Profiles of Public Health Systems in Canada: Jurisdictional Review Methodology

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About this research project: context, team and partners

The *Profiles of Public Health Systems in Canada* are part of a research project titled *Platform to Monitor the Performance of Public Health Systems,* led by Principal Investigators Dr. Sara Allin, Dr. Andrew Pinto and Dr. Laura Rosella from the University of Toronto. The project involves the participation of knowledge users, collaborators and an inter-disciplinary team of scholars from across Canada, and aims to develop a platform to compare public health system performance across Canada. To achieve this aim, the project comprises three phases:

1. Produce detailed descriptions of the public health financing, governance, organization, and workforce in each of the 13 provinces and territories using a literature review with results validated by decision makers.
2. Conduct a set of comparative in-depth case studies examining implementation and outcomes of reforms, and their impacts on responses to the COVID-19 pandemic.
3. Define indicators of public health system performance with structure, process, and outcome measures.

The National Collaborating Centre for Healthy Public Policy (NCCHPP) joined the research project working group in the early months of the COVID-19 pandemic, and is now proud to publish their work as a series of 13 Canadian Public Health System Profiles, with supplementary methodological materials. The series of public health system profiles are available on the NCCHPP website at: https://www.ncchpp.ca/profiles-of-public-health-systems-in-canadian-provinces-and-territories/.

About the National Collaborating Centre for Healthy Public Policy (NCCHPP)

The NCCHPP seeks to increase the expertise of public health actors across Canada in healthy public policy through the development, sharing and use of knowledge. The NCCHPP is one of six centres financed by the Public Health Agency of Canada. The six centres form a network across Canada, each hosted by a different institution and each focusing on a specific topic linked to public health. The NCCHPP is hosted by the Institut national de santé publique du Québec (INSPQ), a leading centre in public health in Canada.

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1   Overview

The objective of this jurisdictional review is to gather up-to-date and reliable publicly available and peer-reviewed literature detailing how provincial/territorial public health systems in Canada are organized, governed, financed, and supported in terms of their workforce. Between 2020 and 2021, using the strategy presented below, study team members conducted searches for specific topics of interest. Literature meeting the inclusion criteria was abstracted using a standardized data abstraction form adapted from a template developed by the European Observatory for Health Systems and Policies (details below) (Rechel, Jakubowski, et al., 2018; Rechel, Maresso, et al., 2018). A narrative synthesis of information was used to draft detailed "Profiles of Public Health Systems in Canada,"[1] which were critically reviewed by study team members and independently reviewed by subject matter and local experts external to our study team.

1.1   Search Strategy

1.1.1   SEARCH TERMS, SEARCH ENGINES AND DATABASES

We used Google search to identify grey literature and information within governmental, public health agency, research institute, and non-governmental organization websites. Early in the review, pre-specified search terms were defined for each topic of interest. Search terms were adjusted as study team members became more familiar with the specific information sources and types of documentation required. Where more specific information was sought (e.g., information on regional health authority leadership structure, Canadian Institute for Health Information datasets, annual reports, audited financial statements), targeted searches and hand-searching within specific websites were conducted. To facilitate international comparisons and standardize our search terms, the World Health Organization's essential public health operations (EPHO) were used to define the services and programs constituting public health (Table 1) (World Health Organization, 2015). Enabler EPHO (i.e., organizational structure and financing, governance and workforce) was used as our conceptual framework for public health systems (World Health Organization, 2015). Each enabling EPHO was examined according to definitions and the detailed data abstraction template used by the European Observatory for Health Systems and Policies in their recentreview of European public health systems (Rechel, Jakubowski, et al., 2018; Rechel, Maresso, et al., 2018). This template also informed search term design.

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1   The series of 13 Public Health Profiles is available on the website of the NCCHPP at: https://www.ncchpp.ca/profiles-of-public-health-systems-in-canadian-provinces-and-territories/.

