Measuring Trends in Health Inequalities in Cities

Key Findings from Phase 1

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Overview

- Introduce Measuring Trends in Health Inequalities in Cities (MTHIC) project
- Briefly present primary findings from Phase 1

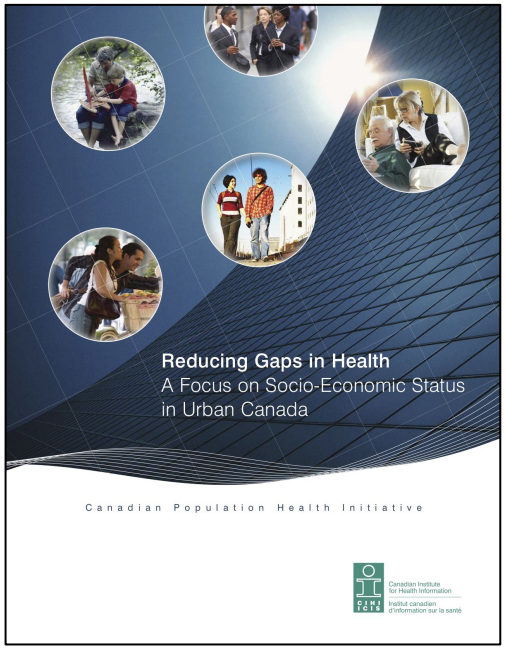
Urban Public Health Network

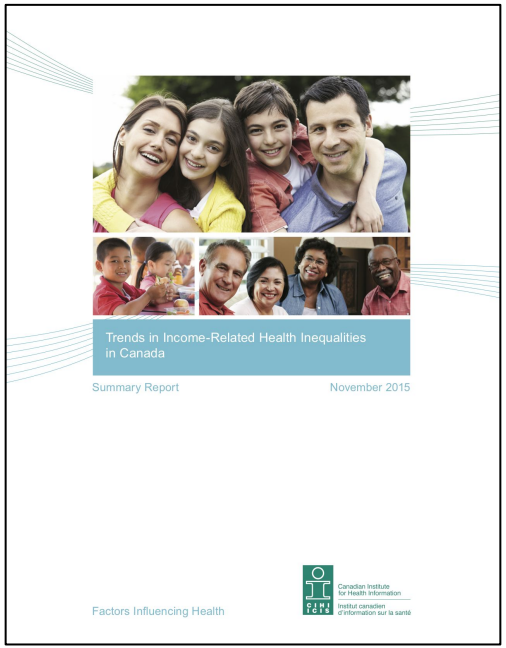
- Established in 2004, the UPHN is a network of Medical Officers of Health in charge of Canada's largest urban centres
- The network is responsible for the public health of more than 50% of the Canadian population
- The aim of the UPHN to address public health issues that are common to urban populations throughout the country

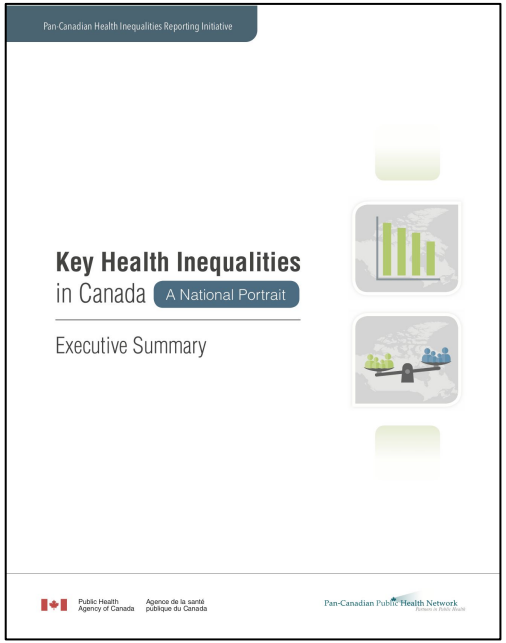
MTHIC

- MTHIC stands for “Measuring Trends in Health Inequalities in Cities”
- Project objectives:
    a. To work with leading Canadian data sources on health to present a national-level portrait of urban health inequalities in the 23 UPHN member cities.
    b. To help UPHN member cities use these resources and further monitor health inequalities using their own local data sources.
- Partners: Canadian Institute for Health Information (CIHI), Statistics Canada, Public Health Agency of Canada (PHAC), and others.

