



# PLANNING FOR EQUITY WITH DATA

Monday, October 24, 2022, 12 - 1 PM ET



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Healthy  
Design  
.City

# Planning for Equity with Data

October 24 | 2022

Jeff Brook, Dany Doiron and Eleanor Setton,  
HealthyDesign.City co-Directors



Credit: Getty Images/iStockphoto

# Presentation objective and overview

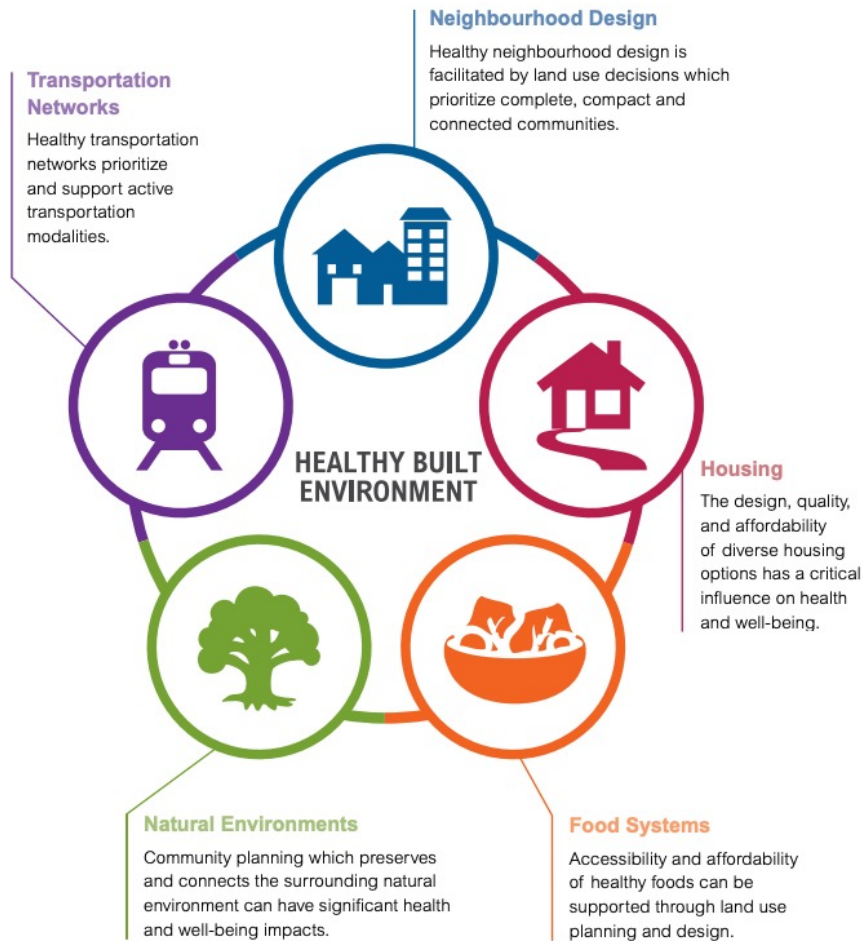
## ***Presentation objective:***

*Provide an overview of the HealthyDesign.City project and the HealthyPlan.City tool*

### ***Presentation overview:***

- Healthy Cities: connecting built environment to health
- Built environment and environmental health equity
- HealthyDesign.City project
- HealthyPlan.City tool: current release
- HealthyPlan.City and HealthyPlace.City tools: upcoming release
- Future developments

# Healthy Cities: connecting built environment to health



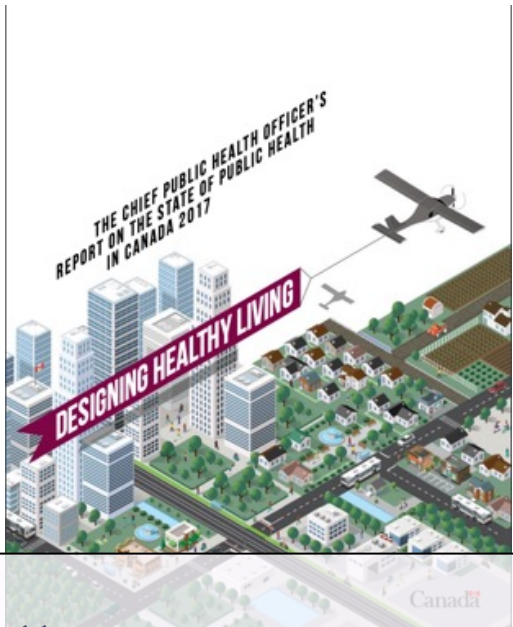
BC Centre for Disease Control

*BC Centre for Disease Control. Healthy Built Environment Linkages Toolkit: making the links between design, planning and health, Version 2.0. Vancouver, B.C. Provincial Health Services Authority, 2018*

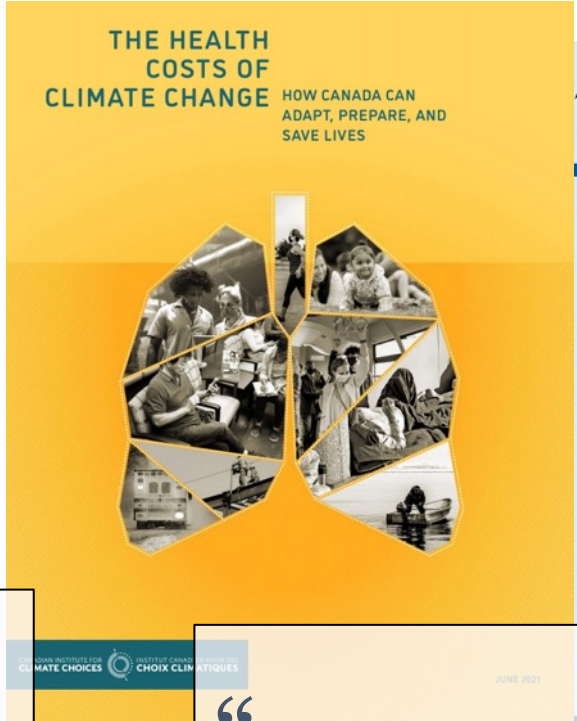
## Healthy Cities: Major questions going forward

- How to **track** urban environmental health risk factors?
- How to steer investments in urban infrastructure towards **better health** for all Canadians?
- How to **maximize public health co-benefits** in the measures taken by Canadian cities to reduce GHG emissions and adapt to climate change?
- How best to **facilitate urban planning and public policy decision-making** to address these questions and to accelerate and evaluate progress?

# Data are an essential element to addressing these questions



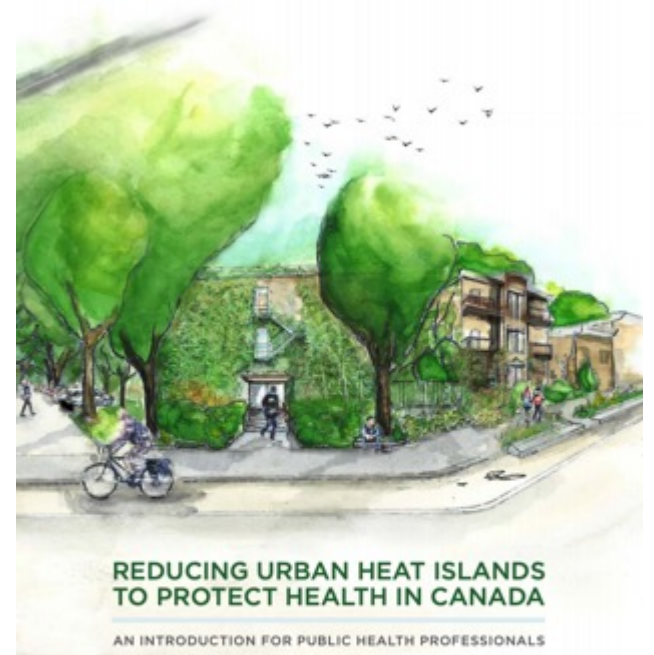
“ Standardized, open data collection would support knowledge sharing and identification of approaches that can be effective across different communities.



“ Governments should invest in research on emerging, unknown, and local climate change health impacts.



