



Policy Brief: Advancing Health Equity Through Building Emissions Performance Standards in Toronto

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Executive Summary

The climate crisis is intensifying, with heatwaves, wildfire smoke and flood events now posing significant threats to the health and safety of Toronto residents. The most vulnerable are low-income, newcomer, and racialized communities many of whom live in older, less well-maintained housing. As part of its TransformTO Net-Zero climate action strategy, the City of Toronto is bringing forward a Building Emissions Performance Standards policy (BEPS). This brief examines how an equity-focused BEPS can deliver significant health and social benefits to Toronto residents, particularly the most vulnerable, while also reducing greenhouse gas emissions. By engaging with communities, providing targeted supports, and establishing protections for renters, Toronto can ensure that its BEPS policy lowers Toronto's healthcare burden and contributes to building a more resilient, healthy, and equitable city for all.

Toronto's TransformTO Net-Zero Strategy and Buildings

The City of Toronto's TransformTO Net-Zero Strategy is an ambitious climate action strategy with a goal of reaching net-zero emissions community-wide by 2040. As buildings account for approximately 55% of Toronto's greenhouse gas emissions they are a central focus of the Net-Zero strategy. The City's climate target for existing buildings is to halve emissions from 2008 levels by 2030 and reach net-zero by 2040.¹ The development of a Building Emissions Performance Standards policy, which will establish increasingly stringent energy performance standards over time, has been identified as critical to achieving these targets.²

¹ City of Toronto, "TransformTO Net-Zero Strategy: A Climate Action Pathway to 2030 and Beyond," 2021: <https://www.toronto.ca/legdocs/mmis/2021/ie/bgrd/backgroundfile-173758.pdf> pp. 6 – 8.

² City of Toronto, "Net Zero Existing Buildings Strategy," 2021: <https://www.toronto.ca/wp-content/uploads/2021/10/907c-Net-Zero-Existing-Buildings-Strategy-2021.pdf>, pp. 10-13.

The City is also committed to ensuring that its TransformTO Net-Zero Strategy advances health, equity, and social inclusion, with particular attention to the needs of Indigenous peoples, youth, and equity-owed communities.³ In keeping with this commitment, the City has identified that the implementation of the Building Emissions Performance Standards must address affordability challenges and “realize co-benefits related to health, social equity, and the local economy.”⁴ The development of an equity-focused BEPS implementation policy thus presents an opportunity to reduce emissions, address the health impacts of climate change, improve access to affordable, safe housing, and advance social equity and community well-being.

Climate Change, Housing, and Health Vulnerabilities

The intersection between poor quality housing and health vulnerabilities is well documented.⁵ Research undertaken in Toronto demonstrated that housing that is poor quality, unaffordable and instable is associated with poor mental and physical health outcomes, both of which add costs to the health care system. Lower income and racialized communities, who are more likely to live in poor quality housing, are disproportionately affected.⁶

Climate change is exacerbating these inequities. Tenant advocacy groups like ACORN Canada note that low- and moderate-income tenants are disproportionately affected by both ongoing housing crisis and a worsening climate crisis. In a nationwide survey conducted by ACORN, one third of Canadian tenants reported their unit was in bad or very bad condition, citing issues like excessive heat in summer, drafts, lack of temperature control, and cold in winter. The top three health issues attributed to the conditions of their rental unit were headaches, aggravation of existing health issues, and respiratory problems.⁷

Living in poor quality housing, and being part of a marginalized community, has also been shown to increase morbidity and mortality during extreme climate-related events.⁸ As an example, in British Columbia, during the 2021 heat dome, heat-related emergency room visits were highest in neighbourhoods where occupants faced higher levels of

³ City of Toronto, “Accountability and Management Framework for the TransformTO Net Zero Strategy,” 2022: <https://www.toronto.ca/legdocs/mmis/2022/ie/bgrd/backgroundfile-224381.pdf>, p.1

⁴ City of Toronto, “Building Emissions Performance Standards (BEPS): Design Principles and Development Plan,” <https://www.toronto.ca/legdocs/mmis/2024/ie/bgrd/backgroundfile-246952.pdf> p. 1

⁵ Rana, Kritika, et al. “Housing Inequalities and Health Outcomes among Migrant and Refugee Populations in High-Income Countries: A Mixed-Methods Systematic Review.” *BMC Public Health*, vol. 25, no. 1, 22 Mar. 2025, <https://doi.org/10.1186/s12889-025-22186-5>.

