bikewinnipeg

Safer Roads for a Safer and Healthier City

Winnipeggers Want to Cycle

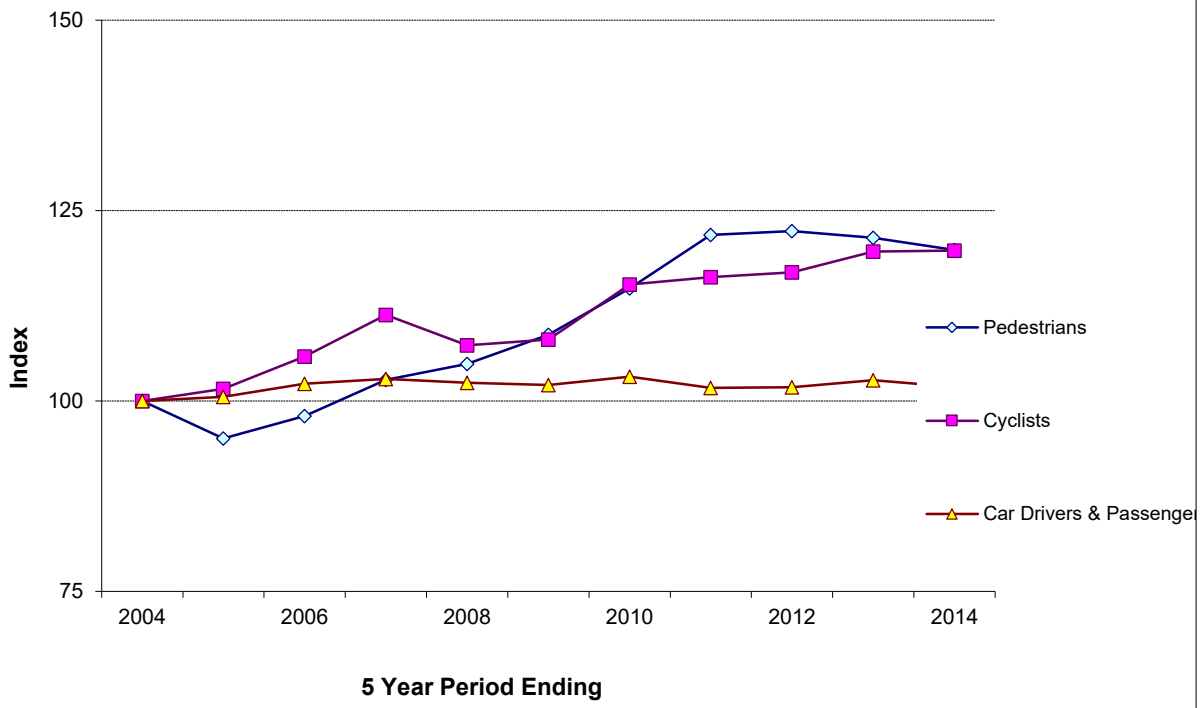
- Two thirds of Winnipeggers own bikes.
- 10% of Winnipeggers say cycling is their main form of transportation.
- 36% say they are interested in cycling more, but are concerned about safety and cycling on busy roads next to traffic.
  - Cycling impacts; health, air quality, carbon emission, local economy, liveability, quality of life, street crime, …

Reality on Our Roads

- **177: D**eaths on Winnipeg roads in 2004-2013
- **44:** People hurt on Manitoba roads every day
- **46%:** Percent of trauma patients in the Health Sciences Centre intensive care unit with crash-related injuries
- **$1.17 billion:** estimated annual spin-off cost of all traffic crashes in Winnipeg
- **$11.4 million**: MPI traffic safety budget
- **$58,507:** MPI cost per claim for cyclists fatalities in 2014

Safer Cars But Less Safe Roads

**Index of 5 Year Rolling Averages of Bodiy Injury Claims
Car Occupants, Pedestrians and Cyclists,
Manitoba 2000-2014
(Index: 100=2000-2004 average)**



