

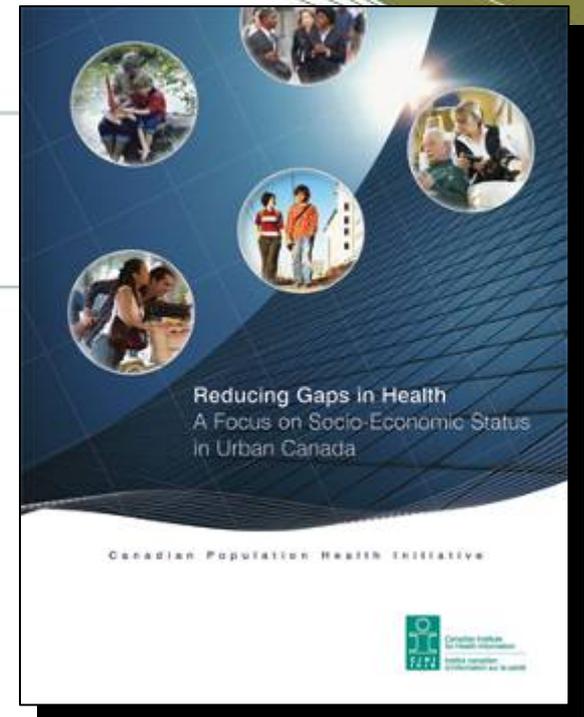
Reducing Gaps in Health: A Focus on Socio-Economic Status in Urban Canada

CPHA 2009 Annual Conference

Winnipeg, Manitoba

June 9, 2009

Jason Disano, Program Lead, CPHI



Canadian Institute for Health Information (CIHI)

- **Who:** an independent, not-for-profit organization providing essential data and analysis on Canada's health system and the health of Canadians
- **What:** comparable information; databases supported by standards; pan-Canadian analyses
- **When:** opened its doors in 1994
- **Where:** Victoria, Edmonton, Toronto, Ottawa, Montréal and St. John's
- **How:** through partnerships with stakeholders



About the Canadian Population Health Initiative (CPHI)

CPHI's Mission:

- To foster a better understanding of factors that affect the health of individuals and communities; and
- To contribute to the development of policies that reduce inequities and improve the health and well-being of Canadians.



CPHI's Key Themes, 2007 to 2012

Mental Health
and Resilience



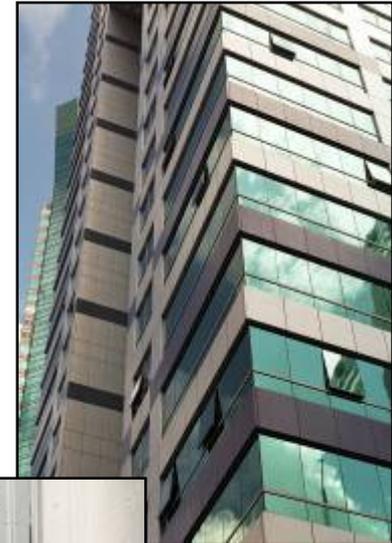
Place and Health



Reducing Gaps in Health



Promoting Healthy Weights



Project Background

- In 2004, CPHI released its first *Improving the Health of Canadians* report
 - One chapter of that report examined income and the health consequences of income, including trends and interpretations of gradients in health.
- In 2006 CPHI released *Improving the Health of Canadians: An Introduction to Health in Urban Places*
 - The 2006 report examined neighbourhoods and health, housing and health, and urban living and health as a starting point for generating discussion about the health of urban Canadians.



Project Background (cont'd)

- *Reducing Gaps in Health: A Focus on Socio-Economic Status in Urban Canada* was born out of a partnership between CPHI and the Urban Public Health Network (UPHN).
- The nature of the partnership is to further explore the links between socio-economic status (SES) and health in Canada's urban areas.



Objective of CPHI's “Reducing Gaps in Health” Report

To provide a broad overview of the links between SES and health in 15 Canadian census metropolitan areas (CMAs) by examining how health, as measured by a variety of indicators, varies in small geographical areas in those CMAs with different socio-economic characteristics.