A Review by The Lancet



“ Evaluating the effectiveness of UHI-reduction actions to public health is important and remains an area for further work [...] There's a need for heat-health vulnerability maps to municipalities.



***“Groups that are disadvantaged because of disproportionate exposure to hazards [...] and poverty are often more vulnerable to the health risks of climate change”***

Toronto

### Finding a patch of green: COVID-19 highlights inequities in Toronto park space, experts say

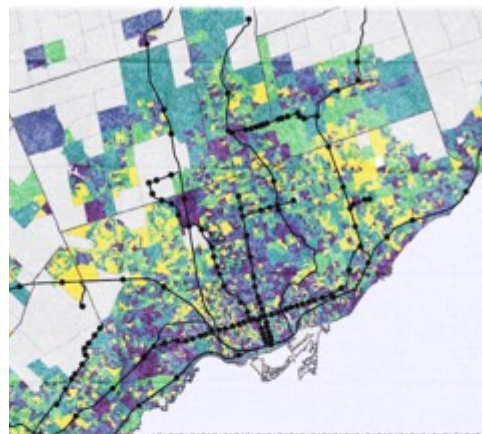


CBC analysis finds many Toronto neighbourhoods with least amount of park space per capita are downtown

Nicole Brockbank · CBC News · Posted: Jul 08, 2020 4:00 AM ET | Last Updated: July 8, 2020



The amount of nearby green space available to get outside and socialize safely can vary greatly depending on where you live in Toronto. (Evan Mitsui/CBC)



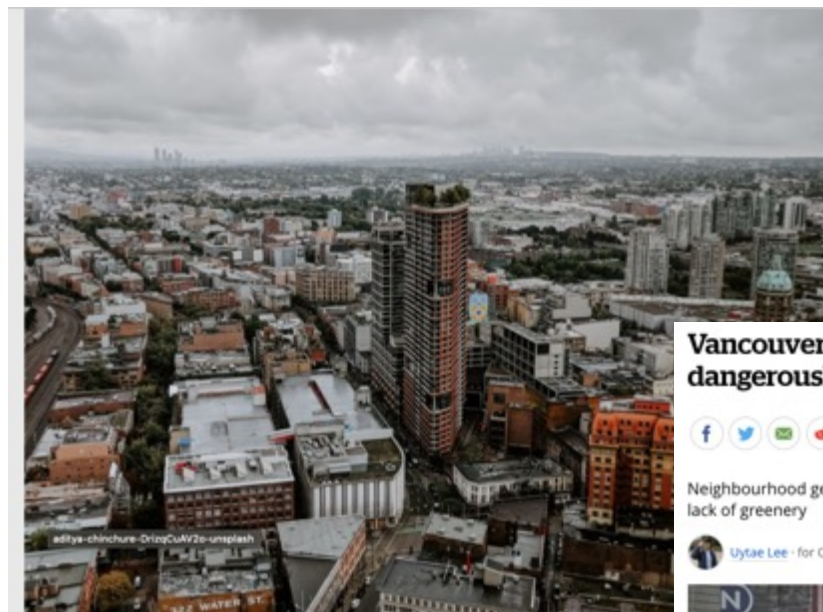
### Planning for Transit Equity in the GTHA:

Quantifying the Accessibility-Activity Participation Relationship for Low-Income Households

Report prepared for Metrolinx - May 29, 2019

**Dr. Steven Farber**  
Assistant Professor  
Department of Human Geography  
University of Toronto, Scarborough

**Jeff Allen**  
PhD Student  
Department of Geography and Planning  
University of Toronto, St. George



### Vancouver's Downtown Eastside can get dangerously hot; the answer is more trees



Neighbourhood gets hotter than other parts of Metro Vancouver due to trapped heat, lack of greenery

Uytae Lee · for CBC News · Posted: Jun 18, 2019 12:22 PM PT | Last Updated: June 18, 2019

### Marginalized groups experience higher cumulative air pollution in urban Canada

SCIENCE, HEALTH & TECHNOLOGY

Dec 21, 2020 | For more information, contact Sachintha Wickramasinghe



A summer sidewalk scene of East Hastings Street in Vancouver's Downtown Eastside, between Columbia and Carrall streets. (Rafferty Baker/CBC)



“

The way communities are planned and built, and the services and resources provided within them, directly influence people's physical, mental, and social health.

A commitment to health equity means planning communities to support the health of all community members including low income families, children, older adults, newcomers, Indigenous groups, and people living with physical or mental health challenges.

”

British Columbia Centre for Disease Control (2016).  
*Health equity and the built environment: Scoping review*



Through an  
**equity** lens



BC Centre for Disease Control

# Environmental equity in Canadian Cities

Original Research Article

 ENVIRONMENTAL  
EPIDEMIOLOGY

OPEN

### Analysis of community deaths during the catastrophic 2021 heat dome

Early evidence to inform the public health response during subsequent events in greater Vancouver, Canada

Sarah B. Henderson\*, Kathleen E. McLean, Michael J. Lee, Tom Kosatsky



2021 Heat Dome: Significantly higher risk of heat-related death in lower socio-economic status and low greenness Vancouver area neighbourhoods

Réduire les vulnérabilités et les inégalités sociales : tous ensemble pour la santé et le bien-être

**INSPQ** INSTITUT NATIONAL DE SANTÉ PUBLIQUE DU QUÉBEC



There are heat islands in 73% of Montreal's neighbourhoods with the lowest socio-economic status, compared with only 20% in Montréal neighbourhoods with the highest socio-economic status.

Uof T News January 09, 2019

Stranded without transit? U of T researchers say one million urban Canadians suffer from 'transport poverty'



"5 per cent of the total population are living in low income households which are also situated in areas with low transit accessibility[ ...] This totals nearly one million people who are at risk of transport poverty nation-wide"

# Environmental equity legislation in North America



HOUSE OF COMMONS  
CHAMBRE DES COMMUNES  
CANADA

## **BILL C-226 - National Strategy Respecting Environmental Racism and Environmental Justice Act**

“ The Minister must develop a national strategy to promote efforts across Canada to advance environmental justice and to assess, prevent and address environmental racism.

First reading: February 2, 2022



## **S.2630 - Environmental Justice Act of 2021**

“ This bill requires agencies to address and mitigate the disproportionate impact of environmental and human health hazards on communities of color, indigenous communities, and low-income communities resulting from agencies' programs and policies.

Introduced in Senate: May 8, 2021

# Advancing efficient, local to national application of environmental health data



## Epidemiological studies

Is there a relationship with health? If so, how strong and who is most vulnerable?

## Population exposure surveillance

Where are the biggest issues and how many people live there? How is it this changing over time?



## Knowledge transfer /exchange to move policy

How can changes in urban form:

- improve health and equity?
- reduce or increase exposures?
- reduce healthcare costs?
- engage communities?

What investments in our cities can mitigate impacts of climate change on health?

