

Has cycling safety in New Zealand improved?



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

Dr Glen Koorey

Director, ViaStrada Ltd, Christchurch
*Australasian Road Safety Conference,
Cairns QLD, Sep 2023*

VIASTRADA
TRANSPORT PLANNING AND DESIGN

Presentation Outline

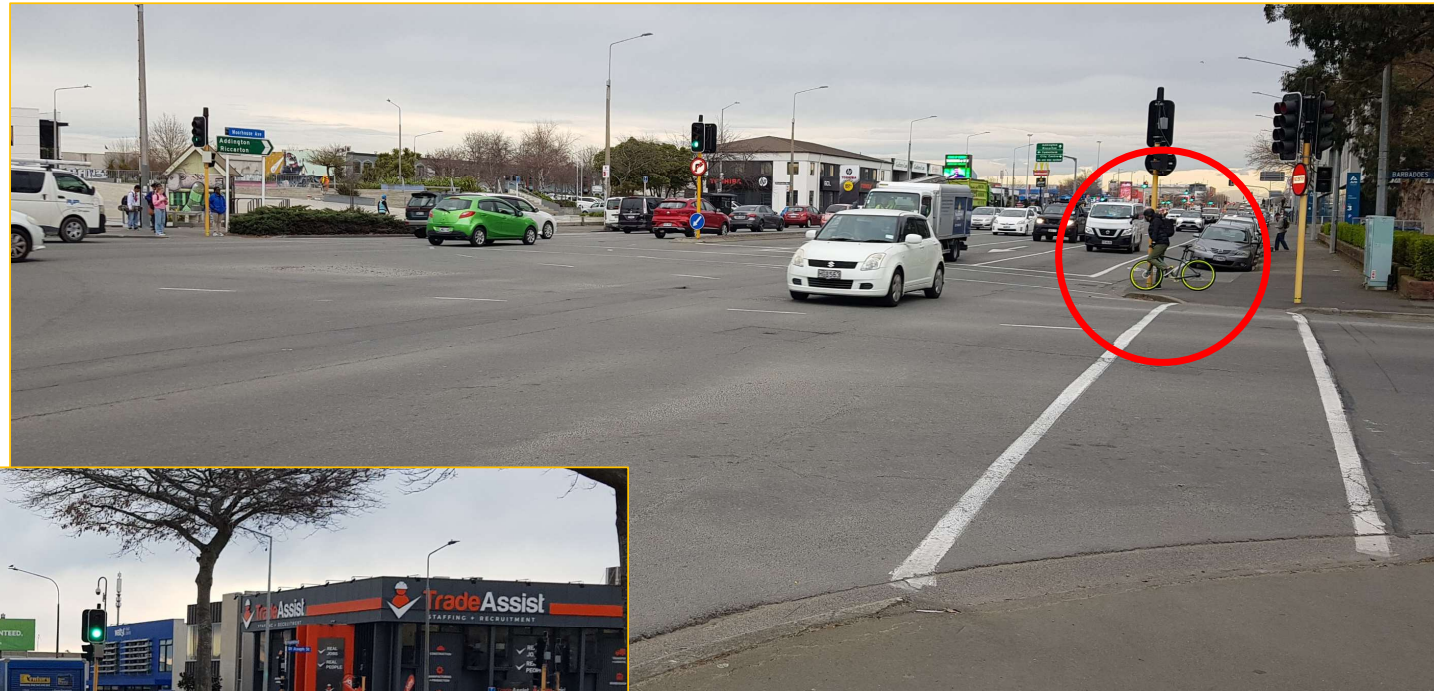


- A history lesson
 - Cycling safety in the past
 - 2011 Coroner's Inquest
 - 2014 Cycle Safety Panel
- Where are we today?
 - Gains and losses
 - The problem with trucks
- Ways forward
 - Christchurch: build it and they will come (and do so safely)...

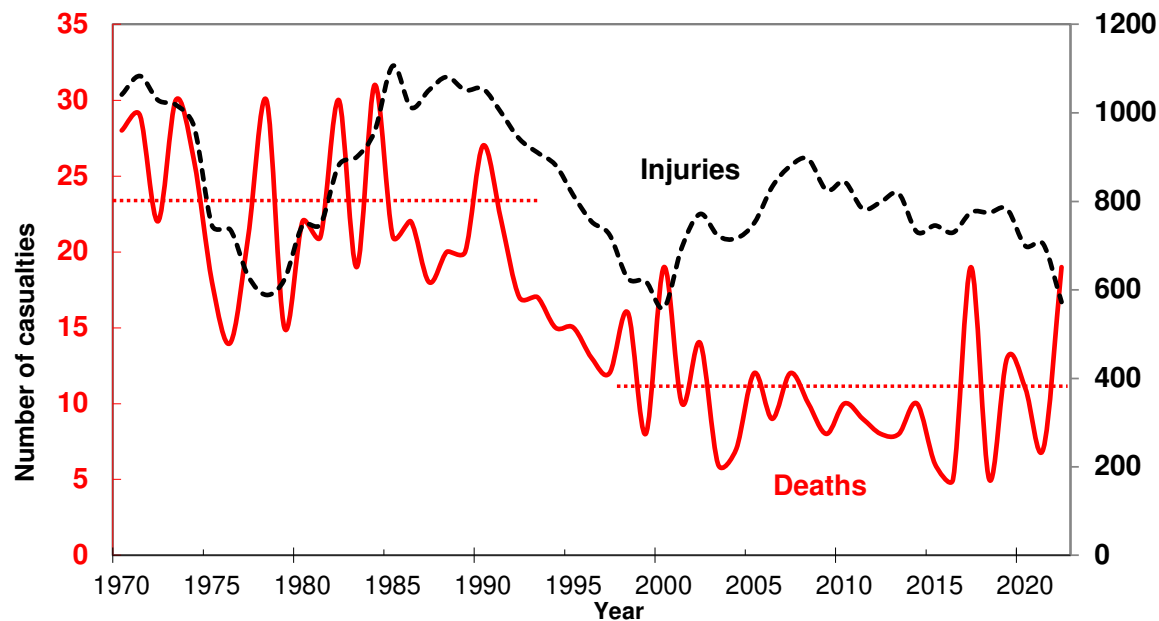
The great New Zealand Image...



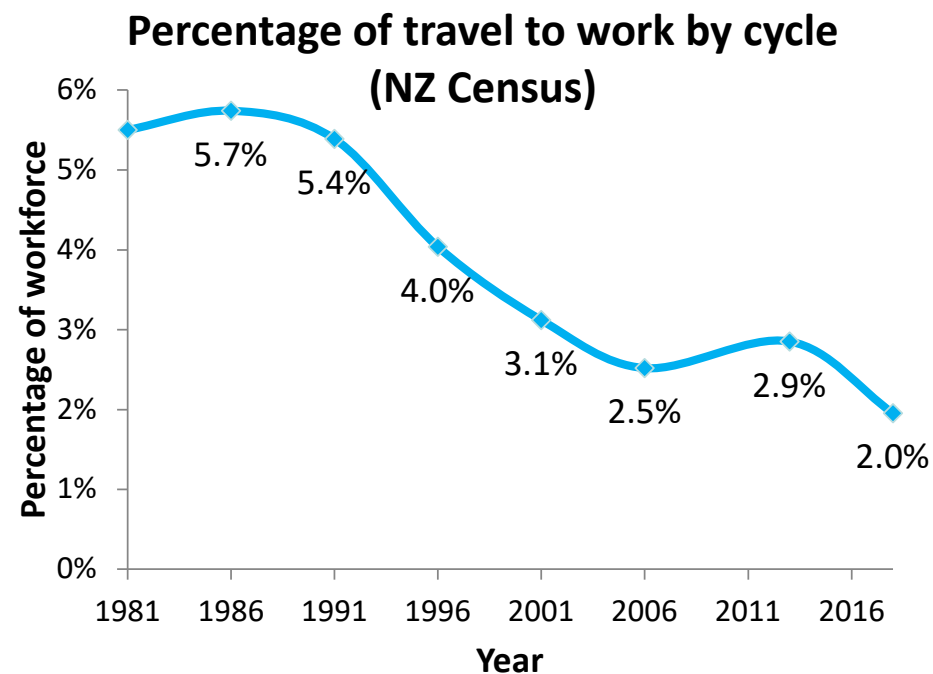
The great New Zealand Reality...



