

## Traffic-related air pollution a substantial public health concern

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Traffic-related air pollution is increasingly shown to have negative health effects according to a growing body of epidemiologic evidence and is a substantial public health concern in Canada, argues a commentary published in *CMAJ* (*Canadian Medical Association Journal*).

Mounting evidence indicates a causal effect between exposure to air pollution from traffic and the development of asthma in children and adults. Diesel exhaust causes <u>lung cancer</u>.

Despite generally good air quality in Canadian cities, approximately 21 000 people die prematurely from air pollution each year in Canada, about 9-fold more than the number killed in <u>traffic accidents</u>. About 10 million people—32% of the population of Canada—live within 500 m of highways or 100 m from major urban roads, areas in which they are exposed to elevated levels of traffic-related air pollution.

"This high prevalence of exposure, in addition to evidence of associated health problems, suggests that traffic-related air pollution is a substantial public health concern in Canada," writes Michael Brauer, School of Population and Public Health, University of British Columbia (UBC), Vancouver, BC, with coauthors.

The authors highlight four overlapping strategies with short- and longterm options to help mitigate the effects of traffic-related <u>air pollution</u>:

• Reducing vehicle emissions: introducing programs to remove or



retrofit high-emission vehicles; reducing traffic congestion; expanding infrastructure for electric cars

- Modifying current infrastructure: limiting heavy truck traffic to specific routes; separating active commuting zones (e.g. cycle and walking routes) from busy roads
- Better land-use planning and traffic management: locating buildings such as schools, daycares and retirement homes at least 150 m away from busy streets
- Encouraging behavioural change: creating policies to reduce traffic congestion in specific areas and encouraging alternative commuting behaviours.

The authors cite growing evidence that indicates that these types of interventions are successful. For example, the introduction of a fee for drivers to enter a "congestion charge zone" in London, UK, reduced traffic volume and congestion that resulted in "an estimated gain of 183 years of life per 100 000 residents within the zone over a 10-year period."

"Although these interventions alone benefit health, combining strategies can result in more cost-effective policies and greater improvements to population health," the authors conclude.

More information: <a href="http://www.cmaj.ca/lookup/doi/10.1503/cmaj.121568">www.cmaj.ca/lookup/doi/10.1503/cmaj.121568</a>

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