Source: Manitoba Public Insurance Claims Data

**Index of 5 Year Rolling Averages of Traffic Fatalities Among
Car Occupants, Pedestrians and Cyclists,
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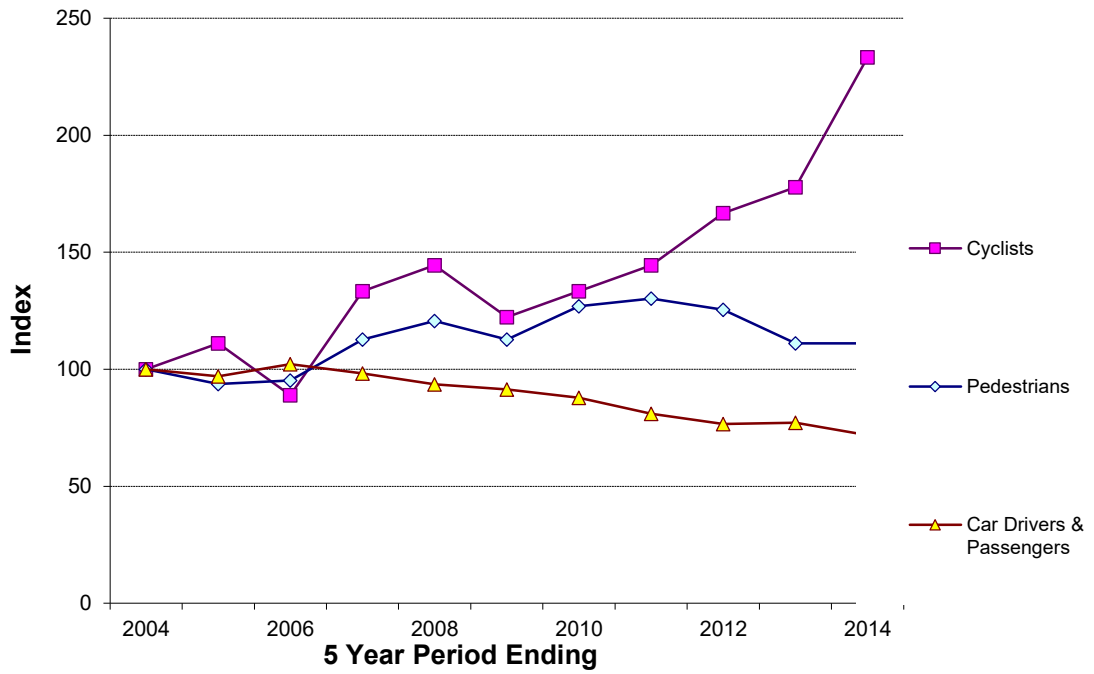


Source: Manitoba Public Insurance Claims Data

Provincial Safety Initiatives

- The MPI model for road safety funding is intended to optimize its funding, or provide a return on investment that will contribute to achieving its goals.
- The Government established **The Provincial Road Safety Committee** which is co-chaired by MPI. The Committee will guide a more strategic and holistic approach to addressing road safety issues in Manitoba through Stakeholder engagement, cooperation and collaboration.

Global Best Practice:

1. Separated facilities for pedestrians and cyclists
2. A Vision Zero Road Safety Strategy built around the simple principle that **no** loss of life is acceptable.
   - Adopted by mayor and council in US cities including New York, Chicago, Portland, Los Angeles, Austin, Santa Barbara, San Jose, San Francisco and Seattle
   - Edmonton is the first Canadian Vision Zero city

