

A Collective Call for Action to Ensure **Healthy Indoor Air Quality** In Schools and Child Care Settings

Indoor air quality (IAQ) in schools and child care settings has become an increasing concern in Canada

with elevated wildfire smoke exposure and knowledge about airborne virus transmission, including COVID-19. Factors that affect indoor air quality include radon, toxic chemicals from products and furnishings, infiltration of outdoor air pollution, inadequate ventilation and filtration, and the effects of climate change.¹⁻³ With children spending 6 or more hours per day in schools or child care, it is crucial that the air they are breathing in such settings is healthy.^{4,5}

Children are more vulnerable to harm from air pollutants

A well-established body of evidence confirms the risks to child health and well-being of air pollution exposures.^{2,6-8} Compared to adults, children are more exposed to air pollutants, because they inhale more air per kilogram of body weight and their higher levels of physical activity lead to deeper and more frequent breathing. They are also more vulnerable to the health effects of poor indoor air quality because their bodies, brains and respiratory systems are still developing.^{2,9} Children spend a significant portion of their time indoors in educational settings where prolonged exposure to pollutants in these environments heightens their risk of experiencing adverse effects on their health and ability to learn.^{6,7,10,11} Asthma, which can be exacerbated by poor air quality, is the leading cause of school absenteeism in Canada.¹²

Unhealthy indoor air quality in schools and child care settings can exacerbate inequitable health risks. Children who experience poverty, racialization and other forms of marginalization often face compounding air pollution risks, which can include mould and other

adverse conditions in substandard housing as well as disproportionate exposure to traffic-related air pollution, industrial emissions and other environmental injustices.¹³⁻¹⁸ Poor air quality in educational settings adds to this unjust burden. The ongoing effects of colonialism, including chronic underfunding that can lead to unhealthy indoor air quality in on-reserve educational settings, exacerbates disproportionate health risks borne by Indigenous students.ⁱ

Indoor air quality interventions can reduce multiple health effects

Poor IAQ can lead to a range of health issues, including respiratory problems, allergies, and reduced cognitive function.^{2,6,7,19,20} Under-resourced communities and individuals, as well as children with respiratory conditions, are at a higher risk of experiencing IAQ-related health issues.^{9,19,20} IAQ interventions, such as ventilation, filtration and source reduction, are beneficial to children's health by reducing concentrations of air pollutants and exposure to toxic chemicals and pathogens. These interventions have been associated with decreased illness-related absences and improved cognitive function.²¹⁻²⁴

Climate change is exacerbating harmful exposures and impacts on health and learning

The escalating impacts of climate change have intensified the urgency of maintaining healthy IAQ. In 2023, Canada witnessed its most severe wildfire season to date, prompting school boards nationwide to limit outdoor activities.²⁵ Wildfires emit harmful pollutants such as particulate matter and volatile organic compounds, which can infiltrate indoor spaces.^{26,27} Similarly, climate change-induced flooding can cause water damage and mould growth in schools and child care settings, further

ⁱ Shannen's Dream is a child and youth-led movement named in loving memory of Shannen Koostachin from Attawapiskat First Nation, and her dream for "safe and comfy schools" for all First Nations children and youth.

See: First Nations Child & Family Caring Society of Canada. *Shannen's Dream: Safe and Comfy Schools*. fncaringsociety.com/sites/default/files/shannens_dream_-_safe_comfy_schools_0.pdf; Status of TRC Calls to Action fncaringsociety.com/sites/default/files/2023-03/Status%20of%20TRC%20Calls%20to%20Action_0.pdf

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compromising IAQ.²⁸ In addition, extreme heat events are becoming more frequent and intense and are especially dangerous for infants and young children, in part due to their limited ability to acclimatize and to respond appropriately to heat stress. Experts warn that similar problems will only become more common in the coming years, highlighting the need for adequate IAQ support and infrastructure across all schools and child care settings.²⁹

Legislative mechanisms exist, it's time to leverage them

CPCHE's "[Environmental Scan of Indoor Air Quality Support Programs for Schools and Child Care Settings in Canada](#)" highlights legislative tools across federal, provincial and territorial jurisdictions that could be used to support healthy IAQ in educational settings. The scan points to significant gaps and challenges in addressing IAQ concerns in schools and child care settings across Canada.

