sewer built around Waihorotiu in 1860.
Auckland Libraries Heritage Collections



J.G.Mitford Grafton Gully 1843 This view is taken from where Khyber Pass Road is now. The foliage shown here is probably manuka, Tree Ferns, cabbage trees and pittosporums. Symonds St Cemetery is seen on the hillside.



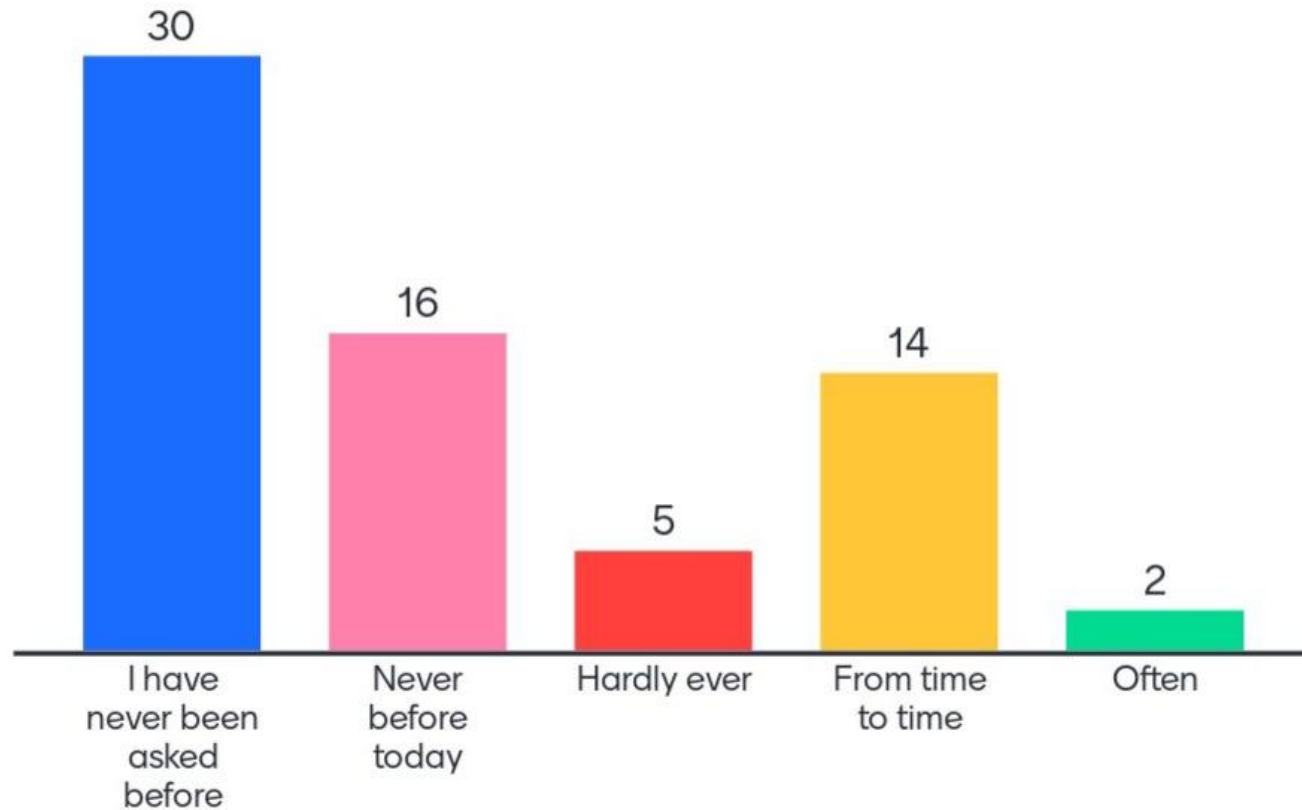


Suburb in Newton Gully: Gone to motorway construction

Greetings and remit from the Auckland Council

**Cr John Watson, Chair of the Transport
and Infrastructure Committee**

Do you usually take part in community consultations? Why / why not?



What is deliberation?

A form of conversation where people:

- Tackle issues that are not easily solved, and where people disagree
- Look at issues with an open mind, listening to different perspectives
- Weigh benefits and trade-offs of different courses of action
- Think about what matters most to them – what they really value when they can't have everything.
- **Look for common ground for decisions they all can live with**

Our plan for the day

Activity	Time
Registration	8.30-9.15
Session 1: Welcome and introduction	9.15-10.45
Morning tea	10.45-11.15
Session 2: Building understanding	11.15-12.55
Lunch	12.55-1.40
Session 3: What can be done?	1.40-3.15
Afternoon tea	3:15-3:45
Expert panel Q&A	3:45-4:30
Wrap-up	4:45

Observer guidelines

As an observer, we ask that you adhere to the following:

- **attend during the times** specified for the open sessions and only leave during a break.
- **refrain from interacting** with the group members. If observers have any comments or questions, there is an assigned 'observer message board' they can add to. The group will review these when they can, although we cannot promise these will be directly responded to.
- **refrain from forecasting** any results before they are finalised by the group. Nothing is a final recommendation until the end of the final day.
- must **follow the facilitators instructions**. For example, the group members may decide to close a previously open session. If they do, the facilitators will ask observers to leave.
- understand that the **agenda and timings are not exact**. If the group members want to continue a discussion, the facilitators will let that happen.
- **seating is limited** and attendance will be restricted in each open session. Observers are invited to express interest in attending and will be allocated to sessions in a manner that is fair for everyone.
- **formally sign-in** and include any formal interest/affiliations (interest group, government role and community group). Facilitators will advise the group members of who is in the room at the start of each open session.
- official video recording and photography may be occurring. By attending observers need to understand you may end up in images used to explain the process.
- **no audio or video recordings or photos** are to be taken by observers whilst observing the process, unless agreed by the participants.
- maintain a standard of **behaviour that does not disrupt the work** of the group members. Observers are asked not to engage in conversations with each other/group members, or make phone calls whilst sitting in the observation area.
- a **water, tea and coffee station** is available, however catering is not provided for observers.
- respect the **privacy of individuals**. Group members will be exploring issues, asking questions, sharing stories and forming opinions. These may change over the duration of the process.
- posts to social media are considered **published public comment**. Observers are asked to **be polite and respectful** of others and their opinions.

How we travel now and what does it cost

Professor Simon Kingham
Ministry of Transport &
University of Canterbury

Transport impacts – congestion and emissions

Lisa Malde
Waka Kotahi

Te Whatu Ora
Health New Zealand

Transport and public health

Dr Michael Hale
2/09/2023

Auckland Regional Public Health Service | Rātonga Hauora-a-Iwi o Tāmaki
Makaurau
arphs.health.nz

What is public health?



"We only spend maybe 30 minutes a year with a doctor. The other 365 days, 24/7, we spend outside the hospital. It's where we live, where we learn, that determines how healthy, or unhealthy, we are."⁶²