⁶ City of Toronto, “*Housing and Health: Unlocking Opportunity*, Staff Report to the Board of Health from the Acting Medical Officer of Health” (2016), <https://www.toronto.ca/legdocs/mmis/2017/ex/bgrd/backgroundfile-100729.pdf>

⁷ ACORN Canada, “Crumbling Apartments in a Warming World,” 2025: <https://acorncanada.org/wp-content/uploads/2025/05/ACORN-Crumbling-Apartments-in-a-Warming-World-Report.pdf>, p. 12-18.

⁸ Mariya Bezgrebelna, et al. “Climate Change, Poverty, and Health: A Scoping Review of the Canadian Context.” *The Journal of Climate Change and Health*, vol. 20, Nov. 2024, <https://doi.org/10.1016/j.jocl.2024.100348>.

social isolation, advanced age, pre-existing health conditions, mental illnesses, substance dependence, a lack of green spaces, and/or poverty.⁹

In Toronto, inadequate housing has been identified as a risk factor for exacerbating climate change impacts on health.

- Each year, it is estimated that extreme heat contributes to an average 120 premature deaths in Toronto and most extreme heat deaths occur indoors. A study of heatwaves in Toronto found that mortality risk increases significantly during extreme heat events. The risk is particularly high for residents in aging buildings without access to cooling.¹⁰
- The health impacts of flood events, such as the July 2024 flood where nearly 10 centimetres fell in three hours, disproportionately fall on low-income communities who live in poorly maintained buildings that lack sump pumps and are more susceptible to mould. These health impacts include respiratory health harms and the mental stress resulting from living in flood-impacted housing.¹¹

Within vulnerable populations, certain groups are particularly at risk:

- Children are especially vulnerable to climate-related health impacts due to their developing respiratory and immune systems and children from lower-income families are disproportionately affected.¹² Air pollution and extreme heat exposure can affect children's physical and neurological development and puts them at higher risk of asthma. Asthma is the most common chronic disease among children and the leading cause of school absenteeism and hospitalizations in Canada.¹³
- Pregnant people face heightened risks including preterm birth and low birth weight when exposed to extreme heat and air pollution. High temperatures can lead to heat exhaustion, heat stroke, and dehydration in pregnant people.

⁹ Vancouver Coastal Health, *Emergency Department Impacts Due to an Unprecedented Extreme Heat Event in Vancouver Coastal Health, 2021* (2021), 1. <https://www.vch.ca/sites/default/files/2023-11/ED-Heat-Related-Visits-During-2021-Heat-Dome.pdf>

¹⁰ Pengelly, L.D., et. al, "Anatomy of heat waves and mortality in Toronto. Lessons for public health protection." *Canadian Journal of Public Health*, 2007, 98(5), 364-368. doi: [10.1007/BF03405420](https://doi.org/10.1007/BF03405420). In the BC heatwave, 98% of deaths occurred inside buildings, see Dale Beugin, et al, *The Case for Adapting to Extreme Heat: Costs of the 2021 B.C. Heat Wave*, The Canadian Climate Institute, June 2023: <https://climateinstitute.ca/wp-content/uploads/2023/06/The-case-for-adapting-to-extreme-heat-costs-of-the-BC-heat-wave.pdf> p. 38.

¹¹ Canadian Climate Institute, "Fact Sheet: Climate Change and Floods" September 2024: <https://climateinstitute.ca/wp-content/uploads/2024/09/Fact-sheet-Floods-CanadianClimateInstitute.pdf>, p.2; Niloofar Mohtat and Luna Khirfan. "Distributive Justice and Urban Form Adaptation to Flooding Risks: Spatial Analysis to Identify Toronto's Priority Neighborhoods." *Frontiers in Sustainable Cities*, vol. 4, 29 June 2022, <https://doi.org/10.3389/frsc.2022.919724>; City of Toronto, "Reducing Stormwater Runoff and Mitigating Basement Flooding," 14 January 2025, <https://www.toronto.ca/legdocs/mmis/2025/ex/bgrd/backgroundfile-252172.pdf>

¹² CDC, "Clinical Overview of Heat and Children and Teens with Asthma." *Heat Health*, 2024, www.cdc.gov/heat-health/hcp/clinical-overview/heat-children-asthma.html; Koen F. Tieskens, et al. "The Impact of Energy Retrofits on Pediatric Asthma Exacerbation in a Boston Multi-Family Housing Complex: A Systems Science Approach." *Environmental Health*, vol. 20, no. 1, 14 Feb. 2021, <https://doi.org/10.1186/s12940-021-00699-x>

¹³ Asthma Canada. "Asthma at School." *Asthma Canada*, asthma.ca/get-help/asthma-in-children/asthma-at-school/

Breathing polluted air causes inflammation and epigenetic changes that can interfere with placental blood flow and development, as well as promote blood clot formation.¹⁴

- Seniors have reduced ability to regulate body temperature, making them particularly susceptible to heat-related illnesses during heatwaves and less able to cope with cold temperatures in sudden winter cold snaps. They are also more likely to suffer from pre-existing health conditions that can be exacerbated by climate-related air pollution and extreme weather events.¹⁵

As climate change worsens, the need to protect Toronto residents and address housing inequities is becoming more urgent.

