

Investigating Common Patterns in New Zealand Cycling Fatalities

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Summary

Following five cycling deaths during November 2010, the Chief Coroner announced a national Inquiry to identify any common trends or information that could prevent a re-occurrence of such tragedies. To help inform this Inquiry, a larger investigation into New Zealand cycling fatalities back to 2006 was undertaken, to try to identify any consistent patterns in crash occurrences that were significantly over-represented.

From crash records and media reports, more than 90 cycling fatalities were identified between January 2006 and August 2013. A review of the relevant reports identified common attributes. Potential initiatives that could have prevented each fatality were also considered.

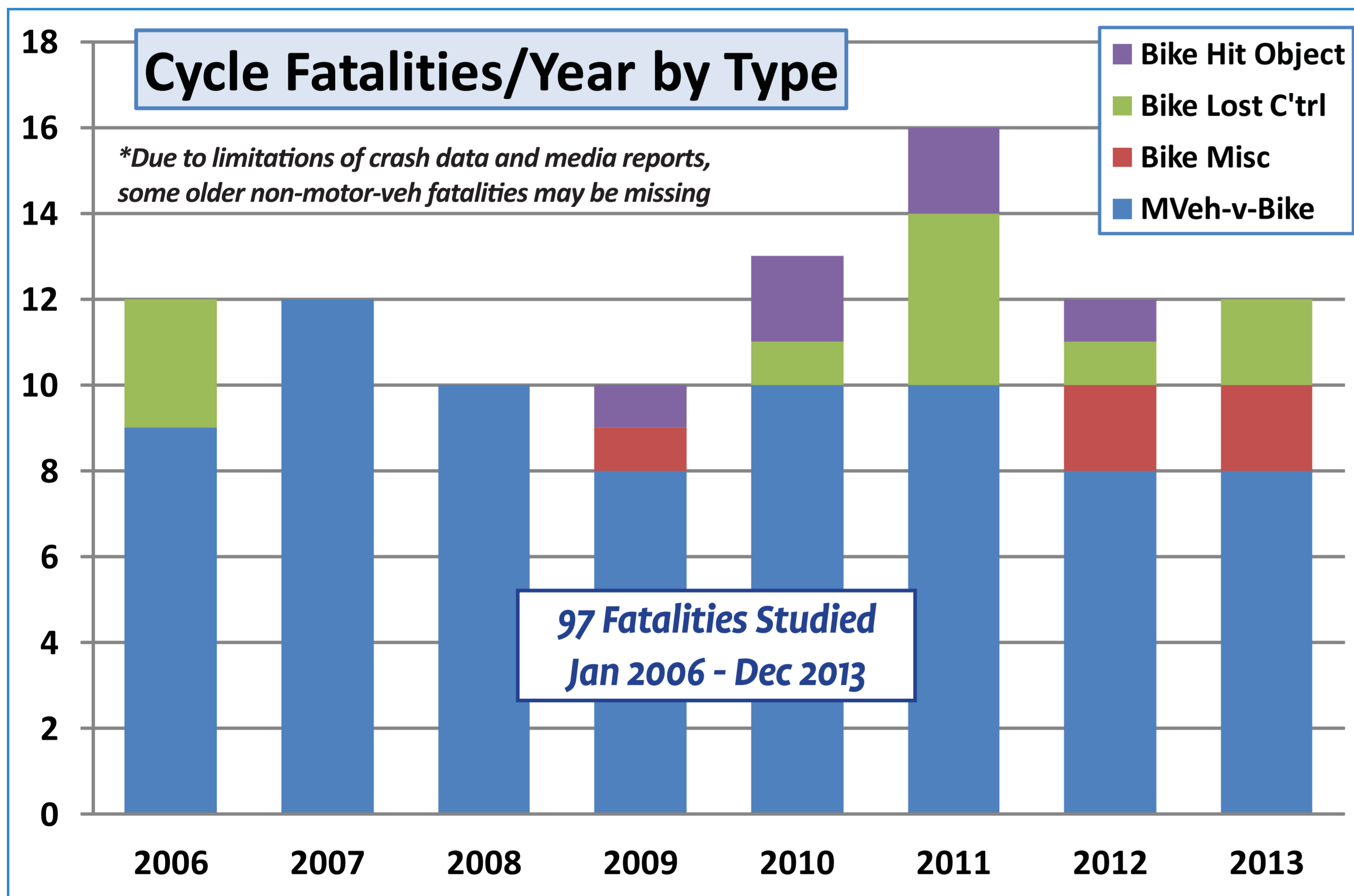
Some notable trends were found. Older cyclists (>50 years) are very over-represented, despite their relatively low cycling involvement, and are also more likely to be at fault. The number of fatalities involving heavy vehicles and/or state highways was also higher than expected. Poor observation by drivers was a very common factor. 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 Inquiry 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

