

Public Health in Canada: What are the Real Issues?*

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As a result of both bioterrorist threats in the U.S.A. and the Severe Acute Respiratory Syndrome (SARS) outbreak, public attention has focused on the preparedness of Canada's public health system to deal with emergencies. Recent medical journal editorials¹⁻³ have reacted strongly to the leaked release of a 2001 report, commissioned by the Council of Federal-Provincial/Territorial Deputy Ministers of Health, entitled "Survey of Public Health Capacity in Canada."⁴ The report, now in wide circulation, reveals that public health professionals across the country have many concerns about their current state of preparedness to deal with major threats to the health of our population: acute infectious disease epidemics such as those in Walkerton and North Battleford; bioterrorist attacks; toxic spills; the rise in recent decades in rates of overweight and obesity, and associated complications, especially in young people.⁵

Missing from these discussions is an explanation of how this situation could have arisen in Canada, one of the world's wealthier and better-governed nations. Such an analysis would help to inform policy and legislative response that is corrective and sustainable. In 2001, the authors travelled across the country, with the Canadian Institute for Health Information – Canadian Population Health Initiative (CPHI), consulting with public and population health researchers, policy-makers, program administrators and public health practitioners. These discussions, described in "Charting the Course",⁶ are contributing to the long-term research and knowledge-exchange plans of both organizations, and have already resulted in the funding of innovative Canadian population and public health (PPH) research.⁷ However, research funding applied to public and population health problems in Canada cannot achieve its goals if the basic functioning of the current public health system is inadequate. Our consultations across the country suggest some underlying reasons for these current concerns. Let us examine these insights one at a time.

Canadian governmental structure

Programs and services of the health sector, as enshrined in existing Canadian legislation, are essentially a matter of provincial/territorial, and where delegated, local (e.g., municipal) jurisdiction. Exceptions to this responsibility include response to catastrophic events that might be construed as threats to national security, and immigration-related policies, such as immigrant screening for infectious diseases.

The delivery of *essential public health services* affects entire populations, at the neighbourhood, community, regional, provincial/territorial, and national levels. In recent decades, these interventions have become increasingly uneven across regions of Canada.^{1,2,4} Wide geographic variations in program delivery, and their resourcing, can lead directly to reduced public health effectiveness in the aggregate, for entirely scientific reasons, since no part of a modern society is an "island unto itself."

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The clearest example of the need for nationally coordinated public health services is communicable disease control. This includes responding to acute outbreaks, and day-to-day control of perennial endemic diseases. In the former case, epidemic investigation activities and prompt control measures must face no artificial boundaries or interference. An infectious meningococcal or SARS carrier, who passes through several Canadian provinces, must be dealt with promptly and consistently through evidence-based interventions. Any other course of action may lead to failure to contain the threat, and to protect all those at risk, to the extent that current science allows.

Another essential public health service is ensuring that all Canadian children have been immunized according to currently recommended immunization schedules (or that the parents have clearly declined recommended vaccines for personal, medical or religious reasons, after a fully informed decision process). Such assessments are routinely done in Canada only by public health authorities, often at the time of day-care or school entry.

Manitoba, on the other hand, has pioneered the development of a novel immunization surveillance system⁸ that uses routine physician billing data, augmented to include specific vaccine information, together with its world-class registry of all health encounters for all Manitobans, to calculate coverage levels for basic vaccines at every age after infancy – a far better approach since it provides "real time" information on which individual children actually need "catch-up" efforts, long before they reach school age. In this case, inter-provincial differences in public health practice have allowed innovation to occur, though there appears to be no rush to emulate this "best practice" in other Canadian jurisdictions. This is not to be confused with the administration of vaccines to individual children in physicians' offices, which inevitably results in some children inadvertently not getting all their vaccines. This is partly because primary care doctors are not paid to maintain rosters of registered patients, thorough follow-up of "no-shows" by personal physicians is still not usual practice, and provincial health insurance plans do not provide economic incentives in this regard.

For vaccines against easily transmitted diseases, such as measles, mumps, rubella, Hemophilus influenza, hepatitis B and pertussis, programs to assess immunization coverage (and improve it, if need be, via “catch-up” vaccine doses) are less than fully effective, nationally, if they differ substantially across provincial and territorial jurisdictions. Yet such discrepancies exist, and are tolerated by senior officials, despite the health consequences for some children, on the grounds that Canada has always been that way.

When the original BNA Act defining provincial/territorial and federal responsibilities was written in 1867, there were virtually no effective communicable disease control measures other than water and sanitation improvements and smallpox vaccination. But today, each decade brings several new vaccines, chemoprophylactic agents and other effective preventive measures; thereby creating a *patchwork quilt* of variably effective and up-to-date policies and programs affecting the spread of infectious diseases in Canada, many of which are increasingly resistant to commonly used antibiotics, and more effectively transmitted internationally than ever before, due to the increase in air travel.^{9,10}

While perhaps less obvious, Canada's *chronic and non-communicable disease prevention and control programs* are similarly crippled by inconsistencies. Overweight and obesity, unhealthy eating and sedentary habits, smoking, and excessive drug and alcohol use, are not usually viewed as “communicable” problems. Yet, they are transmitted by that ultimate vector influencing behaviour: *culture*. The aspects of culture that determine these habits in a given setting are complex, ranging from the social environments in which parents raise young children, to the media and entertainment world that has an impact on, for example, youth and young adults. By creating “healthy public policies” that support and reinforce healthy behaviours, we can influence culture.^{11,12}