CMAAs Chosen for Analyses

15 CMAAs that provide a broad geographic representation of Canada's urban areas were chosen:

- Victoria
- Vancouver
- Calgary
- Edmonton
- Saskatoon
- Regina
- Winnipeg
- London
- Hamilton
- Toronto
- Ottawa–Gatineau
- Montréal
- Québec
- Halifax
- St. John's



Methodology

Literature Search

- An extensive search of academic and grey literature on social and economic inequalities in health as they relate to urban areas:
 - Initial journal search: 17,024 records
 - Screened for date, language, geography: 9,616 articles
 - Reviewed titles, abstracts: 1,704 articles
 - Sorted by study type, research focus, year of publication, location of study, research hypothesis, sample descriptors, measures, outcomes, study strengths and limitations: 984 articles remained
- A detailed methods paper outlines the literature search



What Is the Deprivation Index?

- A tool for measuring (quantifying) two forms of deprivation:
 1. **Material deprivation**—such as income, education and employment ratios
 2. **Social deprivation**—such as family structure, marital status and incidence of persons living alone.
- Allows for comparisons of small, homogeneous groups of individuals.
- Allows a variety of socio-economic indicators to be analyzed based on their known relationship with health (for example, income, education and marital status).



Benefits of Using the Institut national de santé publique du Québec (INSPQ) Deprivation Index:

- Accounts for both material and social factors when assigning an overall deprivation score.
 - Geographical areas are assigned into one of five quintiles (five groups of 20%) for both material and social deprivation, ranging from the 20% least deprived to the 20% most deprived on each of those factors.
- Allows data to be presented at smaller levels of geography than other indices—at Statistics Canada's dissemination area (DA) level.

Source

Pampalon and Raymond (2000).



Moving From Social and Material Quintiles to Low, Average or High SES

- Quintile 1 = the 20% least deprived
- Quintile 5 = the 20% most deprived
- DAs with material and social combinations found in the top-left (shaded) portion of the matrix below were categorized by CPHI as “high SES.” DAs found with material and social combinations found in the bottom-right (shaded) portion of the matrix were categorized by CPHI as “low SES.” All other DAs were categorized as “average SES.”

		Social Components				
		Quintile 1	Quintile 2	Quintile 3	Quintile 4	Quintile 5
Material Components	Quintile 1	High SES				
	Quintile 2	High SES				
	Quintile 3			Average SES		
	Quintile 4				Low SES	
	Quintile 5				Low SES	



Applying the Deprivation Index to 15 Canadian CMAs

- DAs in each of the 15 CMAs were classified as either urban or rural—those that were identified as rural were excluded from the analyses.
- 30,294 urban DAs were included in the analyses, representing about 66% of all DAs classified as urban by CPHI (46,173 DAs).
- Those urban DAs were assigned a deprivation score of low SES, average SES or high SES relative to their region (British Columbia, Alberta, Manitoba/Saskatchewan, Ontario, Quebec and Nova Scotia/Newfoundland and Labrador).
- Age-standardized hospitalization rates and self-reported health indicator percentages were calculated within the three SES groups for each of the 15 CMAs and for all 15 CMAs collectively (CPHI's pan-Canadian data).



CIHI Indicators

Age-standardized hospitalization rates (2003–2004 to 2005–2006) for longer-term chronic health problems and acute conditions were analyzed:

- Ambulatory care sensitive conditions (ACSC)
- Diabetes
- Chronic obstructive pulmonary disease (COPD)
- Asthma in children
- Injuries
- Land transport accidents
- Unintentional falls
- Injuries in children
- Mental health
- Anxiety disorders
- Affective disorders
- Substance-related disorders
- Low birth weight*

* Rate per 100 live births and not age standardized.



Statistics Canada Indicators

A subset of the Canadian Community Health Survey (CCHS) data from cycles 2.1 (2003) and 3.1 (2005) were combined to tabulate the percentage of people reporting excellent or very good health, as well as reporting certain health-related behaviours:

