



# Data Brief

## Exploring Urban Environments and Inequalities in Health

### Thunder Bay Census Metropolitan Area

In 2008, the Canadian Population Health Initiative (CPHI), a part of the Canadian Institute for Health Information (CIHI), released the report *Reducing Gaps in Health: A Focus on Socio-Economic Status in Urban Canada*. This report examined the links between socio-economic status and health in urban Canada.

#### Who We Are

Established in 1994, CIHI is an independent, not-for-profit corporation that provides essential information on Canada's health system and the health of Canadians. Funded by federal, provincial and territorial governments, we are guided by a Board of Directors made up of health leaders across the country.

#### Our Vision

To help improve Canada's health system and the well-being of Canadians by being a leading source of unbiased, credible and comparable information that will enable health leaders to make better-informed decisions.

Data for 15 Canadian census metropolitan areas (CMAs) was shown and analyses of health service utilization/hospitalization and self-reported health were presented. The Institut national de santé publique du Québec (INSPQ) Deprivation Index, which consists of material and social dimensions related to socio-economic status and health, was used to classify areas into high, average and low socio-economic status groups.

As a follow-up to the 2008 report, CPHI is preparing two reports that examine how certain aspects or elements of the urban environment are linked to inequalities in socio-economic status and health. This two-report series will explore how the *urban physical environment* and *urban transportation* relate to socio-economic status and health within and across Canada's 33 CMAs. Analyses for these upcoming reports are similar

to those conducted for the *Reducing Gaps in Health* report; however, data will be presented for all 33 Canadian CMAs and each area will be classified into five (versus three) socio-economic status groups, ranging from the highest to the lowest.

This data brief includes the preliminary results of analyses for the Thunder Bay CMA. Health service utilization/hospitalization and self-reported health data was split into the five socio-economic status groups and is presented by the individual material and social components of the INSPQ Deprivation Index separately, as well as by the two components combined.



The health service utilization/hospitalization and self-reported health data presented in this data brief was selected on the basis of its use in the previous *Reducing Gaps in Health* report and on its documented relationship with the urban environment as revealed by a review of the literature.

## Components of the INSPQ Deprivation Index

### Material Component

- Percent without high-school graduation
- Employment ratio
- Average income

### Social Component

- Percent of single-parent families
- Percent of persons living alone
- Percent of persons separated, divorced or widowed

All components are extracted from the 2006 Census of Canada at Statistics Canada's dissemination area level. For further information on how these components were identified and calculated, please see R. Pampalon et al., "A Deprivation Index for Health Planning in Canada," *Chronic Diseases in Canada* 29, 4 (2009): pp. 178–191, accessed from <<http://www.phac-aspc.gc.ca/publicat/cdic-mcc/29-4/index-eng.php#e>>.

## Health Service Utilization/Hospitalization Data

This data includes hospital discharges for a number of acute and chronic conditions extracted from CIHI's Discharge Abstract Database (DAD) for the fiscal years 2005–2006, 2006–2007 and 2007–2008.

- Asthma (*all ages*)
- Injuries (*all ages*)
  - Land transport-related injuries (*all ages*)
  - Injuries in children (*younger than age 20*)
  - Unintentional falls (*all ages*)
- Mental illness (*all ages*)
  - Affective disorders (*all ages*)
  - Anxiety disorders (*all ages*)
  - Substance-related disorders (*all ages*)

