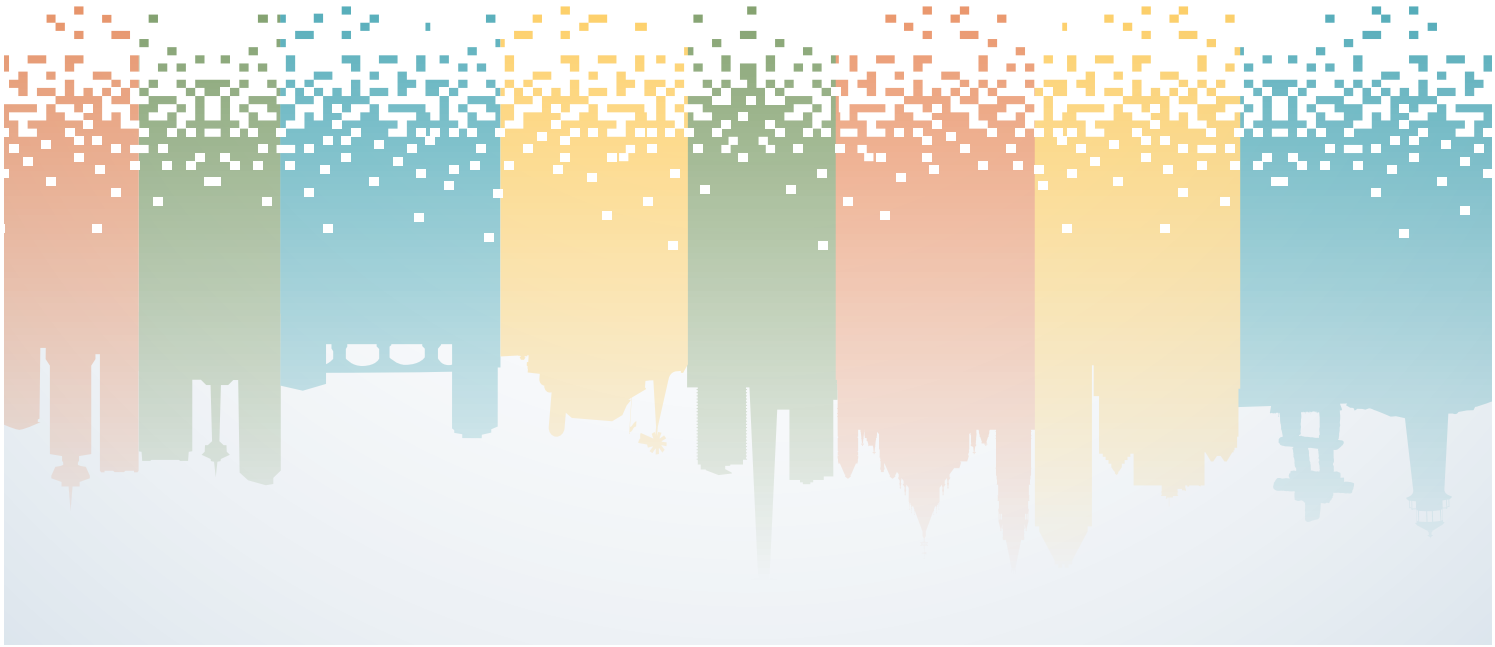
WHAT WE HEARD

A Renewed and Strengthened Public Health System in Canada



Supplementary report for the Chief Public Health Officer of Canada's Report on the State of Public Health in Canada 2021

A Vision to Transform Canada's Public Health System

Canada

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Message from the Chief Public Health Officer of Canada

Every year, the Chief Public Health Officer of Canada writes a report on the state of public health in Canada. This year my annual report describes the ongoing impact of the COVID-19 pandemic on the health of Canadians and highlights some of the challenges and opportunities for the public health system as we look to the future. The overall goal of this report is to offer a forward-looking vision to transform Canada's public health system to the world-class system that it can and should be.

To start a conversation on what transformation of the public health system might entail, it was important for me to hear first-hand insights and experiences from public health leaders, practitioners, researchers, and policy-makers. This *What We Heard* report summarizes themes from six virtual discussion groups, including a virtual Best Brains Exchange (BBE), and six key informant interviews.

I would like to thank Dr. Elizabeth Dyke for facilitating and documenting these discussions as well as the Canadian Institutes of Health Research for sponsoring, hosting, and co-organizing the BBE. Finally, I would like to thank the close to 150 participants who shared their reflections, insights, and ideas to help shape a vision for public health system transformation, and who will certainly be instrumental as we move forward together.

Dr. Theresa Tam
Chief Public Health Officer of Canada

We respectfully acknowledge that Canada is the traditional homeland of First Nations, Inuit, and Métis Peoples, and we acknowledge their diverse histories and cultures. We strive for respectful partnerships with Indigenous Peoples as we search for collective healing and true reconciliation. While we were not able to meet in person, we were able to gather virtually from across the country for conversations facilitated by individuals and organizations located on the traditional unceded territory of the Algonquin Anishnaabe people in Ottawa.

Executive Summary

In April 2021, the Office of the Chief Public Health Officer at the Public Health Agency of Canada commenced a discussion process with a broad range of key stakeholders to gather information and insights on key system-level elements of a future public health system, and to hear tangible actions for sustainable change. The purpose was to gather stakeholder perspectives to help build a forward-looking vision for a strengthened public health system, including foundational elements of a re-envisioned public health system and priorities for transformational change. Diverse groups were consulted, including stakeholders from public health organizations, academia, community-based organizations, and government.

Three different approaches were used to gather input: a Best Brains Exchange meeting (in collaboration with the Canadian Institutes of Health Research), discussion groups, and key informant interviews. Close to 150 stakeholders participated in these discussions. This *What We Heard* report provides a summary of the key themes from these discussions.

Key Themes of What We Heard

1. **Clearly frame the public health system to increase visibility and understanding of the value of public health.** A major challenge facing the public health system is a general lack of agreement amongst the public health community itself on what is, and what is not, included in a core public health system. In addition, there is an overall lack of understanding across stakeholders, including amongst the public and politicians, about what is public health overall. Many participants noted there is a lack of valuing of public health, including within the wider health system. Hence, there is a need to ensure a shared understanding of what is core to public health and what is the role of the public health system.
2. **Engage the community given their critical role.** A major challenge identified was the need to involve community in public health, including in developing a vision for the public health system in Canada, given their critical role. Community engagement is key to ensuring collective responsibility in public health. Suggestions to better engage the community included ensuring adequate resourcing at the local level, conducting asset mapping of communities, ensuring language is understandable, collaborating and coordinating with community organizations, ensuring mechanisms are in place for public dialogue, providing community engagement funds, hearing from the Canadian public directly (e.g., surveys), having community representatives at decision-making tables, and supporting community movements.
3. **Adequately invest in the public health system.** There was general agreement that the public health system at all levels is not adequately funded, and a lack of resources is a major challenge. In addition, public

health is susceptible to funding cuts compared to other areas of the health system. Hence, many participants felt it is critical to advocate for investment in the public health system to ensure adequate resources are allocated, and that the public health system is prioritized. Participants noted that the case needs to be made that public health work has a higher yield in terms of economic and social benefit than health care, and hence consistent funding for the public health system over time is needed, not based on whether there is a current crisis.

4. **Develop a foundational public health data system.** When public health funds are inadequate, there are costs, both material and otherwise, to health care and other aspects of society. To this end, stakeholders underscored the need for data to make the case for public health system funding and to ensure appropriate funding levels. Participants felt that it is critical to confirm an understanding of the public health system scope in terms of programs, activities, funding, and workforce. There is general consensus that the lack of a foundational public health data system is a critical gap that needs to be urgently filled to be able to make evidence-based decisions in the public health system. The public health data that are currently available are fragmented, outdated, not disaggregated, and not timely. A focus on equity, including decolonizing data and recognizing different knowledge systems, was also identified as critical. Two major groups of missing data were highlighted:

    - Comprehensive population health surveillance data: This includes common indicators for population health, modelling data, and disaggregated data (e.g., by race, Indigeneity, subpopulation levels).
    - Data on the formal public health system: This includes data to understand the scope and scale of the public health system, such as current health human resources in the public health system, current investment in the public health system, and the impact of investments in the public health system on outcomes.

5. **Ensure adequate public health human resources.** Participants underscored the challenges related to public health human resource capacity. There was general agreement that investments in the public health system, including local public health systems, need to be made to ensure strengthened public health human resource capacity both during pandemics (including surge capacity) and outside of pandemics. A number of public health physicians noted that they should be positioned as experts in the public health system given their significant training in public health. Understanding what the current workforce capacity is in the public health system, and what capacity is needed (including surge capacity), will help to address some of the health human resource challenges.

6. **Ensure clear accountability mechanisms.** There is a lack of clear accountability for the public health system in Canada. How the public health system differs from the healthcare system, the role of the public health system, and who works in the public health system need to be defined. Based on this clarity of information, clear, measurable outcomes need to be defined for the public health system and outcome-based accountability models need to be developed.

7. **Clarify roles and coordination across jurisdictions in the public health system.** Participants described that given the federated system and public health service delivery at the provincial, territorial, and local levels, there is not one public health system in Canada, but multiple public health systems. Within this context, each jurisdiction has public health embedded at different levels. This translates into jurisdictional complexity, and often a lack of a coherent public health system in Canada. Increased

coordination, coherence, and linkages across jurisdictional levels are needed. Throughout discussions, key roles were identified for the federal government in the public health system, including developing national guidance, national advisory functions, leadership roles such as facilitating the setting of goals and strategies in collaboration with other jurisdictions, and having mechanisms to link local public health systems to the federal level. A critical area of governance of the public health system in Canada is ensuring Indigenous public health expertise.

8. **Consider improved governance mechanisms.** Governance of the public health system(s) in Canada was identified as a challenge. Since public health is not enshrined in the *Canada Health Act*, each jurisdiction implements public health activities in its own way. This leads to a lack of coherence and consistency across the public health system in Canada. It was generally agreed that there could be better alignment across systems of services and programs in Canada and across jurisdictions to ensure more coherence and consistency, as well as a strengthened public health system at all levels. Participants underscored the need to articulate and institutionalize public health roles, responsibilities, accountabilities, and financing in order to ensure sustainability and stability is achieved in Canada. Ideas for how best to implement this were wide-ranging across participants, and no consensus was reached on the ideal mechanism. Ideas included various federal legislative tools, longer-term visions and plans, and funding mechanisms within the federal government's spending power to ensure a core public health system and to advance collective work.