Leanna Wen, Baltimore City Health Commissioner

Transport and health

1

**Three ways
transport impacts
our health**

Trauma

Air quality and
climate change

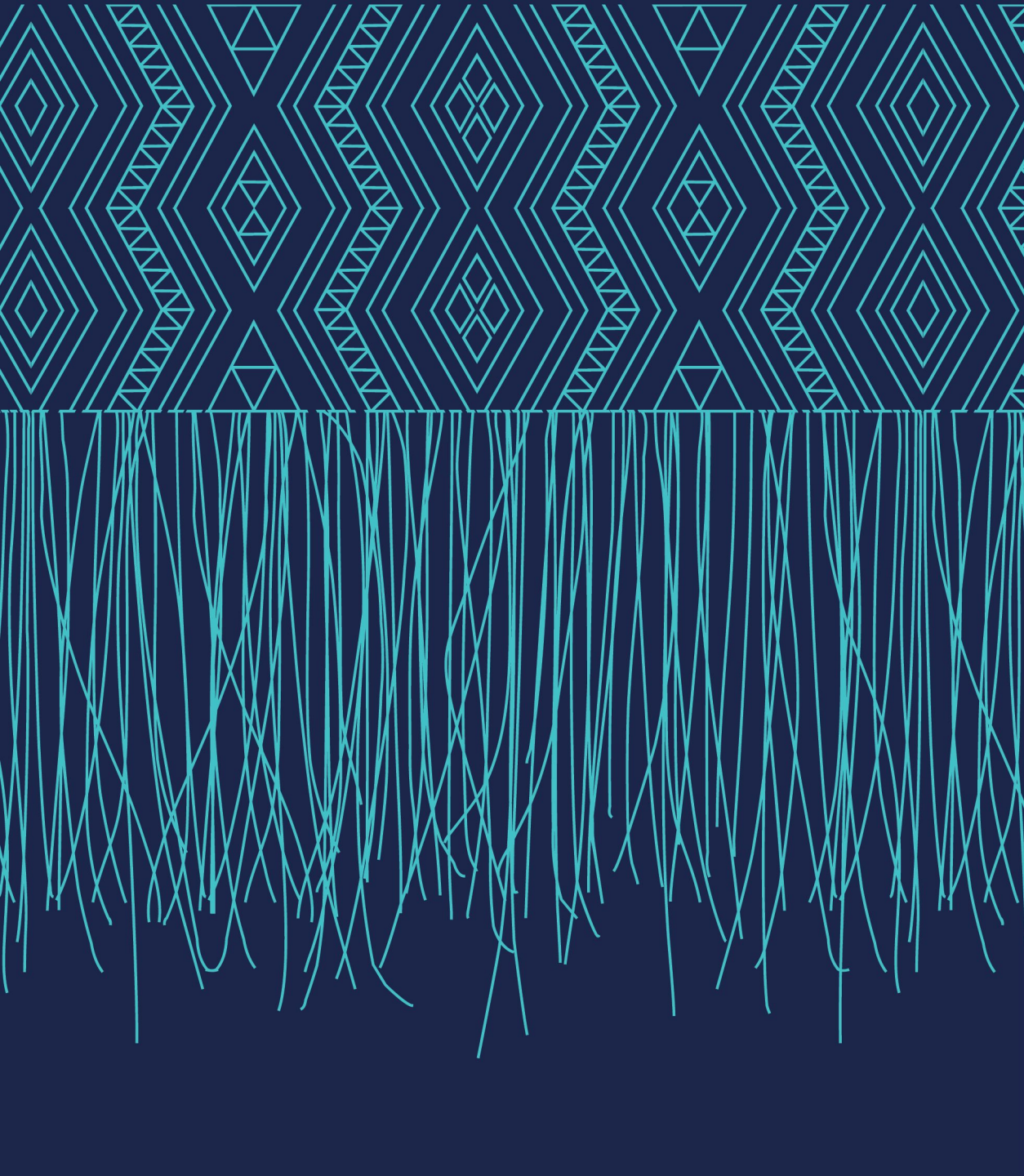
Physical activity
& wellbeing

2

**How has this
happened?**

3

**What needs to
change?**



Transport and trauma



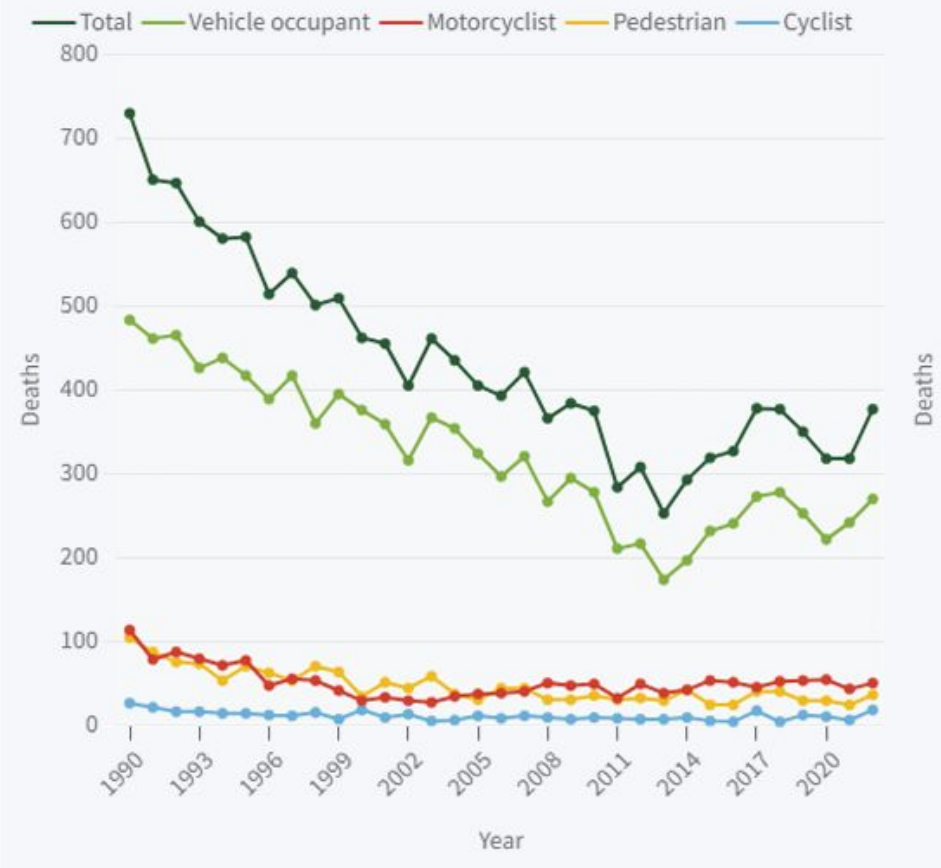
Every week

12

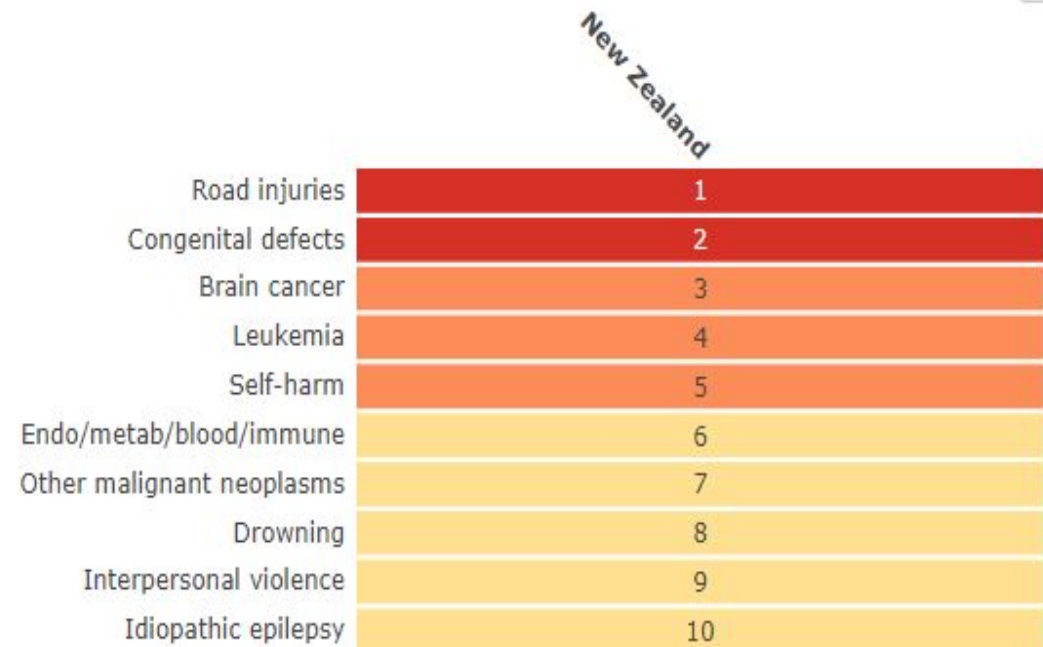
**people die or have
a serious injury
due to a crash on
Auckland's roads**