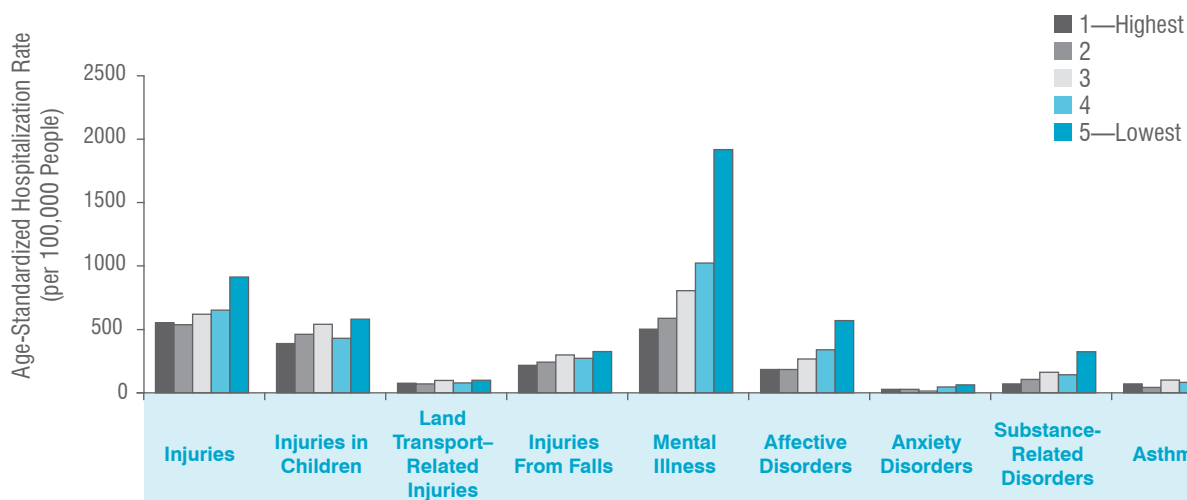
## Self-Reported Health Data

This data includes self-reported survey responses from Statistics Canada's Canadian Community Health Survey (CCHS) for the years 2005, 2007 and 2008.

- Asthma (*age 12 and older*)
- Excellent self-rated health (*age 12 and older*)
- Mental illness (*age 12 and older*)
- Obesity (*age 12 and older*)
- Physical activity (*age 12 and older*)



## Age-Standardized Hospitalization Rates by Socio-Economic Status Group for the Thunder Bay CMA



### Combined (Material and Social) Components—Shown Above

Highest—1	554	390	76	218	503	186	28	70	72
2	538	462	70	243	589	184	29	107	44
3	620	541	98	299*	805*	267*	15	162*	101
4	652	430	79	273	1023	340	46	142	82
Lowest—5	913*†	581*	99	325*	1917*†	569*†	63*†	324*†	139*

### Material Component—Not Shown

Highest—1	588	426	78	265	640	254	33	109	61
2	610	474	92	259	730	242	27	125	86
3	596	427	66	261	832*	282	32	137	71
4	638	455	69	244	867	222	34	134	72
Lowest—5	890*†	575	111†	322*†	1870*†	570*†	66*†	303*†	146*†

### Social Component—Not Shown

Highest—1	467	367	77	185	406	127	20	66	75
2	625	538	66	238	643	207	32	95	45
3	619*	422	89	275*	868*	277*	39*	148*	107
4	669	414	85	298	1115	366	49	184	103
Lowest—5	903*†	644*†	98	327*	1902*†	588*†	54*	315*†	110*

#### Notes

\* Significantly different from the highest socio-economic status group (group 1) at the 95% confidence level.

