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VOLUME 90 - SUPPLEMENT 1 NOVEMBER / DECEMBER 1999

Canadian Conference on  
Shared Responsibility and  
Health Impact Assessment:

*Advancing the  
Population Health Agenda*

2-3 May 1999  
Vancouver, British Columbia



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REVUE CANADIENNE DE  
S A N T É  
P U B L I Q U E

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VOLUME 90 - SUPPLÉMENT 1 NOVEMBRE / DÉCEMBRE 1999

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# Prologue

Many governments in Canada are adopting the broad view of health known as the *population health* approach. By focussing on a broad range of determinants of health, many of which lie largely beyond the traditional health care system, a population health approach implies a sharing of responsibility for health across multiple levels of governments, multiple government ministries and various sectors of society.

In May 1999, the Institute of Health Promotion Research at the University of British Columbia hosted the “*National Conference for Shared Responsibility for Health & Social Impact Assessments: Advancing the Agenda*” in Vancouver, British Columbia. The Conference focussed on current issues facing policy makers in their attempts to promote a population health approach and engender greater accountability for the impact of policies and programs. A core focus of the Conference was strategies for engaging different levels of governments, government ministries and the private and non-profit sectors in promoting the population health approach. Program planners and policy makers from across government and other sectors (public, private, non-profit) came together to discuss their mutual responsibilities for population health and the impact of their respective activities on the health of Canadians. The objectives of the Conference were:

- to explore models, theories and methods relevant to population health and related decision making in health policy, research and practice;
- to examine practices and studies of population health in Canada and to identify the latest developments and exemplar experiences pointing to which approaches have worked best in which circumstances;
- to clarify the policy and program implications of adopting a population health approach in health policy, research and practice;
- to identify priorities, challenges and opportunities and to propose strategies to enhance Canadian capacity for adopting a population health approach in policy, research and practice.

The Conference brought together representatives from federal and provincial health ministries, regional health authorities, major research funding agencies, key non-governmental health agencies, health coalitions, voluntary health agencies and industry, as well as policy makers, health professionals, health and social scientists. The program included plenary and panel presentations, small group sessions and discussion or question-and-answer periods.

The National Conference was seen as a key opportunity to promote and advance the population health agenda. This supplement represents one of the products of the Conference. The papers are intended to be value-added and to maximize the potential lasting impact of the Conference on policy, program and practice aspects of population health in Canada.

*James Frankish and Gerry Veenstra*



Canadian Conference on  
Shared Responsibility and  
Health Impact Assessment:  
*Advancing the Population Health Agenda*  
2-3 May 1999

Vancouver, British Columbia



*Hosted by the Institute of Health Promotion Research, University of British Columbia*

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ACKNOWLEDGEMENTS

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The significance of the topic of population health and the issues of shared responsibility and impact assessment are reflected by the substantial support provided by the conference sponsors. The organizers wish to recognize the financial contribution of Health Canada, the National Health Research Development Program, the Medical Research Council of Canada and the Ontario Ministry of Health.

Special thanks are extended to the members of the conference organizing committee: James Frankish, Diane Gray, Heather MacLeod Williams, Glen Moulton, and Gerry Veenstra from the Institute of Health Promotion Research, University of British Columbia; Margaret Cumming, Monique DeGroot, Judith Dowler, Heather Fraser, Claude Giroux, Sherry Hamilton, John Horvath, Glenn Irwin, Heidi Liepold, David Martin, Sylvain Paradis, Kathy Stewart, Ian Potter and Patricia Tully from Health Canada; Donna Forbes from Manitoba Health; Frank Grabowiecki of Statistics Canada; and John Millar from the Canadian Institute of Health Information. The following individuals deserve special recognition for their participation in reviewing and providing comments on the supplement papers: James Frankish, Gerry Veenstra, Diane Gray, John Horvath, David Martin, Glenn Irwin and Tariq Bhatti. Thanks also to Lucie Morin for her work in translating abstracts.

In particular, we wish to thank our friends and colleagues in Health Canada for their guidance and leadership in the planning and execution of both the conference and this journal supplement. Our thanks are also extended to the staff, students, fellows and faculty of the Institute of Health Promotion Research for their hard work and efforts in the planning and implementation of the conference.



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# Editors' Introduction

C. James Frankish, Gerry Veenstra, Diane Gray

Governments in Canada are moving toward the adoption of a broader view of health, a (new) understanding of health and its determinants which has been termed the 'population health approach'. The focus on broad determinants of health that lie largely outside of the traditional biomedical health care system necessitates inter-sectoral collaboration to create policies and programs – a sharing of responsibility for health across multiple levels of governments, multiple government ministries and various sectors of society. Even with increasing official commitment to a population health approach and growing consideration of (and empirical evidence supporting) the importance of broad determinants of health, much ambiguity and controversy remain about the nature of the 'population health' perspective. Significant challenges remain as to how program planners or policy makers can use the approach to produce better programs and policies and improve the health of the population.

In May 1999, the Institute of Health Promotion Research at the University of British Columbia hosted the "*National Conference for Shared Responsibility for Health & Social Impact Assessments: Advancing the Agenda*" in Vancouver, British Columbia. The Conference was initiated in partnership with Health Canada.

The Conference focussed on current issues facing Canadian policy makers in their attempts to promote a population health approach and engender greater accountability for the health and social impact of policies and programs. More particularly, the objectives of the Conference were:

- to explore models, theories and methods relevant to population health and related decision making;
- to examine practices and exemplar experiences with implementation of popula-

tion health ideas in Canada and attendant impact assessments;

- to clarify the policy and program implications of adopting a population health approach; to identify priorities, challenges and opportunities; and, finally,
- to propose strategies to enhance the Canadian capacity for adopting a population health approach to policy.

Several of the articles in this special supplement were derived from presentations made at the conference (i.e., Butler-Jones, Hancock et al., Hayes, Lewis, Nutbeam) while others were submitted by conference attendees (i.e., Bhatti, Chomik and Frankish, Dunn and Hayes, Eyles, Frankish et al., Veenstra). The remainder were submitted in response to a call for papers that was advertised on community health, public health and health promotion email lists. The intended focus of the Conference was to address issues surrounding the health and social impact assessment of programs and policies related to the notion of population health. In the end, the submitted articles cover a set of issues beyond impact assessment and/or inter-sectoral collaboration.

Several articles explore the underlying rationale and potential *reasons* for adopting a population health perspective, others explore how to conceptualize or *define* population health and relations among its concepts. A second set of papers examines how we use *language* when engaging in the population health discourse. A final set of articles addresses important aspects of policy development (i.e., health goals development) and the creation of indicators to *measure* aspects of population health. These papers are a step closer toward the goal of assessing the impact of programs and policies on population health. Even so, best practices for *impact assessments* and *inter-sectoral collaboration* to create effec-

tive policies and programs for population health are hard to find. The paucity of articles in this supplement describing concrete health and social impact assessments reflects the difficulties in conducting such assessments. It may also reflect the fact that many Canadian academics (and policy makers) see a need for further development of the population health perspective itself, philosophically, theoretically and empirically.

This supplement is organized in the following manner. Section I includes a series of seven articles that address important theoretical, philosophical and conceptual issues regarding population health and its definition, conceptualization and measurement. These include the relationship between the individual and social structure, through attention to structural concepts such as social cohesion, collective lifestyles, civil society and governance, and the meaning of words such as 'heterogeneities,' 'determinants' and 'positivism.' The final two articles in this section explore conceptual and potential methodological links between environmental impact assessments and population health frameworks.

Section II contains six articles, five of which provide a valuable example of an attempt to implement key population health ideas. Two of the articles focus on health goals and targets (in British Columbia and Australia) and the challenges inherent in their development. Two others focus on perceptions of the determinants of health (among key health care decision makers in Saskatchewan and in three Nova Scotia communities); and one focusses on the state of community health status indicators among Alberta's regional health authorities. Davidson's paper exploring the nature of accountability among regional health authorities in

British Columbia provides a broader sociopolitical frame for population health in the context of health reform.

Section III contains a series of brief personal reflections by four leading Canadian policy makers and researchers, perspectives which provide guidance toward the future of population health in Canada. Finally, we conclude the issue with our own article, drawn from the discussion paper distributed to conference participants. This final paper details some of the issues confronting academics and policy makers attempting to craft collaborative policies inspired by the population health approach.

We would like to thank the authors for submitting a variety of timely and interesting articles. We also appreciate the efforts made by the reviewers from the academic and policy communities.

The population health approach has the potential to encompass much of humanity's accumulated knowledge, from biomedical insights to the lived experience of everyday life to interplay among political, economic and social forces and their impact on health, well-being and quality of life. This supplemental issue of the *Canadian Journal of Public Health* provides a small step toward developing a Canadian interpretation of the population health approach.



## A B S T R A C T

Despite its undeniable currency in research and policy circles, there remains considerable confusion about what 'population health' is. We propose a lexicon for population health in the hope of clarifying issues and advancing this important research emphasis and policy agenda. It distinguishes population health in its literal meaning from a population health perspective, population health research, a population health framework, and a population health approach to policy. Population health is more than just thinking in aggregate terms or about identifying vulnerable or at-risk subpopulations. A population health perspective is fundamentally concerned with the social nature of health influences. The social structures that shape health experiences transcend the characteristics or actions of any one individual, providing population health with analytic advantages over individualistic-oriented approaches to health and to health policy.

## A B R É G É

Malgré son indéniable popularité dans les milieux de la recherche et de la politique, ce qu'est la « santé de la population » reste très confus. Nous proposons un lexique sur la santé de la population dans l'espoir de clarifier les questions et faire avancer cet important sujet d'intérêt en recherche et dans l'agenda politique. Il distingue santé de la population, dans sa signification littérale, de perspective en santé de la population, recherche en santé de la population, cadre d'analyse en santé de la population et approche de recherche et politique en santé de la population. La santé de la population signifie plus que réfléchir en termes agrégés ou qu'identifier les populations vulnérables ou à risque. Une perspective en santé de la population est fondamentalement concernée par la nature sociale des influences sur la santé. Les structures sociales définissant les expériences de santé transcendent les caractéristiques ou actions de tout individu, procurant à la santé de la population des avantages analytiques sur les approches individualistes de la santé et des politiques de santé.

# Toward a Lexicon of Population Health

James R. Dunn, PhD,<sup>1</sup> Michael V. Hayes, PhD<sup>2</sup>

Population health has become an important direction for social and health policy in Canada, yet there remains considerable confusion about what 'population health' is. The background paper for the conference from which this special issue has emerged identifies at least four different 'population health frameworks' in its appendices.<sup>1</sup> We propose a lexicon for population health in the hope of clarifying issues to advance this important agenda. It distinguishes population health in its literal meaning from a population health perspective, population health research, a population health framework, and a population health approach to policy. A population health perspective involves more than just thinking in aggregate terms or identifying vulnerable or at-risk subpopulations. It provides analytical advantages over individualistic-oriented approaches to health for explaining overall health status attainment of populations and the extent of health inequalities within and between them. 'Doing' population health may mean something very different from 'doing' health promotion or health education. A population health perspective is fundamentally concerned with the social structural nature of health influences, and, although it is embodied in the health outcomes experienced by specific individuals, the domains

of influence that shape health experiences transcend the characteristics or circumstances of any one individual.

### Perspective, Research, Framework, Approach: A lexicon of population health

The expression "population health" can refer to many kinds of activity, as the definition adopted by the Federal/Provincial/Territorial Advisory Committee on Population Health illustrates:

Population health refers to the health of a population as measured by health status indicators and as influenced by social, economic and physical environments, personal health practices, individual capacity and coping skills, human biology, early childhood development, and health services.

As an approach, population health focuses on the interrelated conditions and factors that influence the health of populations over the life course, identifies systematic variations in their patterns of occurrence, and applies the resulting knowledge to develop and implement policies and actions to improve the health and well-being of those populations.<sup>2</sup>

Three distinct types of activity are implied within this description: the generation of empirical research; integration of this research into an understanding of social processes that would account for the systematic nature of observations about population health status – a theoretical framework; and the application of this knowledge through public policy in the service of the common weal. Within health research, however, others limit the use of

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the phrase to refer to ‘the health of a population in the aggregate’ without any necessary policy connections or distinction between research and theoretical framework.<sup>3-6</sup>

Recent critiques of population health<sup>7-11</sup> raise concerns about the analysis presented in the defining papers on population health,<sup>12,13</sup> and/or about its purpose, intent and uptake as a conception for public policy. In light of the multiple meanings and activities subsumed by the phrase “population health”, and a desire to clarify some of the confusion that permeates the discourse, it may be useful to distinguish between a population health *perspective*, population health *research*, a population health *framework*, and a population health *approach* to public policy.

The phrase “population health *perspective*” could be used to refer to the population health discourse in its most general sense. The term *perspective* would then act as an umbrella term for the other three. The distinction between research and framework has always been somewhat ambiguous in the academic lexicon. In the central source document for population health in Canada, *Why Are Some People Healthy and Others Not?*,<sup>13</sup> for example, the book’s stated purpose is to report and analyze a set of ‘anomalous findings’ from the research literature. The editors are careful to make very modest claims. They present the book as an analysis of a series of large-scale observations about human and quasi-human (primate) populations. Somewhat paradoxically, the editors argue that the collective set of observations signals a ‘paradigm shift’ in health research and policy even though the analysis presented is acknowledged to be incomplete.

Though compelling, the analysis is a complex one. The persistent and consistent gradients in health status found between social groups in virtually all industrialized countries of the world, largely independent of any particular disease process, are associated primarily with social-structural influences – the availability and organization of work, one’s social networks, early childhood development and experience, the extent of economic disparities, the physical environment, and health care services. The contribution of health care or lifestyle fac-

tors by themselves is insufficient to account for health gradients, which appear to be most fundamentally shaped by the interaction of social-structural inequalities and individual response.

The CIAR book presents and discusses a wide range of research findings, which stimulates the observation that something must be going on which would account for the consistent and persistent social gradients. But the explanation of what that something is is not well developed in the book. The CIAR book was crucial to creating the conditions for developing such an explanation, even though the “framework” (presented as figure 2.5 in the book<sup>13</sup> and Figure 5 in Evans and Stoddart<sup>12</sup>) is not sufficiently supported by an integrated analysis of *how* the pieces of the model fit together in the context of a lived life.

Since the book’s publication, the analysis has continued to be developed by the CIAR and others through such publications as the *Dædalus* issue on health and wealth,<sup>14</sup> *Society and Health*,<sup>15</sup> *Health and Social Organization*,<sup>16</sup> and Wilkinson’s *Unhealthy Societies*.<sup>17</sup> Through the course of these publications a population health framework *has* emerged, as evidenced particularly in the last publication. Wilkinson’s book attempts to integrate empirical and social/theoretical dimensions of the analysis into a coherent explanation for the observed social gradients, drawing from the same body of evidence as the CIAR. His objective is to provide a framework. Specifically, he develops the twin dimensions of materiality and meaning; the material resources we possess (material circumstances *per se* – our bodies, incomes, shelters, etc.) and the ways we understand our being in the world (as he puts it, the social meanings attached to our material circumstances, how we feel about our material circumstances, and ultimately about ourselves). Wilkinson’s framework makes an important contribution to the ongoing analysis of population health.

A problem in understanding what is meant by “population health” arises from its evolutionary nature. The academic analysis continues to develop but it is difficult for the consuming public to keep up with nuances of its development. The core of the analysis (itself a fuzzy conception)

unfolds over time differentially across space and is influenced by many situational circumstances: understandings of key leaders in local communities and their abilities to influence local policy and popular opinion of what population health means; the position of those influential individuals within the overall spectrum of activities in the health sphere; entrenched power interests and their roles in perpetuating the status quo in any particular location; the cultural ethos of specific jurisdictions; physical distance; etc. One reason for distinguishing between *research* and *framework* is, in part at least, to try to deal with the evolutionary problem.

Collection of empirical observations (research) and integration of these into a coherent analysis (integrated framework) of population health can be distinguished from the application of this knowledge in service of public policy; i.e., a population health *approach* to policy. Many issues regarding popular beliefs, cultural expectations, ideological positions, power and authority permeate and mediate the translation process between knowledge and action. We believe that separating these three domains – research, framework and approach to policy – and developing a consistent vocabulary to describe them, will afford the opportunity to clarify some of the confusion surrounding population health.

#### Population health: What is its analytic advantage?

Another reason why we feel our lexicon may be useful concerns the analytic advantage provided by a population health perspective. To adopt a population health perspective implies an interest in the *social production of health* and the *structure of social relations* that pertain in specific settings at specific times. The town of Roseto, Pennsylvania, for example, had heart disease rates more than 40% lower than neighbouring towns for decades in the middle part of this century. The difference could not be attributed to factors like smoking, diet, exercise, etc. as these were similar in neighbouring towns. Rather, the town possessed a number of features of social organization that are believed to have protected it: an egalitarian social

ethos, norms which frowned upon ostentatious displays of wealth, an ethic of civic participation, and an overwhelming and universal confidence among its members that should tragic circumstances befall them, they would be 'looked after' by others in the community. Of course we must be careful not to overly romanticize Roseto, as there were certain unique circumstances that made some dimensions of its structure of social relations difficult to reproduce. It was a small community whose residents were descendants of a mass migration from Roseto, Italy, who may have had a vivid recognition of their shared history, culture and social connection. Nevertheless, when juxtaposed against other 'natural experiments' known to researchers, the structure of social relations as an 'explanation' for health inequalities becomes a compelling case.<sup>18-20</sup>

The unprecedented rise in life expectancy seen in the civilian population in Britain during both of the world wars (upwards of six years compared to roughly two years in all other decades of this century) has also been attributed to specific social factors. These include: the explicit policy of reducing middle class wages and raising working class wages and ensuring full employment. The effect of these policies was that the labour of traditionally disempowered groups like women and working class labourers was highly valued, both monetarily and morally.<sup>17</sup>

Population characteristics of geographical areas (of varying scales) can exert effects on individual health and health behaviours, independently of individual characteristics and attributes. There are 'emergent properties' of particular kinds of population attributes or 'contextual effects,' that have the capacity to independently influence health directly, and/or health risk behaviours, such as smoking.<sup>21</sup> Socio-economic attributes of populations (e.g., deprivation, income disparities, economic segregation) at varying geographical scales (neighbourhood/community, state/province, national) have been shown to be related to a wide variety of health outcomes.<sup>17,22-33</sup> Particularly interesting are those socio-economic indicators that are truly population attributes, like income distribution and economic segregation, which vividly

illustrate the notion of 'emergent properties'. Individuals do not have income distributions and segregation indices, only populations do.<sup>17</sup> One of the challenges of a population health perspective is to better understand how these population attributes are indicators of the structure of social relations that obtain in particular places, how these are related to health, and what the consequences are for public policy.

Sayer<sup>34</sup> claims that "patterns of events, be they regular or irregular, *are not self-explanatory, but must be explained by reference to what produces them*" (p. 122, emphasis added). Such a view of 'explanation' suggests that our concerns need to be directed to what produces inequality and the pathways and mechanisms by which it is related to the differential distribution of health (see also refs. 35, 36). Attention ought also to be directed to differences in the experience of ordinary, everyday life for people at different points in the social spectrum, and again the structures of social relations that produce those conditions. For example, living in a neighbourhood with limited housing opportunities, a low tax base but high social needs, few connections to sources of power and influence outside the neighbourhood, a lack of job opportunities, poor schools, etc., must be analyzed for the influence on the health of individuals living in those conditions, but also must be understood as the product of a specific structure of social relations.

## DISCUSSION

A population health framework situates the importance of social relations centre-stage. Social structure is recognized as a crucial factor in shaping health and well-being, which moves the focus of discussion away from obsession with individual biology and/or personal choice. In exposing the limitations of interventions aimed principally at this level, the framework throws into relief the importance of examining, improving and expanding our understanding of social relations in space-time. Many dimensions of social relations are simultaneously involved in shaping our health experience – global capitalism, gender, ethnicity, religion, identity, power, housing, telecommunications, etc. – topics that have

been traditionally treated as numerical variables, acknowledged as important without explication as to how or why they are so, or ignored altogether within health research.

The theoretical framework we identify in Wilkinson's work<sup>17</sup> need not be the only possible framework, but it is currently the only one that explicitly grapples with the entire weight of evidence assembled within the population health perspective. And it, too, deserves critical scrutiny.<sup>37</sup> There is an important qualitative difference between "anomalous findings" and an integrated framework, recognition of which might help to clarify understanding and lead to improved social welfare policy. As is often claimed, cross-sectoral collaboration between government ministries and departments is required, but to date, there are few widely known, successful examples of such efforts – responsibility for health still lies within ministries of health. In short, we lack an integrated population health policy framework. Of course population health prompts many more policy challenges as well. Among them is that a relative lack of public currency and understanding of a population health perspective provides precious little political motivation or public appetite for developing an integrated policy framework dedicated to promoting just and equitable social relations. We hope that this paper will be a useful contribution towards such an understanding.

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## A B S T R A C T

The last five years have witnessed intense debate among health researchers in Canada regarding the overlap of the health promotion and population health discourses. Meanwhile, strong currents within health promotion have attempted to move the field beyond a focus on individual behaviour towards the influence of social environments on health, although the tendency is often to fall back on individual behaviour modification as the primary lever for change. The Population Health research agenda bypasses behavioural determinants of health and explores instead social determinants. This body of knowledge provides useful insight for addressing some of the tensions in the health promotion discourse. This paper explores two of these tensions: whether individuals at risk or general populations should be targeted for change; and whether lifestyle is an individual or a collective attribute. We propose the notion of collective lifestyles as a heuristic for understanding the interaction between social conditions and behaviour in shaping health.

## A B R É G É

Parallèlement au vif débat en cours sur les différences et similitudes entre les discours de la promotion de la santé et de la santé des populations, certaines tensions sont apparues en promotion de la santé. En dépit des efforts pour orienter davantage le champ vers les déterminants socio-environnementaux de la santé, les comportements individuels constituent encore souvent la cible ultime du changement. Délaissant les facteurs individuels et résolument tourné vers les déterminants sociaux de la santé, le domaine de la santé des populations peut contribuer à dénouer ces tensions. Dans cet article nous examinons deux tensions à la lumière de résultats d'études sur les déterminants sociaux de la santé. La première tension concerne la cible des interventions et la seconde le caractère collectif ou individuel de la notion de "lifestyle". Nous proposons le concept de "lifestyle collectif" comme outil heuristique pour comprendre comment les interactions entre les comportements individuels et les conditions sociales façonnent la santé.

# Collective Lifestyles as the Target for Health Promotion

*Katherine L. Frohlich, MSc, Louise Potvin, PhD*

The last five years have witnessed intense debate among health researchers in Canada regarding the overlap of the health promotion and population health discourses and the implications of such overlap for health policy making and health research in Canada.<sup>1-3</sup> These discussions were fuelled by a reform movement among Federal and Provincial health agencies and programs that led in some instances to a change in labelling from health promotion to population health. There were also attempts to integrate the two discourses into tentative models,<sup>4</sup> the usefulness of which still remains questionable. There may, however, be another way for health promotion to make use of the ideas developed by population health researchers. We propose that population health research may provide insights to foster the theoretical development of health promotion. This paper argues that health promotion is hostage to inconsistencies arising from an unresolved tension as to whether its focus should be on the individual or on populations. We then go on to examine this tension in light of certain insights provided by the population health literature. Finally we revisit the notion of lifestyle. Collective lifestyles, we will argue, should be conceptualized as a group attribute resulting from the interac-

tion between social conditions and behaviour.

## BACKGROUND

The population health perspective in Canada is associated with the Population Health Research Group of the Canadian Institute for Advanced Research (CIAR) that has published an incisive critique of the health care system based on a synthesis of a vast amount of research.<sup>5</sup> Briefly, this group argues that once a certain threshold is reached, increased expenditure in the health care system (including public health) leads to diminishing returns in population health outcomes. They give emphasis to the social determinants of health, in interaction with the biological, and provide a framework with which to understand the occurrence of disease in populations.

It is interesting to note that the CIAR publications correspond roughly in time to a surge in activities among health promotion thinkers attempting to improve the definitions and theoretical underpinnings of their field.<sup>6</sup> This search for theory is in part the result of a shift in both practice and research from health education to health promotion. Beginning as a critique of traditional health education with its individual-behaviour-based approach, discussions in health promotion began to acknowledge the role not only of individual behaviour, but also of the physical, social and economic environments that shape both behaviour and health.<sup>7</sup> Despite several attempts to integrate the social environment into health promotion interventions,<sup>8</sup> a tension is created in the discourse and practice of health promotion as there is a tendency to fall back onto indi-

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vidual behaviour modification as the primary lever for promoting health.<sup>9</sup> This tension is to be found in the health promotion literature regarding its definition, the target for change, and the notion of lifestyle. The broad population health research agenda, as developed by researchers in Canada but also in the United States<sup>10-12</sup> and the United Kingdom,<sup>13,14</sup> will be instructive in analyzing this tension given that it bypasses behavioural determinants of health and explores instead the social determinants of health.

### Focussing health promotion on individuals or on populations

#### *Defining Health Promotion and its Outcomes*

Health promotion has been defined in numerous ways since the publication of the Lalonde Report.<sup>15</sup> Although some definitions lead one to interpret health promotion as a field that targets individuals,<sup>16</sup> most attempt to focus on populations by identifying organization-<sup>17</sup> or community-level processes<sup>18</sup> as the target for change. Despite definitions emphasizing the importance of population change for promoting health, individual behavioural risk factor outcomes are still often the ultimate criteria for judging the value of community health promotion interventions. This issue is exemplified by the debate surrounding the publication of evaluation results from certain heart health programs conducted in the 1980s.<sup>19,20</sup> Because these programs failed to demonstrate changes in individual behavioural risk factors, the efficacy of community-level interventions was put into question.

#### *The Target of Interventions*

A second discord in health promotion rests with questioning whether interventions should target risk factors and individuals, groups of individuals at risk, or whole populations and the circumstances that shape their health experience. While this may be a theoretical point of contention, in practice interventions generally tend to target individuals “at risk” for some particular health problem. The recent COM-MIT trial is an example of an intervention

focussing primarily on a group at risk – smokers.<sup>21</sup> Conversely, rather than being the real focus of interventions, the circumstances that shape health experience, or what we can term socio-structural conditions, are all too often represented either as “barriers” to successful attempts to modifying behaviours<sup>22</sup> or simply as instrumental to this same end. A subtle example of this paradox is the Cœur en santé St-Henri project.<sup>23</sup> Although this program focusses on the community as a whole, interventions are directed toward specific individual-level risk factors such as physical activity, smoking, and a healthy diet. Interventions targeting change at a collective level, such as the reinforcement of non-smoking policies, are mainly seen as supportive of individual-level behaviour modification.

Rose<sup>13</sup> has developed a convincing argument for the importance of population change rather than the targeting of high-risk groups. When a risk factor is normally distributed in a population, Rose argues that shifting the risk levels of the entire distribution will bring about more significant changes in health outcomes than if one focusses solely on the high-risk group. The advantages of this population approach come about in three ways. First, the risk is lowered for those situated in the high-risk group. Second, when many people lower their risk, even a little, the total benefit for the population is larger than if people at high risk experience large risk reduction. In many instances, people at average risk for a particular disease succumb to it. Because these “average” risk individuals form the majority of the population, the absolute number of disease events prevented may be greater if the risk is shifted for the entire distribution rather than for just those on the tail end of the distribution. This argument is consistent with the idea that groups of individuals function collectively and are affected by the average functioning of individuals around them. Duncan et al.<sup>24</sup> inform us that smoking cultures may develop in local neighbourhoods whereby the co-presence of similarly behaving people influences not only the number of times people practice the behaviour but also the quantity smoked.

Third, Syme<sup>25</sup> highlights that large preventive programs targeting high-risk indi-

viduals failed to modify the distribution of the targeted disease in a population because they did not address the circumstances and societal forces that induce people to engage in high-risk behaviours. Given this, he surmises that there will always be individuals moving from a lower-risk group to a high-risk category, thus replacing those for whom the intervention might have been successful.

To overcome problems not dissimilar to those highlighted by Syme, Corin<sup>26</sup> suggests that the concept of “at-risk groups” be complemented by that of “target conditions.” When writing of target conditions, Corin explores the impact that collective influences have on the lives of groups. She maintains that by understanding the web of social and cultural determinants in a given context, and their effects on health problems, we may be able to improve on health interventions. The target of intervention is no longer the individual in isolation from her context, but rather the conditions that make people unhealthy.

#### *Lifestyle as an Individual or Collective Attribute*

In health promotion research, the term ‘lifestyle’ is usually defined in terms of behavioural risk factors and pathologized as a source of illness. In Healthy People 2000, for example, a number of lifestyle areas such as smoking or exercise are identified, characterized as behavioural risk factors and targeted for strategic planning.<sup>27</sup> Lifestyle is thus conceptualized as a number of discrete behaviours found to be associated with diseases in epidemiologic studies. Public health interventions based on this vision of lifestyle are increasingly associated with disease prevention instead of health promotion.<sup>15,28</sup>

Some population health studies provide evidence that the risk factor notion of lifestyle may be deficient in improving health. The work of Blaxter<sup>29</sup> demonstrated that the impact of traditional notions of lifestyle on health is modified by contextual factors. She found, for example, that the health gains associated with refraining from smoking were greater for people living in wealthier areas when compared to people living in less affluent neighbourhoods.

