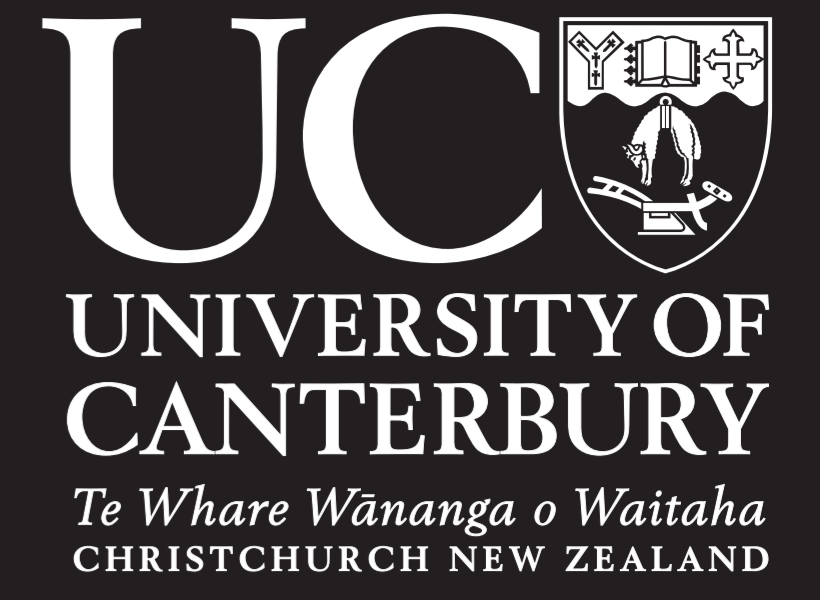


Investigating Common Trends in New Zealand Cycling Fatalities

By Dr Glen Koorey (Senior Lecturer, University of Canterbury)



Summary

Following the death of five cyclists in New Zealand during November 2010, The Chief Coroner announced a national Inquest to try and identify any common trends or information that could prevent a re-occurrence of such tragedies. However there was concern that the Inquest scope was of limited value without reference to a much larger sample of crashes.

To help inform this Inquest, a larger investigation into NZ cycling fatalities dating back to 2006 was undertaken. The aim was to try to identify any consistent patterns in crash occurrences that were significantly over-represented.

All cycling fatalities in NZ since January 2006 were identified from crash records and media reports; 78 fatalities were identified through to July 2012. Review of the relevant Police and media reports identified common attributes. Potential initiatives that could have prevented each fatality were also considered.

