

What if transport was an urgent public health matter?

Michael Hale – Ride



3

1

Transport Knowledge Hub August 2019

Alistair Woodward, University of Auckland

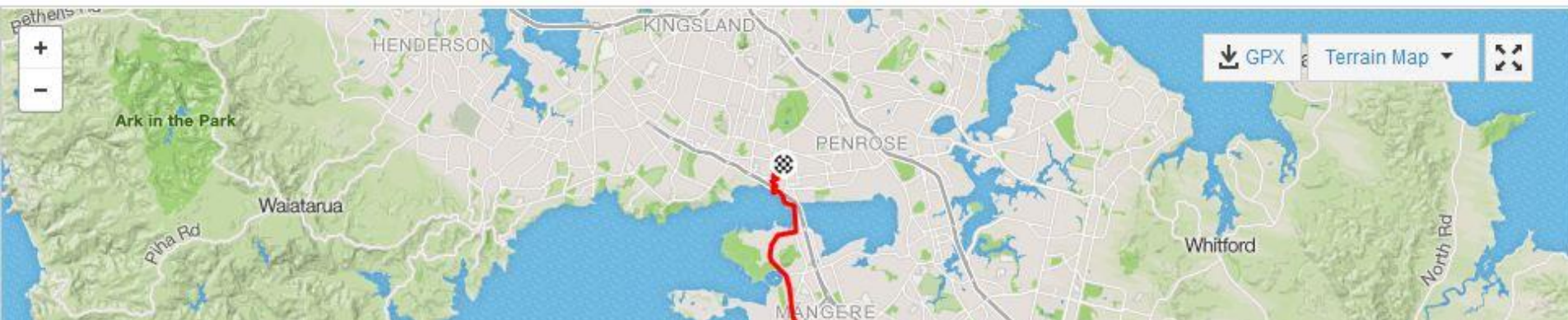
Michael Hale, Auckland Regional Public Health Service

STRAVA LABS
View Flybys >

	Avg	Max
Speed	19.9km/h	40.0km/h
Elapsed Time	44:58	

Show More

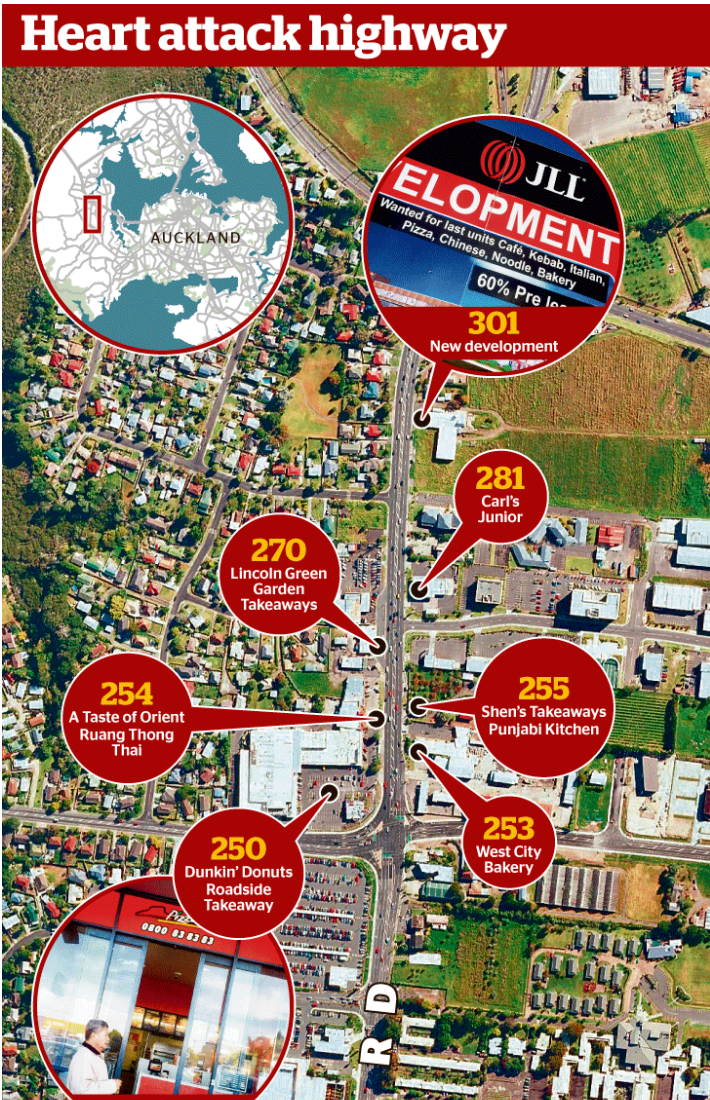
Bike: Commuter



“The increasing weight of people worldwide is the result of a normal response, by normal people, to an abnormal environment”

