

Making the case for lower speeds: tackling the concerns



Dr Glen Koorey
ViaStrada Ltd, Christchurch



TRAFINZ Conference
Tauranga, Nov 2016

Some good initiatives already around NZ...



New Plymouth

Stuff Home Taranaki Daily News News

Midweek South Taranaki Star Photos Videos

New speed limit comes into force

Drivers in New Plymouth's CBD limited to 30kmh

MATT RILKOFF

Last updated 05:00 30/06/2012

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Hamilton



Invercargill

...but why aren't there more?



Kiss goodbye to the standard 50kmh city speed limit – from tomorrow drivers in New Plymouth's central business district will be limited to 30kmh.

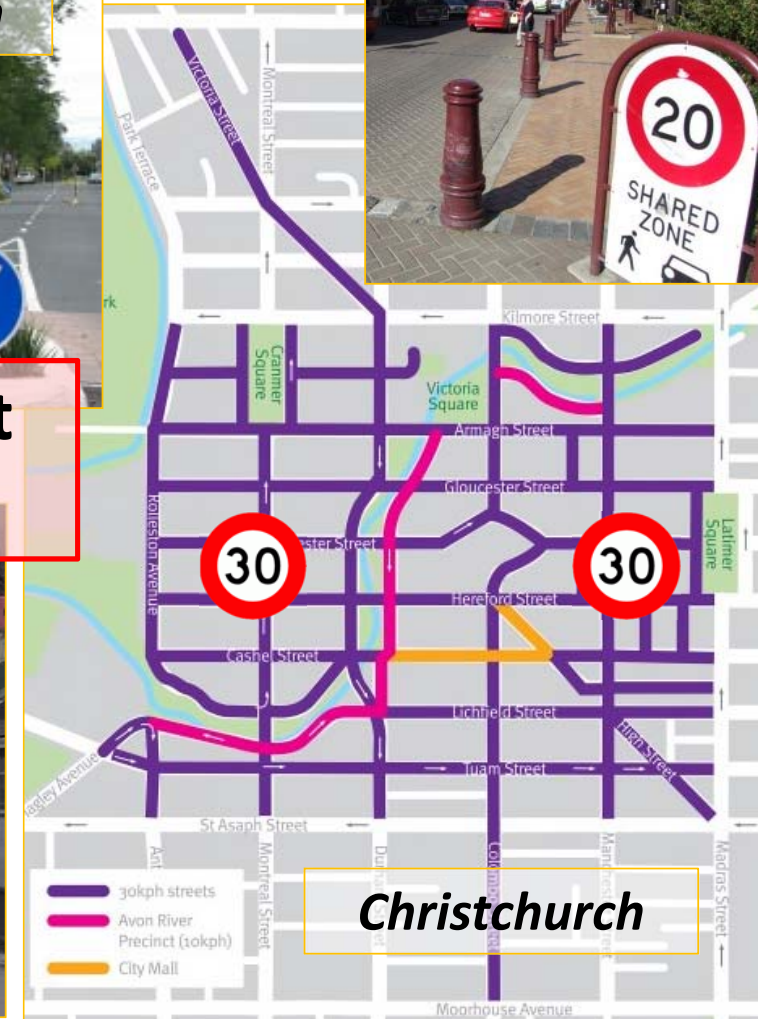
With the new 30kmh roads sign, the reduction known about since the limit straight away, Senior

From tomorrow drivers travelling through the CBD will face an instant \$120 fine and 20 demerit points.