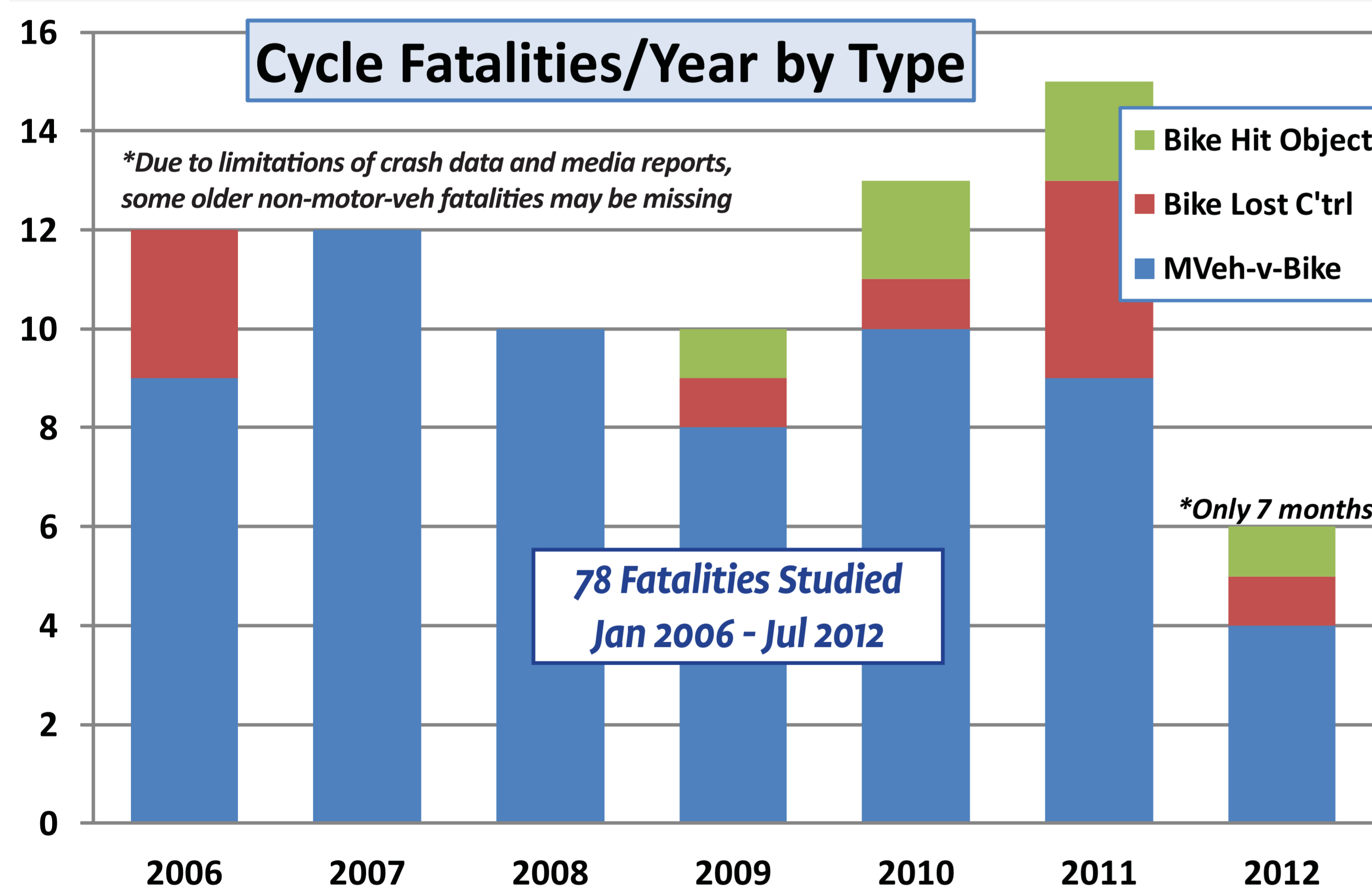
Some notable trends were found. Older cyclists (>50 years) are very over-represented, despite their relatively low cycling involvement, and also more likely to be at fault. Fatalities involving heavy vehicles and/or state highways were also higher than expected. Poor observation by drivers was very common. The study also identified inconsistencies in crash information recorded, including recording of non-motor vehicle crashes and clothing/helmets worn.

The study has provided valuable information to inform both the Inquest and transport safety agencies in general about what is needed to reduce the cycling road toll. It identifies additional trends that are not evident from just examining cycle injury crashes.