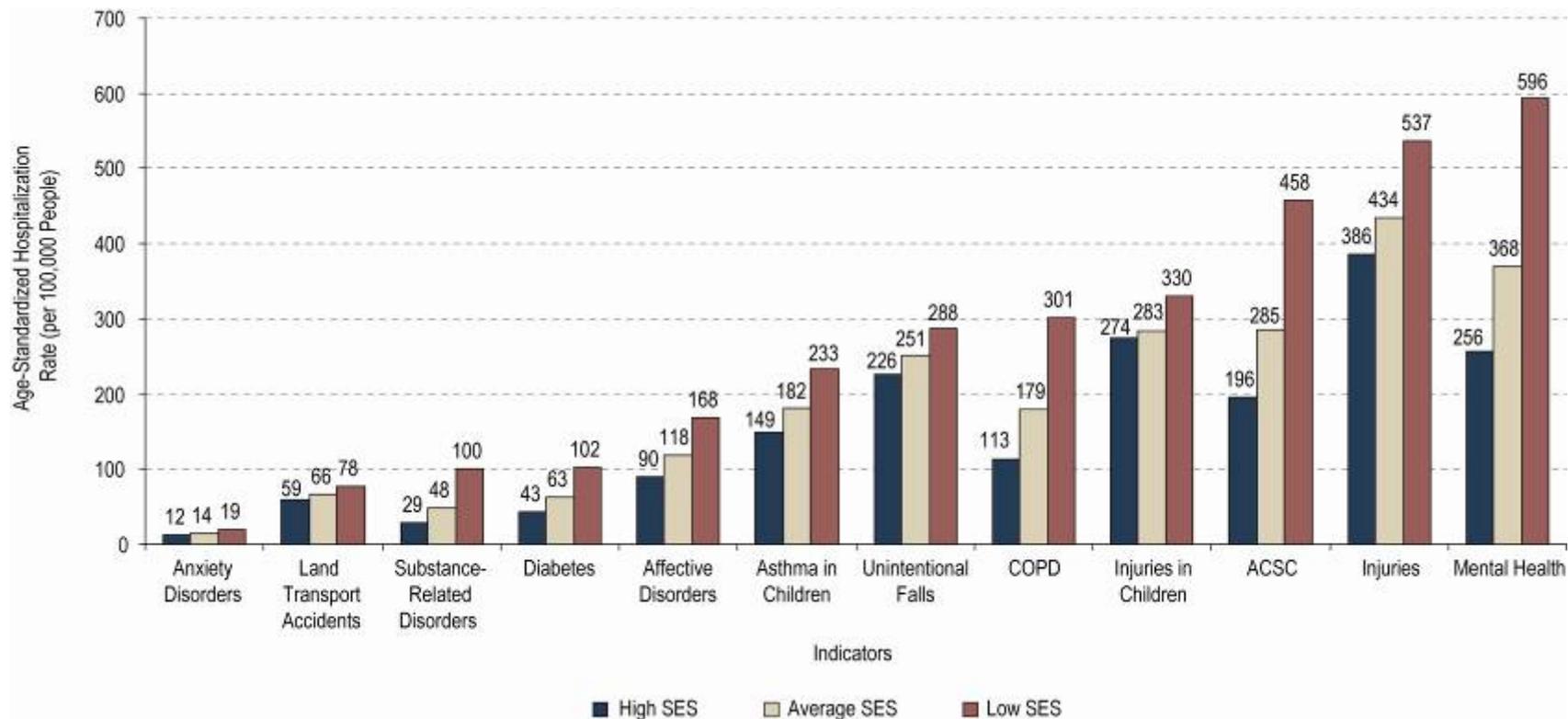
- “Excellent” or “very good” self-rated health (ages 12 and over; age standardized)
- Physically inactive (ages 12 and over; age standardized)
- Smoking (ages 12 and over; age standardized)
- Alcohol bingeing (ages 12 and over; age standardized)
- Overweight or obese (ages 18 and over; age standardized)
- Risk factor index, that is, 3 of 4 of the following (physically inactive, smoking, alcohol bingeing, overweight or obese) (ages 18 and over; age standardized)
- Influenza immunization (ages 65 and over)
- Activity limitation (ages 65 and over)



Socio-Economic Status in Urban Canada: What Do the Data Tell Us?

