

How do we sell the Benefits of Lower Speeds?

2023 Australasian
Road Safety Conference
19-21 SEPTEMBER · CAIRNS, QLD + ONLINE



Dr Glen Koorey

Director, ViaStrada Ltd, Christchurch

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VIASTRADA

TRANSPORT PLANNING AND DESIGN

My Hypothesis today...

We don't do a good job of explaining the benefits of lower speeds



- To politicians
- To the media
- To the general public



Corollary:

We could do a lot better...



Apparently lower speeds are *everywhere* in NZ...

- And people are grumpy about them...

Roading leaders challenge potential new 80km/h state highway speed limit

5:27 pm on 13 January 2022

Susan Botting, Local Democracy reporter
susan.botting@nzme.co.nz

The 100km/h speed limit on Northland's state highway network could soon be cut to 80km/h - in the biggest main road speed limit drop in the country for almost 40 years.

Whangārei Heads speed limit review causing controversy a month ahead of public consultation

Potential speed limit drop will cast Taranaki further adrift, says mayor

Mackenzie mayor Graham Smith says a 70kmh open road speed limit would be 'a bit ridiculous'

How fast is too fast? 'Keep it 100' campaigner takes on Waka Kotahi's Road to Zero

Chris Hyde · 15:55, May 12 2022



"A lot of us already find 100kph slow": Geoff Upson and his dog George are the faces of an informal campaign to prevent speed limit drops.

The days of travelling 100kph on every stretch of major state highway are over. But Waka Kotahi NZ Transport Agency says many of those who oppose its lowering of speed limits are spreading a gospel of misunderstanding that verges on "misinformation". Can it slow them down? Chris Hyde reports.

Waka Kotahi has the winding main roads of New Zealand in its sights. It doesn't necessarily want them to be 100kph any more. It would rather be certain they're safe to drive.

St Asaph St 30kmh proposal going forward despite lack of public support

Shael Hayward · 14:48, Dec 08 2018



A hearings panel has supported reducing St Asaph St's speed limit to 30kmh, despite largely negative feedback from the public.

A speed limit reduction on Christchurch's St Asaph St will be recommended to the council, despite public feedback largely opposing the idea.

Public Pressure leads to Political Pressure...

Public Service Watch: Is speed limit discontent an election issue?



Piers Fuller | September 12, 2023

- *How did we go from 85% of NZ highways being too fast to only targeting the "1% worst"?*

Govt abandons plan to cut speed limits on most state highways

Mon, Mar 13



Chris Hipkins (file image). (Source: Getty)

The Government has backed down on its plans to cut speed limits on state highways and says it will now only focus on 1% of the "most dangerous" roads.

Prime Minister Chris Hipkins announced the "significant narrowing" of the speed limit reduction programme at his Monday post-Cabinet media conference as part of his policy "reprioritisation" process that has seen swathes of policy priorities wiped out.



Why do people object to Lower Speeds?

- *"It takes a lot longer to get somewhere"*
- *"More driver fatigue/frustration will result in more crashes"*
- *"People won't obey the new speed limits, so why bother?"*
- *"It doesn't improve safety - accidents will happen there"*
- *"You need to fix the roads and focus on better drivers instead!"*
- *"I have to watch my speedo more, so I'll be more distracted"*
- *"It's just revenue gathering for the Police"*
- *"Modern cars are much better at handling speed"*
- *etc, etc...*

Sounds like we have a
misinformation challenge...



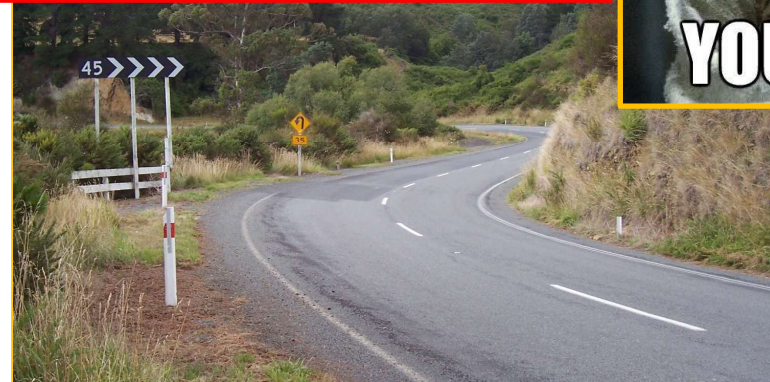
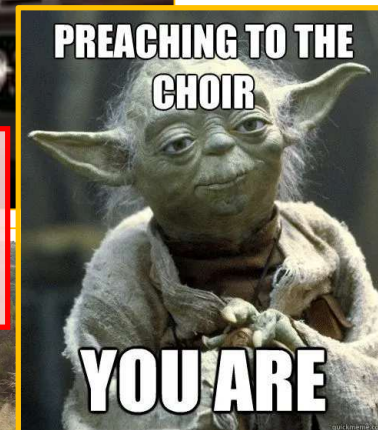
“It’s not speed that causes accidents, it’s poor driving and poor roads”

Reality check:

- We’re **all** human (and make mistakes & poor decisions)
 - It's not just "bad drivers"...