Lancet 2011;378:741

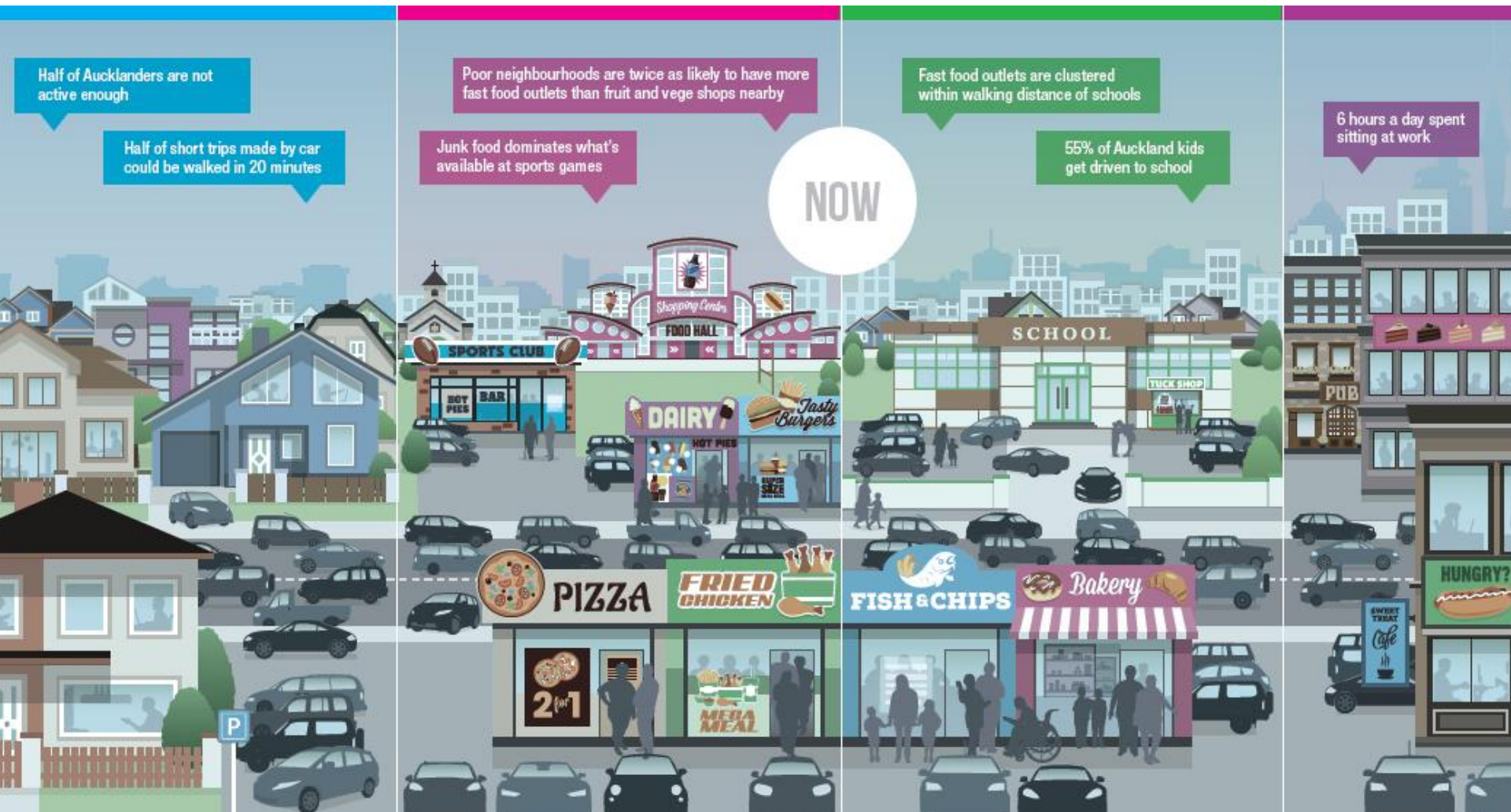
Land use and activities influence public health



- Whether *intentional or unintentional*, environmental decision making influences health outcomes.
 - Communicable diseases (e.g. waterborne diseases – sewage systems)
 - Non communicable diseases (e.g. obesity – urban design)