9. **Ensure intersectoral collaborations in the public health system.** Public health work is intersectoral in nature, and integration and coordination across sectors, areas, and disciplines is needed to address the social determinants of health. Some participants noted that a whole-of-government approach, or Health in All Policies approach, is needed in the public health system. Different sectors need to be at different tables to truly address the social determinants of health and inequities. Regular mechanisms need to be in place to ensure collaboration across sectors and disciplines, and across levels of the public health system.

10. **Consider tensions in terms of the independence of Medical Officers of Health.** A challenge that was identified was the perceived lack of independence of Medical Officers of Health, and hence the public health system generally, whether this was at the local, provincial/territorial, or federal level. There is the reality that public health evidence is not the only consideration of political leaders making decisions during a pandemic. There can be a tension between autonomy and influence in the public health system. Some participants expressed that it is important to be at the government decision-making table. This ensures that public health expertise is part of the decision-making process, to help influence decisions and negotiate.

11. **Enhance research on the public health system.** A national program of research is needed on public health systems overall, including commissioned reviews or research studies on best practices in public health systems, governance in public health systems, what funding is needed for public health systems and implications when funding is cut, models of public health systems, and enumeration of the current public health workforce. This research could help to benchmark, monitor, and evaluate public health investments against improvements made. Further research on health economics (and capacity building in this area) may focus on which interventions in public health systems have the largest impact. Participants observed that embedded research is needed (between universities and policy-makers,

and between universities and public health practitioners). Multiple ways of knowing in research was also identified as key, including Indigenous wisdom.

12. **Build on the successes and learn from the challenges of the COVID-19 pandemic.** COVID-19 has focused the spotlight on public health and, as a result, many successes and challenges have emerged. New ways of working together have been developed, including virtual tools, rapid sharing, and new connections. COVID-19 has brought many sectors to the table, with mutual goals. COVID-19 also made it clear that the health and economy are linked, highlighting a clear connection for the public and politicians on the importance of the determinants of health. This is an opportunity to continue building on the visibility and valuing of the public health system, as well as to assess the findings and outcomes from reports and inquiries from previous (e.g., SARS) and current (COVID-19) epidemics.

13. **Address Indigenous and other inequities as core to public health.** A key role for the public health system that was identified is addressing inequities. COVID-19 has highlighted even more starkly the inequities in health faced by certain populations, including First Nations, Inuit and Métis Peoples, racialized populations, and low-income populations. There was general agreement that the public health system has to make clear commitments to continue to address inequities and the structural determinants of health.

14. **Consider linkages between primary care and the public health system.** There were mixed opinions amongst participants as to how to best address the linkages between primary care/the healthcare system and the public health system. Some participants suggested stronger connections need to be made between the public health system and primary care/acute care to reduce silos and better coordinate and integrate work. Others suggested that a population health lens is needed in health care, including in healthcare provider roles, and that primary care could be more public health focused. Other participants expressed concern about the assimilation of the public health system in the healthcare system, and felt the public health system should be decoupled from the healthcare system.

15. **Address mis- and disinformation in public health.** Mis- and disinformation was identified as an increasing challenge facing public health. One area where this is highlighted is vaccine hesitancy, but this is an issue in other areas of public health as well (e.g., water fluoridation). Active strategies are needed to combat mis- and disinformation in public health, and ensure that people are intelligent consumers with access to facts and figures from trusted, evidence-based, and reliable sources.

16. **Encourage innovation in the public health system.** A few participants noted that the public health system is not known for its innovation, and has a reputation for being rigid and staid, which was felt to be a possible impediment to innovation. Further innovation is needed in the public health system. There are many areas for potential innovation, including IT tools, digital infrastructure, and automation.

17. **Priority areas for the public health system in Canada.** Moving forward, a number of priority areas were identified for the public health system in Canada, including: climate change, non-communicable diseases, the aging population, health equity, the Truth and Reconciliation agenda, anti-racism, basic income, decriminalizing people who use drugs, and poverty. Addressing the social determinants of health, particularly those determinants impacted by COVID-19 (e.g., employment, substance use, education, income), were also noted as key areas.

Acronyms

AMR	Antimicrobial resistance
BBE	Best Brains Exchange
CIHI	Canadian Institute for Health Information
CIHR	Canadian Institutes of Health Research
COVID-19	Coronavirus Disease 2019
CPHO	Chief Public Health Officer of Canada
IPPH	CIHR's Institute of Population and Public Health
MLISA	Multi-lateral Information Sharing Agreement
MOH	Medical Officer of Health
NACI	National Advisory Committee on Immunization
NCCs	National Collaborating Centres for Public Health
OCPHO	Office of the Chief Public Health Officer
PHAC	Public Health Agency of Canada
SAC	Special Advisory Committee (on COVID-19)
SARS	Severe Acute Respiratory Syndrome
UPHN	Urban Public Health Network

Introduction

The COVID-19 pandemic continued to illustrate the critical importance of having a public health system that is able to surge and adapt during a crisis while ensuring capacity exists to address ongoing population health issues.

Informed by Canada's COVID-19 experience, the 2021 Chief Public Health Officer of Canada (CPHO) Annual Report provides a forward-looking vision for a strengthened public health system. It describes the foundational elements of a re-envisioned public health system and priorities for transformational change based on the best available evidence and input from the public health community.

To support the development of the CPHO Annual Report, in April 2021, the Office of the CPHO (OCPHO) commenced a discussion process with a broad range of key stakeholders to gather information and insights on key system-level elements of a future public health system and to hear tangible actions for sustainable change.

This *What We Heard* report provides a summary of the key themes from these discussions. Production of this document was made possible thanks to the financial support of the Public Health Agency of Canada (PHAC). The views expressed herein do not necessarily represent the views of the CPHO/PHAC. This report is only one of many inputs into the CPHO Annual Report, including independent commissioned reports on various key topic areas. Other processes on public health system renewal also took place at the same time, including the Canadian Institutes of Health Research (CIHR) Institute of Population and Public Health's national dialogues on building future public health systems.[i]

[i] For more information, see CIHR. (2021). Building Public Health Systems for the Future. https://cihr-irsc.gc.ca/e/52413.html

Stakeholder Consultation

To ensure that a wide variety of stakeholders were consulted as part of this process, three complementary approaches were used to gather input: a Best Brains Exchange (BBE) meeting, discussion groups, and key informant interviews. The diverse groups consulted included stakeholders from public health organizations, academia, community-based organizations, and government.

Prior to each discussion group, the OCPHO presented slides on the context and the objectives of the report, as well as the report structure. These slides were sent ahead of time to each interviewee.

Best Brains Exchange Meeting

The CIHR's BBEs are invitation-only meetings, bringing senior policy-makers together with researchers and implementation experts to discuss high priority, health-related topics of shared interest.

A BBE, co-hosted by the PHAC and CIHR, took place on April 7, 2021, with 54 participants, including speakers. The virtual BBE was five hours in length, with a mix of presentations and discussion. This BBE was facilitated by a representative from the OCPHO, and note-taking was done by an independent consultant. Please see Annex A for a list of participants.

The BBE objectives were to:

- Inform elements needed in the future public health system by probing core topic areas of "data and research ecosystem", "community", and "governance";
- Identify opportunities for new partnerships, models, and innovative solutions across topic areas; and,
- Offer recommendations for priorities within each of the three topic areas by identifying recent/ongoing promising case studies.

Please see Annex B for the BBE agenda.

Discussion Groups

Five two-hour virtual discussion groups were held with 106 people in total between May 12 and June 8, 2021. These included discussions with:

- Researchers and thought leaders involved in systems thinking and social innovation;
- CIHR grantees involved in research on public health system and infrastructure innovation;
- Members of the CPHO Health Professional Forum;
- Members of the Special Advisory Committee (SAC) on COVID-19 (including Chief Medical Officers of Health for provinces and territories as well as other key federal departmental staff); and,
- Local Medical Officers of Health (MOHs).

Please see Annex C for a list of discussion group participants.

These discussion groups were held virtually using Microsoft Teams or WebEx. These consultations were not recorded, but detailed notes were taken. Overall, the objectives of the discussion groups were to:

- Discuss new ways to envision system change in public health;
- Identify tangible opportunities to transform public health; and,
- Prioritize actions for the way forward.

These sessions were facilitated by an independent consultant. PHAC started each session by providing context on the report and an overview on what had been learned to date. Participants were also invited to send additional comments or references after the discussion group. Please see Annex D for more detail on the discussion group objectives and questions.

Key Informant Interviews

Six virtual key informant interviews were held with seven people between June 21 and June 29, 2021 (please see Annex E for a list of interviewees) to fill identified evidence gaps.

These were conducted by Zoom or Microsoft Teams. These interviews were approximately one hour each. The interviews were not recorded, but detailed notes were taken by an independent consultant.

Interview guides were developed for each interview, and questions focused on attributes of the public health system, key areas in need of strengthening, tangible actions for strengthening the public health system, and main barriers and solutions for achieving these actions. Additional probing was conducted, based on the area of the interviewee's expertise (e.g., community perspectives, equity, community nursing, system specific/systems thinking and innovation, lessons learned from other transformations, intersectoral action).

These interviews were conducted by an independent consultant. Please see Annex F for more detail on the key informant interview questions.

Data Analysis and Reporting

The purpose of these various discussions was to gather information from a variety of stakeholders using three methods among complementary (and sometimes overlapping) sources: the BBE, five discussion groups, and six key informant interviews.

Reaching consensus between participants within each discussion group was not a goal of these discussions. Hence, the analysis of these data sources did not focus only on identifying common themes where there was agreement, but also on identifying innovative ideas for system change as well as areas where there were differences of opinions.

The notes from each discussion or interview were typed in detail and reviewed line-by-line by the consultant. Key themes were identified from each based on the discussion group and interview questions. The consultant developed a thematic summary for the BBE, each discussion group, and across the interviews. Once this thematic summary was completed for each method, the themes were examined across groups to identify common themes (e.g., typically mentioned across discussions groups and by numerous participants), innovative ideas and examples, as well as areas where there were differences of opinions. Given the in-depth discussions held, and documents sent by participants after discussions, not every idea mentioned is included in this report; however, every effort was made to include all relevant ideas. Typically, comments were not included if they were not directly related to the topic area, if they were only mentioned by one participant (unless identifying specific examples or innovations), or if they were very in-depth on a particularly narrow subject.