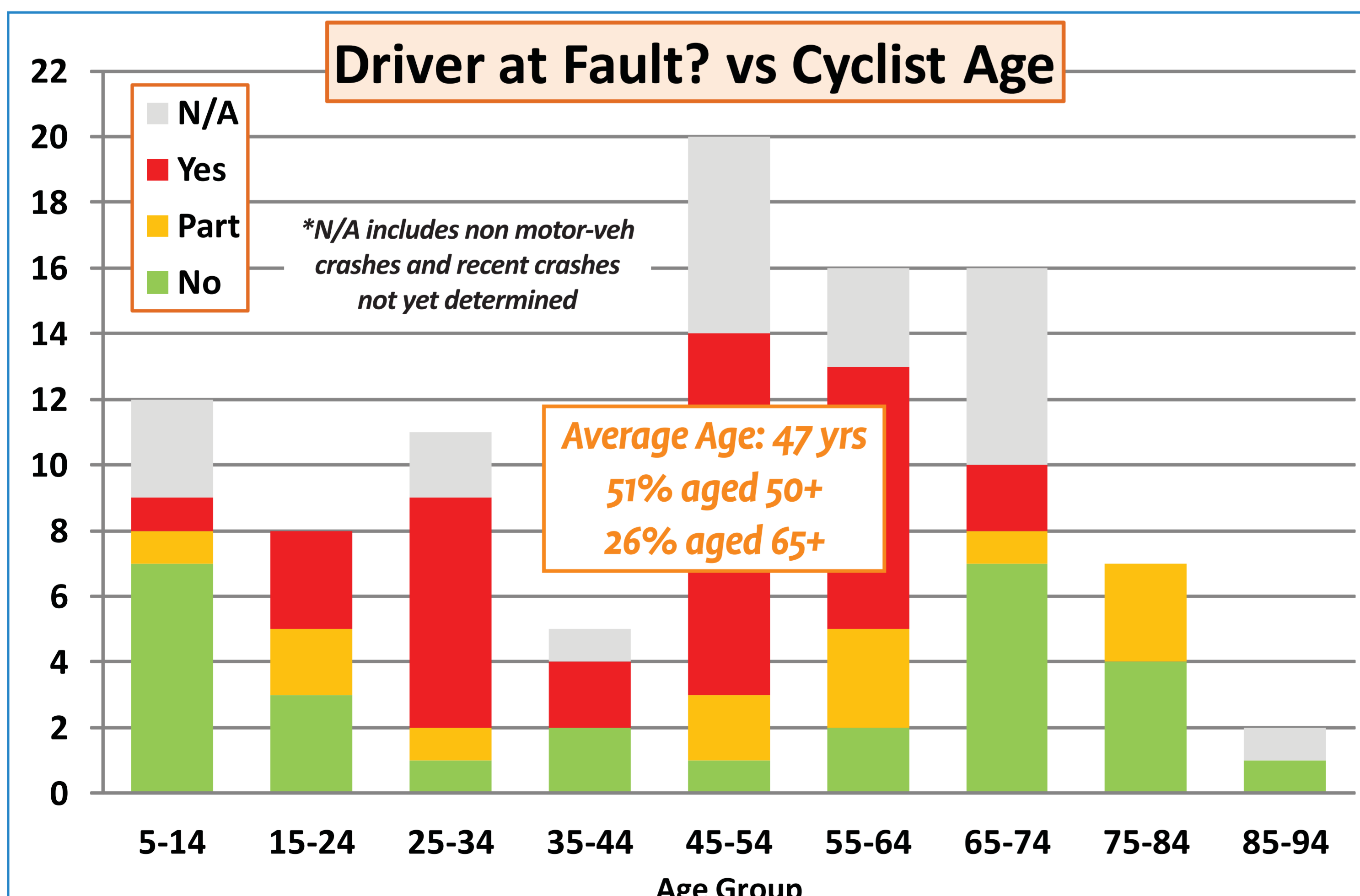
- All cycle fatalities involving a motor vehicle since Jan 2006
- All other cycle fatalities identified on a road or path since Jan 2006
- Mountain-bike fatalities on tracks were not included