# New Canadian-specific evidence in urban environmental health



From **2017 to 2022** ... **> 300** Data requests ... **> 125** scientific publications ... **20** MSc and PhD theses

## CANUE

### Environment-health association studies

**Urban greenness and mortality in Canada's largest cities: a national cohort study**  
 THE LANCET Planetary Health

Dan L. Crouse, Lauren Pinault, Adele Balram, Perry Hystad, Paul A. Peters, Hong Chen, Aaron van Donkelaar, Randall V. Martin, Richard Ménard



**Ambient air pollution and incidence of early-onset paediatric type 1 diabetes: A retrospective population-based cohort study**

Michael Elten, Jessy Donelle, Isaac Lima, Richard T. Burnett, Scott Weichenthal, David M. Stieb, Perry Hystad, Aaron van Donkelaar, Hong Chen, Lauren A. Beal



**Greenspace access does not correspond to nature exposure: Measures of urban natural space with implications for health research**

Ingrid Jarvis, Sarah Gergel, Mieke Koehoorn, Matilda van den Bosch

**Early life exposure to air pollution and incidence of childhood asthma, allergic rhinitis and eczema**

Teresa To, Jingqin Zhu, Dave Stieb, Natasha Gray, Ivy Feng, Lauren Pinault, Michael Jerrett, Alain Robichaud, Richard Ménard, Aaron van Donkelaar, Randall V. Martin, Perry Hystad

### Environmental equity research



**Healthy built environment: Spatial patterns and relationships of multiple exposures and deprivation in Toronto, Montreal and Vancouver**

Dany Doiron, Eleanor M. Setton, Kerolyn Shairsingh, Michael Brauer, Perry Hystad, Nancy A. Ross, Jeffrey R. Brook

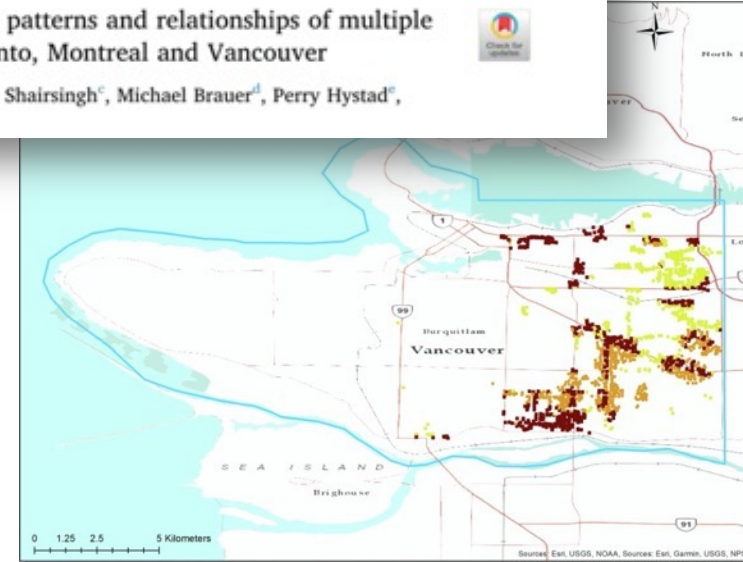
**Road proximity, air pollution, noise, green space and neurologic disease incidence: a population-based cohort study**

Weilan Yuchi, Hind Stihl, Hugh Davies, Lilan Tamburic and Michael Brauer



**Complex relationships between greenness, air pollution, and mortality in a population-based Canadian cohort**

Dan L. Crouse, Lauren Pinault, Adele Balram, Michael Brauer, Richard T. Burnett, Randall V. Martin, Aaron van Donkelaar, Paul J. Villeneuve, Scott Weichenthal



\*Department of Forest and Conservation Sciences, The University of British Columbia, Canada  
 \*School of Population and Public Health, The University of British Columbia, Canada

# ORIGIN OF HealthyDesign.City: CANUE environmental equity research

Environment International 143 (2020) 106003

Contents lists available at [ScienceDirect](https://www.sciencedirect.com)

Environment International

journal homepage: [www.elsevier.com/locate/envint](http://www.elsevier.com/locate/envint)



Healthy built environment: Spatial patterns and relationships of multiple exposures and deprivation in Toronto, Montreal and Vancouver

Dany Doiron<sup>a,\*</sup>, Eleanor M. Setton<sup>b</sup>, Kerolyn Shairsingh<sup>c</sup>, Michael Brauer<sup>d</sup>, Perry Hystad<sup>e</sup>, Nancy A. Ross<sup>f</sup>, Jeffrey R. Brook<sup>c,g</sup>



Toronto

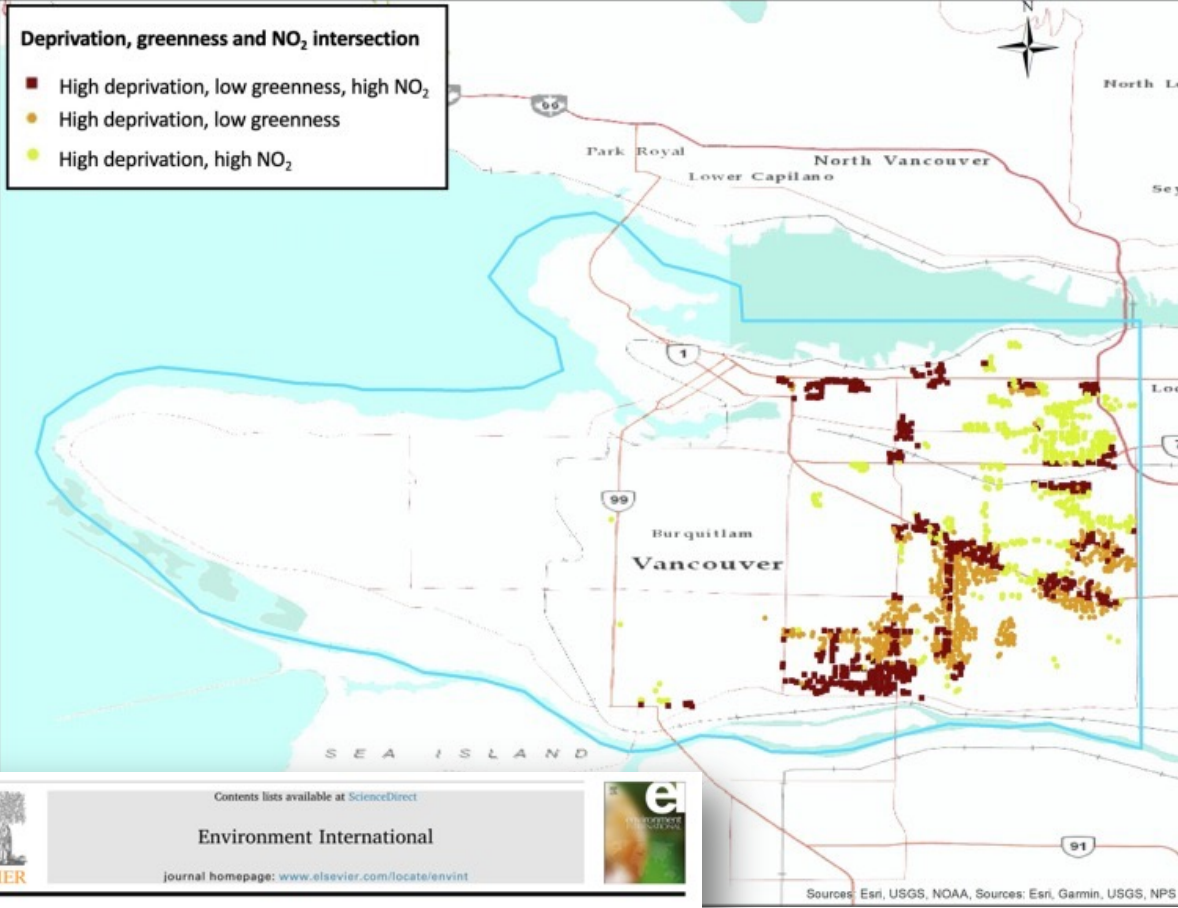


Montreal



Vancouver

# ORIGIN OF HealthyDesign.City: CANUE environmental equity research



This map shows postal code locations characterized by:

- High material deprivation AND high NO<sub>2</sub> (yellow)
- High material deprivation AND low greenness (orange)
- High material deprivation AND high NO<sub>2</sub> AND low greenness (red)

Contents lists available at ScienceDirect


**Environment International**

journal homepage: [www.elsevier.com/locate/envint](http://www.elsevier.com/locate/envint)

