Public Health Infrastructure in Canada

Summary Document

Canadian Public Health Association
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Foreword

Between the Fall of 1996 and the Summer of 1997, a survey on the Public Health Infrastructure was conducted by the Canadian Public Health Association (CPHA) to assess the current status of provincially- and territorially-mandated public health authorities and administrations in Canada and to determine what elements of public health infrastructures, if any, were affected by recent health system reforms and in what ways. Those surveyed included Associate/Assistant Deputy Ministers mainly responsible for public health functions; provincial/territorial Chief Medical Officers of Health; the Canadian Public Health Association (CPHA) Board representatives for the Provincial/Territorial Branches and Associations (PTBAs); regional Medical Officers of Health; Directors or CEOs of regional public health organizations; and individuals primarily responsible for Public Health Nursing, Health Promotion, and Environmental Health functions; as well as other persons believed to have a comprehensive understanding of public health in a particular province or territory. Their responses and comments are collated and described in this summary document. Since the study is meant to serve as a baseline for discussion and to provide an environmental scan, caution should be exerted in the interpretation of the results. Relatively small sample sizes and other methodological limitations impede the generalizability of the results. Also, the reader must keep in mind that the study reflects the opinions, perceptions, and experiences of various individuals. Furthermore, since changes to the public health systems across the country occur rapidly, this document depicts a one-time snapshot of the public health infrastructures in Canada, taken at the time of the survey in February 1997. However, some general trends and similarities among the different provincial and territorial public health infrastructures were identified and may be useful for individuals and organizations involved in public health at various levels. This summary document provides some background information on public health in Canada and on the survey, broadly describes the organization and the structure of public health in the country, and highlights some of the key findings from the survey.

Acknowledgments

This study was made possible by the time, efforts, and talents of various individuals. The Infrastructure Working Group, a small committee of the CPHA Board of Directors, under the guidance of Dr. David Butler-Jones, oversaw the work and the progress of the research. The report itself was prepared by Ms. Heather Karpetz for CPHA as part of her requirements for the Masters in Health Administration (MHA) program of the Faculty of Administration at the University of Ottawa, under the supervision of Mr. Douglas E. Angus, full-time professor and Director of the MHA program.

1.0 Introduction

1.1 Background

The field of public health grew out of a recognition that centrally-mandated policies and practices were essential to the overall health of individuals and communities. In the past, in order to combat contagious diseases, it was necessary for governments to assume responsibility for the health of communities. Methods of disease prevention were first developed, and later, infrastructures were put in place to ensure the ongoing monitoring of population health and the threats to it. Standards for sanitation, food, immunization coverage, medical services, and environmental health have, traditionally, been mandated through legislation. In addition, formal public health organizations have been in place to act on this legislation at the administrative/district and delivery levels.

Research on health in populations has confirmed that successful public health activities will, potentially, have a much greater positive influence on the future health of the public than will more improvements and efficiencies in the acute care system. Important Canadian health policy documents such as the 1974 Lalonde Report and the 1986 Ottawa Charter have confirmed the importance of publicly-mandated strategies beyond curative care as vital to improving the health of its citizens. As cornerstones of public health activities, health promotion, disease prevention, health protection, and healthy public policy have been recognized as the key components of strategies aimed at maintaining and sustaining healthy populations (Canadian Public Health Association, 1996).

While health system reforms have focused much attention on the most expensive health care sector, acute care facilities, there has been little attention paid to the effects of reforms on public health activities and programs. There is concern among those working in public health that changes resulting from health care reforms have eroded the integrity of publicly-mandated public health infrastructures. While public health legislation may still be in place, roles, responsibilities, and methods of administering public health services and programs have been impacted. In certain provinces and territories, public health no longer has a clearly defined role and structure within provincial health programs.

The recent emergence of diseases such as AIDS, the re-emergence of other diseases such as tuberculosis, the growing burden of chronic diseases, and the renewed understanding of the determinants of health and a population approach, have served as reminders that public health has an important role to play in ensuring the collective health of Canadians. There is some concern in public health circles that the infrastructures in

place today may not be sufficient to deal with existing and emerging threats to the population's health. This study was undertaken to determine whether or not the key components of the public health system are still in place within the health systems of each province and territory, or whether they have been lost as very rapid changes have taken place.