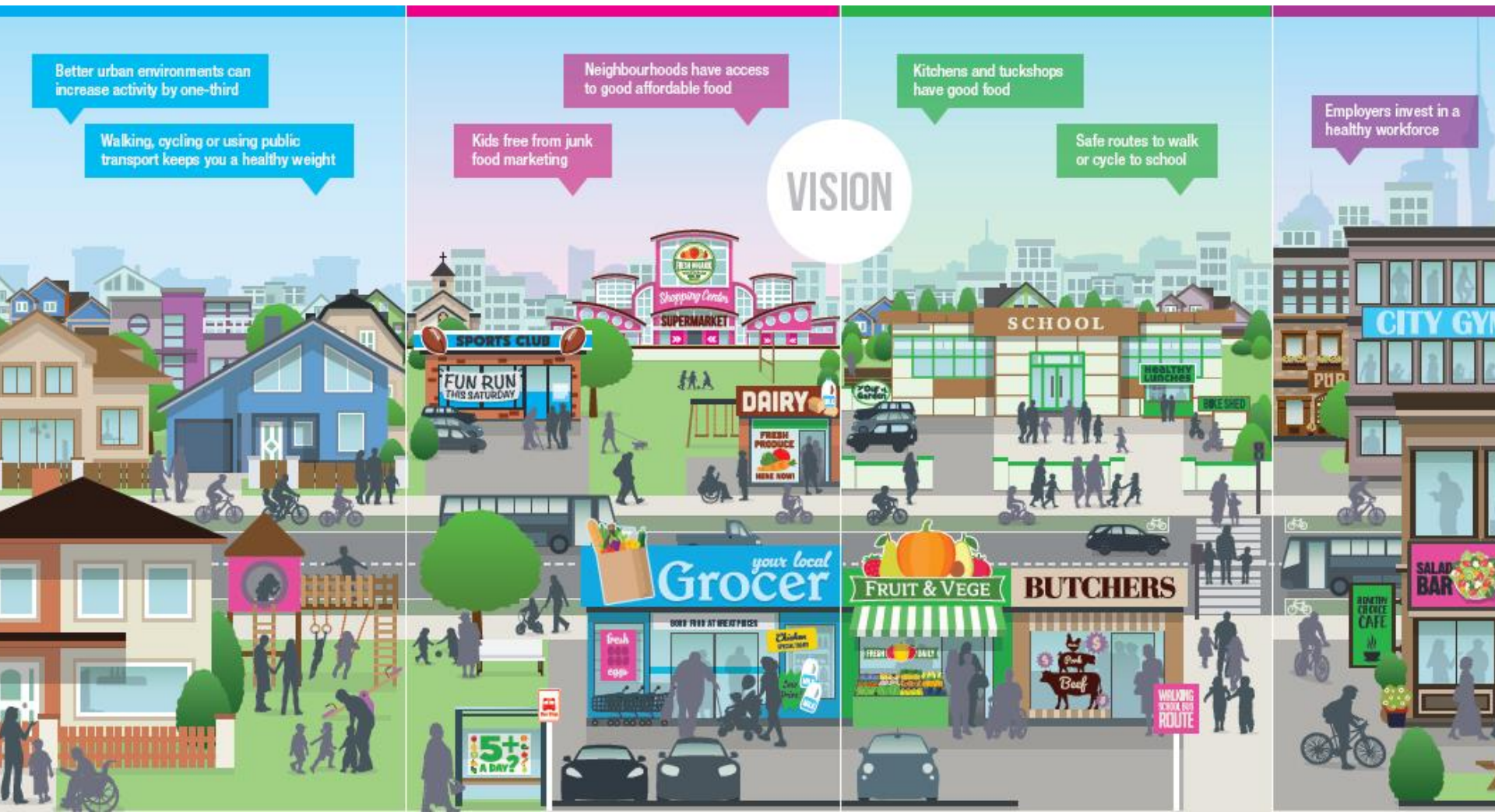
The environment as cause



Environment trumps health advice



The environment as solution



The benefits of improving the environment

**66% more
stair use**

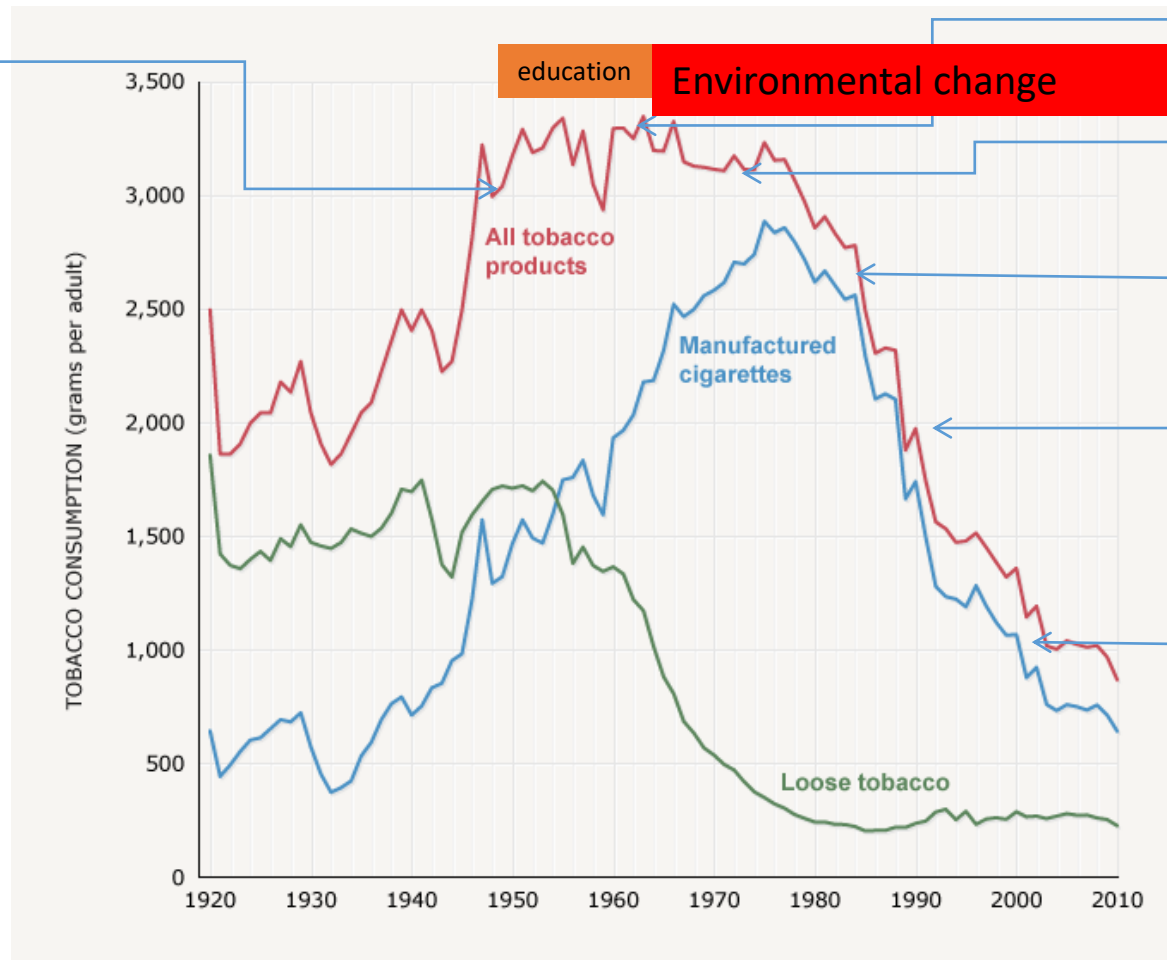


- People are nudged towards more physical activity rather than having to rely on willpower
- Moving more as part of normal daily life
- Changing the default environment from health preventing to health promoting