Table 1 **WHO Essential Public Health Operations**

	Essential Operation	Definition
1.	Surveillance of population health and well-being	Monitoring and mapping the incidence and prevalence of diseases, risk factors, health determinants, population health status and health system use and performance.
2.	Monitoring and responding to health hazards and emergencies	Monitoring, assessing and planning interventions to minimize workplace and environmental health risks; preparedness for management of emergency events.
3.	Health protection, including environmental, occupational and food safety	Supervising enforcement and control of these activities, monitoring compliance, and capacity to generate new laws and regulations aimed at promoting healthy environments.
4.	Health promotion, including action to address social determinants and health inequity	Addressing determinants of both communicable diseases and non-communicable diseases (NCDs), which includes the promotion of changes in lifestyle, practices and environmental and social conditions to facilitate societal development among individuals and the community that promotes public health and reduces inequalities.
5.	Disease prevention, including early detection of illness	Is aimed at both communicable diseases and NCDs, and has specific actions largely delivered to the individual (e.g., vaccination, screening).

Source: World Health Organization, 2015.

To minimize observer bias, each participating study team member de-personalized their search engines (i.e., updating search settings by selecting "Do not use private results," thus preventing personalized search results from being presented according to each researcher's browsing history and personal information stored within Google applications) and used a Google Chrome browser. Google Scholar and PubMed were searched when Google searches yielded insufficient information or to access information identified within reference lists or recommended by study team members.

1.1.1.1 Literature Inclusion Criteria

To ensure the accuracy and trustworthiness of information discussed, we sought the most recent information and data from official governmental institutions and non-governmental organizations and academic research. Detailed inclusion and exclusion criteria are presented in Table 2. We screened the top 100 most relevant search results, screening titles and short summaries to identify relevant sources.

Table 2   Inclusion criteria for grey and peer-reviewed literature screening

	Include	Exclude
Subject matter	▪ Explicitly addresses questions within data abstraction template or describes related aspects of organization, governance, financing, and/or workforce in relation to overall operation of provincial or territorial public health systems	▪ Information not addressing topics or subtopics of interest
Publication date	▪ January 1st, 2000, until date of end of search	▪ December 31st, 1999, or earlier
Publisher	▪ Government agencies, non-governmental organizations, public health agencies, professional associations, research institutes, academic institutions, professional consultancies ▪ Peer-reviewed journals	▪ Popular media outlets (e.g., news, magazines) ▪ Social media, websites not operated by those listed in the inclusion criteria
Document type	▪ Webpages, financial reports, organizational charts, research and analytic reports, evidence syntheses, policy briefs, strategic and policy plans, general policy documents, legislative documents, press releases, dissertations/theses, textbooks ▪ Primary data (e.g., expenditure data from financial statements, Canadian Institute for Health Information databases)	▪ Journalistic articles ▪ Conference abstracts and proceedings
Language	▪ Content written in English or French	▪ Languages other than English or French

1.1.1.2   Data Abstraction

Each study team member conducting the search abstracted information using an adapted version of the abstraction template. Our template was iteratively adapted for our jurisdictional review as information gaps were consistently identified across provinces and territories (the final data abstraction form is below). Separate spreadsheets were used to compile and analyze financial data.

2   Validation and Editorial Processes

To minimize threats to the validity and reliability of the profiles (e.g., out-of-date, incomplete, or misinterpreted information), each preliminary draft was first internally reviewed by content experts on our study team and secondary targeted searches were performed for additional information as needed. After revisions stemming from internal reviewer feedback were completed, the updated profile was confidentially shared with external content experts (e.g., researchers, public health professionals, policy makers) working within each respective jurisdiction. Study team members emailed potential external reviewers to invite their critical feedback. External reviewers were identified through study team professional networks, NCCHPP contact lists, and references to experts identified while studying each jurisdiction. After any suggested revisions were completed, the profiles were sent to the NCCHPP for copy editing, layout and online posting.

3   Data Abstraction Form

Understanding the governance, organization, financing, and workforce
of public health systems in Canada: a rapid jurisdictional review.

PROVINCE/TERRITORY

[contributing research team names and affiliations]

Historical and Contextual Background

Please provide a brief historical background and context on how public health services in [province/territory] have evolved, to enable better understanding of their current set-up. Public health reform is defined as a change in any fiscal or structural policy aimed at directly impacting public health system governance, organization, funding or financing, workforce, and population health outcomes (Ricciardi et al., 2016).