1.2 Study Rationale

In July 1995, the Canadian Public Health Association (CPHA) passed a resolution entitled "*Public Health Infrastructure*". In the first part of this resolution, CPHA resolved to facilitate the development of a national public health advocacy and communication plan including the promotion of a model framework for public health. As a follow-up to this part of the resolution, the February 1996 CPHA Board Issue Paper - *Focus on Health: Public Health in Health Services Restructuring* was published, highlighting the issues, roles, and challenges facing public health within the context of ongoing health services restructuring.

In the second part of the same resolution, CPHA resolved to undertake a survey to assess the current status of province- and territory-mandated public health authorities and administrations in Canada. This study was undertaken in response to this part of the resolution, by conducting a survey of the current status of provincially- and territorially-mandated public health authorities and administrations in Canada.

To assess the current status of province- and territory-mandated public health infrastructures, including authorities and administration, the study aimed to answer the following two broad research questions:

1. What is the current status of provincially- and territorially-mandated public health infrastructures, including organization and linkages, official mandate for public health, and funding?

2. What elements of provincially- and territorially-mandated public health infrastructures have been affected by recent health care reforms and in what ways?

As an adjunct to this study, a summary of the organization of environmental health was completed. This information was gathered in response to a separate CPHA 1995 resolution on environmental health.

2.0 Study Design

2.1 General

The primary purpose of this study was to gather descriptive baseline information on public health infrastructures and to conduct an environmental scan on the impacts of health system reforms on these infrastructures. A survey design was employed as it was considered most appropriate for gathering up-to-date information about public health infrastructures, given the resources available.

Limitations of this study design include the inability of the researcher to verify the information provided by all informants. Where inconsistent answers were given to infrastructure questions, the researcher attempted to follow up with phone calls to key informants in order to clarify and verify the information. The questions about the impact of health system reforms solicited opinions and, therefore, verifying the accuracy of this information was not considered necessary.

Within each province and territory, surveying was carried out at two levels: the provincial/territorial level and the regional or administrative level. In early December 1996, the Infrastructure Working Group made a decision not to include a survey of delivery-level organizations since this was considered to be outside the scope of this study and the tools developed were considered inappropriate to gather delivery-level information. There may be an opportunity for another study in the future to focus on the service delivery level of public health.

To gather the required information on public health infrastructure, two separate mail questionnaires were developed. As needed, follow-up phone calls were made to key informants to clarify information and to complete the picture where information was deemed to be insufficient. Relevant legislation and policy documents were reviewed for each province and territory.

2.2 Sampling Methods

At the provincial/territorial level, a provincial/territorial questionnaire was developed and sent to the Associate or Assistant Deputy Minister(s) primarily responsible for public health functions, the provincial/territorial Chief Medical Officer of Health, the CPHA Board representative for the Provincial and Territorial Branches and Associations (PTBAs), and in most cases, another person or persons who were identified by the Working Group members or PTBA representative as having a comprehensive understanding of public health in that particular province or territory.

Regional organizations within each province and territory were identified as the health organization directly below the Ministry primarily responsible for public health functions. Regional organizations included district health units, regional and district community health boards, and regional offices of provincial health organizations. In those provinces where public health was not integrated with other health services, one survey was sent to the Executive Director of the corresponding Health Council for that region.

An exception to the regional sampling method occurred in Yukon, where at the time of surveying, both the Ministry functions and the administrative-level functions were being carried out by Health Canada. In this case, both public health units outside of the territorial organizational structure were surveyed along with the Health Canada workers employed in the roles of administering public health functions for the entire Yukon.

In provinces where there were determined to be nine or fewer regional public health organizations, the latter were all surveyed. In provinces where there were determined to be more than nine regional organizations, a non-random, purposefully selected sample of up to nine organizations was jointly selected by the researcher and the PTBA representative. These samples were chosen as being representative of regional organizations in that province, both in terms of the demographics of the populations served and of the organizational structures. This sampling methodology was considered essential due to a lack of an up-to-date listing of public health organizations by province and territory. Furthermore, the availability of this kind of list for each individual province and territory was variable. A purposefully selected sample was considered by the Working Group to be adequate due to the fact that provincial/territorial analyses of information, and not inter-provincial/territorial comparisons, were to be the principal focus of this study. Furthermore, the information gathered was intended to serve as an environmental scan, or baseline for discussion. Hence, rigorous sampling techniques, while preferable, were sacrificed without concern for the usefulness of the results collected.

