Population Health in Canada: Issues and Challenges for Policy, Practice and Research

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A B S T R A C T

The population health movement has gained prominence in Canada and elsewhere with policy makers, program planners and researchers taking note that health is strongly influenced by factors that lie largely beyond the health-care system. The development of *population health* in Canada was the focus of the *National Conference on Shared Responsibility for Health & Social Impact Assessments: Advancing the Agenda* held May 2-3 1999 in Vancouver, Canada. A longer version of this paper was distributed to conference participants to provide some common knowledge and vocabulary. It also introduced and discussed definitional, normative, logistical, political, methodological, structural and resource considerations with respect to furthering the population health agenda in Canada.

A B R É G É

Le mouvement pour la santé de la population gagne en importance au Canada et ailleurs. Les stratèges, les planificateurs de programme et les chercheurs se rendent compte que la santé est grandement influencée par des forces et des facteurs qui se situent en grande partie à l'extérieur du système de soins de santé. L'évolution de la santé de la population au Canada était le point central de la *Conférence nationale sur le partage de la responsabilité relativement à l'évaluation des répercussions sociales et sur la santé* qui s'est tenue les 2 et 3 mai 1999 à Vancouver (Canada). Une version plus longue de cet article a été distribuée à la Conférence afin de fournir des savoir et vocabulaire communs. Afin de faire avancer le dossier de la santé de la population au Canada, elle introduisait et discutait aussi les considérations qui touchent les définitions et le normatif, de même que les considérations logique, politiques, méthodologiques, structurelles et de ressources.

Population health has gained prominence on the world stage and in Canada with policy makers, program planners and researchers taking note that health is strongly influenced by forces and factors beyond the health care system. But recognition of societal forces that influence health is only a first step – devising and implementing appropriate policies that will affect these forces is a further, and more difficult, step.

Attempts to understand the forces influencing health and create relevant policy and programs are occurring around the world. The Verona Initiative of the World Health Organization's Regional Office for Europe, for example, aims: "to create a new arena for innovative debate on public action that will lead to improvements in population health and well-being... it aims at discussing and building consensus on a wide range of issues related to investing for health in the context of economic, social and human development."[1] This initiative falls within the HEALTH21 "Health For All" framework of the WHO which states "the improvement of the health and well-being of people is the ultimate aim of social and economic development."[2]

Canada is among nations at the forefront of innovation in population health research and policy making, and has created a multi-jurisdictional governmental committee on population health committed to bringing the population health perspective to Canadian policy. Population health concepts have become integrated into nearly every governmental division committed to improving the health of Canadians. Although governments around the world do not always use the term "population health," for the most part the issues are the same. They recognize limits of the health-care system, are concerned with issues of accountability and evidence-based decision making, and recognize influences upon health from economic, social and environmental realms.[3-5] Increased interest in broad determinants of health in policy making is in tension, however, with programs and policies that emphasize lifestyle and behavioural factors often assumed to be under individual influence or control. The population health perspective suggests that lifestyle and health behaviours are inherently confounded with social, economic, cultural and environmental factors.

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A working definition of population health

Population health has been variously defined as: "the epidemiological and social condition of a community (defined by geography or by common interests) that minimizes morbidity and mortality, ensures equitable opportunities, promotes and protects health, and achieves optimal quality of life,"[6] and as "the health of a population as measured by health status indicators and as influenced by social, economic, and physical environments, personal health practices, individual health capacity and coping skills, human biology, early childhood development and health services."[7]

Population health research is concerned with whole communities or populations, not just individuals or groups; generally more distal rather than proximal determinants of health; greater intersectoral action beyond only the health sector; and with

making populations more self-sufficient and less dependent on health services and professionals. The population health perspective is concerned with explaining *differences in health* and has the intent of doing so at the population rather than individual level.[8] It describes the analysis of major social, behavioural and biological influences upon overall levels of health status within and between identifiable population groups and subgroups,[9] attempting to identify aspects of the social and cultural milieu[10] that affect differences in health status.

Issues

The following section introduces several key issues surrounding the adoption, implementation and evaluation of a population health approach to program and policy decision making in Canada. The list of issues is not exhaustive but does include attention to definitional, normative, logistical, political, methodological, structural and resource considerations.