*Even if road users followed **all** the road rules, fatalities would only fall by around **50%** and injuries by **30%***

- We could **never** afford (nor justify) to fix every road in NZ
 - In fact, very few of them...



We need *Other People* to understand the Actual Implications of their Speed Choices

- Remember this Aust/NZ Speed Advert?
 - Prof Ian Johnston, ex MUARC
 - Effect of **60** km/h vs **65** km/h approach speed
 - Impact speed 45m away: **5** km/h vs **32** km/h

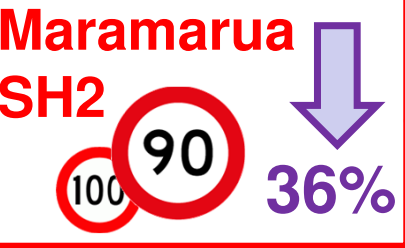
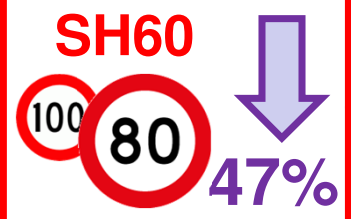
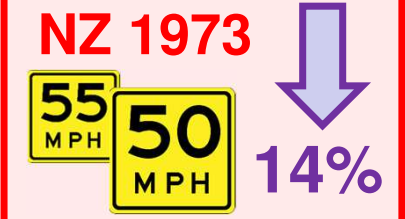
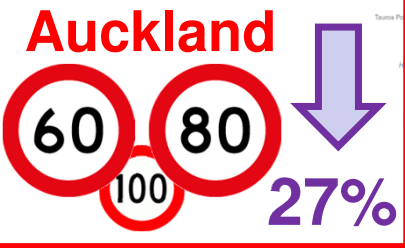
People don't understand the exponential impacts of speed...



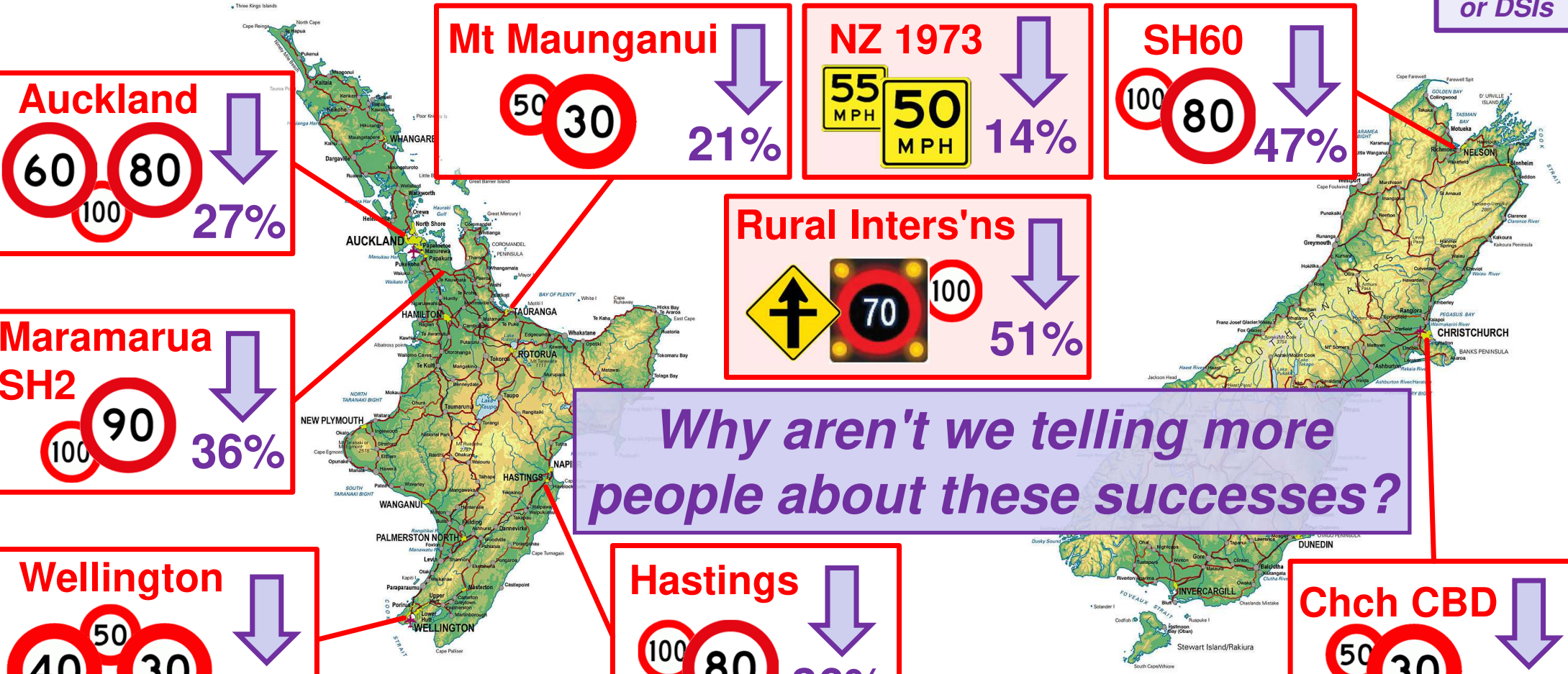
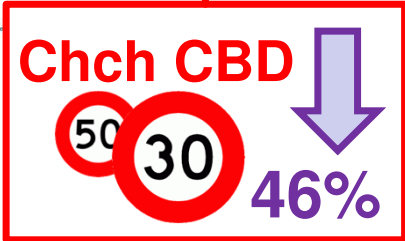
The faster you go
the bigger the mess