Key themes were not mutually exclusive, and there were many cases of overlap and interconnectedness amongst themes, given the complexity of the public health system. Hence, in some themes identified in the report, references are made to other interconnected themes outlined in other areas of the document.

To protect confidentiality, the findings do not identify specifically to which group(s) or individual(s) a particular theme may be attributed. Quotations are used to help illustrate key areas in more detail.

Key Findings

The following section outlines possible elements to support a renewed and strengthened public health system in Canada, identified by the discussions.

Public Health System Attributes

The OCPHO presented a slide at the start of each discussion that highlighted the potential attributes for a public health system based on the research gathered to date. These are proposed system-level core attributes that can help to frame the vision for strengthening the public health system and guide actions.

The proposed attributes, and their descriptions, included:

- **High-quality, innovative, and timely.** For example, reaching beyond traditional public health boundaries or forms of knowledge.
- **Scalable and flexible.** For example, having the mechanisms in place that can support surge capacity, such as agreements with universities and professional associations that would support dedicating resources to mobilize capacity.
- **Visible, trustworthy, and equitable.** For example, ensuring that equity is a core tenant of a public health system and defines our understanding of risk, while making sure public health institutions themselves are culturally safe and support self-determination.
- **Synergistic and collaborative.** For example, embedding a population and public health culture across health systems and creating seamless relationships across levels of government, communities, other sectors, and Indigenous systems.
- **Sustainable and resilient.** For example, ensuring that our system is supported by a program of public health system research that tracks the quality, amount, and level of public health infrastructure across the country.

Participants were asked to share what attributes might be missing, or what changes to this list of attributes should be made. Generally, participants felt that these reflected the core attributes of a public health system. Some participants noted that some wording needs to be further unpacked to make it clearer why these attributes are unique to the public health system.

A few additional characteristics were noted for consideration, including:

- Accessible
- Accountable
- Coherent
- Effective
- Equitable
- Evidence-based
- Independent
- Innovative

- Responsive, including responsive to the population's needs
- Sufficiently resourced
- Transparent

Many of these additional attributes will be discussed throughout the report.

Need to Clearly Frame the Public Health System to Increase Visibility and Understanding of the Value of Public Health

Challenges

Across respondents, there was overall agreement that a major challenge facing the public health system is a general lack of consensus amongst the public health community itself on what is, and what is not, included in a core public health system. "Public health" is complex. There is a foundational framing issue that was noted, with inconsistencies across jurisdictions, and a lack of coordination across levels, challenging the "system".

> *The major gap is that there is no framework or overarching song sheet within which the (public health) players can be flexible and bring their strengths to the table."*

In addition, there is an overall lack of understanding across stakeholders, including amongst the public and politicians, about what constitutes public health overall. While COVID-19 has increased people's understanding of the public health system in some domains (particularly in infectious disease), challenges remain in terms of the public and politician's understanding of what the public health system is and what its role is, particularly beyond infectious disease control (e.g., COVID-19) to include prevention, protection, and the upstream determinants of health. Terminology can be complicated, as one participant pointed out that people can get confused between public health and publicly funded health care.

Many participants noted that there is a lack of valuing of public health, including within the wider health system. The challenge is that public health can be everything and can be everywhere, and hence it is hard to be valued. As one participant identified, the challenge with the public health system is that if public health prevents deaths, no one is aware, as work by the public health system is "invisible" (unlike when deaths are prevented in the healthcare system).

Potential Actions

As a result of these challenges, it was suggested by many participants that there is a need to clearly define what is included in terms of public health's purpose and objectives so that there is a shared understanding of what is core to public health and what is the role of the public health system.

Many participants also identified that the public health system's mandate needs to be made clear, including the breadth of issues that the public health system works on (beyond infectious disease). A number of participants noted the importance of focusing on upstream social determinants of health, well-being, wellness, and equity, which will be discussed further in the report.

> *If you prolong the life of someone for two hours, you know what you have done (in health care). If you prevented four million deaths because of COVID, no one will know, because the deaths didn't happen. It is the nature of what we are doing (in public health); when we are successful, we are invisible.*"

Participants generally noted that the visibility and profile of the public health system needs to be increased, and the public health system needs to be recognized for the work done. Some participants remarked that the value of the public health system needs to be clearly identified in order to make the case for the importance of the public health system. This includes engaging in messaging to the public, governments, and politicians to increase the visibility and profile, and hence the value, of the public health system.

A few participants highlighted the need for:

- Improved communication (including plain language communication),
- Marketing,
- Education,
- Communication plans,
- Strategic knowledge mobilization for people (including the public) to understand the public health system; and,
- Improving the use of graphic design for communications.

This communication work may also include involving change agents from outside of the public health system. Hearing directly from the Canadian public on their perspectives of the public health system and how this is changing over time (e.g., through surveys) was also identified as a potential action.

Engage Community in the Public Health System Given Their Critical Role

Challenges

A major challenge that was identified across participants was the need to involve community in developing a vision for the public health system in Canada. The community plays a critical role in the public health system, as a key partner in public health. Community engagement is key to ensure collective responsibility in public health. However, communities are also heterogeneous. The public health system needs to be accountable to the public, and direction needs to come from the community (e.g., "bottom-up" from the community based on their needs, not "top-down" from governments).

Hence, a number of participants noted that the public health system has to listen to the community, and mechanisms need to be in place to link the community to the various jurisdictional levels of the public health system (e.g., municipal, regional, provincial/territorial, federal, international).

> *We need mechanisms to be more connected with populations maybe through associations. We (in public health) need to be perceived and known as those who should listen to people."*

> *If citizens do not have a voice, then public health will not be theirs."*

> *Who sets priorities? It should be the community who helps to set the priorities."*

Potential Actions

A number of suggestions were provided to better engage community in the public health system. These included:

- Ensuring adequate resourcing in the public health system at the local level for public health staff to get to know the community and establish relationships. One example is the work of the Taibu Community Health Centre in Scarborough, Ontario reaching racialized communities. Work in Montréal on citizen participation in prevention services is another example.[1] A final example from another sector is the Census sending out staff in-person to reach people who did not complete their Census form. It was suggested that a similar door-to-door format could be used for public health services such as vaccines.
- Conducting asset mapping of communities with different levels of marginalization (e.g., by location, economics/income, access, level of racialization) and target and tailor services specifically to that community.
- Using language at the community level that is understandable (e.g., avoiding public health lingo).
- Collaborating and coordinating with community organizations.
- Finding mechanisms to facilitate public dialogue.
- Providing government-funded community engagement funds.[ii]
- Ensuring community voices at decision-making tables (beyond public health boards) through the flattening of hierarchies.
- Supporting community movements (and acknowledging that public health staff do not have to lead this work, but can play a key role in supporting it).
- Ensuring community representation (e.g., in staffing and materials); ensuring services are welcoming and inclusive; ensuring access to transportation; and sensitizing services to the most vulnerable (e.g., people who have been incarcerated, people who are homeless).

While it is acknowledged that many of these efforts will cost money, community involvement was identified as being critical to the public health system. It was also mentioned that it is important not to download on to the community without providing adequate resources for the work they are doing.

[ii] See for example: Popay J, Whitehead M, Carr-Hill R, et al. The impact on health inequalities of approaches to community engagement in the New Deal for Communities regeneration initiative: a mixed-methods evaluation. Southampton (UK): *NIHR Journals Library*. Available from: https://pubmed.ncbi.nlm.nih.gov/26447266/

> *In the name of community engagement, we need to be careful not to download responsibility on communities without proper resourcing, authority, and control, and shared decision-making structures.*

Ensure Adequate Investments in the Public Health System

Challenges

There was general agreement across the various sources in this process that the public health system at all levels is not adequately funded, and lack of resources is a major challenge. A few participants estimated that only 1 to 2% of the health budget goes to the public health system.[iii]

There has been an erosion of funding for the public health system over time. In addition, public health is susceptible to funding cuts compared to other areas of the health system, as resources are provided to the public health system in an emergency, but then the resources decrease again once the emergency is deemed to be over.

Some participants remarked that lack of resources in the public health system impacted the ability to respond in a timely and effective way in the pandemic. However, it is a challenge to secure resources for public health when acute care is under strain.

At the local level, the public health system has not been able to address other important public health issues during the pandemic given resource constraints and lack of surge capacity. Public health human resource challenges will be discussed further in the report.

Some participants also voiced concern that the pandemic will have a large fiscal impact in all areas, which will affect public health resources and capacity in the long term.

> *We have 'post-scare funding', but not consistent funding. This is part of the problem.*

> *The danger is that we will have current interest (in the public health system) because it is pandemic-related, but we have been through several cycles. Panic, and then people forget about public health. Once (COVID-19) disappears, newer political priorities and a backlog of surgeries will take over and we will shift back to investing in treatment and underinvesting in prevention.*

[iii] See estimates from Nova Scotia: Caldwell, H.A.T., Scruton, S., Fierlbeck, K. *et al.* Fare well to Nova Scotia? Public health investments remain chronically underfunded. *Can J Public Health* **112**, 186–190 (2021). Available from: https://link.springer.com/article/10.17269/s41997-021-00478-8

Potential Actions

Many participants felt that it is critical to advocate for investment in the public health system to ensure adequate resources are allocated, and that the public health system is prioritized. A few participants noted that the case needs to be made that public health work has a higher yield in terms of economic and social benefit than health care.

Some participants identified that funding for the public health system needs to be consistent over time, not based on whether there is a current crisis. This needs long-term political commitment and recognition of the role and value of the public health system.

> *We need prolonged sustained commitment to the public health agenda that doesn't swing widely according to political priorities.*

To ensure appropriate funding levels, data are needed to make the case for public health system funding, given the impact of healthcare costs or other costs to society. Data are also needed to show the capacity needs for the public health system in terms of social and economic benefits. Data challenges will be discussed in the next section.

A few participants suggested that representatives from the public health system need to be at the table where decisions are made on resource allocation to ensure that public health is taken more seriously. One participant remarked that the language of public health does not resonate with people who have the funding and the power. Thus we need to be putting public health on the table using language that resonates. This may include highlighting why the public health system is beneficial to everyone, using language of "power and money".

Some participants noted that the public health system can build on the COVID-19 experience to make the case for funding, given that the pandemic further exposed inequities.