Issue 1 - Definition of Health

Before program planners and policy makers from different sectors can share responsibility for action on the determinants of health, they must have some degree of consensus in their understanding of key concepts and terms. Adoption of a population health approach to policy and program decision making in the absence of an explicit conceptual model of health has the potential to focus on only parts of the problem. Models of population health, without an "explicit" supporting text detailing their policy-intended implications, have the potential to be misunderstood and misused.

In 1948, the World Health Organization (WHO) described health as the "state of complete physical, emotional, and social well-being, not merely the absence of disease or infirmity."[11] Evans and Stoddart[12] criticized the WHO's early definition of health, stating that it is "difficult to use as the basis for health policy, because implicitly it includes *all* policy as health policy." Their population health framework differentiates between disease, health and function (as experienced by the individual) and well-being (the sense of life satisfaction of the individual). Frankish et al. define health as "the capacity of people to adapt to, respond to, or control life's challenges and changes."[6] That is, health has an instrumental value rather than being an end in itself.[13] Health is also intimately tied to personal circumstances that, in turn, are tied to social, cultural, economic and environmental influences.

By its very nature, the population health movement defines improvements in health as a desired outcome, but the definition and measurement of health is still somewhat problematic.[14] Many definitions of health have been criticized as hopelessly utopian and unfeasible in their apparent blurring of distinctions between health and social development, appearing to identify virtually all human activity as health-related and equate all human and social values as health.[15,16] Without parameters for planning, policy, expenditure, practice, or science, the scope of the population health field, and therefore its expenditures, appears unbounded.[14]

Definitions of health that encompass the determinants of health also mix cause and effect, thereby making it difficult to use that concept of health as an outcome variable. Such breadth of definition makes health indistinguishable from its determinants. Therefore, it (health) may appear unmeasurable as the consequence of those determinants or the programs and policies designed to modify the determinants.

Still, one is left with the lingering questions of whether a narrowly defined definition of health, that allows for clearer distinctions between health and its correlates, is more feasible than a broader definition as proposed by the WHO, for example, and what would this mean for policy? A broader version may sell itself more readily to non-health ministries, but may also make the scope for attention unmanageably broad.

Issue 2 - Values

A second important issue pertains to the values, beliefs and assumptions underlying population health and their potential impact on related policy or program decisions.

For example, the predominant Canadian Institute for Advanced Research (CIAR) model of population health proposes to be value-neutral,[17] but critics disagree. Poland et al.,[18] for example, are protective of the welfare state in contrast to Evans and Stoddart[12] who, while recognizing the importance of income inequality, additionally emphasize wealth-creation. Zöllner and Lessof[19] suggest that certain values held by the Health For All (HFA) movement in Europe may be worthy of uptake in Canada as well: namely, equity, participation, solidarity, sustainability, accountability, ethics and sensitivity to gender issues. Action principles delineated by the HFA are evidence-based practice, assignment of accountability, value for money, empowerment and participation.

Issue 3 - Paradigms

As an approach to policy making and planning, population health suffers from a certain amount of paradigmatic uncertainty. It is not clear whether policy makers might benefit from a single, logically coherent population health model from which to craft policy or if they would prefer a multiplicity of perspectives. A common culture and working relationships, such as those advocated in the integrated health research agenda envisioned by the proposed Canadian Institutes of Health Research (CIHR), may assist in generating a common paradigm. The ability of multiple stakeholders from diverse sectors to contribute to the creation of a coherent population health paradigm is also a key question.

Issue 4 - Complexity of Models

In an area such as population health, there is a natural tendency to try to identify important relations between and among various factors or variables. Explanatory and/or descriptive models (such as the CIAR model)[17] are developed to delineate important distinctions between proximal and mediating causes. They also serve to provide speculation on the strength of causes and relations among the determinants of health and health outcomes.

It is unclear, however, whether policy makers and program planners require (or desire) detailed models to make decisions. Rogers[20] suggests that the greater the complexity of innovations the slower the rate of

adoption, and certainly the frameworks are currently complex. Even so, Saunders et al.[21] call for a better understanding of the relative importance of different determinants and their interactions. The absence of a fully explicated model of population health may suggest to some policy makers that it is too early to enact population health perspectives in policy and thus any focus upon the "wrong" determinants may be a waste of resources.