Consider the following issues:

i: The main recent reform initiatives on the governance, organization, financing, and workforce of the public health system, and where relevant, broader health policies and reforms (in so far as they have impacted on the organization and financing of public health services).

Recent Reforms and Initiatives

- <u>2020</u>: XXX

- **...**

- <u>2000</u>: XXX

Topic 1: Organizational Structure

This section provides an overview of the organizational structures of public health in the [province/territory] as of [date]. We present the roles, responsibilities, and supervisory relationships of governmental and arms-length governmental institutions with a legislated role in public health, including health authorities, public health units, and key figures within each that lead the planning and delivery of public health services. Our focus is on those with public health as their primary role; therefore, we do not provide a detailed description of organizations and service providers in other sectors (e.g., primary care, mental health and addictions, social services, and non-governmental organizations) that may perform essential public health functions as part of their work (e.g., immunization, health promotion). In this section, we will enable understanding of what public health services are delivered; the following sections will focus on who delivers them.

1A   The formal administrative structure and main actors of public health services at the various tiers of administration (national, regional, and local). Consider the following:

- Tasks, remit, and responsibilities at each administrative tier (e.g., ministries, medical health officers, regional institutes). Please specify wherever possible the name, year of establishment, legal status, yearly budget, and number of staff;

- Governance structure (supervisory arrangements: role, size, composition, appointments);

- Degree of decision-making autonomy and powers;

- Lines of accountability: to whom does each administrative tier report, and for what are they accountable (delivery of outcomes; achieving and maintaining specific quality and safety standards; financial performance of the organization);

- Which actors are responsible for each WHO essential public health operation, and what are some examples of the programs/services they coordinate/deliver?

Provincial

Ministries
E.g., Chief Medical Officer of Health
E.g., Public Health Departments/Divisions

Regional

E.g., Boards of Health, Regional Health Authorities
E.g., Medical Officers of Health

Local

E.g., Local Health Units

1B   Provide an organigram of the organizational structure of public health services in your jurisdiction.

Integration-specific sub-topic questions:

We define integration as the continuum of services delivered and managed across different health system levels and sub-sectors (World Health Organization, 2008, 2018). Within the health sector, integrated health services involve seamless and easy navigation of the health system for users, and coordination of delivery (e.g., programs, services, information), governance (e.g., policies, stewardship), and financial arrangements (e.g., funding models and agreements) between providers and formal and informal partners.

1C   Please describe in general the extent of and, specifically, the formal/informal mechanisms enabling the following:

- Coordination of public health services across regions in [PT], with federally funded public health services (e.g., available to Indigenous communities), and with healthcare services (e.g., primary care, hospital care);

- Coordination/collaboration between public health *actors in government* and other public/private sectors (e.g., national and international NGOs, inter-ministerial and inter-departmental committees, local intersectoral partnership platforms, joint budgets, private-public partnerships);

- Coordination/collaboration between local public health *services* and services delivered in other sectors (e.g., social services, education, environmental, occupational, and mental health, law enforcement and fire services).

Topic 2: Governance

Public health system governance comprises the legal, regulatory and policy frameworks (e.g., public health legislation, regulations, standards, guiding policies) which define the roles and responsibilities of key actors and the strategic vision, mission and goals directing the public health system (World Health Organization, 2015). Performance measurement and evaluation of public health activities are fundamental to assessing whether systems produce the intended outcomes and facilitate the continuous improvement of programs and services (World Health Organization, 2015).

This section provides an overview of the governance of public health in a particular province/territory. Throughout this section, we refer to the WHO framework of essential public health operations, and use this to consolidate and describe the governance and organization of public health in [P/T].

2A   Describe the overall legal, regulatory and policy framework for public health (e.g., public health legislation, regulation, and/or standards).

▪ How is public health defined within key public health statutes and which essential public health operation do they address?

Performance management-specific sub-topics:

2B   Are there documents (e.g., public health strategic plans, public health standards/guidelines) that outline the current "vision" for public health and its strategies and goals? How is performance on each evaluated?

▪ If so, who developed it, when, and are the mechanisms for implementation specified?

▪ Are there specific priority population groups that are identified in these strategies and goals?