Studies of Roseto, Pennsylvania also suggest that contextual factors such as social cohesion may affect the disease experienced by members of a community over and above the prevalence of behaviour-related risk factors. Until the 1960s, despite similar fat consumption and prevalence of smoking, citizens of Italian origin living in Roseto experienced lower rates of coronary heart disease when compared to members of three less homogenous neighbouring communities.<sup>30</sup> The originator of the study hypothesized that Rosetans would soon lose their relative advantage given that the town was becoming more typically "American" in its behaviour and social functioning.<sup>31</sup> A 50-year comparison of mortality rates showed that the relative advantage of Rosetans over the neighbouring community of Bangor had completely vanished by the late 1970s<sup>32</sup> while the population of Roseto became less homogeneous, endogamous and locally active.<sup>33</sup> Lasker deduced that a change in local practices may have led to this reduction in health advantage.

Population health therefore provides sound evidence for health promotion to focus interventions on populations, rather than on individuals, and to bypass individual-behaviour-related risk factors as the principal targets for change. Social and contextual conditions are not just instrumental to behaviour changes, but rather are in constant interaction with behaviour. A useful heuristic concept for describing this interaction is that of collective lifestyles.

### Collective lifestyles and health promotion

#### *History of the Term 'Lifestyle' and its Usage Today*

The current conceptualization of lifestyle has swayed far from its origins, some of which lie in the writings of Max Weber.<sup>34</sup> Lifestyle for Weber comes about, and is enhanced, by one's status in society. Groups with different statuses have distinct lifestyles and the distinction between these groups lies in what they consume. He makes a further useful distinction between choice and chance in the discussion of lifestyle. In operationalizing lifestyle, Weber surmised that choice is the major factor, with the actualization of choices

being influenced by life chances. As such, life chances are not a matter of pure chance, but rather they are the opportunities people have because of their social situation.<sup>35</sup> Lifestyles, therefore, are not random behaviours unrelated to structure and context, but are choices influenced by life chances.

Usages of the term 'lifestyle' in health promotion have digressed from their Weberian roots in two important ways. First, the interplay between life chances and life choices is absent; lifestyle focusses primarily on life choices. The concept of lifestyle has thus come to refer to a few habits of daily living measured as discrete unrelated behaviours.<sup>36,37</sup> This reductionist approach not only focusses attention on a limited number of practices, but also separates individual behaviours from the social and situational context, stripping individual action of any contextual meaning.

Second, lifestyle has digressed from its collective origins with the individualistic connotation that it has taken on. Weber's notion of lifestyle was one that was shared by groups of people having similar status. Lifestyle as it is currently understood views behaviour as an individual activity governed by individual decision making, not necessarily a practice that is shared by others. This conceptualization definitively isolates the individual from those around her.

### CONCLUSION

The concept of collective lifestyles is an attempt to bring context back into behaviour. A collective lifestyle is not just the behaviours that people engage in, but rather the relationship between people's social conditions and their behaviours. Social conditions are here defined as factors that involve an individual's relationship to other people. This includes positions occupied within the social and economic structures of society, such as one's race, socio-economic status, gender, etc.<sup>38</sup> Furthermore, the idea of collective lifestyles proposes that this relationship between social conditions and behaviour is a collective experience, and therefore, may have similar influences on those who partake in this experience.\* Collective lifestyles, then, provide a framework in

which to understand the social generation of disease by extending it across levels and describing how individual- and group-level attributes jointly shape disease. It also reintroduces the notion of chance, operationalized as social conditions and their attendant resources. We argue that life choices are affected by life chances – an interaction that brings about risk rates and eventually disease rates among populations. It is the interaction between social conditions and the behaviour of individuals within populations that expresses itself through exposure to risk factors. Essentially the notion of a collective lifestyle is a tool with which we can try to understand what aspects of people's lives put them at "risk of risks."<sup>38</sup>

For future studies it will be critical to operationalize the notion of collective lifestyle. We suggest that this notion will be rendered useful if examined within a setting in which people live and share fundamental characteristics. Some examples might include workplaces or neighbourhoods. It will also be important to retain the fact that chance does not always impede certain behaviour but can also encourage it. Understanding the interaction between social conditions and behaviour in shaping health may be key to moving away from a health promotion still attempting to define its goals.

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\* A large body of literature within sociology has approached this issue by examining the interplay between social practices, social structure and individual agency. Interested readers are referred to the work of Anthony Giddens and Pierre Bourdieu, two social theorists who have influential and contrasting views on the genesis of social practices in relation to social structure.

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## A B S T R A C T

Population health promotion illustrates most robustly that health is a shared responsibility. Improving our understanding of the social production of health and the purchase population health promotion has on shaping social welfare policy presents a number of challenges to the future development of this discourse. Three are briefly discussed in this paper. First is the matter of language we use to describe our understanding of processes and influences. Second is the conceptualization of the pathways that shape population health status. Finally, cultural practices both extant and required to improve health status and reduce inequalities are addressed.

## A B R É G É

La promotion de la santé de la population illustre de façon convaincante que la santé est une responsabilité partagée. Améliorer notre compréhension de la production sociale de la santé et de l'impact de la promotion de la santé de la population sur la structuration des politiques de bien-être social présente un certain nombre de défis pour le développement futur de ce discours. Trois d'entre eux sont brièvement discutés dans cet article. Premièrement, nous notons le langage que nous utilisons pour décrire notre compréhension des processus et influences. Deuxièmement, la conceptualisation des mécanismes qui structurent les états de santé des populations est discutée. Enfin, les pratiques culturelles actuelles et requises pour améliorer l'état de santé et réduire les inégalités sont traitées.

# Population Health Promotion: Responsible Sharing of Future Directions

*Michael V. Hayes, PhD*

The past decade has witnessed the emergence of a population health framework with which to try to understand the myriad factors that influence human health and well-being, and to explain why it is that health status is systematically distributed across socio-economic groups within society.<sup>1</sup> The framework is a logical extension of a "big picture" view of health influences contained within the rubric of health promotion. Philosophically, health promotion and population health share the same objectives: to improve the health and well-being of all people in society and to reduce inequalities in health between people. Those advocating specific policies, programs and/or actions in the name of either population health or health promotion are, presumably, motivated by a strong sense of social justice and fairness and genuine concern for collective well-being, even in the face of co-existing (and sometimes competing) motives (economic gain, prestige and career advancement, expedience, etc.). This does not, of course, give immunity to labels. A broad view of health invites the evocation of the labels "health promotion" and "population health" to be associated with all manner of activity, even when activities so described can be shown to be perversions of the very logics the activities claim (the narrow association of health promotion with individual behaviour, for example, or the use of population health to justify neo-liberal approaches to social welfare policy).<sup>2,3</sup>

Implementing population health approaches to public policy presents innumerable

challenges to both politicians and public servants. By definition, the "big picture" is complex and whatever is held up as "the framework" is contestable. The time frame of a lifecourse perspective greatly exceeds the temporal horizon of political mandates, and it is extremely difficult to muster support for policy options that make sense from a longer-term perspective but are at present unpopular or threatening to specific interest groups or advocate on behalf of marginalized groups that are not politically/economically powerful. The corporate approach to public policy population health promotion requires effective coordination between and cooperation among various institutional structures (ministries and agencies of various levels of government; community agencies and service clubs, etc.). This is often difficult to establish and maintain. The number of fronts across which health influences operate, and the fragmented social spaces in which influences play out, create too many needs to be completely satisfied and competition between groups for resources. Thus, there are reasons to be pessimistic about what can be achieved through a population health approach to public policy.

Despite these and other problems associated with population health, its importance as a public health policy thrust is paramount.<sup>4,5</sup> Conferences like the one giving rise to this CJPH supplement provide welcome opportunities to strategize around how we might use our collective human agency to advance actions consistent with the philosophy of population health promotion. An invitation to participate in the National Conference on Shared Responsibility for Health and Social Impact Assessment as a panellist in the concluding plenary on future directions in

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population health in Canada prompted the following comments.

First, language matters.<sup>6,7</sup> Although they have been described as “heterogeneities in health status,”<sup>8</sup> the persistent and consistent gradients in health status found in all industrialized countries in fact reflect socially structured inequalities. Gradients do not fall from the sky and are not the random outcome of chance occurrences. They cannot be explained simply by individual “lifestyle” behaviours. Rather, they are produced through the effects of institutionalized systems of distribution of both material and non-material resources.<sup>9</sup> To be sure, many chance occurrences do influence health experiences in life, such as the chance meeting of people who become life partners and who create (or fail to create) mutually supportive and nurturing familial relationships, or the interpersonal dynamics operating at any particular work site or among any particular cluster of neighbours. The structural aspect of distribution is rooted in the differential probabilities that individuals occupying different locations in a social hierarchy are likely to possess particular skills (communication, negotiation, problem solving, etc.) or encounter supportive and nurturing social relations in their routines of daily life, and the differential access to material resources simultaneously bound up in (producing and recreating) the hierarchy.

Similarly, the phrase “determinants of health” is a misleading expression with which to describe what are actually salient domains of influence. Perhaps the greatest frustration with population health promotion is trying to piece together a coherent explanation of how health status is shaped in the face of the inherently indeterminate nature of everyday life. This is not to say that the domains of influence identified in the list of 12 “determinants” contained in *Sustaining Our Health*<sup>4</sup> or *Taking Action on Population Health*<sup>5</sup> are unimportant, or that effective policies for promoting population health cannot be developed. It is simply to recognize that the label is inconsistent with a philosophy of society as an open system of relations in which the necessary conditions for cause-effect determinism found in controlled experiments are lacking.<sup>10</sup> Sloppy use of language can have

important consequences both for public perceptions/conceptions of what the state responsibility is (witness our provincial experiences with the label “Ministry of Health”) and for future research and policy development.

Second, by what mechanisms is health socially produced? The answer to this question, too, requires us to think about the ways in which society is theorized within population health promotion. The list of identified “determinants” reveals a deep conceptual confusion about this. For example, the phrase “social environments” adds nothing to a list that already contains many examples of social environments – income and social status, social support networks, education, employment and working conditions, healthy child development, gender, culture. The gradients indicate that health is socially structured, yet there is very little discussion of social structure in population health.<sup>3,11</sup> Is structure thought to be almost independent of human agency (as some Marxist accounts – or critiques of Marxist accounts – seem to suggest), or is it conceptualized as both the medium and outcome of individual behaviour?<sup>12</sup> Presenting “determinants” as discrete influences detracts from the need for us to more clearly articulate the conception of society upon which the analysis of population health is based. It also runs the risk of confusing empirical categories of measurement such as educational attainment or income with underlying theoretical or conceptual explanations of processes influencing health. It is not enough to acknowledge the interconnectedness of these domains; we must be more explicit about their web-like nature.

The proposed pathways connecting social influences to biological functioning are believed to operate through what Tarlov calls a sociobiological translation.<sup>13</sup> On this account, communication between the immune, endocrine and central nervous systems so crucial to regulating biological function and maintaining homeostasis is conditioned by our feelings about ourselves and experiences of our place in a social milieu. Thus, the social production of health involves both material and meaningful dimensions. Power, identity, status and control appear to be crucial aspects of

relational influence, yet again there is little discussion of what is meant by these concepts. Some have suggested that social cohesion and social capital are important pathways for improving population health status,<sup>14-17</sup> yet as presented these notions contain potentially severe conceptual problems.<sup>18</sup> There is, then, much intellectual work to be done within population health promotion, work that involves theorizing social relations and social structure. Although this type of activity has been eschewed historically in health research as “soft science”, a population health framework illustrates that such disdainful attitudes toward social sciences are soft headed and will not move the agenda forward.

A final comment is that the most important challenge facing the future of population health promotion is not political but cultural. How we imagine ourselves and our connections to others, particularly the “distant strangers” who live at the same time as we do and whom we never meet,<sup>19</sup> will fundamentally shape the degree to which population health promotion will be embraced and supported by the public as a basis for making sound social welfare policy. The framework informs us that these connections are crucial to improving health and well-being and reducing health inequalities. If by reducing economic disparities within society overall health status is improved and health inequalities are reduced, the obvious question to ask is how can this be achieved? How can we come closer to creating a culture of nurturing and mutual support, and resist the strong ethos of rugged individualism so firmly entrenched (and apparently growing) in North American culture?<sup>20</sup>

At the risk of sounding wildly naive, perhaps our best chance for bringing this about is through a concerted communications effort to improve health literacy; that is, to make public the discourse around health and its broad influences in an effort to reconcile public opinion with the weight of evidence concerning population health. The population health framework involves a complex story about the rather ordinary events of everyday life. It does not lend itself to exciting, rapid-fire tales of scientific discoveries and miracle cures, or stories of salvage and salvation. Population health

promotion is unlikely to make financial investors immediately wealthy or to produce a professional class of service providers. It does not make for chilling news reports. And it is likely to be threatening to elite groups who benefit most from the existing order of things. Yet the story itself is quintessentially one of our basic humanity, of our own life experiences. The social gradients implicate everyone, not just the poor, the failed or the vilified. If the framework has any explanatory credibility at all it must resonate with peoples' life experiences. To the extent that a concerted health literacy communications effort is able to reach the public and tell a convincing story that captures the collective imagination, the broad public support required for a population health promotion policy thrust may be generated.

Critical examination of the media and the role it plays in shaping public perceptions about health-related issues could greatly assist a communications strategy. The recent National Post editorial disparaging the merits of a population health perspective illustrates why media scrutiny is required.<sup>21</sup> Making explicit links between the domains of influence currently referred to as "determinants" and experiences of everyday life would help shift the public discourse away from an obsession with health care and the occurrence of disease toward a more general concern with human well-being. Perhaps it might also lead to a more general public discussion about the basis of civil society, one that embraces attitudes of support, tolerance, respect for the human condition, recognition of the fundamental connections between all members of society, and appreciation of the wisdom of reducing disparities between people.

The population health framework makes it clear that health is most robustly a shared responsibility. Issues of social justice and equity never go away, but they may be responded to in prudent, less violent, more humane ways. Sharing the responsibility for bringing this about involves advocating for the broader kinds of change in social welfare policy that will most improve health and well-being. It involves having the courage to speak out to share the information assembled within the population health framework. It involves having the wisdom to understand and respect our connections with distant others. And it involves having the strength to act upon the information in a way that is consistent with the ultimate objectives: improved health and well-being and reduced health inequalities.

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## A B S T R A C T

This article describes three approaches to research in the social sciences: positivist, interpretivist and critical social science. It uncovers some of the philosophical assumptions these approaches adhere to and situates the discussion in the population health arena with respect to these assumptions. The issues under debate are as yet unsolved (and perhaps unsolvable), with long histories in philosophy and sophisticated rationales on all sides. The article advocates defining the underlying terms of discussion and making assumptions explicit to facilitate dialogue, and also encourages exploration of and tolerance for other approaches.

## A B R É G É

Cet article décrit trois approches de recherche en sciences sociales – les approches positiviste, interprétationniste et critique. On y révèle quelques-unes des hypothèses philosophiques auxquelles ces approches adhèrent et on situe cette discussion dans le domaine de la santé de la population par rapport à leurs hypothèses. Les questions débattues ne sont pas encore résolues (et sont peut-être insolubles), avec de longues histoires en philosophie et des rationalités spécifiques sophistiquées. Cet article préconise de définir les termes sous-jacents au débat et de rendre les hypothèses explicites pour faciliter le dialogue; enfin, on encourage d'explorer les autres approches et de les tolérer.

# Different Wor(l)ds: Three Approaches to Health Research

Gerry Veenstra, PhD

Since the publication of the book *Why Are Some People Healthy and Others Not?* by the Canadian Institute of Advanced Research (CIAR) in 1994, there has been a furor of discussion and critique around the determinants of health framework presented there, some of it rather heated in nature. To assist moderation of the discussion among Canadian academics pursuing an understanding of the social determinants of health, this article presents three ideal-typical approaches to research in the social sciences, namely: the positivist, interpretive, and critical social science approaches, each of which can claim adherents within the population health movement. Some of the assumptions about the nature of reality and how to explore it adhered to by these perspectives are uncovered, followed by suggestions for moving forward with the population health agenda in light of these differences.

Resolution of fundamental ontological and epistemological differences is impossible by their very natures, and adherence to only one perspective (or paradigm) would weaken the population health movement in the long run by reducing innovative explanation. Even so, self-reflexivity with respect to basic assumptions is important and beneficial. Each perspective has a distinguished pedigree in the social sciences

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with good reasons for pursuing particular research strategies, and argument among perspectives is embedded in centuries-old discourse.

### Positivist social science

Positivism developed during the Enlightenment (post-Middle Ages) period of Western thinking and includes the Enlightenment belief that people can recognize truth and distinguish it from falsehood by applying reason. This truth can then be used to improve the human condition. Positivism, also the approach of the natural sciences, can claim Locke, Hume, Bacon, Comte and Durkheim as adherents. Within the social sciences, it can be defined as

‘an organized method for combining deductive logic with precise empirical observations of individual behaviour in order to discover and confirm a set of probabilistic causal laws that can be used to predict general patterns of human activity.’<sup>1</sup>

The causal laws sought are thought to be true for large groups of people and permit accurate prediction of how often a social behaviour occurs within a large group. Quantitative social research, through the use of surveys, experiments and statistics, is generally used to discover such laws.

The ideal-typical positivist approach is based upon a number of assumptions about the nature of the social world (ontology) and what constitutes valid knowledge of it (epistemology). 1) ‘Social and physical reality contain preexisting regularities that can be discovered,’ and this regularity ‘does not change over time.’ Thus the laws of human behaviour hold in all historical eras

and in all cultures. 2) 'Humans are self-interested, pleasure-seeking, rational individuals' who are shaped by external forces. 3) 'The causal laws and the specific facts observed about social life are connected deductively by logic.' In fact, someday social science theories will be 'symbolic systems similar to mathematics and to theories in the natural sciences.' 4) 'Observable facts and ideas or values are fundamentally separate,' and 5) 'knowledge from the senses about observable reality is more valid than other knowledge.' 6) Thus 'rational people who independently observe facts will agree on them,' producing a social science which is value-free and objective, and 7) operates 'independently of the social and cultural forces affecting other human activity.'<sup>1</sup>

Much of the discussion in population health circles reflects a conversation between positivism and its critics. The CIAR model of the determinants of health<sup>2</sup> is positivistic in tone, and the assumptions mentioned above are ones that have been challenged in recent years. The CIAR Program in Population Health was formed in a medical school by physicians and economists, for the most part – disciplines that have traditionally been storehouses for positivist philosophy and methodology. CIAR's attempt to place some determinants of health together in a flowchart of causality,<sup>2</sup> their attention to the 'gradient' – a relationship between socio-economic status and health found across cultures which is suggestive of an innate relationship between social status and health,<sup>3</sup> – their strategy for identifying determinants of population health, which involves aggregating health by populations and searching for characteristics of the groups that correlate with health heterogeneities,<sup>4</sup> and their attention to issues of causality and calls for more and better numerical data<sup>5</sup> demonstrate positivist leanings.

### Interpretive social science

The interpretive approach can be traced, in part, to Dilthey, Schutz, Mead, Blumer, Garfinkel and Goffman, and also to Weber, who introduced the notion of *Verstehen* – empathic understanding – and emphasized exploring how people feel and create meaning.

'In general, the interpretive approach is the systematic analysis of socially meaningful action through the direct detailed observation of people in natural settings in order to arrive at understandings and interpretations of how people create and maintain their social worlds.'<sup>1</sup>

To do this, 'interpretive researchers often use participant observation or field research,' following 'rigorous and detailed methods to gather large quantities of qualitative data in the form of specific details.'<sup>1</sup>

This perspective rests upon ontological and epistemological assumptions that differ substantially from those of positivism. The ideal-typical interpretivist 1) 'does not assume that social life is something out there, independent of human consciousness,' waiting to be discovered. 'Instead, human life is an accomplishment, intentionally created out of the purposeful actions of interacting social beings. The social world is largely what people perceive it to be.' 2) Unlike positivists, who assume that everyone shares the same meaning system, the interpretivist assumes that multiple interpretations of human experience, or realities, are possible. Thus it makes 'little sense to try to deduce social life from abstract, logical theories that may not relate to the feelings and experiences of ordinary people.' 3) Facts are 'fluid and embedded within a meaning system;' they 'are not impartial, objective, and neutral [...] Interpretive research sees values and meaning infused everywhere in everything. What the positivist calls value freedom is just another meaning system and value – the value of positivist science. The interpretive researcher urges making all values explicit and does not assume that any values are superior to others.' 4) 'Interpretive theory gives the reader a feel for another's social reality and an in-depth view of a social setting,' describing the 'informal norms, rules, or conventions used by people in everyday life.'<sup>1</sup>

Drawing upon one or more of these assumptions, Love et al.<sup>6</sup> react to CIAR's grand theories of generalizable relationships, the flowcharting of phenomena and causal statements between discrete variables, wherein a model substitutes for actual describing, theorizing, and explaining

phenomena. Labonte<sup>7</sup> says the CIAR approach is blind to issues of power and ignores the meanings people make of their lives. The CIAR group has stated that 'data unites; theory divides' which some, such as Robertson,<sup>8</sup> have taken exception to. Poland et al.<sup>9</sup> claim that the Evans and Stoddart<sup>2</sup> model lacks reflexivity regarding assumptions about knowledge utilization.

### Critical social science

The third approach considered here seeks a middle ground between the first two in some ways, and strikes out in its own direction in others – the so-called 'critical' approach, which can claim Marx, Freud, Habermas and many feminist analyses in its camp. In general, critical social science is

'a critical process of inquiry that goes beyond surface illusions to uncover the real structures in the material world in order to help people change conditions and build a better world for themselves.'<sup>1</sup>

The ideal-typical critical approach assumes the following: 1) Social reality is conflict-filled and governed by hidden, underlying structures. 2) Humans are creative, adaptive people with 'unrealized potential,' trapped by illusion and exploitation. 3) Social order is in constant change. Positivism, therefore, 'defends the status quo because it assumes an unchanging order instead of seeing current society as a particular stage in an ongoing process.' 4) 'The purpose of research is to change the world;' it is action-oriented. 'The positivist researcher often tries to solve problems as they are defined by government or corporate elites,' whereas 'the critical researcher asks embarrassing questions, exposes hypocrisy, and investigates conditions in order to encourage dramatic social change from the grass-roots level.' 5) 'The critical researcher studies the past or different societies in order to see change or to discover alternative ways that social life has been organized.' 6) 'There is an objective material world in which there is unequal control over resources and power.' 7) 'People are constrained by the material conditions, cultural context, and historical conditions in

which they find themselves,' yet they 'are not locked into an inevitable set of structures, relationships, or laws.' Thus there are no 'fixed laws of human behaviour.' 8) Facts are not 'theory-neutral.' 'Instead, each fact requires interpretation within a framework of values, theory, and meaning.' 'Theory provides a researcher with a type of map telling where to look for facts, what the important ones are, and how to interpret them once they are uncovered.'<sup>21</sup>

Thus Hayes<sup>10</sup> claims the CIAR approach is uncomfortable with notions of 'social structure.' Robertson<sup>8</sup> claims that health discourses – such as the one around population health – are congruent with the prevailing social, political and economic context within which they are produced and maintained and are attached to professional, economic, political, cultural and/or ideological interests, but these are not recognized nor addressed by CIAR. On the surface the CIAR model is atheoretical, is not based on explicit theories of society and social change, but underneath is the belief that change can be brought about by adjustments in the economy, greater wealth, conservative economic thinking and market-based capitalism.<sup>8</sup>

In addition, Hayes<sup>10</sup> calls for attention to concepts such as identity, personal experience, power, the body, the state and the environment, and rooting them in place rather than removing abstracting concepts from reality. Renaud<sup>11</sup> and Poland et al.<sup>9</sup> advocate attention to the political economy perspective. Though the advancement of patriarchal capitalism has contributed to improvements in physical health, it also produced new illnesses<sup>11</sup> and contributed to inequalities in ill health.<sup>12</sup> Similarly, some suggest a relationship between the organization of industrial capitalism and patterns of ill health – the emphasis in capitalism on rational efficiency and economic profit at expense of labour led to working conditions that placed workers at risk of illness with little power to change their circumstances.<sup>13</sup> The CIAR model does not differentiate between sex and gender, where the concept of gender, unlike nominal variables such as sex, is laden with norms, values and expectations.<sup>6</sup> Like epidemiology in general, it does not meaningfully incorporate ethnicity or religion, apart from controlling for simple items in

statistical analysis. It does not investigate the relationships among capitalism, racism and patriarchy.<sup>14</sup>

### Philosophical discourse in the 20th century

Between the two world wars, according to the philosopher-theologian Hans Kung, epistemologists of the Vienna Circle defended the thesis that only propositions of mathematics and logic, together with those of the empirical sciences, can be meaningful, and that propositions beyond these are, *a priori*, meaningless.<sup>15</sup> They took to heart Wittgenstein's two propositions, from his *Tractatus Logico-Philosophicus*, that 'what can be said at all can be said clearly' and that 'whereof one cannot speak thereof one must be silent.' This project led to irreconcilable dilemmas, however, such as the strained relationship between an artificial (mathematics) and ordinary language, and the exclusion of the subject in mathematical-scientific knowledge and research.<sup>15</sup> 'By what right is empirical, sense experience in particular set up as a criterion of meaning?'<sup>215</sup> Kung, Mannheim<sup>16</sup> and Taylor<sup>17</sup> note, therefore, that the neopositivist program has broken down, in part driven by the intellectual self-honesty of the logicians themselves, but that the belief in facts and rationality still carries the spirit of the current age.

Karl Popper has also argued that logical positivism leads to absurdity. Even immediate sense perception involves an interpretation, and so our knowledge always begins with conjectures, assumptions and hypotheses.

'For Popper, the assumption that there exists an ultimate substantiation of propositions of science no longer open to criticism is a belief that ends in an unsolvable dilemma ... either a simply asserted dogmatism or a recourse to a never-ending series of new substantiations (*regressus in infinitum*) or a psychologism generalizing individual experiences.'<sup>15</sup>

Popper introduced a critical method, therefore, a method of trial and error, wherein science can never claim to attain truth, nor even a substitute for truth (such as probability). We can only guess, guided by the unscientific and metaphysical faith

in laws that we can only uncover-discover. Kung claims, however, that in light of the findings that progress in science occurs in a revolutionary fashion (Kuhn's paradigm shifts), even Popper's approach has been 'falsified.'<sup>15</sup>

Of even greater subjectivity is the hermeneutic circle described by the philosopher Charles Taylor. '[W]hat are the criterion of judgment in a hermeneutical science? A successful interpretation is one which makes clear the meaning originally present in a confused, fragmentary, cloudy form. But how does one know that this interpretation is correct?'<sup>17</sup> One appeals to one's own understanding, but what if another has a differing understanding? We can show this person our and others' readings of other expressions to validate our reading, but

'success here requires that he follow us in these other readings, and so on, it would seem, potentially forever ... we can only convince an interlocutor if at some point he shares our understanding of the language concerned. If he does not, there is no further step to take in rational argument: we can try to awaken these intuitions in him, or we can simply give up; argument will advance us no further.'<sup>17</sup>

Rationalist and empiricist programs were attempts to break free of the hermeneutic circle, but Taylor believes that the difficulties encountered were insurmountable, 'not least of which was the perpetual threat of skepticism and solipsism [extreme skepticism] inseparable from a conception of the basic data of knowledge as brute data, beyond investigation.'<sup>17</sup> Taylor's answer is to forward a science based on studying the intersubjective and common meanings embedded in social reality – these then are the primitive data that a science of human society should build upon. Even so this science will not be predictive, since it is impossible in the domain of human events to delineate a closed system, interpretation will not yield to exactitude, and humans are self-defining animals – with changes in self-definition come changes in human nature.<sup>17</sup>

Not every philosopher has dismissed the positivist agenda for the social sciences, however. Rudner<sup>18</sup> argues that both the argument that science is impossible and the argument that only social science is impossible (on account of its inability to 'capture' reality) are based on the same kind of mistake. This mistake rests in a preliminary mistake about science and what it purports to do. Science does *not* try to reproduce reality, and so science's understanding of tornadoes does not require that one gain direct experience of tornadoes (or that the social scientist need obtain direct understanding of meanings as held by subjects). Also, for those who argue that social (or human) phenomena are unique and that generalization is therefore meaningless, Rudner argues that *all* phenomena are unique, in the natural world as well as in the social one, and so arguments against science in the realm of the social must logically be extended to the physical world as well. Are interpretivists willing to make such claims?

We come from this brief introduction to fundamental epistemological discourse with several issues to think about. What is meaning, and how does interpretation access it? Can we break free of the hermeneutic circle, or is each meaning in its field or context unique enough to invalidate scientific generalization? Do we wish a social science to describe, predict and/or explain reality, and how do description, prediction, and explanation differ? Varied answers to these questions can be found in philosophical discourse and also indirectly within empirical health research of the current day, with profound implications for population health research, policy and practice. If meanings are contextually specific, can one craft nation-wide policy? Where and to what degree can intervention affect meaning? Should health policy make identification of underlying and hidden relationships (that may determine unequal distribution of resources) its foremost priority?