While the analysis of responses was not done by occupational category or group, the Working Group felt that it was important to ask the same questions to a number of public health professional groups from the same region, particularly questions regarding the impact of health reforms. This provided an opportunity for a range of experiences and beliefs to be recorded. Within each region, up to five identical questionnaires were sent: one each to the Director or CEO of the organization, one to the Medical Officer of Health, one to the person identified as primarily responsible for Public Health Nursing, one to the person primarily in charge of Health Promotion, and one to the person primarily in charge of Environmental Health functions. If these specific occupational positions were not present in a region, an equivalent position was identified where possible. If another equivalent person was not available to be surveyed, the respondent list for that region was reduced accordingly.

2.3 Measurement Tools

2.3.1 Provincial/Territorial Questionnaires

The provincial/territorial questionnaire was sent by fax and follow-up mailing to provincial/territorial key informants.

The provincial/territorial questionnaire asked questions about the presence of public health at the provincial/territorial level, including: the organization of public health, linkages within and between ministries, funding, official mandate, and the impact of current and future health system reforms on public health.

Most questions were of the tick-box type or required the respondents to write an answer, definition, or comment. Because of the descriptive nature of the information being sought from provincial/territorial informants, these types of questions were most appropriate.

Questionnaire responses were verified by follow-up phone calls to key informants at the discretion of the researcher when it was determined that further clarification was required. However, there is still the possibility that the results reported here are not a complete reflection of the situation in a particular province or territory. The large scope of this study precluded a complete telephone survey in place of mailed questionnaires.

2.3.2 Regional Questionnaires

The regional questionnaire was sent by express mail to regional informants.

The regional questionnaire asked questions about the presence of public health at the regional level, including: the organization of public health, reporting structures, planning linkages to other health and non-health providers, and the impact of recent and future health system reforms on public health infrastructure.

Infrastructure questions were mostly of the tick-box type with opportunities for respondents to provide comments or additional written information. Some Likert scale questions were used to elicit subjective answers to questions on health reforms. Finally, to determine the impact of health reforms on core public health functions, comments were requested.

2.4 Confidentiality

Given the sensitive nature of some of the questions on the impact of health reforms, the Working Group determined that questionnaire confidentiality was required. This was ensured through the use of randomly assigned survey numbers used for recording purposes. Questionnaires returned to CPHA were given a sequential number by CPHA support staff and all identifying information, such as fax numbers, names, and organization names, were removed before the questionnaire was passed on to the researcher.

2.5 Questionnaire Response Rate

Given the continual changes occurring in the health care systems across Canada and the heavy workload of public health providers and administrators, it was important to consider mechanisms for maximizing the response rate to a mailed/faxed questionnaire. Given that CPHA is a widely known and respected organization within the public health sector, it was anticipated that CPHA sponsorship of this study would enhance the response rate for the mailed/faxed questionnaires.

In order to improve the response rate, follow-up reminders were faxed to provincial/territorial respondents who had not returned their questionnaires after two weeks following the original faxing, and also after the deadline. In all, respondents were given three weeks to complete and return the questionnaires to CPHA by fax or mail. As an added incentive, respondents were provided with a separate mail-in form to be returned to CPHA by those desiring a copy of the final study report.

In total, 349 questionnaires were mailed or faxed out and 202 were returned, for an overall response rate of 58%. Forty-five (45) provincial/territorial questionnaires were sent out and 26 returned, for a provincial/territorial response rate of 58%. Three-hundred-and-four (304) regional questionnaires were sent out and 176 returned, for a regional response rate of 55%.

Although not solicited by the researcher, in a number of cases, group responses were received. The group responses were analyzed as one response since the researcher did not know if the individual respondents within the responding group had averaged their responses, if one person was delegated to complete the questionnaire on behalf of the group, or if separate questionnaires were completed and found to be the same.

2.6 Data Analysis

Information gathered from provincial/territorial respondents was primarily descriptive in nature. No statistical analysis was done on this information. Responses were collated and reported in the appropriate sections of the report as descriptive information.

Information gathered from regional respondents was coded and entered into SPSS for statistical analysis. Regional data were analyzed at the aggregate level by province and territory rather than by occupational group or by organizational level. Since the data collected were either nominal or ordinal in nature, non-parametric statistics were chosen to analyze the responses. Descriptive statistics, such as frequencies, percentages, and comparison of medians, are used throughout this report to describe results. Evidence of response variability is provided with interquartile ranges.