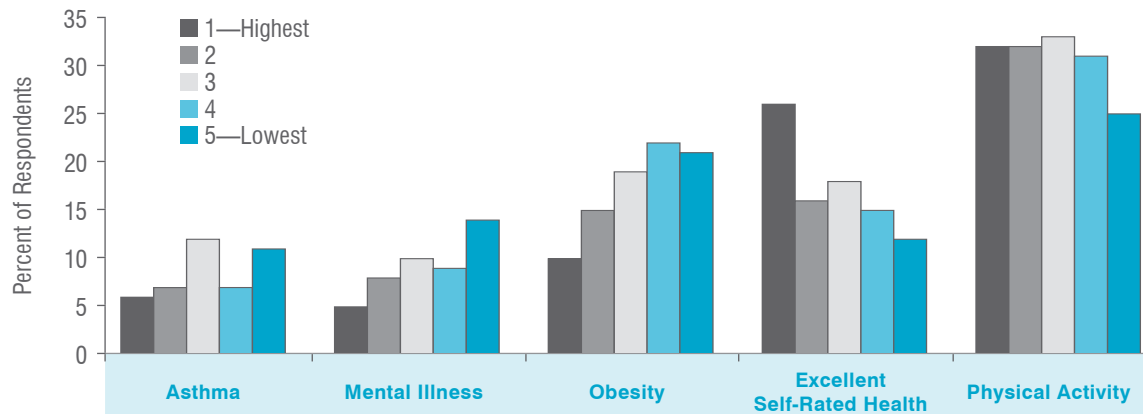
† Significantly different from the middle socio-economic status group (group 3) at the 95% confidence level.

#### Source

Ontario Mental Health Reporting System, 2006–2007, Discharge Abstract Database, 2005–2006, 2006–2007 and 2007–2008, Canadian Institute for Health Information; and Institut national de santé publique du Québec, 2005 to 2007.



## Self-Reported Health Percentages by Socio-Economic Status Group for the Thunder Bay CMA<sup>‡</sup>



### Combined (Material and Social) Components—Shown Above

Highest—1	6	5	10	26	32
2	7	8	15	16	32
3	12	10*	19*	18*	33
4	7	9	22	15	31
Lowest—5	11	14*	21*	12*	25*

### Material Component—Not Shown

Highest—1	8	6	11	25	33
2	6	7	16	19	29
3	8	11	18*	16*	28
4	8	7	18	15	35
Lowest—5	12	14*	24*	13*	26

### Social Component—Not Shown

Highest—1	10	5	12	23	35
2	5	8	18	17	32
3	8	8	12	19	25*
4	8	10	23	16	31
Lowest—5	11	14*	21* <sup>†</sup>	13* <sup>†</sup>	26*

#### Notes

\* Significantly different from the highest socio-economic status group (group 1) at the 95% confidence level.

<sup>†</sup> Significantly different from the middle socio-economic status group (group 3) at the 95% confidence level.