## CONCLUSION

Although most research into the social determinants of health does not explicitly reveal the assumptions under which the researchers operate, few researchers fall completely within one of the three ideal

types delineated here. Indeed, within the sociology of health there is an interest among many to incorporate postmodernist ideas,<sup>19</sup> for example, which fall outside the three ideal-types depicted here, although such ideas have not gained much foothold outside of the discipline. For the most part, researchers likely pick and choose assumptions and approaches, to some degree, although when looking at the whole of their philosophical orientation, we might find they fit one of the three camps better than the others. Even so, uncovering assumptions should make conversation either flow less acrimoniously, limit it, or redirect it toward more elemental issues. 'If you wish to converse with me,' Voltaire said, 'define your terms.' In the words of the philosopher Will Durant,

'[h]ow many a debate would have been deflated into a paragraph if the disputants had dared to define their terms! This is the alpha and omega of logic, the heart and soul of it, that every important term in serious discourse should be subjected to the strictest scrutiny and definition. It is difficult, and ruthlessly tests the mind; but once done it is half of any task.'<sup>20</sup>

Here are some simple suggestions. We could commit to an *ethic of tolerance* to accompany the pursuit of truth and knowledge. As health researchers we are all interested in making or discovering truth claims of various kinds, but might do well to accompany this pursuit with recognition of varied perspectives, and might also commit to a multifaceted exploration of reality. We could also advocate *ethics of self-reflexivity* and *disclosure*, wherein researchers discern their fundamental assumptions and make these assumptions explicit in their work, thus defining the subtle and hidden terms underlying discussion. Finally, we could advocate an *ethic of exploration* as well, wherein we open our minds to alternative perspectives and explore the dialogues among perspectives, as was begun, briefly, in this article. Such exploration may not bring one to change one's orientation, but that orientation *will* become more sophisticated and will enable us to better foster the ethics of tolerance and self-reflexivity.

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## A B S T R A C T

We begin with a discussion of some vitally important conceptual and methodological issues. These issues concern our understanding of community, of health, of population health and its determinants, of the concept of 'measurement' and the values that underlie it, and our reasons for wishing to measure these constructs. We then present a framework for indicator categories, propose some criteria for indicator selection and suggest an initial set of core indicators. This indicator set reflects not simply health status – no matter how broadly defined – but also the environmental, social and economic determinants of health and the "healthfulness" of the community itself. Our most important conclusion is that if the information that is contained in the data of the indicator set is to be transformed into knowledge that can empower and emancipate the community, it has to be developed in consultation with the local community and local users of the information.

## A B R É G É

Nous débutons avec une discussion sur des questions conceptuelles et méthodologiques d'importance majeure. Ces questions touchent notre compréhension de la communauté, de la santé, de la santé de la population et de ses déterminants, du concept de « mesure » et des valeurs qui le sous-tendent, et de des raisons que nous avons de vouloir mesurer ces éléments. Nous présentons ensuite un cadre pour les catégories d'indicateurs, proposons quelques critères pour la sélection d'indicateurs et suggérons une première série d'indicateurs principaux. Cette série d'indicateurs reflète non seulement l'état de santé – peu importe la globalité de sa définition – mais aussi les déterminants environnementaux, sociaux et économiques sur la santé et la « salubrité » de la communauté en tant que tel. Notre conclusion la plus importante est que si l'information contenue dans les données de la série d'indicateurs doit être transformée en connaissances qui peuvent renforcer et émanciper la communauté, elle doit être développée en consultation avec la communauté locale et les utilisateurs locaux de l'information.

# Indicators that Count! Measuring Population Health at the Community Level

Trevor Hancock, MB, BS,<sup>1</sup> Ron Labonte, PhD,<sup>2</sup> Rick Edwards, PhD<sup>3</sup>

We begin with a discussion of some vitally important conceptual and methodological issues that underlie this topic. These issues have to do with our understanding of community, of health, of population health and its determinants, of the concept of 'measurement' and the values that underlie it, and our reasons for wishing to measure these constructs. We then present a framework for indicator categories, propose some criteria for indicator selection and suggest an initial set of core indicators.

### Conceptual and methodological issues

A 'community' can be both spatial and non-spatial, but for the purposes of the development of community indicators we are concerned mainly with spatial communities, and particularly geo-political communities such as municipalities. Moreover, and particularly within the context of larger cities, we are interested in the spatial communities known as neighbourhoods, although their boundaries are not fixed and are as much psychological and social as they are physical.<sup>1</sup> This makes the development of indicators a complex process, but since such neighbourhoods often serve as the base for social and political action with respect to issues that affect the health, well-

being, quality of life and environment of communities, it makes the development of indicators at this level important and worthwhile.

We take the view that health is much more than the measurement of death, disease and disability, it also encompasses mental and social well-being, quality of life, life satisfaction and happiness. Our ultimate goal as a society and as members of communities surely is to maximize human development and the achievement of full human potential. On the basis that "you get what you measure," we need ways to measure health and the quality of life – in its broadest meaning – at the community level; and, moreover, in ways that make sense to the community and not just to policy makers and academics.

A third important conceptual issue relates to the determinants of the health of a population. The determinants are very broad, and certainly include but go beyond the factors identified in the CIAR's population health models<sup>2</sup> – although the epidemiological evidence relating the broad range of determinants that are relevant to population health at the community level is not necessarily (yet) available. Broadly speaking, the determinants of the health of a *population* (as opposed to the determinants of the health of individuals) relate to meeting basic needs for all, achieving adequate levels of economic and social development, nurturing social relationships that are mutually supportive and respectful, and ensuring the quality and sustainability of the environment.

A fourth important issue is what is meant by "population health", particularly at the community level. We take the position that population health is much more than simply the aggregate of the health of

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the individual members of the population, important though that is. Population health also must include the distribution of health across a community (and thus, inevitably, must address issues of inequalities in health and inequitable access to the determinants of health). A further aspect of “population health” at the community level has to do with how well the community functions, whether the community *as a whole* is “healthy”.

There is growing evidence that the well-being of the individuals in a community depends upon how well the community functions, not only in terms of ensuring equitable distribution of the determinants of health, but in terms of the processes of governance in the community such as the degree of participation, the degree of social cohesion and the extent of “civicness”.<sup>3,4</sup> This reflects the definition of health promotion as “the process of enabling people to increase control over, and improve their health,”<sup>5</sup> where the process of empowerment and participation is seen as fundamental to good health. Measures of such attributes of a well-functioning community should also be a component of an assessment of population health at the community level.

Thus the key elements of an assessment of population health at the community level include:

- the aggregate of individual death, disease, disability, behavioural and positive health status (population health outputs)
- the pattern of distribution of such status across the community – inequalities in death, disease, disability, behavioural and positive health status (inequalities of outcomes)
- key indicators of environmental, social and economic determinants of health (population health inputs)
- the distribution of such determinants across the community – inequalities in access to the determinants of health (inequalities of opportunity)
- the healthfulness of the community’s processes of governance (participation, social cohesion, civicness, etc.) – inequitable distribution of power, participation, etc.

Measurement of the health of a population is far from simple, for a variety of reasons. To begin with, measurement, curi-

ously enough, is not an exact science. What we choose to measure, how we choose to measure it and the significance we attach to the results have more to do with philosophy, values and politics than with science – or more precisely, perhaps, science is a reflection of our philosophy, values and politics and not a neutral and objective practice that exists outside of these frameworks. The understanding of what constitutes “evidence” thus varies from scientist to politician to citizen. The process of measurement is further complicated because we are dealing with perceptions of health and its determinants as much as with ‘objective reality’ – and both are valid in their own way.

The very act of measurement implies some sort of assessment, and certainly, if repeated, assumes the measurement of change – either for better or for worse. Most indicator projects are undertaken in order to track change, to measure progress. But this in turn implies that we have a sense of what it is that we are progressing towards, that there is a “good” out there that the community and/or the society – or some segment of it – considers desirable. In the absence of such goals, assessment of change becomes relatively meaningless, since we have no way of judging whether such change is beneficial or harmful.

What indicators represent, in their purest form, is *data*,\* and in such a form it

\* Innes (1990) presents definitions of the key terms used here, based on Webster’s *New Collegiate Dictionary* (8th edition, 1977) as follows:

- *data* is “factual information (as measurements for statistics) used as a basis for reasoning, discussion or calculation.” In other words, notes Innes, “data have no meaning in themselves, but only in relation to the context of argument, where the arguer assigns them meaning.”
- Innes considers *information* to be “a higher order concept: ...information is data organized to have a meaning and a purpose, which may be to change ideas or actions.”
- Innes considers *knowledge* to be an even higher-order concept, defined by Webster’s as “the fact or condition of knowing something with familiarity gained through experience or association” and “the sum of what is known.” For Innes, knowledge includes but goes beyond “the specific quality of information to an understanding of a whole ensemble of data, information, and experience.”
- *Chambers Twentieth Century Dictionary* (1972) defines *wisdom* as the “ability to make right use of knowledge.”

is chiefly of interest to researchers. When that data is analyzed and interpreted, it becomes *information*, which is of value to policy makers, program managers and other decision makers. When that information is translated into a form that is useful to the community – and even more important, when the definition of the information to be collected, as well as the analysis and interpretation, is in the hands of the community – that information becomes useful *knowledge*, and the process of acquiring and using that knowledge helps to empower the community. Finally, it is to be hoped that the distillation of that data, information and knowledge will result in wise choices and the “right use” of knowledge. Ultimately then, indicators should contribute to our *wisdom* and to our ability to make the right choices – not just for ourselves but for generations as yet unborn.

The final issue is whether knowledge has an impact. What sort of information influences policy makers, interests the media and empowers the community? Understanding these issues is crucial if indicators are to count, if measurement is actually going to matter. Yet Starr<sup>6</sup> suggests that the effects of official statistics on decision making and on society as a whole “are so diffuse and illusive that valid generalizations may be few.” In particular, he points out that just because data or information is cited in a decision-making process does not mean that it caused that decision, which may have been made for other reasons – “use never proves effect.” Or as Innes<sup>7</sup> so succinctly puts it:

“When it really comes down to it, there is not much that can be said with confidence about how knowledge influences policy.”

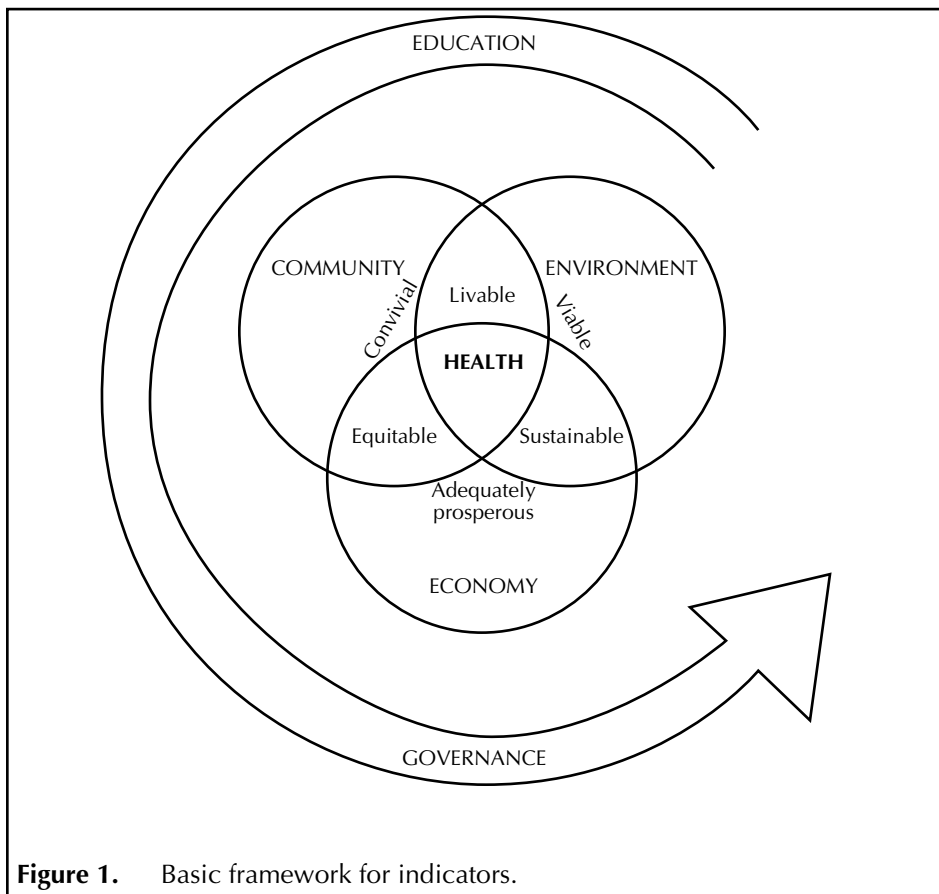
#### A framework for indicators

The key conceptual issue in indicator development is the framework that is used to organize the components. Of course, all models are wrong, in that they present a necessarily simplified version of reality. Nonetheless, they also represent a perspective on reality that discloses the values and concepts of those who propose them.

The basic framework that we have chosen to use (Figure 1) is one that has been

**TABLE I**  
**Indicator Categories**

<p><b>A: DETERMINANTS</b></p> <p>Sustainability Energy use Water consumption Renewable resource consumption Waste production and reduction Local production Land use Ecosystem health</p> <p>Viability Air quality Water quality Toxics production and use Soil contamination Food chain contamination</p> <p>Livability Housing Density Community safety and security Transportation Walkability Green/open space Smoke-free space Noise pollution</p>	<p>Conviviality Family safety and security Sense of neighbourhood Social support networks Charitable donations Public services Demographics</p> <p>Equity Economic disparity Housing affordability Discrimination and exclusion Access to power</p> <p>Prosperity A diverse economy Local control Employment/unemployment Quality of employment Traditional economic indicators</p> <p><b>B: PROCESSES</b></p> <p>Education Early childhood development Education/school quality Adult literacy Lifelong learning</p>	<p>Governance Voluntarism/associational life Citizen action Human and civil rights Voter turnout Perception of government leaders and services Healthy public policy</p> <p><b>C: HEALTH STATUS</b></p> <p>Quality of life Well-being Life satisfaction Happiness</p> <p>Mastery/Self-esteem/Coherence</p> <p>Health-promoting behaviours</p> <p>Disability/Morbidity Stress/anxiety Other morbidity/disability measures Health utility index</p> <p>Mortality Overall mortality rate Infant mortality rate Suicide rate</p>
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other authors. The basic framework links what have been described as the elements of the ‘three-legged stool’ of community sustainability and well-being (community, environment and economy) while paying attention to the links between these three spheres. It also focuses attention on the desired outcome, health. Furthermore, if health is interpreted broadly as human development and community is understood more broadly as society, the model also serves to integrate the “four capitals” – human, social, ecological and economic – that are at the root of the growing interest in alternative economics measures<sup>9,10</sup> and which are sometimes used in Canada as an organizing structure for community-level quality of life indicators (e.g., Edmonton Social Planning Council’s LIFE – or Local Indicators For Excellence – project).

However, the model as originally developed does not adequately represent several important dimensions of community health and well-being. Specifically, education – a key driver of human development – is not in the model, nor are various aspects of governance. Accordingly, we have added another dimension to the model, which we refer to as the “processes of change.” The two key “drivers” of this process are education and governance,

**Figure 1.** Basic framework for indicators.

developed and tested over a number of years;<sup>8</sup> has proven itself to be empirically useful and conceptually strong, and has

been used in official reports (e.g., Royal Commission on the Future of the Toronto Waterfront, 1992) and by a number of

which in turn encompasses communication, participation, empowerment, civil rights and government performance. These elements, when in place and working well, independently enhance human health, as well as increase the likelihood that individual, community and political decisions in the three spheres, and their links, will result in the outcome of improved health.

The indicator categories that emerge from this model are congruent with the categories used in a wide variety of community indicator projects that are focussed on health status, healthy communities, 'state of the environment reporting', community sustainability and quality of life issues (and are reviewed in some detail in the full report).

We thus suggest 10 categories of indicators arranged in 3 sets, as follows:

1. The six key determinants (inputs)
  - environmental quality/ecosystem health
  - economic activity
  - social cohesion/civiness
  - equity (including power)
  - sustainability
  - livability
2. The process by which all this is achieved
  - education
  - participation, empowerment and civil rights
  - government performance
3. The outcome – health status

Each of these 10 categories in turn has a number of sub-categories, yielding a total of 58 indicator sub-categories (see Table I). From these sub-categories, a core set of indicators is suggested (see full report).

This set of indicators is broadly consistent with and reflective of other proposed community-level indicator sets, in particular the set identified in a CMHC/Environment Canada report on sustainable community indicators software<sup>11</sup> which, in turn, was based on the Environment Canada "State of the Environment Report" framework and CMHC's "Community Oriented Model of the Lived Environment" (COMLE) indicator sets.

#### Criteria for indicator selection

The following considerations have directed our selection of indicators. We

also believe that such considerations are important in guiding communities in their own selection of indicators.

- Local involvement in selection of indicators: this helps to sustain action in the use of the indicators, to interpret their significance under conditions of inter-community comparisons and to ensure that indicators are consistent with key normative values, including some explicit statement of a preferred social and ecological future.
- Use of multi-stakeholder processes in their development: that is, the indicators are developed and overseen by people representing a variety of interests and knowledge.
- Ease of audience interpretation: the indicators both are, and measure, concepts that are easily understood, relevant and salient to the general public and others, and are within the "normal" range of policy makers' and the public's experiences, while still challenging this experience somewhat by the novelty of the information they represent.
- Measurement of conditions that are significant, comparable and amenable to direct citizen or indirect policy change: that is, the indicators address substantial problems, are useful in guiding action from the individual on up and have specific policy purposes in areas where there is already a public commitment to action.
- Disaggregatable down to at least the geopolitically defined community level and broadly representative of the area or condition: that is, they "should not reflect the problem from the perspective of only a relatively narrow aspect or population group."<sup>12</sup>

To conclude, we return to the key theme of our report – indicators are only useful if the process of developing and using them engages the community as a whole in examining what it wants to be, where it wants to go and what its values are; if the process provides useful and usable information to the community; and if the process increases the community's knowledge and power. The development of indicators should be looked upon as an opportunity for increasing public and political education and awareness as to health and

its determinants, and for exploring ways of creating healthier, more sustainable, more equitable, safer, more livable and prosperous communities.

While there is some merit to the development of a reasonably standard set of core indicators that can be used for comparison purposes nationally and even internationally, it is more important that the community select measures that matter if indicators are to count (have an impact) in the life of the community. It is also important to stress yet again that our focus is on the use of indicators by local citizens, community organizations and agencies and local governments, rather than national and/or provincial policy makers or researchers, except to the extent that policy development and research facilitates the development and use of indicators at the community level.

#### Next steps

We believe that the most effective strategy for the federal government – and particularly Health Canada – to pursue is to build upon and further expand the indicators process that is currently being developed by CMHC and Environment Canada. This model allows for the development of scientifically valid, broad-based indicator sets in a process of consultation with some of the key users (municipal politicians and staff) and yet delivers a product that, while providing a nationally standardized set of indicators, also provides both an educational program for users (including the community) and considerable flexibility in tailoring the indicator set to local needs. Accordingly, Health Canada should become a partner with CMHC and Environment Canada in the further development of this indicator software package.

In addition, Health Canada should work closely with other national, provincial and community-level indicator projects, including those identified in our report, to ensure that there is better linkage among these various projects, and to avoid overburdening communities with multiple, overlapping and uncoordinated indicator projects. Finally, Health Canada should utilize its (currently rather tenuous) links to the Healthy Communities networks in

Quebec, Ontario, BC and other provinces, so as to engage them and to benefit from their considerable experience in indicators development.

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## A B S T R A C T

The present paper examines the historical evolution of health impact assessments as part of the environmental assessment process. The development of a coherent public health framework must be based on the model of determinants of health, integrating toxic and infectious risks and social impacts of projects. The integration of common concepts, processes and methodologies from the area of public health and social impact assessment challenges the quantitative model approach to risk assessment. The expert-driven risk assessment is transformed into a social learning process where local knowledge and scientific input foster a dialogue among stakeholders. The issue-oriented, iterative and participative assessment process may be applied to the health impact assessment of public policies. Sustainable development with its social objectives of empowerment, participation, equity, poverty alleviation, social cohesion, population stability and institutional development is an appropriate framework for conducting health impact assessments.

## A B R É G É

Dans cet article, on examine l'évolution des études d'impact sur la santé dans le cadre des procédures d'évaluations environnementales. Le développement d'un cadre cohérent de santé publique doit reposer sur le modèle des déterminants de la santé et intégrer les risques sociaux et infectieux ainsi que les incidences sociales des projets. L'intégration de concepts, de procédés et de méthodologies couramment utilisés en matière de santé publique et d'évaluation des incidences sociales remet en cause le modèle quantitatif pour évaluer les risques. L'évaluation des risques faite par des experts se transforme en un processus d'apprentissage social selon lequel les connaissances locales et l'apport scientifique favorisent le dialogue entre les individus concernés. Le processus d'évaluation itératif et participatif, axé sur les enjeux, peut être appliqué aux études d'impact sur la santé concernant les politiques publiques. Le développement durable, avec ses objectifs d'autonomisation, de participation, d'équité, de réduction de la pauvreté, de cohésion sociale, de stabilité démographique et de développement institutionnel est un cadre qui convient à la réalisation d'études d'impact sur la santé.

# From Concept to Practice: Including the Social Determinants of Health in Environmental Assessments

*Reiner Banken*

During the last decade, the relative importance of healthy public policies as a means to attain an improvement in the overall level of population health has been increasingly emphasized.<sup>1,2</sup> The idea of Health Impact Assessments has emerged as a tool for influencing public policies in a rational way, as a tool for "putting the pieces together."<sup>3-5</sup> While the concept of formal assessments of the expected consequences of public policies on health, known as health impact assessments, is becoming more accepted in the area of public health, the application of this concept to the real world remains fraught with difficulties. The practice of health impact assessments as part of the environmental assessment process of projects is receiving increasing attention as a model for the health impact assessment of policies and programs.

Based on work done in 1988 and 1991, Frankish et al. judged the scope of health determinants studies in environmental assessments to be limited to the physical environment (ref. 4, pp. 19-21). They proposed a health impact assessment process linked to health objectives and indicators as a basis for assessing the expected consequences of public policies on health. The present text will examine recent frameworks for the integration of social determinants of health into the environmental assessment process, frameworks which are not related to a strategy of health objec-

tives. This integration presents some challenges which may provide some useful lessons for the practice of health impact assessment of policies and programs.

### Public health in environmental assessments

The practice of environmental assessments originated with the US National Environmental Policy Act of 1969 (NEPA). It states as one of its purposes the promotion of efforts "which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man."<sup>6</sup> Public health concerns started to be integrated into environmental assessments at the end of the 1980s after the publication of a WHO report on the health and safety component of environmental impact assessment. This report proposed to use the risk assessment and management process in order to study the future health effects of projects.<sup>7</sup>

The choice of the risk assessment and management process at that time was not aimed to limit the scope of health impacts to its toxicological aspects. The authors made a pragmatic choice based on the availability of risk assessment as a specific methodology for health with the explicit statement that social determinants of health should be included in environmental assessments:

"The health component of EA should include not only disease-related effects but also all impacts which might change the well-being of neighbouring populations whether it be for better or worse. These might include psychological effects of proximity of certain types of development and improvement in health as a result of increased employment and wealth in a community." (ref. 7, p. 9)

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The section on public health in environmental assessments and the section on prediction, social learning and sustainable development are based on unpublished work which the author has done as part of a contract from the Office for Environmental Health Assessments, Health Canada to the Comité de santé environnementale du Québec.

Considerable efforts have been undertaken on an international scale to propose and promote the risk assessment-based health assessment process.<sup>8</sup> However, the complexity of the relationships between health risks from toxicological and microbiological sources and health protective factors of economic and social development makes it impossible to construct coherent quantitative models in order to predict the overall impact of a project on the health of a given population.<sup>9</sup>

Today's accumulating knowledge of the overall importance of the social determinants of health makes it increasingly imperative to integrate these aspects into the public health process of environmental assessments. While public health practitioners involved in environmental assessments have traditionally limited themselves to the physical environment as a determinant of health, social assessment practitioners have developed a framework for identifying, predicting and managing social change secondary to the planning and implementation of projects. In the last few years, innovative frameworks for public health in environmental assessments have begun to integrate social determinants of health on a conceptual level.<sup>10-12</sup> This integration challenges the domination of the quantitative model of risk analysis presented by Go (1988). In the following section we will examine different concepts and frameworks which do permit an integration of social impacts as determinants of health. Taking into account the great number of social determinants of health and the complexity of causal networks, we will not try to distinguish between social impacts and impacts on the social determinants of health, although we tend to use the term 'social determinants of health' when relating to the public health or population health field and the term 'social impacts' when relating to the area of social impact assessment. Both terms should be understood as a continuous concept, however, rather than as distinct entities.

#### **Prediction, social learning and sustainable development**

Predicting the consequences of a project is one of the basic characteristics of environmental assessments. By providing pre-

dictions of consequences to the decision makers, a project can be modified in order to minimize the negative and maximize the positive consequences. Unlike risk analysis, the social assessor does not try to establish quantitative predictions according to a cause/effect pattern: "Each action in an interaction sequence has, at best, only a modest predictability unless many parameters such as the relative power of participating groups remain essentially unchanged. As a result the probability of predicting a number of sequential interactive actions rapidly approaches zero." (ref. 13, pp. 16-17) Prediction of social impacts should therefore be understood as the prediction of tendencies and types of impacts. While the process of risk analysis provides probabilities of future consequences given current exposure to risk factors, the social impact assessment identifies possibilities of future consequences.

To maximize its effectiveness, social impact assessment has been conceived as an iterative process with interactions and transactions between the scientific experts (including the social assessors), the public and its different subgroups, the project proponent and government agencies. In this model of social impact assessment, public involvement becomes an integral part of the process. This iterative process can be considered a collaborative or social learning process.<sup>14-16</sup>

A study of social impact assessment of large-scale natural resource projects in Canada, Thailand and Australia has shown the need for and the opportunity of transforming social impact assessment, through a social learning process, into a community empowerment process, at the same time increasing community acceptance of otherwise contested projects.<sup>17</sup> From the social learning perspective, scientific input and local community knowledge are used to foster mutual appropriation of the project's consequences among the different stakeholders (public groups, the project proponent, the managers of the assessment process and others). From a public health point of view, the social learning perspective is a strategy of health promotion aimed at social development and collective empowerment.<sup>18</sup>

The International Study of the Effectiveness of Environmental Assessment

has identified sustainable development as the overall goal and frame of reference for environmental assessments of projects and also policies and programs.<sup>19</sup> Sustainable development has been defined as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs."<sup>20</sup> Through the United Nations Conference on Environment and Development, held in Rio de Janeiro in 1992, sustainable development has become the internationally accepted principle for economic development, social development and environmental protection. The social objectives of sustainable development comprise empowerment, participation, equity, poverty alleviation, social cohesion, population stability and institutional development.<sup>21</sup>

One of the major challenges of a sustainable development perspective to social impact assessment concerns the traditionally unequal distribution between the positive consequences on a regional and national scale and the negative consequences in the local community.<sup>22</sup> Social equity in sustainable development is not only intergenerational, but also spatial. Local needs and aspirations should be respected and integrated into social impact assessment of projects.<sup>23</sup>

Sustainable development places the human being in the centre of all development and is highly coherent with the health determinants approach of public health. The health determinants of ecosystem health, economic equity and social development become the overall objectives of development. The traditional efforts of public health in favour of intersectoral action for health are transformed into collective efforts of all government agencies, NGOs and the private sector towards sustainable development of social, economic and environmental capital.<sup>24,25</sup>

#### **DISCUSSION**

Recent frameworks for health impact assessment as part of the environmental assessment process propose the use of social impact methodologies for the social determinants of health<sup>12</sup> and the integration of all determinants of health into the concept of sustainable development.<sup>11</sup>

Limitations in predictive accuracy, the efficiency of an empowerment perspective in optimizing the overall consequences of a project, and the social equity perspective of sustainable development favour an assessment process which is issue-oriented, iterative and participative. Both sustainable development and population health drive the need for the inclusion of the social determinants of health into the environmental assessment of projects. Lessons learned in social impact assessment provide tools for transforming the expert-driven process of risk analysis into a participative model of social learning.

This current evolution of public health in environmental assessments provides some useful lessons for the practice of health impact assessment of policies and programs. From its very origin, the environmental assessment process has been conceived as an action-forcing device.<sup>26</sup> By requiring an environmental impact statement from the project proponent and integrating it into the overall assessment, the decision-maker is forced to take environmental concerns into account. The experience of environmental assessments dividing the responsibilities between the proponent and a public body, even when the proponent is a public body itself, should be evaluated when implementing the health impact assessment of public policies.