▪ Do these documents include performance measurement or evaluation frameworks specifying population health, public health system or program-specific performance indicators?

▪ Are there information systems enabling measurement of health status, service utilization, vaccination records, public health inspection results?

Topic 3: Financing

Among the EPHOs, financing refers to the "mobilization, accumulation and allocation of resources to cover population health needs, individually and collectively" (World Health Organization, 2015). Our search sought publicly available data from provincial budget reports and where public health expenditures were not specified, audited financial statements of key public health actors receiving provincial health funding (e.g., provincial and regional health authorities).

3A   What is the total budget allocated to public health services in the province/territory and how has this developed over time?

3B   To what extent are budget lines dedicated to public health within the overall health system (e.g., in primary care, specialized and hospital care, emergency services, health technology procurement) or in other sectors (e.g., education or social sectors)?

Topic 4: Public Health Workforce

The core public health workforce includes "all staff engaged in public health activities that identify public health as being the primary part of their role" (Rechel, Maresso, et al., 2018). This excludes professionals such as midwives, community pharmacists or family physicians who may promote public health, but only as a part of their job. Our search sought information detailing the size and professional discipline composition of, and recruitment and retention trends and strategies for, the public health workforce in [Province/Territory].

Please describe the core public health workforce in your province/territory, in so far as it is employed by public health organizations and providers of public health services.

Availability and distribution-specific sub-topics:

Please describe the availability and distribution of the public health workforce.

4A   What is the size of the public health workforce at the different agencies and tiers of administration (provincial/territorial, regional and local)? Consider specifically:

- What is the disciplinary background of staff forming the public health workforce (e.g., medicine; public health; epidemiology; psychology; information sciences; social science; statistics; law; nursing; IT; other)?

- What is the breakdown of different professional categories (e.g., managers, public health practitioners, researchers) as a percentage of the total public health workforce?

Workforce capacity-specific sub-topics:

4B   To what extent does the public health service experience problems in recruiting or retaining appropriate staff and why is this the case?

- Is there information on whether levels of staffing, skills and skill mix are adequate?

- What is known about staff turnover rates in the public health workforce and does this differ at the different tiers of the system?

- Is there a provincial/territorial strategy for the public health workforce and what does it cover?

- If there is no specific strategy, what other strategic documents address the public health workforce and what do they cover?

4   References

Rechel, B., Jakubowski, E., McKee, M., & Nolte, E. (2018). *Organization and financing of public health services in Europe*. WHO Regional Office Europe on behalf of the European Observatory on Health Systems and Policies. http://www.euro.who.int/en/about-us/partners/observatory/publications/studies/organization-and-financing-of-public-health-services-in-europe-2018

Rechel, B., Maresso, A., Sagan, A., Hernandez-Quevedo, C., Williams, G., Richardson, E., Jakubowski, E., & Nolte, E. (2018). *Organization and financing of public health services in Europe: Country reports*. WHO Regional Office Europe on behalf of the European Observatory on Health Systems and Policies. https://www.euro.who.int/__data/assets/pdf_file/0011/370946/public-health-services.pdf

Ricciardi, W., Lamata, F., Lehtonen, L., Marušič, D., McKee, M., & Barros, P. P. (2016). *Expert Panel on effective ways of investing in health (EXPH), Report on Typology of health policy reforms and framework for evaluating reform effects* (p. 108). European Union. https://ec.europa.eu/health/sites/health/files/expert_panel/docs/013_healthpolicyreforms_reformeffects_en.pdf

World Health Organization. (2008). *Integrated health services—What and why?* (Technical Brief No. 1). World Health Organization. https://www.who.int/healthsystems/service_delivery_techbrief1.pdf

World Health Organization. (2015). *Self-assessment tool for the evaluation of essential public health operations in the WHO European Region*. World Health Organization Regional Office for Europe. http://www.euro.who.int/__data/assets/pdf_file/0018/281700/Self-assessment-tool-evaluation-essential-public-health-operations.pdf?ua=1

World Health Organization. (2018). *Technical series on primary health care: Integrating health services* (p. 16). World Health Organization. https://www.who.int/docs/default-source/primary-health-care-conference/linkages.pdf?sfvrsn=bfbb4059_2&ua=1

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