SAFETY: Lots of overseas evidence But we already have NZ evidence too...

↓
Drop in
Injuries
or DSIs



Why aren't we telling more people about these successes?



Evidence is all very well and good, but...

- The number of NZ case studies is still relatively **small**
 - Comprising a tiny fraction of the country's road network
 - Overall national statistics for DSIs have yet to be greatly affected by these implemented sites → contributing to ***public scepticism***
- Individual road sections/areas implemented to date tend to have **few crashes** or were introduced only **fairly recently**
 - Despite showing good downward trends in casualty numbers, it is difficult to get ***stat. significance*** to these individual sites so far
- Continuing resistance to introducing lower speeds on **rural roads**, despite their greater contribution to road deaths

Example: Lower Speed Limits in suburban Christchurch, NZ



- Recent Christchurch consultation (Jan-Apr 2023)
 - Comprehensive 30/40 km/h speed limits for many suburbs

*Would we see crash/injury reductions in our **suburban** areas?*

- B/A analysis of **three** previous suburban **lower speed** areas
 - Addington west (May 2018)
 - Sumner (Oct 2019)
 - Papanui west (Nov 2019)
- In each case, I compared with a nearby "**control**" area
 - Used these to estimate the "expected" numbers afterwards
 - Helped to account for any external effects too *e.g. C19 lockdowns*



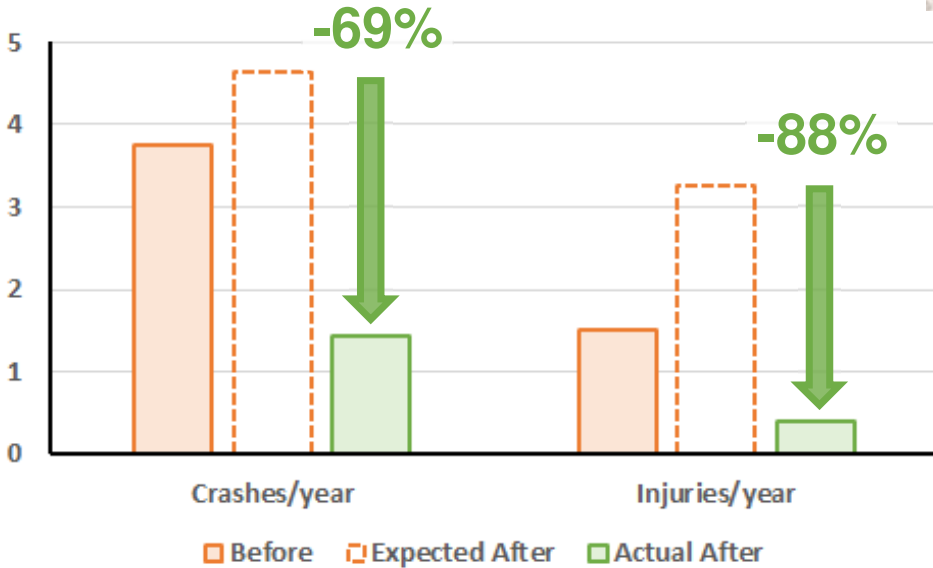
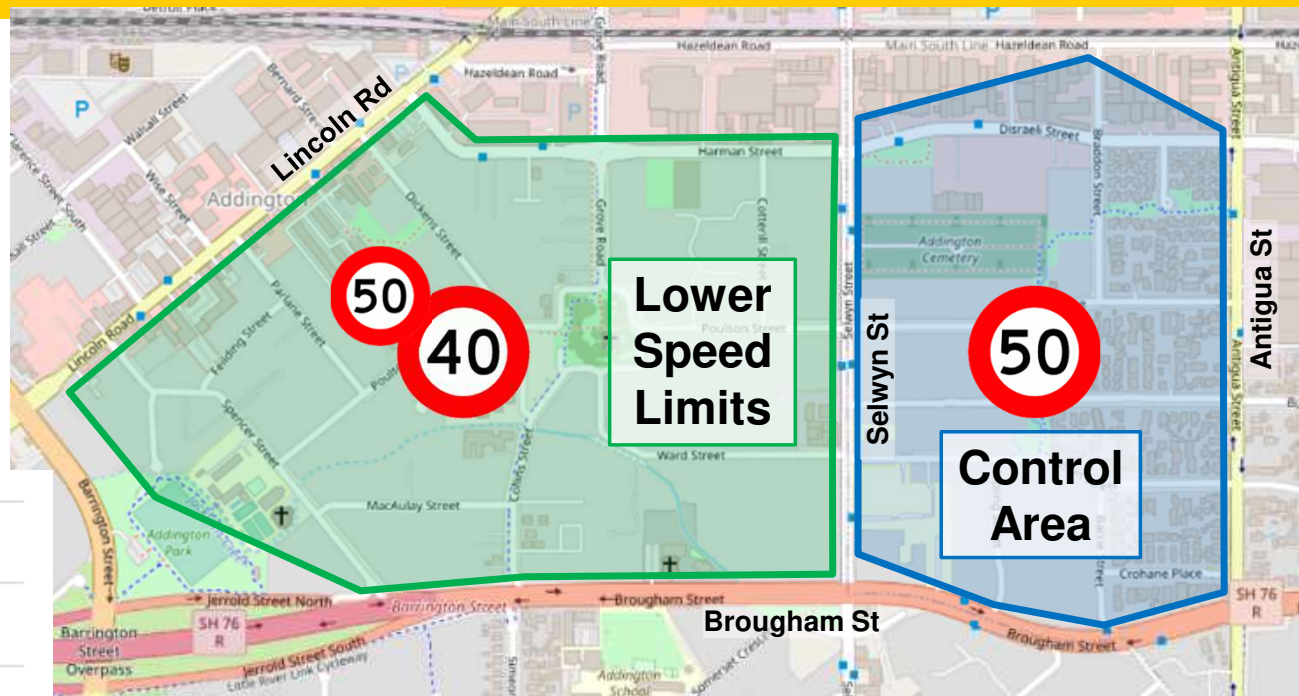
Christchurch Suburban Case Studies: Addington west (30 May 2018)