Toronto is already experiencing more days of extreme heat with the average number of days over 30° C projected to increase from 12 to 66 days per year by 2050 (under a high emissions scenario).¹⁶ Toronto can also anticipate more frequent and more intense rainfall events with the amount of rain falling in 24 hours rising from 66 mm to 166mm by 2050 on average. Without action this flooding will overwhelm the city's infrastructure and lead to more widespread damage to buildings and housing.¹⁷

Given these projections, given the fact that people spend 90% of their time indoors on average¹⁸, and given that climate impacts are exacerbated by existing housing inequities – prioritizing the housing needs of vulnerable communities and retrofitting to ensure that buildings are healthier, safer and more climate resilient and must be a top priority.

BEPS can increase climate resilience and deliver multiple health benefits

Upgrades and improvements to buildings can protect residents from climate impacts, reduce health risks, improve overall quality of life, and advance health and social equity.

Fuel switching from gas to electricity can reduce health harms from indoor pollution, particularly for children.

Retrofitting for emissions reduction will involve switching existing buildings from gas to electricity, including switching out gas-powered furnaces for heat pumps, and gas stoves

¹⁴ CDC. "Clinical Overview of Heat and Pregnancy." *Heat Health*, 2024, www.cdc.gov/heat-health/hcp/clinical-overview/heat-and-pregnant-women.html

¹⁵ From 2006 to 2010, seniors in southern Quebec with a household income under \$20,000 were almost three times more likely to go to the emergency department, be hospitalized, or die from heat when temperatures exceeded 30°C. See P Berry & Schnitter, R. (Eds.). *Health of Canadians in a Changing Climate: Advancing our Knowledge for Action*. Ottawa, ON: Government of Canada, 2022, <https://changingclimate.ca/site/assets/uploads/sites/5/2022/02/CCHA-REPORT-EN.pdf>, p. 137. For a summary of climate impacts on the health of seniors see: United States Environmental Protection Agency. "Climate Change and the Health of Older Adults." *Www.epa.gov*, 21 March 2022, www.epa.gov/climateimpacts/climate-change-and-health-older-adults

¹⁶ Toronto and Region Conservation Authority. "Taking Action on Climate Change in Toronto Region." *Toronto and Region Conservation Authority (TRCA)*, trca.ca/climate-change-impacts-gta/

¹⁷ City of Toronto, "Preparing for Extreme Weather," <https://www.toronto.ca/services-payments/water-environment/environmentally-friendly-city-initiatives/preparing-for-extreme-weather/>

¹⁸ Canadian Lung Association, "Air Quality | Canadian Lung Association," 2017, www.lung.ca/air-quality

for electric stoves. The health benefits of replacing gas with electric stoves are particularly notable, especially for children. Gas stoves emit nitrogen dioxide, carbon monoxide, formaldehyde, and particulate matter.¹⁹ A 2023 study found that children in Toronto under six years of age living in homes with gas stoves have nearly twice the risk of developing asthma compared to those with electric stoves.²⁰ The risks are particularly high for children in low-income families who may live in housing with smaller living spaces.²¹ Although not as immediately harmful to health as gas stoves, gas furnaces also contribute to indoor air pollution as they emit nitrogen dioxide and other combustion-related air pollutants.²² Switching out gas for electric stoves and gas furnaces for heat pumps could thus significantly improve indoor air quality and health outcomes for all residents, especially the most vulnerable.

Retrofitting older buildings for energy efficiency provides protections from the health impacts of extreme heat and cold.

