

Chapter 5 General Discussion and Policy Implications

This report has presented many findings regarding population health in rural Canada. Rural population health has not received a lot of research attention to date. Although there are some studies on the health status of rural Canadians, they tend to single out a particular region or province, focus on one particular aspect of health or rely on a single data source. This study reflects a pan-Canadian scope, examines a wide range of health phenomena, uses data from a variety of sources and employs different analytical techniques. In addition to discussing the health status of rural Canadians, the study also attempts to understand the correlates of urban–rural health disparities.

“Rural” is distance and density. We examined rural communities with low population density—specifically, communities with a population of less than 10,000 inhabitants. These communities were classified according to their distance from larger urban centres (based on the share of residents who commute to work in larger urban centres). While some health measures did not show any pronounced rural–urban differences, and some adverse health measures were found to be higher in urban areas, rural areas generally showed a health disadvantage for many health-related measures examined in this study. For instance, rural areas tend to experience higher mortality among youth, higher mortality due to injury (including suicide and other accidental causes) and some chronic diseases and high prevalence of certain risk factors (such as obesity and smoking), to list just a few. For most of the outcomes examined through multivariate analysis, we found that the degree of rurality had an independent and negative impact on those health outcomes, after adjustments for social, demographic and economic factors.

However, it is important to consider the rural–urban health gap within the larger context of the social determinants of health. “Place,” or where people live, work and play, is just shorthand for a host of interacting factors that take place in specific geographic locations, be they large cities, small towns, rural communities or remote areas. These factors could be occupation, income, education and social status, which have been recognized as important determinants of health. The relationship between low income and poor health has been well documented. For example, a study based on the Canada Health Survey 1978–1979 showed that low-income men who were employed had nearly double the number of health problems and more than three times the number of disability days compared to men in high-income categories.²⁵⁰ A more recent survey, the Canadian Community Health Survey (CCHS) of 2000–2001, found that twice as many men and women in the highest income group rated their health as excellent, compared with those in the lowest income group.²²⁴

The relationship between place and health also manifests in other forms of regional variation in health. In particular, provincial/territorial differences in health status are commonly reported. For instance, mortality rates in Canada generally increase from west to east, and tend to be higher in the north. During the period of 1997 to 1999, all-cause mortality rates among women living in the Northwest Territories were 30% higher than women living in Newfoundland and Labrador, and 60% higher than those in British Columbia. Among men, the corresponding differences ranged from 5% to 30%.²²⁵ The north/south dimension is important with respect to place and health. Although not the focus of this report, it was considered in some of the regression analyses presented.

Disparities within and between areas are also important aspects of the relationship between place and health. Research on urban health has shown that there are differences in health status within and between cities. For instance, significant variations in health status and health-related quality-of-life indicators have been observed among neighbourhoods in Montréal, over and above individual socio-demographic and behavioural differences.²²⁶ As well, between-city variations are also important in Canada. For example, suicide is much higher in Québec than in other cities, especially among lower-income men.²⁵ Similarly, the assessment of the differences in health status within and between rural communities is another area of research that can contribute to the understanding of the health status of rural Canadians. While the main objective of this research program report is to compare the overall health status of rural and urban communities, a separate component of this research program was also carried out to describe the possible heterogeneity of rural communities. Given the multifaceted relationships between health determinants, health status and place, a multivariate methodology was used to classify rural communities based on their social, demographic and economic characteristics. This way of classifying rural communities demonstrated that intra-rural variations in health determinants and outcomes do exist. The analysis also showed that while most rural communities with “good” health determinants reported “good” health outcomes, “poor” health determinants did not always result in “poor” health outcomes for some rural communities. Together with the analyses presented in this report, the study of intra-rural variations highlights the complexity of the relationships between health and place. More detailed findings from the intra-rural variation analysis can be found in other reports and forthcoming publications.