Issue 5 - Time Frames

Identified time frames within population health models do not necessarily match political, policy-making and policy evaluation timetables. For example, incorporating concerns for environmental sustainability in health policy may mean several hundred years are required before changes to "causes" manifest themselves as "effects" on health. Changing the nature of inequality in society could take some time, and effects upon childrens' development may only manifest results sixty years hence. These time frames do not coincide with political realities, for example, since governments must often demonstrate immediate positive effects of policies and allocate budgets according to impact. Can governments adjust to longer time frames? The question of time frames is also inherently tied to health and social impact assessments – time periods that will likely exceed the electoral cycle or the rein of a particular government. In order to assess the impact of a given program or policy (e.g., poverty reduction) at a population health level, designs must be created to monitor and evaluate changes over extended periods of time.

Issue 6 - Responsibility for Decision Making Among Government Sectors

The determinants of health, as presented by the population health perspective and the various frameworks therein, appear to demand collaboration across ministries and the adoption of the perspective by a myriad of government divisions (e.g., housing, environment, education, employment, taxation). Policy makers must confront the question of how health inequities can be addressed through macro reforms, and the degree to which such reforms are feasible and necessary. Population health begs the question of whether meaningful steps can be taken solely within health-related divisions, and whether "health-specific" interventions alone demonstrate a sufficient societal commitment to health.

Anecdotal evidence suggests that other divisions of government may resent the intrusion of health concerns in their mandated areas of responsibility ("health imperialism"). Government also may not be willing to make strong decisions. Lomas and Contandriopoulos[22] identify two solitudes: government avoids responsibility so as not to encroach on medical decision making, and the medical profession avoids sharing responsibility for resource allocation. The pressures and tendency to maintain the status quo may conflict with programs aimed at sweeping changes to address the major determinants of health found outside the health-care system.

Issue 7 - Responsibility for Decision Making Among Levels of Government

The appropriate level of government responsible for healthy public policy is open for debate. It is an open question whether policy that incorporates various sectors would work more efficiently at the municipal or regional rather than at the federal or provincial levels. Are networks among individuals in local-level government denser and collaboration more easily facilitated, perhaps, or should power instead be given to federal, provincial, territorial and/or regional health authorities? Would decentralization of decision making help intersectoral collaboration and perhaps also lead to increased participation of nontraditional stakeholders (e.g., the private sector)?

The issue of shared responsibility also generates awareness of the limits of potential action by individuals, communities and regions towards addressing individual or collective determinants of health. A distinction must be drawn between self-responsibility and self-reliance. Individuals, communities and regions cannot be reliant upon resources (economic, social, environmental) they do not possess. In seeking to reduce health inequities, population health must avoid the "victim-blaming" sometimes associated with lifestyle-oriented programs or policies.[18]

Issue 8 - Impact Assessment

Many researchers have noted the importance of evaluating the impact of programs and policies, but evaluation of programs and their effects are not integral components of the population health frameworks thus far.[6] Saunders et al.[21] note that studies of etiology are more common than studies of interventions or programs outside of health care. They claim a need for further population-based surveys to measure trends and assess results of societal-level interventions.

The time frames implicit in the population health perspective make measures of change in health difficult, and *trialability* (the degree to which an innovation may be experimented with on a limited basis) and *observability* (the degree to which the results of an innovation are visible to others)[20] are not easily amenable to population health initiatives. A population health approach suggests that programs and policies must be evaluated with respect to other standards. It is not clear, however, what these standards should be (e.g., social, economic, environmental impact assessments). It is unclear what population health programs should look like and what *kinds* of outcomes are expected. Evidence from the Healthy People 2000 initiatives suggests that tying the achievement of health goals and objectives to line-item budgeting through government regulations may be an important factor in the sustainability of these initiatives over the past 20 years. Such incentives also appeared to foster state and regional participation in this federally driven initiative.

Issue 9 - Making Population Health Popular

As governments are often guided by public opinion, there is a need to generate among the public a more balanced understanding of both social and health care investments in health,[22] although the public may not be able or interested in keeping up with developments in the population health perspective.[9] Zöllner and Lessof[19] suggest securing charismatic champions in government and business to represent the perspective. A few provinces have already developed public information materials to help inform the public about the broad determinants of health, and a national ini-

tiative could use these as a starting point.[7] Use of the information highway, the Internet, may be one vehicle for dissemination of ideas to the public.