Develop a Foundational Public Health Data System

Better Define Public Health and the Public Health System for Data Systems

Challenges

As noted above, many participants identified that there is no agreement on what is included, and not included, in a core "public health system". This challenge is also reflected when collecting data on the public health system. To collect data on the public health system, the public health system itself needs to be clearly defined and framed.

> *Recognition of the value of prevention and promotion as compared to treatment and other interventions; this is a political commitment to improving the public's health and the return on investment, and it requires long-term investment to deliver results.*

Potential Actions

Participants felt that it is critical to collect and analyze data based on agreed definitions of the public health system, to better understand what is in scope in terms of programs, activities, funding, and workforce. For example, one participant noted that the Canadian Institute for Health Information (CIHI) data do not distinguish between nursing types, so it is not possible to know how many nurses work in the public health system. This scoping is necessary to identify who is accountable for the public health system. This includes accountability for collecting data (and ensuring the capacity to collect data).

Develop Public Health System Surveillance Platform(s)

Challenges

There is general consensus that the lack of a foundational data platform(s) for the public health system is a critical gap that needs to be urgently filled in order to be able to make evidence-based decisions in the public health system. The public health data that are currently available are fragmented, outdated, not disaggregated, and not timely.

Two major groups of missing data were highlighted across participants:

- Comprehensive population health surveillance data, and
- Data on the formal public health system.

Gaps in data that were noted included data we do not collect at all, data we collect but do not share (e.g., modelling data during COVID-19 was identified as one example), and data we have but do not use in an adequate way.

Potential Actions

There was general agreement that a national, foundational surveillance platform is needed to address data gaps in the public health system.

For comprehensive population health surveillance data, many participants identified that it is critical to have:

- Common indicators for population health (e.g., risk factors, health status, social determinants of health trends),
- Modelling data, and
- Disaggregated data (e.g., by race, Indigeneity, subpopulation levels). It was noted that this was not done well during COVID-19.

For equity and race-based data, a few participants identified the importance of compassionate and respectful use of data, with involvement from racialized groups. One example of this being done in practice is in Nova Scotia with the Primary Reference Working Group to support race-based data collection.[2] In addition, there are other examples of data sovereignty coming out of the COVID-19 pandemic that can be built on (e.g., in British Columbia with First Nations and Métis, in Alberta with the First Nations Information Governance Centre, in Manitoba with First Nations, and in Ontario with the Chiefs of Ontario).

Some participants identified the need for specific public health databases to fill gaps where trends need to be tracked, including:

- A centralized vaccine registry,
- A centralized database on antimicrobial resistance (AMR), and
- Other emerging pathogens.

> *We need the capacity to make a diagnosis of our patient (which is the population). For this we need data and information, we need to listen to our patients and have the expertise to understand what is happening and what can be done.*”

Participants identified work already underway that could be built upon for population health surveillance data, including the Multi-lateral Information Sharing Agreement (MLISA) and the Pan-Canadian Health Data Strategy. Other examples that were mentioned included previous public health data work done by the Urban Public Health Network (UPHN), and the Health Data Research Network Canada.

For data on the capacity of the formal public health system, a large number of participants noted that data are needed to understand the scope and scale of the public health system, including:

- Current health human resources in the public health system (e.g., number of staff, posts filled, vacancies; data should also include race-based data on staffing);
- Current investment in the public health system (e.g., overall, budget allocations by activity); and,
- Impact of investments in the public health system on outcomes (to understand value for money, including how much more impact could be achieved with more investment, such as savings in resources, impact on morbidity, mortality, and years of life).[iv]

> *We also lack data on the actual system, similar to health care where you know how many hospital beds we have, what the wait times are, etc. Without this, we can't start to look at performance management.*

Work by CIHI with the provinces/territories on building databases in many healthcare domains was cited as an example of a federal/provincial/territorial model of working together on data systems that could be applied in the public health system.

Basic principles for a public health data system(s) were also mentioned by a number of participants, including:

- Committing to a learning public health system;
- Collecting routine data in a timely way, to ensure real-time data to make real-time decisions;
- Having an interoperable system with linkages between systems (e.g., social services and administrative data) as needed;
- Articulating a minimum level of data needed for practice and research through national standards (e.g., like the work being done by the Pan-Canadian Health Data Strategy); and,
- Collecting qualitative and quantitative data that is purpose-driven, to assess progress towards goals.

To achieve a comprehensive surveillance system(s), a number of participants noted that the following are needed:

- Ensuring leadership and political will to understand the critical nature of this gap in data and the need to fill it, and to address challenges (including challenges with privacy legislation);
- Ensuring commitment to (significant) resources, time, effort, and infostructure to support this system(s) in a sustainable way, including for data collection, analysis, and use;
- Improving collaboration and coordination of data among federal/provincial/territorial governments, as well as academics and the community, including developing data sharing and collective use agreements;

[iv] An example from United Kingdom data can be found here: Martin S, Lomas J, Claxton K. Is an ounce of prevention worth a pound of cure? A cross-sectional study of the impact of English public health grant on mortality and morbidity *BMJ Open* 2020; Available from: https://bmjopen.bmj.com/content/10/10/e036411

- Addressing data ownership, access and consent (e.g., with the community), and ensuring convergence of intent for data (e.g., government, communities); and,
- Ensuring capacity to collect, analyze, and use the data, especially at the local level. Rural and remote areas still have challenges with accessing the internet, which can make data collection and submission difficult.

From an equity point of view, some participants also identified the critical importance of:

- Decolonizing data,[v] applying data justice and data sovereignty principles, and using data for empowerment and change in a positive way. For example, this can include supporting Indigenous populations to collect and co-track metrics by and for Indigenous populations;
- Educating the public on the use of race-based data to encourage buy-in; and,
- Recognizing different knowledge systems (e.g., Indigenous ways of knowing, stories, local and culturally sensitive qualitative data).

> *We are sitting on some amazing data that are race-based, but we are not talking about these data. We need to be showing the community, show how these data are being used… If we can show we are using these data in a positive way - show how the information is not being used against them. This is important.*

Ensure Adequate Public Health Human Resources

Challenges

Participants identified many challenges facing public health human resources. One is the overall challenge of capacity in the public health system, due to the dismantling of the public health system over time as discussed in the section above on investment in public health. There is an overall shortage of public health staffing at all levels.

This was brought to the fore during COVID-19, where there was a lack of surge capacity at various levels. This has resulted in public health staff feeling extremely overworked, overstretched, and burnt out, which has had an impact on mental health.

> *I have been saying for a long time we are one layer deep. There is no surge capacity or redundancy in public health and we are seeing that now as people are stretched thin across the board.*

One participant noted that there was a lack of scientific capacity at the federal level to mobilize and support the pandemic response.

In addition, many public health physicians noted that throughout COVID-19, many public health decisions were made by people who were not trained in public health. This included, for example, emergency room physicians speaking to the media about areas related to the public health system (often incorrectly, and giving mixed

[v] For more detail on definition, see for example, *Decolonizing Data: First Nations Data Sovereignty Paper*

messages to the public), which is outside their scope of practice, and family physicians working as Medical Officers of Health. This scope creep highlights the lack of recognition of public health as a profession, and the invisibility and devaluing of the public health system overall.

Potential Actions

To address capacity issues in public health human resources, there was general agreement amongst participants that investments in the public health system, including local public health systems, need to be made, as noted above. Securing these resources is dependent on public health expertise being visible and valued.

Public health capacity needs to be strengthened during pandemics and for public health overall outside of pandemics. Public health staff (including those outside the "usual" public health sector, such as anthropologists) need to have public health training and understand the public health system at all levels. In addition, surge capacity needs to be built that supports multiple public health functions.

Some participants noted that work needs to be done on identifying what standards and competencies are needed to support the vision for the public health system, including certification of additional training or commitment to core competencies to support the essential functions of public health.

The profile of public health as a profession needs to continue to be augmented, given the credibility built during COVID-19. One participant identified that public health staff also need to demonstrate what the public health system did to deserve this recognition (e.g., the role of the public health system in long-term care homes during the pandemic).

A number of public health physicians noted that they need to be positioned as experts, as specialists with significant training in public health (with the "public" being the equivalent "patient" to public health physicians as an individual patient is in the healthcare system). They also felt that physicians outside of the public health specialty should not be able to make comments to the media on public health issues related to COVID-19, and that the Royal College of Physicians and Surgeons of Canada and regional licensing bodies should address the issue of physicians practicing outside of their specialty. This will help to ensure the future of the public health profession and expertise. On the other hand, one participant suggested that with adequate training, other specialties (e.g., surgeons), who were unable to practice their own specialty for parts of the pandemic, could acquire sufficient expertise in public health to help with surge capacity in future pandemics.

While many public health physicians were at the forefront of the pandemic, it was noted that other public health staff were more invisible, particularly nurses and inspectors. One participant suggested that having these roles at public health leadership and decision-making tables is important.

As discussed in the section on data, understanding what the current capacity is in the public health system, and what capacity is needed (included surge capacity) will help to address some of the health human resource challenges. This capacity information is data that the healthcare system has for its work, and that the public health system also needs.

> *"In acute care, if you have 45 beds, there is a formula to how you increase staffing to meet needs…What does this look like in public health?"*

> *It is difficult in the public policy context to have to argue for paying for uncertainty…People may think we are overinvesting — that we are increasing capacity in ways that are not cost effective.*

Surge capacity is another challenge to be addressed. The challenge with surge capacity is how to get the right number of people with the right capacity at the right time, and to maintain surge capacity to redeploy quickly but without redundancy in non-emergency times. As the quote outlines above, there is a challenge if people feel there is an overinvestment in planning for surge capacity. However, as one participant noted, this is the model that is used for the Canadian Armed Forces (where people are trained and ready, but are only deployed as needed).

A few other models were also suggested for surge capacity:

- Employ a group of Canadian staff that go to other countries for disease outbreaks (e.g., diphtheria) who then get recalled if there is an outbreak at home. In this way, their skills can be maintained in non-emergency times.
- Ensure an adequately staffed public health system at the community level, who can then be redeployed from other public health activities during a pandemic.
- Link with high-capacity organizations outside of government that can assist in times of surge. However, this same participant noted that the model that did not work for surge capacity during COVID-19 was the recruitment of volunteers by the federal government, as this had limited uptake from the provinces/territories.

A few participants also noted the importance of training public health human resources in key areas such as systems complexity and racial equity. One participant identified the importance of ensuring systemic racism was addressed in the public health workforce, through diversifying public health staff across all levels (e.g., from entry level to executive positions), providing students from priority groups with funding for tuition, and addressing systemic racism in public health education, including in standardized testing.