Road injuries are a leading cause of death and serious injury

Figure 1a & 1b: Annual road toll, by mode of transport, 1990–2022



Both sexes, 5-14 years, 2019, Percent of total deaths

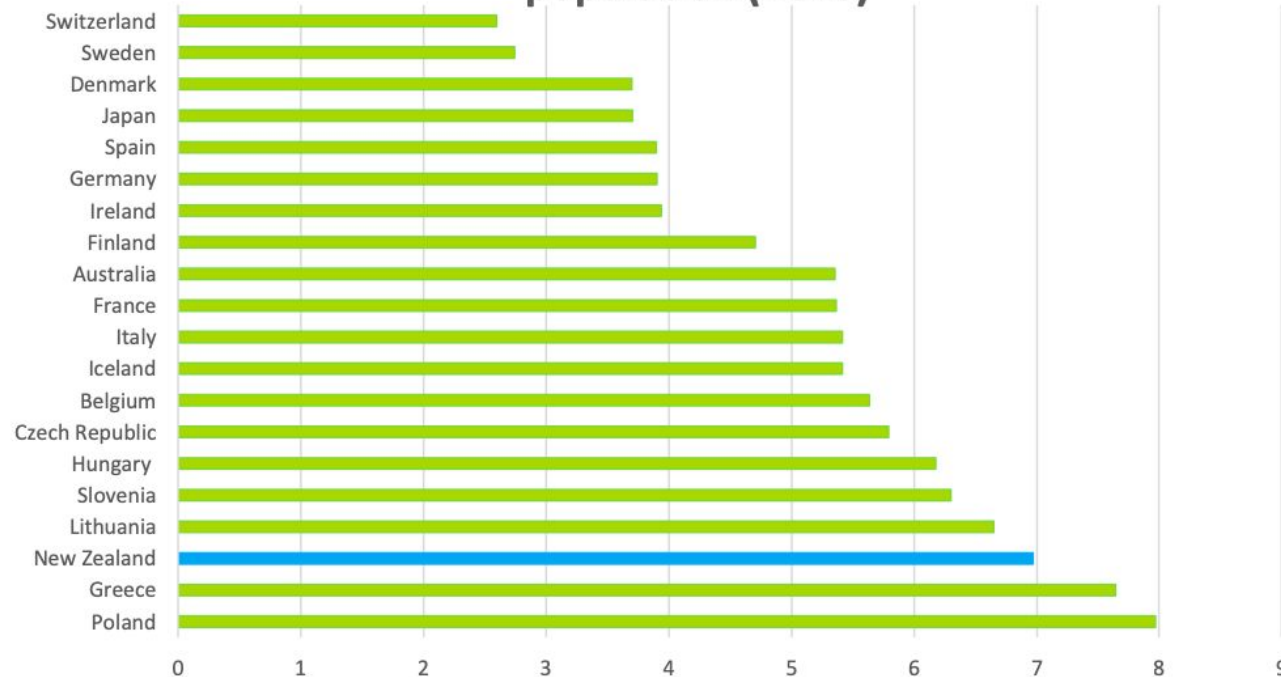


IHME from: <http://www.healthdata.org/new-zealand>

This isn't normal or necessary

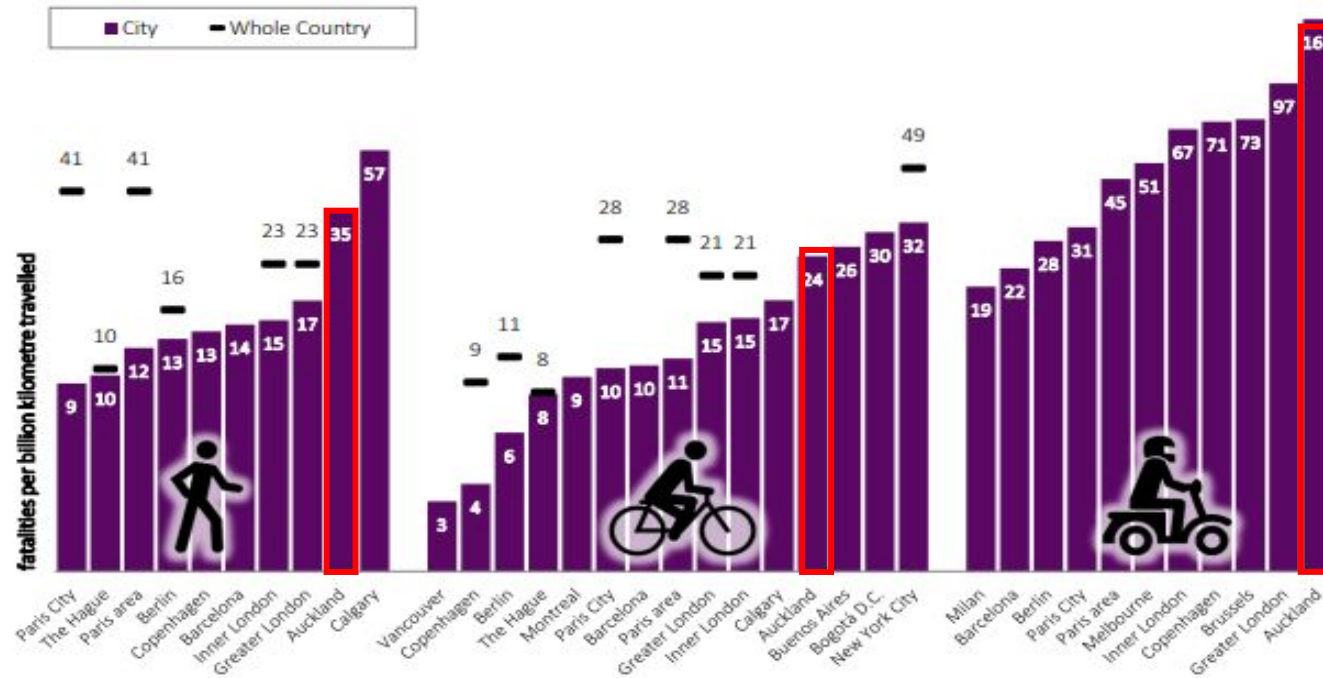
New Zealand performs poorly compared with many other OECD nations...in deaths by population

International comparison of deaths per 100,000 population (2016)



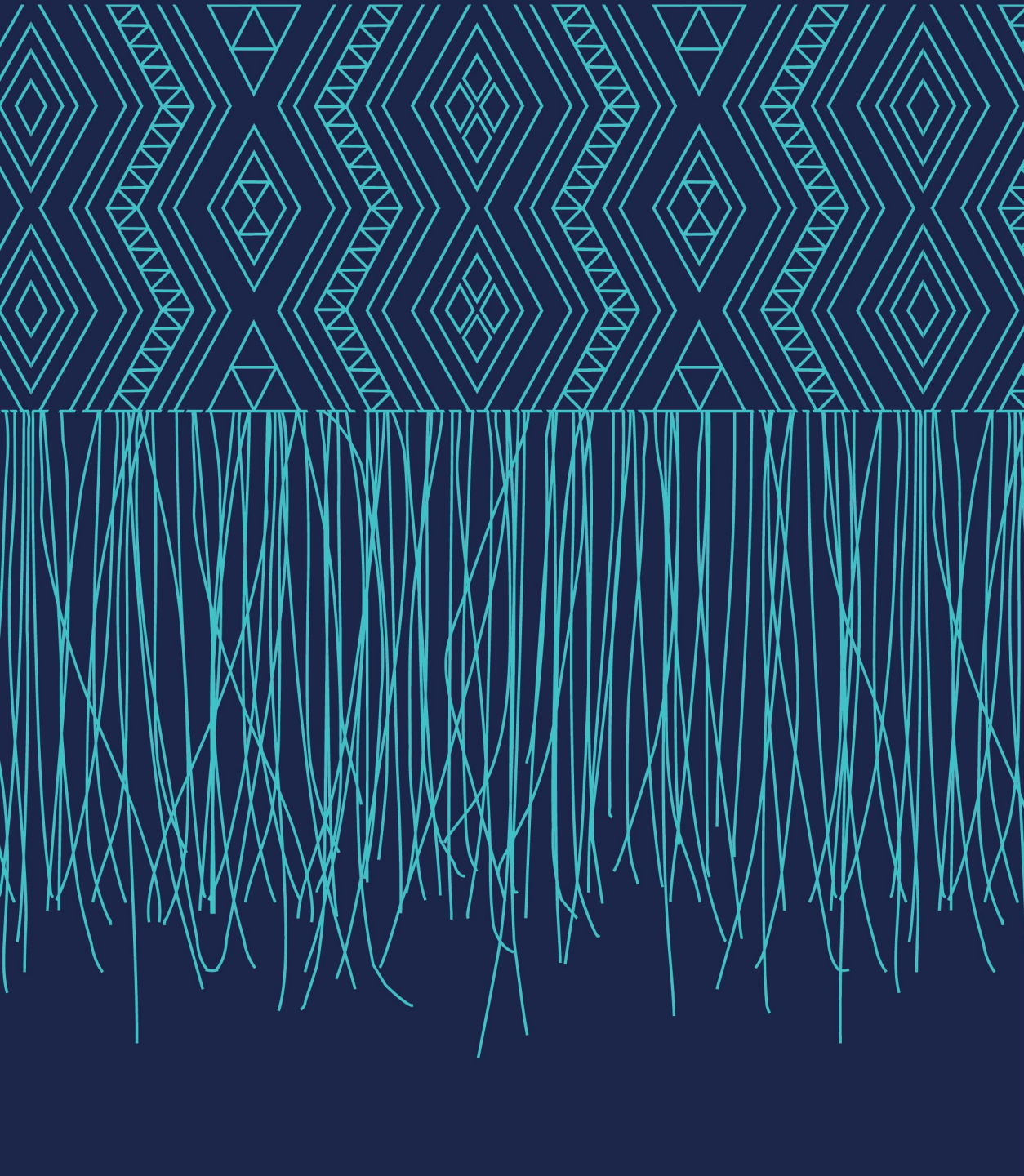
The toll is higher for some more than others

Figure 7. Risk of fatality per unit distance travelled, by mode, in cities and at country level, 2011-2015



Cyclists, pedestrians and people on scooters are disproportionately at risk

Notes: Country-level risk figures from Castro et al. (2018). Country-level motorbike risk figures not available.



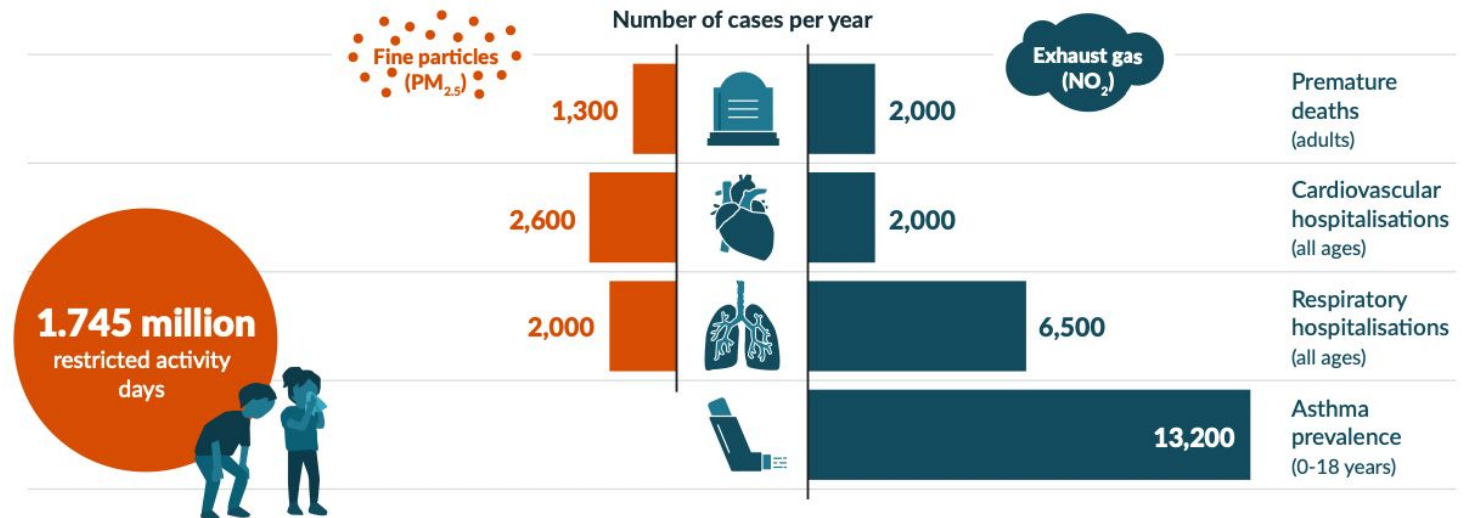
Transport, air quality and climate change