Issue 10 - Structural Constraints

Rutten[23] describes several elements of policy implementation that pose specific challenges for adoption of a population health approach in decision making, including: *conceptualization, complexity, bounded rationality, play of power, bureaucratization process, organizational specialism and policy networks*. The notions of *conceptualization* and *complexity* are inherently interwoven and suggest that important stakeholders may find population health concepts difficult to operationalize and manage on a day-to-day basis. Rutten's interrelated concepts of the *bureaucratization process*, *organizational specialism* and *policy networks* highlight the fact that existing systems are inherently bureaucratic. The *bureaucratization process* refers to processes of analysis and change that specific programs or policy ideas may undergo in the hands of government representatives. *Organizational specialism* captures the notion that individuals and organizations are habit-bound and have a tendency to focus on strategies and approaches with which they are most familiar and comfortable. *Policy networks* are the constituencies and inter-connections or networks that exist in government, the existence of which may conspire against changes and the adoption of a population health approach. Thus representatives of key sectors and expert stakeholders tend to operate through well-developed networks and tend to focus on, and feel most comfortable with, executing familiar tasks and responsibilities. Intersectoral collaboration around social determinants of health will not make policy makers and program planners comfortable.

Issue 11 – Accountability

Across Canada, policy makers and program planners are faced with a public demanding greater accountability for public resources. This concern has contributed to the emergence of a focus on "evidence-based decision making" and the development of a plethora of accountability frameworks. The notion of "accountability" begs the obvious questions of *who* will be accountable (to whom?) for taking action on specific determinants or combinations of the determinants of health and for *which* outcomes program planners and policy makers will be accountable.

Issue 12 - Relations Between Health Sector Participants and Other Stakeholders

The involvement of non-health sectors in population health decision making suggests both a shift in the role of traditional government stakeholders and health professionals, and an emergence of new partnerships. With a shift to greater intersectoral participation, the role(s) of health professionals in population health may become unclear. Tensions emerge as health professionals feel threatened by an uncertain future and a reduction in their influence, analogous to the changing role of academic researchers involved in participatory research with communities, for example.

Issue 13 - Resources to Facilitate and Strengthen Population Health

Program planners and policy makers who seek to address the broad determinants of health are faced with a range of complex tasks and decisions. They require data and information in a timely, useable form that supports their decision making.[24] As lay people, they may lack the technical training and expertise with which to judge sophisticated health data,[25] and as such, the data must be triaged by supportive health professionals and researchers. Whether it is resources for training or for data acquisition and analyses, it falls to centralized governments to assure some degree of equity in the distribution of resources for population health across other levels of government (e.g., provincial/state, regional, municipal).[26]

CONCLUSIONS

The issues raised in this paper were intended to provoke discussion and debate around the "population health approach" as recently undertaken in Canada. We leave the reader with the following questions:

- How can a population health approach be incorporated into policy and program decision making through shared responsibility and collaborative actions across sectors?
- What are the desired outcomes of population health interventions and how can they be measured through health and/or social impact assessments?
- What tools currently exist for evaluating the process, implementation, short-term impacts and longer-term outcomes of population health initiatives?
- Who should be responsible for implementing population health? For what outcomes? To whom should they be accountable? How can we build on the notions of shared responsibility and intersectoral collaboration?
- What resources are needed to support meaningful population health initiatives? Where will they be found?
- What can be learned from examining population health activities to date? How can these lessons best be shared among various stakeholders and jurisdictions?
- What role can/should different levels of government and different sectors of society play in implementing a population health approach to policy making and planning?
- What elements belong in short-term, mid-range and longer-term goals or objectives for population health initiatives?

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REFERENCES

1. World Health Organization. The Verona Initiative: Investing for health in the context of economic, social and human environment. Geneva: WHO, 1998;1.
2. World Health Organization, Regional Office for Europe. HEALTH21: An introduction to the health for all policy framework for the WHO European Region. Copenhagen, 1998;2.

