

Climate Change Risks Your Health

1. sun and intense heat;
2. everyday air pollution plus seasonal forest fire smoke; and
3. at a societal level—food insecurity, and mental illness becoming intractable

1. Extreme heat

Climate change poses increasing risks to our health. Greater frequency and intensity of heat waves means more people need hospitalization for treatment of deadly heat stroke (rapid body temperature rise with failing sweat mechanisms), heat exhaustion, heat syncope (dilated blood vessels), and often urgent incidents of sunburn, cramps, and rashes.

The sun's powerful ultraviolet radiation is estimated by Public Health Ontario to cause up to 3,000 *more* cancers a year in the province.

Extreme heat events cause significantly higher premature deaths for people over 65, especially if they have cardiovascular or respiratory illness, according to a StatsCan June 2024 report.

2. Dirty Air

Exhaust

The air we breathe is loaded with exhaust gases from tailpipes of internal combustion engine vehicles and fossil fuel burning energy and industrial systems. These fumes are composed of toxic gases including nitrogen, carbon dioxide, carbon monoxide, hydrocarbons, nitrogen oxides (especially in diesel fuel) and particulate matter. When nitrogen oxide (NOx) particulates are inhaled they can lodge deep in the lungs, causing respiratory disease, asthma, and other pulmonary and cardiac conditions according to an MIT emissions study.

Diesel exhaust's harmful pollutants also include carcinogens benzene and sulphur dioxide. Children's lungs are still developing and they're vulnerable to repeated exposure on daily school bus commutes and even if they don't ride, proximity to areas in which diesel school buses load and offload passengers.

Exposure to diesel fumes is an established contributor to persistent heart and lung conditions and cancer. In a chronic disease report the Canadian government says that asthma disproportionately affects children and youth. Public Health Ontario data shows that within the population from newborns to 19-year-olds, the rates of new diagnoses of asthma and those living with asthma in *York Region* are the *highest* of all areas in Ontario. (Peel and Windsor-Essex are the next two highest)

Public Health Ontario also tells us, diesel exhaust is responsible for up to 280 *new* cancers a year; Air Pollution from fine particulate matter (PM2.5), causes up to 900 new cancers each year in the province.

Dirty air from burning fossil fuels contributes to climate change as it depletes our better health.

Wildfire smoke

Climate change bestows higher frequency and severity of forest fires because higher temperatures cause higher and broader drying conditions leading to elevated stress conditions in woodlands elevating insect infestations and greater fire likelihood. Wildfire smoke moves long distances venting respiratory havoc. An environmental health journal study found that emissions from burning and smouldering pine and pine needles carry substances that cause genetic mutation and cancer. Other gases and particle concentration can cause stroke, heart attack, and premature death, according to Health Canada.

3. Food insecurity

While nutritional intake is failing, mental instability flourishes. A 2022 major Health Canada report on the impact of changing climate on Canadians' health examines the risk it poses of food insecurity because of disruptions to the food system, grocery price rises and adverse effects of declining nutrition.

Food insecurity in Ontario rose to 17.4% of households by 2022. Statistics Canada says 34% of Canadians living in poverty are food insecure as well as 15% and rising of people not living in poverty. In *York Region* 15.5% of the population is food insecure.

Citizens experiencing food insecurity rely on health care more often and have worse outcomes, including premature death, than those who are food secure.

Mental Health

The more severely nutritional health falls the greater the negative impact on mental health. A Canadian study on household food insecurity found that as food insecurity moves from marginal to moderate to severe, incidents of depressive thoughts, suicidal thoughts and major depressive episodes rise sharply. It also found that eliminating severe food insecurity would ease demands on public health and increase positive mental health outcomes.

What can we do for ourselves and our fellow citizens?

There's only so much volunteering and charitable giving one can do to help family, friends and neighbours.

Ask your political representatives and candidates wanting your vote:

- To outline their commitments to sustain appropriate health care funding. How soon will they stop climate harming actions that promote urban sprawl, destroy wetlands and farmlands and prop up stranded assets like legacy greenhouse gas-heavy energy systems?
- What will they do to protect our natural waterways, limit industrial logging in Algonquin Park for example, and rehabilitate crown forests to be more resilient and fire resistant.
- Will they advocate for the establishment of a pause on new aggregate mining? An October 2024 Ministry of Natural Resources report reveals there's enough aggregate supply in the GGH (Greater Golden Horseshoe) to meet construction needs for at least 25-35 years without opening new pits or quarries.

A comprehensive government environmental plan and timeline agenda now, is sound economics and promotes greater health and prosperity for all. Vote accordingly.