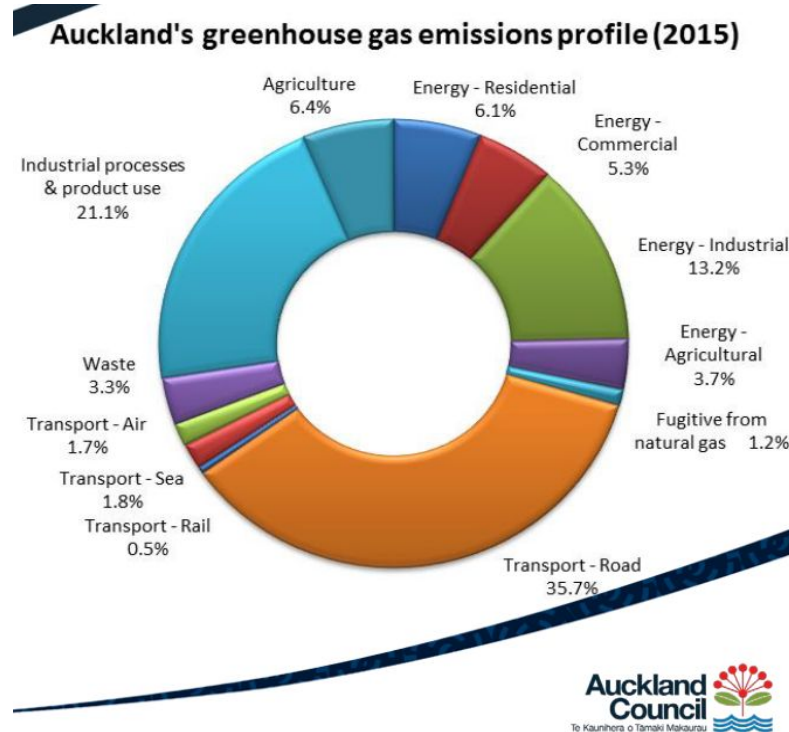
Poor air quality harms our health

Air pollution does significant harm to our people, especially our tamariki.
Clean air matters to Kiwis: making improvements in air quality makes a difference to people's health.

Health impacts from human-made air pollution (2016)



Transport is a major contributor to climate change

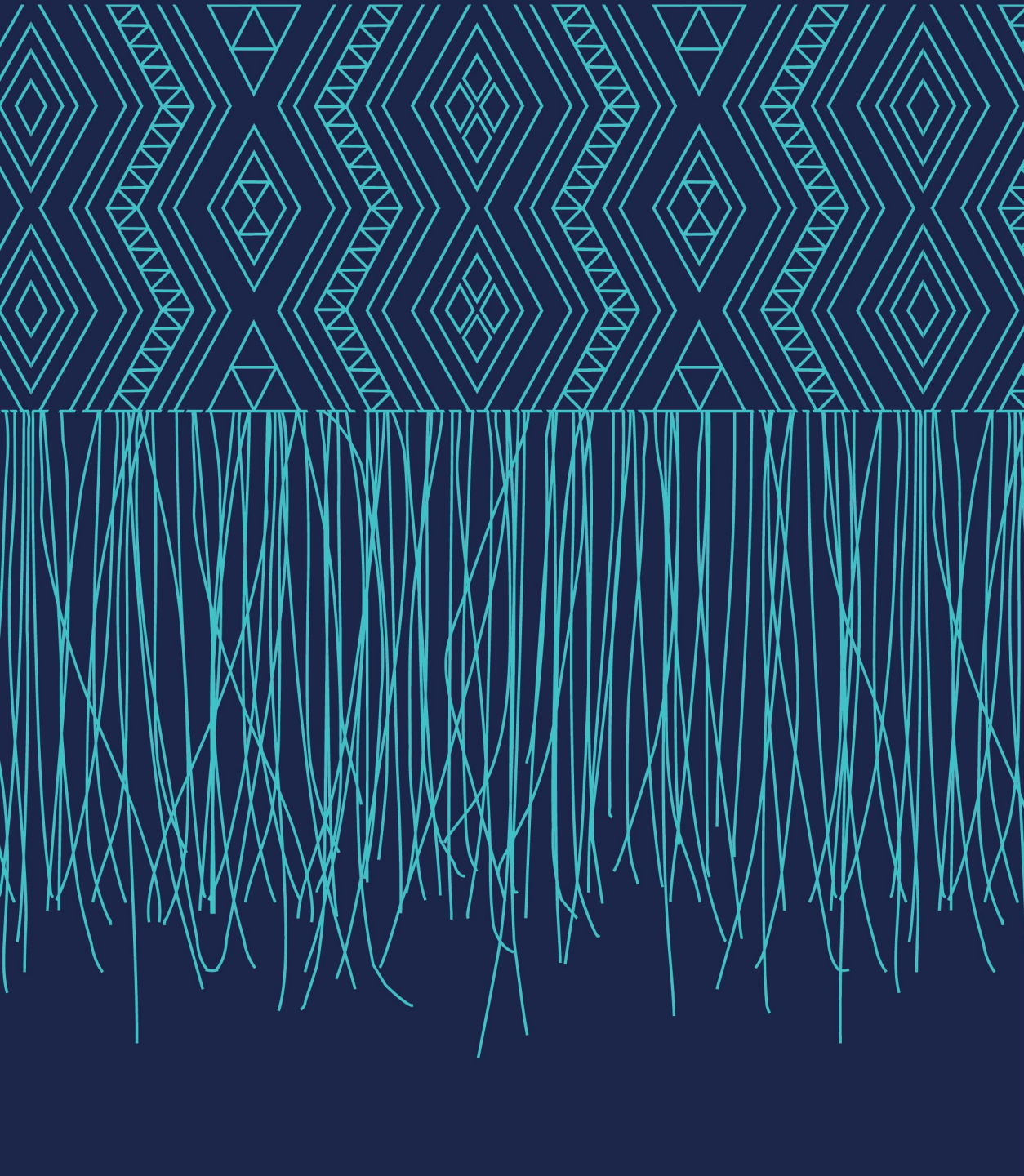


40%
of our GHG
emissions are
from transport

82%
increase in
transport
emissions since
1992

The impacts are already here





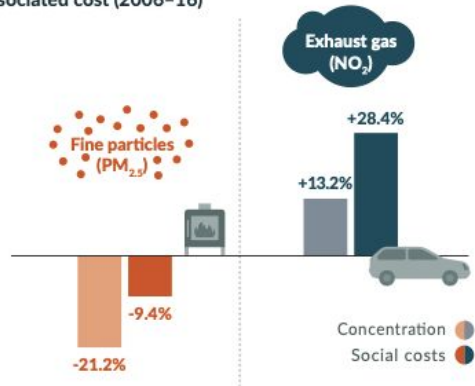
Transport, physical activity & wellbeing

And it's costing us more each year

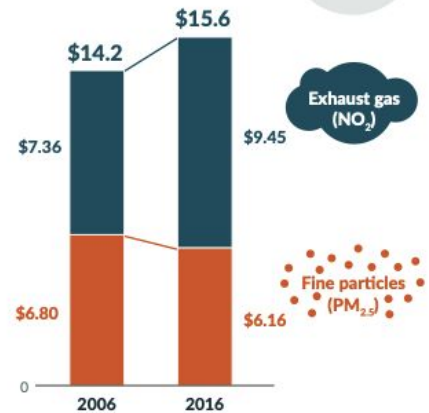
Trends in air pollution and social costs (2006-16)

Improvements in PM_{2.5} were offset by increased exposure to NO₂.

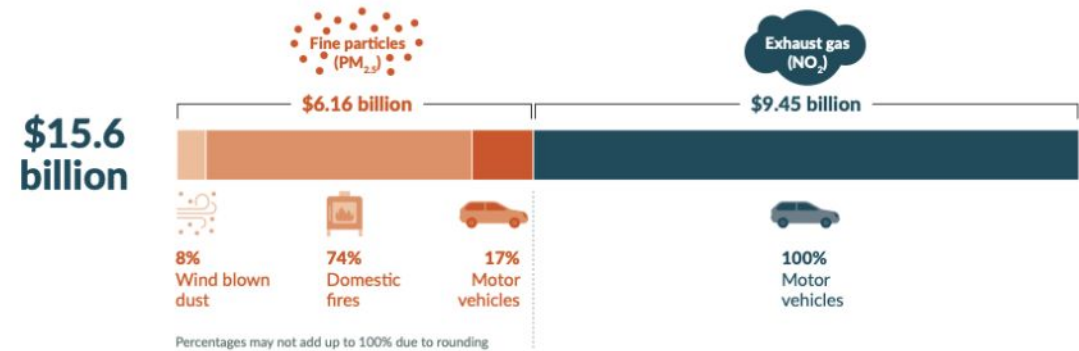
Change of PM_{2.5} and NO₂ population-weighted concentration and associated cost (2006-16)