Hospitalization Rates

Pan-Canadian Age-Standardized Hospitalization Rates by SES Group*



Note

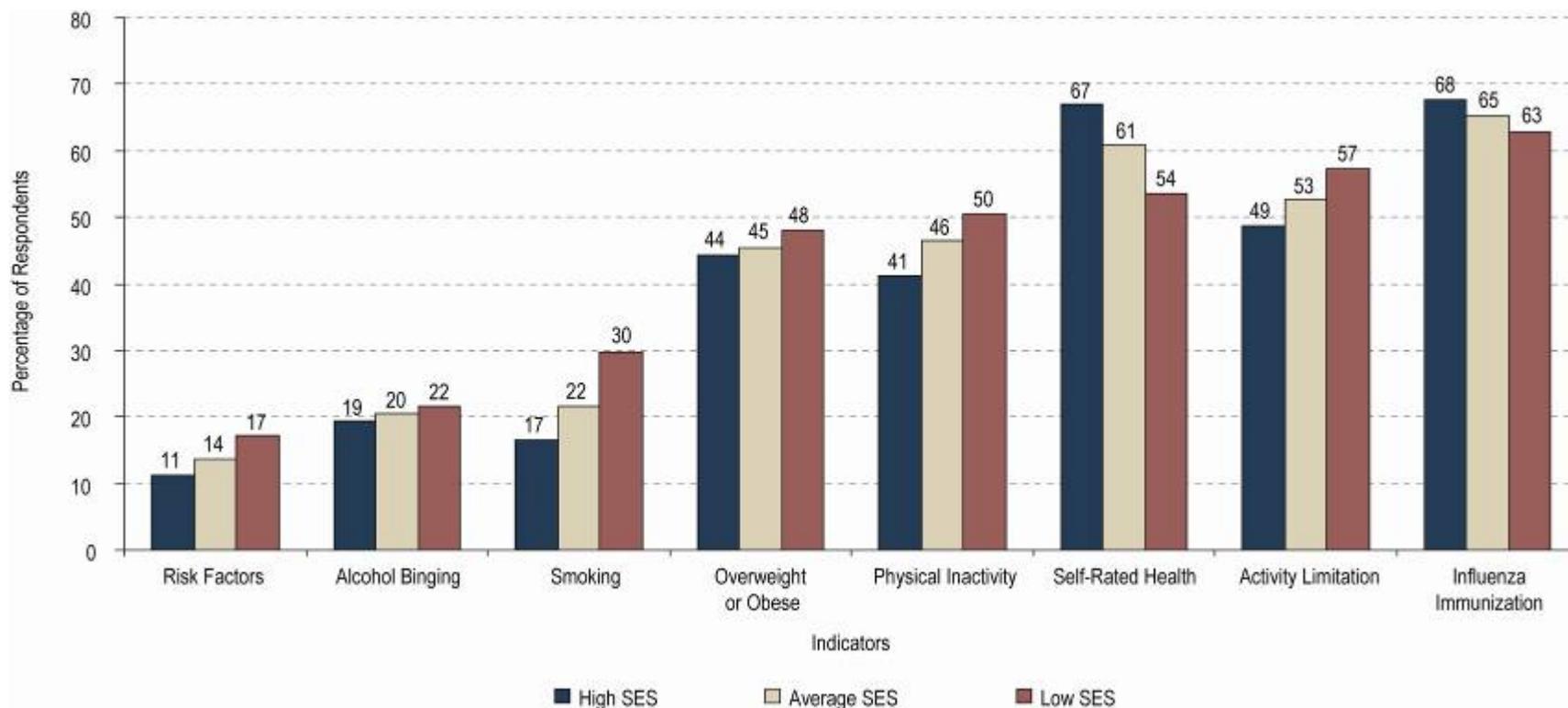
* For each indicator, all rates are significantly different between low-, average- and high-SES groups at the 95% confidence level.

Source

CPHI analysis of 2003–2004 to 2005–2006 Discharge Abstract Database and National Trauma Registry data, Canadian Institute for Health Information.