Cycling safety has been worse in NZ in the past...



...but is that just a reflection of changing usage?



Genesis: Cycling Safety in 2010

Third Morrinsville cyclist dies in hospital

November 18, 2010, 7:43 am

18 November 2010

Friends grieve for 'wonderful' nurse

Schoolgirl hit amid cycle death spate

Last updated 10:50 18/11/2010

549 comments

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DEREK FLYNN

INJURY: A school girl was seriously injured after falling under the rear wheels of a truck and trailer unit south of Blenheim on State Highway 1.

A Blenheim schoolgirl was **seriously injured when she was run over by a truck** while cycling this morning, as the cycling death toll in the past five days rose to five.

The cycling deaths have seen the Cycling Advocates Network renewing calls for drivers to undergo testing every 10 years.

The 12-year-old girl was riding with another girl when she was hit by the truck and trailer, which was carrying a tractor, on State Highway 1 just outside Blenheim about 8.20am.

Blenheim St John Ambulance operations team leader Pete Davidson said the girl suffered serious head, chest and abdomen injuries and was taken to Wairau Hospital.

FIFTH CYCLE DEATH SINCE SUNDAY

Kay Wolfe, the third cyclist hit by a car near Morrinsville on Sunday has died in Waikato Hospital.

Wolfe, 45, of Gordonton, had been one of 10 cyclists from the Morrinsville Wheelers Cycling Club travelling in a group along the Morrinsville-Walton Rd when a car driven by a 23-year-old woman crossed the centreline on a corner and crashed into the group.



Jane Bishop died on a stretch of Tamaki Drive which a triathlete who often travels on it says is particularly dangerous for cyclists because it is narrow and has a tight corner. Photo / Greg Bowker



VIDEO John Key on cycling deaths (1:28)

- Waterfront cyclist killed in crash named
- Driver forces cyclist off road - lectures him
- Auckland cyclist killed trying to avoid opening door - police
- Spontaneous photo stop ends in tragedy

nzh your views

What needs to be done to make cycling safer?

Share your view »

Read what others think

NZ Coroner's Inquest Into Cycle Deaths (2011-13)

Inquest into death of eight cyclists begins

MICHAEL FORBES

Last updated 14:43 21/07/2011



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Supplied

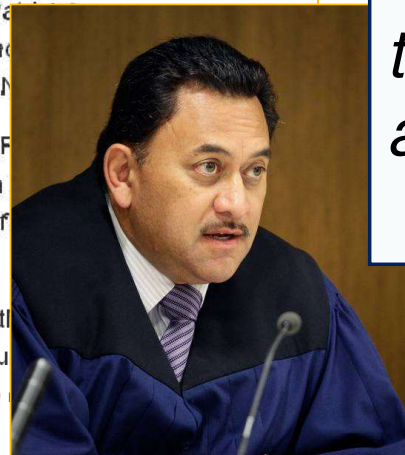
SAFETY INQUEST: Patricia Fraser was killed while out training for the Lake Taupo Cycle Challenge.

Making cycling "dorky or un-cool" by introducing compulsory high-visibility vests to prevent deaths, may do more harm than good, a cycling advocate has warned.

Cycling Advocates Network spokesman Paul Morgan claimed during his evidence at a coroner's inquest into the deaths of eight cyclists, which began in Palmerston North.

Today's hearing focused on the deaths of Patricia Fraser, 45, who was hit by a careless driver, near Bulls, on January 7, and Dalzell, 75, who collided with a car north of Bulls.

Mr Morgan told Coroner Gordon Matenga that making clothing mandatory for cyclists could discourage cycling altogether, which could lead to an increase in cycling problems from inactivity.



*"Would it not be in the interests of the 1.3 million [New Zealanders] who do cycle, to have clothing that would increase the likelihood of them being seen? ...If you get the **irresponsible ones** off the road, wouldn't that be a good thing?"*

Coroner Gordon Matenga, 21/07/2011

Not the Only Coroner...

Hi-vis clothes a must for cyclists - Coroner

Last updated 16:11 14/02/2013

232

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A coroner is calling for high-visibility clothing to be compulsory for cyclists after a top road safety cop was struck while cycling in Petone.

Superintendent Steve Fitzgerald - who served for five years as New Zealand's top traffic officer - was killed in the Lower Hutt suburb while cycling home from work in Wellington to Eastbourne on June 19, 2008.

The truck driver who hit him, Desmond Wilson, was found guilty of careless driving causing death, ordered to pay \$2000 reparations, and disqualified for nine months.

Now, Wellington Regional Coroner Ian Smith is calling for high-visibility clothing to be compulsory for cyclists, enhanced cyclist education, a one-meter

*"Turning to the issue of high-vis clothing, it is in my view a **no-brainer**. It should be compulsory for cyclists to wear at all times when riding in public."*

Coroner Ian Smith, 14/02/2013

Cyclist death prompts high-vis warning

NICOLE MATHEWSON

Last updated 10:56 29/05/2014

20

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opinion poll

Should cyclists be forced to wear high-visibility clothing?

- ☐ Yes, safety is paramount
- ☐ No, it makes cyclists look silly. Instead motorists should learn to share the road.

A coroner has renewed calls for cyclists to wear high-visibility clothing after releasing findings into the death of a Christchurch woman.

Joanne Marjorie Drummond, 54, of Avondale, was killed on March 27 last year after being struck by a vehicle at the intersection of Breezes and Wainoni roads.

She had been riding straight ahead on Wainoni Rd on a green light, but driver Stanley Frodenck Wise, did not see her on his vehicle's left.

*"I recommend that all cyclists when using public roads take all appropriate steps to make themselves **more obvious** to other road users... including the use of auxiliary lighting and the wearing of high-visibility clothing."*

Coroner David Crerar, 29/05/2014

"It's Just Obvious!"

Should it be compulsory for cyclists to wear high-visibility clothing?

Yes - safety first

574 votes, 53.6%



Only at night

103 votes, 9.6%



No - it won't make a difference

248 votes, 23.2%



No - it can't be enforced

105 votes, 9.8%



I don't mind either way

40 votes, 3.7%



Total 1070 votes

Stuff.co.nz Opinion Poll

I weighed in with a little bit more analysis...