Crash Data Studied

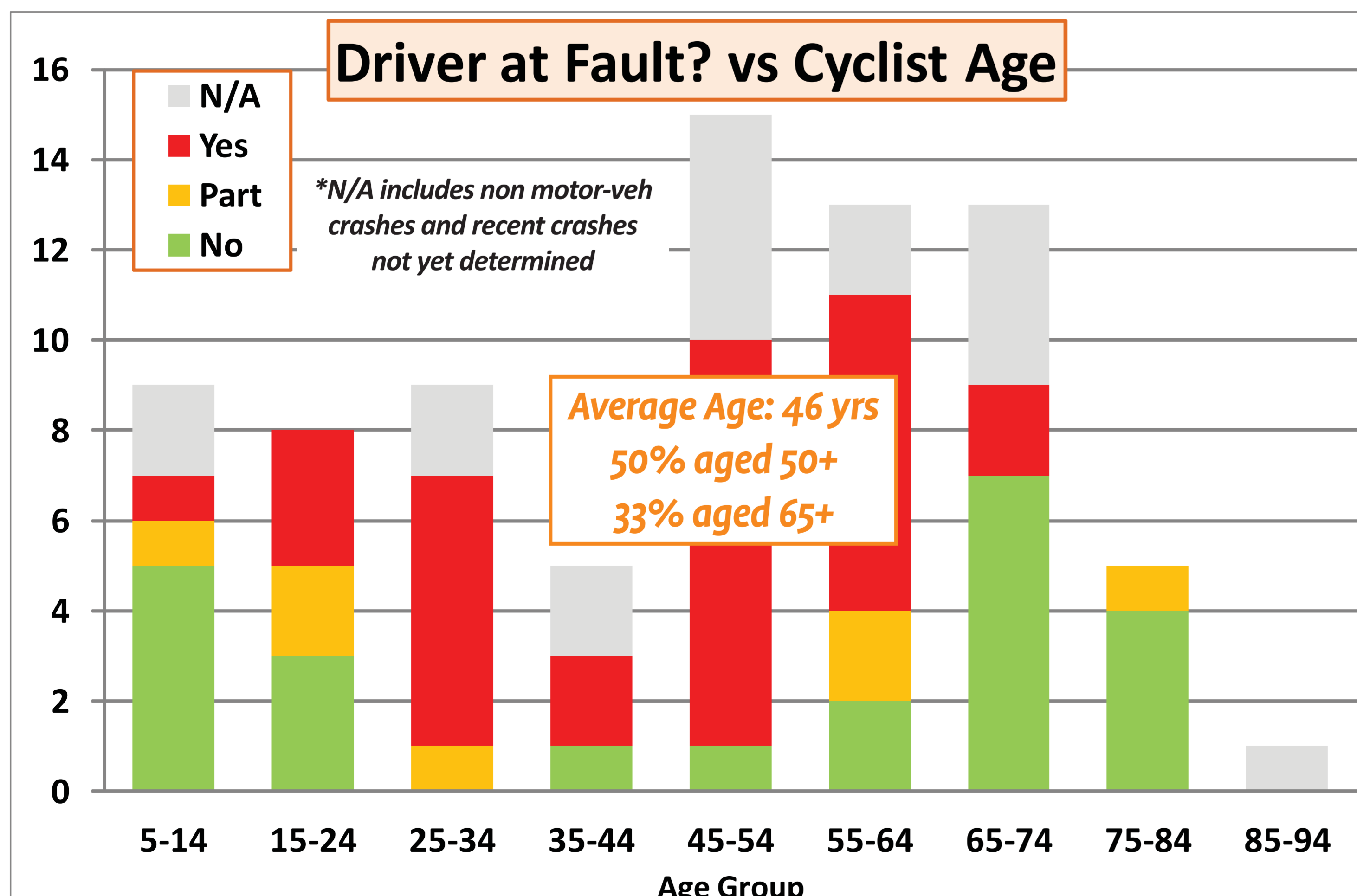
- All cycle fatalities involving a motor vehicle since Jan 2006
- All other cycle fatalities identified on a road or path since Jan 2006
- Mountain-bike fatalities on tracks were not included

Sources: NZTA/MOT Crash Analysis System (CAS), NZ Police Fatal Crash Reports, News media reports