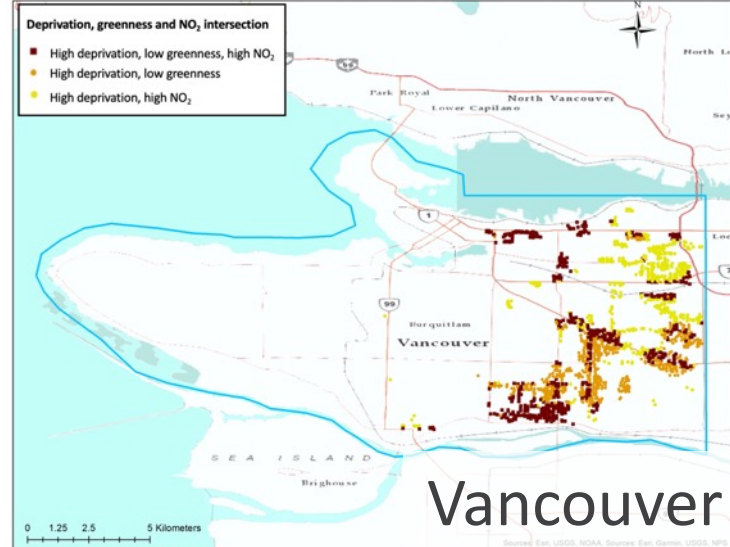
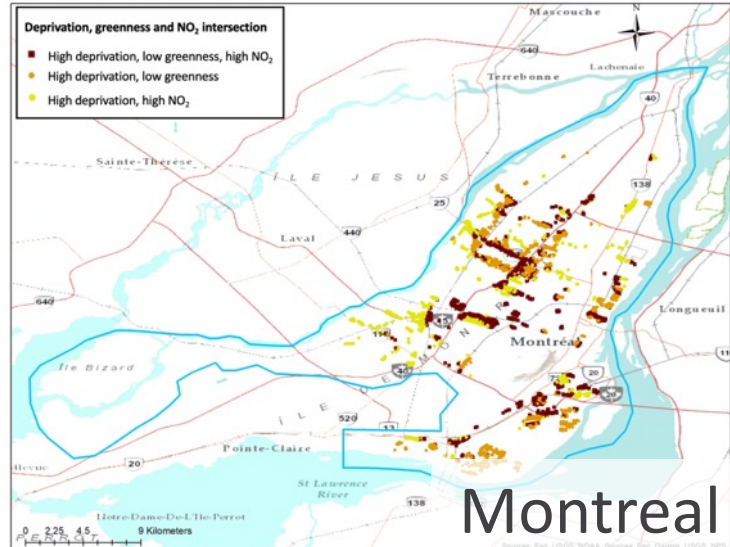
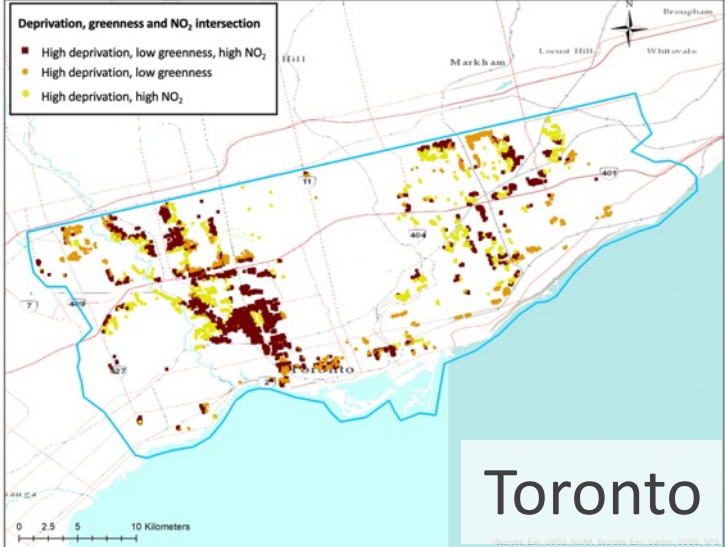



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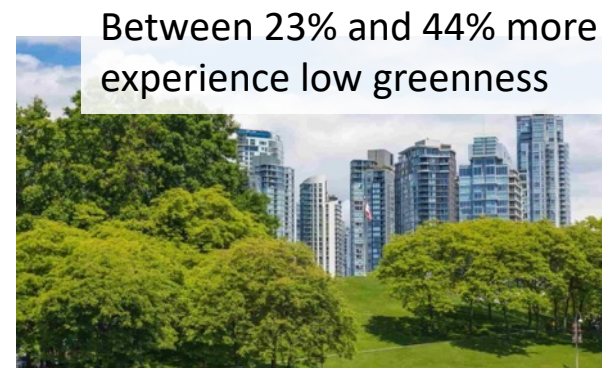
Dany Doiron<sup>a,\*</sup>, Eleanor M. Setton<sup>b</sup>, Kerolyn Shairsingh<sup>c</sup>, Michael Brauer<sup>d</sup>, Perry Hystad<sup>e</sup>, Nancy A. Ross<sup>f</sup>, Jeffrey R. Brook<sup>g,h</sup>



# ORIGIN OF HealthyDesign.City: CANUE environmental equity research



## In Canada's 3 largest cities, high deprivation areas:





# ORIGIN OF HealthyDesign.City: CANUE environmental equity research



**Urban planners, public health professionals, advocacy groups and decision makers can leverage CANUE data to inform policies and programs.**

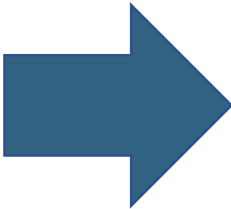
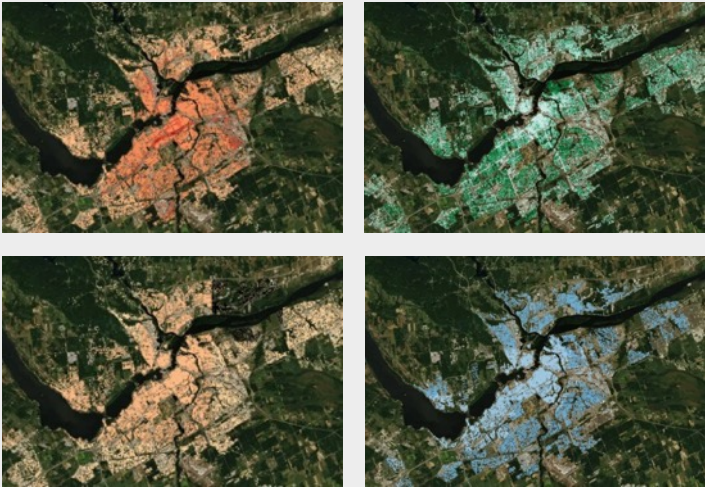


# HealthyDesign.City: leveraging CANUE data for “actionable” tools



**CANUE**

Nationally-standardized  
datasets



# Healthy Design .City

TOOLS THAT SUPPORT AN EQUITABLE  
AND HEALTHY BUILT ENVIRONMENT

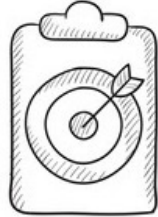
Supported by:



Enhanced Surveillance for Chronic  
Disease Program (ESCDP)

More info: [www.canue.ca](http://www.canue.ca)  
Data holdings: [www.canuedata.ca](http://www.canuedata.ca)

# HealthyDesign.City: Goals



Healthy  
Design  
.City

**Map and visualise health relevant environmental factors to:**

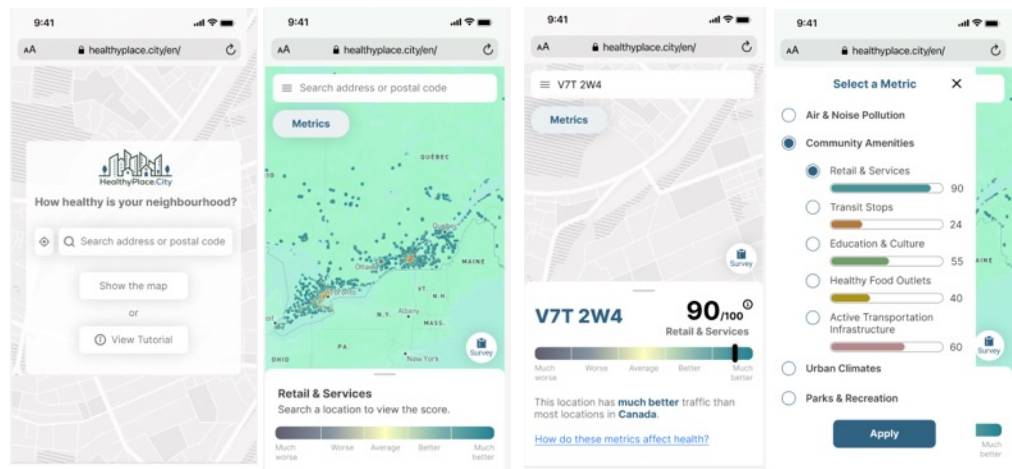
- **Monitor environmental** exposures over time and geography
- **Identifying locations where environmental inequity** exists
- **Support an equity focussed decision-making processes**
- **Enable policy and urban design intervention evaluation**
- **Empower communities** and **facilitate advocacy**
- **Increase public understanding** and awareness of built environment exposure and climate change vulnerabilities

