

Clean Indoor Air Toronto

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Toronto Board of Health
Toronto City Hall
100 Queen Street West
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July 12, 2026

To the Board of Health;

RE: HL34.5 - Investigating the Increased Risk of Heart Disease, Lung Cancer, and Tumours from Bringing Jets to Toronto's Waterfront Communities (Ward All)

We are [Clean Indoor Air Toronto \(CIATO\)](#), a group of concerned residents who are dedicated to improving indoor air quality in our built environments. Many members of our group are parents/caregivers of children attending TDSB schools; other members have or care for other people with chronic health conditions that make them highly vulnerable to air pollution and infectious diseases.

In November 2013, the Board of Health was provided a [report](#) by then-Medical Officer of Health Dr. David McKeown on the health impacts associated with the then-proposed Billy Bishop Toronto City Airport (BBTCA) expansion. This report concluded:

"The current vision in the City's Official Plan for the Central Waterfront as a densely populated, vibrant area that celebrates and provides connections to the lakefront aligns with the characteristics of a Healthy City. Optimal protection and enhancement of the health of Central Waterfront residents and the city as a whole calls for a reduction of current and future airport impacts."

In view of the 2013 Toronto Public Health report, the Board of Health recommended that the then-proposed expansion of BBTCA and the introduction of jets be rejected ([Item HL27.3](#), December 9, 2013).

Since 2013, additional research, information, and guidance on the health impacts of PM2.5 fine particulate matter and Ultrafine Particles (UFPs) has come to light, including from the World Health Organization, which released its Global Air Quality Guidelines in 2021. In 2017, the Toronto Port Authority conducted an [Environmental Assessment](#), based on a proposal for expansion put forth by Porter Airlines. On May 28, 2026, City Planning published its [report](#) to the Planning and Housing Committee on the housing and transportation impacts based on indicative growth scenarios and publicly available information.

Over the past 13 years, the City's vision of a densely populated and vibrant area has continued to be realized and the population of the neighbourhoods on the central Toronto waterfront has increased. The airport's health impacts affect the city as a whole but the central waterfront neighbourhoods are particularly exposed. Multiple, diverse communities in Toronto have been consistent and vocal about their concerns regarding the proposed expansion of BBTCA, and there is greater focus on the impact of increased UFPs from the introduction of jets at BBTCA on residents' health and well-being.

Following the 2003 SARS-1 outbreak in Toronto, the Province of Ontario ordered Justice Archie Campbell to lead the SARS Commission. In his final [report](#) (2006), Justice Campbell identified the precautionary principle as the most important lesson for public health:

"If the commission has one single take-home message, it is the precautionary principle that safety comes first, that reasonable efforts to reduce risk need not await scientific proof. Ontario needs to enshrine this principle and to enforce it throughout our entire health system."

In the absence of evidence to the contrary, the precautionary principle should be applied and an air contaminant should be considered to be hazardous to health until or unless proven otherwise. Consequently, public agencies should act accordingly, including advising relevant organizations and government agencies to take actions to mitigate or reduce the risk to the public of exposure to the air contaminant, and providing the general public with adequate guidance so that they can protect themselves from the air contaminant and limit their exposure.

We ask the Board of Health to request Toronto Public Health to update their 2013 report with the latest scientific research, information, and guidance that has been published since then, in order to provide greater clarity on the health impact of the proposed BBTCA expansion and the introduction of jet aircraft, and to apply the precautionary principle.

Recommendations

We ask the Board of Health to request the Medical Officer of Health to:

- a. Update the November 25, 2013 Report from the Medical Officer of Health, "Health Impacts Associated with Billy Bishop Toronto City Airport Expansion", with current information and guidance on the health impacts of PM2.5 fine particulate matter and ultrafine particles (UFPs), including information from Health Canada and the World Health Organization;
- b. Assess the impacts on health and quality of life, using the indicative growth scenarios identified in the City Planning May 28, 2026 [report](#) to the Planning and Housing Committee and the Toronto Port Authority's 2017 [Environmental Assessment](#) and other publicly available information, and identify areas that will need further study should proposals advance;
- c. Apply the precautionary principle in updating this assessment;
- d. Engage with relevant stakeholders and community partners, including communities near the Billy Bishop Toronto City Airport, communities that are likely to be most affected by the flight path of jet traffic to and from the Airport, and communities across the city that make use of the Central Waterfront for access to Lake Ontario; and
- e. Report back to the Board of Health in Q4 2026.