The issue-oriented approach in social impact assessment is a decision-forcing device, forcing the social assessor to produce social science knowledge relevant to the decision process and favouring social development and equity. This issue-oriented or stakeholder approach permits the identification of and focus on key issues regarding the social consequences of a project. The immediate goal of social impact assessment is better decision making and management, rather than the generation of new knowledge. The encyclopedic or laundry-list type approach to social impact assessment, where investigators attempt to research almost every aspect of community life to be affected by a plan or project, has shown to produce a plethora of data with limited impact on decision making. In social impact assessment, the aim is not to produce as much data as possible, but as little data as necessary. (ref. 27, p. 123)

While the spatial scale of projects may often be absent from policies and programs, the issue-oriented, iterative and participative social assessment process, conceived as a social learning process,<sup>27</sup> may be applied to the health impact assessment of public policies. The effectiveness of the current orientation to tie health impact assessment of policies and programs into a framework of indicators and aggregate measures should be questioned. Instead of relying on complex indicators, it may be more effective to define information needs through the stakeholder approach and gather as much of this specific information as possible or needed. Indicators are models which always reduce the complexity of reality, usually without explicitly stating limits and underlying assumptions. In environmental assessments, indicators are used for monitoring the effects after a project has been implemented. They do not contain the appropriate information for assessing prospectively the effects the project may have. Health impact assessment has been defined as "any combination of procedures or methods by which a proposed policy or program may be judged as to the effect(s) it may have on the health of a population." (ref. 4, p. 7) This definition is very close to the environmental assessment process. Therefore the information needs and uses also may be similar in both areas, relegating the use of indicators to the monitoring phase.

Under the concepts of health promotion and population health, health is no longer viewed as an aim in itself, but rather as a resource for personal and social development. Adopting this perspective, the health impact assessment of public policies should become part of the overall aim of sustainable development. Despite efforts towards intersectoral action for health, public health or population health concepts are and will be owned by the health sector, exposing the traditional call for intersectoral actions to the judgement of "health imperialism". The explicit integration of population health into the sustainable development framework will permit an exchange of values, beliefs and experiences of actors in the health sector with a variety of actors in civil society and government. Through such a dialogue, we may be able

to establish a coherent and efficient process of assessing prospectively the consequences of today's actions and thus of shaping desirable futures.

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## A B S T R A C T

Place is more than physical and natural environment. The role of biophysical environment has still to be articulated in population health discourse and its relations with human health are fraught with scientific uncertainty and dissension. An environmental impact assessment (EA) evaluates the environmental effects of a proposal – a rational and technical process. Sometimes health assessments are included, usually by quantitative risk assessments which are subject to the limits of scientific knowledge and bedevilled by data limitations. The goal must be to add health to the process, yet the relevant features to include are complex. Impacts are non-specific and they interact and have spatial and temporal characteristics. To integrate environment into population health, there is a need for a physical environment-health database and intersectoral policy and action. There is also a need for different types of indicators to measure process, impact and effectiveness, and for new tools (stories, photography) to account for context and values.

## A B R É G É

Un endroit n'est pas seulement un environnement physique et naturel. Le rôle de l'environnement biophysique reste à définir dans le discours sur la santé de la population, et ses liens avec la santé humaine soulèvent beaucoup d'incertitudes scientifiques et d'opinions dissidentes. Les études d'impact sur l'environnement évaluent les répercussions d'un projet sur l'environnement – il s'agit d'un processus rationnel et technique. Il arrive que les évaluations sur la santé soient incluses, habituellement dans le cadre des évaluations quantitatives des risques qui sont limitées aux connaissances scientifiques et tronquées par les limitations des données. L'objectif doit être d'ajouter la santé au processus même si les caractéristiques qui intéressent sont complexes. Les impacts ne sont pas spécifiques; ils interagissent entre eux et possèdent des caractéristiques spatiales et temporelles. Pour intégrer l'environnement à la santé de la population, il nous faut disposer d'une base de données santé – environnement physique, avoir des politiques intersectorielles et agir. Nous avons également besoin de différents types d'indicateurs pour mesurer le processus, son impact et son efficacité, et nous devons également avoir de nouveaux outils (récits, photos) pour prendre en compte le contexte et les valeurs.

# Health, Environmental Assessments and Population Health: Tools for a Complex Process

*John D. Eyles, PhD*

There has been much effort in recent years to identify and research those factors that influence the health status of individuals and populations. From the early development of population health frameworks within and based on the Canadian Institute of Advanced Research,<sup>1,2</sup> there is growing evidence of the salience of a range of individual and community factors, such as income and income disparity, lifestyle, social capital and unemployment rates.<sup>3-5</sup> These have provided the impetus for strategies for individual behaviour change, health promotion strategies and healthy public policy. In the frameworks and in some of the research, the importance of environment as a determinant of individual and population health has been recognized.<sup>2,6</sup> Indeed, its role has been examined as one of a constellation of factors that make up place.<sup>7,8</sup> But place is more than the physical and natural environment and much of its meaning and significance emanate from its social and community importance, tellingly researched for its impact on health and morbidity.<sup>9,10</sup> Yet the role of the biophysical environment remains to be fully articulated in the population health perspective and in health promotion strategies. Such articulation is a challenging task. The relationships between the biophysical environment and human health are fraught with scientific

uncertainty and dissension. For example, two recent Canadian studies on the relationship between electro-magnetic fields and childhood leukemia concluded with completely contradictory results.<sup>11,12</sup> This is perhaps not surprising in light of measurement issues concerning outcome and exposure and uncertainty over plausible biological pathways and mechanisms.

It is not the purpose of this paper to address all these issues of uncertainty, most of which are likely to be present for the unforeseeable future. Yet it is important that they do not render us actionless. The environment is implicated in many health and illness concerns. Its (potential) role produces anxiety on the part of the public as it is an element over which we, as individuals and communities, seem to have little control.<sup>13</sup> Its fragility is increasingly recognized<sup>14</sup> and its links to human health concern the public and its governments.<sup>15-18</sup> This paper will therefore point to some of the ways in which we can link considerations of environment and human health within a population health framework, and will conclude by suggesting some tools to assist in these linkages.

### Assessing the health outcomes of environment

Assessing environmental impact is a relatively commonplace activity across Canada, pursued with more vigour in some provinces (e.g., British Columbia) than others (e.g., Ontario). An environment assessment (EA) is a comprehensive attempt to evaluate the environmental effects of a proposal through identifying issues, gathering data, predicting impact, developing mitigation strategies, and engaging in community consultation and expert review. It is a rational and technical

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process, the purpose of which is to assess the magnitude, extent, duration and frequency of impacts, as well as to comment on those likely to be affected and the costs of (and capacity to deal with) the impact.<sup>19</sup> In sum, an EA evaluates the potential for and nature of any adverse impacts of a proposal for, say, a landfill, chemical plant or expressway. In many EAs, the human health assessments are directly included, especially in settled areas and if the project has actual or perceived health effects.<sup>20</sup>

The conventional way of carrying out the health assessment is through a quantitative risk assessment in which a possible hazard is identified and the relationship between exposure to the hazard (dose) and adverse health outcome (response) is calculated.<sup>21,22</sup> This allows for an exposure assessment to be made so that the risk to the relevant population may be characterized. The risk characterization usually takes the form of calculating excess or additional mortality or (less frequently) morbidity. There is often little epidemiological information for these assessments so animal studies are often used,<sup>23</sup> thus requiring assessment of the salience of these data for human exposure. Risk assessments can help determine acceptable contamination concentrations in soil, air, water and other media. Yet risk assessments are themselves subject to the limits of scientific knowledge<sup>24</sup> and may be criticized for failing to portray accurately exposure, latency and outcome. This has led to the 'dismissal' by epidemiologists and courts of law of many key environmental exposure events such as Love Canal, N.Y. and Woburn, Mass.<sup>25,26</sup> Yet these dismissals have themselves led to challenges, especially by publics and their political and legal representatives concerned over low chronic exposures with non-specific or long latency outcomes. These public concerns cannot be dismissed and require the formal integration of health assessment in the EA process.

### **Integrating health and environmental considerations**

The need for this formal integration has been recognized by many health authorities, such as the WHO.<sup>27</sup> Canadian interest in incorporating health in EAs has also grown with escalating scientific, public and political interest and concern. Indeed, in a

recent summary document,<sup>19</sup> it was recognized that health assessment in EAs can contribute to important federal, provincial and municipal strategies for health for all and sustainable development, address public concerns and minimize the need for separate health impact assessments (HIAs). It can also minimize adverse and maximize beneficial effects on health. Yet the features to take into account for such integration are complex. For example, hazard and exposure conditions must be examined and the various effects on physical health (e.g., on mortality, morbidity, exacerbation of existing conditions, cumulative effects) and social well-being (e.g., on income, way of life, service delivery, employment opportunities) must be taken into account. Davies and Sadler<sup>19</sup> put forward a model of the environmental impact process, identifying the modification necessary to a conventional EA through the utilization of such tools as epidemiological knowledge, census information and risk and economic assessment studies. Such use of tools presents problems, such as limits to understanding of chemical toxicity and environmental disease, the difficulties of identifying and measuring all exposure pathways, biological variations in response to exposure, and resource issues such as data availability and assembly and the need for specialized staff to undertake such a complex process.<sup>19,24</sup> Yet the linking of health and EAs is occurring, especially at the local level and often over site-specific remediation projects. These may rely unduly at the present time on conventional quantitative risk assessments. But other types of health study may be needed to capture elements not present, e.g., qualitative research, mixed methodologies, time series, multi-level quantitative models. If such studies are carried out, the commensurability, credibility and salience of the findings from these different approaches may be problematic and fuel controversy, some of which may be abated should health and EA become integrated within a population health framework.

### **Integrating environment in a population health framework**

How might this occur? The population health framework is more than the recognition of the determinants of health and

the interactions between them. It also recognizes a need for intersectoral policy and action and for considering the salience and roles of different stakeholders (individuals, families, community, governments) in enhancing the health of populations.<sup>28</sup> For integrating health in EAs, we must recognize that different approaches to the issues are required and are likely to produce different but complementary solutions. Yet first and foremost, to integrate health in EAs within a population health framework requires full recognition of the physical environment as a determinant of health. In this, there is much to learn from the incorporation of health in EAs to ensure sustainable and health-enhancing land use practices.<sup>29</sup> Yet few EAs have incorporated more than the 'idea' of health. Practical incorporation is as elusive as it is complex.

Environment (and place) are key determinants of health and must be fully implicated in a population health framework. It is a determinant of intense concern to Canadians in part because of the damage to ecosystems associated with human activities. A significant proportion of Canadians – up to 90% in some surveys<sup>15,29</sup> – are concerned about the impact of the environment on their health and that of their children. The environment is 'troublesome' as there is a lack of research consensus on its effects on human health. It is not seen as being under human control and is the source of involuntary, often unequal, exposures. Most Canadians also see themselves as detached from the environment so they lack personal experience of its potential force as a hazard, intensifying the fear of the unknown. It may be seen as the determinant of risk society<sup>30</sup> in that its effects are seen as hazards and its consequences as risks. It is therefore necessary to fully detail the nature of the physical environment as a determinant of health. Cole et al.<sup>31</sup> suggest that different approaches may enhance our understanding. The investigative and analytic tools of toxicology, microbiology, epidemiology, environmental engineering and environmental psychology, among others, can help assess environmental hazards and the environmental burden of illness; those of ecology, economics, geography and environmental planning can help assess ecosystem conditions and human well-

being; and those of law, philosophy and the policy sciences can help assess environmental justice and the human condition.

These different types of investigation will help integrate the science. This is, however, only the first task. The integrated knowledge must be utilized for integrated policy development so that risk management and assessment, health surveillance, standard setting, creating the conditions for supportive environments and clean production, and health public policies and public health ethics are all seen as appropriate policy end-points for considering health in EAs in a population health framework. Such integrated knowing and policy development recognizes that there is more than one way to enhance the health of populations. There is a need to pursue rigorous alternative approaches to ensure that health is incorporated and addressed in EAs and environment in population health frameworks and practices.

#### Tools for a complex process

It is axiomatic that integration within a population health framework points to the need for a shared responsibility to develop ways of knowing and tools to understand, explain and manage health concerns and to enhance health of populations in specific environments. We thus require tools for a complex and somewhat (scientifically and politically) fraught process. A shared approach – the recognition of the rights (and obligations) of different stakeholder groups – helps in the development of the most important tool we require, which is the ability to ask the right questions. Asking the wrong questions, type 3 errors, are difficult to avoid if experts work in isolation. But even when they do not, such errors are still to be expected! We need to learn from those mistakes and change practice.

What other tools may be suggested? Much has been made of the need to develop relevant and appropriate knowledge-bases and indicators for all determinants in assessing population health, including the physical environment. It might be worth considering including health in EAs and environment in population health HIAs to assess the environmental contribution to morbidity and well-being. Environment

(and places) are important for good health but are also potentially damaging to physical, psychosocial and spiritual health. It is, however, important to note that data overload may be problematic. Psychological research suggests that we can handle  $7 \pm 2$  bits of information. As we develop appropriate indicators, this must be kept in mind. Different types of indicators are also required – to demonstrate process, impact and effectiveness. While quantitative risk assessments remain important, we must add lay epidemiology<sup>32</sup> and qualitative and experiential knowledge.<sup>33</sup> In assessing the impact on health of environment or environmental projects, attention to process is vital and we can learn most from the literatures on risk perception, risk communication and participatory research to ensure assessment is transparent, sensitive and empowering. It also is important to judge the effectiveness of integrating environmental health issues in HIAs (or vice versa), carried out by recognizing the salience of different types of evidence, ensuring an acceptable definition of success and isolating and encouraging best practices.

Finally, tools to support decision-making and management practices that seek to incorporate environment fully in population health in a sensitive and appropriate way are required. For this, the recognition of the different types of indicator is itself important. This may be aided by conceptual tools that assist in understanding how environment and health are connected not only scientifically but in people's minds. For this, stories, poems, drama, video, and photographs may be useful tools.<sup>34</sup> The importance of the story in furthering policy, practice and behavioural change is increasingly recognized.<sup>35,36</sup> Further, policy and public response to any issue is shaped not only by evidence (e.g., indicators) but also by context, ideas and values. A useful tool will, therefore, be one that allows for a rapid environmental scan to elucidate and update these ideas.<sup>37</sup> Yet little may change if the political or regulatory climate is too permissive or constraining. There is then the possibility of an advocacy role to further the incorporation of health in EAs. The information – the science – remains key but without appropriate circumstances,

it may be difficult to consider all health determinants and ensure policy responses which enhance the health of Canadians.

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## A B S T R A C T

The health policy *New Directions* committed the British Columbia government to a population health perspective and extensive community involvement in the health services reform process. The policy envisaged elected citizen boards with authority to raise revenues and exercise a significant degree of local autonomy. Academic and public attention has been paid to the decision in November 1996 to collapse *New Directions*' two-tier governance structure into a single level. Less attention has been paid to the profound changes that occurred prior to the government's reversal on the question of governance. This paper focusses on those changes. During the critical three years between the 1993 launch of the reform and its formal revision in 1996, the government's positions on elections, taxation power, local autonomy and scope of action for regional boards all changed. Those changes marked a retreat from political accountability to the community and an advance towards managerial accountability to the government.

## A B R É G É

La politique de santé « New Directions » avait engagé le gouvernement de la Colombie-Britannique dans une perspective de santé de la population et de participation intensive de la communauté au processus de réforme des services de santé. La politique prévoyait l'élection de conseils de citoyens dotés des pouvoirs de générer des revenus et d'exercer un niveau significatif d'autonomie locale. L'attention académique et publique a été attirée, en novembre 1996, sur le fait que la structure d'autorité prévue dans « New Directions » avait été réduite de deux niveaux à un seul. Moins d'intérêt a été porté aux changements profonds qui se sont produits avant que le gouvernement ne révisé la structure décisionnelle. Cet article se concentre sur ces changements. Pendant les trois années critiques entre le lancement de la réforme en 1993 et sa révision formelle en 1996, le gouvernement a changé sa position au sujet des élections du pouvoir d'imposition, de l'autonomie locale et de la portée des actions des comités régionaux. Ces changements ont marqué un recul au plan de la responsabilisation politique vis à vis de la communauté et un progrès de la responsabilisation de l'administration vis à vis du gouvernement.

# British Columbia's Health Reform: "New Directions" and Accountability

Alan R. Davidson, MA

The New Democratic government announced the policy of *New Directions for a Healthy British Columbia*<sup>1</sup> in February 1993. The policy statement was in response to the report of the *Royal Commission on Health Care and Costs*<sup>2</sup> prepared for the previous Social Credit administration and presented to the new NDP government shortly after its election in 1991.

As would be expected with any government policy statement, *New Directions* contained ambiguities and some apparent contradictions. Those ambiguities and contradictions reflect the strategic, symbolic and substantive purposes of policy.<sup>3,4</sup> They are also products of authorship by committee.

Ambiguities included the absence of any definition of "health" or "health services" and imprecise use of terms such as "population health" and the "determinants of health." Contradictions included commitments to the principles of universal publicly funded medicare (especially comprehensiveness and access) in the context of reducing health care costs and reorienting the health system towards a population health perspective. Strategic elements of the policy included a range of political promises, notably commitments to the health care unions that working conditions of health providers would be improved. Symbolically, the policy wrapped itself in the flag of medicare.

Yet taken as a piece, the perspective of *New Directions* was very clear. The intent

was to devolve substantial power over health services to citizens at the community level, not only to counter the power of the health professional elites, but also to foster a community orientation to wellness. The explicit intent was to build a constituency of support behind a broader concept of health, thereby engaging the local authorities in reforming not only health care services but also the social and economic conditions that prevailed in their communities.

From *New Directions*' perspective, the community should be responsible for, and be granted the power to, develop in accordance with its own needs and values. Democratic community development was linked to the idea that an active citizenry combined with collaboration among institutional actors would foster a healthy community, which in turn would provide the social and economic environment necessary for healthy individuals. The policy assumed circumstances would also be created whereby health care services would continue to be seen as essential, but no longer the dominant, elements within health services and health-related activities. Those circumstances would, it was hoped, encourage a mindset of parsimony with regard to health care utilization.

The ideas of *New Directions* were bolstered by supportive institutions. A two-level governance structure of Community Health Councils (CHCs) and Regional Health Boards (RHBs) would force community accountability and responsiveness, as well as inter-sectoral and inter-community collaboration. Inter-sectoral collaboration would be achieved through integration of a broad range of services at the community level under the control of the CHC; inter-community collaboration by requiring

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community plans and expenditures to be vetted by representatives of all of the communities within the region (RHB). Local governments were mandated partners through legislated representation on CHCs.

Regionalization *per se* was not a novel health policy idea. Every Canadian province except Ontario had, by 1993, embraced a form of regionalization for its health care system. The NDP government in Saskatchewan as of 1995 had pioneered a reform based on elected regional health authorities.<sup>5</sup> *New Directions'* novelty lay in the goals regionalization was intended to achieve. Whereas regionalization was generally adopted elsewhere for reasons of efficiency, the British Columbia provincial government saw regionalization (combined with a high degree of delegation to the local health authorities) as presenting an opportunity to reduce the power and authority of ministry bureaucrats, health care managers, and especially health care professionals. Authority over the provision of services could be brought "closer to home" and bureaucratic and professional barriers could be brought down through a strategy of regionalization. A key policy objective was to improve accountability of health care professionals and providers through strengthened democratic accountability at the community level.

*New Directions* understandably set off a policy controversy. The B.C. Medical Association, the B.C. Health Association and the Union of B.C. Municipalities fiercely opposed it. Ministry officials and facility-based managers worked to conserve their respective positions as organizational forms changed in consequence of the policy. Following their 1996 re-election, the NDP government reviewed *New Directions* and in November of that year formally abandoned it. *New Directions* was replaced by *Better Teamwork*. Most visible among the substantive policy changes was the elimination of the two-level governance structure. Less apparent were the changes that occurred in the lead-up to *Better Teamwork* – changes that had profound effects on accountability.

During the critical three years between the 1993 birth of *New Directions* and its funeral rites in November 1996, the

British Columbia government's position on elections, taxation, local autonomy and scope of action for health authorities changed. The direction of change in each instance was consistent with the progressive abandonment of the reform principles inherent in the original policy statement. Movement was away from a perspective centred on citizen empowerment toward a policy focussing on the accountability of boards and councils to the Ministry of Health. Bound up in that change was a retreat from political accountability to the community and an advance toward managerial accountability to the ministry.

Political accountability refers to being held answerable for one's actions – being held to account. It includes taking direction from and being sanctioned by those to whom one is accountable. Managerial accountability refers to spending money in accordance with accepted accounting practices, providing services as efficiently as possible, and obtaining the intended results.<sup>6-8</sup>

The changes were not merely organizational, nor were they merely the result of conflicts between the goals of improving health system management and improving the accountability of health service professionals and providers. They marked a change in substantive policy. Local accountability and community empowerment are bound up conceptually and normatively with a community health perspective on health.<sup>9</sup> The changes to governance arrangements are also bound up with issues of power and control. In principle, there can be no accountability without control. A body cannot be held accountable for something that is beyond its power.<sup>6</sup> Accountability also requires that those to whom a body is accountable have the means to hold that body to account. Holding to account entails several conditions, chief among them knowledge of the actions taken and the reasons for those actions. Holding to account also requires, in principle, the prospect of sanctions by those to whom accountability is owed.<sup>8</sup>

Citizen boards were explicit attempts to make health professionals, providers and managers more accountable to the public. Accountability to the public requires transparency of board processes, full disclosure

of the board's actions, reasonable public notice of meetings, opportunities for the public to seek reasons for the board's actions, as well as ready public access to background information. Those basic conditions were recognized at the outset by the government and were mandated in directions given to interim boards and councils.<sup>10</sup>

However, those basic conditions are not jointly sufficient for accountability to the community. They do not assure adequate board control over the areas it is formally responsible for, nor are they jointly sufficient for the public to hold the board to account. Election of board members is important in this context. Elections serve not only to increase the legitimacy of the board members in the eyes of the public and the health care providers, but also increase the accountability of board members to the local citizenry. Enhanced legitimacy enhances authority, which in turn strengthens control. Elections also force the giving of reasons, explanations of actions by incumbents and rationales for planned actions by aspirants. Further, elections give the public a means of sanctioning board members by defeat at the polls.

While a policy based on community development and community health principles would suggest public elections of boards and councils (reserving room for some appointments to ensure all key constituencies are represented), the government first deferred and then abandoned the idea of elections. There were several reasons for the reversal. The government was concerned that the general public might support traditional health care services and their providers. Democratizing decision making could thus result in greater rather than less pressure for expanding conventional health care services. The government was also concerned that low election turnouts might allow capture of boards and councils by special interest groups such as anti-abortionists. Further, the energy and confusion generated by the grassroots community development process fuelled the growing concern by government and managers over their control of the process. Finally, the government shifted its perspective on health services following the surgical and cancer care

waiting list crisis that erupted in 1995. Adverse publicity served to transform the key policy problematic from improving health outcomes for the population to improving public access to conventional health care services.

The change to fully appointed bodies had several implications. First, political appointment blurred the function of boards with the responsibilities of government through the creation of relationships of agency and subsidiarity. Apart from the appearance of patronage (and political motivation more broadly) created by ministerial appointment, the approach linked the board member to the Minister, and thereby to the Minister's responsibilities to Cabinet and the legislature. From the perspective of administrative law, the member was in an agency relationship to the Minister, acting formally on the Minister's behalf and serving at his/her pleasure. The appointed board as a whole reflected the principle of subsidiarity – it was the creature of and was accountable to government. In short, authority was not devolved to the boards and councils, as it would be through the principle of public elections, but delegated to them by the provincial government.

In addition to the principle of appointment, there were issues of practice. What criteria should be used for the selection of board members and how could they be defended as legitimate? In this regard, the B.C. auditor general, George Morfitt, criticized the government for having no rational criteria for selection. He commented "there was no documentation to identify competencies required by each individual or the governing body as a whole." Without it, Morfitt concluded, there was no foundation for board accountability.<sup>11</sup> The media concurred, reporting that board positions were filled on political whim.<sup>12</sup>

Board members were not only drawn into politics; the approach under *Better Teamwork* drew managers into policy. The "new public management" called for appointing visionary leaders as chief executive officers, thereby blurring management's role with that of the board. The "Carver Model" of board governance (imposed by the ministry on the boards) offered an expansive role to the chief exec-

utive officer and a truncated one for the board.<sup>13</sup> It facilitated the migration of management into governance, while enjoining boards to steer clear of management. The model rested on the faulty assumption that governance is about normative matters whereas management is technical and "values-free". The public role of CEOs, their role in the distribution of resources, and their responsibility for organizational climate are all inherently normative. They "are not only or simply aspects of the managerial repertoire, but are fundamentally concerned with the allocation of values."<sup>14</sup> In short, a government-appointed board operating under the Carver model was encroached upon from both the political and managerial sides. Such boards have the misfortune of occupying what Anne Mills described as the "twilight zone in public administration."<sup>15</sup>

The government's growing emphasis after February 1994 on accountability for the results of health care spending exacerbated the issues of board accountability and control. The subordinate relationship to government and the emphasis on improving health care management operated hand-in-hand. Jointly, they reduced the board's public role in two ways. First, they limited public consultation partly because of the risk of consultations leading to conclusions inconsistent with government's preferred direction and partly because the public has little to offer with regard to improving management outcomes.<sup>16</sup> As Ham and Best put it (in the context of the National Health Service's drive to outcomes-based cost-effectiveness), emphasizing the quality of health care management "means downgrading [the board's] role in providing a channel for public participation."<sup>17</sup>

Accountability to the public requires clear, publicly supported principles and goals. Those would normally be defined and gain legitimacy through local democratic processes, including elections of governors. The decision to appoint board members rather than elect (the majority of) them placed an enormous responsibility on the new boards to develop effective participatory mechanisms. Unfortunately, the narrow view of the governing bodies' role – improving management – makes both

the idea of and mechanisms for consultation problematic. The context for implementation made matters even more problematic – community activists and volunteers had been either sapped of energy or thoroughly alienated by the disintegration of *New Directions*.

Successive Ministers of Health had striven to use their powers of appointment to create boards that contained a cross-section of people from the community, with special attention paid to minorities such as Aboriginal people. While appointees were drawn from distinctive groups, they could not be said to represent them. There was no connection between board members and their "constituencies". Recent interviews determined that B.C. health board members regarded their role to be representative of the broader region.<sup>18</sup> Lomas, Woods and Veenstra<sup>19</sup> similarly found health board and council members across Canada generally regard themselves as representing the broader constituency of their community or region. Day and Klein<sup>8</sup> found a similar perspective among (appointed) health board members in the United Kingdom. However, as Day and Klein noted, without specific mechanisms of consultation, the claim to represent the community is an empty one. A case study of B.C. health authorities found those consultative mechanisms to be missing.<sup>18</sup>

Taxing authority is closely linked to the elections and both relate to accountability.<sup>20</sup> Taxes and elections are linked by the constitutional principle of no taxation without representation. Taxation is linked to accountability by the public administration principle that a public body can only be fully accountable for spending if it has some responsibility for raising its own revenues.

Central governments everywhere are reluctant to give local authorities taxation powers other than property taxation. There are three reasons. First, governments do not wish to cede tax room to subordinate bodies. Second, property taxes are more readily set and collected locally because local conditions and property values vary. Third, property taxes are highly inelastic, and therefore do not give local authorities much capacity to expand public spending. However, property taxes are also charged

politically, and suggestions to change who may levy them at what rates are bound to be controversial. That was certainly true with the proposal that RHBs raise the 40% of local revenues required for hospital projects. The resistance by local government eventually forced the provincial government to back down.

The reversal brought fresh difficulties. The media claimed disconnecting spending and revenue powers undermined the accountability of health boards. "The people appointed to the new boards by the NDP government are now responsible but not accountable."<sup>21</sup> Academic observers concurred. Severing the link between health service provision and local taxation was tantamount to converting the health boards into agents of the government.<sup>22</sup> Most vocal in this regard were the same local governments that opposed fiscal independence for boards and councils:

*The Province appears to be delegating responsibility for health care to communities but is retaining control over the expenditure of funds. This has the potential to create a situation that everyone wants to avoid; that of no clear accountability or responsiveness to either provincial or local priorities. This can produce a situation wherein:*

- local health bodies avoid being accountable to local publics by simply stating they did not receive adequate provincial funding to meet local priorities
- the Health Minister passes the responsibility to local bodies by saying that adequate funding, or the maximum available funding was provided for local priorities.<sup>23</sup>

Local autonomy also contracted sharply over the course of *New Directions*' implementation, and virtually vanished with *Better Teamwork*. In the period from February 1994 to November 1996, the encouragement of local diversity and experimentation in the context of substantial community control gave way to narrowly defined core services, outcome measures, and the provincial government's preoccupation with developing an accountability framework.