Where statistical significance could be established, it is reported. Where tests for statistical significance were not possible or appropriate, as is the case for the provincial and territorial data gathered because of small sample sizes, this is mentioned. In these cases, the reader must interpret the results carefully and is reminded that the survey was meant, primarily, to gather descriptive information on infrastructure and to carry out an environmental scan of the impacts of health reforms on public health.

Limited cross-tabulation has been done using a test to compare the medians of independent samples. Non-parametric testing of data included use of Chi-squared statistics, Median Test for comparison of independent samples, Wilcoxon Matched Pairs Signed-Ranks Test, and Pearson's Correlation Coefficient.

3.0 Overview of Public Health Across Provinces/Territories

3.1 Organization and Linkages

The organization of public health and its linkages with other health and non-health sectors vary considerably across the country. This study looked at the reporting mechanisms and the degree of integration of public health functions at the ministerial and regional levels, the participation of public health in overall health planning, and the participation of other health and non-health sectors in public health planning.

3.1.1 Presence at the Ministry Level

With the exception of British Columbia, provinces and territories reported that public health is the responsibility of a single ministry, the Ministry of Health, or its equivalent. British Columbia reported that public health functions are not seen to be the responsibility of any one ministry alone, but rather a shared responsibility with several contributing ministries. In this province, a single ministry called the Ministry of Health and the Ministry Responsible for Seniors is reported to be responsible for approximately 20% of public health functions, including the health protection and disease surveillance and control functions. The remaining core public health functions are reported to be the responsibility of the new Ministry for Children and Families.

In New Brunswick and Quebec, public health is a separate Branch of the Ministry reporting directly to the Ministry of Health. In Manitoba, Ontario, Newfoundland, and Yukon, public health is the responsibility of an Assistant (or Associate) Deputy Minister (ADM) of either Community Health Services or Population Health, with one or more public health divisions reporting through the ADM to the Minister. In Saskatchewan, Nova Scotia, and Northwest Territories, public health authorities report to the Minister through an ADM of Regional or District Programs and Services. In Alberta, public health authorities report to the Minister through the ADM Health Strategies and Research. On Prince Edward Island, the responsibility for public health has been devolved to the Health and Community Services Agency.

3.1.2 Provincial Health Councils

Only Alberta, Quebec, Prince Edward Island, and Yukon report having a provincial health council whose role is to advise the government on health matters, including public health.

3.1.3 Environmental Health

Environmental health, an integral part of the health protection function of public health, is organized differently throughout Canada and is currently in a state of flux. In seven provinces and the two territories, the Ministry of Health remains the lead ministry for environmental health functions while in Manitoba and Nova Scotia, this responsibility has been given to the Ministry of the Environment. In Newfoundland, although the Ministry of Health may still have responsibility for ensuring environmental health under legislation, all of the resources are in a separate ministry entitled Government Services. The Ministry of Health has no control over the utilization of environmental health resources. On Prince Edward Island, the Queen's Regional Health Board is primarily responsible for environmental health. Regional respondents expressed concern about environmental health being separate from other public health functions. Provincial respondents in both Manitoba and Nova Scotia report that there is considerable collaboration between the Ministry of the Environment and the Ministry of Health.

3.1.4 Integration into Regional Structures

Comprehensive regional health boards, whose mandates include public health as part of integrated regional health services, are now present in British Columbia, Alberta, Saskatchewan, Manitoba, Quebec, Prince Edward Island, Nova Scotia, and Northwest Territories. In Newfoundland, the two Northern Boards are part of a completely integrated regional health system. Otherwise, the regional boards have a mandate for comprehensive community health services but not for acute care or any kind of institutional care. Ontario and New Brunswick have maintained public health organizationally separate from other health organizations. Yukon is about to repatriate its health services, and within the new health system, public health will be the responsibility of the provincial government while the administration of public health programs and services will remain with the Yukon territorial government.

There are considerable differences in the presence of public health within regional health organizations with fully integrated public health systems. Fifty-three percent (53%) indicate that there is one department or division responsible for public health functions within the organization, 34% indicate that there is more than one department, and only 13% indicate that public health has no definable structure within their regional organization.