We have attached a document that provides a summary of current information and guidance on PM2.5 Fine Particulates and Ultrafine Particles, the Precautionary Principle, and supporting information. Please do not hesitate to contact us if you require any additional information.

Yours sincerely,

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Summary of Current Information and Guidance on PM_{2.5} Fine Particulates and Ultrafine Particles, the Precautionary Principle, and Supporting Information

1. Fine Particulate Matter (PM_{2.5}) and Ultrafine Particles (UFPs)

Fine Particulate Matter (PM_{2.5}, particles 2.5 micrometres or less in diameter) and Ultrafine Particles (UFPs, a subset of PM_{2.5} wherein particles are 0.1 micrometres or less in diameter) can penetrate deep into the lungs and bloodstream and spread throughout every tissue of the body.

Health Canada, along with the World Health Organization (WHO) and other major public health agencies around the world, have stated that PM_{2.5} is a leading cause of early mortality, cardiovascular disease, cancer, respiratory illness, dementia, and many other serious health conditions. The International Agency for Research on Cancer (IARC) has classified ambient fine particles (PM_{2.5}) as a Group 1 carcinogen, similar to asbestos and benzene.

- Health Impacts of Air Pollution in Canada: Estimates of morbidity and premature mortality outcomes – 2021 Report. Health Canada, Government of Canada. Published 2021. Modified November 18, 2025. Accessed May 27, 2026.
<https://www.canada.ca/en/health-canada/services/publications/healthy-living/health-impacts-air-pollution-2021.html>
- Canadian Health Science Assessment for Fine Particulate Matter (PM_{2.5}). Health Canada, Government of Canada. Published 2022. Accessed May 27, 2026.
https://publications.gc.ca/collections/collection_2022/sc-hc/H144-100-2022-eng.pdf
- Straif K, Cohen A, Samet J, eds. *Air Pollution and Cancer*. Lyon, France: International Agency for Research on Cancer; 2013. IARC Scientific Publication No. 161. Accessed May 27, 2026.
<https://www.iarc.who.int/wp-content/uploads/2018/07/AirPollutionandCancer161.pdf>

1.1. Existing Guidance on PM_{2.5} levels

The World Health Organization 2021 Global Air Quality Guidelines state that the annual average concentrations of PM_{2.5} should not exceed 5 µg/m³ and that the 24-hour average exposure should not exceed 15 µg/m³ more than 3-4 days per year.

- World Health Organization. *WHO Global Air Quality Guidelines: Particulate Matter (PM_{2.5} and PM₁₀), Ozone, Nitrogen Dioxide, Sulfur Dioxide and Carbon Monoxide*. Geneva: World Health Organization; 2021. Accessed May 27, 2026.
<https://www.who.int/publications/i/item/9789240034228>

Morawska et al. (2024) recommends an exposure limit for PM_{2.5} of 15 µg/m³ averaged over 1 hour for public buildings.

- Morawska L, Allen J, Bahnfleth W, et al. Mandating indoor air quality for public buildings. *Science*. 2024;383(6690):1418-1420. doi:10.1126/science.adl0677.
<https://www.science.org/doi/10.1126/science.adl0677>

Global Open Air Quality Standard (GO AQS) has published Indoor Air Quality Ultimate Guidelines which cite 15 µg/m³ 1 hour averaging time limit for PM_{2.5} exposure.

- Global Open Air Quality Standard. *Global Open Indoor Air Quality Standards (GO IAQS): A Unified Framework. Version 1.1*. GO AQS CIC; 2026. Accessed May 27, 2026.
<https://goaqs.org/open-documents/>

1.2. Existing Guidance on UFPs levels

The World Health Organization 2021 Global Air Quality Guidelines provide Good Practice Statements on UFPs to distinguish between low and high Particle Number Concentration (PNC) to guide decisions on the priorities of UFPs source emission control. The WHO Guidelines state that low PNC for UFPs can be considered <1000 particles per cm³ (24-hour mean) and that high PNC for UFPs can be considered >10000 particles per cm³ (24-hour mean) or >20000 particles per cm³ (1-hour mean).