Improve Public Health System Governance

Ensure Clear Accountability Mechanisms

Challenges

Across groups, a number of participants identified that there is a lack of clear accountability for the public health system in Canada. The core business of public health needs to be defined, including how the public health system differs from the healthcare system, the role of the public health system, and who works in the public health system.

Potential Actions

Based on this clarity of information, clear, measurable outcomes need to be defined for the public health system, and outcome-based accountability models need to be developed. These can be public annual reporting documents, similar to what is produced for health system wait times.

Clarify Roles and Coordination Across Jurisdictions in the Public Health System

Challenges

Many participants noted that there is not one public health system in Canada, but multiple public health systems, given the federated system and public health delivery at the provincial and territorial levels. Each jurisdiction has public health embedded at different levels. This translates into jurisdictional complexity, and a lack of a coherent public health system in Canada. Increased coordination, coherence, and linkages across jurisdictional levels are needed.

Some participants remarked that there is also a lack of understanding of the federal — versus the provincial/territorial — versus the local public health unit role, as well as confusion over the role of Health Canada compared to the role of PHAC.

One participant noted that it was important to embrace the different roles that the international, national, provincial/territorial, and local levels play in the public health system, and ensure alignment and coherence across these systems.

> *We need to act like a system rather than disjointed parts.”*

> *It is critical to know and believe that every one of those systems has to play a role and that you need evolving alignment up and down these system levels.”*

Another critical area of governance of the public health system in Canada is ensuring Indigenous public health expertise, given colonialization, ongoing structural racism, and inequities in health (see also the section on inequities).

> *Indigenous lives differ significantly from those of other Canadians.”*

Potential Actions: Role of the Federal Government in Public Health

A number of participants identified key roles that the federal government can play in the public health system, including in:

- Developing national guidance,
- National advisory functions, and
- Other leadership roles (e.g., facilitating the setting of goals and developing strategies in collaboration with other jurisdictions).

Some participants noted that the National Advisory Committee on Immunization (NACI) has played a critical role during COVID-19 by providing national guidance and a unifying voice (although with some communication challenges that need to be addressed). When federal guidance is released, it is difficult for provinces/territories to ignore. NACI was also critical in bringing equity (e.g., for Indigenous populations) guidance on vaccines to the forefront.

Hence, these types of advisory boards at the national level in various areas of public health (e.g., data governance, public health measures), with community, academics, and local practitioner involvement, are viewed as an important role for the federal government to play. However, resources need to be invested to support the work, including secretariat support. The untapped potential of the Public Health Network was also identified by a participant.

Some participants also noted that the CPHO should lead on public health issues that need a public health approach to ensure federal coordination on priorities. Specific examples given included:

- A National Immunization Strategy,
- Strategy on climate change,
- Strategy on tuberculosis elimination, and
- Strategies on equity.

The role of the federal government in terms of legislative tools and other mechanisms will be discussed in a section below.

A few participants remarked that the role of the federal government is also to coordinate programs between sectors, and provide integrated policy responses across sectors (e.g., work between PHAC and the Canadian Mortgage and Housing Corporation given the link between health and housing). Concrete suggestions for mechanisms to support this coordination include forming:

- A public health Think Tank with premiers and the prime minister focused on public health; and,
- An interdepartmental committee at the federal level on public health.

A few participants highlighted that the federal government should anticipate and pursue programs that are within the federal jurisdiction that can help to coordinate and provide economies of scale for the public health system in Canada (versus each jurisdiction working independently), including:

- Addressing public health threats;
- Providing the public health voice at the policy table on border discussions during the pandemic to represent the evidence-base from public health;
- Developing systems for monitoring and tracking the National Emergency Strategic Stockpile;
- Addressing lab capacity; and,
- Increasing vaccine manufacturing capacity.

Potential Actions: Linking Local Public Health to the Federal Level

Many participants cited that public health work happens at the local level, as was showcased during COVID-19 with contact tracing and testing, for example.

The local level staff know their populations. It is important to recognize the local public health mandate. Some participants argued that power for decision-making needs to be at the local level for public health, and that the recent moves towards centralization of public health are a major impediment. A few participants stated that public health governance should be decentralized and public health activities led by municipalities, and that local public health staff needs to be empowered to make decisions at this level.

Mechanisms to link the local public health systems to the federal level[vi] were identified by participants, including institutionalizing meetings between PHAC and local public health institutions. Participants noted that this should include the range of public health system staff, including physicians, nurses, inspectors, etc.

Another suggestion was to build on the Public Health Network – and consider including members from UPHN and the Rural, Remote and Northern Public Health Network.

[vi] Note that no specific discussions or actions were discussed in terms of the provincial/territorial level.

> *Those high up in the decision-making in public health need to tap into that (community perspective) to strengthen that community level public health.*

One participant noted that the National Collaborating Centres for Public Health (NCCs) also provide a link between the federal government and the local level.

Potential Actions: Private Sector Role in the Public Health System

The role of the private sector in the public health system was also identified by a participant as a key area for consideration. Relevant questions to ask include:

- What is the role of the private sector?
- What will be the public's reaction to partnerships between the private sector and public health institutions?

This participant noted that the private sector can provide unusual partners to access capital (e.g., new generations of wealthy donors and philanthropy organizations). Public health staff may need training to be involved with these new actors, and to ensure that interests and core values are aligned.

> *When Anthony Bourdain died by suicide — restaurants realized they needed to look at mental health — these are the kinds of shifts that are needed.*

Potential Actions: Indigenous Public Health Expertise

There is a need for a platform for Indigenous public health expertise, including ensuring representation from Indigenous public health on advisory groups. The public health system in Canada needs to learn from Indigenous leadership. One specific recommendation was ensuring Indigenous voices and other racialized voices are at the table for decision-making (e.g., at Pan-Canadian Public Health Network Council tables). Please also see the section on public health data for more details on data sovereignty.

Potential for Improved Governance Mechanisms

Challenges

Many participants identified that governance of the public health system(s) in Canada is a challenge. Since public health is not enshrined in the *Canada Health Act*, each jurisdiction implements public health activities in its own way. This leads to a lack of coherence and consistency across the public health system in Canada.

Potential Actions

Across many participants, it was agreed that there could be better alignment across systems of services and programs in Canada, and across jurisdictions to ensure more coherence and consistency, as well as a strengthened public health system at all levels from national to local levels.

> *There needs to be a simple semblance of what is core to public health — what is funded, what each jurisdiction has the responsibility to have in place.*

Some participants noted that clarity on the public health roles at the federal, provincial/territorial and local levels is needed. Then, this could help lead to better coordination at these various levels on roles, communication and messaging, and strategies. For many participants, articulating and institutionalizing public health roles, responsibilities, accountabilities, and financing to ensure sustainability and stability is needed in Canada.

Ideas for how best to implement this were wider ranging, and no consensus was reached on the ideal mechanism. These ideas included various federal legislative tools, longer-term visions and plans, and funding mechanisms within the federal government's spending power to ensure a core public health system and advance collective work. These included:

- Developing common goals (including related to equity), minimum national standards, minimum competencies, benchmarks, and accreditation standards (similar to hospitals) at the national level. This will help to ensure synergy across the public health system, and that the public health system remains strong and stable, despite changing governments. This would include outlining minimum financing for the public health system that is needed, with the use of national transfer payments/ring-fenced funding to ensure a more harmonized and coherent approach through fiscal incentives, while providing provinces/territories with the flexibility to implement tailored or jurisdictional content.
- Creating new national core legislation, a specific *Public Health Act* that enshrines governance and accountabilities for public health work formally to hold provinces/territories to account for the public health system. This would articulate national public health goals, health outcomes, and minimum levels of investments and programming (and be tied to federal transfer of resources). Similar to the healthcare system, provinces/territories would be accountable for these health outcomes, as funding would be tied to deliverables. This would also ensure sustained and targeted federal funding for these public health functions and public health capacity.
- Opening up previous legislation, such as the 1984 *Canada Health Act*, since the public health system is missing from this Act. It was noted by some participants that this will likely not be a doable option given the challenges in opening up this Act. However, one participant remarked that examining why the public health system was not included in this Act in the first place may help to see what is possible moving forward.

> *Part of me says open the* Canada Health Act *— but that is so political — and likely never will happen.*

Ensure Intersectoral Collaborations in the Public Health System

Challenges

Many participants identified that public health work is intersectoral in nature, and integration and coordination across sectors, areas (e.g., social services, housing, transportation, employment, environment, families, Indigenous Peoples), and disciplines is needed to address the social determinants of health. This adds complexity to the work of the public health system, including defining the scope of the public health system as discussed in previous sections.

Potential Actions

A number of participants argued that a whole-of-government approach, or Health in All Policies approach, is needed in the public health system. Different sectors need to be at different tables to truly address the social determinants of health and inequities. Regular mechanisms need to be in place to ensure collaboration across sectors and disciplines, and across levels. As the quote below illustrates, the various actors from different sectors need to be in the room together to ensure that change occurs at the system level.

> *If you want to change the system, get the system in the room."*

Consider Tensions in Terms of the Independence of Medical Officers of Health

Challenges

A governance challenge that was identified in a number of discussions was the perceived lack of independence of MOHs, and hence the public health system generally, whether this was at the local, provincial/territorial, or federal level. This was spotlighted in particular during COVID-19.

Further probing illustrated that this was a more nuanced discussion. This includes wanting to ensure that public health expertise and advice remains transparent, within the reality of politics, knowing public health evidence is not the only consideration for political leaders making decisions during a pandemic.

> *An acknowledgement of the complex interaction between politics and science is essential."*

There can be a tension between autonomy and influence in the public health system. Some participants expressed that it is important to be at the government decision-making table. This ensures that public health expertise is part of the decision-making process, to help influence decisions and negotiate. Some participants noted that their public health expertise was respected and valued at decision-making tables, and they received the support they needed to do their work.

> *Be inside the machine, there is more influence."*

Potential Actions

A number of participants observed that it is important to balance providing evidence-based advice (versus advocacy) at these political tables. The principles of listening, having clear accountability, being honest and transparent, and sharing decisions and information were identified as key to balancing autonomy and influence.

By being transparent and honest, this also allows the MOH to change decisions as needed, if and when evidence changes, as there is trust with the population.

> *People will still continue to listen even if we backtrack — but we have to be honest and transparent.*"

The MOH can speak to the public health evidence and acknowledge that politicians use more than this evidence in making decisions, so that the MOH is not perceived as justifying the decision of the political leaders.