Comments provided by regional respondents revealed differences in the way that public health functions are organized, according to the population served and the geographic area covered. In Yukon, Northwest Territories, and northern areas of Newfoundland, nursing stations are utilized to provide all health services, including public health. Critical health issues, such as diabetes, substance abuse, and an increased prevalence of

teenage pregnancies are found in these small remote communities and must be addressed by local public health workers. Moreover, they have a majority of residents who are Inuit, Innu or native, making them more similar to one another than to other parts of the health systems within which they are located. There may be opportunities for useful collaboration between public health specialists who work with similar populations, such as northern community workers and metropolitan area workers.

There is a growing trend for native councils and commissions to assume responsibility for many services, including health. For instance, Health Canada recently handed over responsibility for certain health services, including public health, to two new health organizations, the Labrador Inuit Health Commission (LIHC) and the Innu Nation Health (INH). These services are augmented with provincially-provided resources, such as environmental health. However, responsibility for the planning and the delivery of programs and services rests with these Councils or Commissions. As native self-government becomes more prevalent across Canada, delivery of health services by native health boards will become more common. Collaboration between these organizations may be useful to determine what organizational structures are most effective.

3.1.5 Participation in the Overall Planning of Health Programs and Services

Fifty percent (50%) of regional respondents reported that they are full participants in the overall planning of health programs and services while 43% reported being occasional participants. Only 7% of regional respondents reported not participating in the planning of overall health programs and services.

Respondents not participating in overall health planning were more likely to be from Nova Scotia, where 40% of respondents reported no participation. Respondents from Alberta (76%), Saskatchewan (55%), Newfoundland (80%), and Northwest Territories (80%) were most likely to report being full participants in the planning of overall health programs.

While the degree of involvement of regional respondents in the planning of overall health programs and services was reported to be high (93%), respondents who reported that their public health services were part of a regional health organization were significantly more likely to report full involvement versus occasional involvement ($p<0.001$). This finding is not surprising in view of their co-location and reported integration with other health sectors.

3.1.6 Linkages in the Planning of Public Health Programs and Services

Seventy-five percent (75%) of regional respondents reported that the following health and non-health providers are involved in planning public health programs and services (includes the percentage of respondents indicating linkages with this provider group):

- social services (65%)
- hospitals (65%)
- home care (58%)
- education (56%)
- long-term care (47%)
- other health providers (38%)
- other non-health providers (25%)

3.2 Official Mandate of Public Health

3.2.1 Public Health Legislation

The legislative mandate for public health within each province and territory is present in one major piece of public health legislation, often called the Public Health Act. This Act focuses primarily on the health protection and control of communicable disease portions of public health. Other Acts and Regulations are present in each province and territory and aim to restrict hazards to the health of individuals and of the public in general. These secondary public health acts include acts which aim to restrict second-hand smoke, legislation concerning traffic and bicycles, legislation which aims to maintain a healthy environment, legislation to control the transmission of sexually transmitted diseases, and legislation to enforce health standards in public areas.

3.2.2 Presence of Public Health Definitions/vision, Goals, Objectives, Standards, and Program Guidelines

At this time, only four provinces report having public health definitions/vision, goals, objectives, standards, and program guidelines in place or under development. Study findings indicate that the provincially-set public health definitions/vision, goals, objectives, standards, and guidelines are widely used and considered very useful in guiding public health programs and services. In Ontario, Quebec, and New Brunswick, where there are reported to be provincially-set core program guidelines, these documents are reported to be very useful. In particular, respondents' comments indicate strong support for provincially/territorially-set public health standards.

Sixty-nine percent (69%) of regional respondents reported working with an official definition or vision of public health. Many of these respondents provided as evidence of

this, mission statements that include broad statements about "population health" or "community health", rather than specific definitions of public health. It should be noted that the comments provided by respondents used the terms "population health" and "community health" as synonymous with the term "public health".

Ninety percent (90%) of regional respondents reported working with public health goals, the same percentage (90%) reported working with public health objectives, 85% reported having public health standards, and 96% reported having public health program guidelines. In those provinces with provincially-set core program guidelines, these are reported by the majority of respondents as providing the official mandate for public health programs and services.

3.3 Funding

Funding of public health programs and services is variable across the country and within individual provinces and territories. Public health programs and services which are integrated into comprehensive health organizations are more likely to get their funding through a health board. Respondents frequently expressed concern about having to "compete" for funding with more politically powerful sectors, such as health care institutions. Even in provinces with integrated health services, some public health funding is reported to come directly from the government.