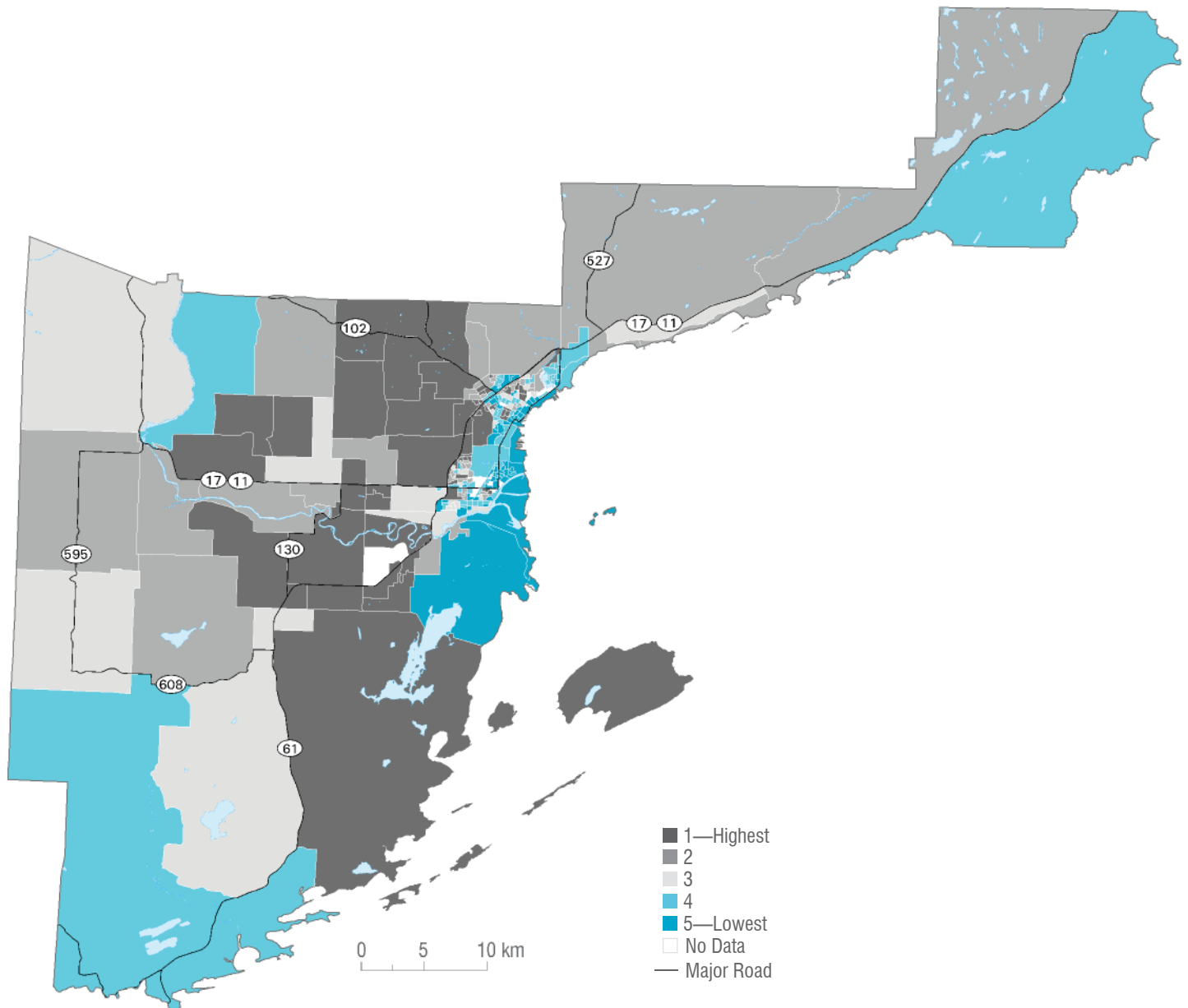
<sup>‡</sup> All estimates are based on populations of at least 50 sample units. In some cases where variability was still high (coefficient of variation  $\geq 33.3$ ), some estimates were suppressed.

#### Source

Canadian Community Health Survey, 2005, 2007 and 2008, Statistics Canada.