One participant suggested that the MOH position could be like that of an auditor general — where one can comment without fearing repercussions from the political establishment. Another suggested that the way to be at the table and not be perceived as an instrument to politicians is to be at many tables, including community tables.

Enhance Research in Public Health

Enhance Research in Public Health Systems

Challenges

As noted previously in the section on data, one gap identified by many participants is the lack of data on public health systems in Canada. Additionally, there is a lack of research overall on public health systems.

Potential Actions

Some participants suggested that a national program of research is needed on public health systems overall. This might include:

- Commissioned reviews or research studies on best practices in public health systems,
- Research on governance in public health systems,
- Research on what funding is needed for public health systems and implications when funding is cut,
- Models on public health systems (based on natural experiments[vii] from different jurisdictions), and
- Enumeration of the current public health workforce.

This research could help to benchmark, monitor, and evaluate public health investments against improvements made.

> *Canada has a big need to invest in research in public health systems. We have a lot of research on healthcare systems, we are a leading place in the world for that. But public health systems — no one knows how to organize that. There is no research.*"

[vii] A naturally occurring intervention (e.g., program or policy change) that can be evaluated as it occurs.

Further research on health economics (and capacity building in this area) may focus on which interventions in public health systems have the largest impact (identifying costs and value of interventions), and research linking public health investments with economic gains and losses, for example. This could lead to advisory committees in health economics and public health, similar to health care, like the Canadian Agency for Drugs and Technologies in Health.

Enhance Connections Between Policy-making, Practice, and Research in Public Health

Challenges

A number of participants identified that a challenge is coordination between researchers, practice, and policy-makers in the public health system.

Potential Actions

Participants observed that embedded research is needed (between universities and policy-makers, and between universities and public health practitioners) to ensure that important research questions are answered in public health, to develop practitioner scholars, and to ensure applied research is carried out in essential areas of public health policy and practice.

A number of examples where this is already happening were provided, including:

- Applied Public Health Chairs (co-funded by CIHR's Institute of Population and Public Health [IPPH] and PHAC),
- CIHR post-doctoral fellows embedded in health system organizations, and
- University of Toronto's embedded funding opportunities with Ontario Health teams for PhD trainees.

However, there is a further opportunity to link directly with public health units, to work with universities to place public health practitioners in academic positions, and to ensure one of the mandates within the public health system is to link research with education at the local public health level.

Other Overall Improvements in Public Health Research

Participants provided a number of other suggestions to enhance public health research.

Some participants identified the importance of meaningfully incorporating multiple ways of knowing in research, including:

- Indigenous wisdom,
- Lived experience,
- Community insights in research and knowledge translation, including behavioural sciences to understand human behaviours, and,
- Field experiments, for example, the work of randomized evaluations done on programs to reduce poverty at the Abdul Latif Jameel Poverty Action Lab (J-Pal) in the United States.

A few participants identified other opportunities to improve public health research, such as:

- Coordinating public health evidence syntheses;
- Ensuring public health research has the same credibility as clinical medicine;
- Building further capacity in public health modelling; and,
- Developing stronger public health networks across the country (e.g., national centres of excellence, university collaborations), including for sharing data across disciplines.

Build on Successes, and Learn from Challenges, of the COVID-19 Pandemic

Challenges

COVID-19 has focused the spotlight on public health, and as a result, many successes and challenges have emerged. One major challenge has been the inequitable impact of COVID-19 on different populations, which is further discussed below. In addition, COVID-19 has brought to light the challenges with lack of resources in the public health system, as discussed earlier.

> *COVID-19 has brought us (public health) into the light – we need to show that we have a role to play.*"

A number of participants also identified that the next pandemic may not be far away, and COVID-19 has exacerbated and highlighted other public health issues, including mental health.

Successes

Despite the challenges noted above, an increase in visibility and public trust in public health was one area identified as a success. New ways of working together have been developed during COVID-19, including virtual tools, rapid sharing of information, and new connections. COVID-19 also has brought many sectors to the table, with mutual goals.

COVID-19 also made it clear that the health and economy are linked, making a clear connection for the public and politicians on the importance of the determinants of health.

Potential Actions

Moving forward, participants noted that we need to build on the successes of work from COVID-19. As discussed above, this is an opportunity to continue building on the visibility and valuing of the public health system.

> *A narrative from public health needs to emerge from COVID. Everyone values the vaccines. We need to sustain that narrative on the importance of investing in preventing future pandemics, working collectively as communities, shared values, responsibility for each other, and it is all there in the Ottawa Charter…*"

Some participants identified that the risk analysis used by the public health system during COVID-19 could be applied to other issues, including mental health, obesity, the environment, climate change, food security, and substance use disorders.

Many participants noted that there is an opportunity to assess the findings and outcomes from reports and inquiries from previous epidemics (e.g., SARS) and learn from these, as well as any upcoming COVID-19 inquiries. Many findings from previous reports were not fully, or never, implemented and common issues remain (e.g., lack of investment in the public health system). We need to learn from past epidemics, as well as the current pandemic, so that these challenges in the public health system are addressed and do not happen again in the future.

> *I like the narrative of 'how not to be here next time'.*

It was suggested that a public repository of all inquiries and independent analyses, including auditor general and coroner reports, would be useful. Another suggestion was to provide technical briefings for media personnel ahead of any COVID-19 inquiries so that they can better understand how the public health system works.

Address Indigenous and Other Inequities as Core to Public Health

Challenges

A key role for the public health system that was identified across participants is addressing inequities. Many participants identified that COVID-19 has highlighted even more starkly the inequities in health faced by certain populations, including Indigenous Peoples, racialized populations, and low-income populations. The history of colonialism in Canada for Indigenous populations and other populations, such as the Nova Scotian Black community, and continued systemic racism towards racialized groups, remain challenges that the public health system has to address.

Potential Actions

There was general agreement that the public health system has to make clear commitments to continue to address inequities and the structural determinants of health. Some participants felt that the focus for the public health system should be on closing gaps on inequities in outcomes, which requires a focus on measurable outcomes.

To address these inequities, some participants identified that new connections or entry points are needed in the public health system, including focusing on:

- Decolonization,
- Intersectionality,
- Self-determination,
- Addressing racism through anti-racist approaches, and
- Building on Canada's Truth and Reconciliation agenda with Indigenous populations.

Other participants identified going back to the roots of well-being and wellness mindsets, upstream thinking, Health in All Policies, and whole-of-society approaches by putting forward a vision, strategy, and roadmap for the public health system, as noted in the governance section above. Some participants also identified the importance of having public health goals that reflect equity and well-being, while addressing the social determinants of health. Continued engagement with Ministers across other sectors was also identified as important to ensure the federal government's leadership on equity issues, as noted in the section on intersectoral health.

Consider Linkages Between Primary Care and the Public Health System

There were mixed opinions amongst participants as to how to best address the linkages between primary care/the healthcare system and the public health system.

Some participants suggested stronger connections need to be made between the public health system and primary care/acute care to reduce silos and better coordinate and integrate work. For example, at the federal level, there is no structure to connect with the healthcare system.

> *When you get public health closer to primary care or (health) care, care gets all the money."*

> *"We are locked into the health system – and decisions are made about us by the health system."*

Others suggested that a population health lens is needed in health care, including in healthcare provider roles, and that primary care could be more public health focused. A few participants noted that there are roles for other healthcare professionals in supporting the public health system. One participant mentioned the role of family physicians as a trusted source of information, while another participant noted that dentists provide information on education and prevention as part of their role.

However, other participants expressed concern about the assimilation of the public health system in the healthcare system, and therefore believe that the public health system should be decoupled from the healthcare system. This is because primary care is focused on treatment and the medical model, and the concern that primary care and acute care get the resources, and make the decisions.

One participant suggested that health care should be within the public health system, rather than the other way around.

Address Mis- and Disinformation in Public Health

Challenges

Mis- and disinformation was identified as an increasing challenge facing public health by a number of participants. One area where this is highlighted is vaccine hesitancy, but this is an issue in other areas of public health as well (e.g., water fluoridation). One participant noted that there is low trust in science and government amongst some Canadians.

Potential Actions

Active strategies are needed to combat mis- and disinformation in public health, and ensure that people are intelligent consumers with access to facts and figures from trusted, evidence-based, and reliable sources. One suggested exemplary strategy to overcome these issues is the Vaccine Communication Innovation Challenge that PHAC is undertaking, to improve vaccine confidence in communities in Canada.[4]

Encourage Innovation in the Public Health System

Challenges

A few participants noted that the public health system is not known for its innovation, and has a reputation for being rigid and staid, which was felt to be a possible impediment to innovation.

Potential Actions

A number of participants felt that further innovation is needed in the public health system, and that there are many areas that could be built on, including in the areas of IT tools, digital infrastructure, and automation (e.g., contact tracing).

A few participants remarked that there is a need to look at what is working well, and what could be scaled up and expanded in the public health system. Innovations at the community level that were identified included the public health system continuing to work with social service organizations and primary care to ensure vaccines reach key populations (including essential workers and racialized populations).

Future oriented solutions in the public health system, where educated guesses are made on where the best investments could improve health outcomes in the population, may be helpful (e.g., wastewater testing to predict COVID-19 outbreaks). Another example is Health Canada's drug checking technology challenge.[5]

Looking at other systems for ideas, such as private sector's logistics systems for delivery (e.g., FedEx or Domino's Pizza) may provide innovative ideas for logistical systems in the public health system (e.g., delivery of personal protective equipment or vaccines).

Priority Areas for the Public Health System in Canada

Moving forward, a number of priority actions were identified for the public health system in Canada. These included focusing on key areas of concern, such as:

- Climate change,
- Non-communicable diseases,
- The aging population,
- Health equity,
- The Truth and Reconciliation agenda,
- Anti-racism,
- Basic income,
- Decriminalizing people who use drugs,
- Poverty, and
- Addressing the social determinants of health, particularly those determinants impacted by COVID-19 (e.g., employment, substance use, education, income).

Additional Comments on Processes for Transforming the Public Health System in Canada

A number of additional suggestions were offered for actions on public health system transformation in Canada.

One concern was that public health staff across levels are still addressing the pandemic at this time, and the public health transformation agenda includes making monumental decisions. Fleshing out these ideas takes time for thoughtful reflections. Hence, adequate time should be taken to examine what we have learned to date, and a longer-term process for transformation be considered given the pandemic is still ongoing.