It should be noted that some of the analyses in the present report use an ecological study approach, which means that the units of analysis are populations or groups of people, rather than individuals. Such an approach makes it difficult to attribute conclusions reached at the regional level to the individual level, because of the possibility of ecological fallacy. For instance, health status characteristics at the regional level are not necessarily shared by all individuals in the region. However, information at the regional level is important to our understanding of health variations, not as a substitute for individual-level analysis, but as a means of showing the effects of compositional and contextual influences on health.¹⁷ There are important policy-related implications from these results. For example, would policies or programs aimed at changing socio-economic determinants at the regional, provincial or national level have any impact on individuals? How can public policies be shaped in such a way that they will have an impact not just on society as a whole, but also on individuals at risk? Conversely, would policies and programs that aim at changing individual behaviours have any long-term effect on population health status?

As this report has shown, rural residents in Canada are more likely to be in poorer socio-economic conditions, to have lower educational attainment, to be involved in economic activities with higher health risks (for example, farming, fishing, mining and logging) and to exhibit less desirable health behaviours. These factors may be compounded by less access to prevention, early detection, treatment or support services to make good health status even more difficult to achieve in rural or remote areas. In an upcoming second

report of this research program, the patterns of access to and utilization of health services in rural Canada will be examined with a view to further supporting health-related decision-making for Canadian rural communities.

So, what can be done to eliminate or at least reduce urban–rural disparities in health status? While some determinants of health (such as demographic characteristics and socio-economic structure of rural communities) are difficult to modify, other possible avenues for addressing rural–urban health disparities could be explored. The following are just a few examples:⁺⁺⁺

- Population health research has shown that socio-economic factors are often as important as health services in determining the health status of a population. Rural Canadians tend to have lower income and less secure employment than their urban counterparts. Although many regional economic development programs or projects have yielded mixed results, there are some success stories that may serve as models for community interventions.^{242, 244, 248} Innovative and multi-sectoral approaches could play an important role in assisting communities to adjust to and address micro- and macro-level changes such as boom-and-bust economic cycles (which tend to hit rural communities particularly hard) or a community's dependence on one industry for economic sustainability.
- Overall mortality due to injury and poisoning is considerably higher in rural areas than in urban areas. Certain rural-based industries, such as farming, fishing and logging, tend to have high levels of occupational hazard.^{207, 208, 210} One area of attention could be occupational health and safety issues in the rural setting, as rural workers may have special needs and may require different solutions.
- People living in rural communities generally need to travel longer distances, and often on more dangerous roads, for work, shopping and other reasons. Not surprisingly, injuries and death due to traffic accidents are much more common in rural areas. Improving rural road conditions and raising road safety awareness may be an avenue to explore.
- The importance of disease prevention and health promotion is well recognized in public health and clinical settings. What is less clear is whether conventional strategies, mostly developed by urban program planners for urban residents, are equally effective in rural settings. Findings reported in this study concerning health-related factors and influences, such as higher proportions of smokers, lower consumption of fruit and vegetables and higher proportion of individuals who are overweight and obese among rural residents, suggest that there may be potential in rural-friendly approaches to disease prevention and health promotion.

⁺⁺⁺ Please note that the recommendations presented in this report do not necessarily reflect those of the Canadian Institute for Health Information, the Public Health Agency of Canada, the Centre for Rural and Northern Health Research or Laurentian University.

- Early detection programs aimed at secondary prevention of chronic diseases such as cancer, cardiovascular disease and diabetes are key to population health. The concentration of health resources, expertise, technologies and services in larger urban centres, together with the challenges of rural transportation, may have made such services less accessible to those living in smaller or more remote communities.

“Place” is a complex concept. It not only denotes the geographic location, but also embodies the demographic, social, economic, cultural and behavioural dimensions of a community and its residents, as well as unique features of its physical environment. Thus, multiple perspectives and methodologies are needed when one examines the relationships between place and health. Place may have an independent effect on population health, or it may interact with other determinants to form a complex causal web, involving multiple direct and indirect effects. As the body of knowledge on the relationship between place and health increases, the need to consider place as a key factor in the development of health policies and programs becomes more obvious, particularly for community-level interventions. Studies such as this research program may provide much-needed information to support community-specific or regional-level interventions that are tailored to the unique needs of the residents or that take the place-related characteristics, such as distance and population density, into consideration.