Before period:

- Jan 2013 – Apr 2018

After period:

- Jun 2018 – Dec 2022



*"Expected after" based on what changes occurred in the **control area***



Christchurch Suburban Case Studies:

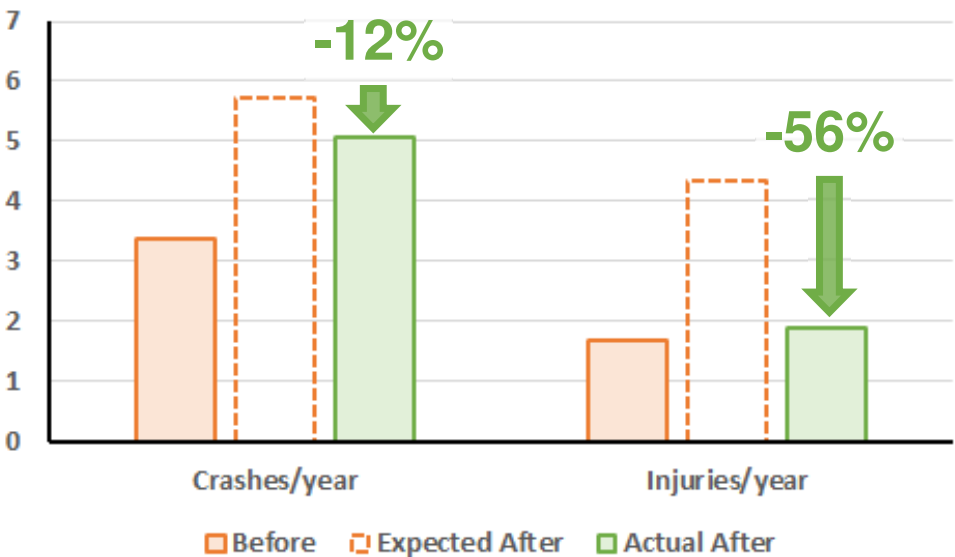
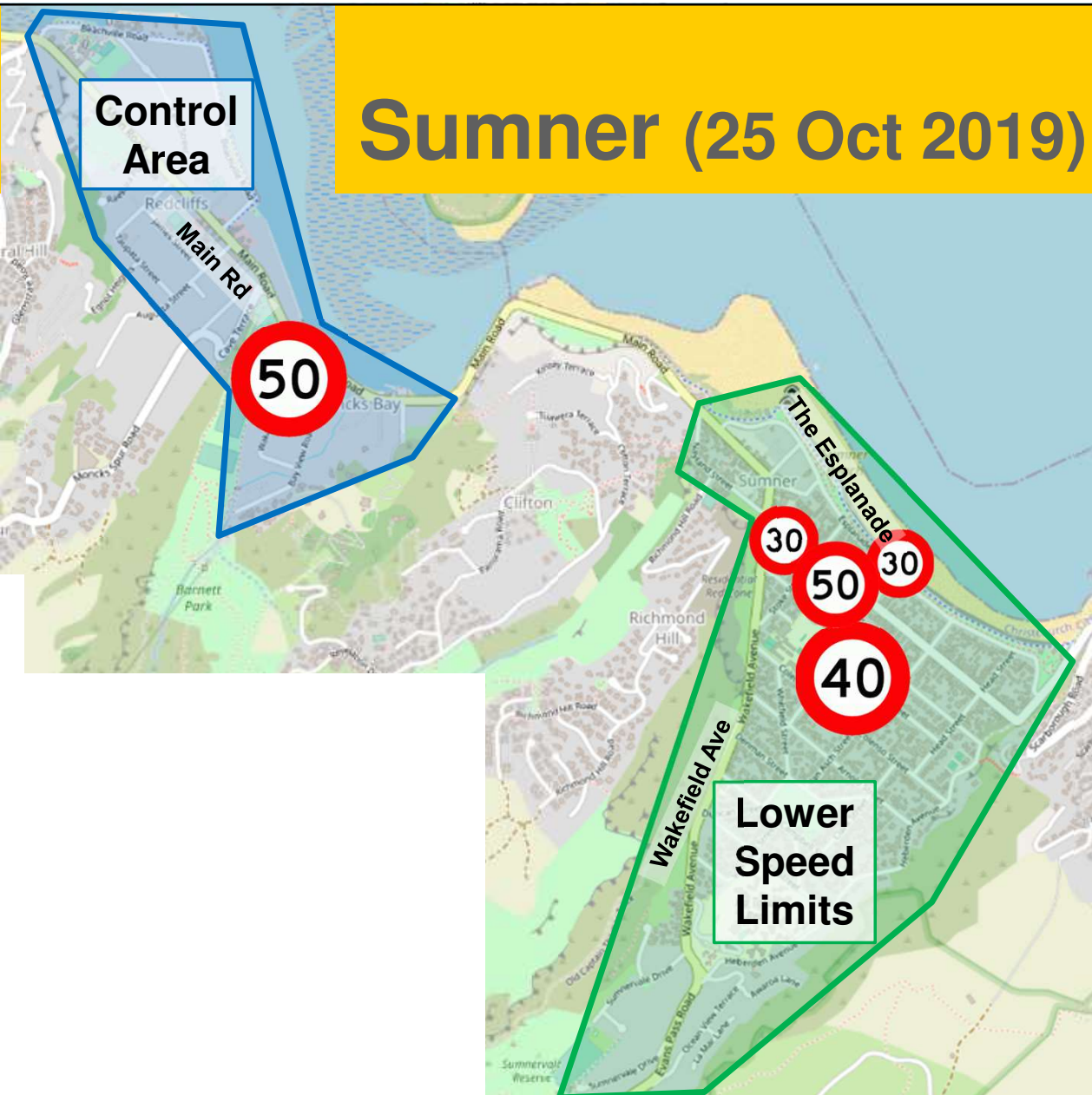
Before period:

- Jan 2015 – Sep 2019

After period:

- Nov 2019 – Dec 2022

Sumner (25 Oct 2019)



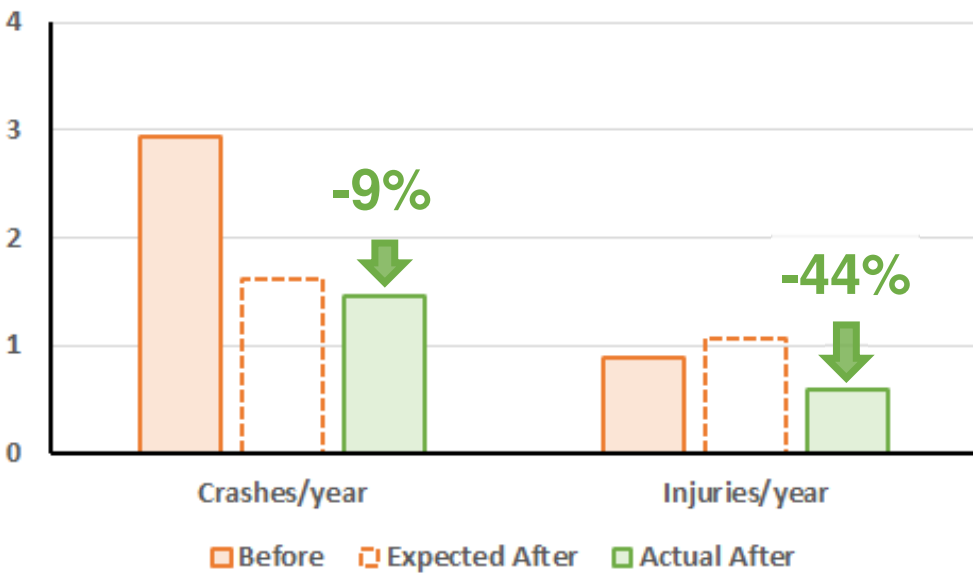
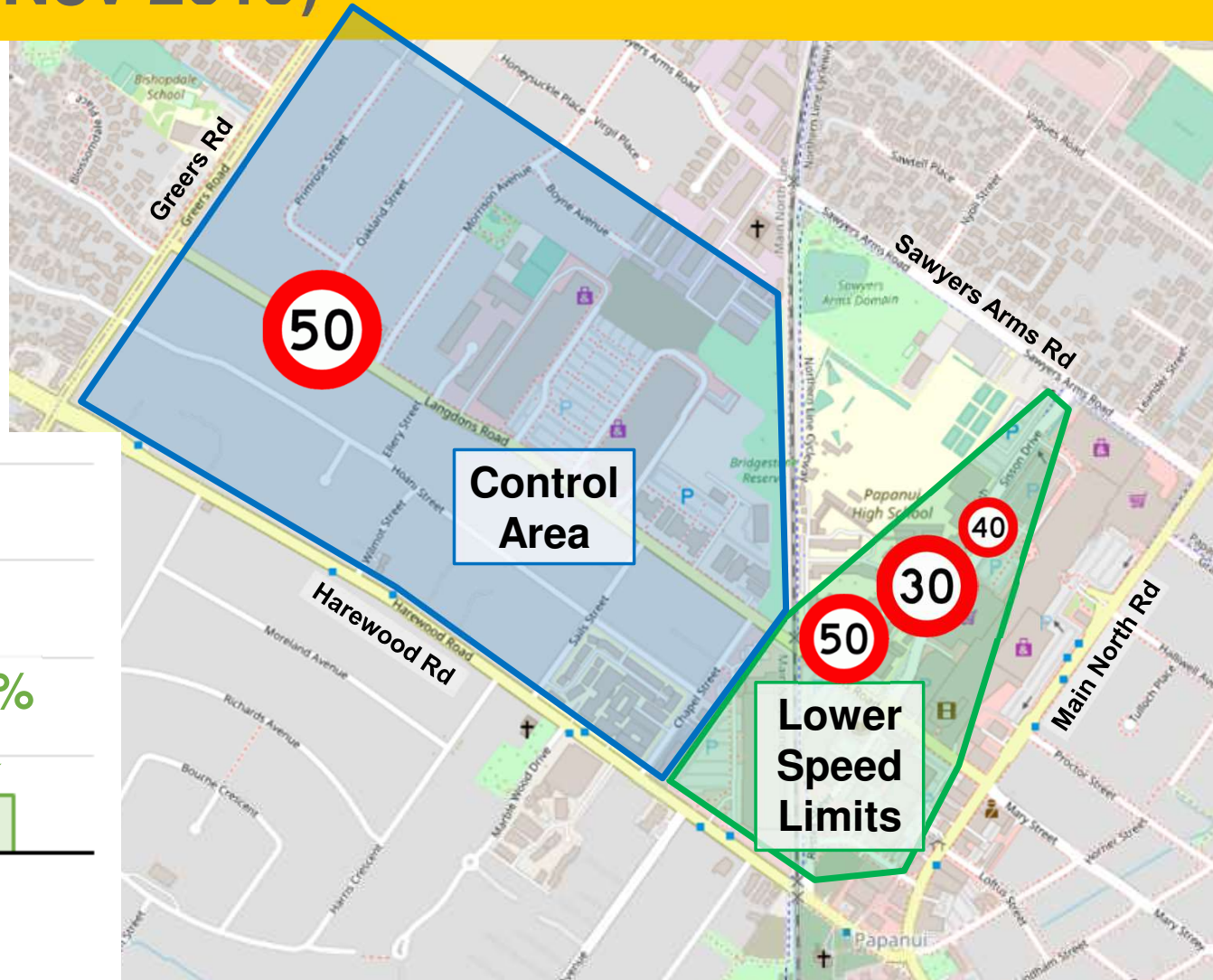
Christchurch Suburban Case Studies: Papanui west (4 Nov 2019)

Before period:

- Jan 2013 – Oct 2019

After period:

- Dec 2019 – Dec 2022



Christchurch Suburbs: Some observations

- The crash/injury numbers for each area aren't big
 - But **collectively** across all three it makes a notable difference...
 - Biggest savings in **injuries** reduced (from less severe crashes)

Addington	Treated Site	Control Site	Total	Change in expected injuries	
Before	8	1	9	% Reduction	-87.5%
After	2	2	4	Chi-Sq value	2.359
	10	3	13	p-value	0.125
Sumner	Treated Site	Control Site	Total		
Before	8	7	15	% Reduction	-56.3%
After	6	12	18	Chi-Sq value	1.340
	14	19	33	p-value	0.247
Papanui	Treated Site	Control Site	Total		
Before	6	10	16	% Reduction	-44.4%
After	2	6	8	Chi-Sq value	0.375
	8	16	24	p-value	0.540
COMBINED	TREATED SITES	CONTROL SITES	TOTAL		
BEFORE	22	18	40	% Reduction	-59.1%
AFTER	10	20	30	Chi-Sq value	3.243
	32	38	70	p-value	0.072

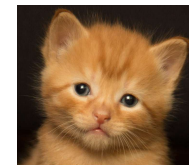


Possible ways forward

A multi-targeted approach

- Start with the "low hanging fruit"
 - Locations where lower speed limits are already self-evident
 - Locations where communities are already asking for lower speeds
- Don't get hung up on strict compliance with new limits
 - Try posted limit changes first, then engineering where necessary
- Provide common material to pre-empt typical concerns
 - Waka Kotahi should take the lead on this (incl. TV adverts)
 - Local councils can customise to suit their local issues
 - More media about people who just made a mistake
- Highlight all the *non-safety* benefits too...