Environmental focus for the win: Tobacco Control in NZ

Health Dept
posters 1948



TV& radio ads
banned 1963

Pack warnings
1974

First tax
increase 1985

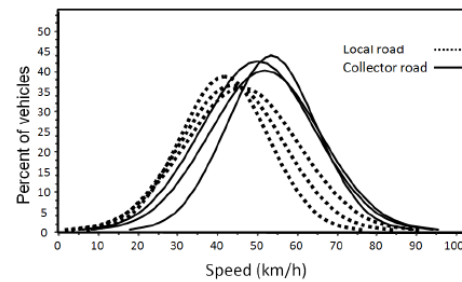
SE Act 1990 &
sponsorship
bans

SEAA 2005
bars
smokefree

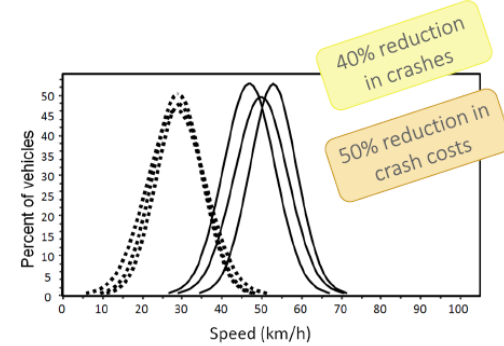
Environmental change for road safety



FEWER, AND LESS SEVERE CASUALTIES



Pre-treatment



Post-treatment

SELF EXPLAINING ROADS

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.

24 July 2009



Fort Street Before and After - eyeonauckland.com



15 November 2013

Environmental Change: Fort Street Auckland 2009-2013

User perceptions



Foot traffic



Vehicle traffic



Vehicle speed



Safety



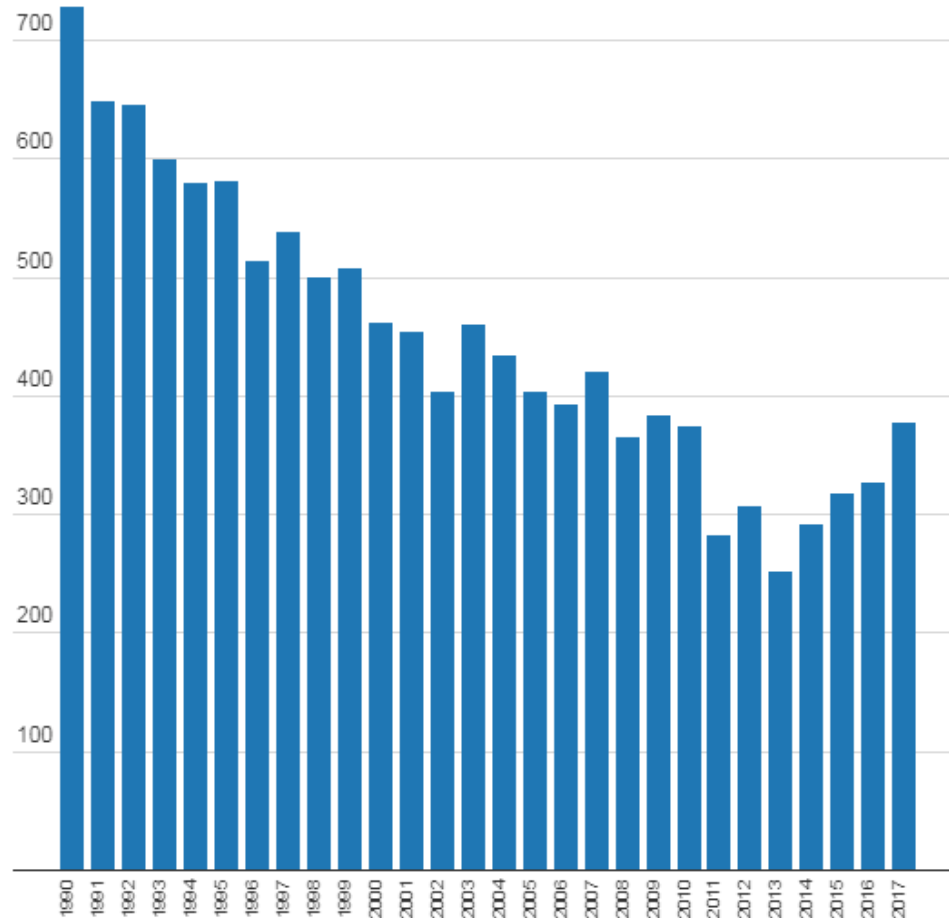
Retail spend



Is transport a public health matter?

Transport and trauma

Annual road toll in New Zealand, 1990-2017



Source: Ministry of Transport • Get the data • Created with Datawrapper

- Road injuries are the 9th leading cause of premature death in NZ

Air and Noise Pollution

- Vehicle emissions include particulate matter (PM_{10} and $\text{PM}_{2.5}$), and NO_2 , CO and other gases.
- 22% of health impacts from PM_{10} in NZ 2006 from vehicles (HAPINZ 2012)

