

# SAFE SPEEDS EVIDENCE SUMMARY

## Safety

- In 2020, Auckland reduced speed limits on a substantial number of roads, which has reduced road deaths. Reversing these speed limit reductions is expected to increase deaths on those roads by more than half (1).
- There is consistent international evidence that taking away 30 km/h safe speed zones would increase injuries in those zones by more than half (2).
- 30 km/h zones are widely used internationally, such as in London, Edinburgh, Paris and Berlin. In Brussels, 30 km/h is now the default speed for the entire city (3).
- Permanent safe speed zones around schools prevent six times more deaths and serious injuries compared with variable speed limits around schools. Permanent school zone signs are a tenth of the cost of electronic variable school zone signs (4).
- Increasing speed limits on highways increases deaths on those highways (5).

## Public health impacts

- Higher speeds make people feel less safe walking and cycling. Safer roads with traffic calming have more walking and cycling (6).
- Parents are less likely to let their children walk or cycle to school if they were concerned about traffic safety. Parents say unsafe roads are the number one barrier to children walking and biking around Auckland neighbourhoods. Children commonly say that traffic, including traffic speed, makes it hard to walk to school safely (7).
- A review of 30 km/h zones in 40 European cities found not only improved safety but also reductions in emissions, noise levels and fuel consumption, and no increase in average congestion levels (3).

## References and supporting information

1. Auckland Transport changed speeds on 820 km in phase 1, 611 km in phase 2, and 1,418 km in phase 3 (official information request). An [evaluation](#) of phase 1 roads found a 30% reduction in deaths on those roads, compared with a 9% increase in deaths on roads where speed limits were unchanged. Overall this means deaths were 36% lower on roads with speed limit reductions. Reversing a 36% reduction in deaths is equivalent to a 56% increase in deaths (for example, reducing deaths from 100 to 64 is a 36% reduction, increasing deaths from 64 to 100 is a 56% increase). The phase 1 speed reductions were estimated to prevent 20 deaths and serious injuries per year. The phase 1 roads make up less than a third of the total kilometres of roads with speed changes since 2020.
2. High-quality studies in [London](#) and [Edinburgh](#) found that 30 km/h zones reduced injuries by 30–40%. Since then, a review of [30 km/h zones in European cities](#) found 40 cities that had implemented these zones, with an estimated 40% reduction in injuries across those cities. Another [review of reviews](#) of 30 km/h zones found similar reductions in injuries. Reversing a 40% reduction in injuries is equivalent to a 67% increase in injuries.
3. In [London](#), 30 km/h zones reduced injuries by 40% (the reduction in deaths was 35% and DSI 46%). A review of 30 km/h zones (city-wide) in [40 European cities](#) also found a 40% reduction in injuries, and the authors also estimated an average 18% reduction in emissions, a 2.5 dB reduction in noise levels, a 7% reduction in fuel consumption, and a 2% reduction in congestion. [Brussels](#) has adopted a city-wide default speed limit of 30 km/h, unless indicated otherwise, and has also seen a [40% reduction in injuries](#).
4. An [economic evaluation](#) of school speed management in Auckland estimated that area-wide variable speed limits would prevent 29 deaths and serious injuries (DSI) over 10 years, while area-wide permanent speed limits would prevent 184 DSI over 10 years. Note also that restricting speed limits to the road segment outside the school gate would prevent fewer injuries than area-wide speed limits. According to the evaluation, the cost of an installed electronic variable school zone sign was \$13,000, while for static school zone signs the cost was \$1,200.
5. The USA repealed federal speed limit controls on interstates (similar to NZ state highways) in 1995, which increased road fatalities on interstates by between 4 and 9%, depending on the type of interstate. Previously, in 1974, the federal government had reduced interstate speed limits, following which road fatalities had dropped by 16% ([Friedman et al, 2009](#)). Similarly, in 1973 NZ reduced its open road speed limit from 60 mph to 50 mph (80 km/h), following which road fatalities fell by 37% ([Frith and Toomath, 1982](#)).
6. Traffic speeds have an important effect on perceived traffic safety for people walking and cycling ([Campos Ferreira et al 2022](#)). Perceived traffic danger is associated with less cycling ([Fraser and Lock 2012](#)). The presence of traffic calming to slow traffic is associated with more walking ([Rothman et al 2012](#)).
7. Many children and parents cite a lack of road safety as a barrier to their children walking or cycling to school within Auckland ([Ikeda et al, 2019](#)). Most parents in an Auckland study identified a safer traffic environment as a major need in order for children to be independently mobile around their neighbourhood ([Smith et al, 2019](#)). Traffic exposure was the most commonly disliked factor in the neighbourhood built environment by children, especially by younger children, with traffic often making it difficult to walk to school in Auckland ([Egli et al, 2019](#)).