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

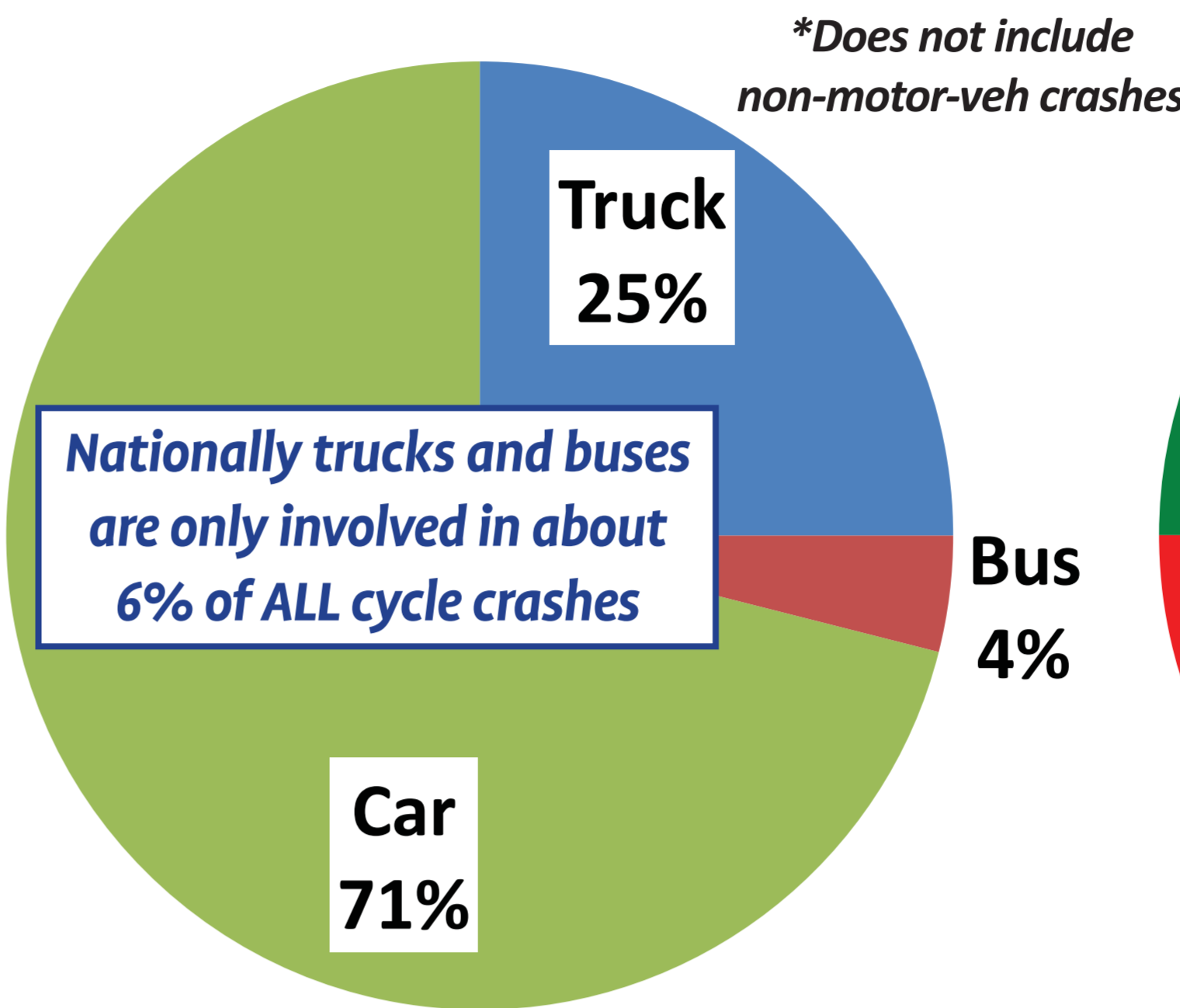


Age Distribution and Culpability