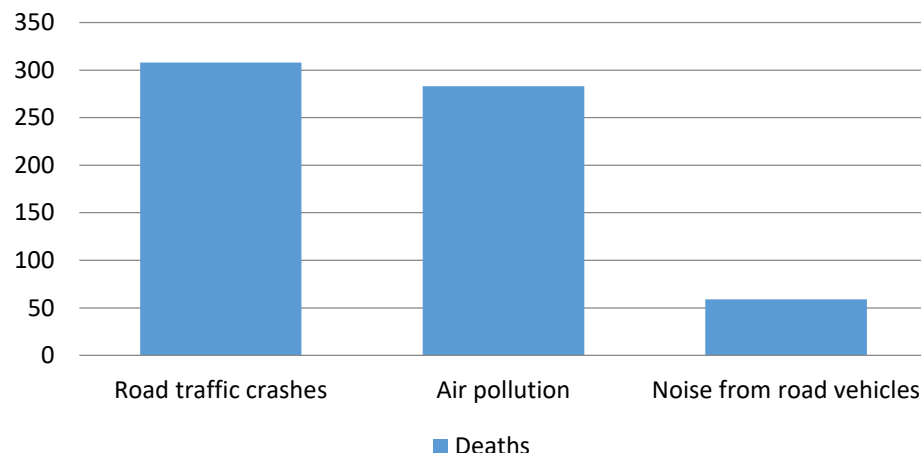


Health Effect	Cases by Source						Social Costs (\$million)
	Domestic Fires	Motor Vehicles	Industry	Open Burning	Natural	Total	
Premature Mortality (adults)	653	255	123	139	1,136	2,307	8,211
Premature Mortality (babies)	2	1	0	1	5	9	31
Cardiac Admissions (all)	131	51	21	29	217	449	3
Respiratory Admissions (all)	203	91	34	47	356	731	3
Restricted Activity Days (all)	817,600	352,300	128,900	187,700	1,440,000	2,926,500	181
Total Social Costs (\$million)							8,429



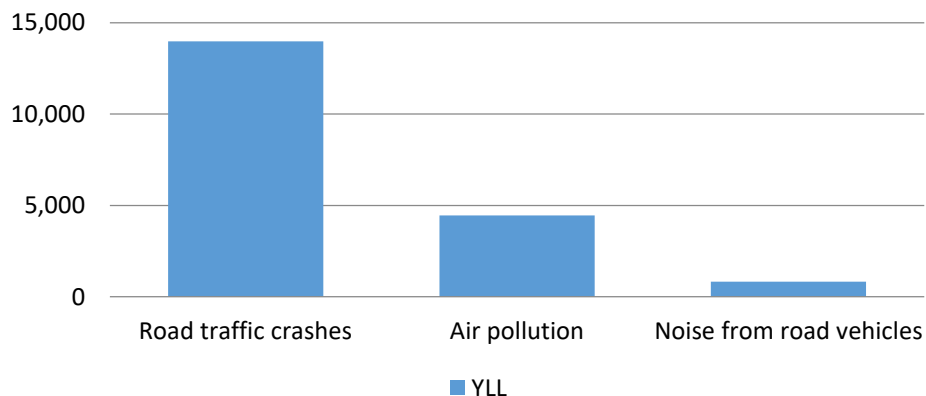
Estimated health burden of transport

NZ Deaths from Transport, 2012



- 650 deaths from transport per year.

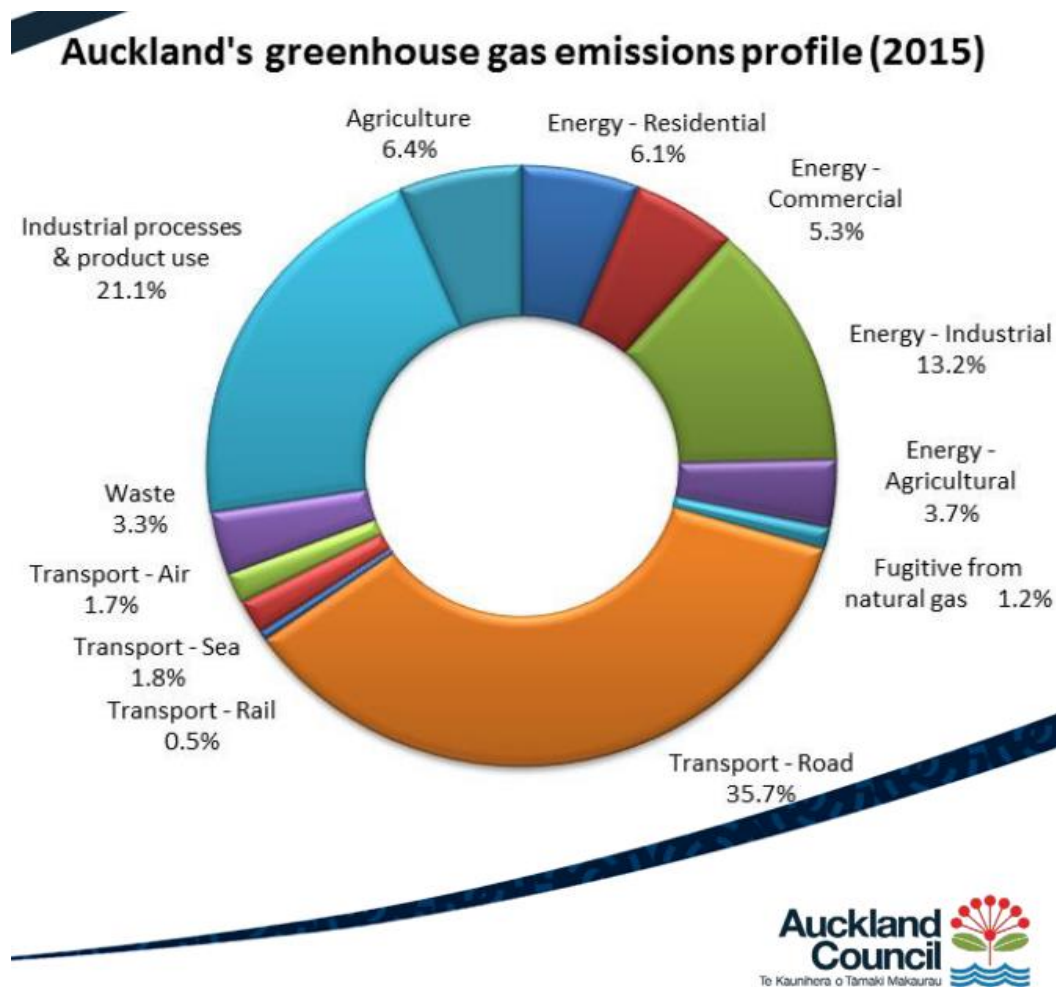
NZ Years of Life Lost from Transport, 2012



