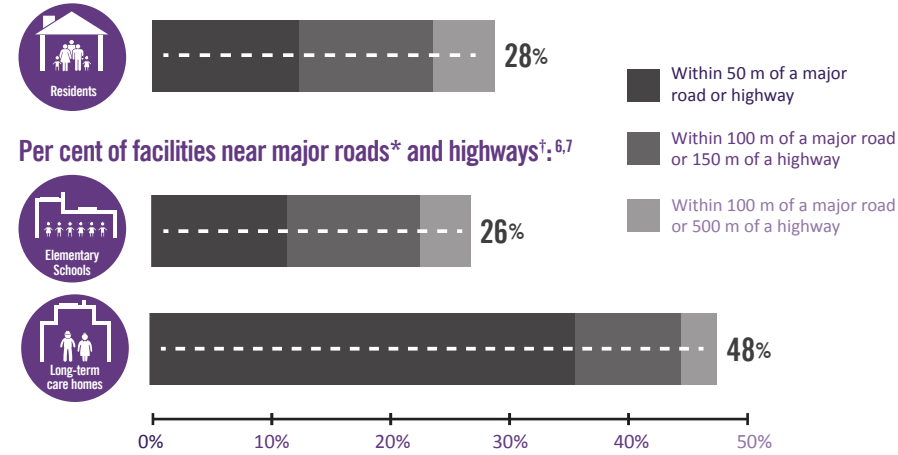


TRAFFIC-RELATED AIR POLLUTION: AVOIDING THE TRAP ZONE

THE TRAP ZONE

Overall air quality in Ontario has improved. Concentrations of most air pollutants have decreased from 2004 to 2013, including pollutants associated with traffic such as NO, NO₂, and PM_{2.5}.¹ Still, those who live less than 100 m from a major road* or 500 m from a highway† face higher exposure to TRAP, which can result in increased health risks.^{2,3}

Per cent of the Ontario population living near major roads* and highways†: 5

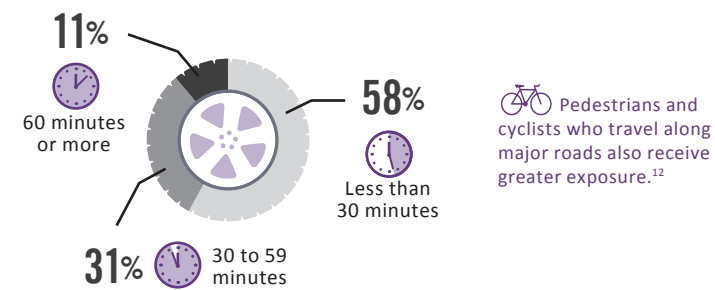


Who is at Increased Risk? Children^{2,3,8} Seniors^{2,3} People with pre-existing health conditions^{2,3,9}

