Place and Health Research in Canada

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Health policy discourse in Canada over the past three decades has repeatedly stressed the twin goals of improving the overall health status of the population while at the same time reducing the magnitude of health inequities associated with socio-economic status, ethnicity, gender or geographic variables. Given the current trend of decentralization and regionalization of provincial health care systems in Canada coupled with the increasing interest in local strategies and territorial approaches to public health programming (see Potvin et al¹), understanding how and why health determinants and outcomes are geographically patterned is a key concern for the planning and implementation of public health policies and programs. The continued evolution of geographic information systems and the increasing uptake of this technology within the health sector have further stimulated interest in, and analysis of, relationships between the health of people and qualities of the places of everyday life. Social determinants of health are infused with (usually implicit) social and physical geographic characteristics that we experience through the course of our lives. Making these “geographies” explicit remains one of the key objectives of place and health research.

Like many other major areas of work in public and population health, place and health research presents itself mainly as a collection of empirical observations in search of a general explanation. The list of health determinants and outcome indicators that have been found to be spatially patterned and associated with contextual characteristics of place is still growing. The possibilities of finding geographic patterns to health phenomena seem endless, as illustrated by the growing number of place characteristics that are tested for their association with health. The development during the past two decades of algorithms to compute confidence intervals around estimates of hierarchically arranged regression coefficients together with the creation of user-friendly hierarchical modelling software has led to an explosion of place and health research. Indeed, two major international peer-reviewed journals (*Health & Place* and *Journal of Epidemiology and Community Health*) are mostly dedicated to publishing research reports exploring such geographic patterns. The meaning of all those relationships, however, still evades our full understanding.

Analytically, the place and health association presents a fundamental conundrum. On the one hand, we all experience various and simultaneous influences of “place” upon health through our relationships with people we encounter in our everyday lives (intimate others, neighbours, colleagues and acquaintances); the social context of these encounters and the meanings we make of them; the simultaneous physical exposures we experience through the air we breathe, things we ingest, absorb or experience in other ways; and the resources (both material and non-material) available to us within the socio-spatial context of our lives. To be alive is to be so influenced. This is the essence of Nancy Krieger’s “eco-social” model of health.² On the other hand, our abilities to empirically measure such effects are severely limited by static, cross-sectional data sources (such as the census) that tie individual attributes to specific locations and lack the dynamic and relational qualities of the phenomenon we seek to understand. The concept of place (spaces of everyday life endowed with meaning) is theoretically cloudy and typically operationalized empirically as a spatial container defined by administrative units of data availability (neighbourhood, census tract,

small area, planning zone, postal code). People residing within these units are thus assumed to spend all or most of their lives there. Obviously, researchers are constrained by the complexity and magnitude of dynamic relations in everyday life, to say nothing of data availability.

Several issues raised by empirical work are in need of theoretical development. How space and place are understood conceptually is an all-pervasive issue within the place and health literature. Beyond the compositional versus contextual effects controversy, theoretical developments are still falling short of identifying elements of place context that are involved in the spatial patterning of health, with the notable exception of Macintyre and Ellaways’ concept of opportunity structure.³ Five aspects of neighbourhoods form the opportunity structure: (1) physical features that are shared by all residents, such as air quality or the presence of toxic products; (2) the presence of environments that support healthy lifestyle at home, work and play; (3) services of high quality for all segments of the population, including schools, libraries, transportation and other close proximity services; (4) sociocultural features that are the product of the neighbourhood history and evolution, and that form the social fabric; and (5) the area’s reputation through the representations of the residents themselves and other relevant actors. Although the concept of opportunity structure encompasses realities that go much beyond physical and material goods, much of place and health research still deals with such material resources as correlates of health.

A second issue relates to the more general structure-agency debate of the social sciences and could be framed as how place and people interact with and influence each other.⁴ Indeed, since most research reported in the place and health literature is conducted using cross-sectional studies, there is very little opportunity to examine the interplay between features of places and individual characteristics. The way data sets are structured, together with the absence of longitudinal data on characteristics of places, leads to explanations that posit the precedence of structures over human agency. But reciprocal relationships between agency and structure surely must also be at play, and research that elucidates this reciprocity is needed.

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A third issue concerns the scale at which place and health relationships might be identified. Social gradients in health outcomes across social class have been observed for more than a century and a half and have been found virtually everywhere they have been looked for. Given the ways that market forces shape the socio-spatial pattern of settlement, small areas often contain clusters of people with similar socio-economic characteristics. At what spatial scale or scales are we able to detect real and meaningful inequities in health status?

Apart from theoretical issues, practical concerns regarding the significance or utility of place and health research for policy-makers must also be considered. At the place and health workshop co-sponsored by the Canadian Population Health Initiative (CPHI) and the Léa-Roback Centre in April 2005, policy-makers responding to presentations made by CPHI-funded researchers stressed their need for practical information, which is more useful to them than many of the theoretical issues presented by researchers.⁵ Usable information with implications for specific action is highly valued by policy-makers, but providing such information while at the same time making clear the caveats, limitations and conceptual issues embedded in place and health research remains a challenge for the research community.

The papers assembled for this special issue on place and health research in Canada provide an overview of the original contribution Canadian researchers make to this important topic in the field of population health. They also address the issues identified here. The seven papers, based on presentations made at the CPHI-sponsored meeting, are accompanied by commentaries from two policy-actors who also attended the meeting.

Dunn et al. address several conceptual issues relating to how space is understood in place and health research. They question the expectation that place effects should be universal or consistent in their magnitude and challenge interpretations that cast place effects as such. Gauvin et al. reflect upon the issue of neighbourhood definition and provide a narrative account of the research team's experiences in trying to define neighbourhood units in the face of endemic problems associated with the modifiable areal unit problem and the vastly different administrative structures used to define neighbourhoods or communities in Calgary and Montreal. Oliver and Hayes explore scalar issues concerning the spatial distribution of disparities in health status. Comparison of self-reported health status from the Canadian Community Health Survey at both the census tract and the dissemination area level reveals very different patterns. Use of census tract units of analysis masks what is a much more varied distribution of health status relative to dissemination areas.

In terms of exploring social relations in place, Caron et al. examine the role of social support in mitigating levels of psychological distress among persons with different vulnerabilities to mental illness in two poor neighbourhoods of Montreal. They find that emotional support and the presence of persons perceived as stressful account for most of the observed variation in measured levels of distress. De Koninck and Pampalon's article provides a unique perspective, both in this supplement and in the literature in general, by examining people's own perceptions of place in relation to health. By delving into the reasons people give to explain their place of residence, they allow insights into the possibility of a reciprocal relationship between neighbourhood context and composition. There are reasons why some people aggregate in

some neighbourhoods, and those reasons are not the same across all neighbours; the capacity to exercise residential choices is itself related to some features of place. Roos et al. note that neighbourhood characteristics did not help to explain differences in rates of health service use in their comparison of same-sex siblings in each family with those in another family in the same neighbourhood. Rather, characteristics of the household were far more important in explaining utilization rates. Lagacé et al. describe differences in health status among rural populations in Canada and Australia.

In her commentary, Patychuk reflects on the information value of each of the contributions and describes several projects underway in cities across Canada to improve the health of populations living in particular places. Finally, Benigeri describes the use that is made of geographic information systems by the Montreal Health Authority.

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