Monday, 29 July 2013

High-vis vests won't cut cyclist death toll: expert

News > National



Mandatory wearing of high-visibility clothing for cyclists would not reduce the death toll, an expert told a coroner today.

A special joint inquest into four South Island cyclist deaths has been heard before Coroner Christopher Devonport.

It is the last of five coronial hearings covering 12 deaths as part of the National Cycle File, ordered by Chief Coroner Neil MacLean after a spate of five cyclist deaths in less than a week in late 2010.

Today's inquests heard that alcohol, speed, and cycling without lights were involved in some of them.

But there was "no magic bullet" in bringing down the death toll, said Dr Glen Koorey, senior lecturer in transportation at the University of Canterbury.

All school kids should be taught proper bike riding technique by the age of 10 as a "rite of passage," he said.

There needs to be more cycle lanes and drivers needed to be more aware of cyclists, give them more space, and be more patient, he said.

Dr Koorey has studied all 84 fatal cyclist deaths from 2007 to 2012. The average age was about 50.

While New Zealand lagged behind the Netherlands and other countries in cycling here was not inherently dangerous, he said, it was more than two million hours of cycling per death.



- ...and to his credit, the Coroner recommended further investigation

Recommendation

[22] For the reasons set out above and pursuant to sections 3(1)(b) and 57(3) Coroners Act 2006 I recommend that:

- The **NZTA convene an expert panel** drawn from stakeholders with an interest and expertise in cycling and road safety, to consider the evidence gathered by this Review and such other evidence as it considers necessary, with a view to compiling a list of recommendations to central and local government which will improve cycling safety in New Zealand and prevent further cycling crashes and fatalities.

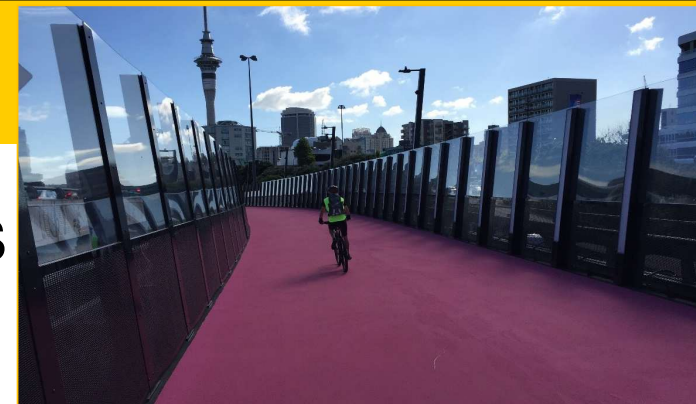
2014 National Cycle Safety Panel

- Expert group convened by NZTA/MoT
 - Lots of public submissions received
 - 35 Recommendations made
(incl. 15 high priority recc'ns)



We've had some resulting wins...

- Cycleway funding increases



- Industry guidelines & training



- Better Transport Agency support



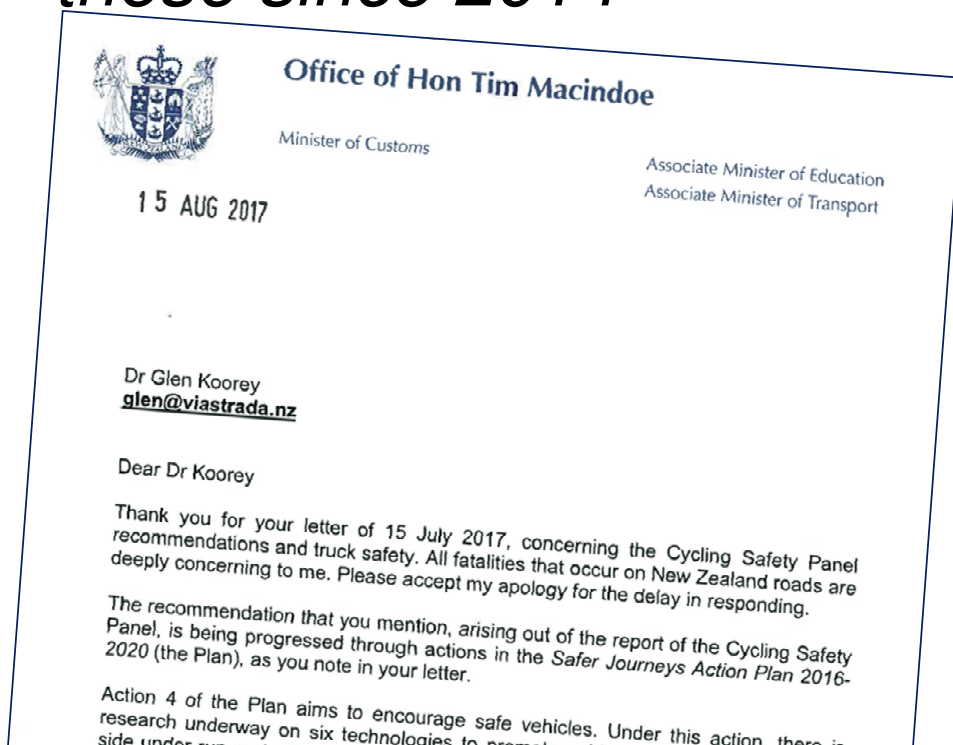
- Cycle skills training



High priority recc'ns

Truck-related:

- *Very little tangible progress on many of these since 2014*



SAFE SYSTEM ENABLERS

1. Give **greater priority to active transport needs** (cycling and walking) in all land transport planning and investment decisions. This needs to be reflected in the Government Policy Statement on Land Transport Funding (GPS), the National Land Transport Programme (NLTP), the Transport Agency's Investment Assessment Framework, the Economic Evaluation Manual (EEM) and councils' long-term community plans.
2. Establish and resource **dedicated teams** in the Transport Agency and Ministry of Transport with staff and funding to plan, implement and evaluate investments in cycling. Local government is encouraged to do the same.
3. Improve the quantity and quality of **data collection**, especially for non-motor vehicle crashes.

SAFE SPEEDS

4. Ensure the needs of cycling are considered in the implementation of the Safer Speeds Programme.

SAFE ROADS AND ROADSIDES

5. Accelerate the provision of completed, fit-for-purpose, connected **cycle networks**.
6. **Design intersections** so they are safe for cyclists. Trial European design guidelines for roundabouts and other innovative treatments.
7. **Separate cyclists** from high-speed and high-volume or high freight density traffic.
8. Progressively remove **parking from arterial roads** where it is a safety risk.
9. Develop and promote nationally applicable **design guidelines** for cycling infrastructure.

SAFE ROAD USE

10. **Trial mandatory minimum passing distances** for motor vehicles overtaking cyclists in conjunction with an information campaign explaining the rule change to all road users.
11. a. Increase and incentivise **training for commercial drivers** about driving safely near cyclists
b. Raise **cyclist awareness** of the risks of riding near heavy vehicles.
12. Increase the safety of **cycling to school** through a package of Safe System measures.
13. Improve all road user **attitudes and behaviours** towards sharing the road safely.