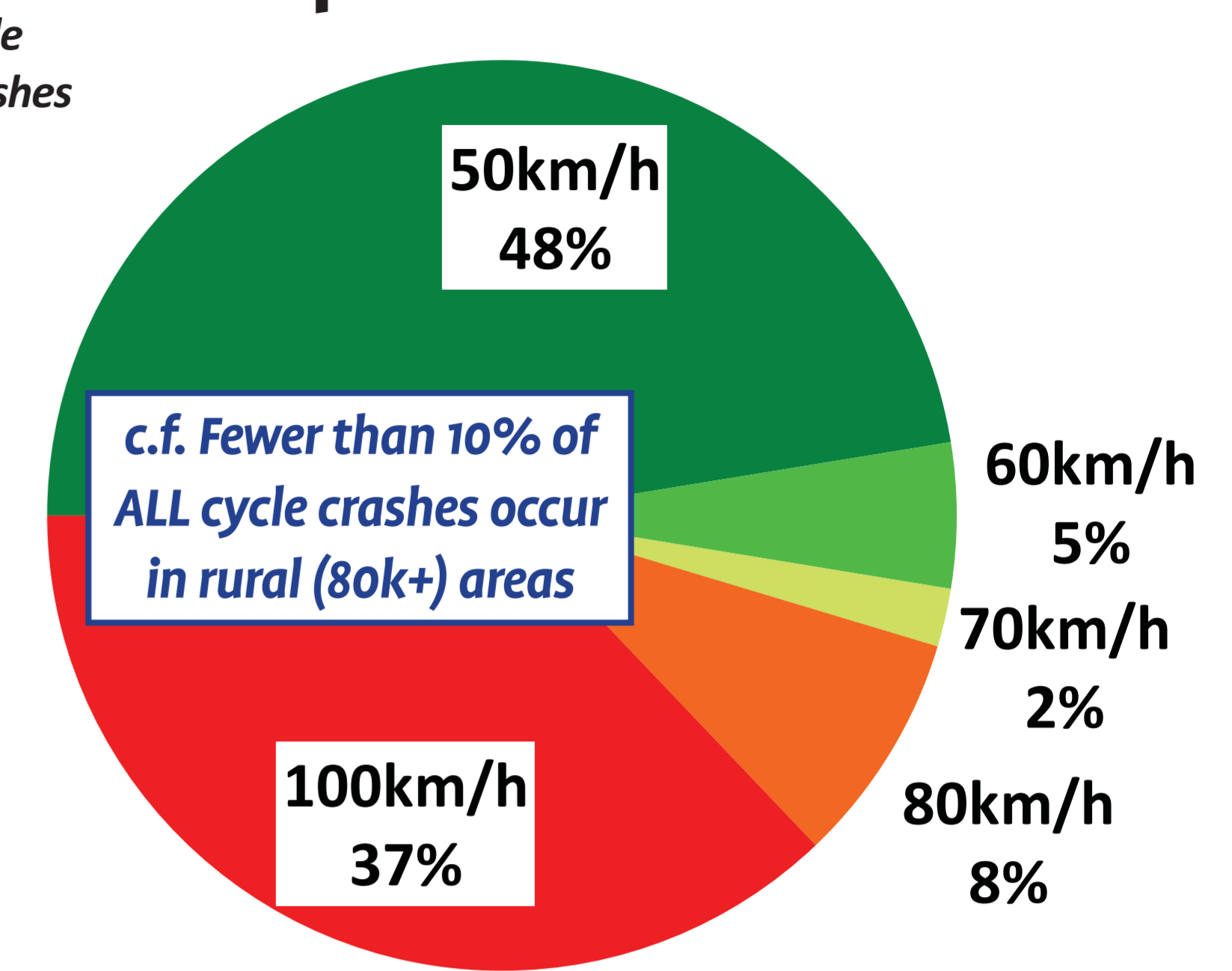
- All multi-vehicle crashes (60) were reviewed to assess partial or primary fault by the parties