The range of programs and services for which the boards were responsible also

shrank over the three-year implementation period. Following the creation of the Ministry of Children and Family Services, the scope of programs was even smaller than the pre-reform cluster of Ministry of Health programs. By 1996, it comprised only hospital, continuing care and some public health services. Addiction treatment, community mental health, maternal and child public health, and school health services were among those transferred out of the health portfolio (and regional health authority control) to the Ministry of Children and Families. The potential for collaboration and new partnerships shrank along with the reduction in the scope of services under the health authorities' mandate.

In consequence of these changes, boards were increasingly enjoined by the ministry from 1995 onwards to express their responsibilities in terms of results achieved by health care spending. This was quite different from the 1993 emphasis on articulating responsibilities in terms of results for people. The new emphasis was on efficiency and effectiveness of services; the old was on aligning public expenditures with the needs of the community. The entire frame of reference changed to a managerial one from a political one. Importantly, the more emphasis that was placed on technical and managerial dimensions, the less the power and authority of the board and the greater the influence of management.<sup>24</sup> Thus *New Directions*' goal of holding management (and the providers) accountable to the public was subverted. That loss of political accountability to the community signaled a u-turn in *New Directions*. The innovative, reforming thrust of fostering a community health perspective was reversed and health service changes increasingly took the form of administrative reorganization. All that remained was confirmation of the new direction, a confirmation that took the form of abolishing the community health councils in November 1996.

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## A B S T R A C T

Health promotion research and practice reveal that goal setting and monitoring have gained increased acceptance at international, national, provincial/state, regional and local levels. The global adoption of health goals as a strategy for population health promotion has occurred even though few protocols or guidelines to support the health goals development process have been published. Limited study has occurred on the variation in approach to health goals planning, or on the complex, multiple forces that influence the development process. This paper describes conclusions drawn from an exploratory and descriptive case study that tracked the pathways to health goals in British Columbia (BC) and uncovered nearly 100 factors that influenced the final version of health goals adopted by the government of BC.

Influencing factors included: (a) positive perceptions of the benefits of health goals, (b) the role of a trusted health goals champion, (c) positioning of the goals as government rather than health ministry goals, (d) the format and agenda of the health goals consulting process, and (e) political reluctance toward highly specific or measurable goals with targets.

## A B R É G É

La recherche et la pratique en promotion de la santé révèlent que la détermination d'objectifs en matière de santé et le suivi de ces objectifs sont de plus en plus acceptés aux niveaux international, national, provincial/étatique, régional et local. L'adoption générale des objectifs en matière de santé comme stratégie de promotion de la santé de la population s'est faite malgré le fait que peu de protocoles ou de lignes directrices appuyant le processus de développement des objectifs ont été publiés. Un nombre limité d'études ont été réalisées concernant l'éventail des approches dans la planification des objectifs ou sur les complexes et multiples forces qui influencent leur processus de développement. Cet article décrit les conclusions tirées d'une étude de cas exploratoire et descriptive qui a suivi l'évolution des objectifs en matière de santé en Colombie-Britannique (C.-B.) et a révélé près d'une certaine de facteurs qui ont influencé la version finale des objectifs de santé adoptées par le gouvernement de la C.-B.

Entre autres facteurs d'influence, il y a eu : (a) les perceptions positives des bénéfices des objectifs de santé; (b) le rôle d'un leader crédible; (c) l'établissement des objectifs comme étant ceux du gouvernement plutôt que ceux du ministère de la santé; (d) la forme et les objectifs du processus de consultation; (e) la résistance politique à adopter des objectifs tout à fait mesurables ou dotés de cibles.

# Factors that Facilitated and Challenged the Development of Health Goals and Targets: The British Columbia Experience

Treena A. Chomik, PhD,<sup>1</sup> C. James Frankish, PhD<sup>2</sup>

Health goals and targets have gained increased acceptance as a strategy for population health promotion by countries and regions around the world. Early indications of health goals appeared in the late 1970s in the US. A comprehensive framework for health was outlined in *Healthy People: The Surgeon General's Report on Health Promotion and Disease Prevention*.<sup>1</sup> This publication, inspired in part by the Lalonde report, *A New Perspective on the Health of Canadians*,<sup>2</sup> and led by the US Public Health Service, disclosed a shift in emphasis from health care to health promotion and disease prevention as detailed in the release of *Promoting Health/Preventing Disease: Health Objectives for the Nation*.<sup>3</sup> This publication delineated 225 specific objectives and targets for improving the health of Americans over a 10-year period.

In 1978 at an international conference on primary health care held at Alma Ata, a policy framework of *Health For All* was established which called for all citizens of the world, by the year 2000, to attain a level of health that would permit socially and economically productive lives. The Declaration of Alma Ata<sup>4</sup> defined the features of *Health For All* as a global strategy, formally adopted in 1981 by the Member States of the World Health Organization.<sup>5</sup>

In 1985, WHO's European Regional Office published its first round of health goals in *Targets for Health for All 2000*.<sup>6</sup> This report was updated in 1991 based on broad consultation among European member states.<sup>7</sup> Other countries and regions followed in the adoption of health goals and targets, including Eastern Europe, Africa, South East Asia, the West Pacific, Australia, Sweden, Germany, and Mexico.<sup>8</sup>

It is interesting to note that even though all Canadian provinces and territories have developed provincial health goals, there have not been health goals established at the national level in Canada. Pinder<sup>9</sup> notes that various calls for national health goals have been made over the past two decades. As early as 1974, national goal setting was advocated in *A New Perspective on the Health of Canadians*.<sup>2</sup> Other calls for health goals came from the Ad Hoc Committee on Health Strategies of the Canadian Public Health Association<sup>10-12</sup> and the *Canadian Journal of Public Health*.<sup>13</sup> Most recently, a report to Health Canada's Population Health Promotion Division on the status and application of health impact assessment in Canada recommended the establishment of national-level health goals as a prerequisite to health impact assessment.<sup>14,15</sup> Recent initiatives to establish national-level strategic directions and indicators in population health may facilitate further specification of health goals and targets in select areas.

### The health goals development process in the province of British Columbia: A case study

The global adoption of health goals as a strategy for population health promotion has occurred even though few protocols or guidelines to support the health goals development process have been published.

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Limited study has occurred on the complex, multiple forces that influence the health goals planning process. This study endeavours to advance knowledge about the process and contribution of health goals as a strategy for population health promotion. Within the context of this study, the term “health goals” refers to a comprehensive planning framework that typically includes the specification of broad goals, measurable and time-limited objectives, measurement or performance indicators, quantified targets, and action strategies.

We tracked the pathway to health goals in British Columbia (BC) and uncovered factors influencing the final version of health goals adopted by the Cabinet of the government of BC. Specifically, we explored the factors that facilitated and challenged the formulation and articulation of the BC health goals. The study was based on the assumption that unless the health goals development process is guided by practices and procedures that are capable of sustaining it, and unless the process yields health goals that reflect population needs *and* are achievable, investments into health goals as a strategy for population health promotion are unjustified.

### Study context

The BC health goals project began in October 1994, three years after the release of the 1991 report of the BC Royal Commission on Health Care and Costs<sup>16</sup> which recommended that goals be established for the **health system**. In a policy document entitled, *New Directions for a Healthy British Columbia*,<sup>17</sup> the new government’s response to the Royal Commission extended the recommendation for health system goals to include the development of “population health goals”, with a focus on the broader determinants of health. Specifically, the *New Directions* policy recommended the establishment of: “a clear set of health goals for the province that reflect our understanding of how social, economic and environmental factors affect health, and provide a means of measuring our success over time.” (p. 12)

The health goals process spanned nearly three years. The final published version yielded 6 broad goals and 44 associated objectives which addressed health status,

Goal 1:	Positive and supportive living and working conditions in all our communities.
Goal 2:	Opportunities for all individuals to develop and maintain the capacities and skills needed to thrive and meet life’s challenges and to make choices that enhance health.
Goal 3:	A diverse and sustainable physical environment with clean, healthy and safe air, water and land.
Goal 4:	An effective and efficient health service system that provides equitable access to appropriate services.
Goal 5:	Improved health for aboriginal peoples.
Goal 6:	Reduction of preventable illness, injuries, disabilities and premature deaths.
Source:	<i>Health Goals for British Columbia</i> , Ministry of Health and Ministry Responsible for Seniors, 1997. <sup>18</sup>

the health system, and the social, economic and environmental influences on health (Table I). Sample indicators to track progress on objectives were offered, although targets and strategies aimed at achieving the health goals were not proposed.

### METHOD

This exploratory and descriptive case study was guided by a conceptual framework, or health goals template, that evolved from a comprehensive review of the literature on health goals, and specifically utilized source documents from six national and state/provincial jurisdictions that have adopted a health goals approach. The health goals template comprised three phases that captured and organized key practices and factors associated with health goals development. The *premonitory phase* considered the context and motivation for health goals development; the *formulation phase* addressed the required structures, processes and resources; and the *articulation phase* considered the content of health goals or what health goals eventually articulated. Data collection consisted of 23 semi-structured interviews with key participants, including representatives from government ministries, provincial stakeholder organizations, regional health authorities, and the Office of the Provincial Health Officer. Source documents on the BC health goals initiative were also reviewed. Data analysis was supported by NUD\*IST 4.0, a multifunctional software system for the development, support and management of qualitative data analysis projects.

### RESULTS AND DISCUSSION

This study uncovered nearly 100 factors that facilitated or obstructed the formulation of the BC health goals and revealed several concessions and trade-offs. Key influencing factors are discussed below.

#### *Perceived Benefits of Health Goals*

Positive perceptions of the multiple benefits of health goals set a favourable context for health goals in British Columbia. Most participants viewed health goals as an effective means to: guide health planning, promote health-enhancing public policy, monitor health status and reductions in health inequities, set health priorities, facilitate resource allocation, support accountability in health care, provide guideposts for health impact assessment, encourage intersectoral collaboration, and advance public awareness of the broad determinants of health. Health goals were also envisioned as a way to demonstrate positive outcomes for government investments in health, and as a mechanism to support decisions on spending priorities, especially in light of reduced transfer payments for health from the federal government to provincial coffers.

#### *Leadership by a Trusted Champion of Health Goals*

Study participants largely attributed the advancement of the BC health goals agenda to effective leadership by a trusted and highly respected leader or champion. This study suggested also that the champion’s personal philosophy on health influenced the formulation process. The BC health goals champion strongly endorsed the broad determi-

nants of health as the overarching philosophy to guide and direct the BC health goals process. The champion's personal commitment to a health-determinants approach was driven by several issues. These included: (a) the mounting scientific evidence that factors that reside outside the health system or health sector influence health, (b) a commitment to educate the public that "health is more than health care," (c) the belief that good health outcomes require more than tinkering with the health care system, and (d) a desire not to follow what many considered to be the narrow focus of health goals developed by other jurisdictions. The outcome was a set of health goals that touched upon all the known influences on health.

#### *Broad-based Government Endorsement of Health Goals*

Positioning the health goals as *government goals* versus *health ministry goals* led to their endorsement by the executive level of all (at that time, 18) government ministries. Broad-based support was important since sectors outside health would be called upon to provide data and to devise and implement strategies to meet goals related to their areas of expertise. Support for the health goals was less ardent at lower levels of the bureaucratic chain. Some representatives from sectors outside health made claims of "health imperialism," where health was seen as overstepping its mandate and involving itself in matters that extended beyond its purview. Moreover, some representatives from the Ministry of Health did not see how their work, which focussed largely on health services, related to the broader socio-economic issues addressed in the health goals. Reluctance to support health goals that extended beyond their own mandate led to a lack of ownership and feelings of alienation among some established health interests. Overall, the regional health authorities accepted the BC health goals, although they expressed some concern about expectations to address the health determinants within limited financial and human resources.

#### *Conditioning the Health Goals Development Process*

Study findings suggest that the BC health goals process was organized and

structured in a manner that ensured the outcome sought by the health goals development team. For example, consultation sought from individuals and groups was based on a set of pre-determined health goals. Several study participants characterized this as "conditioning" the health goals process and some suggested that this approach biased the discussion and did not allow for a full and open exchange of views. Furthermore, consultation sessions focussed on the determinants of health theme and presented evidence on the social, economic and environmental influences on health more than on health-related behaviour and lifestyle issues. In the view of some participants, this amounted to an orchestration of the consultation session whereby participants were positioned to support what was presented to them.

#### *Reluctance Toward Measurable Health Goals*

The health goals initiatives in the United States and Australia suggest some benefits of establishing specific targets. Targets help to galvanize resources toward health promotion actions, monitor progress on health indicators, and stimulate new and augmented health information systems. While health goal measurability or specificity was a clear intention of the BC health goals process, means to quantify expected levels of change or improvement on indicators were not stipulated in the final published version. Two factors account for a lack of specificity of the BC health goals. First, rather than forwarding information to support the articulation of concrete, measurable objectives, government ministries provided suggestions for priority areas and strategies for change and offered only broad advice on goal statements. This response was spurred by concerns that failure to meet projected targets may jeopardize ministry programs and budgets.

Furthermore, political leaders, while supportive of broad goals, were sceptical of operationalizing health goals into measurable objectives and quantified targets. Study participants suggested that political leaders feared that measurable health goals would increase accountability for quantifiable health improvements, require alloca-

tion of scarce resources for actions aimed at achieving the goals, and risk government leadership if targets were not met. Hesitancy about targets by government ministries and concerns by government leaders over the potential for political exposure account for the form and content of the final version of health goals. In the end a compromise was struck: endorsement of the health goals by the Cabinet of the government of BC for health goals without the capacity for measurement.

#### **Population health promotion practice**

As outlined above, several facilitating and challenging factors as well as trade-offs or concessions characterized the BC health goals development process. Health goals planning is a complex, socio-political process that requires effective planning and consultation mechanisms, sufficient time and resources, constructive networking and partnering, and strong and sustained leadership. Several challenges face health planners who aim to develop specific, measurable health goals that extend beyond the health sector and address the broad determinants of health. These include, but are not limited to, data availability and quality, sectoral cooperation, technical assistance and expertise, and political commitment and support. For today's health planners and policy makers, health goals may serve as a guiding paradigm to support the development and advancement of several recent trends and emphasis in the health field such as health impact assessment, evidence-based decision making, health reform and reorientation of health systems, population or needs-based planning methodologies, and increased accountability for health outcomes.

This study raises several issues for future inquiry. Methods to encourage and sustain intersectoral support for health goals development should be considered. Ways to operationalize health goals (that address the broad health determinants) into measurable, time-limited objectives and targets should also be examined, as should strategies to overcome resistance toward specificity. The role and influence of the health goals champion also requires attention. Finally, examination is warranted on the relationship between those factors that

influence health goals development and those that influence subsequent implementation and institutionalization of health goals into population health promotion policy.

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## A B S T R A C T

Health goals and targets have been widely used to indicate strategic direction and priority for health improvement on a population basis. This paper provides an overview of Australia's experience in using health targets and considers the relevance of this experience for Canada. It gives special attention to the challenge of developing a broadly based set of targets that reflect the social, economic and environmental determinants of health alongside more traditional measures of health status. It examines how the technical challenge of measurement, the bureaucratic barriers between government departments, and the political conservatism inherent in federal systems of government present formidable barriers to effective action on comprehensive national health targets.

The paper concludes with a reminder of the need for intersectoral action to address the determinants of health. Based on the Australian experience, it suggests for Canada an ideal combination of a national population health framework to guide direction and priority, to be implemented through action at a more local level, through well-defined partnerships.

## A B R É G É

Les objectifs et cibles en santé ont été largement utilisés pour indiquer les directions stratégiques et les priorités pour améliorer la santé du point de vue de la population. Cet article donne une vue d'ensemble de l'expérience australienne dans l'utilisation des cibles de santé et évalue la pertinence de cette expérience pour le Canada. Il porte une attention particulière sur le défi de développer une large gamme de cibles qui reflètent les déterminants socio-économiques et environnementaux de la santé en plus des mesures plus traditionnelles de l'état de santé. Il examine comment le défi technique de mesure, les barrières bureaucratiques entre ministères et le conservatisme politique inhérent aux systèmes fédéraux de gouvernement représentent des barrières considérables aux actions concrètes sur les cibles globales de santé nationales.

L'article conclut en rappelant le besoin d'actions intersectorielles afin d'agir sur les déterminants de la santé. Basé sur l'expérience australienne, il suggère pour le Canada une combinaison idéale entre un cadre national de la santé de la population, pour indiquer les directions et priorités qui devraient être implémentées par des actions aux niveaux les plus locaux, à travers des collaborations bien définies.

# Achieving Population Health Goals: Perspectives on Measurement and Implementation from Australia

Don Nutbeam, PhD

Internationally, health goals and targets have been used as a tool for governments to indicate strategic direction and priority for health improvement on a population basis.<sup>1</sup> Health targets offer a benchmark against which existing policy and the effectiveness of expenditure on current programs and services can be examined.

Australia's history of using national health goals for such purposes is chequered. The first national attempt was published in 1988 in the *Health for All Australians Report*.<sup>2</sup> This Report set goals and targets relating to major causes of premature death and morbidity and major behavioural risk factors. Targets were only proposed in areas "where substantial national health statistics existed," and for these reasons made little reference to the possibilities for change in the social, economic and environmental determinants of health.

In 1991 the Commonwealth Health Department commissioned a review of these targets. The review was intended to consider what progress had been made in relation to the 1988 targets and to examine options for extending the range of targets to reflect a "social view of health." This review process extended over two years, and included substantial technical consultations with academics and health professionals, and political discussions on the policy implications with individual State Health Ministers and their departments.

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The process led to proposals for major revisions in a Report published in 1993 entitled, *Goals and Targets for Australia's Health in the Year 2000 and Beyond*.<sup>3</sup> This Report not only included revisions to many of the originally proposed health targets concerning premature mortality and morbidity and behavioural risks, but also proposed two new categories of health targets concerned with personal health literacy and healthy environments.

Figure 1 is derived from the Report and provides an illustration of the framework for the proposals and the relationship between the different types of targets that were proposed. It shows how each of three key determinants of health – health literacy, health behaviours and healthy environments – is inextricably linked to the others. The Report made a strong case for co-ordinated public health action to address all of the determinants, particularly by adding to existing efforts to promote health literacy and healthy lifestyles with matching attention to the creation of healthy environments.

### Challenges in the development of health targets in different sectors and settings

The section of the Report on healthy environments reflected the greater attention and recognition being given to social, economic and environmental determinants of health status. The Report substantially expanded the targets to reduce occupational and environmental hazards that were proposed in the original *Health for All Australians* report, recommending health-related goals and targets in six sectors/settings. The first three covered broad elements of the "physical" environment, namely the physical environment (e.g., water supply, air quality, waste disposal),

housing, and transport; the three others encompassed “social” environments which are more commonly referred to as “settings” for health interventions, namely worksites, schools and health care settings.

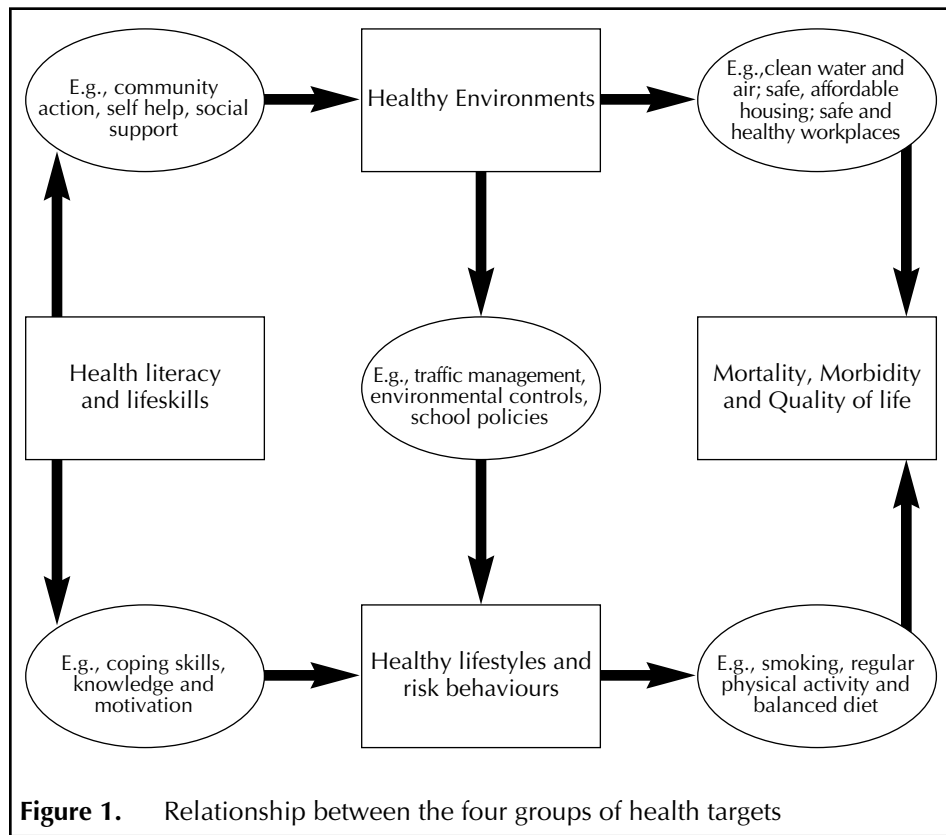
This part of the report was structured partly to reflect the way in which government was organized (e.g., housing, employment, environment), and partly to build upon existing working relations between the health sector and other sectors (e.g., health-promoting schools). Such an approach was seen as important in defining the respective roles of the different sectors in establishing a workable model for monitoring progress, and in determining accountability for the achievement of targets.<sup>4</sup>

The Report also highlighted some of the important barriers to progress in achieving change in these structural determinants of health. Most important was the barrier presented by poor collaboration between the different sectors of government. In practice, the health sector has little or no jurisdiction over the other sectors indicated above, and was not welcome in its attempt to influence decision making. In addition, the process of developing targets for healthy environments exposed the more technical problems of identifying sensible and measurable indicators that made clear the relationship between environmental standards and human health.

Not surprisingly, attempts to develop *health* targets in each of these six sectors/settings were politically and technically difficult and met with mixed success. Part of the lengthy development process was consumed with efforts to negotiate a common position between the different sectors concerned with the different “environments”. Through this process, widely varying conceptual and ideological perspectives to the same issue were exposed.

Part of the task in developing *health* goals and targets in the different settings was to define these differences, and, through a process of negotiation, find a common approach that recognized the legitimacy of each of the different perspectives.<sup>5</sup>

Thus, for example, in the section on housing, although some of the major health issues concerning infectious disease control, injury prevention, and access to



health services were high on the “health agenda”, goals and targets were developed to fit a comprehensive structure provided by the existing National Housing Strategy. This approach was perceived to be far more relevant to those working in the housing sector who were ultimately to be responsible for implementation of much of the action required to create a health-supportive housing environment. Consequently, the structure of the sub-headings in the report concerned adequate housing, secure and affordable housing, as well as safe housing. The “health agenda” could comfortably fit in this structure. Table I provides an illustration of the construction of a target for “healthy housing”.

Such a process of negotiation ensured that the different sectors were engaged in defining the problems and arriving at solutions that made sense in the context of existing plans and priorities of the sector concerned. Through this process, important progress in achieving understanding and commitment to *health* goals and targets by other sectors was achieved.

Progress in these negotiations was linked to the other major obstacle in this process – what measurements to use. The solution

to this technical problem was addressed by the use of *intermediate indicators* which provided a mechanism for working back from “health outcomes” to the underlying environmental determinant, and factors which might indicate progress in achieving change in this environmental determinant (comparable to the chain of linkages made between health outcomes, health behaviours and health literacy). For example, the health target to increase the proportion of the population with access to safe drinking water uses as an *intermediate indicator* of success those mechanisms which are in place to provide and monitor water quality – in this case the *number* of water monitoring sites, and the *frequency* with which the water meets agreed standards for water safety. Relevant targets would be to increase the number of water monitoring sites and to increase the proportion of times those sites recorded water quality above nationally agreed standards. This provided a practical way of assessing improvements in water quality in a way that is meaningful to those in the water industry responsible for safe water supply. Table I summarizes this example as it appears in the report.

**TABLE I**  
**Examples of Targets and Intermediate Indicators for Healthy Environments**

Housing and Health	Physical Environment
<p><b>Goal:</b> To increase the proportion of people living in adequate housing</p> <p><b>Priority population:</b> Aboriginal and Torres Strait Islanders</p> <p><b>Target:</b> To reduce exposure to risks to health associated with poor living conditions</p> <p><b>Intermediate indicator:</b> To increase the proportion of ATSI in remote and rural communities who live in dwellings which have:</p> <ul style="list-style-type: none"> <li>• potable water</li> <li>• adequate water supply</li> <li>• electricity</li> <li>• bathing and laundry facilities</li> <li>• waste and sewage disposal</li> </ul>	<p><b>Goal:</b> To ensure that all Australians have access to a safe water supply</p> <p><b>Priority population:</b> Aboriginal and Torres Strait Islanders Rural and remote communities</p> <p><b>Target:</b> To increase the proportion of the population with access to safe drinking water</p> <p><b>Intermediate indicators:</b> To increase the number of monitored drinking water sites To increase the proportion of monitored drinking water sites which meet NHMRC standards</p>

### Progress in implementation

The subsequent history of this Report and its proposals is somewhat mixed, although the initial responses were very positive.<sup>6</sup> The Report served as a catalyst for the inclusion of a commitment to develop national health goals and targets as a part of the Medicare Agreement between the Commonwealth Government and States and Territories. Thus for the first time, Australia had a statement concerning desired population health outcomes within the legislative agreement which governs the release of resources for the publicly funded health system. The Agreement committed the Commonwealth and States to a process leading to finalization of national health goals and targets in a limited number of priority areas within one year.

The product of this effort, *Better Health Outcomes for Australians*,<sup>7</sup> is disappointing in many respects, particularly in the extent to which it fails to adequately encompass the social, economic and environmental determinants of health which were a prominent feature of the recommendations from the review which preceded it. The report acknowledges that "improvement in the social and environmental determinants of health has the potential greatly to reduce health inequalities between population groups," but rather lamely concluded, "the healthy environments concept, in its broadest context, has not been addressed within the current national health goals and targets process. A mechanism will need

to be found to ensure that this important area is addressed."

It is not difficult to speculate on the reasons for this conservative response to the recommendations of the review. The Commonwealth and State Health Departments were reluctant to sign off on a set of recommended targets for improvement in population health over which they felt they had no control. This political concern was compounded by the technical challenge of measurement and monitoring. Although the review had identified a solution to these concerns through the proposed intermediate indicators, there was no simple, inexpensive way of gathering the information. It became too hard, and there was insufficient collective will to move decisively – a common failing of federal systems of government.

### Where are we now?

The consultations undertaken in the preparation of the 1993 review of National health goals and targets emphasized the dangers inherent in the health sector seeming to impose its priorities on other sectors. The report stressed that "in proposing health goals and targets which impact upon other sectors it is imperative that the intent and process be made clear." The proposals in the report focus on existing practical opportunities for collaboration through which it would be possible "to explore the potential for integrating health goals to reduce risk and promote health into the work programs

of other sectors rather than to devise targets prescribing particular strategies," concluding that "target setting should proceed at a pace that will allow for the development of a true partnership." This approach to building on existing common ground between sectors, combined with transparency in purpose, appears to offer a basis for developing the effective partnerships for health which are required to advance health and greater equity in health by addressing its underlying determinants.

A further lesson emerging from this experience is that there is a delicate balance to be struck between the technical need to improve the quality of measurement and the public health imperative for effective action to address underlying social, economic and environmental determinants of health. Waiting for the final word on such indicators may result in "analysis paralysis" – leading to unnecessary postponement of effective action to improve public health.

In Australia some limited support has been provided to foster further development of the actions implicit in the 1993 review. In 1994-95 the Federal Government funded a review of successful approaches to intersectoral action. The report from this review, *Working Together: Intersectoral Action for Health*, has provided guidelines on how to establish effective and sustainable partnerships between the health sector and other sectors, and has become a widely used resource document in Australia and elsewhere.<sup>8</sup>

In 1996-97 the Federal Government funded a special supplement to the *Australian and New Zealand Journal of Public Health* to examine issues in the measurement of *health-promoting environments*.<sup>9</sup> This included papers examining the development of indicators for health-promoting environments in schools, work sites, sport and recreation settings and indigenous communities. The Australian National Health and Medical Research Council (NHMRC) separately sponsored a systematic review of school health and health promotion in sport and recreational settings with the purpose of both improving understanding of the advantages and weaknesses of operating through different settings, and advancing the science of measurement.<sup>10,11</sup>

These activities can be viewed as a beginning rather than an end. "Healthy environments" are still far from centre stage in the health portfolio, and still very marginal to other portfolios. Governments in Australia and elsewhere need to be constantly reminded of the importance of the health impact of decisions across all portfolios, and of the need for action across portfolios to achieve substantial improvements in health, and achieve greater equity in health. Health authorities should be encouraged to continue work through settings and across sectors in ways which are clearly effective and locally feasible. The academic and scientific community needs to respond in a more creative way to the challenges of measurement and evaluation which are presented by such a holistic approach to health advancement.

#### Lessons for Canada?

There are many similarities between Canada and Australia which make the experience in Australia relevant. Both countries operate under a federal system of government, both have a national health service delivered by the States/Provinces, and both have a well developed commitment to public health and health promotion.