"In particular we are going to focus on people who speed up by bars or groups of people or



Wellington

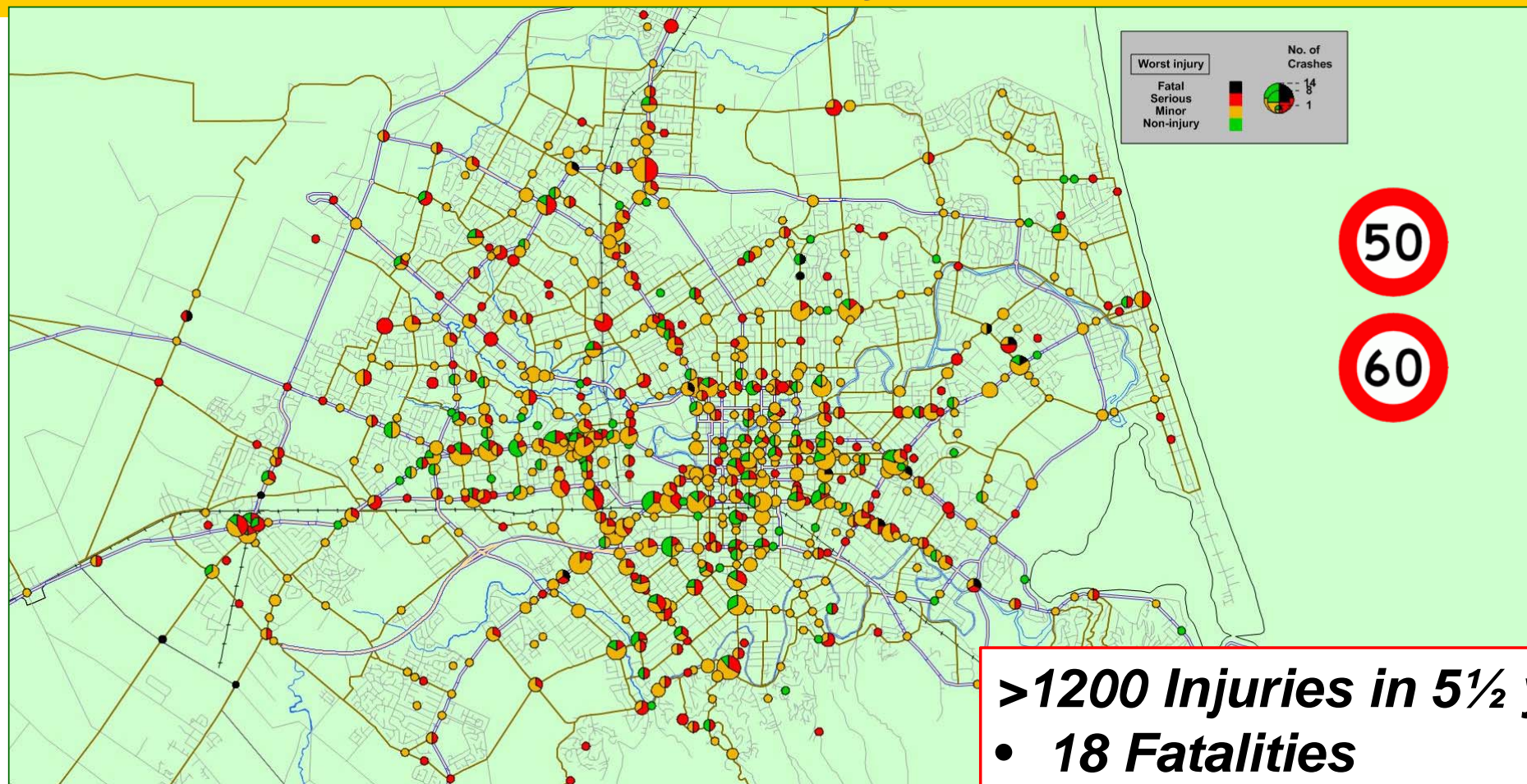


Christchurch

VIA STRADA

Existing speeds evidently aren't helping safety

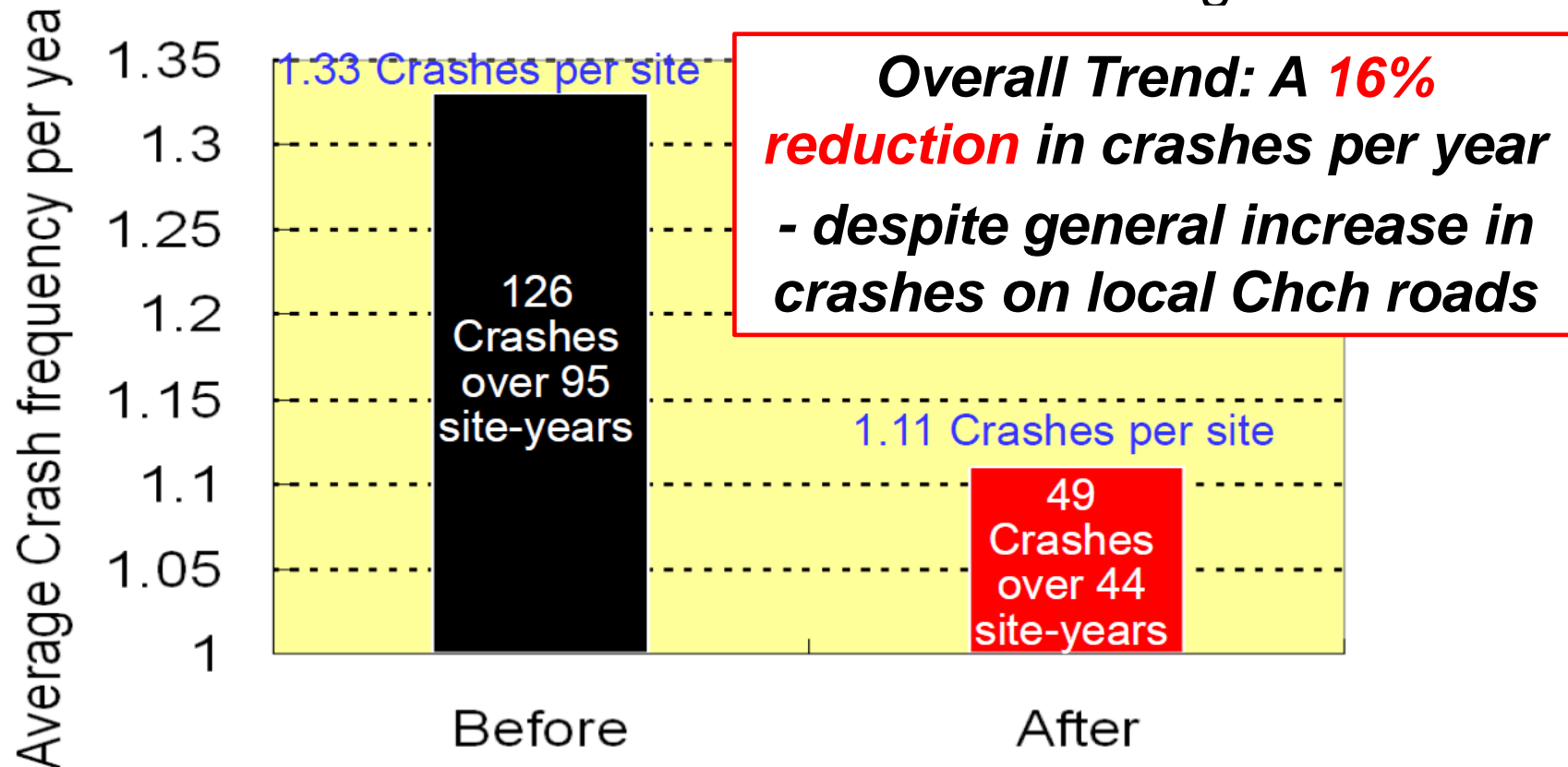
2010-15 Pedestrian/Cycle Crashes



- >1200 Injuries in 5½ years**
- 18 Fatalities**
- 350 Serious Injuries**

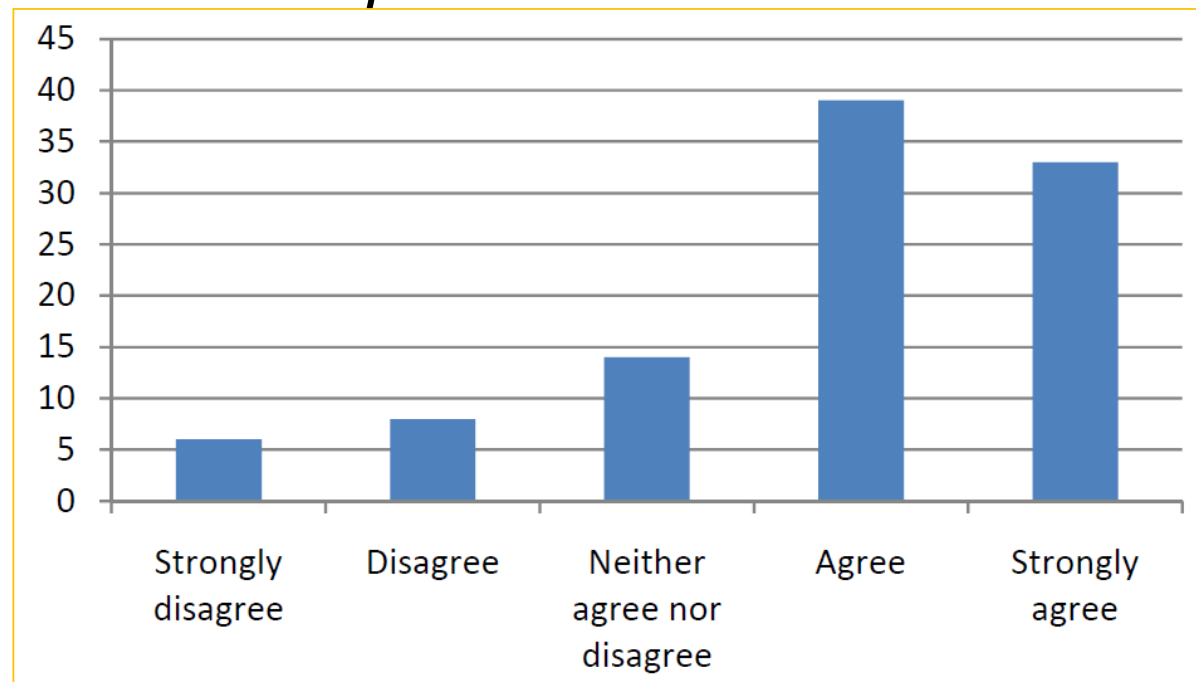
Good safety effects of Traffic Calming

- Crash analysis from 19 Chch Sites (J.Mao 2009)
 - Lots of international evidence with similar findings



Good benefits also for Community and Encouraging active modes

- Lisa Williams (UC Masters Research 2013)
 - *"Compared to the provision of walking and cycling infrastructure, ...reducing urban speeds is considered to be **at least as effective** at achieving sustainable land transport outcomes."*
- Hamilton CC:
"Q: Safer Speeds are good for the local community" → → → →



But won't lowering speed limits greatly increase Travel Times?

- Maybe a little, but...
 - Most traffic delay is due to **other traffic**
 - Most traffic delay occurs at **intersections**
 - Arterial routes generally **won't** be targeted
- You will gain more economic benefits from:
 - **Safety** benefits of reduced speeds
 - **Health** benefits of encouraging more active trpt
 - **Retail** benefits from encouraging passing trade
 - **Property Value** benefits due to more liveability

"The average speed is already well below the speed limit"

- So reinforce that with an **enforceable** speed limit!