What use is it for one province to enact such public health policies if the neighbouring province has opposite policies? For example, restricting access to, and taxing of, tobacco products have long been proven to reduce adolescents' access to and use of tobacco.¹³ The same could be said of gambling controls (a new and worrisome

public health concern, given that government is economically complicit in this industry's tremendous growth),¹⁴ or of well-designed population-level interventions to change physical activity patterns, drinking and eating practices or sexual habits, as well as a host of other standard public health approaches aimed at risk factor modification, to prevent and control chronic diseases affecting people in later life. None of these interventions are as effective, nationally, if provinces and territories have total discretion to do as they wish, according to what they can afford.^{4,15}

More importantly, it is simply wrong for outlying and less-well-funded parts of Canada to be, as they are now, consistently challenged to recruit and retain properly trained public health personnel. Compared to the major cities, these populations are being systematically under-served in public health terms.

Surely the well-informed citizen, of any modern democracy with *responsive* and *responsible* government, has a right to *expect* that such *essential, effective* public health programs are delivered and evaluated thoroughly across the country. Anything short of this goal would be considered unacceptable in an entire province/territory, in the case of substandard insured clinical services. Sadly, the Act appears to be interpreted as applying only to clinical services. To the authors' knowledge, there has been no mention of essential public health programs in federal-provincial-territorial discussions concerning its enforcement.

The Canada Health Act could, however, be amended to explicitly apply to essential public health programs and services. Community-level interventions that have been scientifically shown to reduce the future burden of disease and injury with unacceptable side effects or costs should be universally accessible, just like essential insured health care services. Admittedly, these essential services need to be defined operationally. For example, some provinces (like Ontario) have developed “mandatory programs” to help define core public health services.¹⁶

The incentive for provincial/territorial compliance with the Act, for clinical services, has been the threat of withdrawal of federal funding. Similarly, sanctions could be enacted to prevent provinces/territories

from abrogating their responsibilities to provide essential public health programs and services. An important exception in this regard is Quebec, which in 2001 enacted completely new, comprehensive and well-thought-out public health legislation. Indeed most observers of the Quebec scene argue that its public health infrastructure is so much better organized and funded than English Canada's that it could be used as a model for reform elsewhere.¹⁷ More importantly, however, there would also have to be significant new fiscal transfers from the federal government, especially to the less-well-resourced regions of Canada to enable these regions to deliver essential public health programs.⁴ This implies, in turn, the ongoing availability of earmarked grants to municipal/county or regional authorities, in all parts of the country, to deliver essential public health programs. This approach has worked in the U.S.A. and many other federal systems.

Making it happen – some hopeful new initiatives

What would a modern and effective national system of public health programs look like? A key consideration is how to attract and retain top-quality personnel.¹ One possible solution, developed in the U.S.A., is to establish a National Public Health Service, complete with professional and scientific supports for specialized career trajectories, such as up-to-date continuing education programs (virtually nonexistent in Canada for public health staff). Professionals could be seconded to local authorities, where most public health programs are likely to continue to be administered. This approach would provide the necessary professional independence from local boards of health and regional health authorities, so that “unpopular” but necessary disease control and health promotion actions could be taken by local public health practitioners, without fear of reprisals or job loss.¹⁸ A *coordinated national system* of up-to-date scientific facilities and expertise is also essential: reference laboratories, accessible scientific technical support, modern information and surveillance systems. Canada must also greatly increase “grant” funding for local community-based, but scientifically vetted, initiatives to prevent and control chronic disease and injury – whether the underlying threats to

the public's health are infectious, toxic, manmade, or psychosocial. Many excellent recommendations for the establishment of such a system are contained in a recent brief to the Romanow Commission from the Canadian Public Health Laboratory Forum.¹⁹

Interestingly, the "Kirby Report"²⁰ on health system reform calls for substantial federal investment – \$200 million – in a strengthened national system of public health services. The authors, and Senator Kirby, are to be congratulated. We only hope that it will not be lost in the debate over the Report's many other controversial recommendations, largely focused on clinical health care and on the financing of such services.

Sadly, the long-awaited Romanow Report²¹ did not entirely grapple with – or indeed even mention – the serious plight of public health services in Canada. Instead, it offered some suggestions for investments in disease prevention and health promotion, such as the creation of a central fund for harmonized immunization programs and a Centre for Health Innovation focusing on "Health Promotion". Much of the report did not sufficiently differentiate the complementary roles of primary care and public health in achieving disease prevention and health promotion goals. As a result, it gives the impression that all such activities – even health protection from hazardous exposure, and the sort of community-based cultural change that we need to tackle the obesity epidemic – can be spearheaded from physicians' offices and ambulatory care centres.

To move forward on the reorganization and adequate funding of public health in Canada, the CIHR-Institute of Population

and Public Health, under its legislated mandate to strengthen Canada's ability to use scientific evidence to inform public health policy and practice,²² struck an ad hoc Steering Committee on the Future of Public Health in Canada, composed of some two dozen public health leaders from across the country. This group has been, together with a Canadian consultant, investigating alternative "best practice" public health service funding and organization models in other countries. These findings will be discussed at a national Public Health Think Tank in May 2003, and then presented to the relevant federal/provincial/territorial and local authorities for action. In the interim, we urge Canadians from all walks of life to increase their knowledge of the functions and funding of local, provincial/territorial and federal public health programs and services, and to actively consider how to strengthen and adequately resource those programs and services in order to better deal with the health threats of the twenty-first century. Canada deserves no less.

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