3. Frenk J. The new public health. *Annu Rev Public Health* 1993;14:469-90.
4. McBeath W. Health for all: A public health vision. *Am J Public Health* 1991;81(12):1560-65.
5. Wass A. The new public health - The Liverpool experience. *Venereology* 1996;9(3):206.
6. Frankish CJ, Green LW, Ratner PA, et al. Health Impact Assessment as a Tool for Population Health Promotion and Public Policy. Institute of Health Promotion Research, University of British Columbia. Ottawa: Report for Health Canada, May 1996.
7. Federal, Provincial, and Territorial Advisory Committee on Population Health. Strategies for Population Health: Investing in the Health of Canadians. Prepared for the Meeting of Ministers of Health in Halifax, Nova Scotia, September 14-15, 1994.
8. McGrail K, Ostry A, Thomas V, et al. Determinants of Population Health: A Synthesis of the Literature. Ottawa: Report to Health Canada, December 1998.
9. Hayes MV, Dunn JR. Population Health in Canada: A Systematic Review. Ottawa: Canadian Policy Research Networks, 1998.
10. Corin E. The social and cultural matrix of health and disease. In: Evans RG, Barer ML, Marmor TR (Eds.), *Why Are Some People Healthy and Others Not? The Determinants of Health of Populations*. New York: Aldine de Gruyter, 1994.
11. World Health Organization. WHO Constitution, Geneva: WHO, 1948.
12. Evans RG, Stoddart GL. Producing health, consuming health care. In: Evans RG, Barer ML, Marmor TR (Eds.), *Why Are Some People Healthy and Others Not? The Determinants of Health of Populations*. New York: Aldine de Gruyter, 1994.
13. Green LW, Kreuter MW. *Health Promotion Planning: An Educational and Environmental Approach* 2nd ed. Mountain View, CA: Mayfield Publishing Co., 1991.
14. Rootman I, Raeburn J. The concept of health. In: Pederson A, O'Neill M, Rootman I (Eds.), *Health Promotion in Canada: Provincial, National and International Perspectives*. Toronto: W.B. Saunders Canada, 1994.
15. Berlin S. Current status and indicator needs of the Canadian healthy communities project. In: Feather J, Mathur B (Eds.). Proceedings of an Invitational Workshop: Indicators for Healthy Communities. Winnipeg: Prairie Region Network on Health Promotion Knowledge Development, 1990.
16. Labonte R. Death of program, birth of metaphor: The development of health promotion in Canada. In: Pederson A, O'Neill M, Rootman I (Eds.), *Health Promotion in Canada: Provincial, National and International Perspectives*. Toronto: W.B. Saunders Canada, 1994.
17. Evans RG, Barer ML, Marmor TR (Eds.). *Why Are Some People Healthy and Others Not? The Determinants of Health of Populations*. New York: Aldine de Gruyter, 1994.
18. Poland B, Coburn D, Robertson A, et al. Wealth, equity and health care: A critique of a "population health" perspective on the determinants of health. *Soc Sci Med* 1998;46(7):785-98.
19. Zöllner H, Lessof S. Population Health - Putting Concepts into Action: Final Report. World Health Organization, Regional Office for Europe, August 1998.
20. Rogers EM. *Diffusion of Innovations* 4th ed. New York: The Free Press, 1998.
21. Saunders LD, Wanke MI, Noseworthy TW, et al. Identification and Assessment of Population Health Research in Canada and Identified Countries. Report prepared for the Federal/Provincial/Territorial Advisory Committee on Population Health, 1996.
22. Lomas J, Contandriopoulos AP. Regulating limits to medicine: Towards harmony in public- and self-regulation. In: Evans RG, Barer ML, Marmor TR (Eds.), *Why Are Some People Healthy and Others Not? The Determinants of Health of Populations*. New York: Aldine de Gruyter, 1994.
23. Rutten A. The implementation of health promotion: A new structural perspective. *Soc Sci Med* 1995;41(12):1627-37.
24. Schwartz R, Smith C, Speers M, et al. Capacity building and resource needs of state health agencies to implement community-based cardiovascular disease programs. *J Public Health Policy* 1993;14:480-94.
25. Burr K, McKee B, Foster L, et al. Interprovincial data requirements for local health indicators: The British Columbia experience. *Health Rep* 1995;7:17-24, 19-27.
26. Whitehead M. The concepts and principles of equity and health. *Health Prom Int* 1990;5:217-28.