

Canadian Social Environment Typology: A new way to help measure health and social inequalities in Canada, 2020

Released at 8:30 a.m. Eastern time in *The Daily*, Monday, May 9, 2022

Statistics Canada has been developing new data tools to measure health and social inequalities in Canada. A new geographic classification tool called the Canadian Social Environment Typology (CanSET) is being released today. This tool provides neighbourhood classifications based on combinations of 30 socioeconomic, demographic and ethnocultural variables from the 2016 Census of Population.

Each neighbourhood type is a group of dissemination areas having similar social characteristics and can be used to measure health and social inequalities by comparing outcomes among similar as well as different types of neighbourhoods within a city or among cities in Canada. The CanSET was developed by Statistics Canada in collaboration with the Urban Public Health Network in Canada.

The [CanSET data](#) are released today along with a user guide to assist users in understanding how the data tool was created and how to use this classification tool in an analysis.

Using the new CanSET classification tool, a study is being released today in *StatCan COVID-19: Data to Insights for a Better Canada*: "[Inequalities in COVID-19 mortality rates by neighbourhood types in Canada](#)." The COVID-19 mortality data from the [Canadian Vital Statistics - Death database](#) was used to understand the variation of COVID-19 mortality rates by neighbourhood types and sex in 2020.

Neighbourhoods with higher proportions of senior or institutionalized populations had COVID-19 mortality rates almost six times higher than other neighbourhoods in 2020

The 2020 age-standardized COVID-19 mortality rate was highest (148 deaths per 100,000 population) for neighbourhoods having a higher proportion of elderly population living in an institutional collective dwelling such as a seniors home, a hospital or a long-term care home (i.e., older or institutionalized population neighbourhoods). This rate is almost six times higher than the rate in low socioeconomic status (SES) suburban neighbourhoods, the neighbourhood type reporting the lowest mortality rate. This could be a result of rapid spread of COVID-19 in 2020 among more vulnerable elderly populations living in institutional collective dwellings. This result is consistent with a previous analysis, "Pandemic Experience in the Long-Term Care Sector: How Does Canada Compare With Other Countries?", that reported significantly higher COVID-19 deaths among long-term care residents in Canada.

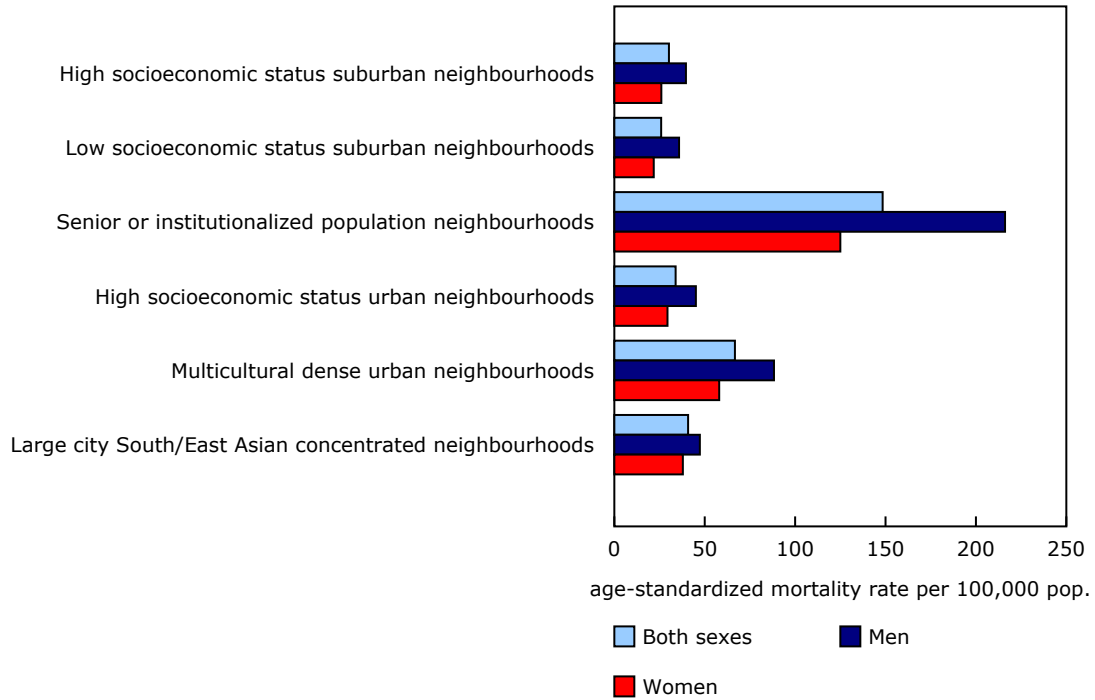
Densely populated multicultural urban neighbourhoods with higher proportions of immigrants, lone parent families, and low income families had a COVID-19 mortality rate almost two times higher (67 per 100,000 population) than high socioeconomic status urban neighbourhoods (34 per 100,000 population). Similar to previously released COVID-19 mortality data ([Deaths and age-specific mortality rates, by selected grouped causes](#)), men generally had higher COVID-19 mortality rates than women across all types of neighbourhoods.

In general, densely populated urban neighbourhoods had higher COVID-19 mortality rates compared with sparsely populated suburban neighbourhoods (i.e., low or high SES suburban neighbourhoods). Low SES suburban neighbourhoods in Canada reported lower COVID-19 mortality rates than the high SES suburban neighbourhoods. This could be a result of lower population density and smaller household size found in the low SES suburban neighbourhoods compared with the high SES suburban neighbourhoods, as these factors have previously been found to contribute to COVID-19 mortality; see the study "[People living in apartments and larger households were at higher risk of dying from COVID-19 during the first wave of the pandemic](#)."