# HealthyDesign.City: Two tools

## HealthyPlace.City



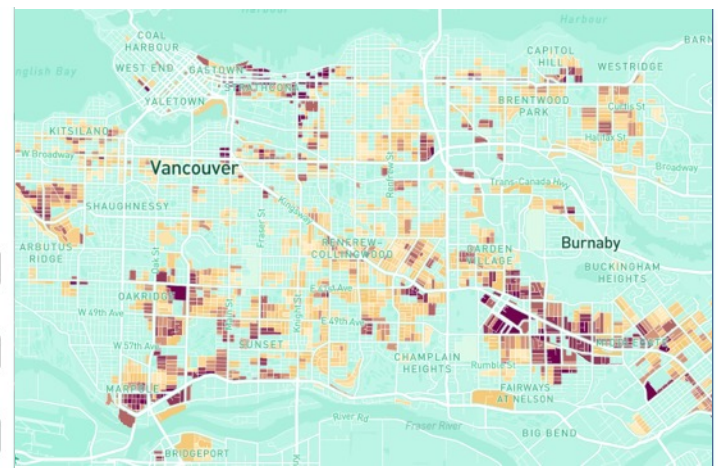
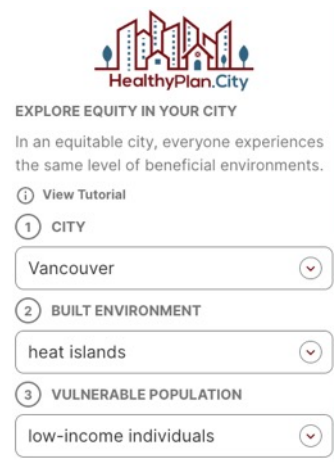
- **Aim:** Communication, public engagement, awareness
- **Audience:** Community organizations, members of the public, planners/public health professionals



## HealthyPlan.City



- **Aim:** Analysis and reporting tool with a focus on equity
- **Audience:** Public health professionals, urban planners, community advocates, decision maker



**EQUITY PRIORITY BY THE NUMBERS**

**179,919** low-income individuals  
There are 179,919 low-income individuals in unfavourable heat islands areas in Vancouver.

**54%** Vancouver  
vs  
**66%** Canada  
This is 54% of the low-income individuals population of Vancouver, compared to 66% in Canada.

**LEARNING HUB**  
Learn how heat islands affect your health and community.  
<https://healthydesign.city/heat-islands/>

**COMMUNITY STORIES**  
Read what communities are doing to address heat islands and promote equity in their cities.

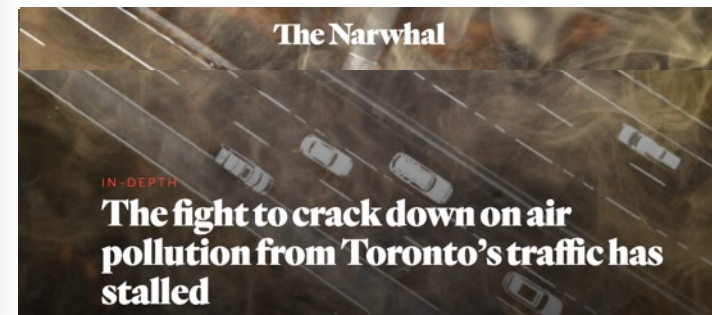
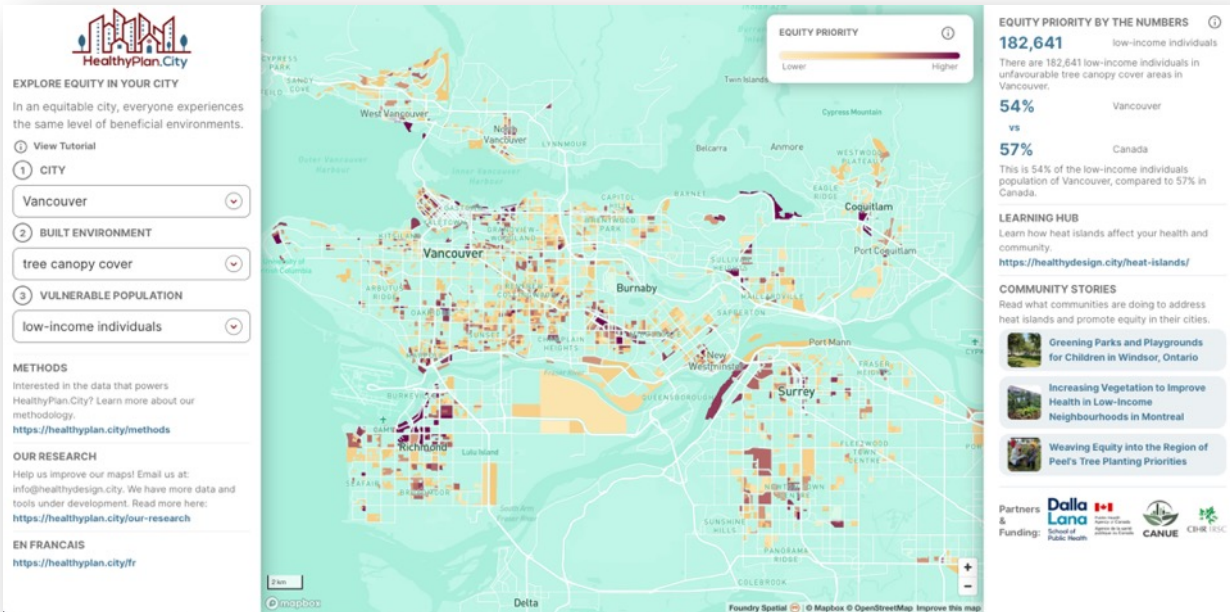
[Greening Parks and Playgrounds](#)

# HealthyPlan.City: First Release on July 13<sup>th</sup>, 2022

## - partnership with CBC/Radio-Canada

### Focused on heat risk inequity:

- **Built environment factors:**
  - Land surface temperature
  - Tree canopy cover
- **Vulnerable populations:**
  - Children
  - Older adults
  - Low-income individuals
  - Visible minority individuals
  - Individuals living alone





## EXPLORE EQUITY IN YOUR CITY

In an equitable city, everyone experiences the same level of beneficial environments.

[View Tutorial](#)

### 1 CITY

Vancouver

### 2 BUILT ENVIRONMENT

tree canopy cover

### 3 VULNERABLE POPULATION

visible minority individuals

## METHODS

Interested in the data that powers HealthyPlan.City? Learn more about our methodology.