4.0 Overview of the Impact of Health System Reforms on Public Health Across Canada

Health system reforms are at various stages of planning and implementation across the country. Reports of provincial royal commissions provided much of the policy direction for these reforms. While provincial and territorial differences exist, reforms have been driven by the common themes of fiscal restraint and devolution of health services to regional or district health organizations with legally responsible boards.

Regionalization of health services has been the widespread Canadian blueprint for reforms. Infrastructures consisting of autonomous, integrated health boards at the regional or district level are now common from coast to coast. In all provinces and territories, with the notable exception of Ontario and Yukon, some degree of regionalization of public health services has occurred. Some provinces have completely devolved responsibility and funding for public health services to independent regional organizations, with provincial and territorial governments maintaining the role of advisors, legislators, and broad policy-makers. In other provinces and territories, provincial governments have retained public health programs and services as part of a provincial or territorial organization.

Within organizations where public health has become part of regional health services, public health has been integrated to a greater or lesser extent. In Alberta, Saskatchewan, Quebec, Prince Edward Island, the two Northern Boards of Newfoundland, and Northwest Territories, public health programs and services are planned, funded, and delivered almost entirely from an independent health region or health district operated by a board whose legislated mandate includes the provision of all health services to a designated population. British Columbia, Manitoba, and Nova Scotia are each in the process of integrating public health into regional health organizations. In Newfoundland, with the exception of the two Northern Boards, the regional boards have a mandate for comprehensive community health services but not for acute care or any kind of institutional care. Ontario continues to operate using a system of local or municipal health boards. The Ontario health system has not made any significant movement towards a comprehensive regional health structure with integrated public health services. In fact, funding for public health programs and services will become a municipal responsibility this year. This move has caused considerable concern among those working in public health in Ontario.

Given the diverse range of health reforms, interprovincial comparisons may not be useful. However, Canada-wide summaries do provide some insight into the range of

experiences and perceptions regarding the impact of health reforms on public health and the following summary information is provided for this purpose.

4.1 Impact on Overall Effectiveness and Efficiency of Public Health

Regional respondents were asked to assess the overall impact of health system reforms, using a scale of 1-5 [1 being “made public health ***much less*** effective and efficient” and 5 being “made public health ***much more*** effective and efficient”]. Overall, regional respondents reported most frequently that reforms have not had a significant impact on public health programs and services [median = 3, mode = 3]. Slightly more respondents answered that health reforms have had either a somewhat or very negative impact (38%) than answered that reforms have had either a somewhat or very positive impact (30%).

4.1.1 Correlation Between Regionalization and Overall Impact

Respondents who indicated that their public health services were part of a regional health organization were significantly more likely to answer that health reforms have had either a somewhat or very positive impact on overall effectiveness and efficiency of public health programs and services ($p < 0.001$). This comparison was done using a median test for independent samples.

Comments by regional respondents indicate that the perception of health reforms as a positive influence on public health may be attributable to the new regional structures which allow for greater collaboration and integrated program work.

It is important to restate here that there are very large differences between provinces and the reader must appreciate the limitations of this Canada-wide analysis.

4.2 Impact on Scope, Quality, Funding, and Staffing

Respondents answered questions on the overall impact of health reforms on four key areas of public health programs and services: scope, quality, funding, and staffing, using a Likert scale with 1 = very negative impact, 2 = somewhat negative impact, 3 = no significant impact, 4 = somewhat positive impact, 5 = very positive impact.

Not surprisingly, there was a significant correlation between how respondents answered the question of the overall impact of reforms on effectiveness and efficiency and how they answered questions about the impact of reforms on scope, quality, funding, and staffing. A positive response in the first case was significantly more frequently associated with a positive response to the other questions ($p < 0.001$).

A lack of pre-health reform data makes a pre- and post-survey comparison impossible. However, by comparing the results of each variable: scope, quality, funding, and staffing, to a null hypothesis test value of "3" indicating no significant impact, we find that health reforms are reported to have had a significant impact on funding and staffing only ($p < 0.05$).

4.2.1 Scope

The overall impact of health reforms on the scope of public health programs and services was reported as being ***not significant*** (median = 3). There were almost equal responses on the negative (34%) and positive (33%) sides of the median {interquartile range = 2 to 4}.

4.2.2 Quality

The overall impact of health reforms on the quality of public health programs and services was reported as being ***not significant*** (median = 3). There were almost equal responses on the negative (46%) and positive (43%) sides of the median {interquartile range = 2 to 4}.