Another suggestion was to build on the systems that are already in place, rather than making new systems.

A further suggestion was to ensure a proper stakeholder analysis is conducted to define Canada's public health community, and ensure involvement across all stakeholders including public health nurses and inspectors. One participant noted that, from their experience, this CPHO consultation process was positive, given the engagement and consultation across many stakeholder groups.

From a systems thinking point of view, it was suggested that work needs to move beyond changing policies, practices, and resources – and work also on the relationship side (e.g., building relationships) and changing people's mental models (e.g., beliefs) to truly see transformational change in the public health system.

For the 2021 CPHO Annual Report, suggestions were made to use an appreciative inquiry approach, building on strengths, rather than focusing on challenges. It was also suggested to highlight responsibilities and expertise at each level of public health, and use local examples.

The 2021 CPHO Annual Report was seen as an opportunity to provide a roadmap to reframe the public health system, and therefore should include strong recommendations and calls to action.

Conclusion

The COVID-19 pandemic has shown the critical nature of having a public health system that has the surge capacity and the ability to adapt during a crisis, while also continuing to address population health issues and inequities.

Through discussion with key stakeholders, many key challenges, as well as areas for action, have been identified to provide concrete ideas for a forward-looking vision to strengthen the public health system.

The OCPHO appreciates the time that participants took to provide their thoughts and experiences to improve the public health system in Canada. The findings from this report informed the 2021 CPHO Annual Report.

Annex A:
Best Brains Exchange Participant List

	Name	Title	Affiliation
	Keynote Speakers:		
1	Evan Adams	Deputy Chief Medical Officer of Public Health	Indigenous Services Canada
2	Margo Greenwood	Academic Leader	National Collaborating Centre for Indigenous Health
3	Theresa Tam	Chief Public Health Officer of Canada	Public Health Agency of Canada
	Presenters:		
4	David Buckeridge	Professor, Department of Epidemiology, Biostatistics and Occupational Health	McGill University
5	Carole Clavier	Professor, Department of Political Science	Université du Québec à Montréal
6	Erica Di Ruggiero	Associate Professor, Dalla Lana School of Public Health	University of Toronto
7	Monika Dutt	Acting Medical Officer of Health	Central and Western Health Newfoundland
8	Kim McGrail	Professor, Centre for Health Services and Policy Research, School of Population and Public Health	University of British Columbia
9	Vivek Goel	Professor, Institute of Health Policy, Management and Evaluation, Dalla Lana School of Public Health	University of Toronto
10	Ak'ingabe Guyon	Assistant Clinical Professor, School of Public Health	Université de Montréal

	Name	Title	Affiliation
11	Zayna Khayat	Future Strategist	SE Health
12	Kate Mulligan	Assistant Professor (status), Dalla Lana School of Public Health	University of Toronto
	Facilitators:		
13	Tammy Bell	Executive Director, Office of the Chief Public Health Officer	Public Health Agency of Canada
14	Verna McGregor	Elder	Algonquin Community of Kitigan Zibi Anishinabeg
15	Cory Neudorf	Professor, Department of Community Health and Epidemiology, College of Medicine and, interim Senior Medical Health Officer	University of Saskatchewan and Saskatchewan Health Authority
16	Sarah Viehbeck	Associate Vice President, Research Programs – Strategy	Canadian Institutes of Health Research
	Participants:		
17	Sandra Allison	Central Island Medical Health Officer	Island Health
18	Olivier Bellefleur	Scientific Lead	National Collaborating Centre for Healthy Public Policy
19	Claire Betker	Scientific Director	National Collaborating Centre for Determinants of Health
20	Stephen Clark	President and CEO	Newfoundland and Labrador Centre for Health Information
21	Ian Culbert	Executive Director	Canadian Public Health Association
22	Nicole Damestoy	President and CEO	Institut national de santé publique du Québec
23	Maureen Dobbins	Scientific Director	National Collaborating Centre for Methods and Tools
24	Janice Fitzgerald	Chief Medical Officer of Health	Government of Newfoundland and Labrador
25	Michelle Gagnon	Senior Advisor	StrategyCorp
26	Colleen Geiger	President, Acting CEO and Chief, Strategy, Stakeholder Relations, Research, Information and Knowledge	Public Health Ontario
27	Bonnie Henry	Provincial Health Officer	Government of British Columbia

	Name	Title	Affiliation
28	Elaine Hyshka	Assistant Professor, School of Public Health	University of Alberta
29	Esyllt Jones	Professor, History/Community Health Sciences	University of Manitoba
30	Kami Kandola	Chief Public Health Officer	Government of the Northwest Territories
31	Yoav Keynan	Scientific Lead	National Collaborating Centre for Infectious Diseases
32	Rhonda Kropp	Vice President, Corporate Data and Surveillance Branch	Public Health Agency of Canada
33	Jeff Latimer	Director General, Health, Justice, Diversity and Populations	Statistics Canada
34	Jason Letto	Manager, Emergency Response	Government of Newfoundland and Labrador
35	Doug Manuel	Professor and Senior Scientist, Clinical Epidemiology Program	Ottawa Hospital Research Institute
36	Meghan McMahon	Associate Director, Institute of Health Services and Policy Research	Canadian Institutes of Health Research
37	Pascal Michel	Chief Science Officer	Public Health Agency of Canada
38	Kathleen Morris	Vice President, Research and Analysis	Canadian Institute for Health Information
39	Heather Morrison	Chief Public Health Officer	Government of Prince Edward Island
40	David Mowat	Public health consultant; former Medical Officer of Health, Peel Public Health	
41	Jessica Nadigel	Associate Director, Institute of Health Services and Policy Research	Canadian Institutes for Health Research
42	David Naylor	Professor of Medicine and President Emeritus	University of Toronto
43	Michael Patterson	Chief Public Health Officer	Government of Nunavut
44	Andrew Pinto	Director and Clinician-Scientist	Upstream Lab and St. Michael's Hospital

	Name	Title	Affiliation
45	Sylvie Poirier	Deputy Director General, Monitoring, Planning and Coordination	Government of Quebec
46	Tracey Prentice	Science Advisor, Institute of Indigenous Peoples' Health	Canadian Institutes of Health Research
47	Barbara Riley	Scientific Director, Knowledge Development and Exchange Hub	Renison University College
48	Jennifer Russell	Chief Medical Officer of Health	Government of New Brunswick
49	Saqib Shahab	Chief Medical Health Officer	Government of Saskatchewan
50	Arjumand Siddiqi	Professor, Division Head of Epidemiology, Dalla Lana School of Public Health	University of Toronto
51	Candice St-Aubin	Vice President, Health Promotion and Chronic Disease Prevention Branch	Public Health Agency of Canada
52	Eduardo Vides	Senior Health Policy Advisor	Métis National Council
53	Gaynor Watson-Creed	Assistant Dean, Serving and Engaging Society, and Assistant Professor, Department of Community Health and Epidemiology, Faculty of Medicine	Dalhousie University
54	Cornelia (Nel) Wieman	Acting Deputy Chief Medical Officer, and President	First Nations Health Authority, and Indigenous Physicians Association of Canada

Annex B:
Best Brains Exchange Annotated Agenda

Meeting Purpose and Objectives:

Grounded in Canada's COVID-19 experience, the 2021 Chief Public Health Officer of Canada (CPHO) Annual Report will provide an ambitious, forward-looking vision for a strengthened public health system. It will describe the foundational elements of a re-envisioned public health system and priorities for transformational change based on the best available evidence and input from the broader public health community.

Hosted by the Office of the CPHO (Public Health Agency of Canada) and the Canadian Institutes of Health Research, the overarching goal of this virtual Best Brains Exchange (BBE) is to describe key system-level elements of a future public health system and to hear tangible actions for sustainable change. The BBE will provide key evidence and guide commissioned work to support the development of the 2021 CPHO Annual Report.

The proposed BBE objectives are to:

- Inform elements needed in the future public health system by probing core topic areas of "data and research ecosystem", "community", and "governance";
- Identify opportunities for new partnerships, models and innovative solutions across topic areas; and,
- Offer recommendations for priorities within each of the three topic areas by identifying recent/ongoing promising case studies.

Visioning the Future of Public Health in Canada

Agenda

April 7, 2021; 9:45am–3:30pm (EDT)

Time	Session	Speaker(s)
9:30–9:45am	**Registration**	
9:45–10:00am	**Welcome and Indigenous opening** • Technical guidance • Traditional opening/welcome • BBE Program objectives • Overview of the BBE today	**Dr. Sarah Viehbeck** Associate Vice President, Research Programs – Strategy, Canadian Institutes of Health Research **Tammy Bell** Executive Director, Office of the Chief Public Health Officer **Verna McGregor** Algonquin community of Kitigan Zibi Anishinabeg
10:00–10:45am	**Opening presentations**	**Dr. Theresa Tam** Chief Public Health Officer of Canada **Dr. Evan Adams** Deputy Chief Medical Officer of Public Health, Indigenous Services Canada **Dr. Margo Greenwood** Academic Leader, National Collaborating Centre for Indigenous Health

Discussion guide (Session 1–3)

The following questions will be used to guide presentations and discussions:

1. What are the key public health system elements and/or opportunities?
2. What are transformational opportunities and tangible actions for sustainable change?
3. What are recent success stories of new partnerships, models, or innovations in these topic areas that provide scalable solutions to current system barriers?