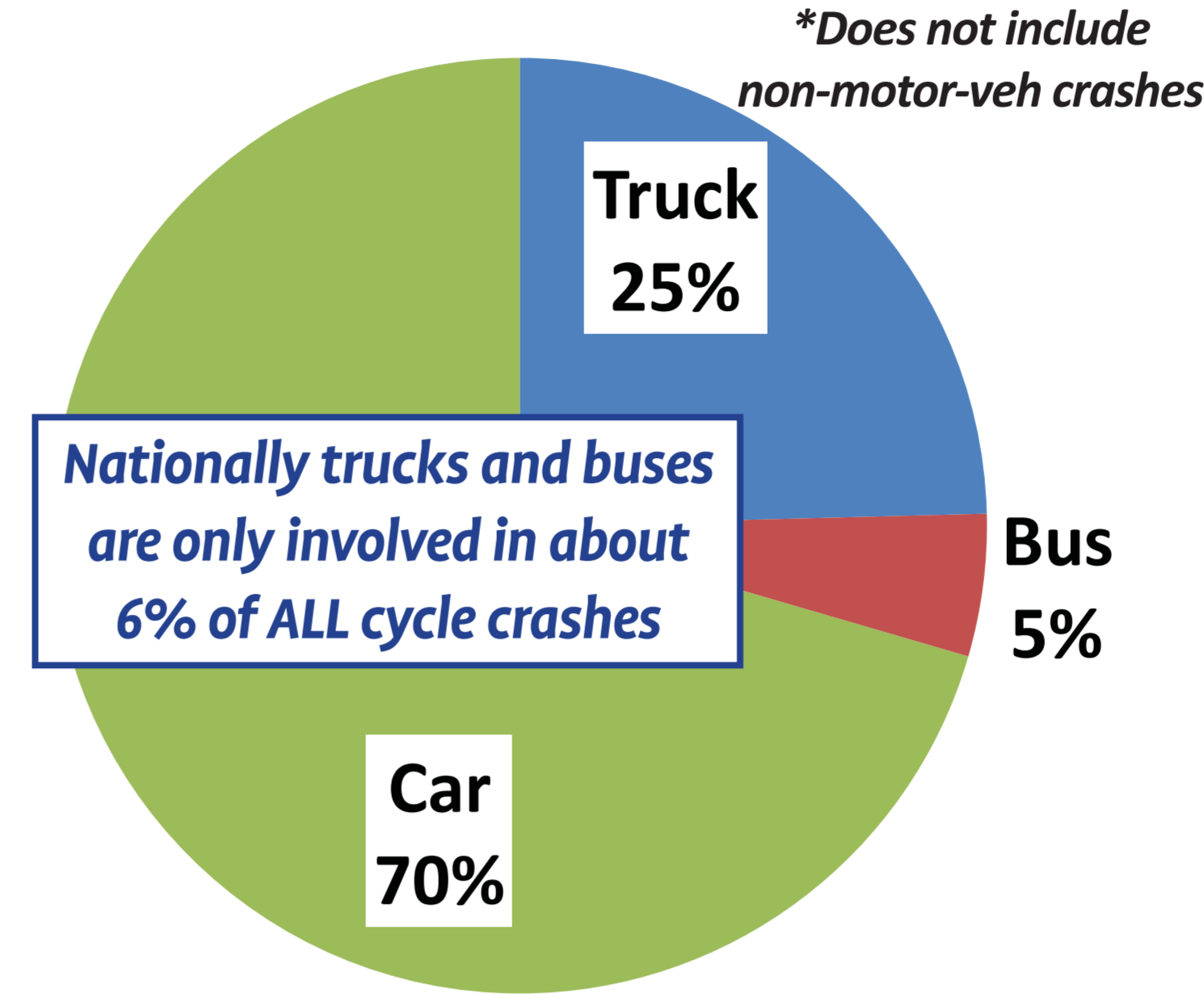


Age Distribution and Culpability

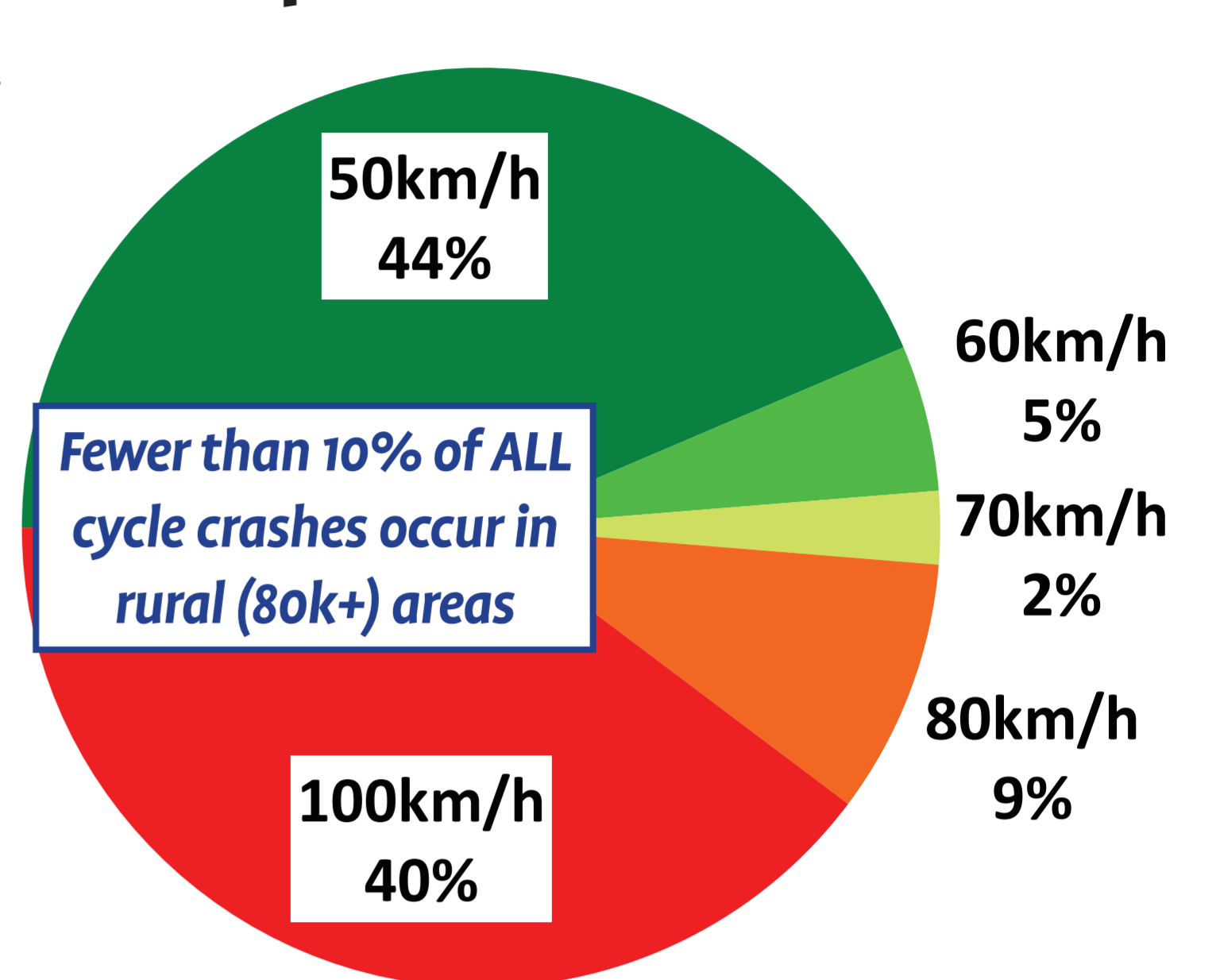
- All multi-vehicle crashes (60) were reviewed to assess partial or primary fault by the parties