MTHIC precedents







UPHN cities

+ Surrey
+ Mississauga
+ Laval
+ Longueuil
+ Sherbrooke
+ Fredericton

Health information data sources

- Hospital administrative data (CIHI)
- Survey data* (Statcan)
- Vital statistics* (Statcan)
- Surveillance data (PHAC and health authorities)

*Available in local University Research Data Centres (RDCs)

City-level analysis

- MTHIC is working on estimating health inequalities for viable cities at CSD and CMA levels
- Three key innovations:
    a. Taking as our unit of analysis 5-year between census intervals
    b. Adopting an indicator-by-indicator approach to analysis
    c. Developing new vetting practices to determine when data is sufficient

Measuring health inequalities

- We measure inequalities as differences in health by socio-economic status.
- We operationalize socio-economic status using the area-based measure of median dissemination area income after adjusting for household
- We sort this into five quintiles within CMA
- Up until recently, in the PCCF+, this was the variable “QAIPPE”

Quantifying inequalities

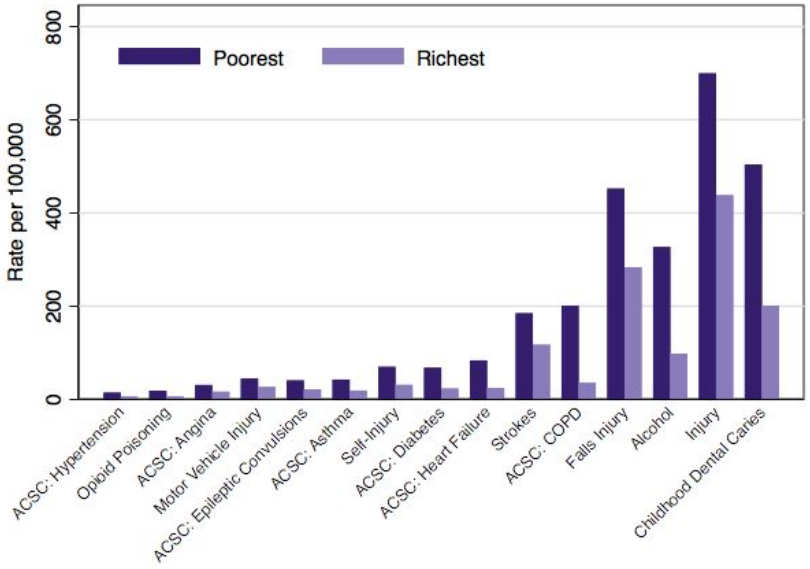
There are different ways to summarize inequalities. We use:

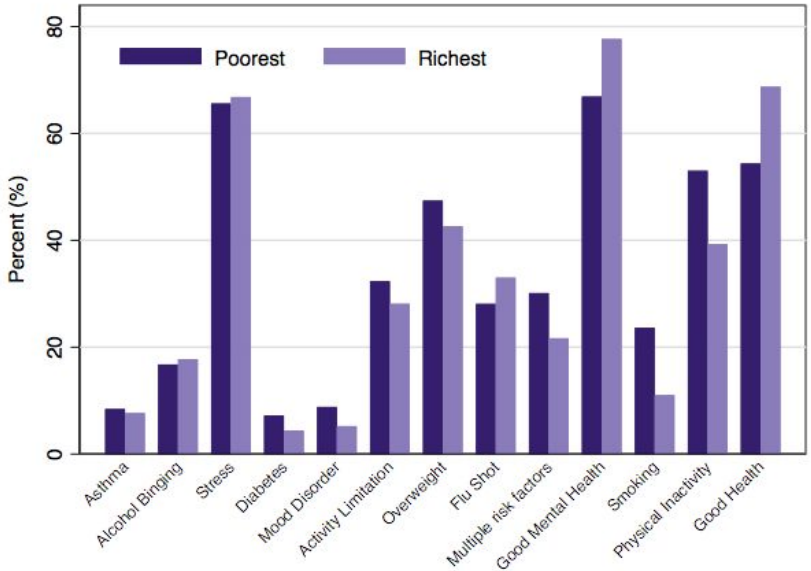
- Rate ratio (RR): The ratio between the health outcomes of the first and fifth income quintiles
- Rate difference (RD): The difference between the health outcomes of the first and fifth income quintiles