Canada's health priorities are well reflected in current analyses of popula-

tion health and its determinants, and demand a response which includes the health system but inevitably requires action for health across government. Our experience in Australia has indicated that there are formidable obstacles, technical and political, to achieving a unified, national response to the complex problems of addressing the environmental, social and economic determinants of health. Where progress has been achieved it has been at a more local level – State, city, and community – and through bilateral partnerships between the health services and other sectors. In the latter case such action is most achievable where there are clearly defined goals and targets of obvious mutual benefit, and where roles and responsibilities between sectors are clearly defined.

This experience seems to suggest the ideal combination of a national population health framework to guide direction and priority, to be implemented through action at a more local level, and through well-defined partnerships.

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## A B S T R A C T

This research inquiry used qualitative and quantitative methods to examine how key decision makers from Saskatchewan health districts and Saskatchewan Health understand the determinants of health. The inquiry was based on the premise that key decision makers' understanding of the determinants of health, and the consensus regarding these understandings, hinder or facilitate dialogue, choice of effective strategies, and achievement of health promotion goals.

Interviews indicated variation in perspective and emphasis regarding how key decision makers understand the determinants of health. A survey of key decision makers found: 1) inconsistencies in respondents' understanding of the determinants of health, particularly between stated beliefs and priorities for actions; and 2) that the degree of consensus among decision makers was higher for stated beliefs and lower for choices of action. Results indicate a need for clarification and consensus-building processes concerning the determinants of health, as well as for clear policies that foster consistency between beliefs and actions and minimize inappropriate or undesirable differences in interpretations.

## A B R É G É

Cette recherche-enquête utilise les méthodes qualitatives et quantitatives pour examiner comment les décideurs clés des *Saskatchewan health districts* et de *Saskatchewan Health* comprennent les déterminants de la santé. Cette enquête est basée sur la prémisse que la compréhension des déterminants de la santé par les décideurs clés et le consensus concernant ces compréhensions, limitent ou facilitent le dialogue, le choix des stratégies efficaces et la réalisation des objectifs en promotion de la santé.

Les entrevues indiquent des écarts dans les perspectives et centres d'intérêt concernant la façon dont les décideurs clés comprennent les déterminants de la santé.

Une enquête auprès des décideurs clés montre : 1) des incohérences dans la compréhension par les répondants des déterminants de la santé, en particulier entre croyances affichées et priorités d'action; 2) que le degré de consensus entre les décideurs était plus élevé en ce qui a trait à ce qu'ils indiquent savoir et plus bas en ce qui concerne les choix d'action. Les résultats indiquent le besoin de moyens pour clarifier et pour construire le consensus concernant les déterminants de la santé, ainsi que pour des politiques claires qui encouragent la cohérence entre croyances et actions et minimisent les différences d'interprétation inappropriées ou indésirables.

# Understanding the Determinants of Health: Key Decision Makers in Saskatchewan Health Districts and Saskatchewan Health, 1998

Barbara R. Kahan, MHS<sup>c</sup>,<sup>1</sup> Michael S. Goodstadt, PhD<sup>2</sup>

Although the terminology may be relatively new, the concept of the determinants of health, which refers to the factors that influence health, has been both explicitly and implicitly understood for a long time. In recent history, both professionals and the general public have identified and/or created a variety of explanations for what makes them get sick or stay well, feel good or feel bad<sup>1-7</sup> – understandings and conceptualizations of the influences on, or determinants of, health which have differed as a function of culture, geography, and historical times.<sup>8-10</sup>

In 1992 the Saskatchewan government, in announcing its “wellness” approach to health, stated that health determinants included “employment, income, education, housing, the environment and individual lifestyle choices.”<sup>11</sup> In 1993, 30 health districts and their respective boards were created (later increased to 32) and given accountability “for the overall health of their district’s residents.”<sup>12</sup> More recently, Saskatchewan Health’s Population Health Branch endorsed the Population Health Promotion Model, including its conceptualization of the determinants of health.<sup>13</sup>

This, then, describes the context in 1998, when this research inquiry was conducted. The Saskatchewan government’s position was that a number of factors,

ranging from the personal to the social and economic, have a profound effect on a population’s health. And, decisions influencing these determinants of health were the responsibility of both the central and local levels of government. Accordingly, this inquiry was designed to examine the understanding of the determinants of health among Saskatchewan health district and Saskatchewan Health key decision makers. The inquiry was based on the premise that how the determinants of health are understood by key decision makers, both in their clarity and explicitness, and the degree of consensus that exists regarding the determinants of health will hinder or facilitate productive dialogue, the choice of effective health promotion strategies and, ultimately, the achievement of health promotion goals such as “health for all.”

For purposes of the inquiry, key decision makers included: health district CEOs and board chairpersons, executive directors of Saskatchewan Health branches, and the Minister/Deputy Minister’s Office group.

## METHODS

The inquiry used both qualitative and quantitative methods. Initially, we interviewed seven key decision makers, who were selected using two major criteria. First, to ensure potential representativeness, interviewees included at least one member of each key decision-maker group (health district CEOs, health district chairpersons, Saskatchewan Health executive directors, and members of the Minister/Deputy Minister’s Office group). The three health district interviewees represented one primarily urban and two primarily rural health districts; one was locat-

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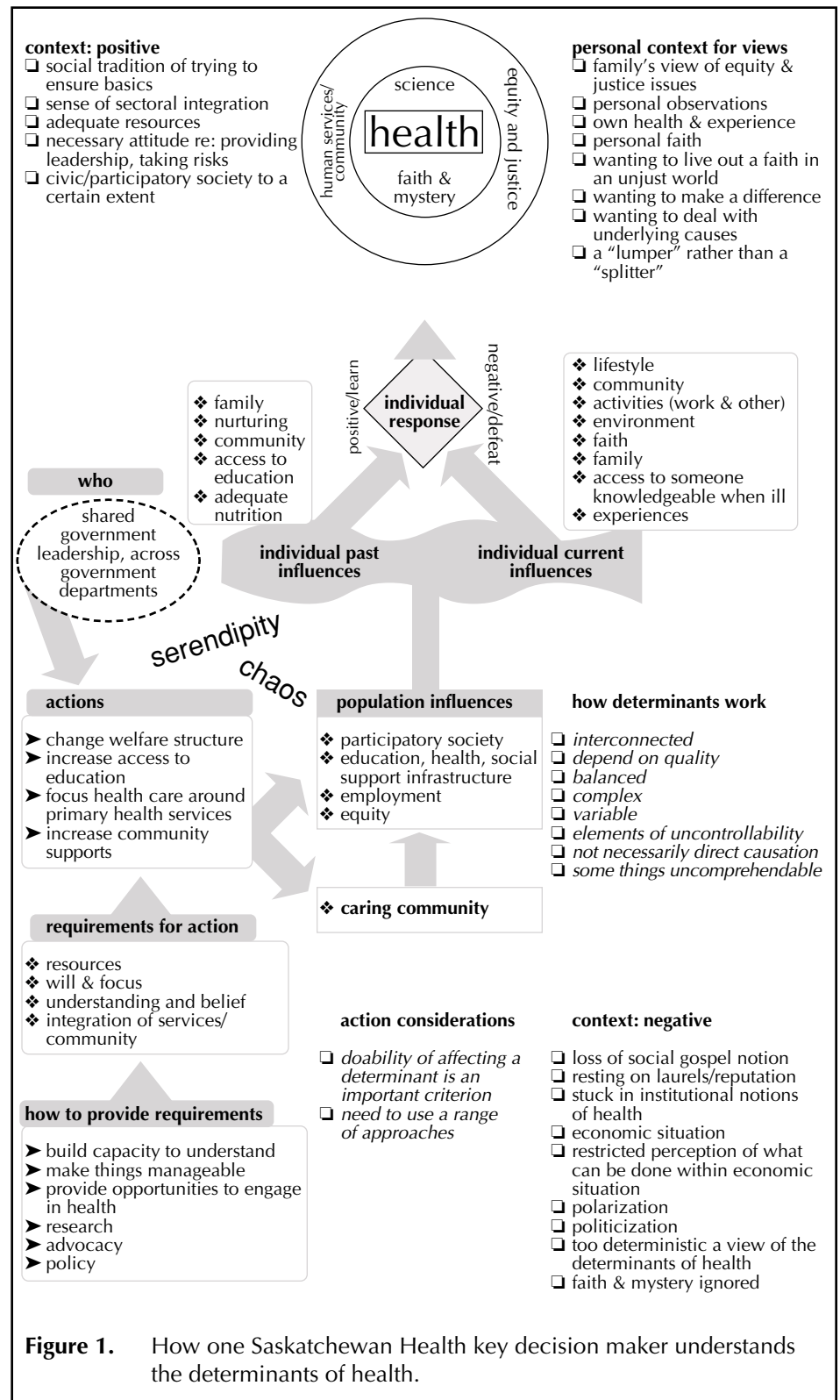
Grateful thanks go to Population Health Branch, Saskatchewan Health, for sponsoring the inquiry upon which this paper is based.

ed in the south-central area of the province, one in the north-central area, and one in the north. The second criterion was anticipated depth of thought concerning the determinants of health. According to the subjective assessments of those who recommended them, selected interviewees were knowledgeable concerning the determinants of health, with a strong awareness of the complexities involved.

Interviews served two purposes: 1) they led to an in-depth understanding of how a few key decision makers conceptualize the determinants of health, and to the development of conceptual maps that represent the *uniquely individual* understandings of the determinants of health as reflected in four of the interviews (see Figures 1 and 2 for examples); and 2) they provided the foundation for the development of a larger survey.

The larger survey produced a statistical profile of the *range* of understandings and the overall level of consensus that exists among a broader group of key decision makers in health districts and Saskatchewan Health (see Figure 3 for a composite model of how questionnaire respondents understood the determinants of health). For this survey, questionnaires were sent to all 84 key decision makers as defined in the inquiry; 39 (46%) were returned. The 39 respondents included: 17 health district CEOs, 13 health district board chairpersons, 4 executive directors from Saskatchewan Health, and 1 from the Minister/Deputy Minister's Office group. Of the remaining 4 respondents, 2 were delegated by key decision makers in Saskatchewan Health to respond in their place, and 2 were delegated by key decision makers in health districts. Fifteen of the 32 responding from health districts were from sparsely populated rural regions of the province (i.e., districts in which the largest centre had a population of less than 5,000 people).

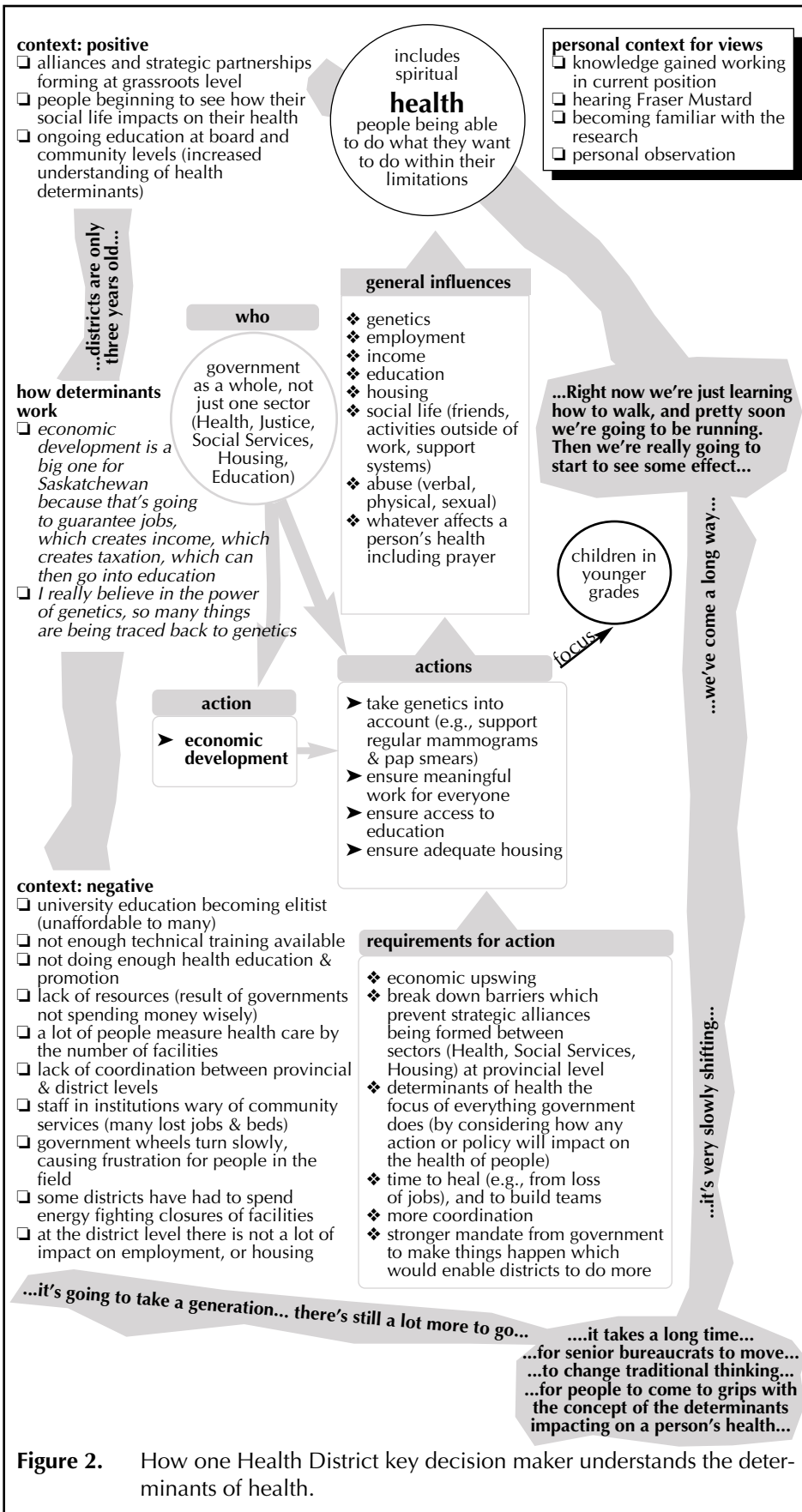
A major limitation of the inquiry is that, while a 46% response is not unusual and can be adequate for some purposes, we must exercise caution in generalizing from the responses of 39 people, even though they might be excellent representatives of key decision-making groups. The present results should therefore be interpreted with



**Figure 1.** How one Saskatchewan Health key decision maker understands the determinants of health.

care, and should be seen to provide a working description, rather than statistically generalizable model, of perspectives among decision makers. In addition, the

low response from Saskatchewan Health made it impossible to compare responses from health district and Saskatchewan Health decision makers.



INTERVIEW RESULTS

Interview results identified differences in perspective and emphasis concerning the determinants of health – differences that were not necessarily incompatible.

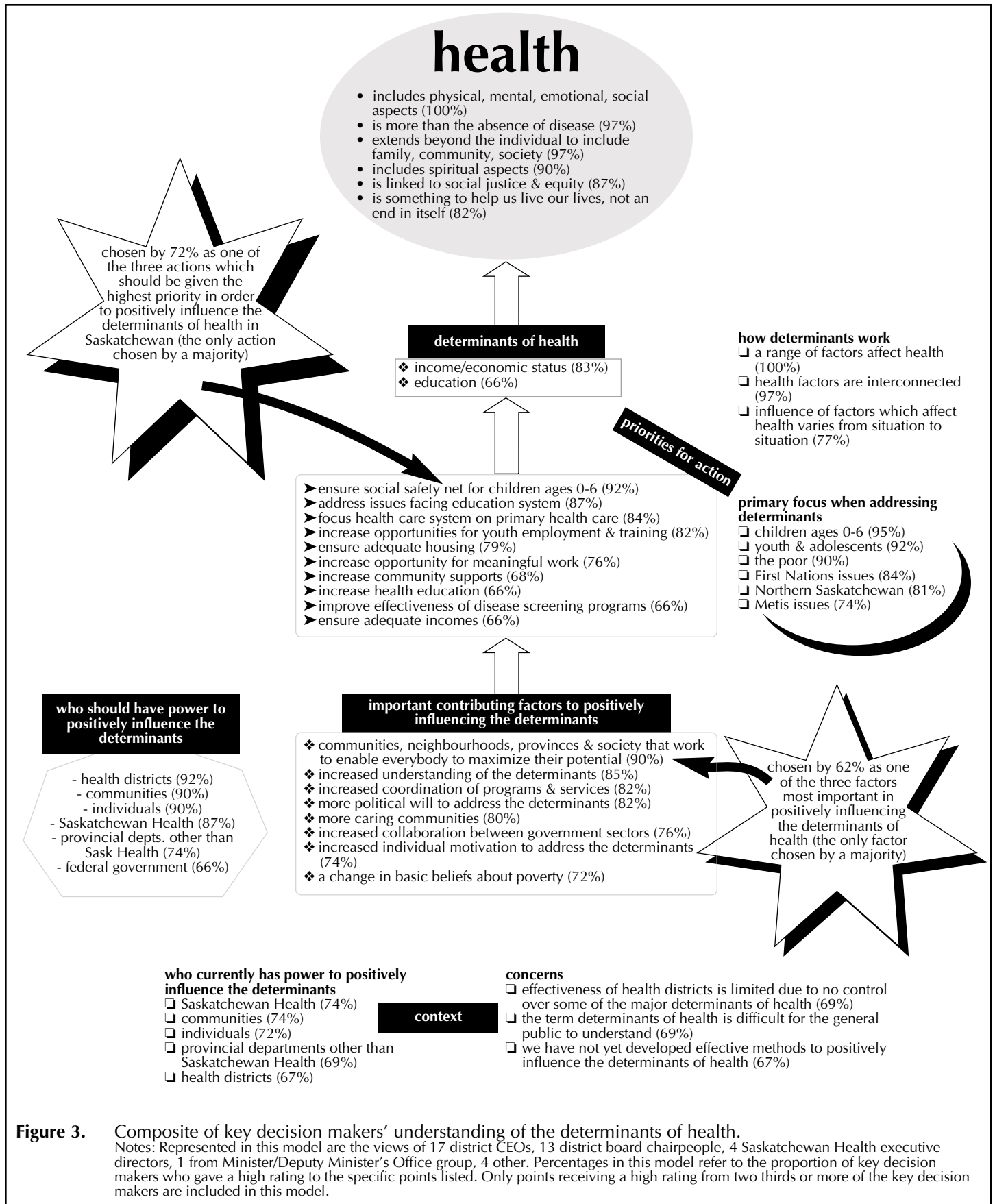
Areas of consensus generally included: the holistic nature of health; a core set of the determinants of health that includes income, education, employment, lifestyle, and social supports; and the importance of a multi-sectoral approach, increased awareness and understanding of the determinants of health, and education as a priority for action. Beyond this, however, there was a diversity in responses. For example, with respect to priorities for action, only one person each suggested changing the welfare structure, involving people in supporting each other rather than relying on professional services, providing a social safety net for children, or providing youth employment and training.

Models based on two of the interviews are included here to illustrate similarities and differences (see Figures 1 and 2). These two conceptualizations were selected for several reasons: they provide a comparison between views from provincial and health district levels; both are well developed and thoughtful; there is a clear-cut contrast between them; collectively, they include many points made in the other interviews.

The first conceptual model (see Figure 1) viewed health and its determinants in a highly complex fashion: it saw health as integrally related to science as well as to faith and mystery; it viewed the influences on health as being complex rather than as elements in a simple cause-effect scenario; it acknowledged health determinants as having dimensions that are not generally recognized (e.g., serendipity and chaos); and it stressed the primary influence of a caring community and the importance of equity and social justice.

In the second model (see Figure 2), health was seen holistically (including spiritual aspects of health), and was defined in very practical terms, namely, “people being able to do what they want to do within their limitations.” Genetics was seen as a key influence on health, while economic development was stressed as a basic strate-

Figure 2. How one Health District key decision maker understands the determinants of health.



**Figure 3.** Composite of key decision makers' understanding of the determinants of health. Notes: Represented in this model are the views of 17 district CEOs, 13 district board chairpeople, 4 Saskatchewan Health executive directors, 1 from Minister/Deputy Minister's Office group, 4 other. Percentages in this model refer to the proportion of key decision makers who gave a high rating to the specific points listed. Only points receiving a high rating from two thirds or more of the key decision makers are included in this model.

gy for addressing the determinants of health. This second model included a strong sense of the continuity of time, moving primarily from the immediate past to the distant future. Not surprisingly, given that this second model represents the understanding of a health district decision maker, the focus was on health district issues (in contrast to the first model which was based on an interview with a Saskatchewan Health key decision maker); for example, according to the second model, “[at the district level], it’s really difficult because we don’t have a lot of impact on employment, or housing.”

## SURVEY RESULTS

The survey of respondents’ views concerning different components of a determinants of health model are summarized in the following highlights (see also Figure 3):

**View of health.** There was considerable agreement among respondents that health is holistic, multifactorial, and can be applied beyond the individual level (a view expressed by 90% or more of respondents), and that health is linked to social justice and equity (87% of respondents).

**Identification of determinants of health.** There was less consensus among respondents regarding factors that act as determinants of health: only four factors were identified as determinants of health by 50% or more of respondents, namely: income or economic status, education, employment, and social support.

**Importance of determinants of health approach.** Eighty percent of respondents agreed that an approach concentrating on positively influencing the determinants of health is the only way to improve the health of the Saskatchewan people.

**Factors that affect determinants of health.** When asked which factors have the most positive influence on the determinants of health in Saskatchewan, the greatest agreement (i.e., 90%) was found with respect to “communities, neighbourhoods, province, and society that work to enable everybody to maximize their potential” – in another question, this was also the only factor picked by a majority of respondents (62%) as one of respondents’ three choices with regard to the importance of

factors in positively influencing the determinants of health. In contrast, fewer than half of respondents (40 to 43%) viewed the following factors as making an important contribution to health: redistribution of resources within government from one sector to another; reduction of inequities between rich and poor; and a change in the way the economic system works.

**Power to influence determinants of health.** Between 62 and 74% of respondents assessed the following as having the most power to positively influence the determinants of health (in descending order): Saskatchewan Health, communities, individuals, provincial departments other than Saskatchewan Health, health districts, and the federal government. Only a quarter of respondents viewed private corporations or non-governmental organizations as having power to positively influence the determinants of health. However, an important distinction was made between ratings of *perceived current* power and *desirable* power; the difference between these two was greatest for health districts – 67% of respondents gave health districts high ratings with regard to their *current* power, while 92% gave them high ratings with respect to the power they *should* have.

**Focus of action regarding determinants of health.** Three quarters or more of respondents agreed that the following should be a primary focus when addressing the determinants of health (in descending order of agreement): children ages 0-6, youth and adolescents, First Nations issues, Northern Saskatchewan, and Metis issues. In contrast, fewer than 60% agreed that the following should be a primary focus when addressing the determinants of health (in descending order): the total population, women, seniors, and the ill.

**Priorities for action regarding determinants of health.** The greatest number of respondents (i.e., 92%) rated “ensuring a social safety net for children 0-6 years old” as a high priority with regard to action that would have a positive influence on the determinants of health in Saskatchewan; as measured by another question, this was the only action chosen by a majority of respondents (i.e., by 72%) as one of their three priority actions to positively influence the deter-

minants of health in Saskatchewan. The fewest number of respondents (42%) selected “reducing differences in wealth between the poorest and richest members of the province” as a high priority for action.

## DISCUSSION

Survey results suggest inconsistencies in how respondents understood the determinants of health, particularly between their stated beliefs and their priorities for action. Illustrating that people “may operate with several conflicting views simultaneously,”<sup>14</sup> 87% of respondents agreed with the statement that the health of the population is strongly linked with conditions of social justice and equity, while generally a much smaller proportion of respondents chose actions that would address equity issues. Possible reasons for these contradictions and inconsistencies include: differences in interpretation of the concept of equity; respondents choosing only actions that they thought were achievable given current resources or mandate; respondents choosing actions with which they were familiar.

Survey results also indicate that the degree of consensus varied from question to question; it was higher for stated beliefs and lower for choice of actions concerning the determinants of health. For example, as mentioned previously, there was high consensus concerning views on the nature of health, while there was much less consensus concerning two critical elements, namely: the three actions that should receive the highest priority in order to positively influence the determinants of health in Saskatchewan, and the three factors that are most important in positively influencing the determinants of health.

The lack of clarity and lack of consensus indicated by the inquiry have two major implications. First, the desired impact on health will not be achieved if actions taken with respect to health are inconsistent with views of health and the determinants of health. Second, lack of consensus among key decision makers may result in their working at cross-purposes, especially if full consensus is assumed and areas of agreement and disagreement are not clearly identified.

The major policy implication of the present inquiry relates to the need for clear policies that foster consistency between beliefs and actions and minimize inappropriate or undesirable differences in interpretations. To this end it is recommended that the following steps be taken:

1. Establish and widely disseminate:
  - clearly articulated population health goals and objectives that address the determinants of health
  - companion guidelines for planning and implementing initiatives designed to meet these goals and objectives
  - a broad "menu" of creative actions that are consistent with agreed upon beliefs
  - indicators to monitor consistency between beliefs, goals and objectives, and actions
  - indicators to monitor areas of agreement and disagreement
  - indicators to monitor the contribution of actions addressing the determinants of health in achieving higher-order health goals.
2. Increase education, training and discussion concerning the determinants of health, including the congruence between beliefs and actions, both within government (at all levels) and outside government.
3. Ensure resources and mandates appropriate for promoting actions that are consistent with beliefs concerning the determinants of health.

This inquiry indicates a need for a clarification process on the one hand, and a consensus-building process on the other. First, it is essential to critically examine: 1) basic beliefs related to health and its determinants in the light of underlying values and existing evidence, and 2) actions that are both consistent with those basic beliefs and are likely to have the desired positive effect on health. Second, it is important to develop strong consensus regarding the actions and support required to deal with the conceptual and practical challenges involved in addressing the determinants of health.

#### ACKNOWLEDGEMENTS

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## A B S T R A C T

The People Assessing Their Health (PATH) Project was designed to provide a means for people in selected communities within Eastern Nova Scotia to become more involved in decision making within the province's emerging decentralized health system. Using community health impact assessment (CHIA) as a population health strategy, community members were able to identify factors that determine their health and to develop tools to help them assess the health impact of programs and policies within their communities. The participatory process used throughout the PATH Project enabled a wide range of people to generate information for designing a community health impact assessment tool (CHIAT) unique to their community. It also helped participants to broaden their understanding of the many factors determining health of their community and of the region.

## A B R É G É

Le *People Assessing their Health Project* (le projet des gens évaluant leur santé) a été conçu pour les populations de certaines communautés, situées dans la secteur est de la Nouvelle-Écosse, et ce, afin de leur permettre de mieux s'impliquer dans le nouveau réseau des services de santé. En se servant du modèle évaluatif 'health impact assessment', les participants ont été appelés à identifier les facteurs déterminants jouant sur toute question de santé publique. Ces mêmes participants ont été, dans un deuxième temps, habilités à développer des outils évaluatifs adaptés aux besoins propres de chaque communauté. Pour fournir une banque de données des plus riches, le processus employé durant le projet a favorisé l'inclusion d'un grand nombre de personnes. Enfin, un volet important, implicite dans ce projet d'études, a été de favoriser, chez les participants, une meilleure connaissance des facteurs déterminant la santé publique, soit au sein de leur communauté, soit dans toute l'étendue de leur région.

# The 'People Assessing Their Health' (PATH) Project: Tools for Community Health Impact Assessment

Doris E. Gillis, MSc, MAdEd

For years, residents of Eastern Nova Scotia have faced many barriers to maintaining and promoting their health because of geographic isolation and socio-economic conditions. The purpose of this article is to describe how the People Assessing Their Health (PATH) Project enabled members of three communities in Eastern Nova Scotia to identify factors that determine their health and to develop tools to help them assess the health impact of programs and policies within their communities.

Nova Scotia, like other Canadian provinces, has been caught in the wave of health system reform – a wave that promised, among other things, more community involvement in decisions that determine health.<sup>1</sup> The PATH Project was conceived when the Department of Health was shifting towards decentralization and regionalization. New governance structures were proposed as a means to enable greater citizen involvement in decision making at regional and community levels. Acting upon the Nova Scotia's Blueprint for Health Report<sup>2</sup> released in 1994, four regional health boards were created and a network of community health boards began to unfold within these health regions. Community health boards were intended to determine local priorities for

improving health of the community and to plan for primary health care. Health was broadly defined to include the many factors that determine health, not just health services.

Situated within this context of health reform, the goal of the PATH Project was to provide a means for people in selected communities within the newly formed Eastern Health Region to identify, define, and assess all aspects of health in their communities in order for them to become effective participants in the emerging decentralized health system.

### Community health impact assessment

Community health impact assessment (CHIA) was chosen as a strategy to increase public understanding of the broad determinants of health and, through this educational process, to empower citizens to have an active voice in decisions influencing their health. Frankish et al. (1996) have defined health impact assessment as any combination of procedures or methods by which a proposed policy or program can be judged as to the effects it may have on the health of a population.<sup>3</sup> This population health strategy has been used to varying degrees across the country.<sup>2,4</sup> It enables government departments to work across jurisdictional boundaries to consider the broad spectrum of factors that determine health, thus assisting policy makers as they make decisions about the impact of their programs and policies on the health of the population they serve. As community members are given more responsibility for decision making, they need both the decision-making support structures, such as community health boards, and the appropriate tools to enable their informed participation in health decisions.