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),

Climate Change and Transport

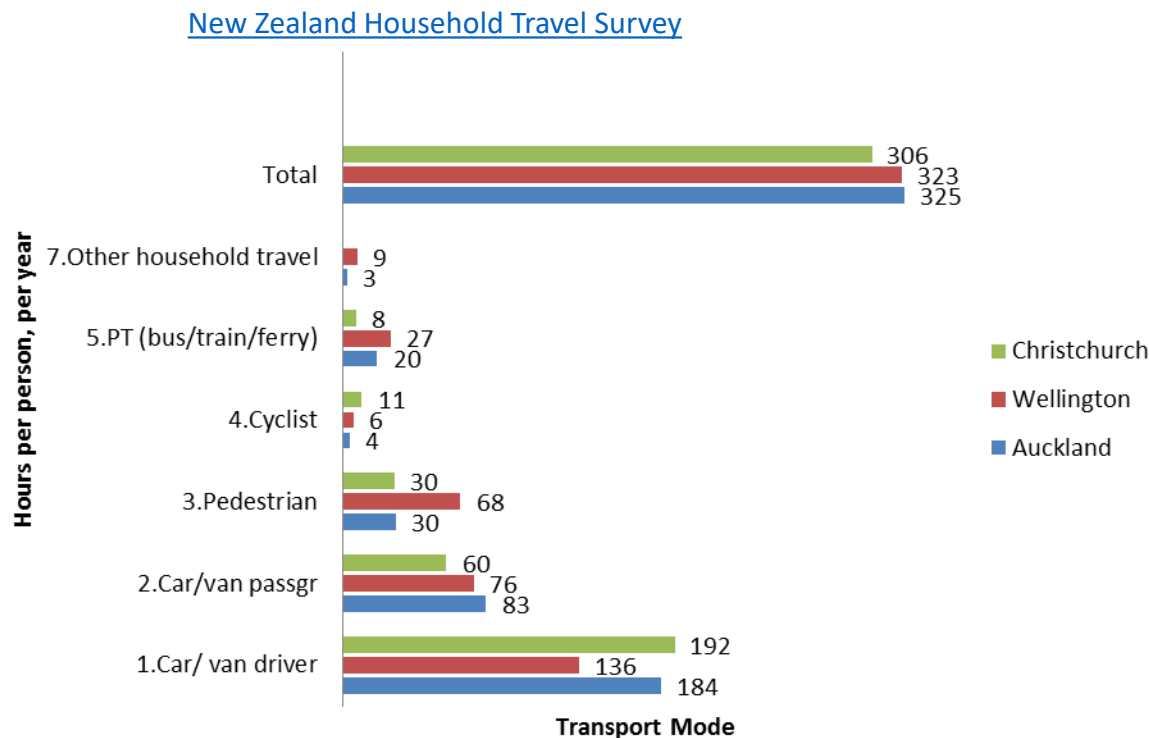
- Transport = 20% of NZ's GHG emissions
- Have risen 82% since 1990



Physical Inactivity

	All Cause Mortality
RR (adjusted)	1.28 (1.21- 13.6)
PAF (NZ)	12.7% (10.2-15.4)

Lee I, Shiroma EJ et al 2012 Lancet 380 July 21

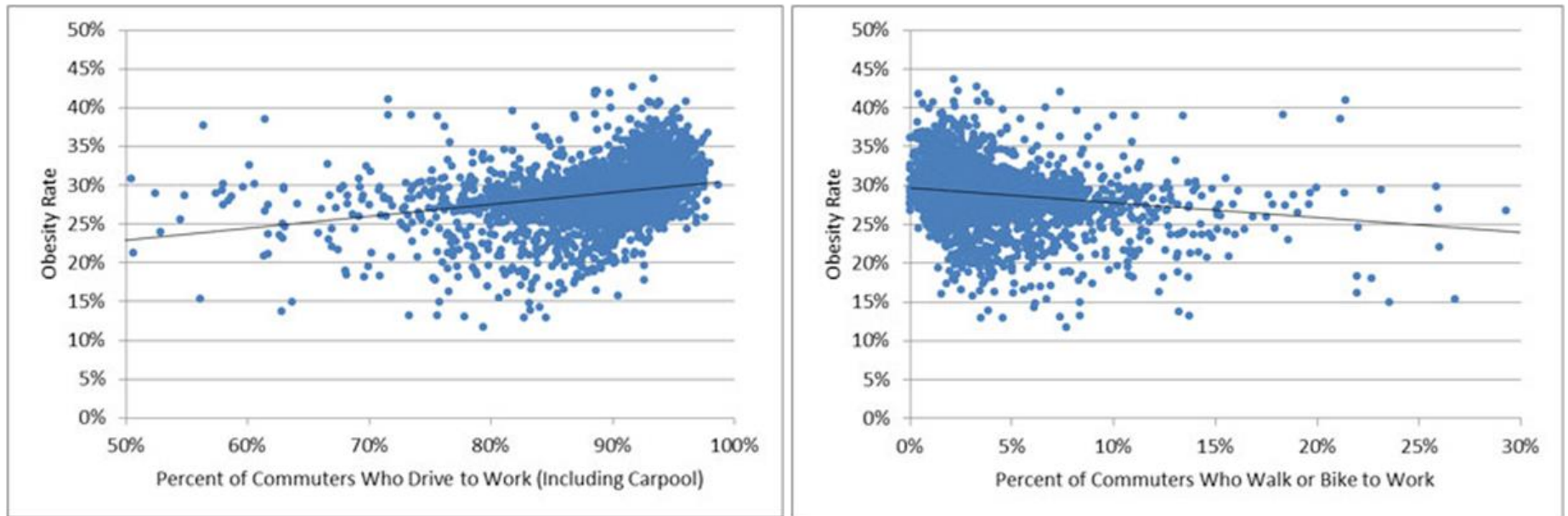


- 50% of NZ adults meet guidelines for physical activity
- We spend 6 weeks per year in private vehicles (5.3-6.7)
- Moving 5% of short urban car trips to cycling would save 117 deaths / year:
 - 116 fewer deaths through increased physical activity,
 - six fewer deaths due to local air pollution from vehicles,
 - and an additional five cyclist deaths from road crashes

