

Folding Health Equity into Climate Adaption

Presentation to FCM LLCA Collaboration Workshop
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CANUE CHASE



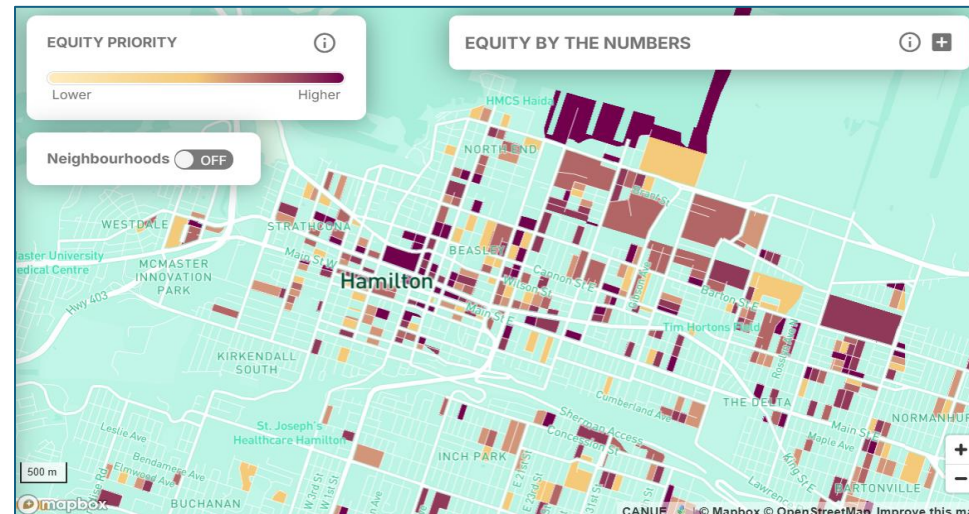
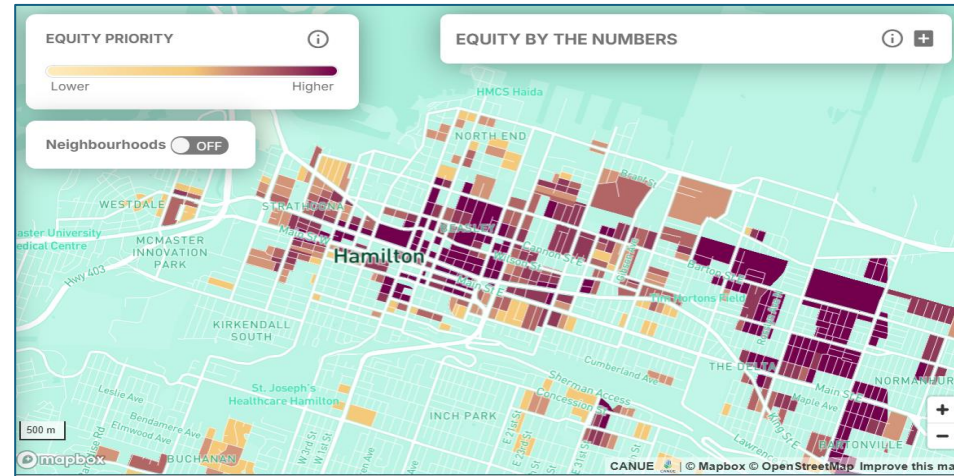
CANUE/CHASE Project – Folding Health Equity into Climate Adaptation

- Leveraging the CANUE HealthyPlan.City Tool
- Focus on Extreme Heat & Floods
- 3 Introductory Workshops
- 10 Case Study Vignettes
- 5 Case Study Webinars
- 2 Face to Face Workshops
- Report on Case Studies



HealthyPlan.City – Geospatial Tool

- PHAC funded
- CANUE developed
- Free platform
- 125 municip.
- 13 Built Environment
- 13 Socio-Economic & Demographic



Hamilton

Top – Ave Summer Temp & Low-income Older Adults

Bottom – Tree Canopy Coverage & Low-income Older Adults

Climate Change & Health Equity

- Some - **more sensitive - physiological reasons** – children, elderly, chronic diseases, medication
- Some – **more susceptible to harm - social & material circumstances**
- SDOHs driven by societal biases
- Also - **greater exposure**
- Also - **lack of resources** to protect themselves or recover from those events.



Ref: Health Canada. 2022. Health of Canadians in a Changing Climate - Advancing our Knowledge for Action; Henderson, SB et al. 2021. Extreme Heat Events Are Public Health Emergencies. BC Medical Journal

Extreme Heat, Health & Health Equity

Increasing in intensity, frequency & duration

- Heat rashes, heat stress, heat stroke & death
- Study - 26 Canadian cities - increase premature deaths by 2-13%
- BC Heat Dome - over 600 PD
- 440% increase in death rates
- **Higher death rates among:**
 - elderly & low income
 - lacking air conditioners
 - Lacking green neighbourhoods

2021 BC heat dome resulted in:

- * **\$12M direct healthcare costs**
- * **\$5.5 billion in health-related costs. CCI, 2023**