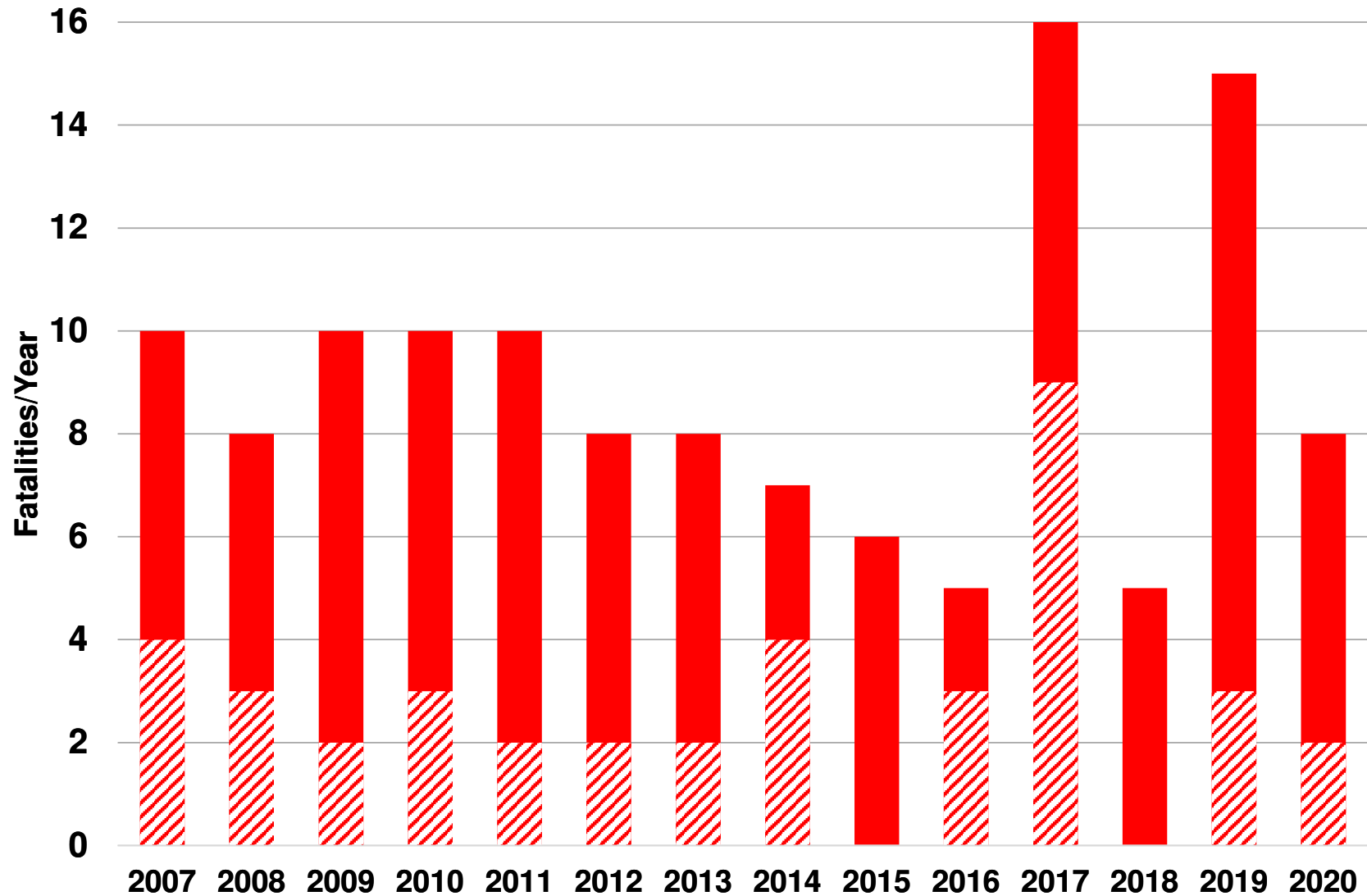
SAFE VEHICLES

14. Investigate the costs and benefits of introducing mandatory **truck side-under-run protection** and other **vehicle safety features**.
15. Adopt improved standards for **bicycle lights**.

Trucks vs Bikes: The problem...

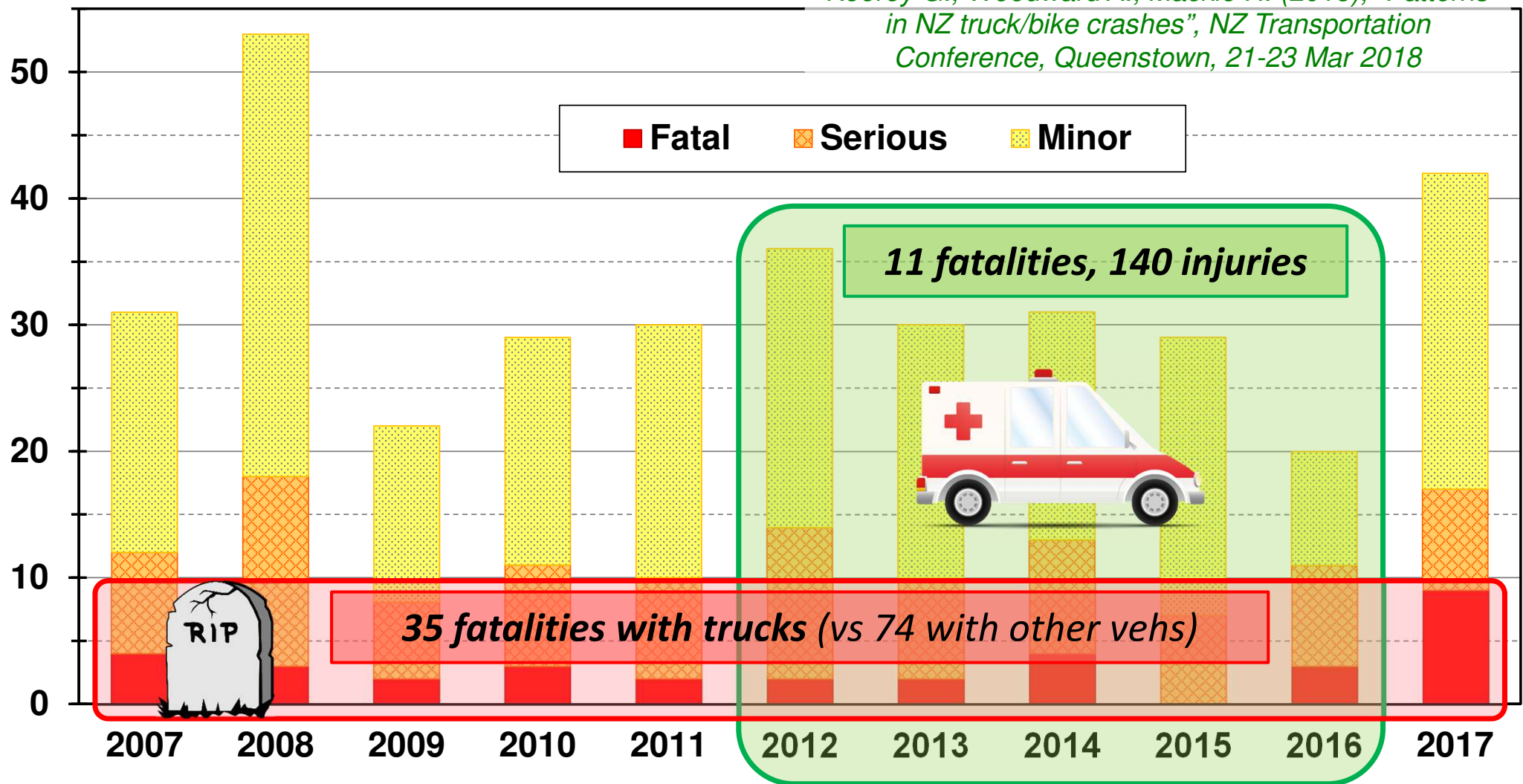
- Cyclist vs motor veh:
Fatalities over time