Lindsay, G., Macmillan, A., & Woodward, A. (2011). Moving urban trips from cars to bicycles: impact on health and emissions. *Australian and New Zealand Journal of Public Health*, 35(1), 54–60.



Transport and obesity



Price. A., Godwin. A. (2012). Mapping Transportation and Health in the United States. Accessed from:

<http://www.planetizen.com/node/53728>



[https://commons.wikimedia.org/wiki/File:Kevin_Fouache_\(L\),_Jules_Pijourlet_-_Six_jours_de_Grenoble_2011.jpg](https://commons.wikimedia.org/wiki/File:Kevin_Fouache_(L),_Jules_Pijourlet_-_Six_jours_de_Grenoble_2011.jpg)

People should not be killed or seriously injured while using the transport network for everyday activities

Reversing New Zealand's current trauma trends requires a transport system that is designed for people, and one that considers their safety as the top priority.

We aim to put people and place, rather than vehicles and networks, at the centre of our decision-making

Our position is that it is unacceptable for anyone to be killed or seriously injured while travelling or working on the land transport system

We will embed the Safe System approach in our decision-making and in our standards



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GPS 2018-2022

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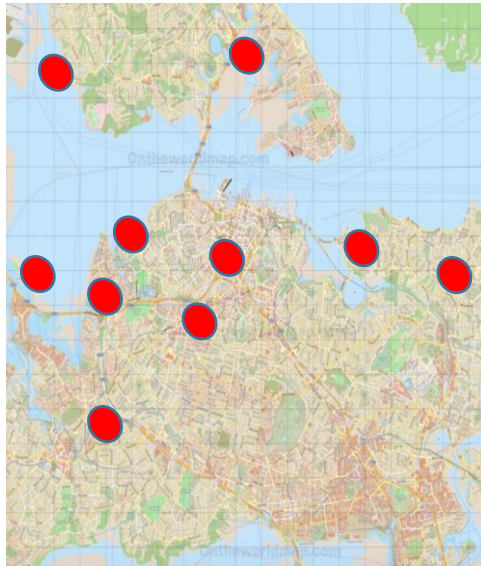
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NZTA Statement of Intent



But is transport treated as an urgent public health matter?



Auckland Transport pulls out of St Heliers meeting amid safety fears from over 60s crowd

Laine Moger • 19:56, Apr 16 2019



A "hostile" crowd of over 60s caused Auckland Transport to pull out of an Auckland community meeting due to safety concerns.

Nearly 600 members of the St Heliers community were expecting to address, with an Auckland Transport employee, concerns they had around a controversial proposals for road safety changes in the area, at a meeting on Monday.

But Auckland Transport's chief executive declined the invite to speak, citing a "hostile" group and saying he had "a duty of care to the wellbeing" to his employees.

Auckland Transport wants to make the changes – which include reducing the speed limit from 50 kph to 30kph and adding 13 new crossings, which will take away 40 car parks – in St Heliers and Mission Bay as part of a city-wide road safety initiative.





Consultation

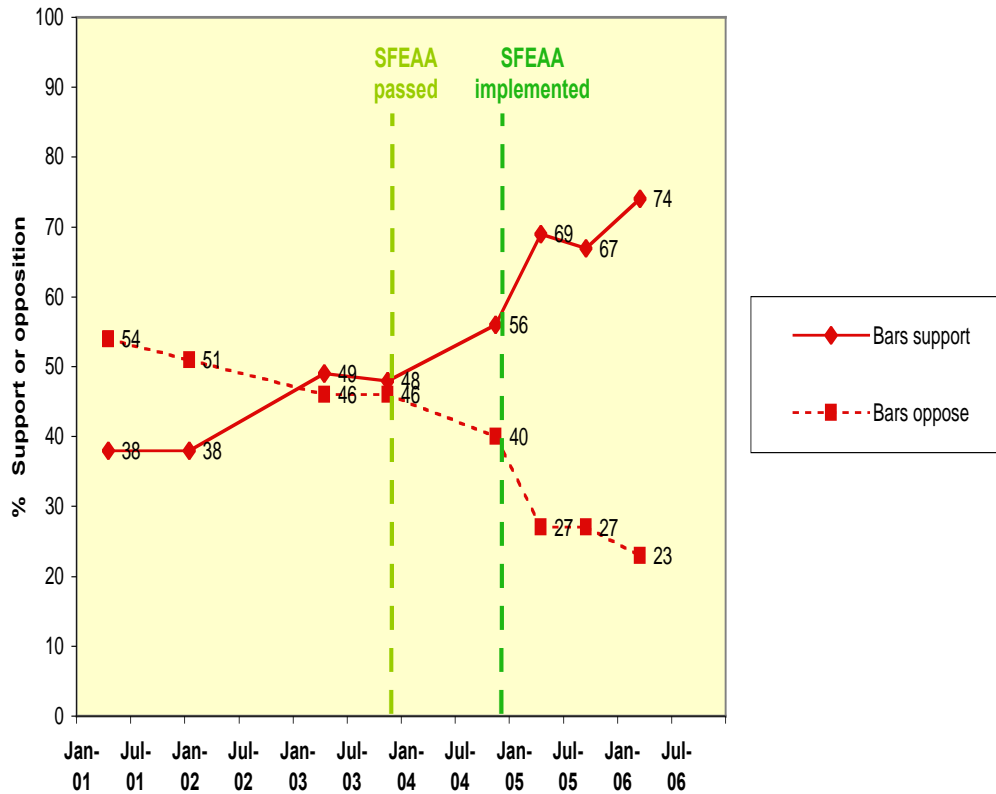


Smoke-free
Environments Act



Implementation

Figure 2 Support for smoking bans in bars from April 2001 to March 2006
in UMR Omnibus Surveys