- World Health Organization. *WHO Global Air Quality Guidelines: Particulate Matter (PM_{2.5} and PM₁₀), Ozone, Nitrogen Dioxide, Sulfur Dioxide and Carbon Monoxide*. Geneva: World Health Organization; 2021. Accessed May 27, 2026.
<https://www.who.int/publications/i/item/9789240034228>

2. Reviews on Air Pollution in Toronto and Associated Health Impacts

2.1 Toronto Public Health (2014): Path to Healthier Air: Toronto Air Pollution Burden of Illness Update

In April 2014, then-Medical Officer of Health Dr. David McKeown presented an updated burden-of-illness report to the Board of Health. In this report, air pollution was estimated to give rise to 1,300 premature deaths and 3,550 hospitalizations each year.

- Toronto Public Health. *Path to Healthier Air: Toronto Air Pollution Burden of Illness Update*. Technical Report. Toronto, ON: Toronto Public Health; April 2014. Accessed May 27, 2026.
<https://www.toronto.ca/wp-content/uploads/2017/11/9190-tph-Air-Pollution-Burden-of-Illness-2014.pdf>
- City of Toronto Board of Health. *Path to Healthier Air: Toronto Air Pollution Burden of Illness Update*. Agenda Item 2014.HL30.1. April 28, 2014. Accessed May 27, 2026.
<https://secure.toronto.ca/council/agenda-item.do?item=2014.HL30.1>

2.2 BQNA Air Quality Study: Campus-Community Partnership for Reducing Air Pollution in the Bathurst Quay Neighbourhood

Researchers from the University of Toronto, led by Professor Greg Evans, Department of Chemical Engineering & Applied Chemistry, and Professor Marianne Hatzopoulou, Department of Civil & Mineral Engineering, studied UFPs levels across the Bathurst Quay Neighbourhood (BQN), the residential area immediately adjacent to Billy Bishop Airport. Based on their findings, they concluded that concentrations of UFPs are higher across BQN than they would be in the absence of the airport, and that airport flight and ground activities are major sources of UFPs.

- Farrar E, Xu J, Jaafar W, Jeong C-H, Brook J, Evans G, Hatzopoulou M. Campus-Community Partnership for Reducing Air Pollution in the Bathurst Quay Neighborhood. University of Toronto Faculty of Applied Science and Engineering, Positive Zero Transport Futures, and the Bathurst Quay Neighbourhood Association. Published May 24, 2024. Accessed May 27, 2026.
<https://positivezero.civmin.utoronto.ca/bqna/>

3. SARS-1 Commission and Application of the Precautionary Principle

Following the SARS-1 outbreak in Toronto in 2003, the Province of Ontario ordered Ontario Justice Archie Campbell to carry out the SARS-1 Commission. In his report, Justice Campbell identified the precautionary principle as the most important lesson for public health emergencies:

“If the commission has one single take-home message, it is the precautionary principle that safety comes first, that reasonable efforts to reduce risk need not await scientific proof. Ontario needs to enshrine this principle and to enforce it throughout our entire health system.”

In the absence of a consensus statement on an air contaminant regarding what may be deemed a safe exposure limit, the precautionary principle should be applied and that the air contaminant should be considered to be hazardous to health. Consequently, public health agencies should act accordingly, including advising relevant organizations and government agencies to take actions to mitigate or reduce the risk to the public of exposure to the air contaminant, and providing the general public with adequate guidance so that they can protect themselves from the air contaminant and limit their exposure.

Unless proven otherwise, it should be assumed that an air contaminant spreads via airborne patterns, and health care systems, including public health agencies, should act accordingly, including providing the general public with adequate guidance so that they can protect themselves.

Given that research on UFPs pollution and its health impacts is ongoing, the 2021 WHO Guidance on UFPs may be updated in the future to reflect the latest consensus on UFPs by the

scientific and medical communities.

- Campbell A. *Spring of Fear: The Final Report of the SARS Commission*. Vol 2. Toronto, ON: Government of Ontario; 2006. Accessed May 27, 2026.
<https://canadacommons.ca/artifacts/1218219/the-sars-commission-final-report/1771303/>
- CBC News. Campbell Commission: Spring of Fear. CBC News. Published January 10, 2007. Accessed May 27, 2026.
https://www.cbc.ca/news2/background/sars/sars_commission.html
- Hau M, Cole D, Vanderlinden L, et al. Development of a guide to applying precaution in local public health. *Int J Occup Environ Health*. 2014;20(2):174-184.
doi:10.1179/2049396713Y.0000000051.
<https://pmc.ncbi.nlm.nih.gov/articles/PMC4090874/>