Social costs per year in billion \$

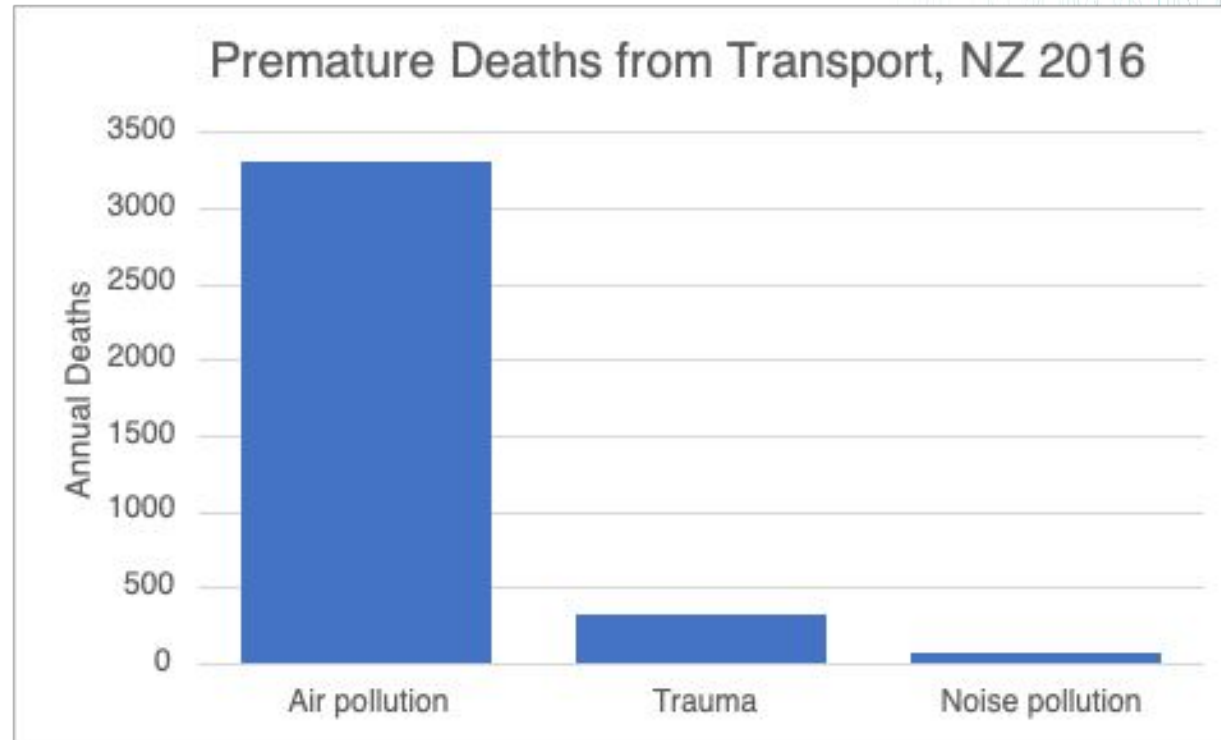


Social costs of health impacts from human-made air pollution (2016)



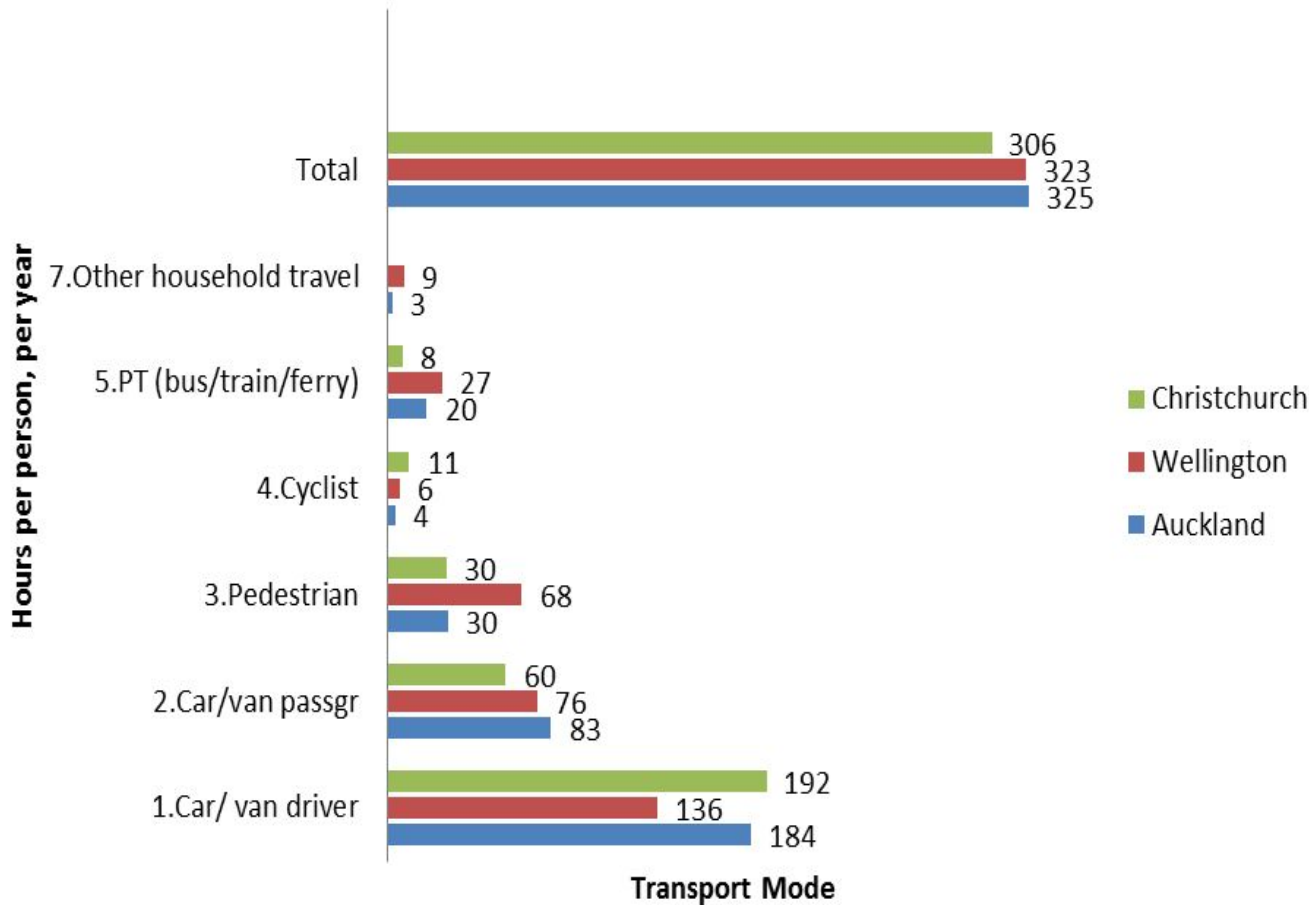
The health burden of air pollution

3,683
preventable
deaths from
transport per
year in NZ



Adapted from, Briggs, D., Mason, K., & Borman, B. (2015). Rapid Assessment of Environmental Health Impacts for Policy Support: The Example of Road Transport in New Zealand. *International Journal of Environmental Research and Public Health*, 13(1), Kuschel et al (2022). *Health and air pollution in New Zealand 2016 (HAPINZ 3.0): Volume 1 – Finding and implications*. Report prepared by G Kuschel, J Metcalfe, S Sridhar, P Davy, K Hastings, K Mason, T Denne, J Berentson-Shaw, S Bell, S Hales, J Atkinson and A Woodward for Ministry for the Environment, Ministry of Health, Te Manatū Waka Ministry of Transport and Waka Kotahi NZ Transport Agency, March 2022.

We spend our lives sitting in cars



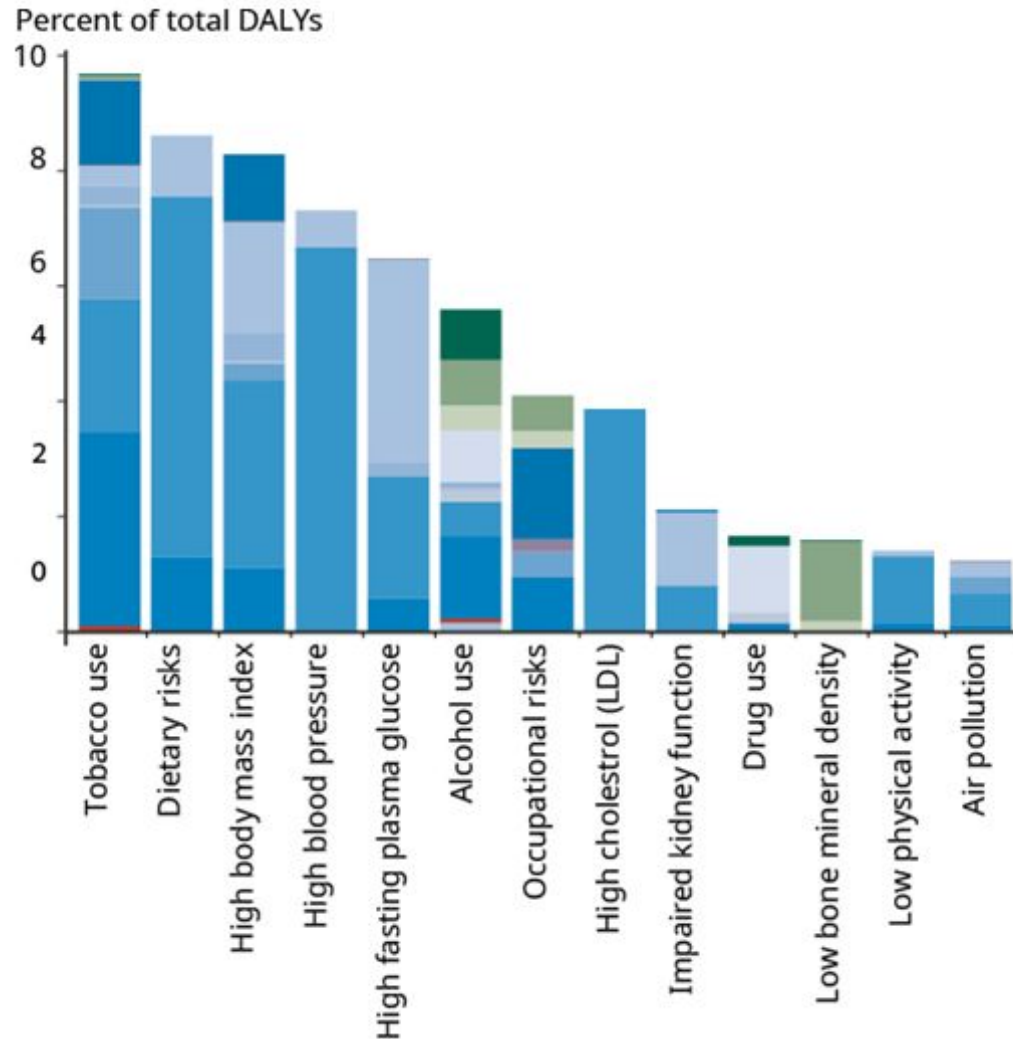
1 in 2
 NZ adults meet
 guidelines for physical
 activity