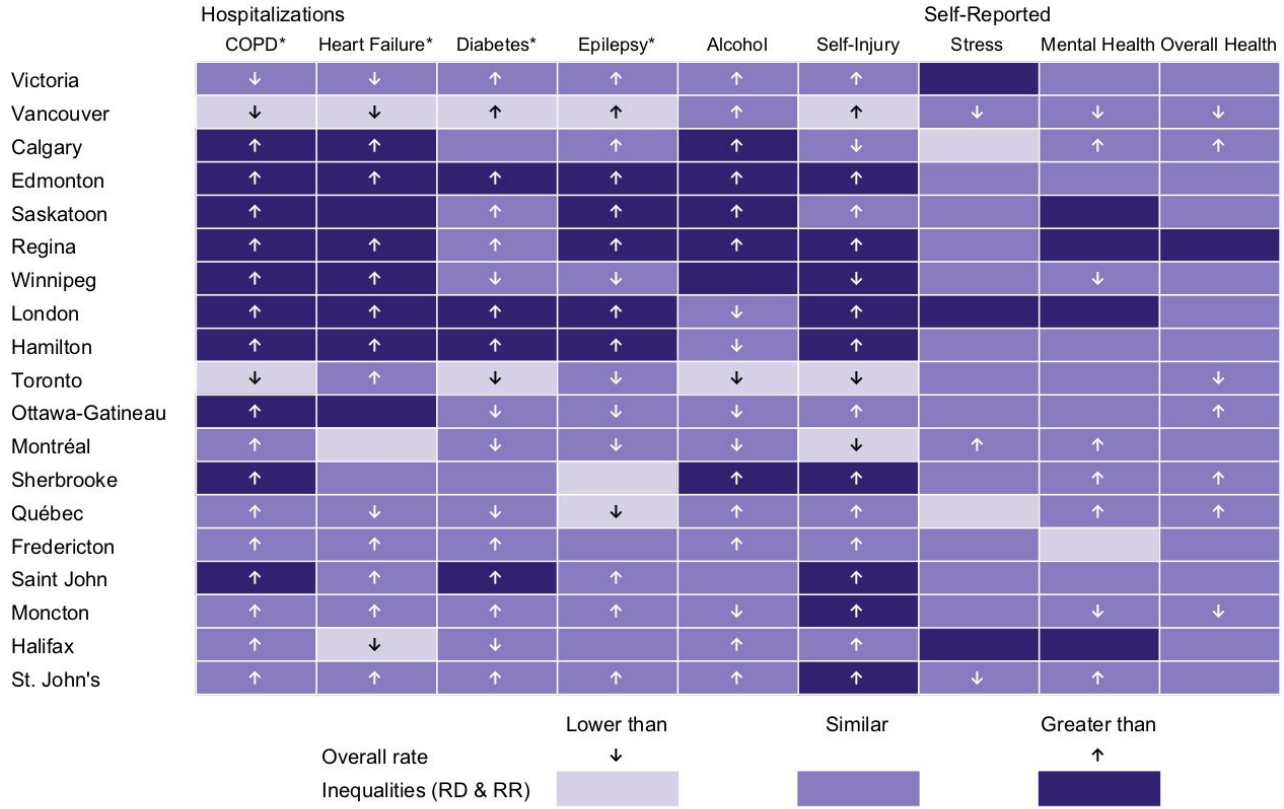
Key findings from Phase 1

1. Health inequalities are widespread among Canada's largest cities.
2. Health inequalities vary considerably between cities and within them.
3. There is no single city that outperforms all others; different cities tend to exhibit different patterns in health inequalities.
4. Differences in health inequalities are primarily driven by differences in the health outcomes of the poorest neighbourhoods in each city.
5. Urban health inequalities are not improving; most have persisted over the past decade and some have become worse.

1. Health inequalities are widespread







*Conditions where appropriate ambulatory care prevents or reduces the need for admission to hospital, per 100,000 population younger than age 75.