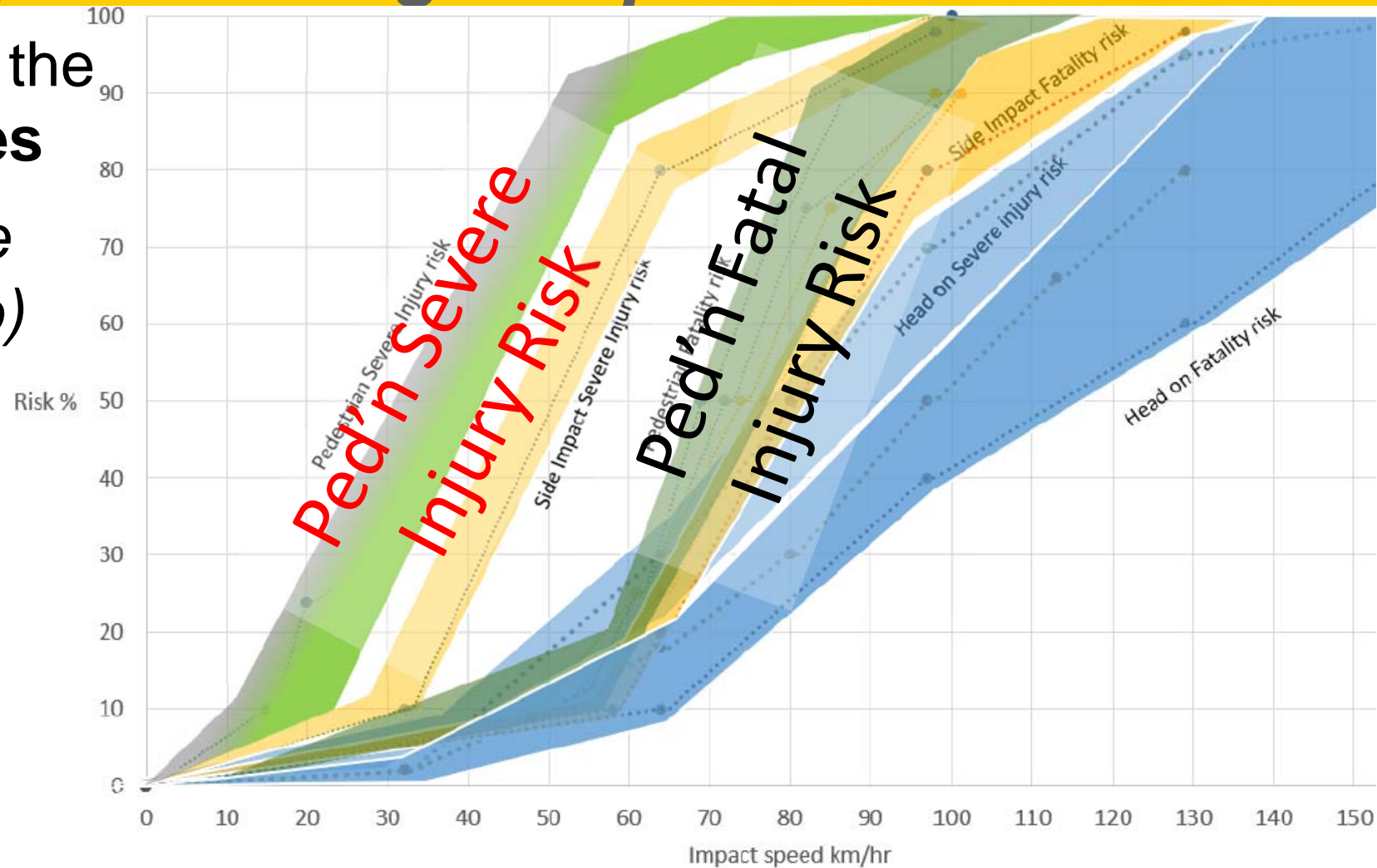


- Also sends a clear encouraging message to those who wish to walk or cycle

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

- Speed affects the **consequences**

(it affects the likelihood too)



Scott & Mackie 2014

"The public don't want reduced speeds"

● WHO are you asking?



These guys...