Ref: Henderson, SB et al. 2021. Extreme Heat Events Are Public Health Emergencies. BC Medical Journal: Health Canada. 2022; Health Canada. 2022. Health of Canadians in a Changing Climate - Advancing our Knowledge for Action

Flooding, Health & Health Equity

More frequent & intense Floods

- **\$2.8 B/year** – home insurance
- Immediate injuries & deaths
- Contaminate water supplies
- Cut people off from food & water
- Give rise to mould & bacteria
- Harm mental health – PTSD
- **Greater Risk** – Older, Pre-existing, Medication, Mobility, Low-Income



Ref: Health Canada. 2022. Health of Canadians in a Changing Climate - Advancing our Knowledge for Action; Lancet Countdown Canada Policy Report 2022. Photo: The Narwahl, Flooded Don Valley Parkway, Toronto

Climate Adaptation Case Studies

- 9 completed; would like one more
- 5 on flooding; 4 on extreme heat
- 7 employ nature-based solutions
- 7 explicitly address equity
- 8 use geospatial data or tools
- 8 identify multi-sectoral collaboration as essential
- All engage community in development &/or implementation



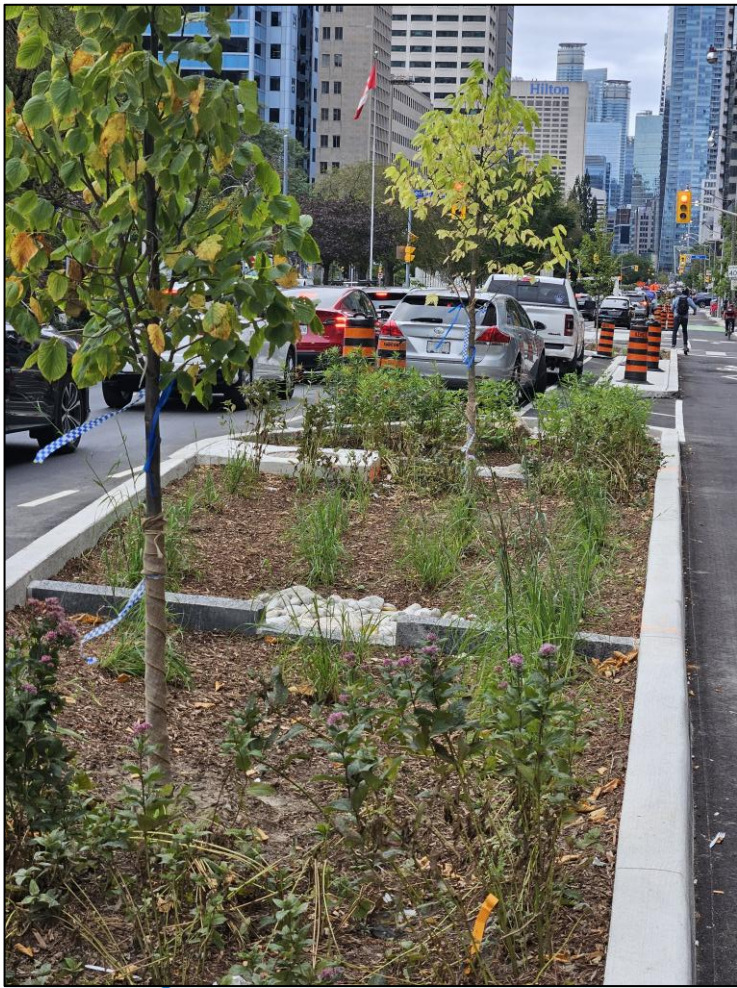
Winnipeg – Urban Forest Strategy



Strategy commits the City:

- expand tree canopy cover 17% to 24% from 2018 to 2065
- Planting 6500 trees/year instead of 300
- Diversifying trees to increase resilience
- Maximizing tree canopy especially in neighbourhoods with susceptible populations.

Toronto – Green Streets Program



- 2024 flood - power outages & \$1B insured damage
- Green infrastructure to Right-of-Way
- **Prioritize neighbourhoods:**
 - Stormwater Management
 - Tree Canopy
 - **Air Quality** – senior childcare facilities & high levels of TRAP
 - **Social Wellness** - “Neighbourhood Improvement Areas”
 - Climate Resilience – areas vulnerable to extreme heat & storm-related floods

Chicago – Green Schools Program

- 2 Water Agencies, 2 Non-Profit Organizations, School Boards
- Flooding, water quality & children's health
- Green infrastructure to filter, capture & contain water & green the school yard
- **School selection Criteria:**
 - High flood risk areas
 - High need for playground renovation
 - Chicago Public Schools Equity Index



Vancouver – Managing Coastal Erosion

- Equity - more about process & goals
- Move away from grey infrastructure
- Broad community involvement
- Indigenous advisors & expertise
- **Values-Based Criteria added to Technical Criteria:** safety, housing, Indigenous perspectives, recreational opportunities, transportation, culture & environmental benefit



Accessing Resources

CHASE & CANUE Websites

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<https://chasecanada.org/folding-health-and-health-equity-into-municipal-climate-adaptation>

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