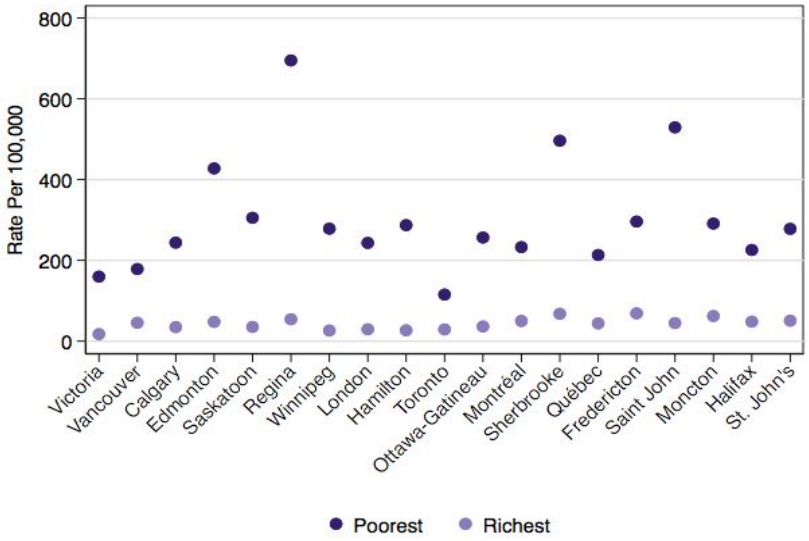
2. Health inequalities vary considerably

3. Different types of health inequalities

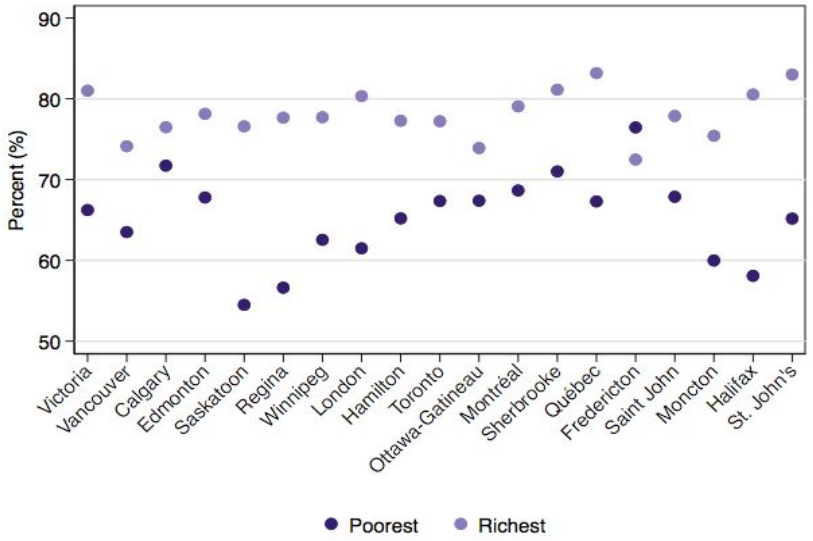
- There is no single city that outperforms or underperforms all others; different cities tend to exhibit different patterns in health inequalities
- Each city has their own unique combinations of health inequality concerns—one approach is unlikely to address all