— Trucks: 
becoming more prevalent



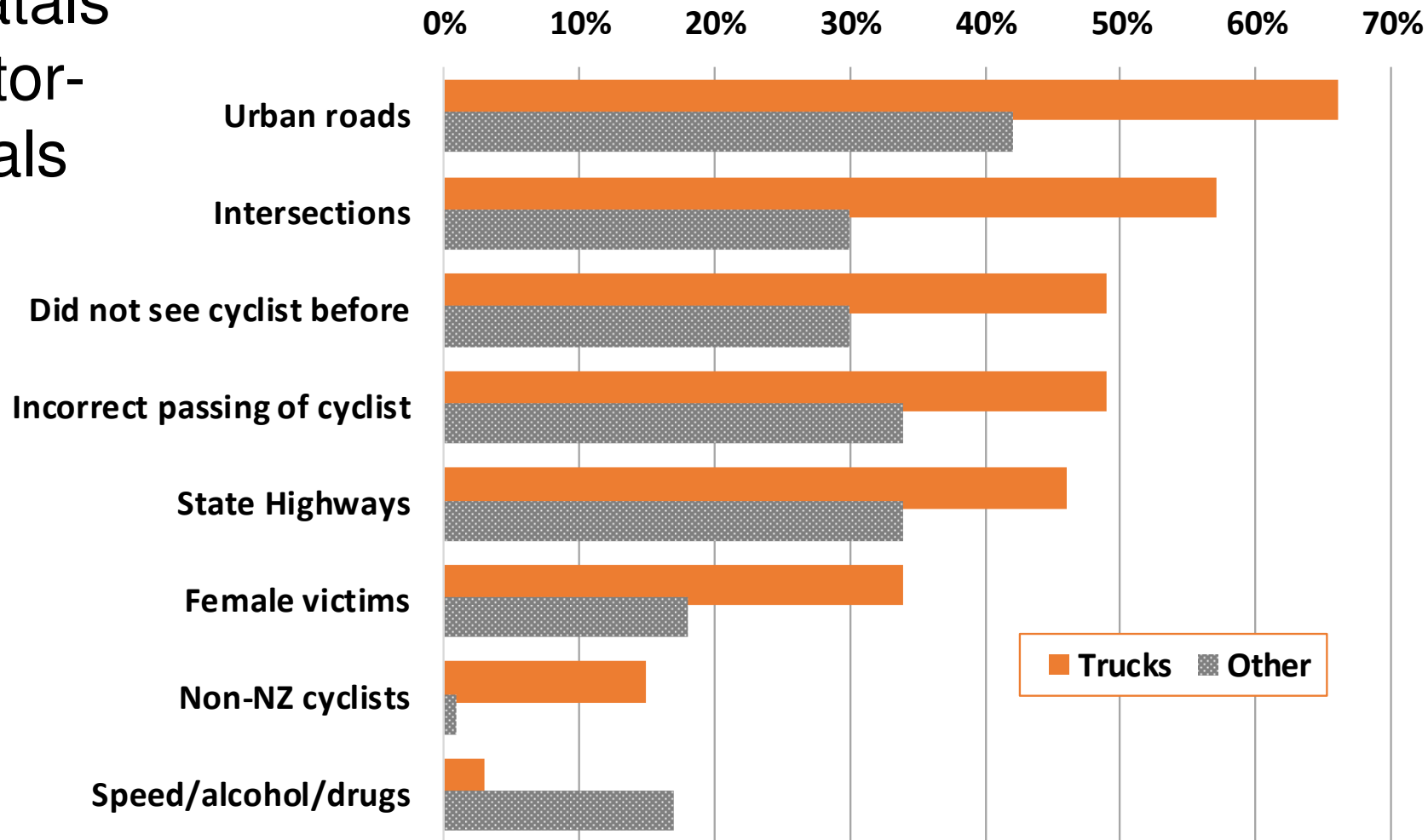
A closer look at truck-bike crashes

Koorey G., Woodward A., Mackie H. (2018), "Patterns in NZ truck/bike crashes", NZ Transportation Conference, Queenstown, 21-23 Mar 2018



Truck-bike fatalities: Key crash patterns

- Truck-bike fatalities vs Other motor-veh./bike fatalities



Safe systems solutions: Lots of options

- Separated Cycleways
- Better Intersections
- Shoulder widening



- Cycle skills training
- Truck driver training
- Minimum overtaking gap
- Workplace H&S processes
- “Share the Road” workshops



*Central/local Govt
systemic issues?*

- Lower rural speed limits
- Lower urban speeds?

