Multimorbidity in large Canadian urban centres

Fact Sheet No. 2

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Introduction

The number of Canadians living with chronic conditions leads to a significant burden on individuals and their families, as well as the health care system (1-3). A particular public health concern is the prevalence of multimorbidity, (4-8) as it may increase the risk of adverse health outcomes, greater healthcare needs, and greater healthcare utilization (7, 9). Although health outcomes are related to the characteristics of the geographic areas in which people live, (10) there is little information on how the prevalence of multimorbidity varies within and across major Canadian urban centres. This fact sheet will highlight a study that specifically looked at the variation of multimorbidity across Census Metropolitan Areas (CMAs) in Canada (11).

Definitions

Multimorbidity is the co-existence of multiple chronic conditions within the same individual (4-8).

Census Metropolitan Areas (CMAs) are large urban areas with a total population of at least 100,000, with a minimum of 50,000 residing in a population centre (also known as the core) (12).

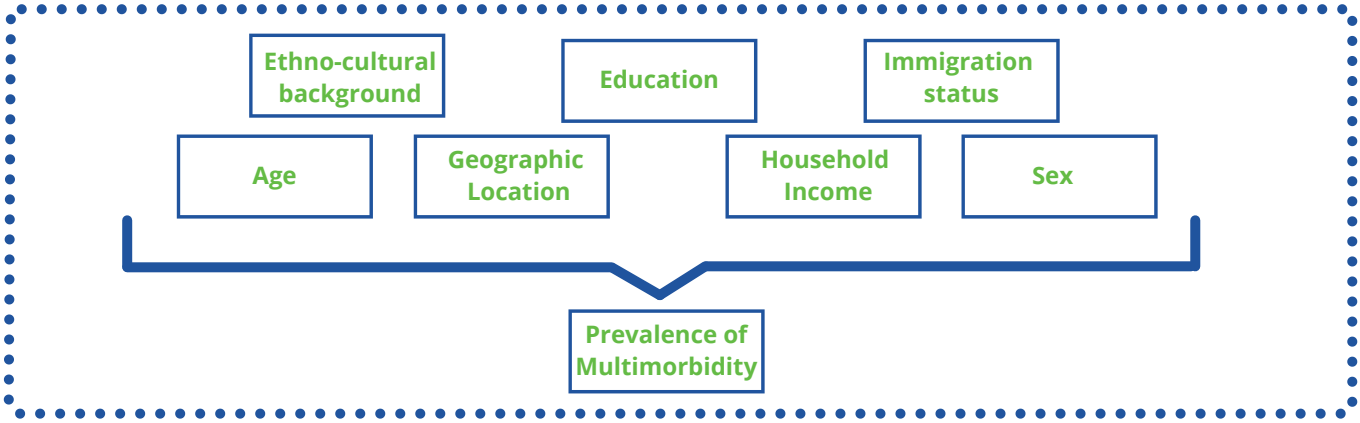
Box 1: Multimorbidity among Canadians

Findings from the 2019 Canadian Community Health Survey (CCHS) showed that 9.0% of Canadian residents had at least two of the five following types of major chronic conditions: cardiovascular disease, cancer, chronic respiratory disease, diabetes, and mood and/or anxiety disorders (13).

Box 2: Geographic variation in multimorbidity prevalence in Canada

The objective of this study was to explore geographic variation in the prevalence of multimorbidity in Canada's large urban centres. This study used data from the 2015 to 2018 CCHS. Important demographic (e.g., age, sex, ethno-cultural background, immigration status) and socioeconomic factors (e.g., education, household income) were also explored. There were a total of 100,803 respondents (20 years and older) residing in one of the 35 CMAs. In our study, about 8% of the residents of large urban centres in Canada reported having multimorbidity. Results show that residing in some neighbourhoods is related to a higher likelihood of multimorbidity. Neighbourhood characteristics do have some impact on between-neighbourhood differences in the risk of multimorbidity, even after socioeconomic and demographic factors are considered. Quebec City and Montreal had a lower likelihood of multimorbidity compared to Toronto. Several CMAs in Ontario (Barrie, Greater Sudbury, Kitchener-Cambridge-Waterloo, Ontario, Oshawa and, Peterborough) and one in Alberta (Edmonton) had higher odds of multimorbidity than Toronto. Demographic and socioeconomic factors, including age, sex, ethno-cultural background, immigration status, education, and household income also impacted the likelihood of having multimorbidity (11).

Figure 1: Demographic and socioeconomic factors related to multimorbidity



Next steps

Differences in multimorbidity between neighbourhoods may occur for a variety of reasons, including neighbourhood-level social, built, and natural features (15). For example, access to resources, such as health services, may impact individual health and the geographic differences in health outcomes may be a result of the spatial variation in access to these resources (14, 15). Using geographic units, such as neighbourhoods and CMAs, may be useful to help inform local public health officials about the burden of chronic conditions and inequalities in multimorbidity and enable them to develop targeted interventions and better allocate resources. Future research should focus on further exploring the impact of neighbourhood-level factors on multimorbidity, as it is not explored as much as the impact of individual characteristics. Neighbourhood characteristics should be studied as they are associated with inequalities in health, particularly in urban settings (11).

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