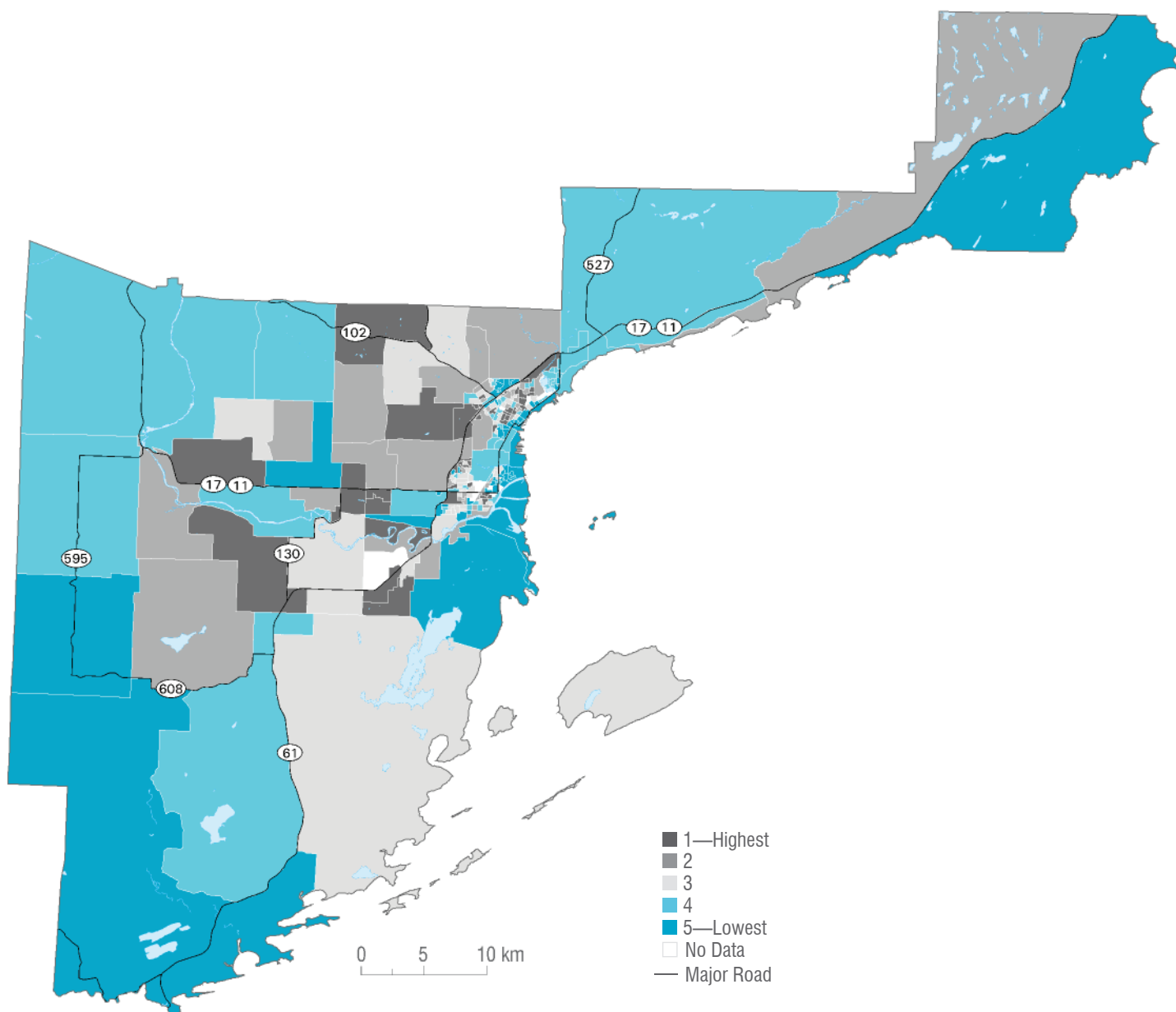


Distribution of Socio-Economic Status in the Thunder Bay CMA—  
Combined (Material and Social) Components of the INSPQ  
Deprivation Index at the Dissemination Area Level