...or these guys?

c/ NZTA

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“We’re not allowed to depart from the Calculated Speed Limit warrant”

Setting of Speed Limits Rule:

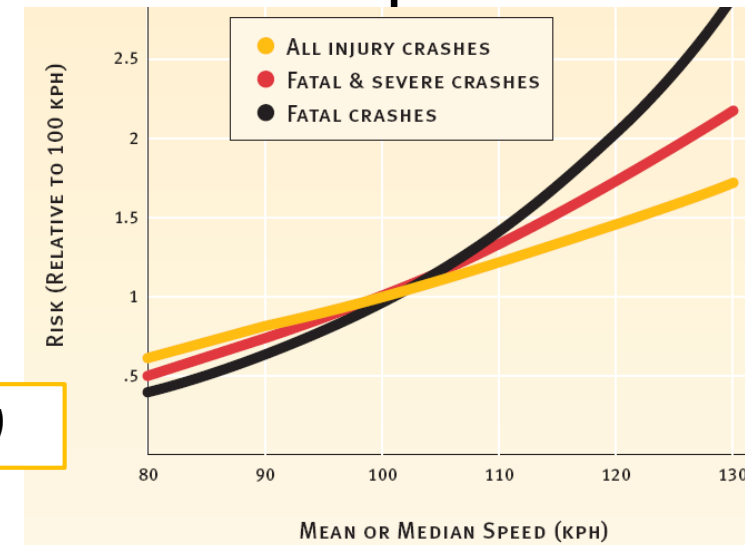
- 3.2(5) *A road controlling authority may propose to set a speed limit that **differs** from the calculated speed limit... if:*
 - (a) *a speed limit different from the calculated speed limit is the safe and appropriate speed limit for a road with regard to the function, nature and use of the road, its environment, land use patterns and whether the road is in an urban traffic area or a rural area; OR*
 - (b) *the proposed speed limit is less than 50 km/h and 3.2(6) applies.* ← section on speed limits <50km/h
- *But limited guidance on how to evaluate these factors...*

"Lower speed limits alone won't change traffic speeds"

- So add some additional traffic management features to get the speeds down a bit more
 - e.g. remove centrelines on local streets, add central islands
- For every 10 km/h posted speed limit reduction, typically we observe a **2-3 km/h** reduction in mean speeds

*(NB: 1% speed reduction
= -2% crashes & -4% fatalities)*

Nilsson (1982)