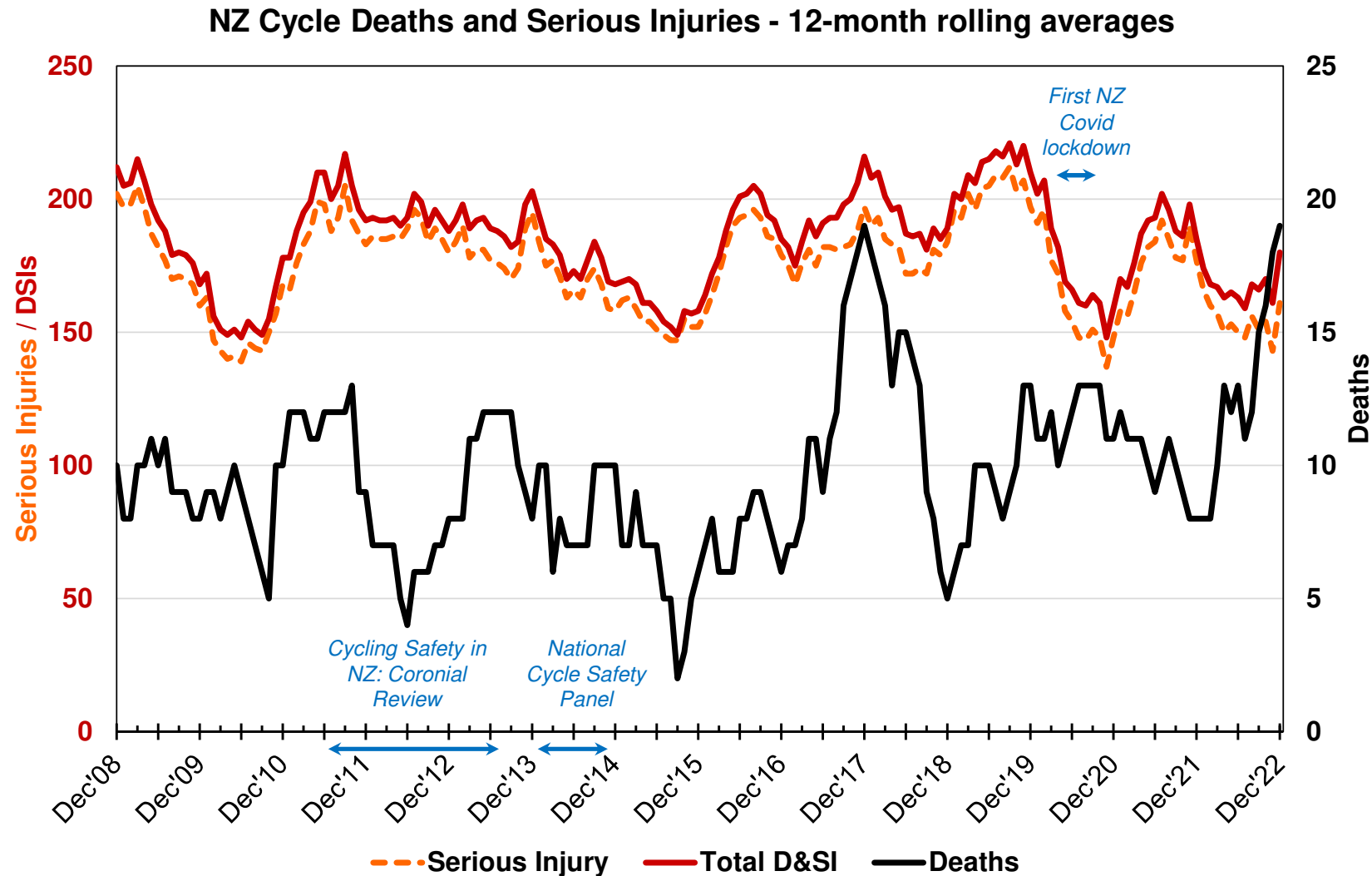


- Side under-run protection
- Better cab visibility/mirrors
- Truck-side cyclist sensors
- “Approved trucks” only?



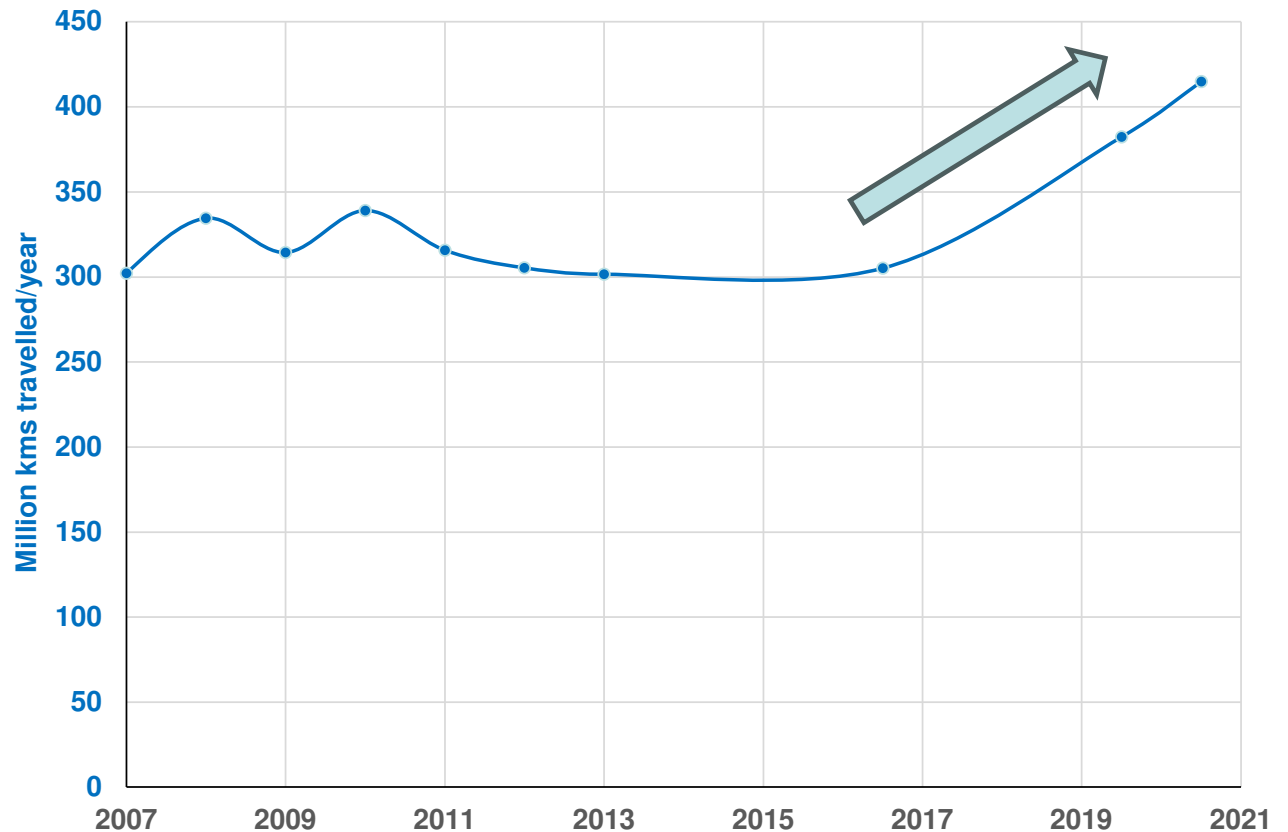
So what's happened with cycle safety lately?

- No dramatic improvements
- Notable drop during national lockdown though (2020)
 - Effect of less traffic?



Is individual risk improving though?

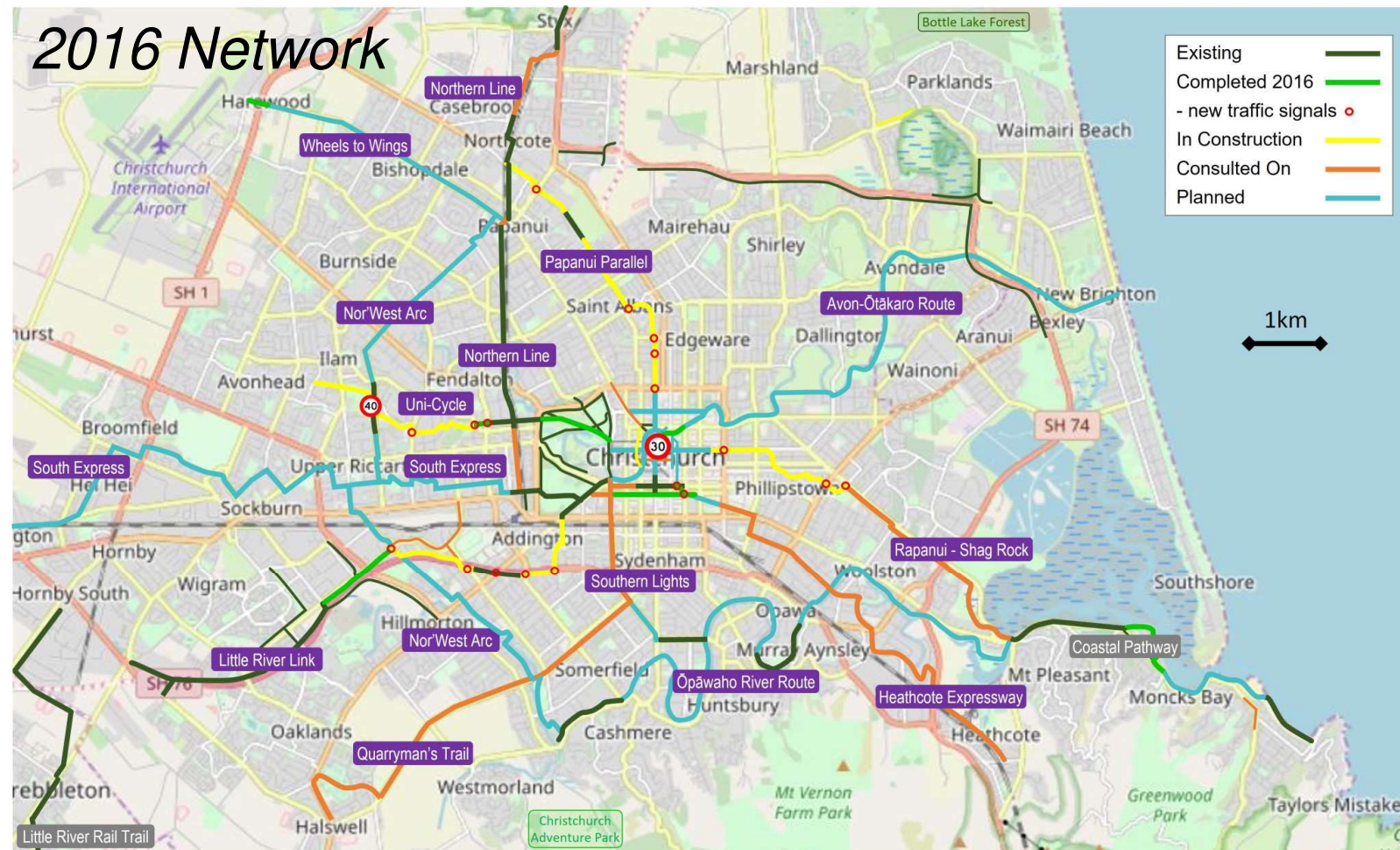
- MoT Household Travel Survey data
 - Ongoing monitoring, scaled from a sample of travel diaries
- ~**35%** increase in cycling travel across NZ since 2016
 - Aligned with major cycleway funding increases