We spend
>6 weeks
 per year in private
 vehicles

117 deaths
 Would be
 prevented each
 year if 5% of short
 urban car trips
 were switched to
 cycling

- 116 fewer deaths through increased physical activity,
- six fewer deaths due to local air pollution from vehicles,
- five more cyclist deaths from road crashes

Physical inactivity - a major cause of disease



	Physical Inactivity
RR (adjusted)	1.28 (1.21- 13.6)
PAF (NZ)	12.7% (10.2-15.4)

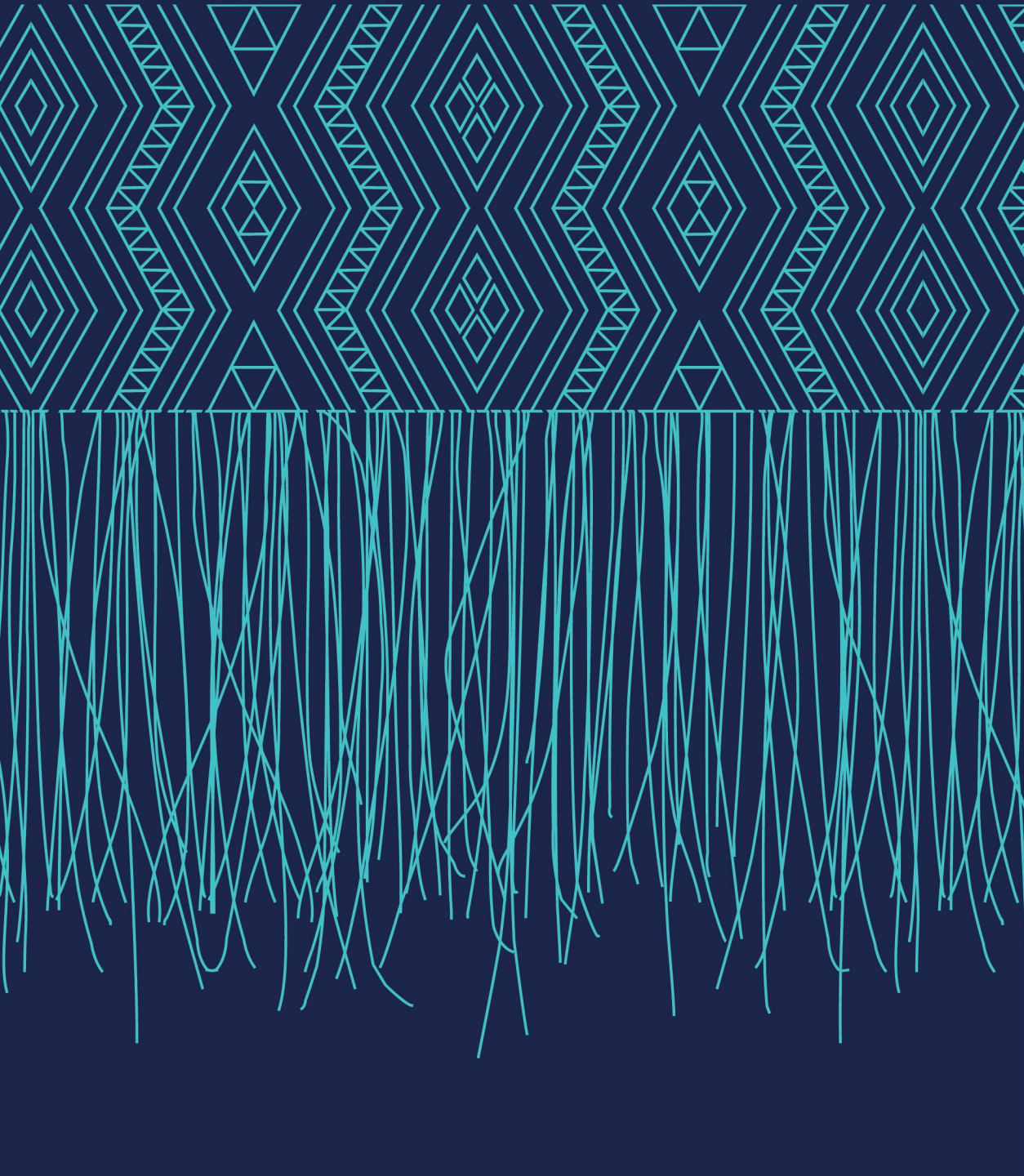
Non-communicable diseases

- Cancers
- Cardiovascular diseases
- Chronic respiratory diseases
- Digestive diseases
- Neurological disorders
- Mental disorders
- Substance use disorders
- Diabetes and kidney diseases
- Skin diseases
- Sense organ diseases
- Musculoskeletal conditions

Injuries

- Transport injuries
- Unintentional injuries
- Self-harm and interpersonal violence

- Communicable, maternal, neonatal and nutritional diseases



**How has this
happened?**



Land use influences our health

Whether *intentional or unintentional*, environmental decision making influences health outcomes.

- Infectious diseases (e.g. cholera, typhoid – sewage systems)
- Health risk factors (e.g. Poor nutrition, physical inactivity – urban design)

Design matters.



Option 1



Option 2

“People ... today don't have less willpower and are not more gluttonous than previous generations. Nor is their biology significantly different to that of their forefathers.

Society, however, has radically altered over the past five decades, with major changes in work patterns, transport, food production and food sales.

These changes have exposed an underlying biological tendency, possessed by many people, to both put on weight and retain it.”