Improving the energy efficiency of a building with high quality insulation, air sealing, high-performance windows, window shading, and more efficient HVAC systems can help maintain comfortable indoor temperatures even during extreme weather. Research shows that this can also improve health outcomes. During heat waves, retrofitted buildings stay cooler without excessive air conditioning use; in winter, they retain heat more effectively. Residents of retrofitted buildings are thus less likely to experience heat-related illnesses and hospitalizations during extreme heat events and less likely to suffer from the physical and mental health harms exacerbated by experiencing extreme cold.²³ For groups who are more vulnerable to temperature extremes - seniors, children, and those with pre-existing health conditions in low-income communities - protections from extreme heat and cold can greatly improve overall health and quality of life. There is also research to indicate that these improvements can reduce absenteeism from school and employment thereby improving both educational and employment outcomes as well.²⁴

¹⁹ Wynne Armand, MD, “Have a Gas Stove? How to Reduce Pollution That May Harm Health.” *Harvard Health*, 7 Sept. 2022, www.health.harvard.edu/blog/have-a-gas-stove-how-to-reduce-pollution-that-may-harm-health-202209072811

²⁰ MA Bédard, et. al, “Association between gas stove use and childhood asthma in the Canadian CHILD Cohort Study,” *Canadian Journal of Public Health*. 2023 Aug;114(4):705-708. doi: [10.17269/s41997-023-00779-0](https://doi.org/10.17269/s41997-023-00779-0)

²¹ Mei Lin et. al, “Gaseous Air Pollutants and Asthma Hospitalization of Children with Low Household Income in Vancouver, British Columbia, Canada,” *American Journal of Epidemiology*, Volume 159, Issue 3, 1 February 2004, pp. 294–303, <https://doi.org/10.1093/aje/kwh043>

²² S. Wesseler, “Gas stoves pose health risks. Are gas furnaces and other appliances safe to use?” *Yale Climate Connections*, March 2023. <http://yaleclimateconnections.org/2023/03/gas-stoves-pose-health-risks-are-gas-furnaces-and-other-appliances-safe-to-use/>

²³ Angela Cartwright et al., “Housing Conditions and the Health and Wellbeing Impacts of Climate Change: A Scoping Review.” *Environmental Research*, vol. 270, Apr. 2025, p. 120846, <https://doi.org/10.1016/j.envres.2025.120846>; World Health Organization, *Housing and Health Guidelines*. Geneva: World Health Organization; 2018. Ch.4, <https://www.ncbi.nlm.nih.gov/books/NBK535294/>

²⁴ “Victorian Healthy Homes Program | LSHTM Evidence Bank.” *Climatehealthevidence.org*, 2018, climatehealthevidence.org/case-studies/victorian-healthy-homes-program

Retrofits that reduce building emissions will help decrease outdoor air pollution and contribute to overall improved public health.²⁵

Retrofits that reduce building emissions are vital for public health because they decrease outdoor air pollution from fossil fuel combustion. Burning fossil fuels in buildings (for heating, cooling, and electricity generation) releases pollutants like nitrogen oxides, particulate matter, and VOCs into the atmosphere, negatively impacting air quality. The health impacts of polluted air are significant: they include ischemic heart disease, stroke, lung cancer, and COPD, and lead to hundreds of premature deaths a year.²⁶ Decreasing building emissions through energy efficiency measures - and switching to cleaner energy sources – will result in reduced air pollution and reduced incidence of associated illness and death.²⁷ A recent study estimated that the emissions reduction from ambitious building energy efficiency improvements could prevent thousands of premature deaths annually in the United States.²⁸

Improving ventilation delivers significant health benefits and should be included in energy efficiency retrofitting.

Although not directly related to emissions reduction, the installation of mechanical ventilation systems should be considered as part of a holistic approach to energy efficiency retrofitting. Because increased airtightness for energy efficiency can trap indoor pollutants and moisture, improved ventilation is necessary to maintain health indoor air quality.²⁹ By preventing the accumulation of moisture and mould and lowering indoor air pollutants such as carbon dioxide, volatile organic compounds (VOCs), dust and smoke, mechanical ventilation systems can improve indoor air quality.³⁰ This, in turn, can reduce the incidence of respiratory and cardiac illness, allergies, and asthma, in some cases decreasing allergy and asthma symptoms by up to 25%.³¹ For vulnerable populations, particularly children in lower income families who

²⁵ Toronto Public Health, "Public Health Impacts of Climate Change: A Path Forward for Responding to Climate Change," 2023, <https://www.toronto.ca/legdocs/mmis/2023/hl/bgrd/backgroundfile-240681.pdf>, p. 4.

²⁶ Sustainable Development Goal indicator 3.9.1: mortality attributed to air pollution. Geneva: World Health Organization; 2024, <https://iris.who.int/bitstream/handle/10665/379020/9789240099142-eng.pdf?>

²⁷ "Building Retrofits Factsheet | Canadian Public Health Association." *Cpha.ca*, 2025, www.cpha.ca/building-retrofits-factsheet.