<https://healthyplan.city/methods>

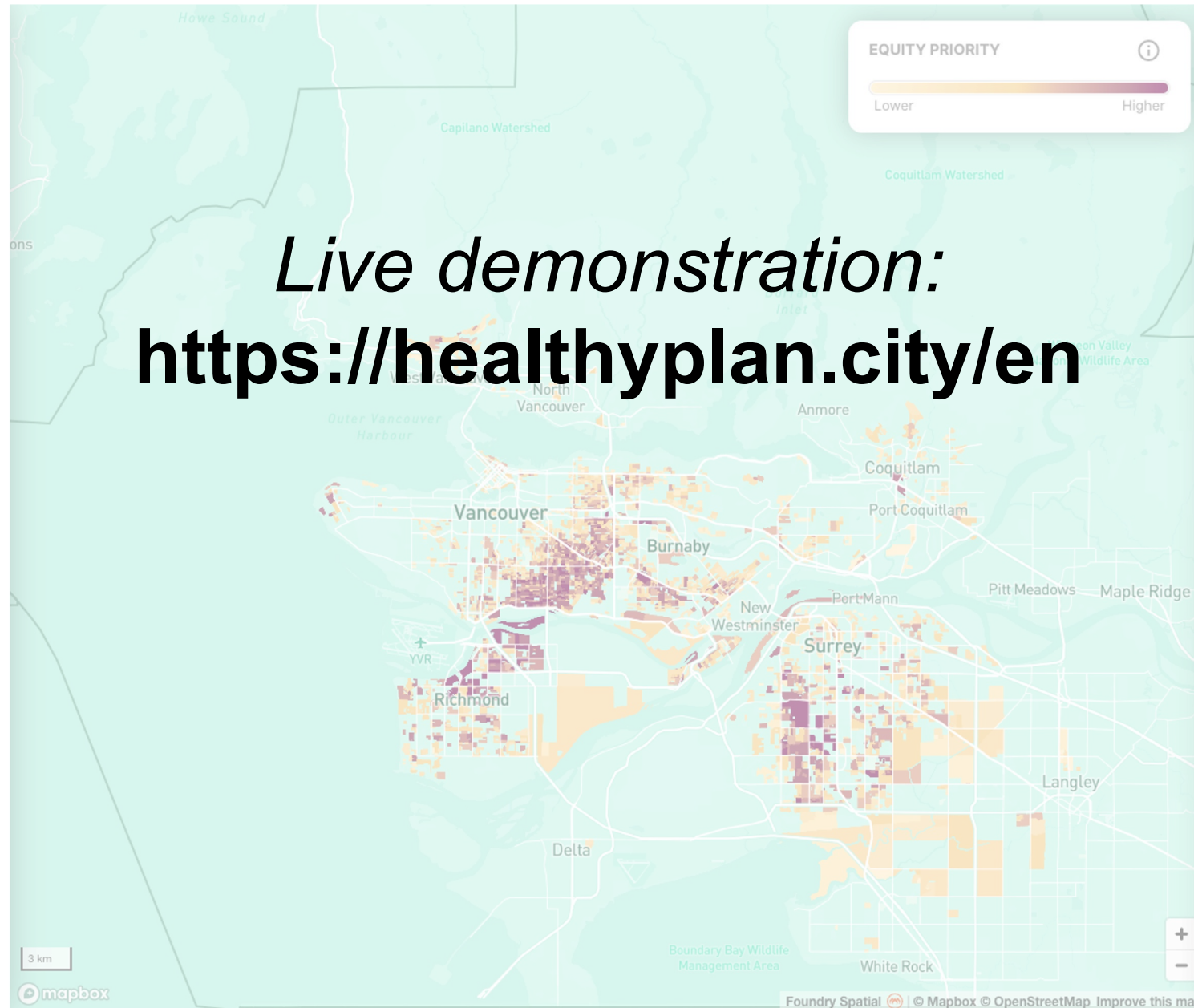
## OUR RESEARCH

Help us improve our maps! Email us at: [info@healthydesign.city](mailto:info@healthydesign.city). We have more data and tools under development. Read more here:

<https://healthyplan.city/our-research>

## EN FRANCAIS

<https://healthyplan.city/fr>



# Live demonstration: <https://healthyplan.city/en>

## EQUITY PRIORITY BY THE NUMBERS

646,883

visible minority individuals

There are 646,883 visible minority individuals in unfavourable tree canopy cover areas in Vancouver.

55%

Vancouver

vs

62%

Canada

This is 55% of the visible minority individuals population of Vancouver, compared to 62% in Canada.

## LEARNING HUB

Learn how heat islands affect your health and community.

<https://healthydesign.city/heat-islands/>

## COMMUNITY STORIES

Read what communities are doing to address heat islands and promote equity in their cities.



**Greening Parks and Playgrounds for Children in Windsor, Ontario**



**Increasing Vegetation to Improve Health in Low-Income Neighbourhoods in Montreal**



**Weaving Equity into the Region of Peel's Tree Planting Priorities**

Partners & Funding:



# Data and Methods

## Built environment data



### Land Surface Temperature

- Average land surface temperature from May - September 2019
- Derived from LandSat 8 satellite data in Google Earth Engine



### Tree Canopy Cover

- Percentage of tree canopy cover in 2015
- Derived from Landsat Vegetation Continuous Fields (VCF) tree cover layer in Google Earth Engine

## Vulnerable populations data



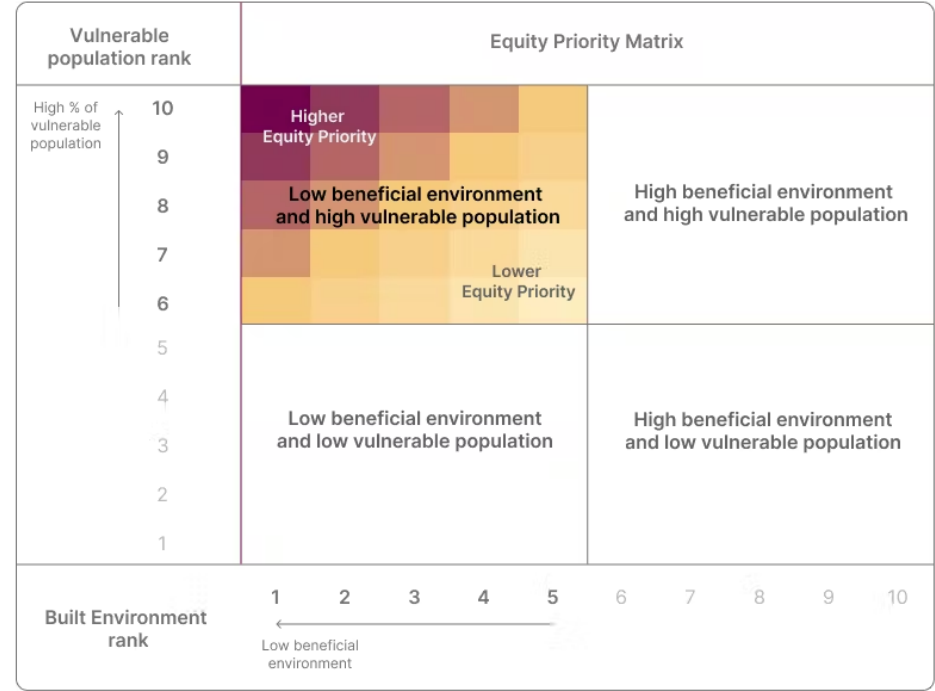
Dissemination area data downscaled to dissemination block

- **Children:** % pop. under 15 y/o
- **Older adults:** % pop. over 64 y/o
- **Low-income individuals:** % pop. under low-income threshold
- **Visible minority individuals:** % of pop. that identify as visible minority
- **Individuals living alone:** % pop who live alone

## Equity calculation

*“Equity priority” areas have higher than median proportion of vulnerable populations and lower than median levels of beneficial environments*

- Each factor ranked as deciles (1 to 10) within a city
- Equity Priority are dissemination blocks with:
  - vulnerable population ranks > 5 AND
  - built environment ranks < 6



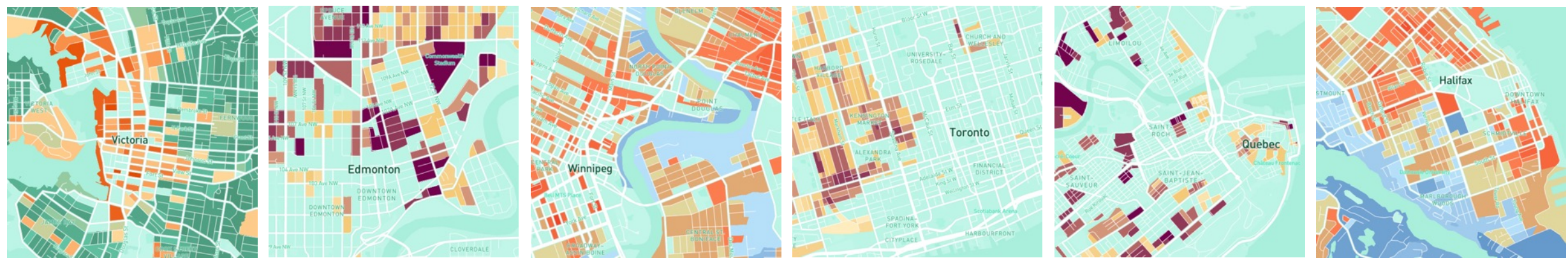
# Strengths and limitations

## Strengths

- Simple, nationally-consistent data
- Evolving tool
- Built to be adaptable to local contexts
- Freely available