Vehicle Involvement



Speed Limits



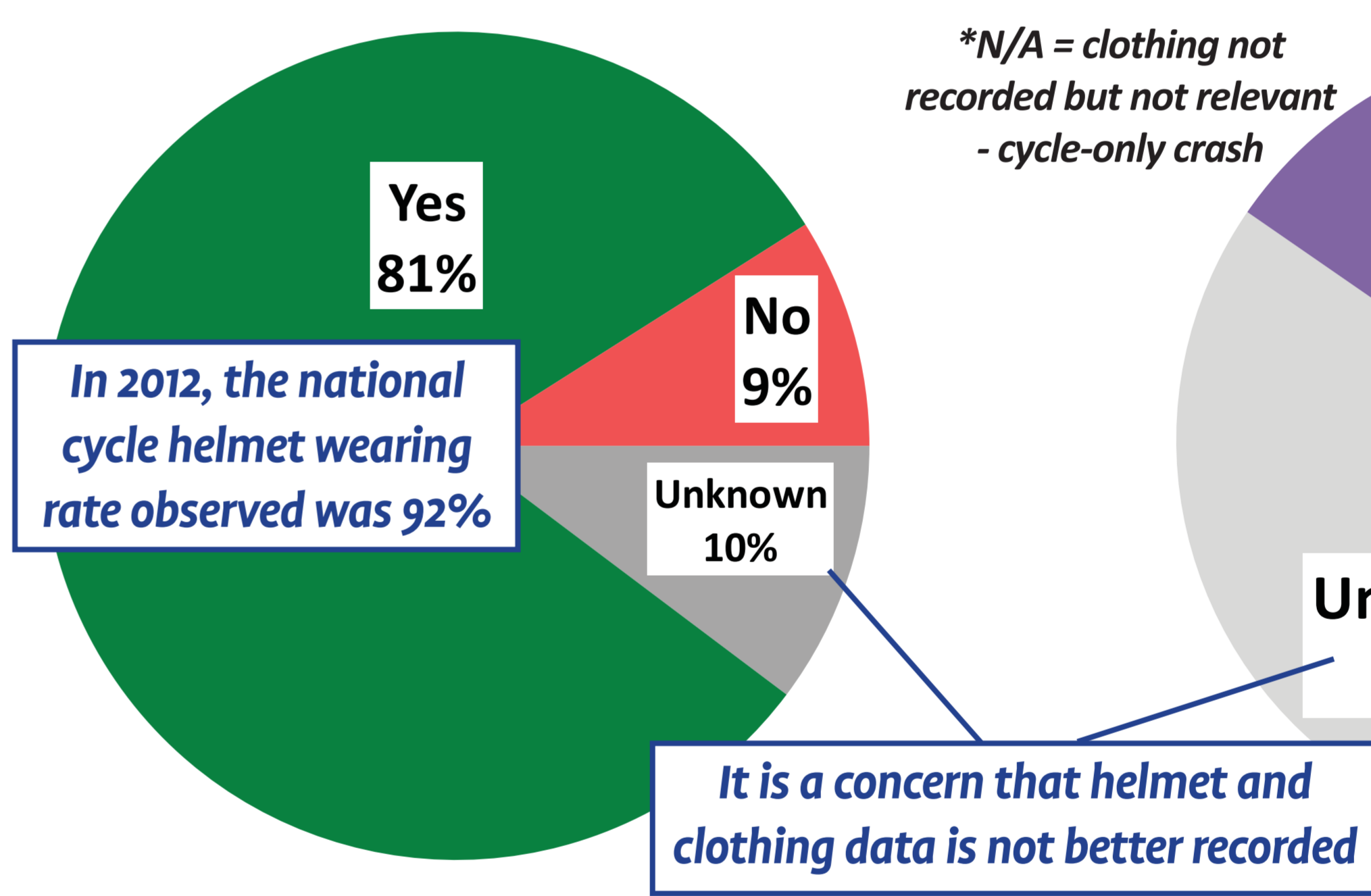
Crash Location

	Rural	Urban	Total
Intersect'n	4	18	22 (28%)
Non-Int'sn	34	22	56 (72%)
Local Rd	22	34	56 (72%)
State Hwy	16	6	22 (28%)
Total	38 (49%)	40 (51%)	78