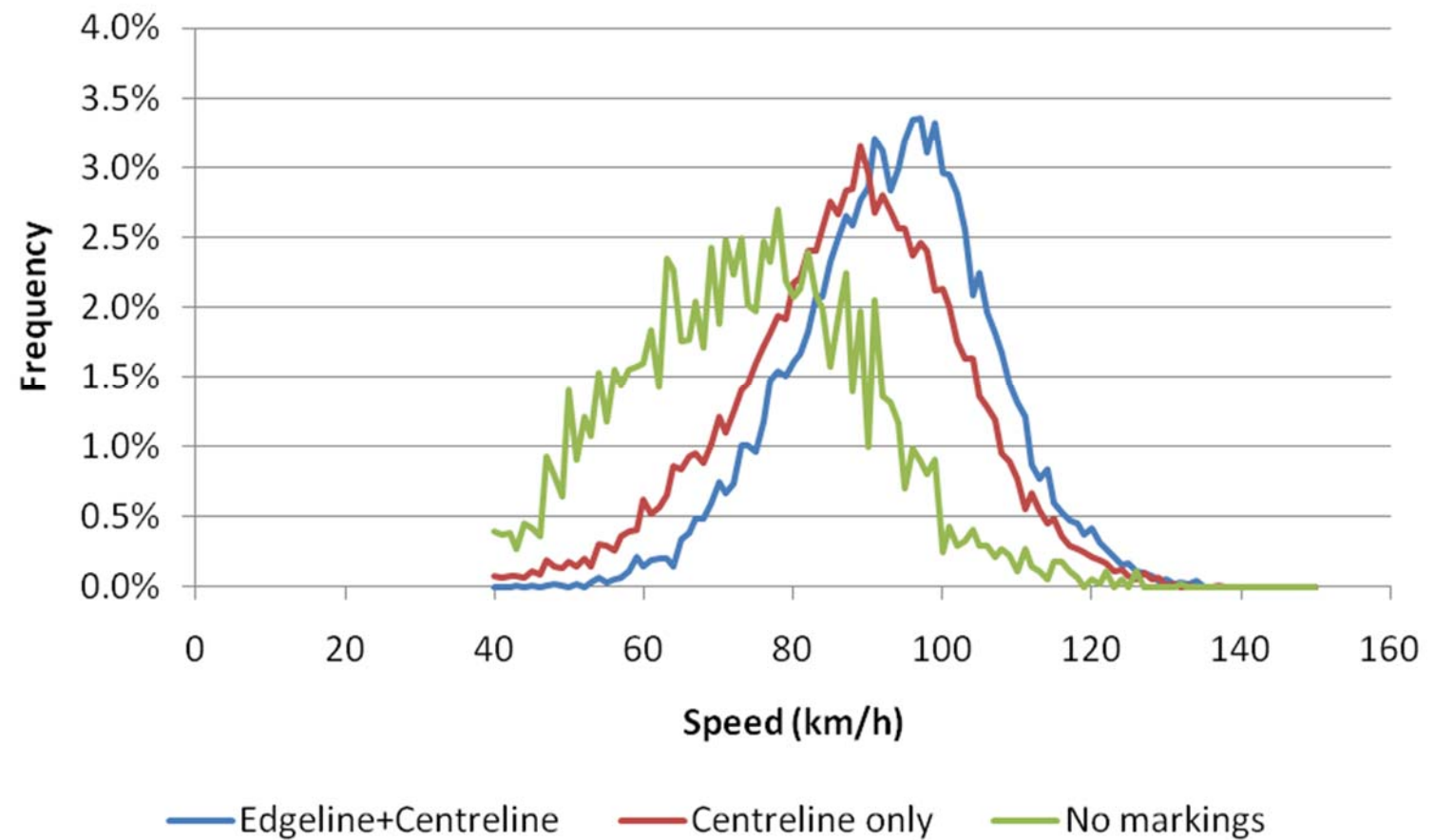


Effect of Road Markings on Speeds

*Burdett & Nicholson
(2010)*



Relative Speed Frequencies on Rural Roads



Contributors to higher vehicle speeds

- Street **Length** – visual and physical
 - *Treatments: Have street sections < 250m, Limit forward sight distance (plantings, realignment)*
- Street **Width** – perceived and actual
 - *Treatments: Reduction in visual or actual width (kerbs extensions, plantings), Pavement deflections (chicanes/islands)*
- Smooth **Surfaces**
 - *Treatments: Cobbled/tiled pavements, Vertical deflections (humps/platforms)*

Key physical tools for lower speeds



Explain WHY people should slow down



Start with the Low Hanging Fruit

- Suburban/CBD shopping streets



- Residential traffic calmed areas



- School zones



- Unsealed/winding/narrow rural roads



Thank You!

- Any Questions?

*Dominion Post, 11
Feb 2015*

- glen@viastrada.nz*

VIASTRADA

'City 30kmh speed limit saved my life'

TOM HUNT AND OLIVIA WANNAN

Last updated 05:00, February 11 2015



SUPPLIED

COUNTING HER BLESSINGS: Elle Haring escaped with cuts and bruises.

Elle Haring simply did not hear the "silent" bus that knocked her down in central Wellington.

The Valley Flyer bus, travelling about 25kmh, hit her from behind in Manners St, between Victoria St and Cuba St, shortly after 8am yesterday, she said.

"The bus was completely silent. I think if I had heard it, I would have looked.



Setting of Speed Limits Rule

Speed limits less than 50 km/h

3.2(6) A road controlling authority may propose to set a speed limit of less than 50 km/h... if:

(a) the calculated speed limit for the relevant road is 50 km/h; AND

*(b) the proposed speed limit would be likely to **increase the safety of pedestrians, cyclists or other road users**; AND*

*(c) safe and appropriate traffic engineering measures are installed so that the measured mean operating speed is **within 5 km/h** of the proposed speed limit.*