²⁸ Kenneth T. Gillingham, et al., "The Climate and Health Benefits from Intensive Building Energy Efficiency Improvements." *Science Advances*, vol. 7, no. 34, 20 Aug. 2021, <https://doi.org/10.1126/sciadv.abg0947>

²⁹ National Engineering Policy Centre, "Healthy, safe and sustainable buildings: Maximising benefits in building retrofits" December, 2024. <https://nepc.raeng.org.uk/media/4b1ff0az/healthy-safe-sustainable-buildings-retrofit-report-ac.pdf>, pp. 5 – 7.

³⁰ National Center for Healthy Housing. *Studying the Optimal Ventilation for Environmental Indoor Air Quality*. Columbia, MD: Enterprise Community Partners. April 2022. https://nchh.org/resource-library/report_studying-the-optimal-ventilation-for-environmental-indoor-air-quality.pdf

³¹ William. J. Fisk, "Health and productivity gains from better indoor environments and their relationship with building energy efficiency," Annual Review of Energy and the Environment November, 200, 25(1), p.548. DOI:[10.1146/annurev.energy.25.1.537](https://doi.org/10.1146/annurev.energy.25.1.537)

suffer disproportionately from asthma, adding mechanical ventilation during retrofits can alleviate chronic conditions and improve health outcomes.³²

Importantly, ventilation systems with enhanced filtration can also filter out harmful pollutants from outside, including fine particulate matter from wildfire smoke which is becoming a major health hazard for Toronto residents. A recent study showed that Ontario's wildfire smoke-related health-care costs over a five-day span (June 4 to 8 2023) cost an estimated \$1.28 billion.³³ During wildfire events, enhanced air filtration in ventilation systems can limit exacerbations of asthma, chronic obstructive pulmonary disease (COPD), and other respiratory conditions for vulnerable occupants.³⁴ As the climate crisis worsens and wildfires become more frequent, the inclusion of ventilation systems with high performing filters will become increasingly important.

Including flood protection in BEPS retrofits can reduce social and health inequities and improve energy efficiency

Retrofitting for flood protection should be considered as part of a holistic approach to BEPS for buildings in flood-prone zones in Toronto. As vulnerable low-income groups are more likely to live in flood-prone areas, such as Thorncliffe Park or Rockcliffe-Smythe, flood protective measures for buildings can improve building quality and address health disparities, while also offering opportunities to protect and improve energy efficiency.³⁵ From an energy efficiency perspective, flood protection measures such as improved drainage systems and the installation of backflow valves in basement drains can protect insulation from water damage,³⁶ while foundation waterproofing and the installation of green roofs for stormwater retention can provide additional insulation that further reduces energy usage and improves building quality.³⁷ From a health and equity perspective, these measures help to reduce the significant health harms that come from flood-related mould exposure.³⁸ These harms include aggravated asthma and

³² Koen F Tieskens, et al. “The Impact of Energy Retrofits on Pediatric Asthma Exacerbation in a Boston Multi-Family Housing Complex.”

³³ Maëlle Martin-Richon, “With Canada’s Forest Fires, the Health Costs Hit Home.” *Canadian Climate Institute*, 26 June 2023, climateinstitute.ca/with-the-forest-ablaze-the-health-costs-hit-home/.

³⁴ R. D. Huff et al, “Indoor Air Filtration during Wildfires: Impacts on Air Quality and Health.” *National Collaborating Centre for Environmental Health | NCCEH - CCSNE*, June 2025, ncceh.ca/resources/evidence-reviews/indoor-air-filtration-during-wildfires-impacts-air-quality-and-health

³⁵ Niloofar Mohtat, and Luna Khirfan. “Epistemic Justice in Flood-Adaptive Green Infrastructure Planning: The Recognition of Local Experiential Knowledge in Thorncliffe Park, Toronto.” *Landscape and Urban Planning*, vol. 238, 1 Oct. 2023, pp. 104834–104834, <https://doi.org/10.1016/j.landurbplan.2023.104834>; Rabi Abid, Recommendations for Municipalities Focus: Flood Protection, Canadian Environmental Law Association, September 14, 2022, https://cela.ca/wp-content/uploads/2022/09/Flooding_Recommendations_2022.pdf

³⁶ Polyomma, The Role of Polyomma Waterproof Roofing Membranes in Preventing Water Damage and Mould Growth, <https://www.polyomma.com/blog/the-role-of-polyomma-waterproof-roofing-membranes-in-preventing-water-damage-and-mould-growth/> April 23, 2025.