Swannanoa kids want prime minister to hear safety request



Myths and misconceptions about speed

The setting of speed limits on our roads can be an emotive issue but there is only one objective - and that is to make our roads safer for motorists and pedestrians.

There are many myths and misconceptions about the speed at which we drive - here are a few for you to consider:

"You just want to drop speed limits everywhere."

We are proposing to set new safe and appropriate speed limits for approximately 10% of Auckland's high-risk roads and intersections. We want to use local knowledge and data to make sure we're doing everything we can to make your roads safer. This could mean road improvements so it's safer at the correct speed limit, or it could mean lowering the speed limit. This could mean road improvements so it's safer at the correct speed limit, or it could mean lowering the speed limit. There may be places where speed limits could be increased. The aim is to make sure we have the right speeds on the right roads.

"Speed isn't a problem, bad drivers are."

Even the most skilled drivers make mistakes, and most drivers understand New Zealand's roads can be challenging. Good speed management gives drivers the tools they need to judge the safe and appropriate speed for the road they're on.

"Declaring a vulnerable road user."

A vulnerable road user is anyone not in a vehicle. People walking, people on motorbikes, mopeds and light mopeds and people getting on and off a vulnerable road user because of their unprotected state.

"Going a few kilometres faster or slower doesn't make any difference to safety."

Actually, it does. Speed is the difference between a correctable mistake and a fatal error. Every extra km/h increases the likelihood of someone being killed or injured in a crash, regardless of whether someone is a 'good' or 'bad' driver.

Possible ways forward

Start with the 'Low Hanging Fruit'

- Suburban/CBD shopping streets



- Residential traffic calmed areas



- School zones



- Unsealed/winding/narrow rural roads



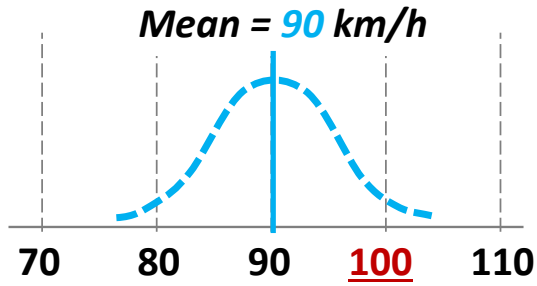
Possible ways forward

Countering the Rural Resistance

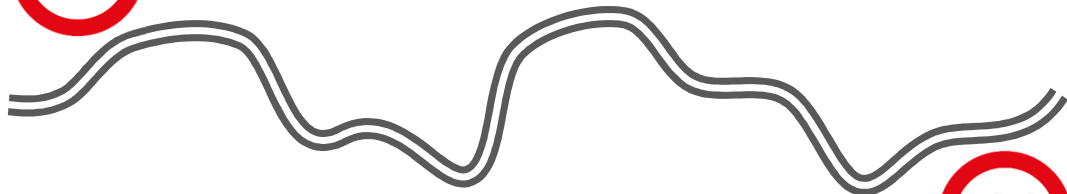
Judicial review mooted to prevent speed limit reduction on Napier-Taupō Rd

- Highlight the success of the implemented sites in NZ so far
 - And the likely safety gains for the proposed areas
- Take "baby steps" (e.g. 100 → 90 → 80 → 60)
- Focus on the changes in **mean speeds**, not %complying
 - *An observed speed reduction of some degree is a safety win...*
- Find people who can speak to reduced stress of lower speeds
 - Incl. Travellers *and* Adjacent residents
- Calculate the actual (not perceived) travel time increases

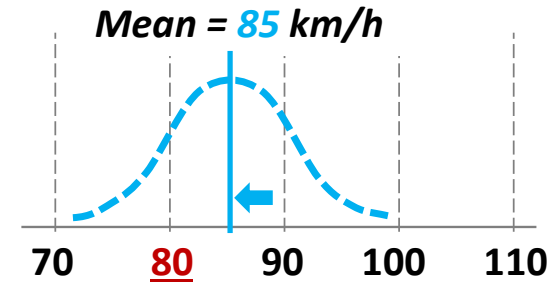




100



100



80



80



Key question is not "is everyone complying?" but rather: "have traffic speeds gone down?"

Travel time example: SH75 Christchurch-Akaroa (80km)

Speed vs Travel Time



Just 5½ minutes (or 8%) difference...