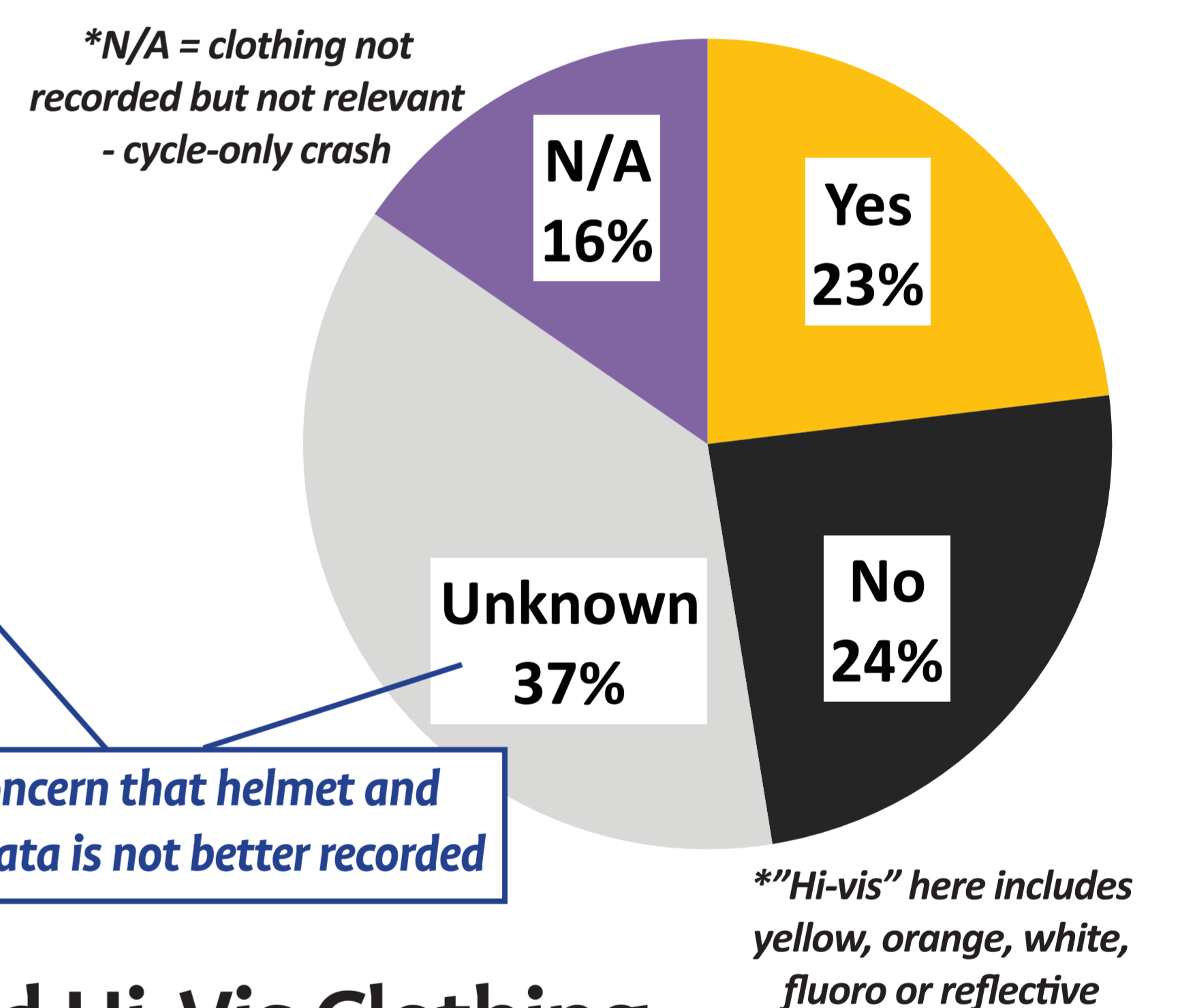
Over half of ALL cycle crashes nationally occur at intersections

Only one-sixth of cycling distance travelled occurs on State Highways

Helmet Wearing



High-Visibility Clothing



Driver Observation and Hi-Vis Clothing

Driver Saw?	Wear Hi-Vis	No Hi-Vis	Unknown	Total
Yes	7	5	10	22 (28%)
Too Late	1	2	4	7 (9%)
No	8	8	11	27 (35%)
Unknown, N/A	2	4	16	22 (28%)
Total	18 (23%)	19 (24%)	41 (53%)	78

More than half of drivers did not see the cyclist prior to impact, or too late to avoid them

The proportion of drivers not noticing a cyclist was NO DIFFERENT whether they were wearing hi-vis clothing or not

Most Common Crash Patterns Identified

- Motorist passing cyclist (possibly turning left) not providing sufficient clearance 27%
- Cyclist turning or moving over to the right failed to give way to passing motor vehicle 13%
- Motorist turning/crossing failed to give way to through cyclist with right of way 9%
- Cyclist lost control, went off the road 9%

What Might Have Helped Prevent these Fatalities?

- More Education/Training/Promotion to Improve Motorist Behaviour 49%
- Cycle Skills Training (incl. a focus on Older people cycling) 45%
- More/Better Cycling Facilities (Cycleways, Intersections/Crossings, etc) 18%+
- Truck Safety Equipment (Under-run protection, Blind-spot mirrors) 12%
- Lower Speed Limits/Environments (incl. School Zones) 10%+