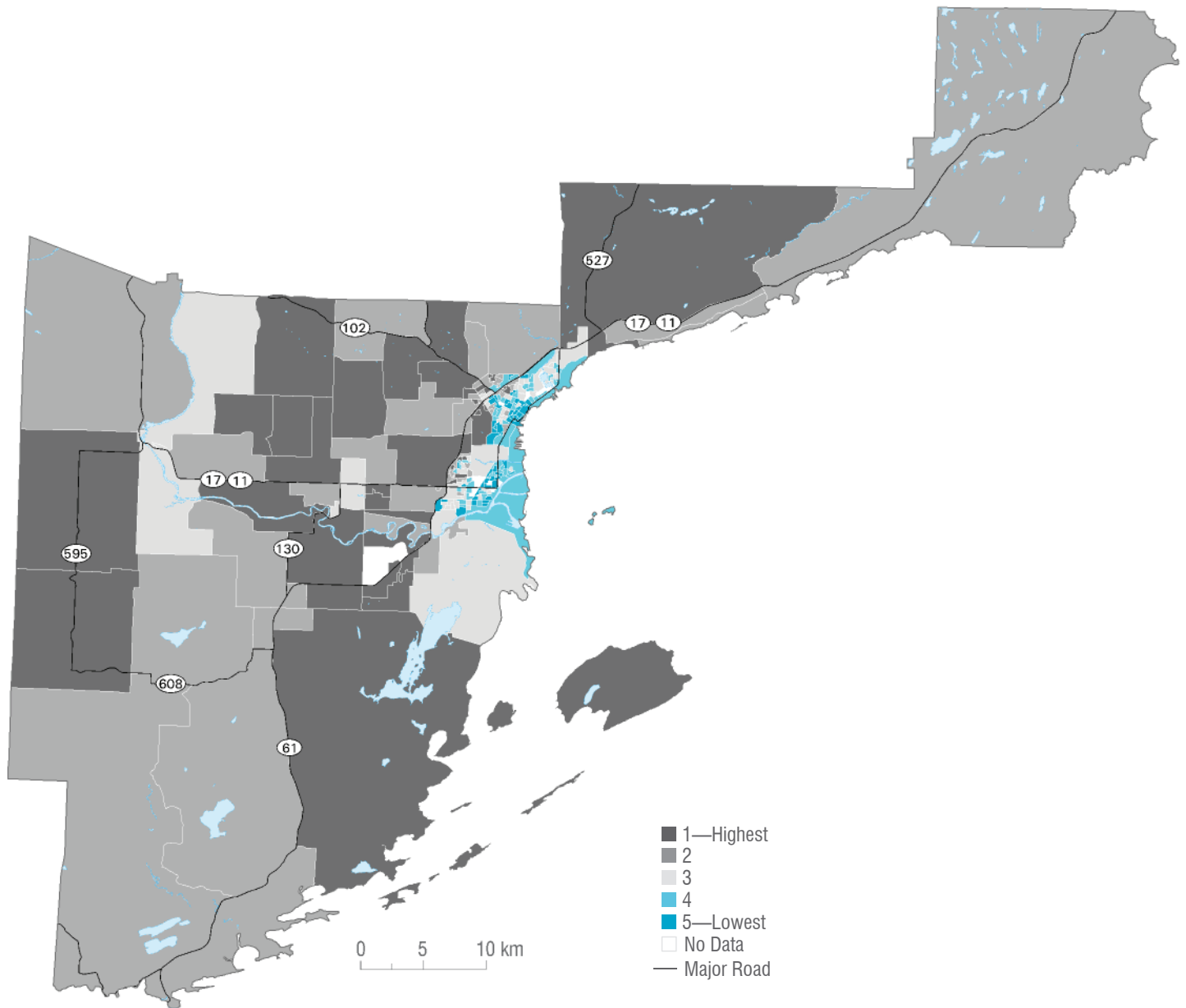


Distribution of Socio-Economic Status in the Thunder Bay CMA—  
Material Component of the INSPQ Deprivation Index at the  
Dissemination Area Level





Distribution of Socio-Economic Status in the Thunder Bay CMA—  
Social Component of the INSPQ Deprivation Index at the  
Dissemination Area Level





# About the Canadian Population Health Initiative

The Canadian Population Health Initiative (CPHI), a part of the Canadian Institute for Health Information (CIHI), was created in 1999. CPHI's mission is twofold:

- 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.

## Upcoming Releases

- *Data Brief Methodology Complementary Report*
- *Exploring Urban Environments and Inequalities in Health: Urban Physical Environment*

## Available Complementary Products

- *Reducing Gaps in Health: A Focus on Socio-Economic Status in Urban Canada* (November 2008) and companion products that are currently available on CPHI's website:
  - Summary report
  - PowerPoint presentation

- Literature search methodology
- Data and analysis methodology
- Interactive maps

- *Improving the Health of Canadians: An Introduction to Health in Urban Places* (November 2006) and companion products that are currently available on CPHI's website:
  - Summary report
  - PowerPoint presentation