The increased risk of COVID-19 mortality is likely due to a combination of factors including public contact, geographic location, income levels, public health restriction compliance, higher frequency of low-income households working in occupations requiring more contact with the public, and many others.



Chart 1
Age-standardized COVID-19 mortality rates in Canada between January 1 and December 31, 2020 by Canadian Social Environment Typology neighbourhood types



Source(s): Vital Statistics—Death Database 2020 (3233), Canadian Social Environment Typology, and Census of Population, 2016 (3901).

Note to readers

Data used for this analysis included the de-identified preliminary COVID-19 deaths from Vital Statistics - Death Database occurring between January 1 and December 31, 2020, the Canadian Social Environment Typology data, and the 2016 Census of Population data calculated at census dissemination area (DA) level.

There are different ways to measure mortality due to the COVID-19 pandemic. This analysis uses death certificates where COVID-19 is listed as the underlying cause of death. Statistics Canada and provincial and territorial vital statistics agencies use two codes to identify COVID-19 reported as a cause of death: U071 for COVID-19 specified as confirmed by a positive test result and U072 for COVID-19 described as "possible," "probable," or "pending a (positive) test result." The COVID-19 data in this study are preliminary, as they are not based on all deaths that occurred during the reference period because of reporting delays and because they do not include Yukon.

Further caution should be used when interpreting the results because demographic and socioeconomic information used to generate the typology were from the 2016 Census of Population, whereas the COVID-19 death data are from 2020. Please refer to the [Census Dictionary, 2016](#) for detailed definitions of Census of Population concepts, variables, and geographic terms, as well as historical information.

The neighbourhood types used in this analysis are defined as the set of dissemination areas that are similar in terms of the selected characteristics (variables). A dissemination area is a small, relatively stable geographic unit composed of one or more adjacent dissemination blocks with an average population of 400 to 700 persons. This data set includes 43,144 dissemination areas from the census metropolitan areas (CMAs) and the census agglomeration areas out of 56,590 dissemination areas of Canada. The DAs for which either short form or long form data were not released for confidentiality or data quality issues by the census were removed from this analysis. The DAs from Indian reserves were also excluded from the analysis. The major characteristics of each type of neighbourhood used in the analysis are outlined below:

High socioeconomic status (SES) suburban neighbourhoods: Neighbourhoods in this cluster have medium population density but higher than average number of people per household; lower than average proportion of single parent families; high proportion of households with a university degree at bachelor's level or above; low unemployment rate and higher than average household income; higher than average proportion of people in managerial or professional occupations; high dwelling ownership rate and low proportion of households in need of major repair.

Low SES suburban neighbourhoods: Neighbourhoods in this cluster have relatively low population density; lower than average number of people per household but higher than average proportion of single parent families; very low proportion of households with a university degree at bachelor's level or above; very low proportion of recent immigrant population but higher than average proportion of Aboriginal population; relatively high proportion of labour force in manufacturing, and sales and service occupations; relatively low median dwelling value and low adjusted family income.

Senior or institutionalized population neighbourhoods: Neighbourhoods in this cluster have very small household size; very low proportion of population 14 years of age and under, but very high proportion of elderly population aged 65 years and above; very high proportion of institutionalized population; very high proportion of low-income households; very high proportion of government transfer of payment recipients; low dwelling ownership rate; and very low adjusted family income.

High SES urban neighbourhoods: Neighbourhoods in this cluster have very high population density and very low proportion of children 14 years of age and under; very small household size; very low proportion of labour force in manufacturing occupations but high proportion of population in professional occupations; higher than average proportion of households with a university degree; very low dwelling ownership rate and very high proportion of population spending more than 30% of income on housing costs; and higher than average dwelling value. Most of these DAs are located in the provinces of Quebec, Ontario, Alberta and British Columbia.

Multicultural dense urban neighbourhoods: Neighbourhoods in this cluster have very high population density; relatively high proportion of population 14 years of age and under; very high proportion of lone parent families and very high proportion of government transfer of payment recipients; high unemployment rate; very high proportion of immigrants and recent immigrant population; high proportion of labour force working in sales and service related occupations; very low dwelling ownership rate; and very low adjusted family income. DAs in this cluster are mostly from the provinces of Quebec, Ontario and Alberta.

Large city South/East Asian concentrated neighbourhoods: Neighbourhoods in this cluster have high population density; very large household size; very high proportion of immigrant population and very high proportion of visible minorities of South and East Asian origin; very high proportion of the population not speaking either of the official languages of Canada; and very high dwelling value. DAs in this cluster are mostly from the Montréal, Toronto, Calgary and Vancouver CMAs.

Definitions, data sources and methods: survey numbers [3233](#) and [3901](#).

More detailed information about the variation of COVID-19 mortality rates by neighbourhood type, sex and census metropolitan area is available in a research article entitled "[Inequalities in COVID-19 mortality rates by neighbourhood types in Canada](#)," released today in *StatCan COVID-19: Data to Insights for a Better Canada*.

The Canadian Social Environment Typology data along with a user guide to assist users in understanding how the tool was created and how to use this data tool are also released today and are available through the following link: [Canadian Social Environment Typology: A new geographic classification tool to classify Canadian neighbourhoods](#).

For more information, or to enquire about the concepts, methods or data quality of this release, contact us (toll-free 1-800-263-1136; 514-283-8300; infostats@statcan.gc.ca) or Media Relations (statcan.mediahotline-ligneinfomedias.statcan@statcan.gc.ca).