Self-Reported Health

Pan-Canadian Age-Standardized Self-Reported Health Percentages by SES Group*



Note

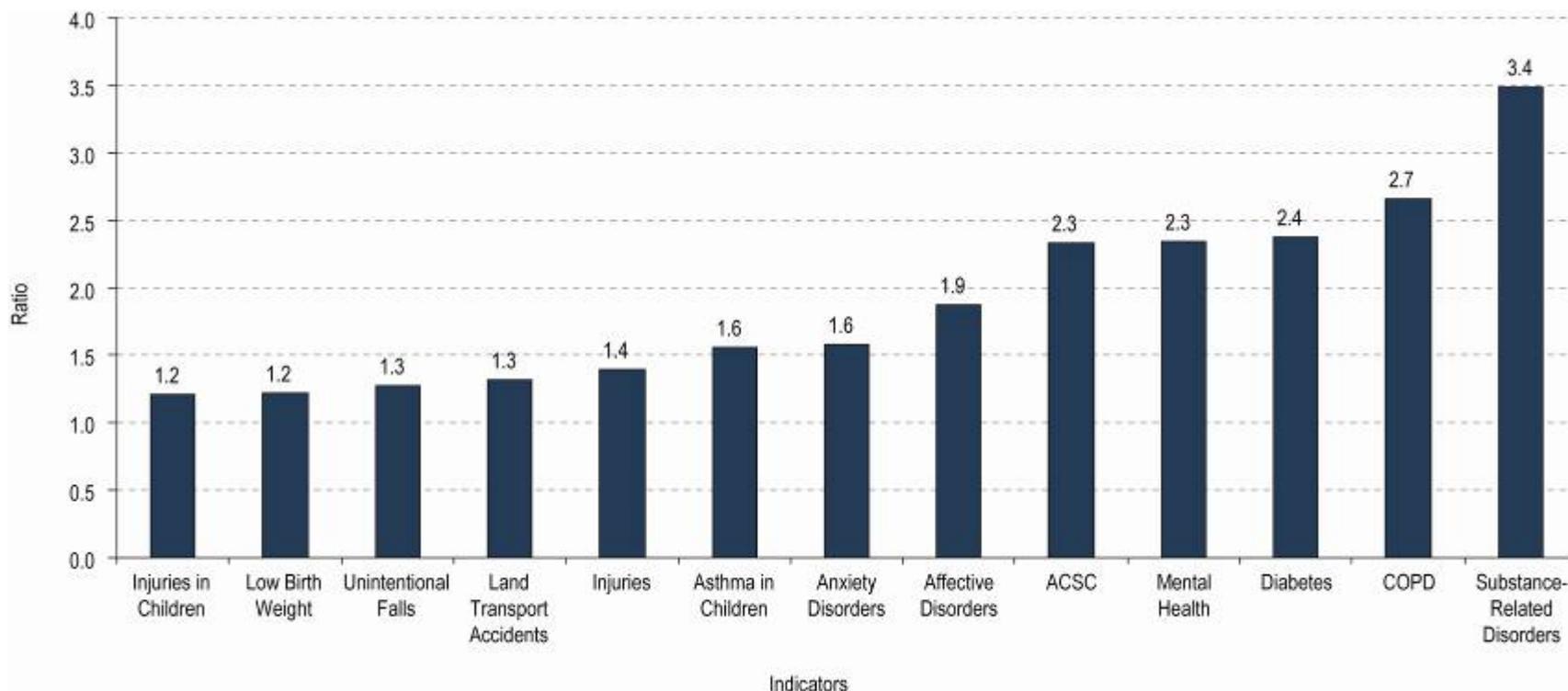
* For each indicator, all rates are significantly different between low-, average- and high-SES groups at the 95% confidence level except for overweight/obese, where there is no significant difference between average- and high-SES groups.

Source

CPHI analysis of Canadian Community Health Survey, cycles 2.1 (2003) and 3.1 (2005), Statistics Canada.

Pan-Canadian Ratios for Hospitalization Indicators

Pan-Canadian Ratio of Age-Standardized Hospitalization Rates Between Low- and High-SES Groups