Foresight Report 2007



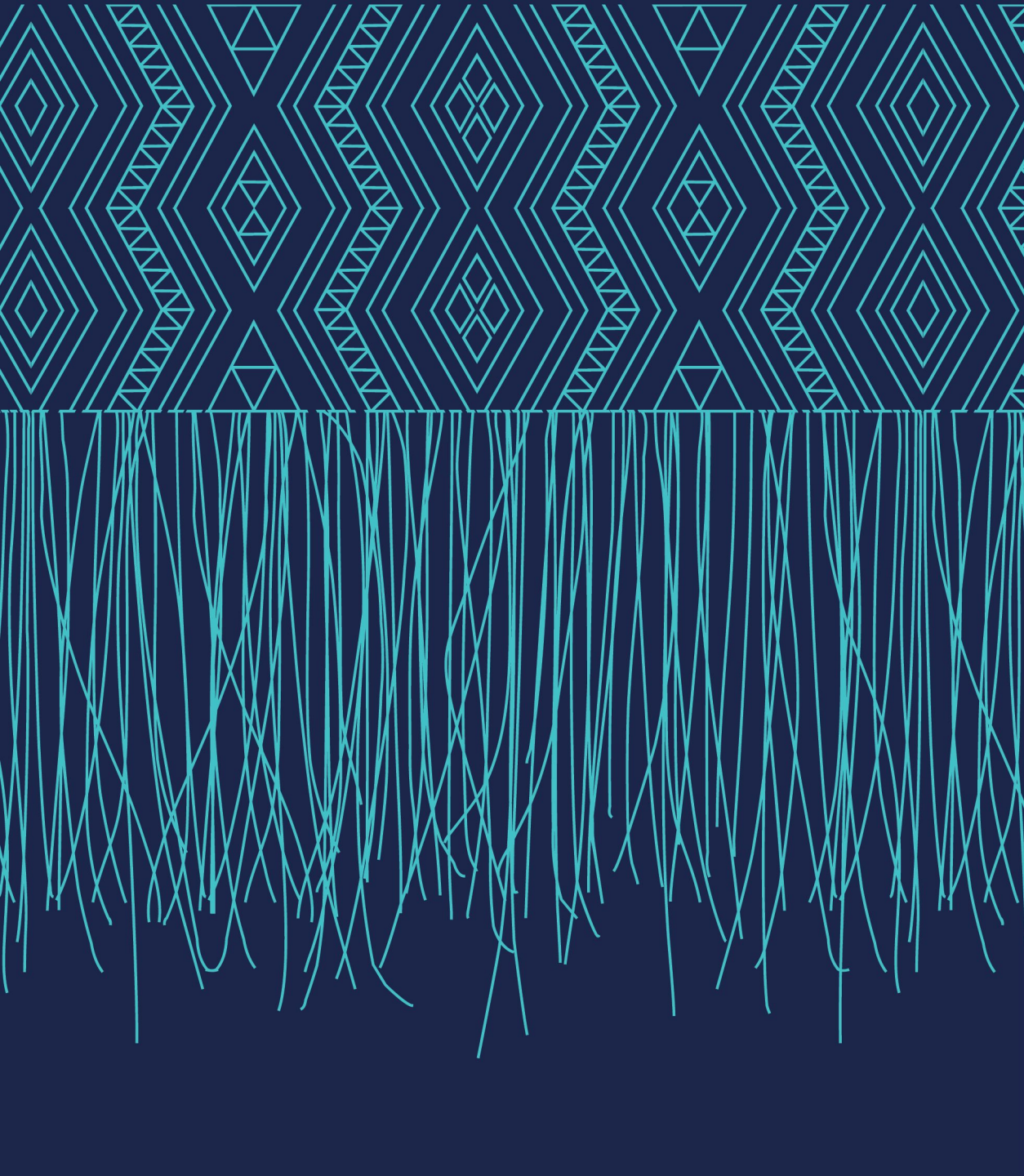


ACTION AREAS

Land Use Planning	Street Design and Engineering
Improved Mobility Options	Speed Management
Enforcement, Laws and Regulation	Education and Capacity Building
Vehicle Design and Technology	Post-crash Emergency Response and Care

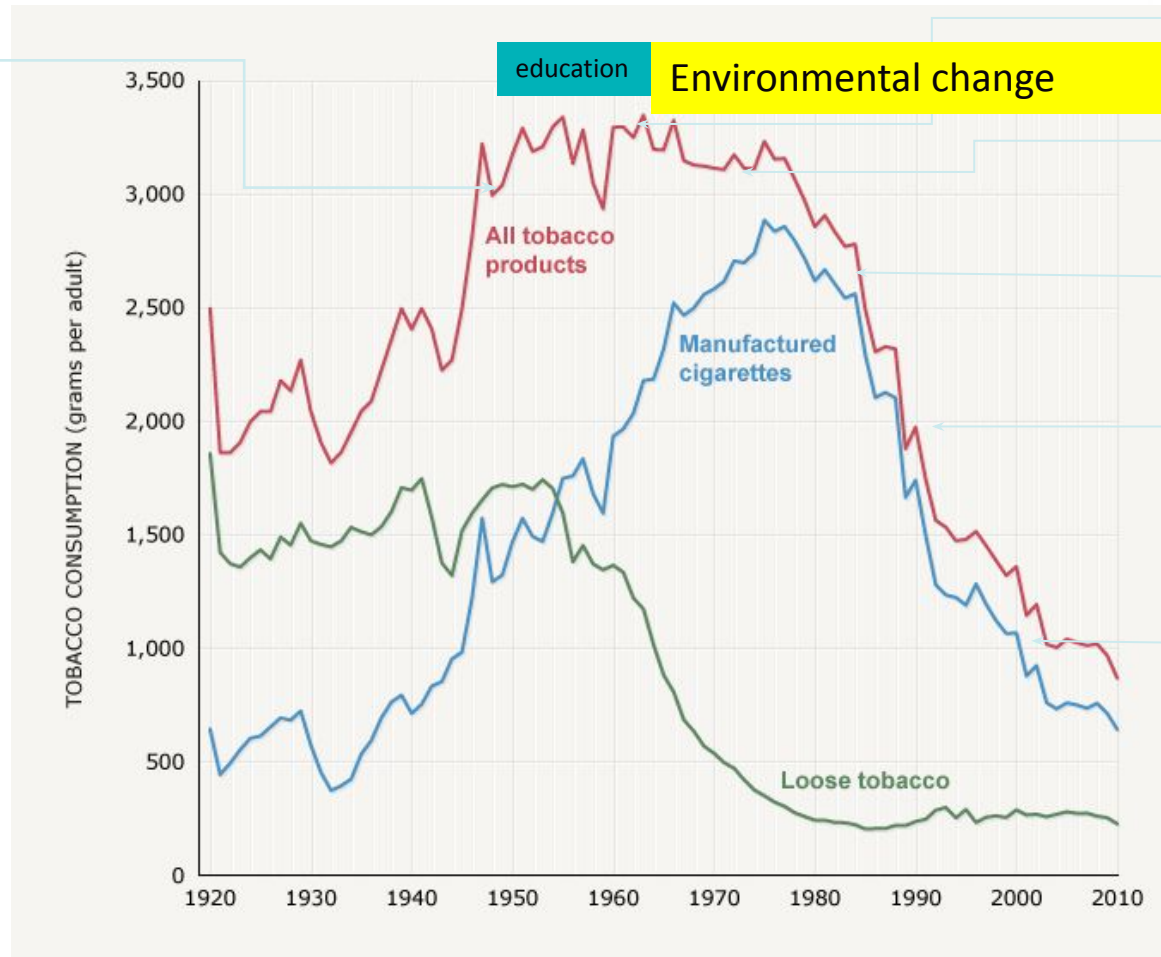


A **vision zero approach protects our most vulnerable and supports shifts to healthier travel options**



**What needs
to change?**

Health Dept posters 1948



TV & radio ads banned 1963

Pack warnings 1974

First tax increase 1985

SE Act 1990 & sponsorship bans

SEAA 2005 bars smokefree

What we can learn from tobacco control

Jock Phillips, 'Smoking - Smoking under attack: 1960–2000s', Te Ara - the Encyclopedia of New Zealand, <http://www.TeAra.govt.nz/en/graph/38983/tobacco-consumption-per-new-zealand-adult-1920-2010>



A safer, healthier future is possible

1

Transport is a **significant public health issue**

2

We need to change the system – the **environment**

3

This is in our control, and brings extra benefits too:

- Address climate change
- Improve mental wellbeing
- Improve physical functioning
- Increase community cohesion
- Enhance brain function and learning
- Good value for money

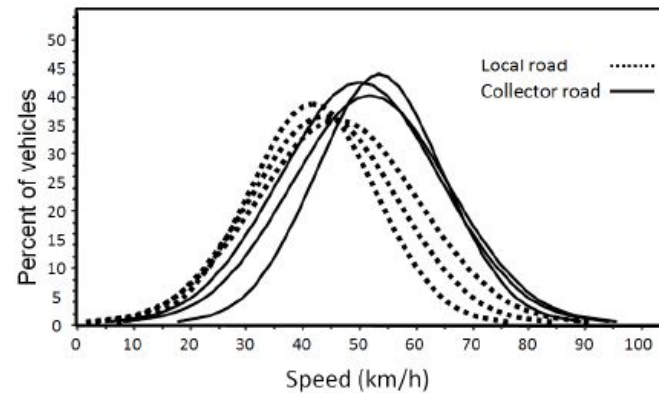
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The solution = Safe system + decreased combustion + increased active modes + public transport

Auckland communities are already piloting change

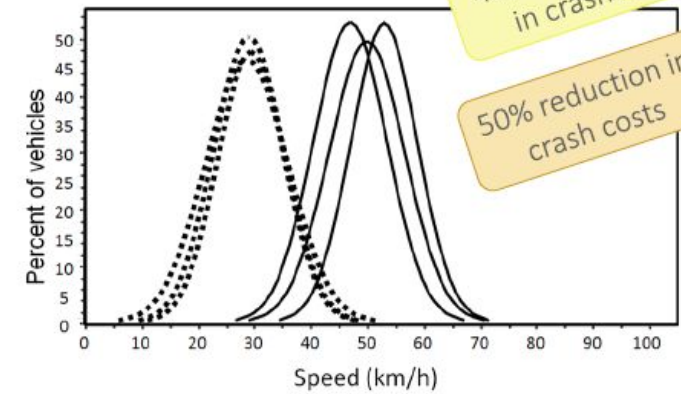


FEWER, AND LESS SEVERE CASUALTIES



Pre-treatment

SELF EXPLAINING ROADS



Post-treatment

Charlton, S. G., H. W. Mackie, P. H. Baas, K. Hay, M. Menezes and C. Dixon (2010). "Reduced Speeds and Improved Safety Resulting From a Self-Explaining Roads Process." *Accident Analysis & Prevention* 42: 1989-1998.