## Limitations

- Based upon surrogates that are not “ground-truthed”
- Potentially not as accurate as locally available data
- Equity analyses in smaller cities limited given small variation
- Vulnerable populations broadly defined (for now)





# Improving the tools through user engagement


## Example: Gage park in Hamilton



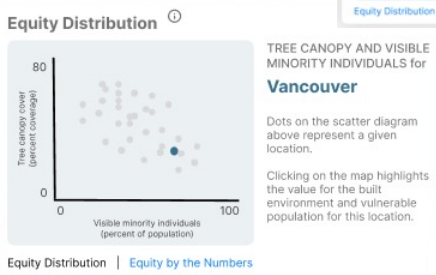
- Low tree canopy
- High tree canopy



# HealthyDesign.City: upcoming data

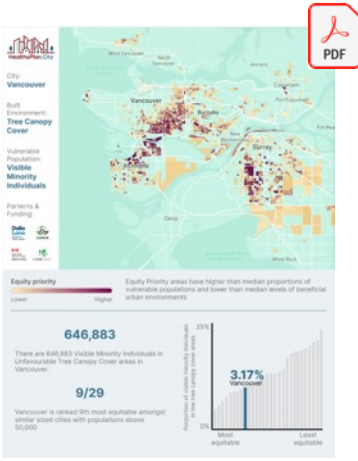
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Built Environment factors</p>	 <h3>Urban climate</h3> <ul style="list-style-type: none"> <li>• Land surface temperature</li> <li>• Tree canopy</li> </ul>	 <h3>Parks and Recreation</h3> <p>Infrastructure that promotes physical activity:</p> <ul style="list-style-type: none"> <li>• Large greenspaces</li> <li>• Urban parks</li> <li>• Indoor recreation</li> </ul>
	 <h3>Community Amenities</h3> <p>Diversity of destinations/services:</p> <ul style="list-style-type: none"> <li>• Transit stops</li> <li>• Education and culture</li> <li>• Retail and services</li> <li>• Healthy food outlets</li> <li>• Cycling infrastructure</li> </ul>	 <h3>Air and noise pollution</h3> <ul style="list-style-type: none"> <li>• Traffic-related pollution</li> <li>• Noise pollution</li> </ul>
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Demographic factors</p>	 <h3>Vulnerable Populations</h3> <ul style="list-style-type: none"> <li>• Under 15</li> <li>• Over 65</li> <li>• Low-Income</li> <li>• Visible minority</li> <li>• Living alone</li> </ul>	

# HealthyDesign.City: HealthyPlan.City upcoming release

## Late 2022 release:

- New built environment indicators in 3 data themes:
  - *Community amenities*
  - *Parks and recreation*
  - *Air and noise pollution*
- Within and between city comparisons
- PDF reports



# HealthyDesign.City: HealthyPlace.City upcoming release



How healthy is your neighbourhood

Search for an address or postal code

Show me the map or View tutorial

V7T 2W4

Select a Metric

- Air & Noise Pollution
- Community Amenities
  - Retail and Services 90
  - Transit Stops 24
  - Education and Culture 55
  - Healthy Food Outlets 40
  - Active Transportation Infrastructure 60
- Urban Climates
- Parks and Recreation

Learn more about community planning

Enter the name of your neighbourhood

example: Victoria BC Oaklands

Join our mailing list

Email address

Partners & Funding: Delta Lano, CIBC, CAME, CIP, etc.

Methods Our Research Learning Hub

mapbox

90/100 Retail & Services

This location has much better Retail and Services than most locations in Canada.

Much worse Worse Average Better Much better

Share your location score!

## Late 2022 release:

- Built environment indicators in 4 data themes:
  - *Urban climate*
  - *Community amenities*
  - *Parks and Recreation*
  - *Air and noise pollution*
- Score for a given location across numerous health-relevant indicators

# Healthy Design .City



## Vulnerability and Equity

Intersect demographic factors to better identify vulnerable populations

For example:  
Low income seniors



## CLIMATE RISKS: Flooding

**Rain pounds Montreal area, causing flooding and road closures**



Nearly 60 mm of rain fell on downtown by 7 p.m., according to Environment and Climate Change Canada

Verity Stevenson · CBC News · Posted: Sep 13, 2022 7:48 PM ET | Last Updated: September 14



## CLIMATE RISKS: Wildfire smoke



# Read about HealthyDesign.City in the Fall 2022 issue of PLAN Canada

PUBLISHED BY THE CANADIAN INSTITUTE OF PLANNERS | PUBLIÉ PAR L'INSTITUT CANADIEN DES URBANISTES

# PLAN CANADA

ÉDITEUR: ANNE HOLLANDAY

ÉDITEUR: ANNE HOLLANDAY

## PERSPECTIVES ON THE ENVIRONMENT AND CLIMATE CHANGE

## PERSPECTIVES SUR L'ENVIRONNEMENT ET LE CHANGEMENT CLIMATIQUE

**CIP-ICU**  
CANADIAN INSTITUTE OF PLANNERS  
INSTITUT CANADIEN DES URBANISTES  
CIP-ICU.CA

### HealthyDesign.City TOOLS AIM TO HELP PLANNERS ADVANCE CLIMATE ADAPTATION, PUBLIC HEALTH AND EQUITY

By Jeffrey R. Brook, Dany Dolon, Allan McKee and Eleanor Setton

**SUMMARY**  
Urban planners and public health practitioners now appreciate how the planning and design of our communities impact human health and how vulnerable populations are particularly affected. Mapping inequities in urban settings is a valuable method of identifying areas where individuals may face greater health risks as a result of various urban environmental exposures and attributes. HealthyPlan.City (publicly available at <https://healthyplan.city>) is a new interactive tool that visualizes urban environmental conditions and shows where vulnerable populations are experiencing lower than average beneficial environments in order to highlight priorities for improving equity and help improve health for all. Developed under the HealthyDesign.City project, HealthyPlan.City maps health-relevant factors in urban environments overlaid by Census-derived socioeconomic data to enable planners to visualize which neighbourhoods would benefit most from more greenspace and trees, walking or cycling infrastructure, community amenities such as parks and recreational facilities, and reduced noise or air pollution.

**SOMMAIRE**  
Les urbanistes et les praticiens de la santé publique apprécient désormais l'impact de l'urbanisme et de la conception de nos communautés sur la santé humaine et la façon dont les populations vulnérables sont particulièrement touchées. La cartographie des inégalités en milieu urbain est une méthode précieuse pour identifier les zones où les individus peuvent être confrontés à des risques sanitaires plus importants en raison de diverses expositions et caractéristiques de l'environnement urbain. HealthyPlan.City (disponible publiquement à l'adresse <https://healthyplan.city>) est un nouvel outil interactif qui visualise les conditions environnementales urbaines et montre où les populations vulnérables bénéficient d'environnements bénéfiques inférieurs à la moyenne, afin de mettre en évidence les priorités pour améliorer l'équité et contribuer à améliorer la santé de tous. Développé dans le cadre du projet HealthyDesign.City, HealthyPlan.City cartographie les facteurs liés à la santé dans les environnements urbains en les superposant aux données socioéconomiques issues du recensement, afin de permettre aux planificateurs de visualiser les quartiers qui bénéficieraient le plus de davantage d'espaces verts et d'arbres, d'infrastructures pour la marche ou le vélo, d'équipements communautaires tels que des parcs et des installations de loisir, et d'une réduction de la pollution sonore ou atmosphérique.