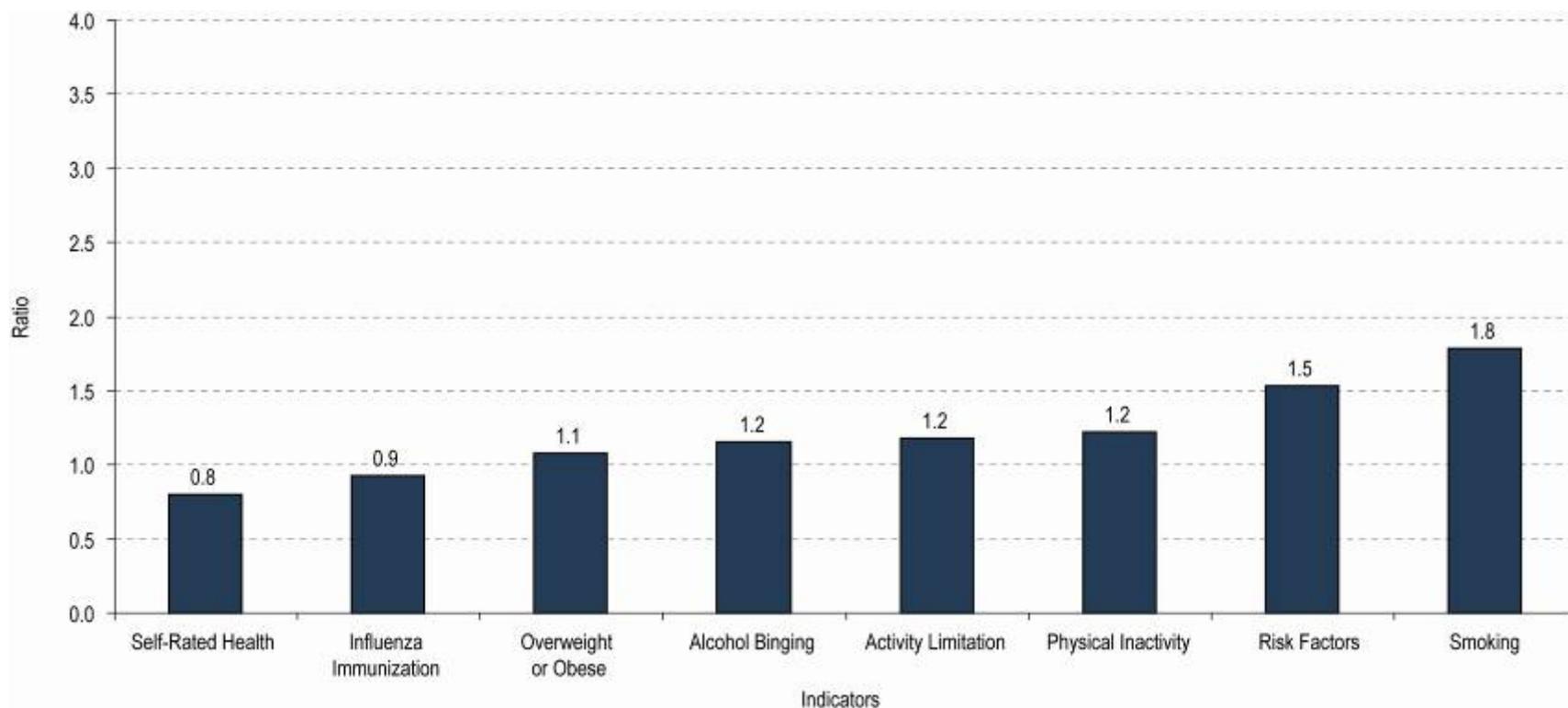


Source

CPHI analysis of 2003–2004 to 2005–2006 Discharge Abstract Database and National Trauma Registry data, Canadian Institute for Health Information.

Pan-Canadian Ratios for Self-Reported Health Indicators

Pan-Canadian Ratio of Age-Standardized Percentages of Self-Reported Health Between Low- and High-SES Groups



Source

CPHI analysis of CCHS, cycles 2.1 (2003) and 3.1 (2005), Statistics Canada.

Conclusions

Reducing Gaps in Health: A Focus on Socio-Economic Status in Urban Canada

Key Messages

- The analyses demonstrated differences—to varying degrees—in hospitalization rates and self-reported health percentages within and across the 15 CMAs.
- Those differences were associated with SES, measured at the smallest geographical unit possible—Statistics Canada's DAs.
- Age-standardized indicator rates were generally higher for the low-SES group than for the average-SES group and generally higher among the average group than for the highest-SES group with the extent of the gaps varying among indicators.
- There are variations in the degree of these gaps among the 15 CMAs profiled. Observable differences were noted between CMAs for some of the indicators examined.



Conclusion

- New CPHI analyses of 15 Canadian CMAs emphasize the complex relationship between SES and health in urban Canada.
- The report demonstrates that significant differences exist between each SES group in 20 of the 21 health indicators examined.
- The report provides evidence to support the value of examining gaps in health across an SES gradient rather than focusing on the two dichotomous extremes (that is, high versus low SES).



Our Partners



Institut national de santé
publique du Québec



Statistics Canada



Urban Public Health Network



It's Your Turn

CIHI
ICIS



cphi@cihi.ca

www.cihi.ca/cphi