The environmental scan found the following:

- ▶ Underutilization of legislative policy levers including potentially relevant provisions in occupational health and safety, human rights and public health laws.
- ▶ Available resources for IAQ guidance and guidelines lack specificity for schools and child care settings, with a particular lack of guidance for home-based child care settings.
- ▶ Notable absence of specific funding streams as well as technical support, training, and outreach programs for IAQ improvements in schools and child care settings.
- ▶ A dearth of equity-focused programs to prioritize IAQ improvements in schools and child care programs that serve communities facing disproportionate pollution exposures and environmental injustice, including low-income, racialized and on-reserve communities.



A commitment to indoor air quality in learning environments is fundamental to health equity and every child's right to a healthy environment

The impacts of unhealthy air quality in schools and child care settings pose an escalating threat to the health and well-being of all children, and further exacerbate health inequity. Given the amount of time children spend in learning settings, it is imperative that these environments protect their health and do not increase their exposure to toxic chemicals and air pollution. Optimizing the health and learning potential of children in Canada will require dedicated investments across all educational settings to ensure reliably healthy indoor air quality and mitigate the risks of a changing climate. Schools and child care settings must be spaces that promote well-being and – especially in disproportionately polluted regions and at times of crisis – offer children reprieve from vehicle emissions, industrial pollution, wildfire smoke and extreme heat events.

A comprehensive approach to ensuring healthy indoor air quality for children supports the many benefits of climate action and pollution prevention. Through interventions such as adequate ventilation, filtration and source reduction, IAQ investments will help communities adapt to climate change and minimize the risks of toxic exposures. However, such measures are not enough. Bold action is needed to curb greenhouse gas emissions and prevent air pollution.

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Calls for Action

The Canadian Partnership for Children's Health and Environment (CPCHE), with our partners, affiliates and collaborators, urgently calls upon all levels of government to take immediate and decisive action to attain and sustain healthy indoor air quality in all educational settings.

1

Develop indoor air quality guidance and guidelines specific to educational settings, coupled with sustained funding, technical assistance and training, to support schools and child care programs in reducing sources of pollution, ensuring adequate ventilation and filtration, and undertaking routine assessment, monitoring and maintenance.

3

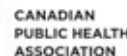
Prioritize investment in healthy indoor air quality in schools and child care settings in communities facing environmental injustice as a targeted and tangible strategy to improve health equity and recognize every child's right to a healthy environment.

2

Ensure transparent, timely communications and effective outreach so that all schools and child care settings have equitable access to funding opportunities and capacity to act on indoor air quality guidelines and guidance.

4

Take decisive action to reduce exposure to toxic chemicals in educational settings, prevent air pollution, both indoors and out, and embrace bold action to mitigate climate change that directly contributes to wildfire smoke, extreme heat and flood-related health risks.





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Signatories

In solidarity and with determination for the health and well-being of our nation's children and future generations, this Call for Action is advanced collectively by:

- Canadian Partnership for Children's Health and Environment
- Canadian Association of Nurses for the Environment (CANE)
- Canadian Association of Physicians for the Environment (CAPE)
- Canadian Child Care Federation (CCCF)
- Canadian Environmental Law Association (CELA)
- Centre for Environmental Health Equity (CEHE)
- Canadian Aerosol Transmission Coalition
- Safe Air Safe Schools
- Women's College Health (WCH)
- Learning Disabilities Association of Canada (LDAC)
- Ontario Public Health Association (OPHA)
- Pollution Probe Foundation
- South Riverdale Community Health Centre (SRCHC)
- New Brunswick Lung
- Women's Healthy Environments Network
- Saskatchewan Early Childhood Association
- Canadian Public Health Association
- EcoSchools
- Ecology Ottawa
- For Our Kids
- The Foundation for Resilient Health
- Association of Early Childhood Educators of Newfoundland & Labrador
- Drive Electric Atlantic
- Prenatal Environmental Health Education Collaboration
- Association of Early Childhood Educators of Alberta
- Manitoba Child Care Association
- Evergreen
- Ontario School Safety
- Canadian Lung Association
- No.9
- Raffi Foundation for Child Honouring
- Canadian Covid Society
- Covid-Stop
- Today's Family
- The Health and Safety Working Group from Vancouver District
- Parents Advisory Council
- Early Childhood Educators of British Columbia
- Protect Our Province BC
- David Suzuki Foundation
- Safe Schools Coalition British Columbia



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