4. Poor neighbourhoods drive results

Hospitalization rate for COPD, 2011-2015

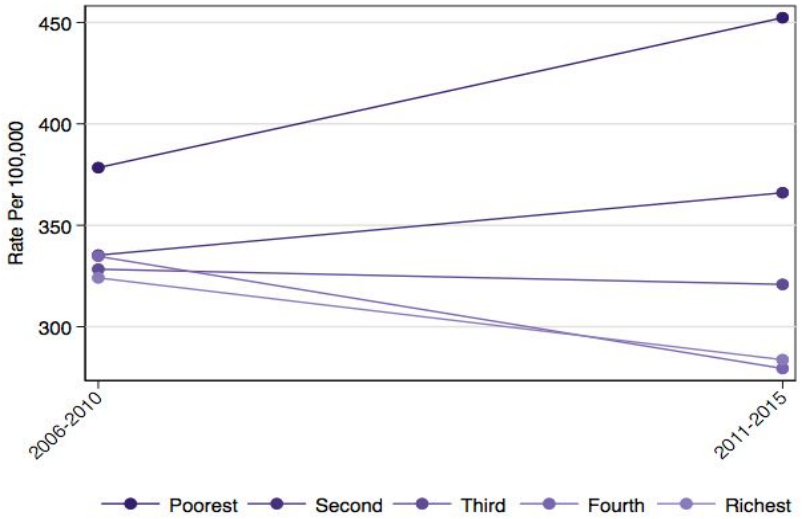


Very good self-reported mental health, 2011-2015

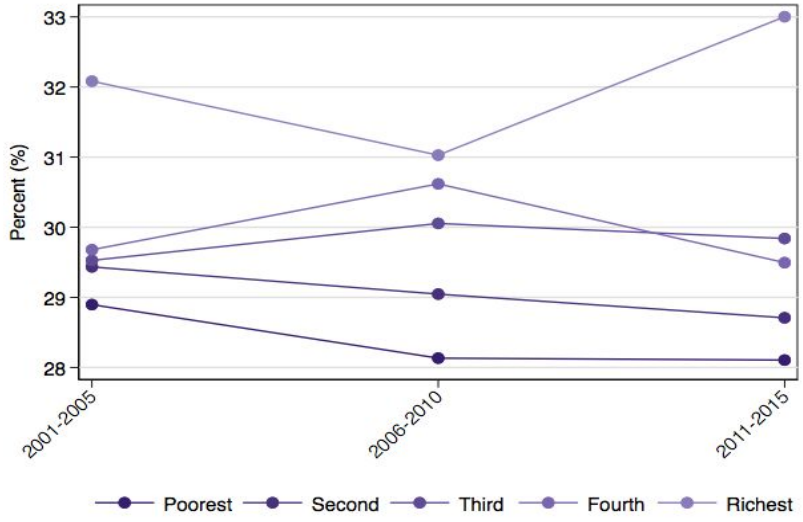


5. Health inequalities are not improving

Hospitalization for falls, 2006-2015



Received a flu shot in the past year, 2001-2015



Next steps: Phases 2 and 3

1. In Phase 2 of MTHIC, we will extend the analysis to explore health inequalities in additional sources of data like mortality data
2. Phase two will also begin to explore the effects of non-income startifiers on health
3. In Phase 3, we will explore the causal determinants of the city-levels differences in health inequalities

Thank you.

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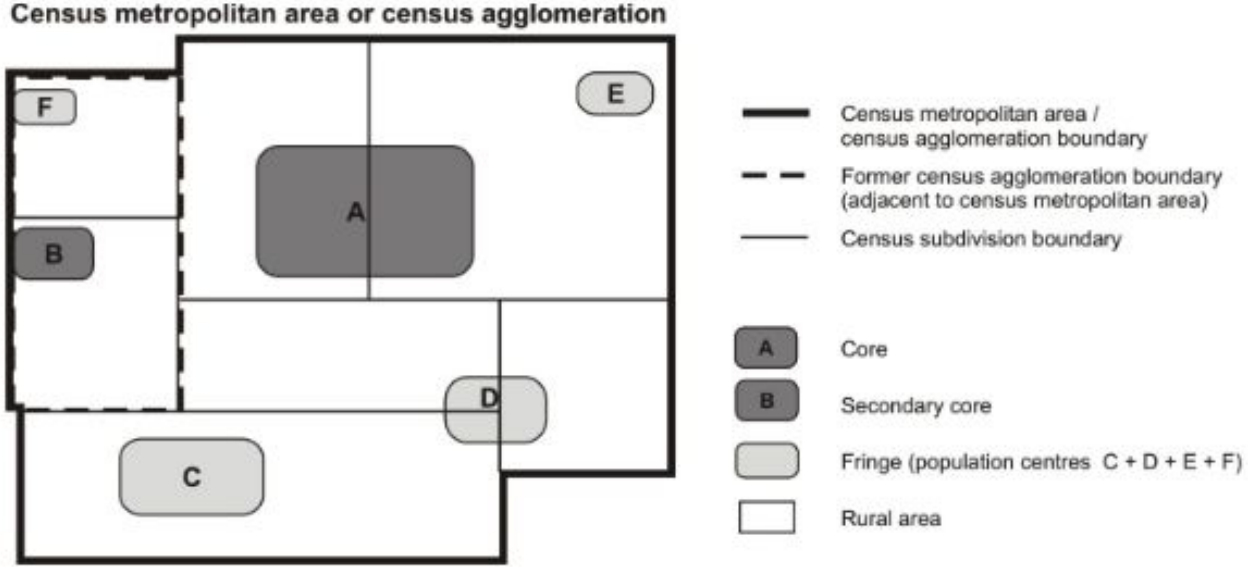
What is urban?

- Because of the way in which CMA are defined, they can include substantial rural areas
- We follow the lead of CIHI (2008) and only include neighbourhoods that are identified by Statistics Canada to be population centres:
    - “Area with a population of at least 1,000 and no fewer than 400 persons per square kilometre” (121)
- That is areas within CMA identified as being a core, secondary core, or fringe

Figure 12 Example of a census metropolitan area or census agglomeration, showing core, secondary core, fringe and rural area



Source: Statistics Canada, 2011 Census of Population.