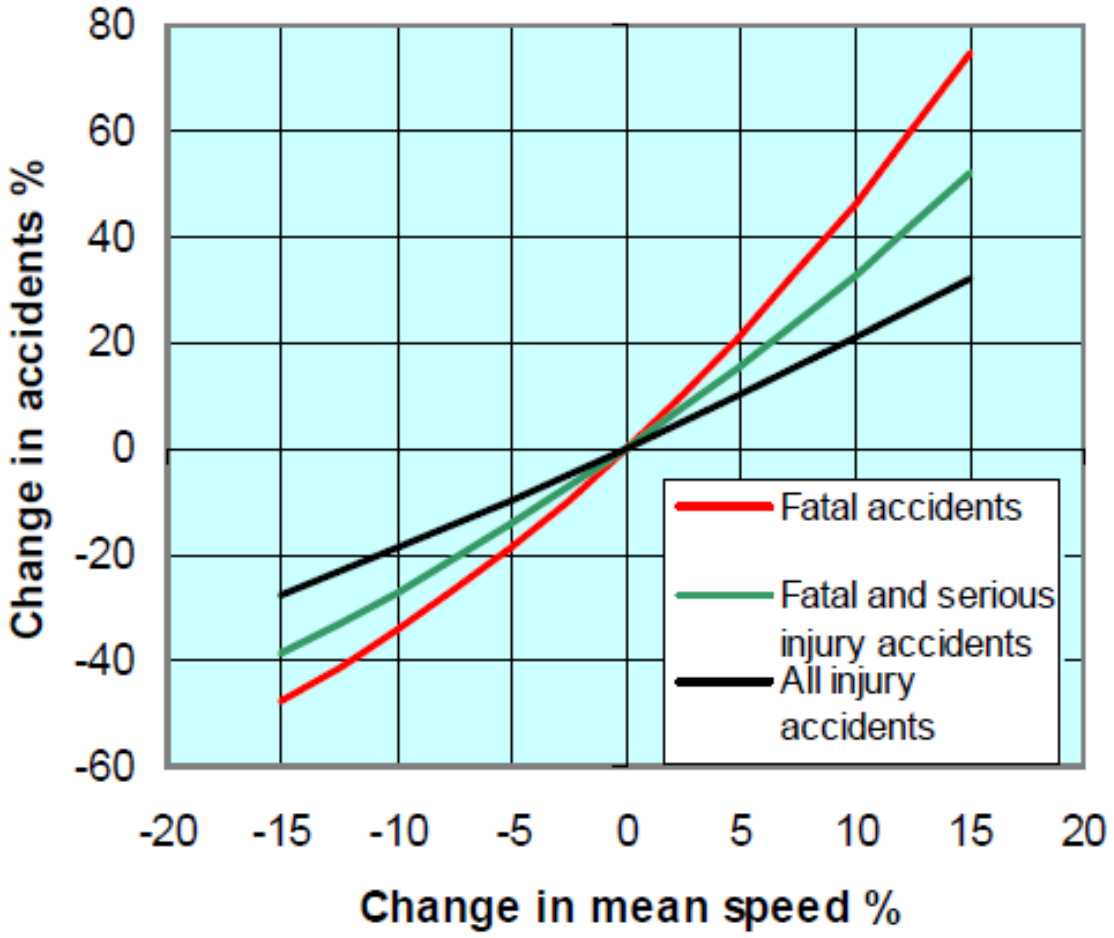
Vision Zero Principles

- Life and physical integrity are not negotiable
- Human beings are fallible
- Limits are set by the physical endurance of human beings
- Humans are not made to travel at high speed.
- Human beings have a right to a safe transportation system.
- “Nobody dies, everybody arrives”
- Do not blame the victim for their errors
- Errors must never carry the penalty of death
- Citizens by themselves cannot create a safe transportation system

Implementing Vision Zero

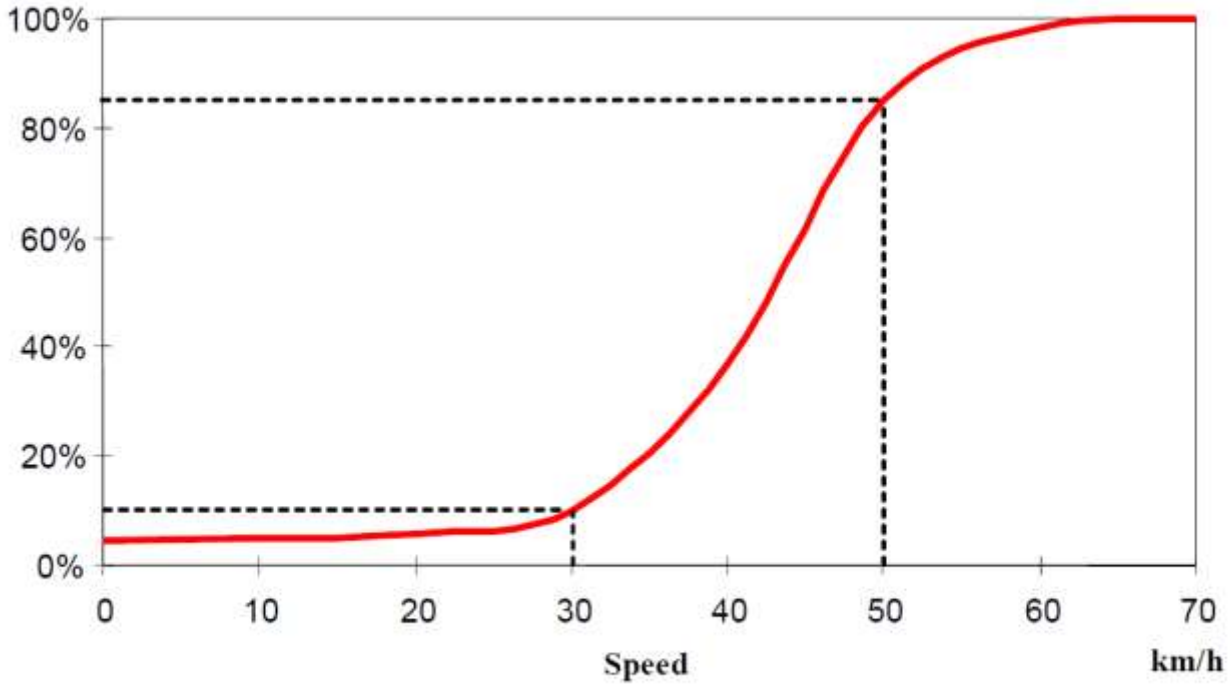
- Investigate what causes injuries and fatalities on the road, and work to eliminate those causes.
  - Identify & deal with prosecute driver behaviours that cause injuries & deaths;
    - Conflicts at intersections
    - Driving too close to bicycles
    - Passing in the right-most lane
    - Aggressive driving
  - Help residential areas and shopping/café neighbourhoods to establish 30 kph speed zones
  - Teach drivers how to behave around cyclists
  - More …
- Road safety targets sharpen the commitment of the leadership and ensure that safety plans are better developed. Countries with a concrete road safety target achieve better road safety gains than countries without such a target.