Vehicle Involvement



Speed Limits

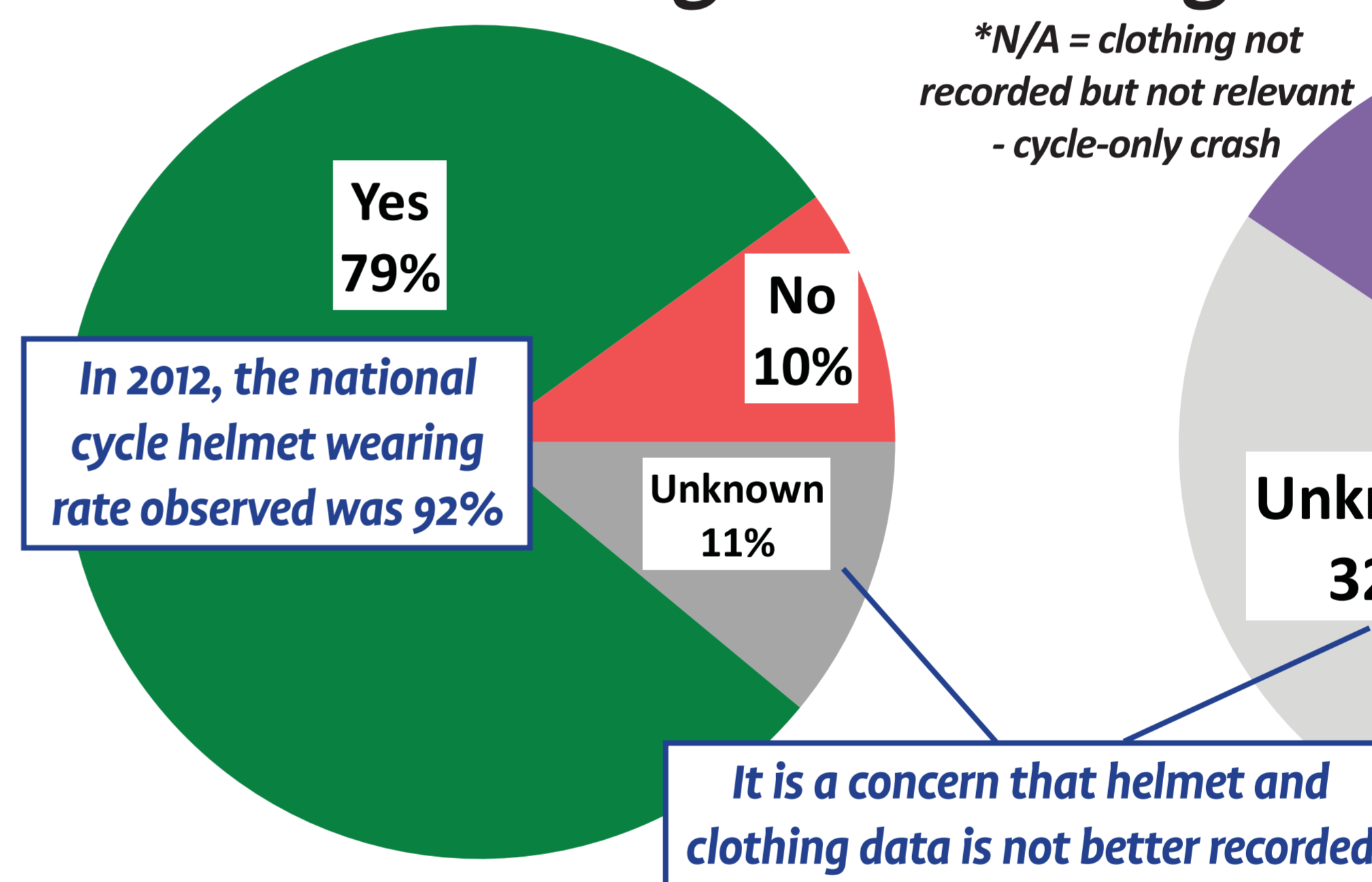


Crash Location

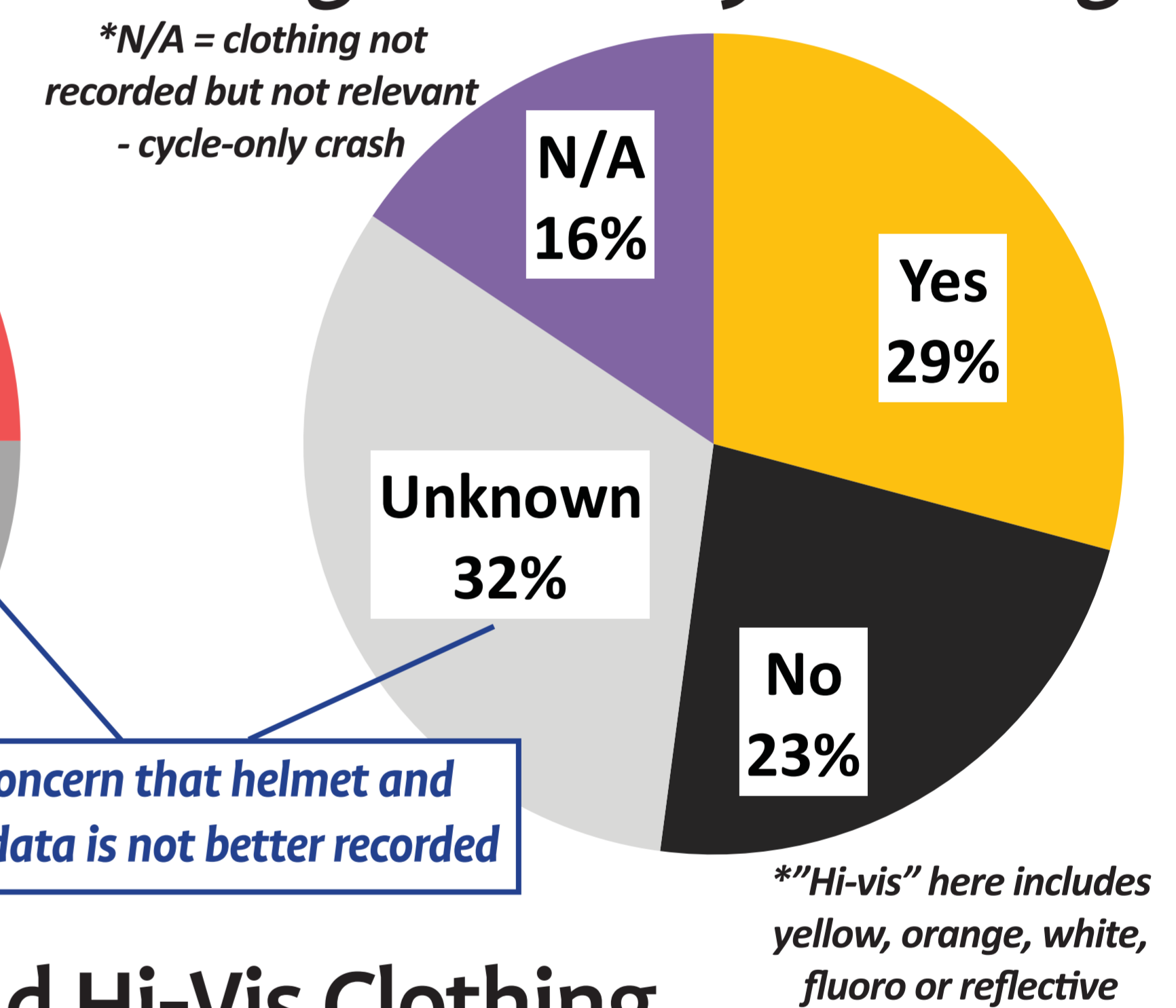
	Rural	Urban	Total
Intersect'n	7	21	28 (29%)
Non-Int'sn	38	31	69 (71%)
Local Rd	27	42	69 (71%)
State Hwy	18	10	28 (29%)
Total	45 (46%)	52 (54%)	97

Callouts: 'c.f. Over half of ALL cycle crashes nationally occur at intersections' and '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	10	5	10	25 (26%)
Too Late	3	3	3	9 (9%)
No	11	8	11	30 (31%)
Unknown, N/A	4	6	23	33 (34%)
Total	28 (29%)	22 (23%)	47 (48%)	97

Callout: '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 statistically 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 28%
- Cyclist lost control, went off the road 18%
- Cyclist turning or moving over to the right failed to give way to passing motor vehicle 13%
- Cyclist turning/crossing failed to give way to through motorist with right of way 12%
- Motorist turning/crossing failed to give way to through cyclist with right of way 9%

What Might Have Helped Prevent these Fatalities?

- More Training/Promotion/Legislation to Improve Motorist Behaviour 42%
- Cycle Skills Training/Promotion (incl. a focus on Older people cycling) 39%
- More/Better Cycling Facilities (Cycleways, Intersections/Crossings, etc) 26%+
- Heavy Vehicle Safety Equipment (Under-run protection, Blind-spot mirrors) 13%
- Lower Speed Limits/Environments (incl. School Zones) 10%+