³⁷ Giouli Mihalakakou et. al, “Green roofs as a nature-based solution for improving urban sustainability: Progress and perspectives,” *Renewable and Sustainable Energy Reviews*, Vol. 180, July 2023. <https://doi.org/10.1016/j.rser.2023.113306>

³⁸ City of Toronto, “Reducing Stormwater Runoff and Mitigating Basement Flooding,” January 2025, <https://www.toronto.ca/legdocs/mmis/2025/ex/bgrd/backgroundfile-252172.pdf>

other respiratory conditions and skin, eye and gastrointestinal problems. Further, by protecting homes, these measures can help protect low-income residents with limited resources from the significant physical and mental stress associated with either living in flood-damaged buildings or being displaced from them.³⁹

BEPS can deliver economic benefits which also benefit health

Energy efficient retrofits can reduce energy poverty by lowering utility costs.

As low-income household often spend a disproportionate share of their income on energy bills, reducing energy poverty can improve health outcomes by ensuring that households don't have to choose between heating or cooling their homes and other necessities like food or medication. Assured access to food and medication improves health, alleviates mental distress, and improves overall quality of life for all residents.⁴⁰

BEPS implementation could bring significant employment opportunities that provide equity and health benefits.

It is estimated that BEPS implementation will create upwards of 7,000 full time jobs in Toronto.⁴¹ Filling these positions through the creation of targeted training programs for members of historically disadvantaged communities, particularly for Toronto's youth who are experiencing high rates of unemployment, could advance social equity.⁴² This, in turn, would reduce the mental and social distress associated with unemployment and improve long-term health outcomes while also ensuring the development of a more inclusive green economy.⁴³

An equity-focused BEPS will reduce health costs and productivity losses.

A recent study estimated that the costs of death and reduced quality of life from heat-related deaths in Canada will range from \$3.0 billion to \$3.9 billion per year by mid-century, while the loss of working hours - up to 128 million - would cost \$14.8 billion annually. The same study found that actions to reduce heat impacts could deliver significant health and economic benefits. For instance, it was found that if shading technologies were installed on 50 per cent of homes by 2085, there would be an average of 90 fewer deaths per year, and the benefit of the avoided premature heat-related deaths would be approximately \$540 million. Adding the anticipated energy savings of

³⁹ For an account of the social, mental and physical health impacts of flooding see: "Inondations | INSPQ." *Institut National de Santé Publique Du Québec*, 3 Apr. 2024, www.inspq.qc.ca/changements-climatiques/menaces/inondations

⁴⁰ Jessica McIlroy, Betsy Agar and Emma Harris, "Better Buildings for All: Relieving energy poverty through deep retrofits," Pembina Institute, April 2024, <https://www.pembina.org/reports/better-buildings-for-all-corrected.pdf>

⁴¹ City of Toronto, "Net Zero Existing Buildings Strategy Impact Modeling & Assessment Technical Appendix," May 2021, <https://www.toronto.ca/legdocs/mmis/2021/ie/bgrd/backgroundfile-168403.pdf>, p.73

⁴² Toronto Foundation, "Vital Signs Work" 2024. <https://torontofoundation.ca/vital-signs-2024-work/>

⁴³ City of Toronto, "Net Zero Existing Buildings Strategy," 2021, pp. 97- 99.

\$1.4 billion and accounting for the initial investment and maintenance and the net benefit was calculated to be over \$1.3 billion.⁴⁴ Such findings highlight the significant health-cost savings and overall economic benefits to implementing BEPS.

Health-Related Equity Considerations in BEPS Implementation

While BEPS offers significant potential benefits to health and well-being, its implementation must be carefully designed to ensure these benefits reach all communities equitably and do not exacerbate existing inequities.