The Smoke-Free Environments Act was
not poll-driven

Health and safety in the workplace

- Pre-history
- The inspector age
- Pike River and after

Health and safety in the workplace

Shared goal – zero injury and illness
Identified duty of care
Responsible officers
Standards
Monitoring and reporting on risks
Tripartite decision-making
Upstream risk reduction (design, production)
Worker engagement, participation

Consultation



Health and
Safety at Work
Act

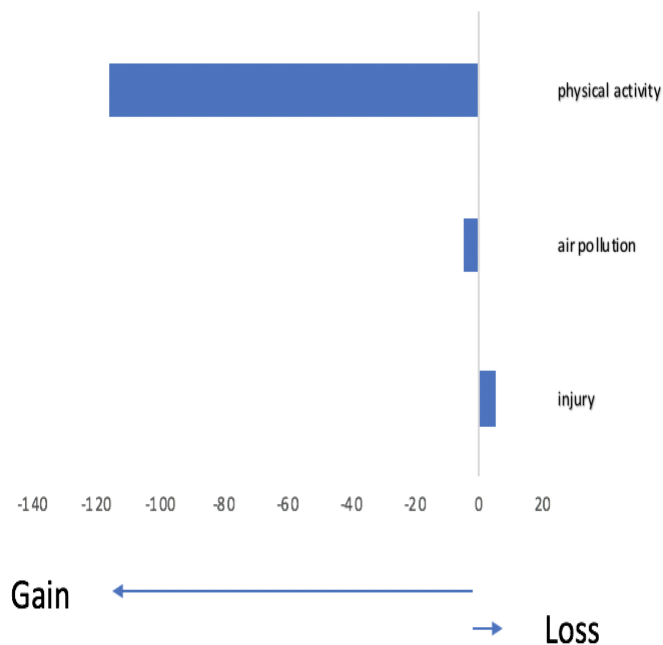


Implementa
tion



Workplace deaths
About 60 per year from
injuries
600-900 from work-related
illness

Deaths per year due to shifting 5% of
short car trips to bikes



Workplace deaths
About 60 per year from
injuries
600-900 from work-related
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Road transport deaths
About 350 per year from
injuries
? from road-related illness

Where does consultation occur?

Shared goal – zero injury and illness
Identified duty of care
Responsible officers
Standards
Monitoring and reporting on risks
Tripartite decision-making
Upstream risk reduction (design, production)
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Consultation



Health and
Safety in the
Workplace Act



Implementa
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Consultation



Health and
Safety on the
Road Act

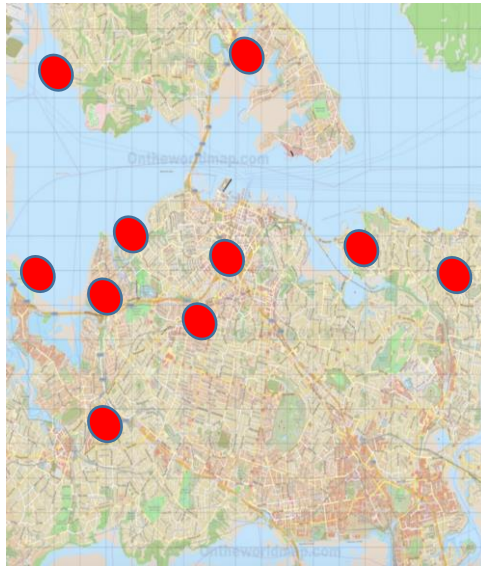


Implementa
tion

Road to Zero Consultation
Document 2019 p.22

When we board an aeroplane, we expect that those responsible, the airline and the aviation authorities, have taken responsibility for our journeys, and that the system is safe and works for everyone. When we go to work, our health and safety laws places clear expectations and responsibilities on our employers to ensure that everyone who goes to work comes home healthy and safe. **In the same way**, we should expect our road system to be designed for people, travelling in different ways, instead of blaming people for failing to survive in the system we have designed.

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Cambridge has shielded itself politically from every cyclist's foe: the bikelash crowd. // Lisa Poole/AP

Cambridge's New Bike Lane Law is 'Bikelash'-Proof

LAURA BLISS APR 11, 2019

The Boston suburb now mandates the addition of protected bike lanes on all streets due for planned upgrades. It's a strategy other cities should follow.



There's been a strategic breakthrough on the front lines of the American bike wars: This week, the Boston suburb of Cambridge mandated that protected cycling lanes be installed on all streets that are slated for reconstruction under existing city plans.

<https://www.citylab.com/transportation/2019/04/protected-bike-lanes-traffic-safety-cambridge-bicycle-plan/586876/>





[https://commons.wikimedia.org/wiki/File:Kevin_Fouache_\(L\),_Jules_Pijourlet_-_Six_jours_de_Grenoble_2011.jpg](https://commons.wikimedia.org/wiki/File:Kevin_Fouache_(L),_Jules_Pijourlet_-_Six_jours_de_Grenoble_2011.jpg)