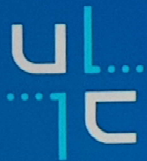


Location	Nov 2020		Aug 2023		Difference (mins)
	Old Speed Limit	Mins	New Speed Limit	Mins	
Blenheim to Lunns	70	0.9	60	0.9	0.03
Lunns to CSM	100	0.6	60	0.6	0.03
CSM to Halswell Rd	100	1.3	60	1.3	0.07
Halswell Rd	50	2.3	50	2.5	0.18
Halswell	50	3.8	50	3.9	0.08
Halswell to Tai Tapu	100	5.2	80	5.9	0.63
Tai Tapu	50	0.9	50	1.0	0.05
Tai Tapu to Little River	100	23.6	80	26.1	2.48
Little River	60	1.4	50	1.6	0.22
Little River to Cooptown	100	1.2	80	1.5	0.27
Cooptown	70	0.5	60	0.6	0.08
Cooptown to Duvauchelle	100	18.4	60	19.0	0.53
Duvauchelle	70	1.7	60	1.7	0.03
Duvauchelle to Akaroa	100	7.3	60	7.9	0.60

69.9 mins

75.6 mins

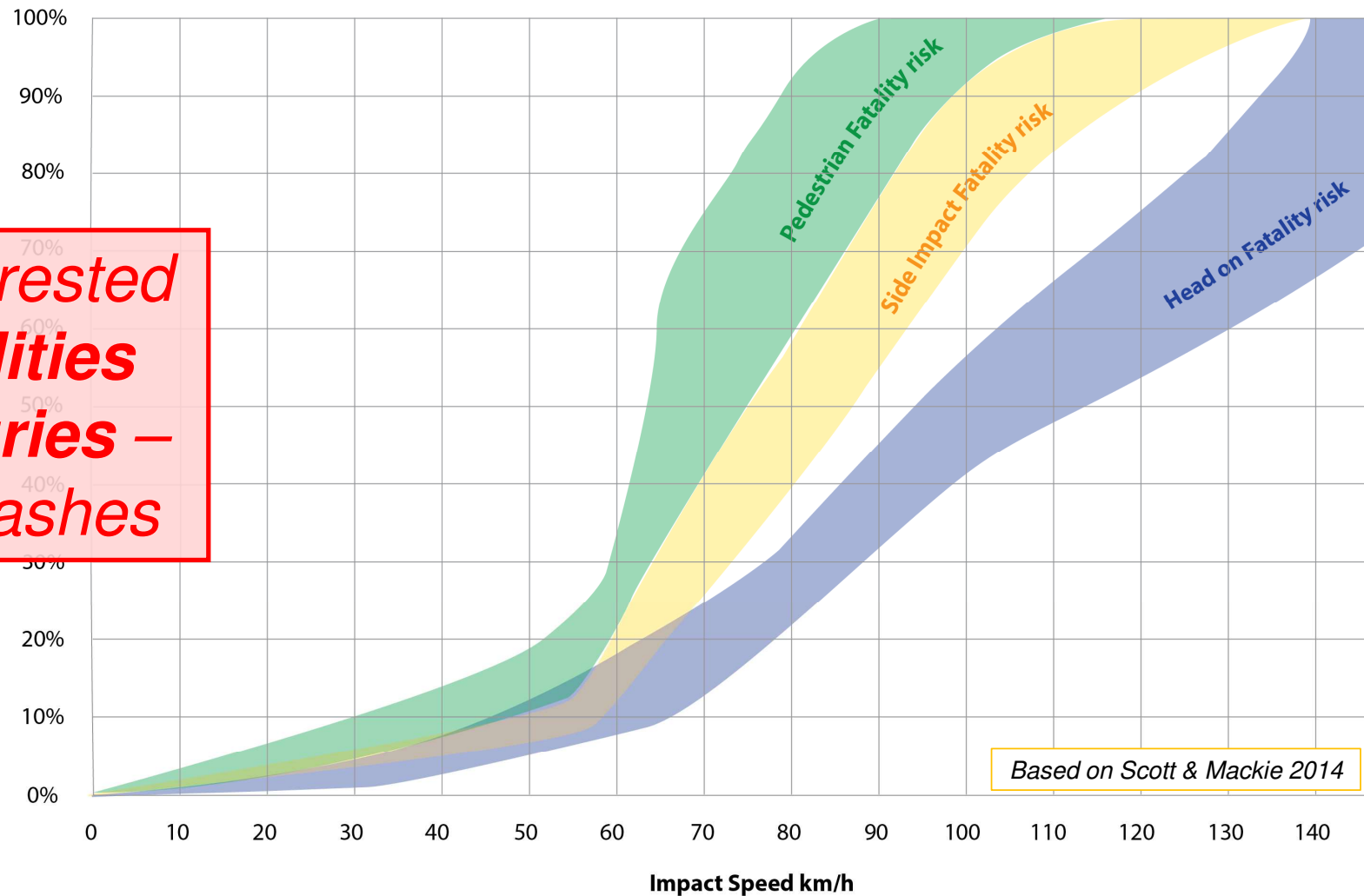
5.68 mins



Finally - Keep reminding people: Speed always affects the CONSEQUENCES

(it affects the likelihood too)

*We are more interested in reducing **fatalities and serious injuries** – NOT reducing crashes*



Thank You!

- Any Questions?

- glen@viastrada.nz

 [GKoorey](https://twitter.com/GKoorey)