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The PATH Project was sponsored by the Antigonish Women's Association, Public Health Nursing Services of Nova Scotia's Eastern Health Region, and the Extension Department of St. Francis Xavier University. It was funded under the Health Promotion Contribution Fund, through the Health Promotion and Programs Branch, Atlantic Region, Health Canada.

During the PATH Project, groups of participants in each of three selected communities identified health determinants and designed community health impact assessment tools (CHIATs) suitable for their community. Each CHIAT was intended to

- Answer the question *what does it take to make and keep our community healthy?*
- Examine the broad spectrum of factors that determine health – not only specific interests.
- Provide a clear message about what community members consider important in building a healthy community.
- Encourage all community members to become involved in decisions about their community's programs and policies.
- Reflect community concerns and priorities so citizens can make better decisions.
- Be used along with the community health plans developed by community health boards to guide decisions for primary health care.

### The PATH process

As important as the tools themselves was the participatory process used in developing the CHIATs. The process began when the three partner organizations formed a regional advisory committee bringing together community development leaders from across the Eastern Health Region with representatives of the partner organizations. This committee established criteria for selecting communities, suggested potential communities and local leaders to contact, and provided advice throughout the project. Once the three communities were identified, the committee expanded to include representation from each. The three PATH communities included a rural Cape Breton community, an isolated coastal community from mainland Nova Scotia, and a multicultural urban community located in the core of industrial Cape Breton.

The key activities of the PATH process can be summarized in the following four steps.

#### *Step 1: Building the Community Process*

In collaboration with leaders in the proposed communities, the project coordinators held public meetings to determine

interest in participating in the project. Once interest was confirmed, a community-based committee was formed to select one local person to facilitate identification of health determinants and development of the CHIAT. The choice of a person who knew the community, rather than a trained facilitator unfamiliar with the community, was considered key to the success of the community process. The three half-time community facilitators were supported during their nine-month term by two half-time project coordinators through team meetings, site visits, regular correspondence, and training sessions. Training topics included group dynamics, small group facilitation, communication, active listening, group decision making, story-telling/structured dialogue, and participatory data-analysis techniques.

With local steering committees guiding them, the facilitators gathered people together in kitchens and community halls to talk about what makes their community healthy. Because they knew their communities well, the facilitators were able to work through existing organizations, local leaders and resource people, schools, churches, and health centres using local media and informal communication channels.

#### *Step 2: Facilitating Community Discussion*

The PATH Project was grounded in the belief that community people know what it takes to make their community healthy. To gather data, the community facilitators employed a variety of strategies such as story-telling, focus groups, children's artwork and a telephone survey.

Participants were not given a list of determinants of health; instead, adult education techniques were used to stimulate discussion about the wide range of factors. For example, at the beginning of the discussion the group was given a small box containing familiar items that could be easily associated with various determinants of health, such as a notebook symbolizing education and a toy telephone for social support. The facilitators encouraged participants to consider all aspects of health in order to elicit community members' insights into health, not their reactions to a predetermined list of determinants.

The purpose of the community discussion was not only to gather data for developing the CHIAT but also to provide an opportunity for community members to broaden their understanding of factors determining health in their community. To this end, the technique of story-telling, adapted from the structured dialogue approach used by other Canadian health promoters, worked well.<sup>5</sup> Modeled on principles of adult education, the story-telling strategy encouraged participants to identify factors that influenced their health by sharing stories based on their life experience in their community. The small group discussion process enabled participants to reflect upon what they heard, to develop new understandings of health, and to identify future actions needed to support health in their community. Thus, community members participated in the generation and analysis of the information that served as the base for their CHIAT. The facilitator worked with members of the steering committee to identify clusters of themes that reflected key determinants of health in their community.

#### *Step 3: Designing the Tool*

Each PATH community steering committee was challenged to design a tool that would have meaning to their residents and would be used in making decisions. Not knowing what such a tool would look like tested their imagination and creativity. The following were suggested as important components of a CHIAT:

- A vision statement for a healthy community
- A summary of key determinants of health in the community
- Other factors that are important in building and sustaining a healthy community
- A statement of the values and principles that guide community members as they work together
- Worksheet for health impact assessment which states what community members consider a priority when decisions are made about programs and policies that could impact on their health
- Worksheet for planning actions
- Illustrations or prose that capture their sense of community
- Description of the process
- Acknowledgements.



Tools were drafted and then pre-tested in community workshops. Suggestions were incorporated into the final CHIAT. These workshops also provided an opportunity for participants to identify strategies for supporting use of the tool and for continuing to work together to build a healthy community.

#### *Step 4: Supporting Community Use of the Tool*

Involving a wide range of people from the community in the development of the tool was the first step in supporting its use. However, it was also important to distribute the CHIATs widely to local leaders, organizations and decision-making bodies within the community including community health planning groups and municipal decision makers. People who served on the steering committee worked with these groups to ensure continued use of the tool.

#### **Outcomes**

The three PATH communities succeeded in developing tools in the form of booklets that portrayed the unique character of each community. Although the tools were based on perspectives of people in each PATH community, all of the CHIATs identified similar categories of health determinants. The most important determinant recognized by all three PATH communities was jobs/employment opportunities. This was followed, in no order of importance, by healthy child development, lifelong learning, lifestyle practices, physical environment, safety and security (fire and police protection), social support, stable incomes, and health services (including acute care, home care, and primary health care).

Another set of factors was mentioned just as frequently as these determinants of health. The second set described factors considered to be key in building healthy and sustainable communities. These included communication (lack of information and poor communication are barriers to assuming greater community control); community involvement, local control, and opportunities for leadership development; confidence in one's community; coordination and cooperation in service delivery; ethics, values and spirituality; and respect for one's culture and history.

A resource entitled *PATHways to Building Healthy Communities in Eastern Nova Scotia* was developed out of the experiences of the three communities. The resource suggests various approaches communities can take in addressing factors that determine their health and in working towards building a healthier community. It also contains the three community tools.

#### **Lessons learned**

The PATH Project provided a unique opportunity for health promotion innovation and resulted in a number of valuable lessons about implementing health impact assessment as a community health strategy. Although these lessons have evolved from the experience of people living in the three PATH communities, they have relevance to others involved in similar community health development initiatives.

- The participatory process used throughout the PATH Project enabled a wide range of people to share the meanings they gave to health based on their experiences of living and working in their communities. Not only did the group process generate information for designing the CHIAT, it also helped participants to expand their understanding of factors determining health of the broader community. For many, it helped shift their thinking beyond the illness problems of individuals to an examination of how programs and policies could support or weaken health.
- People in the three selected communities identified similar factors determining health. Furthermore, this list of factors is relatively consistent with the determinants of health articulated in the population health framework recognized in Canada today. However the second, and just as noteworthy, set of factors identified by community members addresses issues related to what they see as socioeconomic inequalities in their communities, their sense of control over their health, and their capacity to actually build a healthy community.
- The project demonstrated the value of developing CHIATs as a strategy to support community action on health. Participants were moved to identify directions for future action as they dis-

cussed factors determining their community's health. Working together to create something as concrete as a CHIAT kept community participants interested and involved.

- The participants from the three communities who were involved in developing the CHIATs developed a greater understanding of each other's community health issues and of the challenges facing the region. The process helped to create a common understanding needed for the critical analysis of factors impacting on the health of the whole region.
- The PATH Project was timely because it supported community involvement in health decisions in anticipation of the province's shift to decentralized decision making. On the other hand, its implementation was too early because, in reality, the proposed governance structures to support citizen involvement in health decision making did not proceed as quickly as expected. Midway through the life of the project the provincial government, focussing on cost containment within the health system, halted the designation of community health board representation on regional health boards, thus disabling any significant system-wide shift to community participation in decision making. Without government commitment to involving citizens in decision making and thus, in creating healthy public policy drawing on more than a top-down approach, community health impact assessment lost much of its relevance and appeal.

#### **SUMMARY**

Launched at a critical time in the health reform process, the PATH Project challenged people to think more about factors impacting on their health and about how these factors can be considered when program and policy decisions are being made. The PATH Project created a broader understanding of the varied aspects of health, of health determinants beyond health care services, and of what it takes for local citizens to build a healthy community. Above all, it revealed how important it is that the public and policy makers work together to create both the decision-

making structures and the tools for community participation necessary to support health in a region where inequalities exist in health status and accessibility to the socio-economic conditions that support health.

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## A B S T R A C T

The ability to measure population health trends and improvements can be enhanced through collaborative efforts to describe existing knowledge and via shared development opportunities. This paper highlights a project undertaken in Alberta which has created an inventory of health status indicators in use in the province, and provides a framework for strategic progress in the development and use of a common set of indicators across the province. The work may provide a model for other regional health authorities interested in comparing the health of their populations across time and across health regions.

## A B R É G É

La capacité de mesurer les tendances et les améliorations de la santé de la population peut être augmentée par des efforts de collaboration pour décrire les connaissances actuelles et par le partage des possibilités de développement. Cet article présente un projet entrepris en Alberta qui a permis d'inventorier les indicateurs d'état de santé utilisés dans la province, et fournit un cadre pour l'amélioration stratégique dans le développement et l'utilisation d'un ensemble commun d'indicateurs à travers la province. Ce travail peut servir de modèle pour d'autres autorités sanitaires régionales intéressées à comparer la santé de leurs populations dans le temps et entre elles.

# Health Indicator Development in Alberta Health Authorities: Searching for Common Ground

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Health Regions need to be able to measure the baseline health of their populations and the impact of the health system on that baseline. Key indicators alert health planners and policy makers to potential issues and enable them to ask further questions which lead to important decisions about the management of health.<sup>1-3</sup> A standard set of indicators allows for assessment and monitoring of the overall health of Albertans and also provides comparisons enhancing the usefulness of indicators in policy† development, service planning and evaluation.

Several definitions for health-related indicators exist in the literature.<sup>3-5</sup> The literature stresses that, ideally, indicators should actually measure what they are intended to; they should provide the same answer if measured by different people in similar circumstances; they should be able to measure change; and they should reflect changes only in the situation concerned.<sup>3,4</sup>

In reality, these criteria are difficult to achieve, and indicators, at best, are indirect or partial measures of a complex situation.

A challenge in developing and defining indicators is linking a concept to an observation that can be collected in an information system<sup>5</sup> where enormous quantities of data are relatively easy to access. It is vital to give critical thought to how useful the available data are for the purposes of measuring health and monitoring the activities of the health system<sup>6</sup> and whether the data links conceptually with agreed upon, meaningful indicators.<sup>1,4,6-8</sup>

The SEARCH‡ Health Indicators project has made an early and important contribution toward the development of health indicators for Alberta. Initial exploration of the level of indicator development and use in Alberta in 1997 suggested the following:

- The historical focus has been on utilization and productivity indicators;
- There is a need to shift focus to indicators related to the overall health of individuals;
- The availability of required data to support indicator use is questionable;
- Consistent and strategic application of existing population health indicators is lacking;
- Indicator development was being conducted independently throughout the province by various key stakeholder groups; and,

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† Health policy may be regarded as the aggregate of principles or themes that prevail in the ways society distributes its resources and power as they relate to population health determinants (Miller C, Fine A, Adams-Taylor S, 1989).

‡ The Swift Efficient Application of Research in Community Health (SEARCH) Program is a collaborative initiative of the Alberta Heritage Foundation for Medical Research, the regional and provincial health authorities and Alberta Health. In partnership with the universities, participants are provided with support and expertise to participate in health research.

- Health reform provides a venue for the systematic identification, development, review and analysis of health indicators in Alberta.

As a result of this analysis, the project team's overall vision is: "The development, implementation and application of a common set of indicators and outcome measures by Alberta health authorities."

This vision will only be accomplished through completion of a number of phases: assessment of the current level of indicator development, collaborative processes to build on what exists, and consistent implementation. The purpose of this initial study was:

- To describe and inventory population health indicators and health system output and outcome indicators being used in the various Health Regions across Alberta as well as within the Mental Health and the Cancer Boards, as of February 1997; and,
- To link and share the inventory with all those involved in health services.

This paper presents results from this first phase of research.

## METHOD

A collaborative approach to indicator identification and classification was forwarded through the creation of a targeted survey. Simplicity and user-friendliness were the overriding principles for survey development. The draft tool was reviewed by several key referents and pre-tested in two regions. SEARCH participants in all regions were involved and they, in turn, sought out several local stakeholders in order to complete the indicator survey. This resulted in collective effort and more extensive buy-in at the regional level. The survey tool was used to collect information related to indicator definition, method of calculation, users of the indicator, and the data source.

The project then explored comprehensive frameworks and databases used by others in Alberta, across Canada and in other countries. Table I highlights principles which guided the choice of frameworks reviewed. Models reviewed were then mea-

<b>TABLE I</b> <b>Principles Guiding Indicator Classification</b>	
1. Comprehensive -	<ul style="list-style-type: none"> <li>• encompasses a holistic view of health (physical, mental, spiritual and social well-being and health as resource for everyday life)</li> <li>• accommodates all the indicators submitted by the regions</li> <li>• accommodates all health service outcome indicators as well as health indicators in the same framework</li> </ul>
2. Client-centered -	<ul style="list-style-type: none"> <li>• the client, patient, family or community are seen as central</li> <li>• includes subjective as well as objective measures</li> </ul>
3. Simple -	<ul style="list-style-type: none"> <li>• facilitates understanding and allows easy retrieval</li> </ul>
4. Relational -	<ul style="list-style-type: none"> <li>• describes the relationship of health, health service outcome, public policy and research indicators simply and visually</li> </ul>

<b>TABLE II</b> <b>Existing Indicators Used by a Majority of Health Regions in Alberta</b>	
1.	Proportion of Population Living Below the Low Income Cut-off
2.	Proportion of Regular Smokers
3.	Proportion of Women who have had a Pap Test
4.	Proportion of Women who have had a Mammogram
5.	Breastfeeding Rates
6.	Incidence of Low Birth Weight
7.	Number Referred to and from Specific Service or Program
8.	Number of Admissions to Specific Program or Service
9.	Number Served/Number of Visits/Number of Consultations
10.	Average Length of Stay
11.	Number of Separations/Discharges
12.	Wait Lists
13.	Immunization Rates
14.	Hours of Service (Direct and/or Indirect)
15.	Proportion of Persons who do not Perceive Themselves in Good Health/ Subjective Health Ratings
16.	Communicable Disease Rate - Vaccine Preventable
17.	Incidence of Notifiable Diseases
18.	Hospitalization Rate
19.	Mortality by Cause, Age, Gender and Location and Trending
20.	Infant Mortality Rate
21.	Potential Years of Life Lost

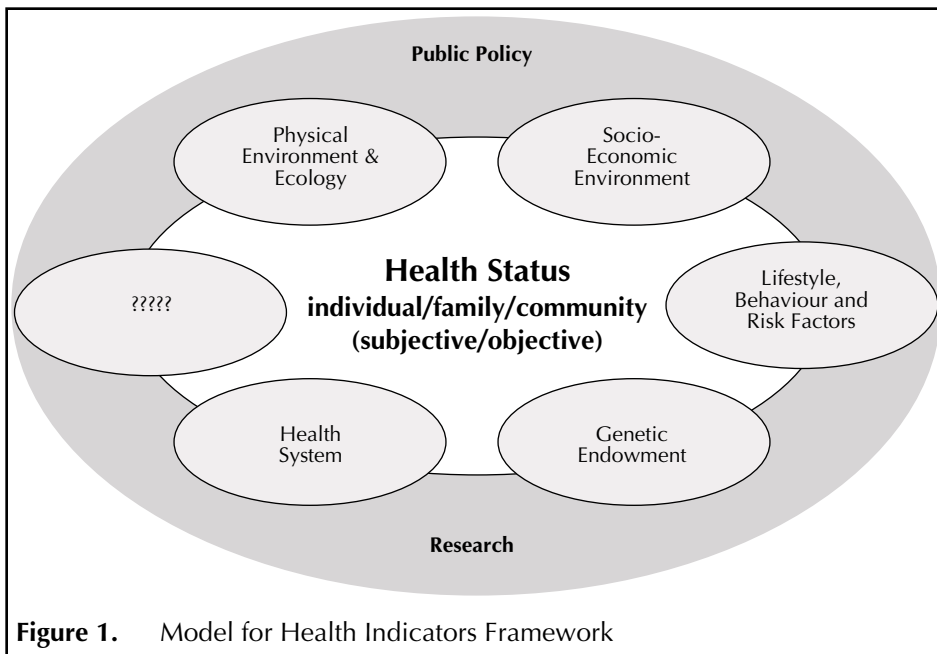
sured against these principles.<sup>¶</sup> It was determined that by integrating the Canadian Institute for Health Information (CIHI) indicator framework with the dimensions of quality proposed by the Canadian Council on Health Services Accreditation (CCHSA), the majority of indicators being collected regionally could be utilized. By combining and expanding on these existing frameworks, a new con-

<sup>¶</sup> Health and its Biological and Behavioural Determinants Framework. Evans and Stoddard (1990); Dimensions of Health Status & Factors that Affect Them. Bergner (1985); Edmonton Health Information Network (1995); Alberta Health Business Plan Required Measures (1996); The Framework for Planning and Evaluating Community Based Health Services in Canada. Wanke, Saunders, Pong, Church (1995); National Quality Care Organization, HEDIS 3.0, Quality Compass (1997); OECD Health Data (1996); Canadian Council on Health Services Accreditation Quality Care and Services (1995); Provincial Health Council of Alberta (1997); FACCT (1997); CRISP (1992) Healthy People 2000: National Health Promotion and Disease Prevention Objectives (1991).

ceptual model for framing and organizing the inventory emerged. Figure 1 visually represents the indicators collected and their relationships to each other in an understandable framework.

In this model the health status of the individual, family, and community are of central importance, with both objective and subjective components, wherein health is influenced by all other areas of the model and vice versa. Surrounding and intersecting "health of the individual/family/community" are the determinants of health, including a space for determinants yet to be identified. A larger circle, representing public policy and research, surrounds health status and health determinants, indicating that public policy and research can influence both.

Following development of the framework, the indicators submitted by the regions and provincial health authorities were categorized. Indicators were collapsed



**Figure 1.** Model for Health Indicators Framework

using a two-stage small group process to allow for verification, to ensure consistency in the grouping of the indicators, and to reduce duplication and retain validity. After additionally reviewing how the regions used an indicator, it was finally placed in one of the categories identified within the model.

## RESULTS

All 17 health regions in Alberta as well as the Provincial Mental Health Advisory Board and the Alberta Cancer Board participated in the survey. In total, 1,647 indicators were identified. The number of indicators received from each region ranged from 15 to 409 with an average of 75. The inventory revealed 21 indicators being measured, in some fashion, by the majority ( $\geq 10$ ) of health regions/provincial health authorities (Table II). While these indicators do not represent a strategically defined or jointly agreed upon common core set of health status indicators, they may provide a starting platform for future planning. Regional responses to the survey were not uniformly comprehensive. The "indicator name, definition, source" and whether it was "current or planned" were the most frequently completed questions. Approximately 75% identified a "formula used for measurement". "Who uses the information, for what purposes" and "the validity

of the survey tool" questions were completed less often. Issues of balance and overlap also became evident from the survey results. For example, most regions identified many more health system indicators than other health determinant indicators and some indicators were associated with multiple health status constructs, raising concerns for the validity of the indicator.

An unexpected result was that Alberta Health performance measures, in place at the time of the survey, were not always included in each region's list of indicators. The majority of indicators submitted were health system output measures such as numbers of clients seen, number of separations, and productivity or workload indicators. Some regions identified specific measurement tools without linking the instruments to any particular health indicators. Responses to the surveys not only elicited indicators collected at a system or population level but also included program-specific or individual measures. Many of the indicators submitted were similar across programs, with the potential to be collected as a common core subset of program indicators.

A lack of standardization and validation of indicators was evident. Frequently, indicator names were the same, yet collected and reported differently by regions. For example, "population" varied in definition and/or data source from one region to

another. Complex concepts such as "health" were also measured differently across regions – some used subjective methods (e.g., self-rated health status) while others used objective methods (e.g., hospital morbidity) or a combination of both. As well, methods of calculation for indicators varied from region to region. While some regions focussed on particular population subgroups – e.g., children or seniors – others used total population figures or population figures within specific age groups to report their findings, often with age categories differing from one region to another. The method of reporting varied from total numbers to proportions by age and gender while others reported rates per 100,000 population.

As requested, many of the regions identified indicators that were not currently being measured but were planned for measurement in the future. In some cases, regions stated that they planned to collect indicators at a frequency that is not possible given the timing of release of data. For instance, some regions listed Canada Census as a source for data to be collected on an annual basis, even though the federal census is conducted every five years. Often data sources for current and planned indicators were not identified. In other cases, both primary and secondary sources were identified for the same or similar indicators. An immediate challenge identified was the reduced frequency/availability of municipal surveys/census information due to reorganizations of planning commissions and funding reductions to municipal governments. These findings raise issues concerning the realistic availability of data for some planned indicators.

## DISCUSSION

This inventory of indicators used in Alberta Health Authorities presents an opportunity for all stakeholders to work together to clearly articulate, collect and share standardized definitions and measures of common indicators already in use. With the model they provide a reference point for regions, a framework upon which to begin to communicate regional information needs. From this starting point, additional refinement and development of

other commonly required indicators could be undertaken.

It is recognized that significant progress toward indicator development has been made in some regions since the distribution of this survey. The collection of indicators received represents a snapshot of indicators locally known or in use at a given point in time. Therefore, as with all such single, cross-sectional surveys, it has some limitations. These include an inability to capture the dynamic ongoing process that indicator development entails, or the variations in progress being made before and since the survey was completed; however, diversity in quantity, breadth and progression toward indicator development and outcome measurement was still apparent within the confines of the study design. Also, the variation in terms used to describe outcome indicators throughout the literature may have resulted in non-report of some indicators, such as the “performance measures” specified by Alberta Health, that may not have been recognized as “indicators” by some regions. Subsequent phases of indicator development could address these inconsistencies and extend completeness of the inventory.

The inventory of regional indicators reflects the challenges faced in measuring the achievement of “healthy Albertans in a healthy Alberta.”<sup>9</sup> Measures range from the protection and improvement of the health of the population to the response of the system to the needs of individuals, families and communities. Looking at all of the indicators collectively, a holistic view of health and the health determinants is represented. That is to say, the regions view health as more than just the absence of disease. On an individual regional basis, however, the holistic view of health was not always as apparent.

There is increasing demand that organizations provide measurable evidence that structures and processes of the organization work together to achieve the intended results and improve the health of the individual/family/community. Traditional measures of input (e.g., number of hospital beds, number and types of staff) and output (e.g., number of persons attending a program, number of beds utilized, number of persons receiving screening tests, average length of stay) have been documented by survey respondents as important decision-

making tools across the continuum of care. These measures provide valuable information regarding the efficient and appropriate use of resources; however, information concerning the links between results (e.g., health outcomes) and enabling processes (both inside and outside the health system) is also being recognized as essential. While difficult to measure quantitatively and often complex in nature, linkages provide critical additional information. Examples of these links include 1) the link between percentage of children immunized (system output) and the communicable disease rate (outcome), and 2) the link between readmission rates (outcome) and early postpartum discharge (process). There is a need to broaden the range of important and acceptable indicators to include those that help to *qualify* as well as *quantify* progress towards health goals and outcomes... “If improved practice or process cannot be linked to improved outcomes one must question whether all the resources used to modify the process were well spent.”<sup>10</sup>

In addition to being understandable, timely, relevant and reliable, indicators need to provide intra-regional and inter-regional comparisons over periods of time. To facilitate this, common definitions and sources of information and standardized data groupings must be negotiated. Steps have been taken by health-related groups having common goals of consistent collection and reporting of data sets. These include initiatives by CIHI, CCHSA, regional health authorities, provincial departments of health, and Health Canada. For example, a pilot project initiated by CIHI in conjunction with the CCHSA has been designed to evaluate the reliability and usefulness of six generic indicators.<sup>11</sup> In addition to those indicators collected by the health sector, cross-sectoral collaboration related to data collection and reporting was evidenced in the regional indicators submitted. New partnerships that bring together broader ranges of stakeholders are emerging and should be supported.

## CONCLUSIONS

The results of the survey confirmed the regional and inter-regional issues initially identified by the SEARCH participants – those of inconsistency, non-comparability of measures between regions and, in many

cases, the determination of indicators based upon data currently available versus upon identified information needs. In contrast, the survey also helped to identify areas in which commonalities exist, providing a stepping stone upon which to begin the development process toward a common set of indicators. The Model Health Indicator Framework uses indicators and measures already familiar to the regions. The perspective chosen provides unity by dovetailing well-known concepts into a comprehensive and holistic model, and allows for ongoing identification and refinement of measures of health status and determinants of health. It will be important to move towards a commonly shared, consistently defined and validated core set of indicators in the same spirit of collaboration that allowed the inventory to be constructed. Developing and sharing a core set of health indicators and health outcome measures across the province could contribute significantly to defining and maintaining health priorities consistently and equitably in all parts of the province and for all population groups.

Wider lessons from this work suggest the following needs:

- *Champions* (e.g., SEARCH) – if you want a survey of this magnitude to succeed and create common vision;
- It helps to have a *political driver* – (e.g., larger political effort was being driven by provincial business planning requirements and a move towards greater accountability);
- *Time* – moving towards common indicators is not a fast process;
- *A phased approach* – moving when and where there is the opportunity to move;
- *Pragmatic action* – if you can link and work together, that is helpful but not always feasible or timely;
- *Multi-level action* – there are different levels of discussion and action (the central level is not the only place where activity around indicator development can be driven – collaborative action at the regional level is also essential); and
- *Sustainability* – committed effort over time is both critical and problematic as people, positions and priorities change.

If these needs are met within the process of indicator development, individ-

ual authorities are less likely to push forward in isolation and the capacity for greater sharing and collective adaptation is maintained. There appear to be many commonalities in the type of indicators needed by health authorities and other related sectors; many are similar to those identified by CIHI. National and provincial governments are pursuing the refinement of indicators that already have a defined database source. Forums also need to be established that are multi-sectoral and multi-regional in design, that can further elucidate and expand the range and consistency of shared and valid health indicators. These efforts are required in order to push the boundaries beyond what is currently available and easily collectable. Additional collaborative action could help ensure common data collection methods, extend the range of sharable health indicators, and enhance transferability of information concerning the health status of various populations across Canada.

### ACKNOWLEDGEMENTS

We would like to thank the Alberta Heritage Foundation for Medical Research for sponsoring the SEARCH program and Alberta health authorities for participating in the project. Thanks are also extended to the other SEARCH participants who facilitated the indicator project in their regions, to regional health authority staff who completed the survey and to SEARCH faculty who supported the project. This study is but one example of the gains that can be made when organizations and individuals are supported to work together towards a common vision.

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## A B S T R A C T

While concepts that underlie good public health and population approaches to health go back a long way, renewed recognition that health is dependent on more than the ability to treat has given new impetus to a more comprehensive approach to thinking about and planning for health and human services. This paper offers a reflection on how we conceptualize population approaches to health. Recognizing our current understanding of health determinants and dynamics, the paper explores moving from “avoiding disease” to to “pursuing health.” It then examines the pragmatic balancing act of science, art, beliefs and politics, with attendant traps. It concludes with a way of framing action on population health and translating theory into practice.

## A B R É G É

Si les concepts qui sous-tendent les bonnes approches en santé publique et en santé de la population ont des racines profondes, une reconnaissance renouvelée du fait que la santé est tributaire de plus que la capacité à traiter a fourni une nouvelle impulsion à une approche plus globale pour penser et planifier les services de santé et sociaux. Cet article propose une réflexion sur la façon dont nous conceptualisons les approches de la santé de la population. Reconnaissant notre compréhension actuelle des déterminants et des dynamiques de la santé, l'article explore le mouvement d'une approche qui cherche à éviter les maladies à une approche qui a comme objectif la santé. Il examine ensuite l'équilibre pragmatique entre la science, l'art, les croyances et les politiques et quelques-uns des pièges qui y sont liés. Il conclut avec une façon de situer l'action en fonction de la santé de la population et par une traduction de la théorie en pratique.

# Applying a Population Health Approach

*David Butler-Jones*

In 1762, Rousseau was able to say, with little threat of contradiction, that “One half of children born, die before their eighth year. This is nature’s law, why try to contradict it?” Average life expectancy at birth had at that time changed little since the Bronze Age – about 30 years. By the early 1900s, it had increased to 50 years, and now runs in the high 70s for most developed countries.

It is well recognized that most of these improvements derived from attention to basic supports for health such as improved nutrition, adequate housing, smaller families, sanitation and clean water, pasteurization, immunization and also the addition of some good basic health care, antibiotics and the like.<sup>1</sup> More recently, recognition that additional health inequities cannot be attributed to differences in access to or quality of health care has furthered the interest in understanding how the various determinants of health influence the death, injury and illness rates of individuals and populations.