**BUILT ENVIRONMENT AND EQUITY**  
Each year, we learn more about how the decisions we make around the planning and design of our communities impact human health. Researchers have linked chronic disease morbidity and mortality with several urban environmental exposures and attributes, including air quality, noise exposure, neighbourhood greenness, urban heat islands, healthy food availability, and the extent to which individuals can conveniently walk and cycle to their destinations.<sup>1</sup> Climate change is a particularly dramatic example of how the environment affects health. The latest report of the Intergovernmental Panel on Climate Change identified climate adaptation as a key strategy to mitigate exposure and vulnerability to environmental health hazards,<sup>2</sup> and the World Health Organization has identified climate change as one of the greatest health threats of the 21st century.<sup>3</sup> In Canada, climate change will continue to

reduce health inequities. But in these climate and health we need to consider who is most to environmental health risks and to address inequities. Mapping in the urban environment is method of identifying areas "heat risk" as well as a way of information on disparities in other factors, community amenities and

**HEALTHYDESIGN.CITY**  
site change adaptation and policies are on the agendas of a nationally standardized, locally that can be used to identify and benchmark progress have previously absent. To fill this gap, environmental health researchers opted a suite of tools to help professionals, urban planners, and makes pinpoint the areas hospitals can focus resources to environmental equity while also public health goals of reducing ease.

developed and evaluated under the City project, the HealthyPlan.City health-relevant factors, environments overlaid with and socioeconomic data to "vulnerable populations are lower than average beneficial conditions, and thereby priority areas to improve equity promote health for all. HealthyPlan.City users to visualize which oods would benefit most from space and trees, walking or structure, community amenities

such as parks and recreational facilities, and reduced noise or air pollution. Standardized metrics and datasets for every city in Canada make it clear which cities are leading on reducing inequities in access to built environment resources, and in exposures to environmental risk factors. The nationally-consistent data also allow for cross-country comparisons to benchmark progress in addressing environmental inequity.

A reduced version of the HealthyPlan.City tool, released in July 2022 (publicly available at <https://healthyplan.city>), visualizes heat risk in neighbourhoods that have more older adults, children, visible minority individuals, people who live alone or low-income Canadians, indicating areas with populations that are more vulnerable to the health risks of extreme heat due to being more exposed to hotter temperatures owing to the urban heat island phenomenon. This tool was featured in a series of articles by CBC News/Radio-Canada that highlighted the unequal impacts of extreme heat across Canadian cities.<sup>4,5,6,7</sup> As underscored in these articles, communities with a larger proportion of vulnerable populations have great potential for heat-mitigating interventions in the built environment and using a tool to map them can help direct urban planners to the neighbourhoods they should be investing resources in.

**WHAT ARE CANADIAN CITIES DOING?**  
Through partnerships with community groups and different levels of government, Canadian municipalities are leading the charge to improve environmental equity. In Montreal, their project has planted over 31,000 trees and other plants to green urban spaces in lower-income

**ACKNOWLEDGEMENTS**  
The HealthyDesign.City initiative and HealthyPlan.City tool are supported by funding received from the Public Health Agency of Canada under the Enhanced Surveillance for Chronic Disease Program and by the Canadian Institutes for Health Research.

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**REFERENCES**  
1. Kostas Mouratidis, "Urban Planning and Quality of Life: A Review of Pathways Linking the Built Environment to

**EQUITY IN PROGRESS BY THE NUMBERS**  
41,997 individuals living alone  
There are 41,997 individuals living alone in, preferred over open space in Montreal.  
52% in Montreal  
This is 33% of the individuals living alone in Canada.  
87% in Montreal  
This is 33% of the individuals living alone in Canada.

**LEARNING IDEAS**  
Learn how your research affects your health and community.  
<https://healthyplan.city/#learn-ideas>

**COMMUNITY STORIES**  
Read what communities are doing to address their unique and personal equity in their cities.  
Bleeding Parks and Programs for Children in Windsor, Ontario  
Increasing Vegetation to Improve Health in Low-income Neighbourhoods in Montreal  
Walking Equity into the Region of York's New Housing Initiatives

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HealthyPlan.City provides three map views: (I) built environment, (II) vulnerable population and (III) equity priority. Built environment maps show how environmental factors such as heat islands or tree canopy coverage vary across each city. Vulnerable population maps show where vulnerable people live. Equity priority maps show where the beneficial built environment levels are worse AND the percentage of vulnerable people is higher than the city-specific median.

**PERSPECTIVES SUR L'ENVIRONNEMENT ET LE CHANGEMENT CLIMATIQUE**

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to stay up to date

[www.healthydesign.city](http://www.healthydesign.city)

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Launch at the end of 2022!  
Throughout 2023, we will  
be gathering feedback from  
users on tool use and  
feedback.

# Research Team



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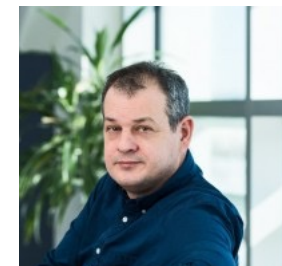
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# Advisory Committee

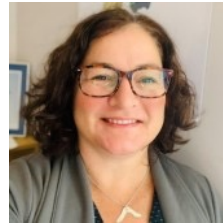
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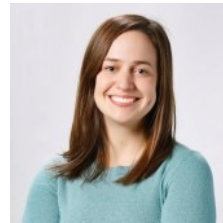
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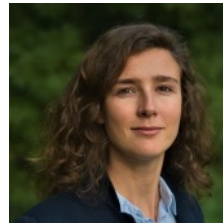
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Gailling**



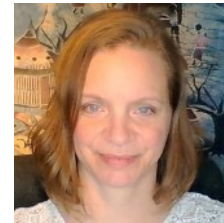
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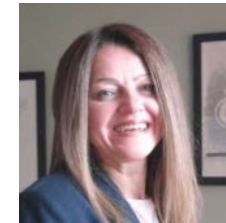
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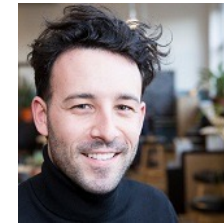
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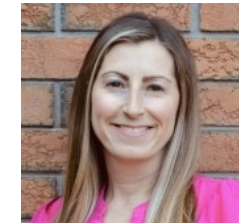
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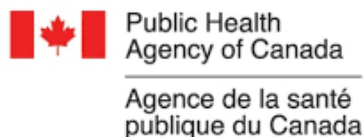


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## Funding from:



## More information:

HealthyDesign.City: [www.healthydesign.city](http://www.healthydesign.city)

HealthyPlan.City tool: <https://healthyplan.city>

CANUE : [www.canue.ca](http://www.canue.ca)

CANUE data portal: [www.canuedata.ca](http://www.canuedata.ca)

TEDx: <https://www.youtube.com/watch?v=sDOklHvbdmQ>



# Questions



# CIP Professional Learning HUB

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CIP's Professional Learning HUB is an online platform connecting members to relevant and informative content from experts across Canada and abroad.



# Navigation 2023

## Call for Proposals & Sponsorships

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The Navigation Call for Proposals is now open — submit your work to be presented!

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We also have conference sponsorship opportunities. Take a look at our sponsorship kit and showcase your business at Navigation!



# Planning Together Student Symposium

CIP is excited to host Planning Together: Student Symposium. This virtual event is FREE to all students and recent grads on World Town Planning Day (Tuesday, November 8)!

Planning Together will feature presentations on a variety of topics, including healthy communities and aging in place, planning and food systems, equity and the planning school curriculum, and climate resilience. Spread the word and register today!



## PLANNING TOGETHER STUDENT SYMPOSIUM



**NOVEMBER 8, 2022**  
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TO DISCUSS CUTTING-EDGE  
AND EMERGING RESEARCH  
TOPICS IN PLANNING**

[cip-icu.ca/PlanningTogether](https://cip-icu.ca/PlanningTogether)



# Risk and Liability for Planners

## October 26 at 1 PM ET



In advance of your **January 1, 2023** membership renewal, join our insurance program partner, BMS Canada Risk Services Ltd as they review the insurance coverage, claims, and the policy renewal process.

**Anyone with professional liability insurance should attend this webinar.** This contains critical information for your renewal. Updates will be shared.



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