Retrofitting, Housing Affordability and Preventing Displacement

A primary concern with building retrofit requirements is the risk of the owner passing on those costs to the tenants through rent increases or evicting tenants when undertaking the retrofit. Tenant advocacy groups like ACORN are calling for protections against displacement and rent increases to be incorporated into BEPS policy design.⁴⁵ Toronto's rental housing market is already experiencing affordability challenges, with 46.8% of renter households spending more than 30% of their income on housing costs.⁴⁶ Rent increases can cause stress and exacerbate existing health issues, decrease a renter's ability to buy healthy foods or pay for medications, or force them to move. Evictions due to building upgrades, or renovations, can disrupt medical treatment and social networks, increase housing instability, interrupt education and contribute to job loss.⁴⁷ The HousingTO 2020-2030 Action Plan identifies the preservation of existing affordable housing as a key priority, making it essential that BEPS implementation aligns with this goal.⁴⁸

Indigenous Health and Housing Needs

Indigenous households in Toronto face unique housing challenges, with higher rates of core housing need (27.9% compared to 19.1% for non-Indigenous households). At the same time, Indigenous residents have specific needs for housing that is supportive, culturally relevant, and safe. BEPS implementation must consider the specific housing, health and social needs of Indigenous residents in consultation with them.⁴⁹

⁴⁴ Canadian Institute for Climate Choices, "The Health Costs of Climate Change: How Canada can adapt, prepare, and save lives," 2021: https://climatechoices.ca/wp-content/uploads/2021/06/ClimateChoices_Health-report_Final_June2021.pdf pp. 31-35

⁴⁵ "Who Pays for Green Retrofits?" ACORN Ontario, 2025, <https://acorncanada.org/wp-content/uploads/2025/07/AGI-Retrofits-Report-2025.pdf>, p. 22.

⁴⁶ Crystal Fung et. al, "The Crisis of Affordable Rental Housing in Ontario," Ryerson (TMU) University, 2021: https://www.torontomu.ca/content/dam/social-innovation/Programs/Affordable_Housing_Visual_Systems_Map_Oxford.pdf, p. 3.

⁴⁷ Linda Wood, "Housing and Health: Unlocking Opportunity" City of Toronto, October 2016, <https://www.toronto.ca/legdocs/mmis/2016/hl/bgrd/backgroundfile-97428.pdf>, pp. 6 – 9.

⁴⁸ City of Toronto, "HousingTO 2020-2030 Action Plan," 2019: <https://www.toronto.ca/wp-content/uploads/2020/04/94fo-housing-to-2020-2030-action-plan-housing-secretariat.pdf>, p. 25-28.

⁴⁹ City of Toronto, "Census 2021 Backgrounder – Housing and Indigenous Peoples," 2022: <https://www.toronto.ca/wp-content/uploads/2022/09/8e3a-CityPlanning-2021-Census-Backgrounder-Housing-Indigenous-Peoples.pdf>, p. 4-6; Toronto Indigenous Health Advisory Circle, "A Reclamation of Well Being: Visioning

Lack of Awareness of Health and Equity Co-Benefits

Many building owners and residents are unaware of the co-benefits of energy retrofits including improved health outcomes, increased comfort and quality of life, protection from climate change impacts, and opportunities for employment and skills development. Building awareness of the co-benefits to retrofitting existing buildings is integral to the process of delivering them.⁵⁰

Recommendations for Equity-Focused BEPS Implementation that delivers health benefits

To maximize health and equity benefits while addressing implementation challenges, the City of Toronto should consider the following recommendations:

1. Establish Strong Tenant Protections

BEPS has the potential to address inequities and improve resident's health, but these benefits will only be accessible to tenants if they are protected from displacement before, during, and after the decarbonization retrofit process. To protect tenant's health and well-being, it will be necessary to incorporate robust tenant protections into Toronto's BEPS implementation, including anti-displacement measures, rent increase limitations for retrofitted buildings, and requirements for maintaining or improving housing quality during retrofits.⁵¹

Toronto's new renovation by-law is a good first step.⁵² It must be followed by regulations that:

- ensure that building owners who receive financial support for energy-efficiency upgrades be prohibited from applying for above guide-line rent increases
- require tenant participation in all green retrofit planning
- require building owners to prioritize retrofit projects that do not displace residents.

a Thriving and Healthy Urban Indigenous Community – Toronto's First Indigenous Health Strategy (2016 – 2021)" Toronto Public Health, 2016, <https://www.toronto.ca/wp-content/uploads/2018/02/9457-tph-tihac-health-strategy-2016-2021.pdf>

⁵⁰ Laura Tozer, et al. "Achieving Deep-Energy Retrofits for Households in Energy Poverty." *Achieving Deep-Energy Retrofits for Households in Energy Poverty*, vol. 4, no. 1, 1 June 2023, <https://doi.org/10.5334/bc.304>

⁵¹ Cloe Logan. "Toronto Can Reduce Building Emissions While Protecting Tenants – Here's How." *Canada's National Observer*, 5 Feb. 2025, <https://www.nationalobserver.com/2025/02/06/news/toronto-reduce-building-emissions-protecting-tenants>