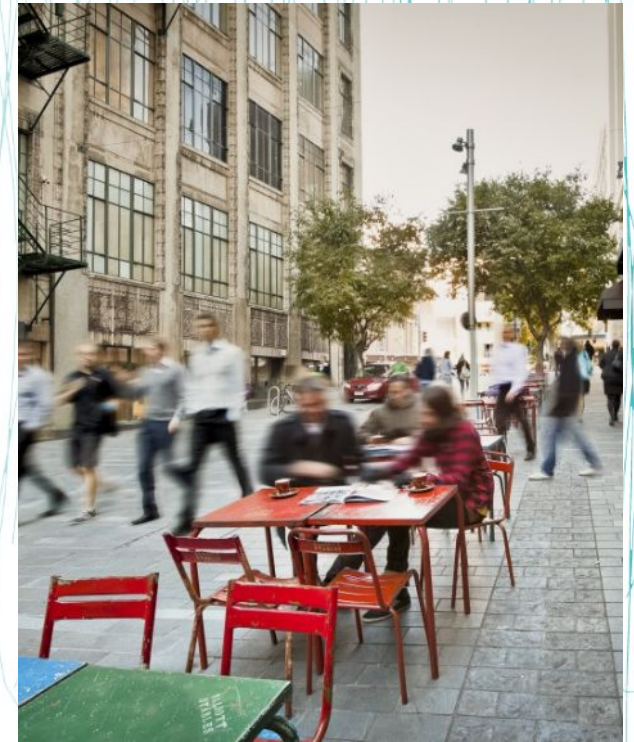
Changing environments changes behaviours



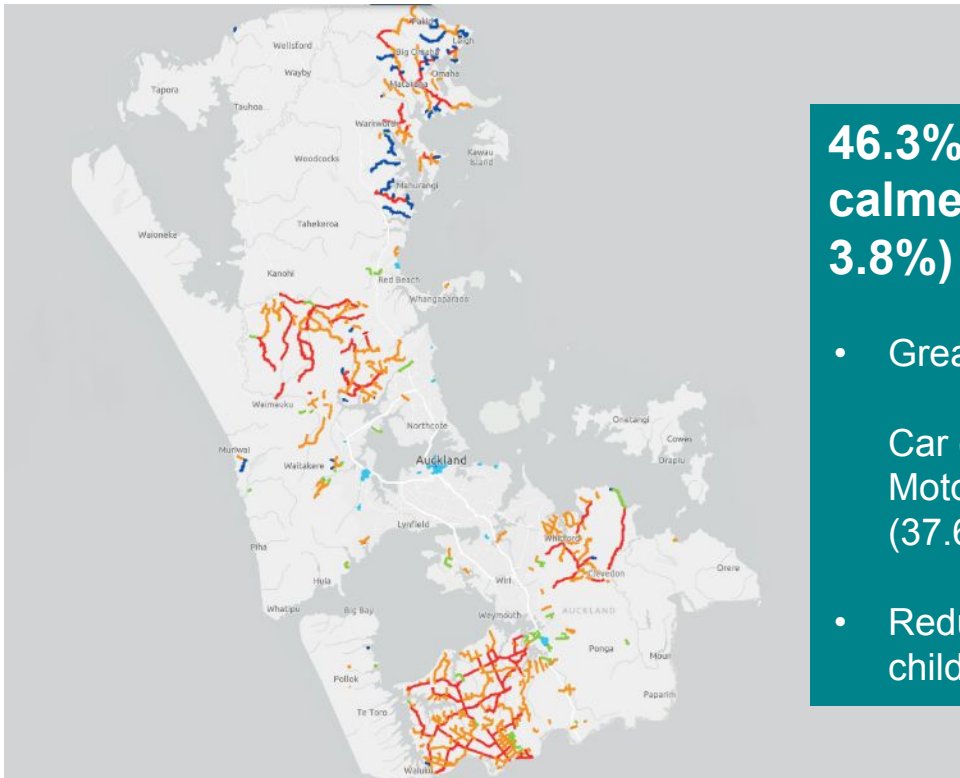
66% increase in stair use

- People are nudged towards more physical activity rather than having to rely on willpower
- Moving more as part of normal daily life
- Changing the default environment from health preventing to health promoting

Imagine a transport system focussed on wellbeing



Safer streets reduce death and serious injury



46.3% drop in KSI in calmed zone (background 3.8%)

- Greatest KSI drop seen

Car occupant (61.8%) > Motorbike (39.1%) > Cyclist (37.6%) > Pedestrian (34.8%)

- Reductions were largest for children

	% reduction (95% CI) after introduction of 20 mph zones	
Casualties:	In 20 mph zones	Adjacent areas
All casualties	41.9	8.0
All casualties (0-15)	48.5	9.7
KSI	46.3	7.9
KSI (0-15)	50.2	5.4
Ped KSI	34.8	-2.1
Cyclist KSI	37.6	-2.1
Motorbike KSI	39.1	3.2
Car occupant KSI	61.8	24.4

Grundy, C., Steinbach, R., Edwards, P., Green, J., Armstrong, B., & Wilkinson, P. (2009). Effect of 20 mph traffic speed zones on road injuries in London, 1986-2006: controlled interrupted time series analysis. *BMJ (Clinical Research Ed.)*, 339, b4469-b4469. <https://doi.org/10.1136/bmj.b4469>

Road speed limits: the difference between life and death

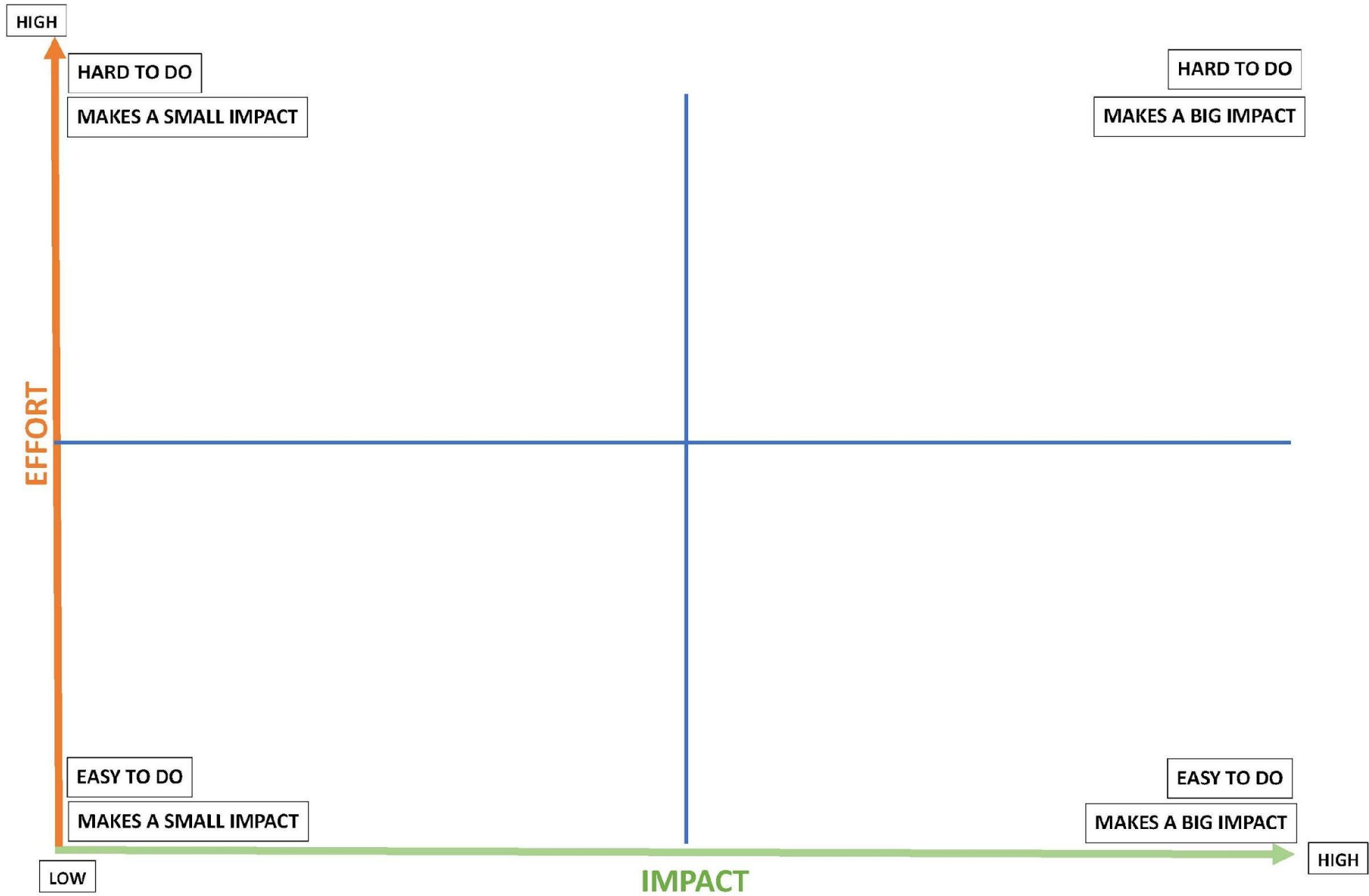
- Children living in the most economically deprived areas had a three times higher injury rate than children living in the least deprived areas.
- High speeds extend the time spent in hospital (Purro, Shen, Neyens 2016)
- An increase of speed increased the amount of motor vehicle crashes (9%-24%) and a decrease in speed led to a lower amount of motor vehicle crashes (25.9%- 38%) on both urban and rural roads (ITF, 2018).



Te Whatu Ora
Health New Zealand

Ngā mihi nui

Auckland Regional Public Health Service |
Rātonga Hauora-a-Iwi Ō Tāmaki Makaurau
arphs.health.nz



Interventions: A brief overview

Professor Simon Kingham
Ministry of Transport & University of
Canterbury

Expert panel

Kirsty Wild

Stacey van der Putten

Simon Kingham

Michael Roth



Which option(s) do you think you could support?



Wrap-up

Thank you for your questions!

We will do our best to answer them

See you **online on 12 September at 7 pm** for a session with experts

See you in person on **16 September at 8.45 am**

A historical black and white photograph of a city street. In the foreground, a horse-drawn carriage is being led by a person. To the left, a tram is visible with the text 'CRUICKSHANK MILLER & CO.' on its side. The street is lined with multi-story buildings, and a clock tower is visible in the background. The text 'Deliberative forum on transport' is overlaid in the center of the image.

Deliberative forum on transport