4.2.3 Funding

The median response to the question of the impact of health reforms on the funding of public health programs and services was 3, or not significant {interquartile range = 2 to 3}. However, there were almost twice as many respondents reporting that the impact on funding had been either very or somewhat negative (46%) than those reporting that it had been either very or somewhat positive (24%).

Testing against a hypothetical test value of 3 indicating no significant change reveals that, overall, regional respondents rated the impact of health reforms on funding as being significantly ***negative*** ($p < 0.05$).

4.2.4 Staffing

The median response to the question of the impact of health reforms on the staffing of public health programs and services was 3, or not significant {interquartile range = 2 to 4}. However, there were more respondents reporting that the impact on staffing had been either very or somewhat negative (44%) than those reporting that it had been either very or somewhat positive (27%).

Testing against a hypothetical test value of 3 (no significant change) reveals that, overall, regional respondents rated the impact of health reforms on staffing as being significantly ***negative*** ($p < 0.05$).

4.3 Impact on Core Public Health Functions

A numeric comparison of the impact of health reforms on the five core public health functions cannot be carried out using the results of this survey. The question asked for written responses only and did not prompt or ask respondents to rate the impact as positive or negative. The researcher, in reviewing this section, recorded the responses as generally negative, generally positive, no significant impact, and other.

Responses were recorded as "positive" if they mentioned gains or improvements such as increased resources, quality, program emphasis, or increased involvement by other sectors. Responses were recorded as "negative" if they mentioned decreased resources, decreased quality, less program emphasis, or decreased involvement by other sectors. Variable responses and responses of a descriptive nature were recorded as "other".

A review of the responses given by all regional respondents on health reforms reveals that more respondents reported:

- a ***positive impact*** on **healthy public policy**,
- either a ***positive or negative impact*** on **health promotion** - the number of positive and negative comments being almost equal (45 and 46, respectively),
- ***no significant impact*** on the more traditional core public health functions of **health protection, disease prevention**, and **disease surveillance and control**.

The most decisive statements of "no significant impact" came consistently in the area of disease surveillance and control. In narrative comments, many respondents indicated that these programs are the most "traditional", the most commonly legislated or mandated through program standards and guidelines and the least likely to be affected by fiscal reductions. Many respondents expressed frustration that health promotion and disease prevention are not afforded the same protection.

4.4 Expected Impact of Future Health System Reforms

Eighty-four percent (84%) of respondents indicated that they are expecting future health reforms which will impact on public health in their region. Using a Likert scale of 1-5 [1 = very negative impact, 2 = somewhat negative impact, 3 = no significant impact, 4 = somewhat positive impact, 5 = very positive impact], respondents answered questions regarding the expected overall impact of future health reforms on the scope, quality, funding, and staffing of public health programs and services.

A paired comparison of responses to questions on the impact of ***current*** versus ***future*** health reforms on the scope, quality, funding, and staffing revealed that respondents are significantly more optimistic about the future ($p < 0.05$).

4.4.1 Scope

Overall, the impact of future health reforms on the scope of public health programs and services is expected to be ***somewhat positive*** (median = 4; interquartile range = 2 to 4).

4.4.2 Quality

Overall, the impact of future health reforms on the quality of public health programs and services is expected to be ***not significant*** (median = 3; interquartile range = 2 to 4).

4.4.3 Funding

Overall, the impact of future health reforms on the funding of public health programs and services is expected to be ***not significant*** (median = 3; interquartile range = 2 to 4).

4.4.4 Staffing

Overall, the impact of future health reforms on the staffing of public health programs and services is expected to be ***not significant*** (median = 3; interquartile range = 2 to 4).

Respondents' answers indicate that they expect future health reforms will have a more positive impact than recent health reforms have had. Generally, respondents were most positive about the expected impact of future reforms in the areas of scope and quality of programs and services. The impact of future reforms on funding and staffing is expected to continue to be negative.

Final Note

The reader is reminded of the limitations of these Canada-wide summaries. While they are interesting, the usefulness of the results is limited due to the variable sampling methods used, the differences in sample sizes between provinces, and the limited statistical analysis which could be conducted on this ordinal data. The reader should view this section largely as an environmental scan of public health across the country. These results may be most useful in providing a baseline for future survey results.

5.0 Key Findings

The purpose of this section of the report is not to review findings from each individual province and territory, but instead to gather together key findings from all parts of the report.