⁵² City of Toronto, Rental Renovation Licence Bylaw 53-2025, <https://www.toronto.ca/services-payments/permits-licences-bylaws/renovictions-bylaw-development/>

2. Establish inclusive BEPS Community Accountability Boards and ensure that they address health

The establishment of Community Accountability Boards (CABs) with representation from tenant advocates, equity-seeking groups, public health experts and building owners has been identified as an effective approach to fostering collaboration between policy makers and community members and ensuring that the implementation of BEPS addresses community needs.⁵³ In developing guidelines for CABs, health should be explicitly identified as an issue to be addressed. The expertise of community members who are experiencing the health impacts of climate change, including the particular expertise of Indigenous people, should also be prioritized. Community members who have the knowledge of the intersections between poor quality housing and climate impacts are best placed to understand and prioritize solutions.

To support community members in providing their input and expertise on health, climate impacts, housing, and the implementation of retrofit solutions:

- the particular health issues and concerns of vulnerable members within communities – children, pregnant persons, elders, and the people with disabilities – should be identified.
- funding should be provided for staff support and community engagement initiatives so that the CAB is able to carry out its recommendations
- community members should be compensated for their time and expertise

3. Integrate health professionals and community members in the development of a BEPS communication strategy.

The inclusion of health professionals and community members in the development of a communications strategy and materials would strengthen messaging around health co-benefits.⁵⁴ The inclusion of multilingual and Indigenous health professionals from most vulnerable communities in this work would be particularly advantageous. Strategies to maximize audience outreach and engagement in this work could include:

- engaging community leaders and health professional to collaborate on the design of workshops on the health and social equity co-benefits of BEPs
- funding the translation of materials on the health and social co-benefits of BEPS into other languages for newcomer communities

⁵³ Giulianna Di Lauro et. al. “Working with a Community Accountability Board to Co-Design Equitable Building Performance Standards: Fact Sheet/Brief” Institute for Market Transformation, 2022, <https://imt.org/resources/community-accountability-board-factsheet/>

⁵⁴ Kathryn Thier, et al. “The Impact of Public Health Messages on Audience Engagement and Collective Climate Action.” *Current Opinion in Behavioral Sciences*, vol. 64, 13 May 2025, p. 101539, <https://doi.org/10.1016/j.cobeha.2025.101539>

- developing an array of creative communications strategies and identifying diverse communications channels in order to reach a broad cross-section of Toronto’s communities on BEPS health and social co-benefits.

4. Measure and Analyze Health and Equity Outcomes of BEPs.

In addition to establishing robust monitoring systems to track emissions reductions, the health and equity outcomes associated with BEPS implementation should also be tracked. This could be effected through coordination between City divisions, academic and community researchers, and Toronto Public Health which recently launched a [plan to monitor the impacts of climate change](#) on the health of Toronto’s residents.⁵⁵ The information collected could inform ongoing program adjustments to maximize benefits for vulnerable populations.

In addition, requirements for health and equity outcomes could be incorporated into policy initiatives by:

1. Requiring that energy audits for BEPS compliance include the collection of information on indoor air quality as a key metric for assessing health benefits.
2. Requiring that the implementation of a BEPS-related policy or grant program include plans for addressing equity outcomes that respond to community needs, reduce climate vulnerabilities, improve public health, and increase community resilience.
3. Requiring that policies or grant programs include plans for measuring and analyzing for health and equity outcomes.

5. Incorporate health cost-savings from the implementation of BEPS into cost-benefit analyses

The health benefits of an equity-focused BEPS will deliver significant economic and financial benefits by reducing the burden on the health care system and enabling more residents to live productive and healthy lives. These savings should be incorporated into cost-benefit analyses of BEPS implementation.

Conclusion

Toronto's Building Emissions Performance Standards policy represents a significant opportunity to address climate change while improving health outcomes and advancing equity. By implementing BEPS with a strong focus on equity considerations and health co-benefits, Toronto can create a more resilient, healthy, and equitable city for all residents.

⁵⁵ City of Toronto, Acting Medical Officer of Health, “Planning for climate change monitoring to understand health impacts and support resilience in Toronto,” June 2025, <https://www.toronto.ca/legdocs/mmis/2025/hl/bgrd/backgroundfile-256683.pdf>

Successful implementation will require strong tenant protections, meaningful community engagement, and the active involvement of health professionals. With these elements in place, BEPS can deliver on its promise of reducing emissions while ensuring that the benefits of climate action are shared equitably across Toronto's diverse communities.