The Relationship Between Speed and Accidents



OECD: “Speed Management”, 2014 p.7

Probability of Fatal Pedestrian Injury v. Speed



Source: Interdisciplinary Working Group for Accident Mechanics (1986); Walz *et al.* (1983) and Swedish Ministry of Transport (2002).

Possible Maximum Travel Speeds

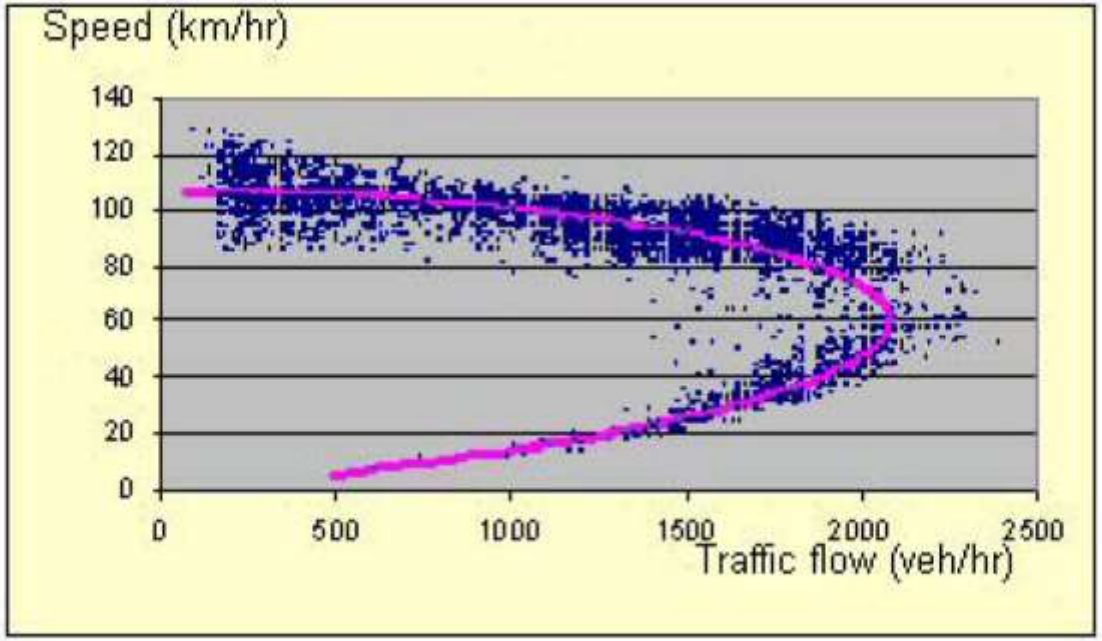
Type of infrastructure and traffic	Possible travel speed (km/h)
Locations with possible conflicts between pedestrians and cars	30 km/h (19 mph)
Intersections with possible side impacts between cars	50 km/h (31 mph)
Roads with possible frontal impacts between cars, including rural roads[6]	70 km/h (43 mph)
Roads with no possibility of a side impact or frontal impact (only impact with the infrastructure)	100 km/h (62 mph)+

Speed management is not incompatible with mobility and economic needs

Mathematically, higher speed leads to reduced travel time. However, the effects of speed in reducing travel time are generally overestimated by road users and, at least in urban areas, the time savings are often small or negligible because of intersections and delays at traffic lights.