5.1 Organization and Official Mandate of Public Health

➢ The presence of public health across the provinces and territories of Canada differs significantly. While some similarities exist, such as in the case of public health legislation, there remain large differences in governance structure, funding, linkages, the presence of environmental health, the official mandate, and the presence of core programs and services across provinces and territories, and in some cases, within provinces and territories.

➢ Public health infrastructure in many provinces and territories underwent major changes on April 1, 1997. In British Columbia, Manitoba, and Nova Scotia, this date signaled initial, or further, devolution of responsibility for public health to comprehensive health organizations. In Ontario, this date signaled a move to 100% municipal funding of many services, including public health. In Yukon, this date signaled the repatriation of health services to the Yukon territorial government.

➢ In each province and territory, there is one primary Act which legislates health protection functions and control of communicable diseases. Other health and non-health Acts in each province and territory include portions which encompass other public health programs and services. New Brunswick and Manitoba are currently revising their respective Public Health Acts. Ontario and Quebec are planning future revisions to their primary pieces of public health legislation.

➢ At the regional level, core public health functions, such as health promotion and disease prevention, are being integrated with other health services as part of comprehensive regional or district health services. From this study, it appears that public health is becoming more frequently an integrated part of client-defined program areas, such as child services, rather than of functional programs, such as health promotion.

➢ In five provinces/territories, public health's core functions are found within a single organization at the ministry level. In the remaining provinces/territories, public health's core functions are spread out in more than one directorate, and in the case of British Columbia, in more than one ministry.

- Environmental health functions are the primary responsibility of the Ministry of Health in seven provinces and the two territories, the responsibility of the Ministry of the Environment in two provinces, and the responsibility of some other agency in one province.

- Respondents expressed strong support for provincially/territorially-mandated public health core program guidelines and standards of practice, which allow for regional flexibility.

- There are no commonly used terms for public health and its functions. The terms "population health" and "community health" are frequently used in place of the term "public health".

5.2 Focus of Public Health

- Respondents from across the country reported that public health has a leadership role to play in newly reformed provincial and territorial health systems.

- Public health workers surveyed reported that it is important to focus public health programs and services on the determinants of health rather than on health care. Respondents expressed strong support for public health approaches that encompass components of population health, community health, and "wellness", rather than of "illness".

- Regional respondents reported being actively involved in planning overall health services. This result was consistent across different types of public health organizations. Regional respondents did report, however, that regional health organizations provide them with many positive opportunities to improve public health programs and services, including opportunities to integrate and collaborate with other health and non-health sectors, and to have a stronger presence and voice in planning health services.

- Respondents recognized the importance of establishing and using outcome measures for public health programs and services.

- Respondents recognized the need for public health to move beyond traditional program jurisdictions and to blend skills with others to achieve healthier communities.

- Respondents recognized the increased role that public health will have to play as less emphasis is placed on the acute care sector and more is placed on community-based services.

5.3 Impact of Health System Reforms

- Respondents who identified themselves as working in regional health organizations were significantly more likely to report that health reforms have had a positive impact on the overall effectiveness and efficiency of public health. This group was also significantly more likely to report being full participants in the planning of overall health programs and services.

- Regional respondents expressed concern over the potential for disparities in public health programs and services across regions brought on by the devolution of responsibility and funding to regional and municipal organizations whose boards may not place a high priority on public health programs and services.

- While there were individual provincial and territorial differences reported, overall, health reforms were reported to have had the most negative impact on the funding and staffing of public health programs and services, and reported to have had no significant impact on the quality and scope of public health programs and services.

- While there were individual provincial and territorial differences reported, overall, health reforms are reported to have had a mixed or variable impact on health promotion, a positive impact on healthy public policy, and no significant impact on the most traditional public health functions of health protection, disease prevention, and disease surveillance and control.

- Overall, respondents reported that they expect future health reforms will impact less negatively on public health programs and services than have past reforms. Respondents indicated that future health reforms will not impact significantly on the scope, quality, funding, and staffing of public health programs and services.

6.0 Conclusion

The information gathered through the Public Health Infrastructure Study will be useful for those involved in, or responsible for the delivery and administration of public health to identify some of the impacts of recent health care reforms on public health infrastructure and programs. It should assist in efforts to develop appropriate public health strategies and framework for public health infrastructure, as a supporting document to *Focus on Health: Public Health in Health Services Restructuring*. While the results of the study are very useful in this regard, the reader is reminded of the limitations outlined in the Foreword.