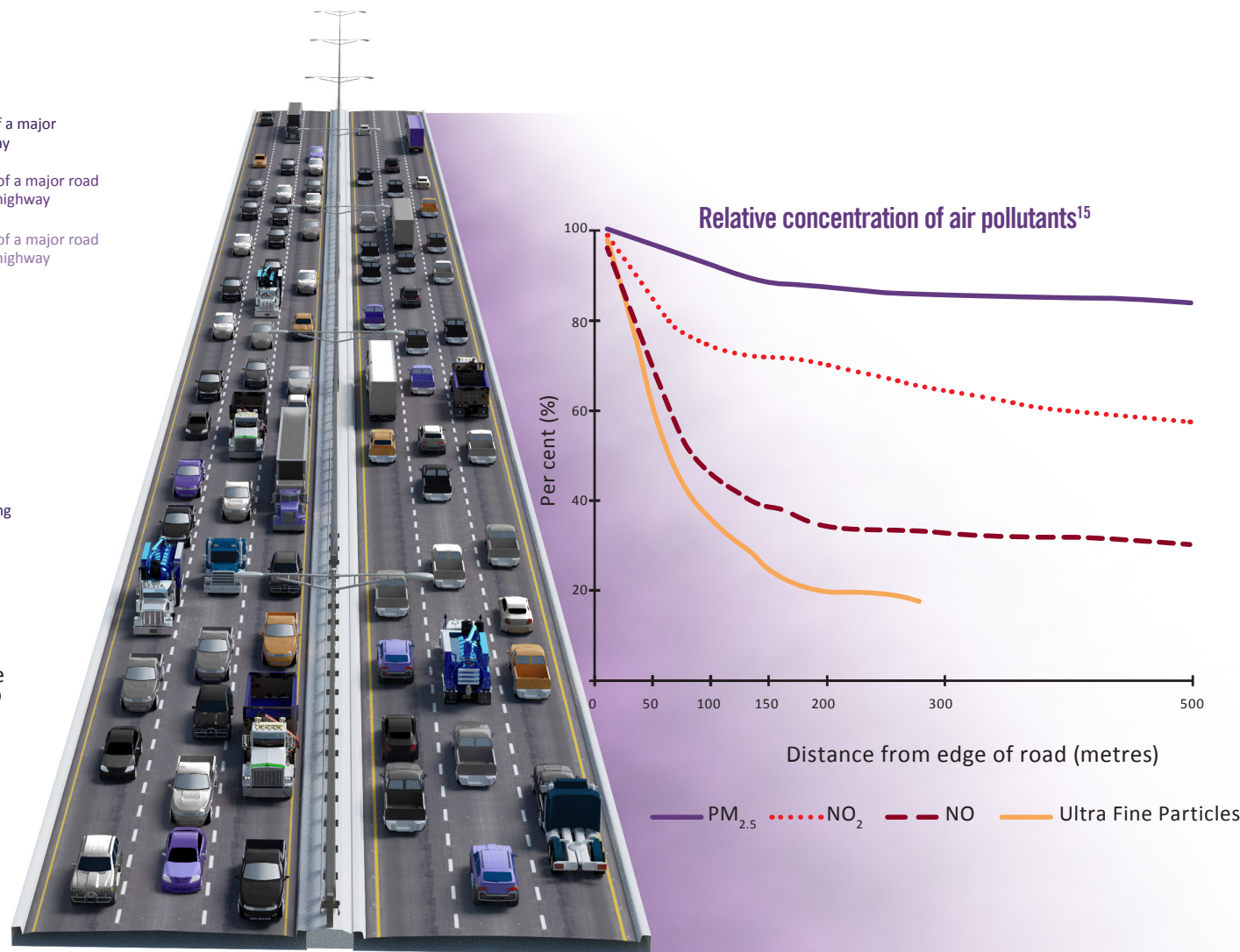
COMMUTERS

The more time commuters are on the road, the greater their exposure to TRAP. Being in a vehicle does not protect commuters from TRAP.^{3,10}

Duration of Commute to Work‡, Ontario, 2011¹¹



Concentrations of air pollutants are higher on and near major roads* and highways†. As many Ontarians spend time close to major roadways, they are at risk of increased exposure to traffic-related air pollution (TRAP)^{13,14} and its associated health impacts. Better understanding of population-level TRAP exposure can focus efforts on reducing the specific health burden due to this issue.



HEALTH IMPACTS RELATED TO TRAP

Exposure to TRAP causes:

- the onset² and worsening³ of asthma in children

and is associated with:

- all-cause³ and cardiovascular mortality^{3,16}
- cardiovascular disease³
- the onset of asthma in adults²
- respiratory symptoms in adults³
- decreased lung function in people of all ages³
- lung cancer²

WHAT CAN BE DONE?

While eliminating all traffic-related air pollution is not possible, actions can be taken by policy makers, health professionals and individuals to reduce exposures and the associated health risks:²

- ! Raise awareness about the health risks from TRAP, especially for sensitive populations
- ↔ Include buffer zones between major traffic arteries and homes, daycares, schools, and long-term care facilities when planning land use
- 🚲 Build walking/cycling corridors away from major traffic arteries
- 🕒 Take precautions to reduce time spent near major roads, particularly during rush hour and when exercising

*A major road includes road classes defined in the Ontario Road Network (ORN)⁴ as: 1) Arterial: a major thoroughfare with medium to large traffic capacity, or 2) Expressway/highway: a high-speed thoroughfare with a combination of controlled access and intersections at grade level. †A highway is the road class defined in the ORN⁴ as: a) Freeway: An unimpeded, high-speed controlled-access thoroughfare for through traffic with typically no at-grade intersections, usually with no property access or direct access and which is accessed by a ramp. Pedestrians are prohibited. ‡Employed Ontarians aged 15 and older.

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