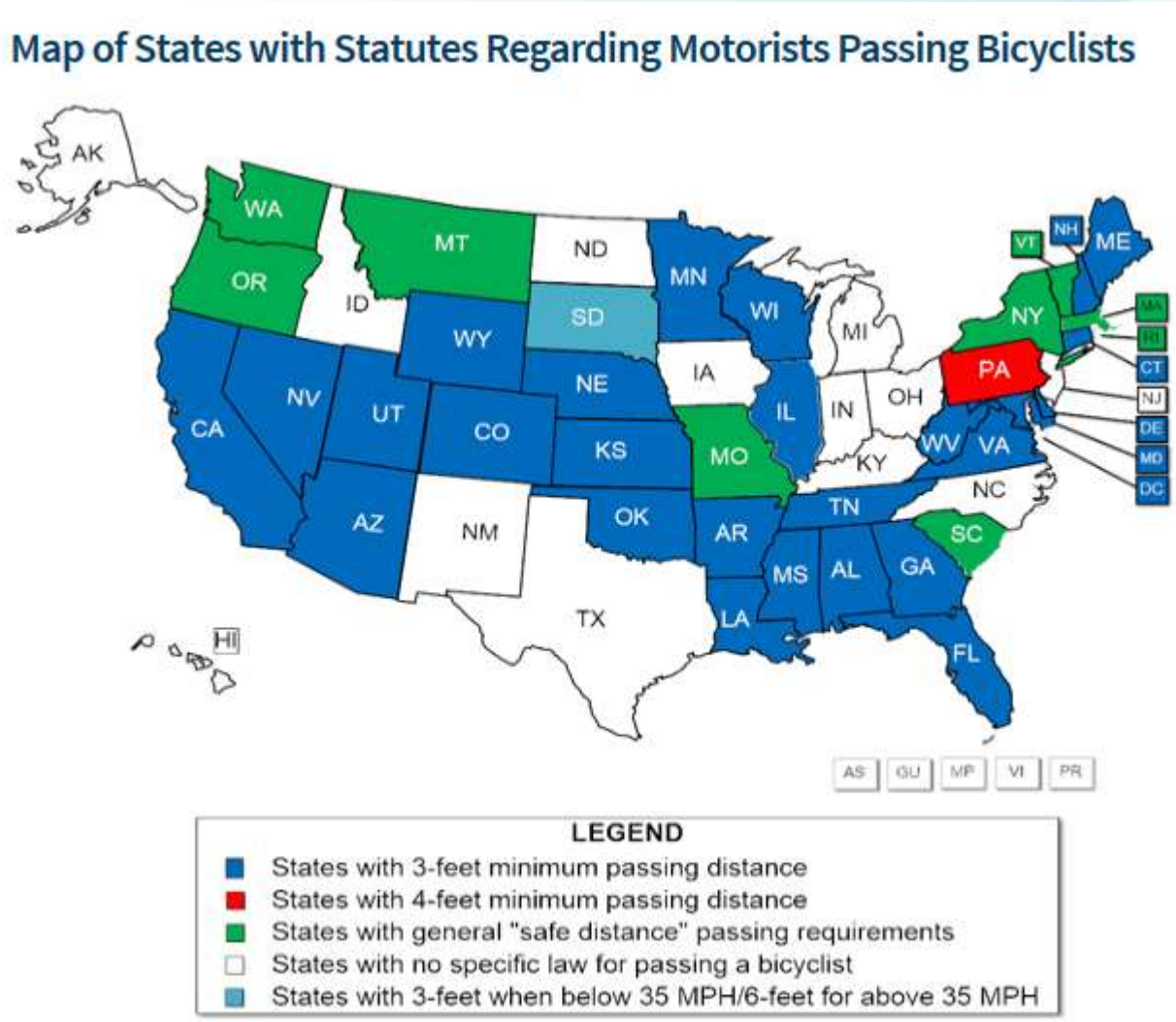
In terms of infrastructure use, reducing the average speed of the flow does not necessarily reduce the throughput capacity of the road. For example, the maximum capacity of an urban motorway is typically obtained at a speed of about 60-70 km/h as illustrated in Figure 4 which shows the relationship between traffic flow and speed for a 2x2-lane urban motorway. It shows that speeds reduce as traffic increases until traffic reaches levels where traffic flows become unstable.

Figure 4. **Traffic flow per lane as a function of travel speed for an urban motorway (2x2 lanes)**



Source: NSC (France).

Passing Distance is a Key Safety Issue



Change Bad Signs to Helpful Signs

Recommendations

Long Term

- Improve cyclist and pedestrian facilities as outlined in the Pedestrian and Cycling Strategies study
- Launch a Vision Zero policy

Quick Hits

- Change signage
  - Tell drivers how to behave around cyclists and pedestrians
  - Improve crossings
- Reduce speeds in the City
- Redirect police resources to issues that cause injuries and fatalities
  - Starts with data collection & analysis
  - Safe passage for cyclists & pedestrians