Many authors have explored some of those factors commonly called determinants. These include income and social status, social support networks, social cohesion, social and income inequality, education, employment and working conditions, physical environments, healthy child development, personal health practices, coping skills, health care and others.<sup>2</sup> It is not the purpose of this paper to review this evidence other than to suggest that we are still early in developing an understanding of influences on health. Our current understanding of the influences on health and a

population health perspective may be comparable in scope and limitation to the early days in the development of germ theory and understanding the influence of microbes on health.<sup>3,4</sup>

While the terms Population Health and Population Health Promotion have some currency in Canada and elsewhere, it is acknowledged to be a language without common definition. For the purpose of this paper, Population Health loosely encompasses our knowledge of the various dynamics and determinants of the health of populations and individuals and the programs and policies necessary to support health.

As our understanding of influence and causation continues to develop, the context we provide to the application of that work will then determine our abilities to effect change. What follows are some reflections that may be helpful as we work to translate population health into practice, providing a context for how we think through problems. These reflections represent in part a philosophy of how we approach these issues and concepts with varying degrees of scientific evidence currently in place to support them. They are intended to further spark thought and discussion and to encourage program development and research in support of (or to refute) our current understandings of the determinants of health.

### **Avoiding disease or pursuing health**

One aspect of working with communities and individuals that often perplexes health care providers is that people often do not share the same understanding of health and its primacy. When we consider the challenge of making personal change ourselves, even when we know the risks,

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some humility may be warranted in dealing with others.

It is worth acknowledging then that we conceive health to be more than the absence of disease or infirmity. The pursuit of health should, therefore, include an increasing understanding of other contributors to a broadly defined 'good health', of aspects over which the individual and community have influence in a constructive way. These include, among others, 1) the development of supportive communities, what some have termed "civic society," 2) involvement in arts and music with creative and health-enhancing benefits to both participant and observer, 3) an active lifestyle, both physically and mentally, to whatever extent individuals are capable, 4) voluntarism and the giving of oneself to others, in the process receiving the intangible benefits that contribute to well-being, 5) friends and family, who provide support and counsel in both good and bad times, and 6) spirituality and faith, which represent having a belief in something greater than oneself and a supportive faith community, both of which may encourage health.

### The Population Health balancing act

Professional, policy, and programmatic approaches to address population health needs inevitably involve tradeoffs if they are to be doable and sustainable.

We live and operate in a realm of mixed perspectives and abilities with respect to Science, Art, Values and Beliefs. Values are not all universally shared, and not all dilemmas are answerable by science. Thus there is continual reflection on what is known, or likely, and how we think about questions and shape answers. The political process requires an understanding not only of what is ideal but also a pragmatic view of what is doable and acceptable given existing levels of immediacy and importance. As benefits and liabilities of changes often accrue differently, there are a range of tradeoffs that require consideration.

While there are multiple considerations, of which only a few are alluded to here, there are additionally two underlying questions that need to be considered. First, we should be clear about decisions and the process that underlies them. That is, are

the actions being taken with, for, or to those affected? Second, given that successful population approaches may require substantial social or cultural change, are there compromises to be made or aspects given up on in order to reach the ultimate goal? In colloquial terms, are we willing to lose a few battles in order to win the war?

These considerations overlay national, provincial and regional structures and the variability of motivations, interests and needs that exist. One then faces the reality that inputs and outcomes are moving targets. Policy and resources in the political arena are dependent on a mix of pressure and evidence, and scientific evidence sometimes takes a low profile. There is a complex web of influences and interactions that require both understanding and attention. Ultimately, one might expect durable success to involve comprehensive, flexible, and adaptable approaches.

### Traps and snares

As we come to understand the enormity of the influences on health of the determinants, there are at least two potential responses that can be dysfunctional and worth addressing as they effectively sabotage needed changes. "Macro Avoidance" occurs when we focus on the many factors beyond our control, therefore deemed unaddressable, or we assume these factors are someone else's to deal with, so that we cannot act (i.e., we cannot recognize the trees as we are overwhelmed by the forest). "Micro Paralysis" occurs when we get so caught up in detail that we miss the underlying issues (i.e., we cannot see the forest for the trees).

There are two particular issues facing health care today as the past catches up with us: "Health Imperialism" describes the situation wherein health practitioners come to recognize the importance of non-health sectors in affecting health and thus make efforts to direct others' programs or increase their accountability for health. Given health's dominance in government budgets and a relative lack of collaborative action with other sectors, such imperial assertions are sometimes greeted with resentment and scepticism. For example, those in a non-health sector who have been trying to address social determinants for

decades, while hospitals ate up the budgets, might say, "where have you been?"

The "Hungry Elephant" recognizes that the current system of health is insatiable. There will never be enough money and resources to satisfy potential needs in a system focussed mainly on treatment. Governmental focus on investing in health only *after* the problems or needs of the health care elephant are met means that the future of the next generation (and the system) is in peril.

"Health Determinism" is perhaps the greatest trap, however, as it reflects a deterministic way of thinking that ignores the complexity of relationships and potential adaptations. This view assumes that the determinants are immutable – i.e., "you are poor therefore you are ill." Data provide tools for understanding and challenges for needed changes and more appropriate accommodation. We risk being judgemental or exclusionary, however, if we underestimate the capacity of human adaptation, variability and ability to overcome adversity. As such the determinants should be considered more as predisposing than predictive.

### Influencing the determinants

Recognizing the importance of the determinants and the limitations of health services in affecting them is, however, not enough. There is abundant need for translation of population health frameworks and evidence into forms which health professionals or organizations can actually use to affect or influence health and its determinants. This has proven difficult as understanding has seldom been translated into consistent action. A recent study of selected health care decision makers in Saskatchewan (Kahan et al., this volume) identified that the way in which population health is conceived varies and the ability to articulate strategies is inconsistent at times. While public health and health promotion have had some focus on population approaches, most of the health system has been focussed on acute care. As such it is not surprising that in these relatively early days, new attitudes, reflections and approaches are variable and effective implementation is still in the development stage.<sup>5</sup> In part this results from snares such

as those outlined above, and in part it reflects a problem in conceptualizing approaches of where and how one can act.

The following categorization may prove helpful in discerning what can be done to translate theory into practice. (PACEM)

**Partner:** To address the determinants effectively, we require a broad intersectoral approach. This can range from the collaborative work of health boards and government departments with other community and government agencies, through to the components of health promotion that can fit into a busy clinical practice as a complement to community efforts. Tools, simple interventions, reinforcing advice: each can support other community-based actions. While individuals or groups alone may not be able to effect significant policy or program changes, working together complements strengths and maximizes effectiveness.

**Advocate:** Recognizing how social determinants or other factors influence the health of clients or patients can be a powerful motivation for advocacy. Health professionals have always had as part of their repertoire the role of champion, articulate spokespersons on issues of concern with respect to health in the community. The need for advocacy is also not lost on health boards who increasingly recognize how lack of attention to addressing social and other determinants impacts on their ability to deliver effective services within their budgets.

**Cheerlead:** Sometimes what may be most helpful are a few well-placed words of, encouragement, and non-obstruction of

others working towards improving conditions for health. Keeping physicians informed of activities – through brief notes in a newsletter from the local medical health officer (public health) or in the medical association bulletin, for example – is a simple strategy to improve levels of awareness. Moving beyond turf issues between professions and agencies requires both humility and an ability to see beyond personal interest to collective goals.

**Enable:** We might work to enable those activities that build local capacity for the understanding and promotion of health and affecting determinants. An important part of the management of health care is to ensure that services are efficient and effective and that we have an appropriate balance of promotion, prevention, protection, treatment and care. There are simple measures that can help to facilitate this. Two examples from the Province of Saskatchewan are: 1) a binder for physicians that contains indexed sections, including recommended treatment protocols for some infectious diseases, immunization, and reporting requirements as well as information on available programs and services which can be added to or updated as needed. This provides in one place a range of useful information normally scattered in drawers or elsewhere. 2) Many new programs and research are focussed on the process of dissemination and local capacity building, whether it be population health promotion approaches to heart health and diabetes, or understanding of how the provision of health and social benefits encourages and assists low-income families.

**Mitigate:** One of the health sector's important traditional roles has been to mitigate the effects of other determinants. For example, while hepatitis A in northern communities is largely a function of crowding and sanitation, hepatitis vaccine can be provided to at least address this disease in advance of longer-term efforts directed at underlying social conditions. Mitigation has been health care's usual contribution toward improving health. Part of the challenge for health professionals and administration is to not only more effectively identify and modify subsequent risks, but also to engage in activities that address the underlying determinants and dynamics.

## CONCLUSION

This brief paper has touched on aspects that provide a context for addressing population health in the health sector in particular. As our knowledge and understanding increase, it is hoped that this and other reflections on principles and approaches will assist the translation of theory into practice.

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# Shared Responsibility for Population Health: A Personal Reflection

*Tariq Bhatti, PhD*

Much has been written, much has been talked about and much has been done to improve health, promote healthy development and enhance the quality of life. Efforts have focussed on individuals, on groups, on communities, on nations and global society. Physical, mental, social, economic, ecological and political models have been developed. Efforts have been made to understand the interactions and to integrate the various perspectives.

Despite these often heroic and pioneering efforts, the search goes on, questions are asked, answers are given, and more questions are raised. The quest continues. The curious revel in it, pragmatists are frustrated and others just observe and wait for it all to unfold someday – perhaps in a year, perhaps in a decade, or perhaps even later. Some give up, considering the search to be futile, others put up with the inevitable, while a few soldier on to find the ultimate answer, the truth, the reality, the secret to health, happiness and prosperity for all. Sometimes they find evidence, have an insight or an experience in their journey, and feel they have the answer, only to discover that there is more. So the journey of human development continues. New concepts and ideas arrive to renew, complement, or replace what has been there before. Such is the case with Population Health, introduced officially in 1994 – a new approach to help people improve their health.

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Like its predecessors it has become a subject of discussion, dialogue and debate, a theme for roundtables and conferences. Government structures have been or are being renamed. Policies, programs, strategies and services are being developed that are consistent with the approach.

Because the concept is so broad, we all interpret it to fit our world view and our perception of reality. This creates an interesting mosaic, a tapestry of interwoven ideas that build on and sometimes conflict with one another. The whole that would make sense of it all has yet to emerge. It may be an elusive goal to look for an ideal model, holistic, inclusive and comprehensive yet simple and elegant. Reality is too complex to be captured into a neat package. Yet we need models and frameworks. They may not explain everything but they provide useful guidance. It is in this spirit that I offer this personal reflection.

One possible way of understanding and acting on the Population Health Approach is to place it in the context of healthy human development. Both the Population Health Approach and healthy human development share concerns of collective well-being, equity, sustainability and people-centred policy and program development.

The goal of the health system is to help people enjoy a long and high-quality life. This goal is enhanced by the developmental perspective which views the life journey as one of fulfilment of potential: physical, mental, emotional, social and spiritual. Thus aging is not an affliction but rather an opportunity that opens avenues for full development. The variety and the intensity

of enjoyable (and not so enjoyable) experiences are the food for nurturing our given potential. By accepting the developmental perspective as the underlying foundation for the Population Health Approach, we in the health field and in society have to be committed to providing access to the key determinants of healthy human development. The obligation is on all of us and increases with age as the intellectual, emotional, social and spiritual capital is acquired. We must reinvest this capital in future generations.

Such an approach is guided by mutual respect for fellow beings, by an obligation for community and humanity and by a responsibility for nature and reverence for all of creation. This is an ideal vision to guide our actions. Guided by such a vision, the notion of dichotomy between the individual and the collective becomes irrelevant. There is only an integrated whole.

Thus the notion of shared responsibility is grounded in a holistic vision where diversity is valued for its richness and its potential to help us all grow and develop. The respect, obligations and responsibilities for others are felt and activated from within, not operationalized from without.

As practitioners in the health field, by subscribing to a developmental perspective, we should commit to two broad areas of action. First, to increase access to the determinants of healthy human development and second, to reduce the impact of risk conditions in the environments where people live, work and play. This is our shared responsibility as collective custodians of the health system.

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CREDIT LINE

# Advancing the Population Health Agenda: Uniting Altruism and Self-Interest

Steven J. Lewis, MA

Would that population health were as simple as a hernia repair. The more we know, the less anyone can do in isolation to effect meaningful improvement. All boats rise with the tide, but who shall harness the moon?

Inequalities in health status and vulnerabilities mirror inequalities in life's circumstances, and even minor inequalities count too. Some nations distribute wealth, status, control, and a sense of citizenship more evenly than others; their health gradients are consequently less steep. Access to health is about politics and distributive justice. While society is highly and increasingly stratified, access to health care is the egalitarian exception to the rule. It is the mop deployed to address both the vagaries of Nature and the mess of sickness arising from both absolute and relative disadvantage. The poor use more health care than the well-off, and we glory in our beneficence. If health for all were truly our goal, we would prefer high inflation to high unemployment, distribute work more evenly, settle for (somewhat) less aggregate but less concentrated wealth, and pay the person who prevents heart disease more than the cardiovascular surgeon. The political gauntlet has been thrown down, but the main response has been the wringing of hands.

Many surveyors of the gradient believe that identifying its contours and consequences is in itself a sufficient argument for redress. Society at large appears to be divided on the issue. There seems to be a greater tolerance for hierarchy and concen-

trated wealth today than thirty years ago. The political spectrum world-wide has shifted to the right. Collectivist and redistributionist ideas, especially those that invoke government as the agent, have been widely discredited. Voter turnouts are in decline, and the youthful political activism of a generation ago has given way to self-expression through hair colouring and body-piercing. Population health is a "we" notion in a "me" world. What is to be done? And who is to do it?

Neoconservatives and social democrats may find common ground in the population health perspective. Both believe in equality: the left in equality of outcome, the right in equality of opportunity. Many who are indifferent to disadvantage among adults (it is their own fault, unemployment is inevitable and stabilizing to the economy, coddling through welfare only creates dependencies, etc.) would more readily support investing in children, whom they deem innocent victims of the inabilities of their parents. As it turns out, intervening very early in life with good nutrition, nurturing and stimulation is immensely more cost-effective than rehabilitating the lives of those with imperfectly connected neurons who were socialized early into a culture of failure. (That the family, including the adults, is the crucial unit of intervention escapes many but the general point would still appear to stand.)

Where self-interest is the dominant *zeitgeist*,\* a more complete accounting of the costs of inequality might renew interest in collective action. The successful pay a steep price for inequality: gated communities, private schools so their children do not have to compete for the teachers' attention

with "troublesome" poor kids, commutes from the suburbs to avoid exposure to the homeless and addicted, worries that their children will fall in with the wrong crowd because there is a wrong crowd. As the American inner city experience has shown, it is impossible to quarantine despair.

In this environment health boards have difficult roles. Despite their formal accountability for population health improvement, they are by and large powerless to achieve it in any direct sense. They are well positioned, however, to increase understanding and publicly connect the dots of wealth, work, civic engagement, and health. They can illustrate how the gradient affects not only the poor, and they can calculate and publicize the price the successful pay to maintain a system that creates so many losers despite the relentless ascent of the GDP. What gets measured and rated gets attention. Health boards need to support the development of, and adopt into their vocabulary and accountability frameworks those measures that provide a more complete picture of the consequences of how we choose to organize our economy and our democracy.

The population health idea imposes divided loyalties on health boards. They govern mostly conventional but complicated health care services and are by extension their advocates. Yet as representatives of the public they also have an obligation to be critics, particularly of services that deliver little at the margins for very high cost. Here they are up against the juggernaut of drug companies, technology manufacturers, and providers, all of whom understandably want to expand their domains and urge the public on to raised expectations. Telling the truth about wealth, health, and hierarchy means also telling the

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\* Trend of thought and feeling in a given period.

truth about what health care can and cannot achieve. If they are to pursue successful population health strategies, boards will have to create sufficient distance between themselves and the existing services they govern in order to create opportunities for redeployment of resources elsewhere.

Talk is cheap and pseudo-accountability changes little. What is the consequence for failing to flatten the gradient, and who bears the price? Politicians in several Canadian provinces have made hay reducing welfare rolls and have not been held to account for increased poverty and diminished equality of opportunity. Perhaps the first step is to refocus the debate away from the particulars of the health care propaganda war and towards the quality of life among the bottom quintile. Forcing society to make explicit rather than implicit choices about how health status is distributed may diminish the seeming indifference to the fallout from exacerbated inequality. Logically, no government can be held accountable for population health achievements if its citizens explicitly eschew a gentler gradient. Let us at least insist that such choices be explicit, and their consequences be known. Is it too optimistic to imagine that such knowledge and discourse will unify rather than divide?

## A B S T R A C T

The long-term health of the population will be influenced by a number of major forces in the next century. In this brief review, particular emphasis is placed on environmental and economic forces. Major global environmental changes include climate change and global warming, resource depletion, ecotoxicity and reduced biodiversity. We do not yet know the impact on longevity of lifetime exposure to a mix of persistent toxic chemicals in our environment, since it has only been widespread in the past 40-50 years. The health impacts of global warming are only just beginning to be understood and could be profound. But perhaps the most profound threat to population health is economic growth, to the extent that it undermines environmental and social sustainability. We need a new form of capitalism, one that simultaneously increases environmental, social, economic and human capital, if population health is to be maintained in the 21st century.

## A B R É G É

La santé de la population à long terme sera influencée par un certain nombre de forces majeures au cours du prochain siècle. Dans cette brève revue, une attention particulière est portée aux forces environnementales et économiques. Les changements majeurs environnementaux globaux incluent le changement climatique et le réchauffement de la planète, l'épuisement des ressources, la toxicité écologique et la réduction de la biodiversité. Nous ne connaissons pas encore les conséquences de l'exposition à vie à des produits chimiques toxiques persistants dans notre environnement sur la longévité puisque leur utilisation étendue ne s'est faite qu'au cours des quarante ou cinquante dernières années. Les conséquences sur la santé du réchauffement de la planète commencent à peine à être comprises et pourraient être profondes. Mais la plus grande menace sur la santé de la population est peut-être la croissance économique, puisqu'elle mine le développement durable, environnemental et social. Nous avons besoin d'une nouvelle forme de capitalisme, une forme qui augmente simultanément le capital environnemental, social, économique et humain, si nous voulons que la santé de la population soit maintenue au 21<sup>e</sup> siècle.

# Future Directions in Population Health

Trevor Hancock, MB, BS

My focus is not on the future of the business of the population health “establishment” or approach, but rather on the future of the health of the population. Health promotion – and more latterly, population health – has helped us to recognize that the major determinants of health lie beyond health care, in the broader environmental, social, economic, political and cultural factors that shape our lives as individuals and as communities. This leads to a key insight, which is that the future health of the population will reflect the society that it comprises and of which we are all part. This means that we need to understand some of the major forces that will affect our society over the next few decades.

This brings me to a second important point, namely that thinking about the future means operating in a longer time frame than we normally do. For the most part, futurists operate in what is often referred to as the medium-term future, some 10 to 30 years hence. This is because, while what futurists call “discontinuities” (such as the 1973 oil shock or the fall of the Berlin Wall) may occur, much of what will shape our lives in the next 5 to 10 years is already underway and therefore not so readily amenable to manipulation. Beyond 30 years, it becomes more difficult to anticipate the implications of social and technologic change, in particular. How many people in 1949 predicted cellular phones, the human genome project, the internet, the changing concept of family, or global warming? Yet these are all facts of

our daily lives (with the possible exception of the last of these, which is widely discussed but only just beginning to become apparent). Given that the speed of change has increased substantially since 1949, how easily can we anticipate what things will be like in 30, 40 or 50 years time?

This means that to understand the future of the health of the population, we have to look at the major forces that will likely shape society and population health over the next 10 to 25 years or so. This is the process of environmental scanning, which classically goes by the acronym of SEPT (or PEST), meaning social, economic, political and technological change. This in itself is very revealing, in that it omits the environment. Indeed, most corporate and government futurists have tended to ignore or downplay the implications of the environment,<sup>1</sup> as indeed does the population health “establishment”. It is noteworthy, for example, that in the important population health text, *Why Are Some People Healthy and Others Not?*,<sup>2</sup> there is no reference in the index to ecology, ecosystem, biosphere, sustainable development, pollution or other aspects of the environment.

In part this may reflect the economic and sociological bias of the principal members of this group, but in part it may also reflect a sense that the environment is just too big and that it is beyond our control (which, in fact, is how the Lalonde Report defined it in 1974); that we do not have good data (it is noteworthy that the set of population health indicators recently proposed by the Canadian Institute for Health Information as yet does not include any environmental indicators, because the Institute could not find adequate data); and finally because many in the population

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health “establishment” do not seem to think that the environment is all that important for health! This view has doubtless been helped by cancer epidemiologists, many of whom have consistently downplayed the role of the environment, and by an industrial system that does not want to have to confront the health implications of its impact on the environment.

In addition to downplaying – indeed pretty much ignoring – the environment, the population health establishment has also tended to see the economy in very traditional terms, while underlining the importance of economic development for human health and well-being. While economic development – and the social development that has accompanied it – has undoubtedly been important for population health, it is by no means true that it will continue to be so. In particular, if economic development and growth continue to be understood in the same way as they were throughout the past century, and in particular if economic development and an increase in GDP are accompanied by the same adverse impacts on resources and the environment that we have seen this century, population health may well be undermined by continued economic development.

Accordingly, I will focus on just two out of the many sets of forces that may affect population health in the next generation or two, namely the environment and the economy. (For a somewhat longer review of the major factors that may affect population health in the 21st century, see reference 3.)

### **Environmental change**

In a paper prepared under the auspices of the Royal Society of Canada's Canadian Global Change Program, Hancock and Davies<sup>4</sup> identified four main aspects of global environmental change that will impact on the health of the population: climate and atmospheric change, resource depletion, ecotoxicity, and reduced biodiversity. Two of these topics – ecotoxicity and global climate change – are briefly reviewed here.

#### *Ecotoxicity*

One of the stock responses of the chemical industry, when concerns are raised that

the widespread chemical contamination that we experience today is affecting health, is to point out that life expectancy continues to increase – so where's the problem? This response, however, displays a remarkable ignorance, willful or otherwise, of the meaning of life expectancy. There seems to be a widespread belief that life expectancy is somehow predictive, whereas it is anything but that. It is in reality a somewhat sophisticated and complex way of measuring average age of death. Life expectancy tells us absolutely nothing about how much longer we may live, it simply tells us that if everyone born today had the same average life experience as all those dying this year, they could expect on average to live as long as those who are dying this year. So in reality, life expectancy tells us a lot about those who die but tells us nothing about the living. And of course the basic premise is false, because we will not experience the same life circumstances as those who are dying, on average in their mid-70s, today.

One of the ways in which we differ is that, since approximately the 1950s, people have been born with a body burden of persistent organic pollutants such as DDT and PCBs, and have continued to be exposed throughout their lives to a multitude of toxic chemicals at very low levels – called “ecotoxicity.”<sup>5</sup> Ecotoxicity, of course, is not confined to humans but affects other species in the web of life, and thus threatens overall ecosystem health. Thus we are approximately 40 years into a major experiment to find out what happens when an entire cohort is exposed to such ecotoxicity throughout its life. While we do know that the average age of death for those born before 1930 is still increasing, we have absolutely no way of knowing what will be the average age of death of those born in the 1950s, 1960s or subsequently. Moreover, we will not know the answer to that for another 30 to 50 years. So we will just have to wait and see whether ecotoxicity shortens life.

#### *Climate Change*

Another of the long-term environmental impacts that we face, and that is somewhat better understood, is climate change – specifically global warming. With the

exception of a few sceptics who for the most part are bought and paid for by the industries that stand to lose most from reductions in fossil fuel use, it is now widely accepted that human activity is contributing to global warming.<sup>6</sup> On average, global temperature will increase 1 to 3.5°C over the next century, with higher temperature increases closer to the poles. The health impacts of global warming include increased mortality and morbidity from heat waves and severe weather events; increases in a variety of infectious diseases, especially those that are vector-borne such as malaria (an additional 50-80 million cases a year are projected by the middle of the 21st century); disruptions to food supplies resulting in malnutrition or starvation in some parts of the world; rising sea levels that will displace large populations and create large numbers of eco-refugees.<sup>7</sup> While such major impacts are hard to quantify at present, there seems little doubt that they will occur. The implications of these major environmental changes for human health and well-being is significant, particularly on a global scale. The impacts in Canada will depend to a great extent on our ability to adapt to and cope with such changes, the flexibility of our institutional, economic and social structures and in particular the effectiveness of our public health systems in preventing the spread of infectious diseases.

### **Is economic growth sustainable?**

Economic development and growth, fuelled by cheap energy, massive exploitation of the earth's renewable and non-renewable resources and the concomitant widespread contamination of our ecosystems, has been the underpinning of human and social development in the past couple of centuries. The holy grail of economic policy today remains economic growth, with scant regard for the real implications of this growth. An annual increase in GDP of 3.5% means a doubling time of 20 years, or a 16-fold increase during the 80-year life span that we expect we will enjoy (earlier caveats notwithstanding). But we are already facing a situation where, if everyone on the planet were to consume at the same level as Americans do today, we would require four more planets to meet

the demand (see the "Footprint of Nations Report" at <<http://www.iclei.org/iclei/eco-foot.htm>>, which is the website for the Toronto-based International Council for Local Environmental Initiatives).

In recent years, there has been a growing appreciation that the GDP and similar economic measures are totally inadequate and misleading; in fact they are false measures of progress. One reason is that they lump together both positive and negative measures, so that the Exxon Valdez oil spill in Alaska adds hundreds of millions of dollars to the Alaskan GDP, as do the economic costs of the medical care necessitated by the sale of tobacco, or the economic activity in a community that results from the destruction of a large building. But there is beginning to be a shift towards considering capital as being not simply economic but human, social and ecological capital as well;<sup>8</sup> even the World Bank is beginning to understand this,<sup>9</sup> as is the public health community. A 1992 report from the Canadian Public Health Association<sup>10</sup> explicitly addressed the topic, suggesting that:

"Human development and the achievement of human potential requires a form of economic activity that is environmentally and socially sustainable in this and future generations."

I believe that one of the fundamental challenges for the promotion of population health in the 21st century will be to reinvent capitalism, so that we *simultaneously* increase all four forms of capital – ecological, social, economic and human. Indeed, the true measure of progress in the 21st century will be an increase in human development, human potential and human capital, which includes health; at the same time we will need to increase social and ecological capital and maintain an adequate level of prosperity to ensure health for all.<sup>11</sup> How well we succeed in this will determine the health of the population in the 21st century.

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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 stratégies, 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 in Canada: Issues and Challenges for Policy, Practice and Research

James Frankish, PhD, Gerry Veenstra, PhD, Glen Moulton, BA, BEd

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."<sup>1</sup> 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."<sup>2</sup>

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.<sup>3-5</sup> 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.

### 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,"<sup>6</sup> 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."<sup>7</sup>

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

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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.<sup>8</sup> 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,<sup>9</sup> attempting to identify aspects of the social and cultural milieu<sup>10</sup> 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.”<sup>11</sup> Evans and Stoddart<sup>12</sup> 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.”<sup>6</sup> That is, health has an instrumental value rather than being an end in itself.<sup>13</sup> 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.<sup>14</sup> 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.<sup>15,16</sup> Without parameters for planning, policy, expenditure, practice, or science, the scope of the population health field, and therefore its expenditures, appears unbounded.<sup>14</sup>

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,<sup>17</sup> but critics disagree. Poland et al.,<sup>18</sup> for example, are protective of the welfare state in contrast to Evans and Stoddart<sup>12</sup> who, while recognizing the importance of income inequality, additionally emphasize wealth-creation. Zöllner and Lessof<sup>19</sup> 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)<sup>17</sup> 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<sup>20</sup> 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.<sup>21</sup> 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<sup>22</sup> 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.<sup>18</sup>

#### *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.<sup>6</sup> Saunders et al.<sup>21</sup> 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)<sup>20</sup> 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,<sup>22</sup> although the public may not be able or interested in keeping up with developments in the population health perspective.<sup>9</sup> Zöllner and Lessof<sup>19</sup> 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-

tative could use these as a starting point.<sup>7</sup> Use of the information highway, the Internet, may be one vehicle for dissemination of ideas to the public.

#### *Issue 10 - Structural Constraints*

Rutten<sup>23</sup> 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 frame-

works. 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.<sup>24</sup> As lay people, they may lack the technical training and expertise with which to judge sophisticated health data,<sup>25</sup> 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).<sup>26</sup>

## 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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# *The Institute of Health Promotion Research*

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The IHPR's program of research and education supports the development of international, national, provincial and local efforts that will enable people and communities to gain greater control over the determinants of their health and quality of life. The research examines the social, behavioural and environmental determinants of health and the factors that predispose, enable and reinforce individual and collective actions in relation to these determinants. Research projects include policy analyses, epidemiological study of social and behavioural causes of health and disease or injury, design and evaluation of innovative approaches to bring about change in these factors, and studies of the implementation and diffusion of these innovations by policy makers, institutions, agencies, communities, practitioners, and populations.

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