➔ *Static cycle safety stats + more cycling = safer cycling **per person**?*

Case Study: Christchurch - growth of a Network

- Post-quake push to develop city-wide network of Major Cycle Routes
 - \$300m+ investment





Separated Cycleways



Neighbourhood Greenways

A Variety of Treatments...



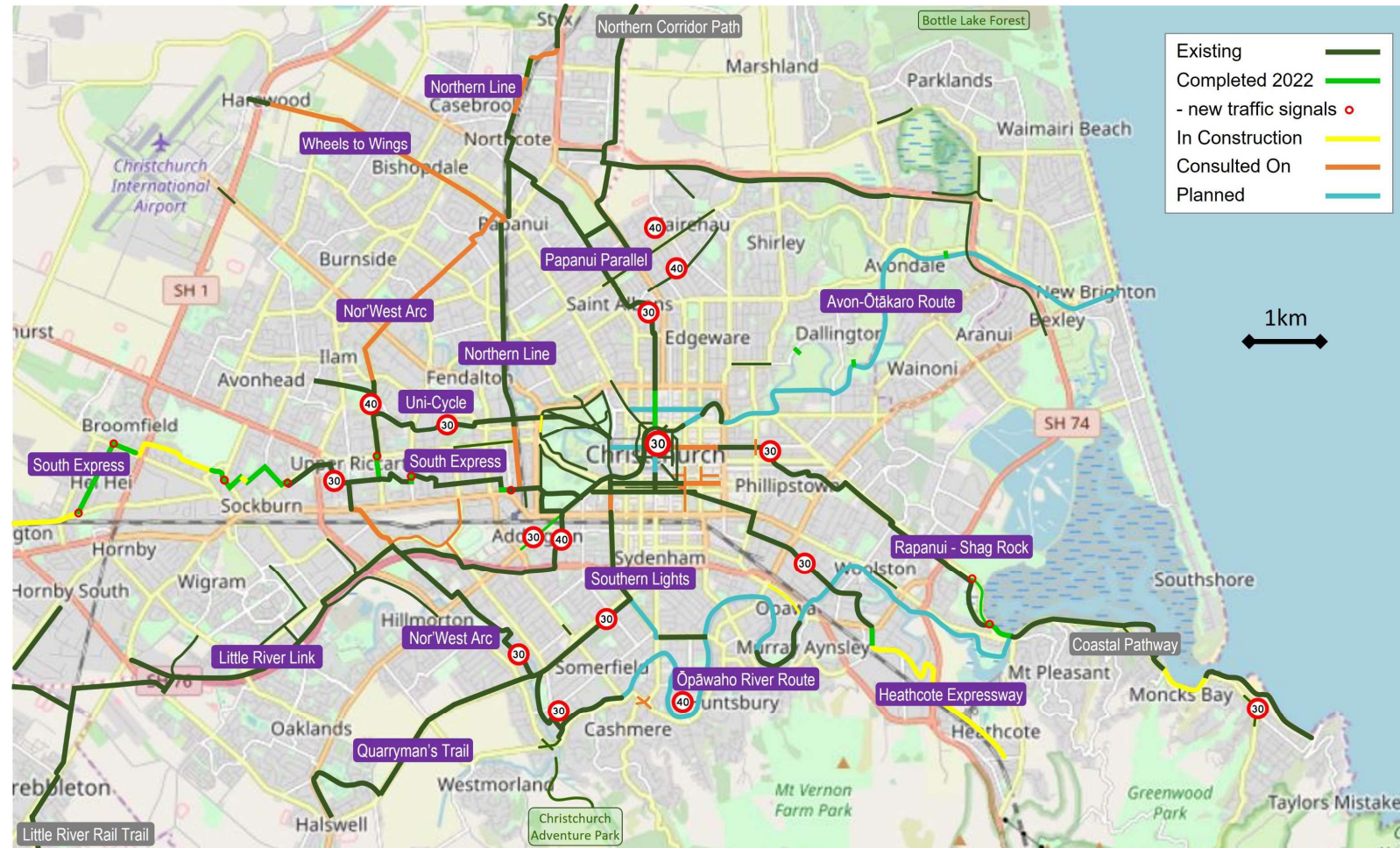
Shared Pathways



Roadway Crossings

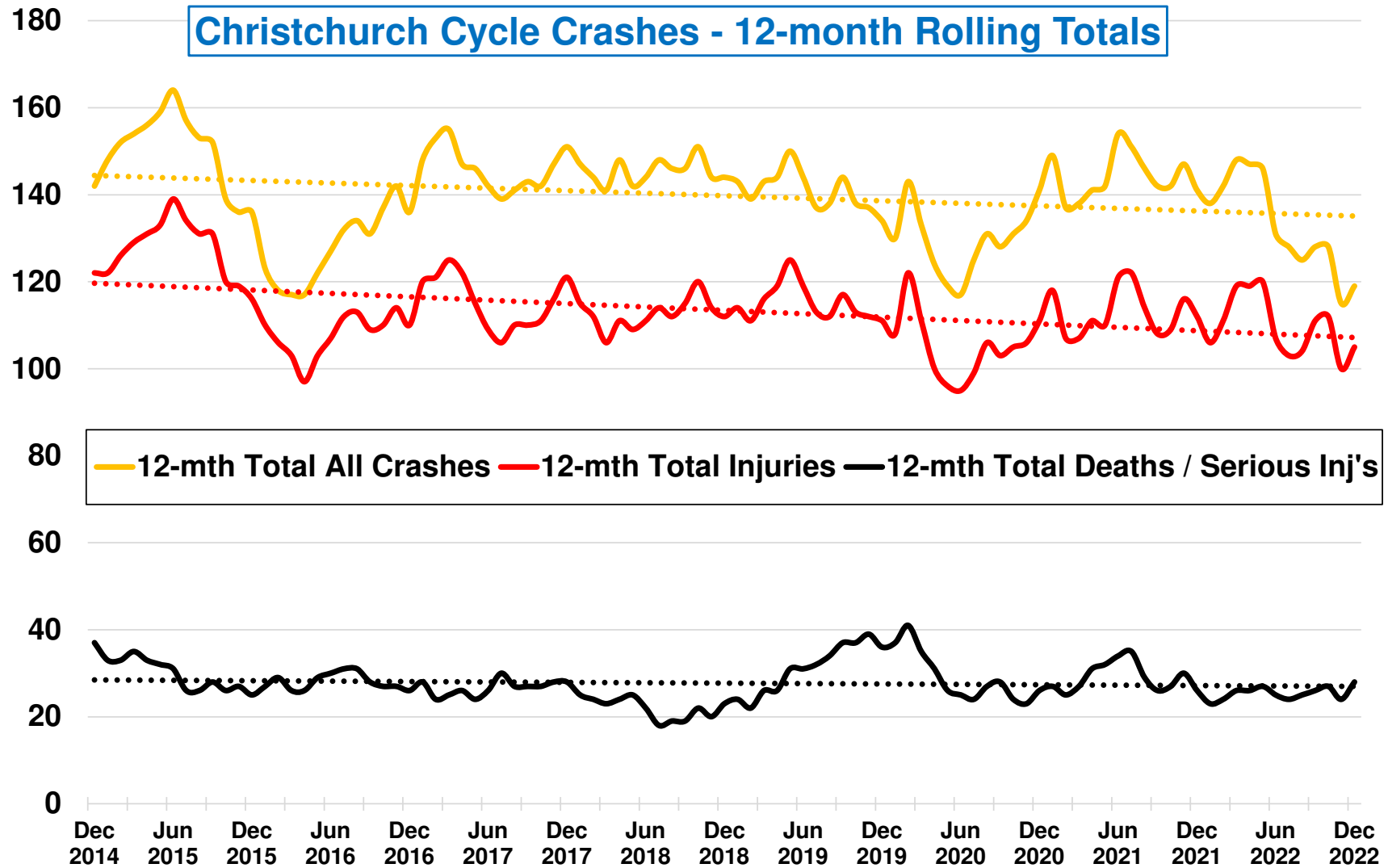
Christchurch: 2022 Network

- Over 60% of Major Cycle Routes now completed or under construction
 - Also lots of low speed zones



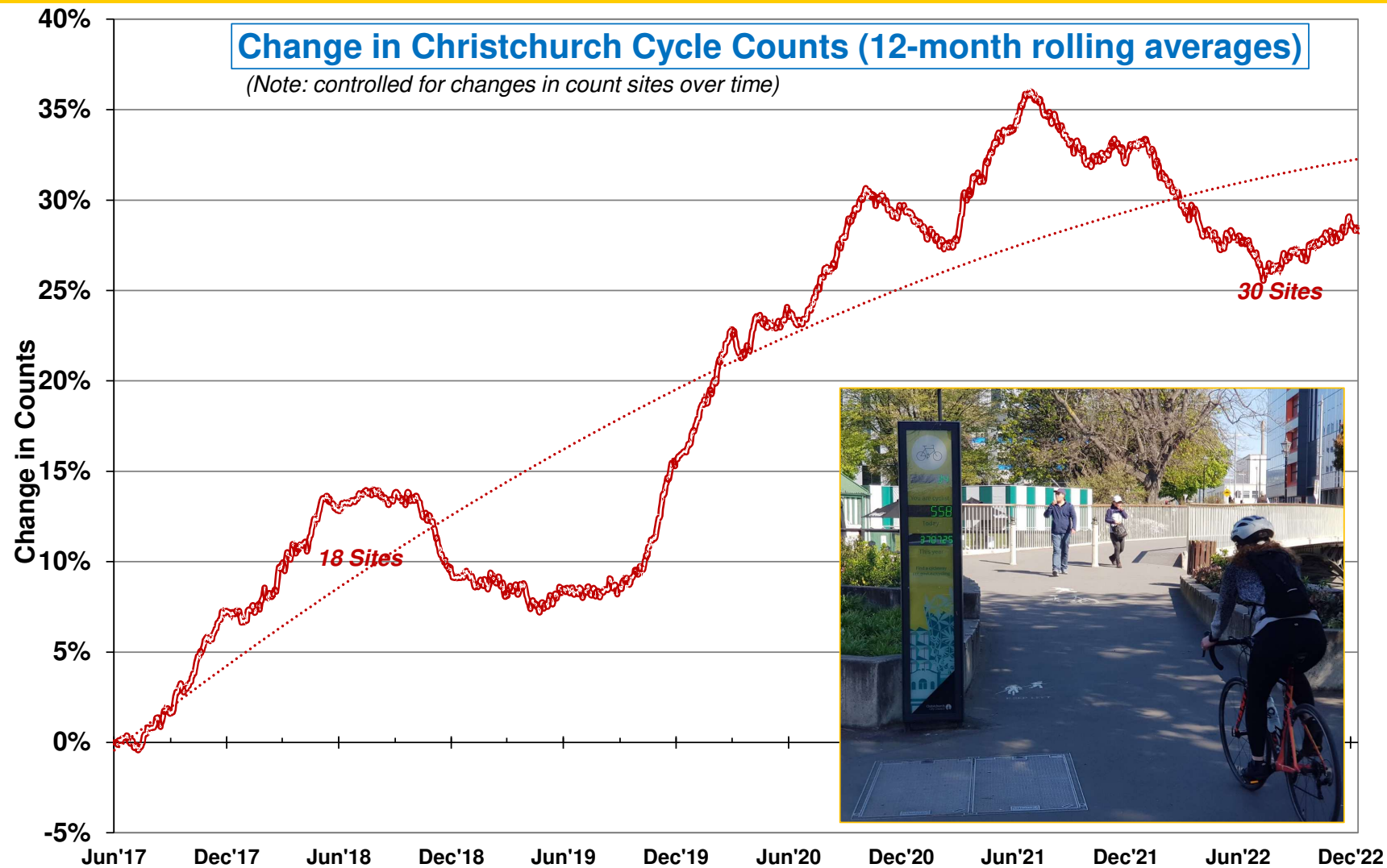
Christchurch: Safety can improve...

- Seems only slightly promising...



Christchurch: ...and this is on top of major growth!

- Casualty rate *per rider* has improved...



Conclusions

- Cycling safety stats in NZ are relatively static
 - But cycling growth is probably improving the personal risk
 - Christchurch: better cycle facilities leading to growth + safety
- Still need to implement a number of Cycle Safety Panel recc's
- Truck crashes still 30-35% of cycling fatalities in NZ
 - More left to tackle in this area
- Introduce more **safe-system measures** for cycling
 - Protected cycle facilities
 - Lower speeds

Thank You!

- Any Questions?

- glen@viastrada.nz

  GKoorey

Nijmegen, The Netherlands