Visioning the Future of Public Health in Canada

Agenda

April 7, 2021; 9:45am–3:30pm (EDT)

Time	Session	Speaker(s)
10:45–11:45am	**Session 1: Data and research ecosystem needed for public health**	**Session Lead:** **Dr. David Buckeridge** Professor, Department of Epidemiology, Biostatistics and Occupational Health, McGill University **Presenters:** **Dr. Vivek Goel** Professor, Institute of Health Policy, Management and Evaluation, Dalla Lana School of Public Health, University of Toronto **Dr. Kim McGrail** Professor, Centre for Health Services and Policy Research, School of Population and Public Health, University of British Columbia
11:45am–12:15pm	**Lunch break and networking**	
12:15–1:15pm	**Session 2: Community vision for public health in Canada**	**Session Lead:** **Dr. Kate Mulligan** Assistant Professor (status), Dalla Lana School of Public Health, University of Toronto **Presenters:** **Dr. Monika Dutt** Medical Officer of Health, Central and Western Health, Newfoundland and Labrador **Dr. Zayna Khayat** Future Strategist, SE Health

Visioning the Future of Public Health in Canada

Agenda

April 7, 2021; 9:45am–3:30pm (EDT)

Time	Session	Speaker(s)
1:15–2:15pm	**Session 3: Governance across sectors and jurisdictions**	**Session Lead:** **Dr. Erica Di Ruggiero** Associate Professor, Dalla Lana School of Public Health, University of Toronto **Presenters:** **Dr. Carole Clavier** Professor, Department of Political Science, Université du Québec à Montréal **Dr. Ak'ingabe Guyon** Assistant Clinical Professor, School of Public Health
2:15–2:30pm	**Movement break**	
2:30–3:15pm	**Session 4: Reflection on intersectional elements and key priorities for moving forward**	**Dr. Cory Neudorf** Professor, Department of Community Health and Epidemiology, College of Medicine, University of Saskatchewan and, interim Senior Medical Health Officer, Saskatchewan Health Authority
3:15–3:30pm	**Evaluation and closing remarks**	**Dr. Theresa Tam** and **Dr. Evan Adams**

Annex C:
Discussion Group Participant Lists

NOTE: *For the following participant lists, the event organizers tried to ensure capturing of all participants and their title/affiliation based on invitations sent and introductions made in the online chats. If people signed in by telephone, or did not identify themselves in the chat, then they may have been missed in the lists below. The OCPHO apologizes for any inadvertent oversights.*

Wednesday, May 12, 2021

Systems Thinking and Social Innovation

	Name	Title	Affiliation
1	Evan Adams	Deputy Chief Medical Officer of Public Health	Indigenous Services Canada
2	Michelle Gagnon	Senior Advisor	StrategyCorp
3	Perry Kendall	Clinical Professor, School of Population and Public Health	University of British Columbia
4	Jerry Koh	Director	Systemic Innovations and MaRS Solutions Lab
5	David Mowat	Public health consultant; former Medical Officer of Health, Peel Public Health	
6	Cory Neudorf	Professor, Department of Community Health and Epidemiology, College of Medicine and, interim Senior Medical Health Officer	University of Saskatchewan and Saskatchewan Health Authority
7	Barbara Riley	Scientific Director, Knowledge Development and Exchange Hub	Renison University College
8	Tazim Virani	Managing Director	SE Global
9	Gaynor Watson-Creed	Assistant Dean, Serving and Engaging Society, and Assistant Professor, Department of Community Health and Epidemiology, Faculty of Medicine	Dalhousie University

Friday, May 14, 2021 Public Health System and Infrastructure Innovation			
	Name	**Title**	**Affiliation**
10	Sara Allin	Assistant Professor, Institute of Health Policy, Management and Evaluation	University of Toronto
11	Mehdi Ammi	Associate Professor	Carleton University
12	Emmanuelle Arpin	PhD Student	University of Toronto
13	Claire Benny	Graduate Teaching Assistant	University of Alberta
14	Hilary Caldwell	Post-Doctoral Fellow	Dalhousie University
15	Marisa Creatore	Associate Scientific Director	CIHR Institute of Population and Public Health
16	F. Antoine Dedewanou	Post-Doctoral Fellow	Carleton University
17	Katherine Fierlbeck	Professor, Department of Political Science	Dalhousie University
18	Steven Hoffman	Scientific Director	CIHR Institute of Population and Public Health
19	Sara Kirk	Professor, Health Promotion, School of Health and Human Performance	Dalhousie University
20	Morgan Lay	Senior Policy Advisor	CIHR Institute of Population and Public Health
21	Shannon MacDonald	Adjunct Professor, School of Public Health	University of Alberta
22	Katerina Maximova	Associate Professor, Dalla Lana School of Public Health	University of Toronto
23	Stephanie Montesanti	Associate Professor, School of Public Health	University of Alberta
24	David Mowat	Public health consultant; former Medical Officer of Health, Peel Public Health	
25	Cassidy O'Hearn	MPH Student	Lakehead University
26	Jennifer O'Loughlin	Full Professor, School of Public Health	Université de Montréal
27	Roman Pabayo	Assistant Professor, School of Public Health	University of Alberta
28	Gilles Paradis	Strathcona Professor, Department of Epidemiology, Biostatistics, and Occupational Health	McGill University
29	Mike Paulden	Assistant Professor, School of Public Health	University of Alberta
30	Andrew Pinto	Director and Clinician-Scientist	Upstream Lab and St. Michael's Hospital

31	Ellen Rafferty	Health Economist	Institute of Health Economics
32	Laura Rosella	Associate Professor, Dalla Lana School of Public Health	University of Toronto
33	Meaghan Sim	Implementation Scientist	Nova Scotia Health Authority
34	Brendan Smith	Scientist, Health Promotion, Chronic Disease and Injury Prevention	Public Health Ontario
35	Robert Smith	Post-Doctoral Fellow	University of Toronto
36	Gaynor Watson-Creed	Assistant Dean, Serving and Engaging Society, and Assistant Professor, Department of Community Health and Epidemiology, Faculty of Medicine	Dalhousie University

Wednesday, May 19, 2021

CPHO Health Professional Forum

	Name	Title	Affiliation
37	Glenn Brimacombe	Director, Policy and Public Affairs	Canadian Psychological Association
38	Barbara Catt	President	Infection Prevention and Control Canada
39	Bianca Carlone	Government Relations and Policy Analyst	HealthCareCAN
40	Lee Clark	Manager, Policy and Research	Canadian Pharmacists Association
41	Jocelyn Cook	Chief Scientific Officer	Society of Obstetricians and Gynecologists
42	Ian Culbert	Executive Director	Canadian Public Health Association
43	Kevin Doucette	Senior Advisor	Canadian Medical Association
44	Joyce Douglas	Associate Director, Advocacy and Policy	Canadian Medical Association
45	Philip Emberley	Acting Director, Professional Affairs	Canadian Pharmacists Association
46	Emily Follwell	Policy and Research Analyst	HealthCareCAN
47	Sarah Forgie	President	Association of Medical Microbiology and Infectious Diseases Canada

48	Riccarda Galioto	Executive Director	Association of Medical Microbiology and Infectious Diseases Canada
49	Gerry Hansen	Executive Director	Infection Prevention and Control Canada
50	Aden Hamza	Acting Program Lead, Policy and Government Relations	Canadian Nurses Association
51	Marilee A Nowgesic	Chief Executive Officer	Canadian Indigenous Nurse Association
52	Jasmine Pawa	President	Public Health Physicians of Canada
53	Greg Penney	Director, Programs	Canadian Public Health Association
54	Fred Phelps	Executive Director	Canadian Association of Social Workers
55	Artem Safarov	Director, Health Policy and Government Relations	College of Family Physicians of Canada
56	Leah Salvage	Secretariat Support Officer	Public Health Physicians of Canada
57	Benoit Soucy	Director, Clinical and Scientific Affairs	Canadian Dental Association
58	Mike Villeneuve	Chief Executive Officer	Canadian Nurses Association
59	Cornelia (Nel) Wieman	Acting Deputy Chief Medical Officer, and President	First Nations Health Authority, and Indigenous Physicians Association of Canada

Sunday, May 30, 2021

Special Advisory Committee on COVID-19

	Name	**Title**	**Affiliation**
60	Horacio Arruda	National Director of Public Health	Quebec
61	Vincent Beswick-Escanlar	Senior Staff Officer	Department of National Defence and the Canadian Armed Forces
62	Shelley Deeks	Deputy Medical Officer of Health	Nova Scotia

63	George Giovinazzo	Senior Medical Officer	Immigration, Refugees, and Citizenship Canada
64	Brendan Hanley	Former Chief Medical Officer of Health	Yukon
65	Bonnie Henry	Provincial Health Officer	British Columbia
66	Deena Hinshaw	Medical Officer of Health	Alberta
67	Yves Jalbert	Deputy Director General, Monitoring, Planning and Coordination	Quebec
68	Kami Kandola	Chief Public Health Officer	Northwest Territories
69	Martin Lavoie	Deputy Provincial Health Officer	British Columbia
70	Richard Massé	Director, Montréal Public Health	Quebec
71	Heather Morrison	Chief Public Health Officer	Prince Edward Island
72	Michael Patterson	Chief Public Health Officer	Nunavut
73	Brent Roussin	Medical Officer of Health	Manitoba
74	Jennifer Russell	Chief Medical Officer of Health	New Brunswick
75	Saqib Shahab	Chief Medical Health Officer	Saskatchewan
76	Supriya Sharma	Chief Medical Advisor	Health Canada
77	David Williams	Former Chief Medical Officer of Health	Ontario
78	Tom Wong	Chief Medical Officer of Health	Indigenous Services Canada

Tuesday, June 8, 2021

Local Medical Officers of Health

	Name	**Title**	**Affiliation**
79	Sajida Afridi	Public Health Preventive Medicine Specialist	Oshawa, ON
80	Jason Cabaj	Clinical Assistant Professor	University of Calgary
81	Khami Chokani	Medical Health Officer	Prince Albert, SK
82	Patty Daly	Chief Medical Health Officer	Vancouver Coastal Health, BC
83	Tania Diener	Medical Health Officer and Area Department Lead	Urban Regina, SK
84	Mylène Drouin	Regional Director of Public Health	Montréal, QC
85	Vinita Dubey	Associate Medical Officer of Health	Toronto Public Health, ON
86	Vera Etches	Medical Officer of Health	Ottawa Public Health, ON
87	Justin Farrell	Policy Advisor	Federation of Canadian Municipalities

88	Paul Gully	Public Health Consultant	
89	Ak'ingabe Guyon	Assistant Clinical Professor, School of Public Health	Université de Montréal
90	Maurice Hennink	Medical Health Officer	Saskatchewan Health Authority, SK
91	Mustafa Hirji	Acting Medical Officer of Health	Niagara Region Public Health and Emergency Services, ON
92	Moliehi Khaketla	Medical Health Officer	Northern Saskatchewan, Population Health Unit, SK
93	Lawrence Loh	Medical Officer of Health	Region of Peel, ON
94	Lanre Medu	Medical Health Officer	Saskatchewan Health, SK
95	Cory Neudorf	Professor, Department of Community Health and Epidemiology, College of Medicine and, interim Senior Medical Health Officer	University of Saskatchewan and Saskatchewan Health Authority
96	Piotr Oglaza	Medical Officer of Health	Hastings Prince Edward Public Health, ON
97	Barry Pakes	Program Director, Public Health and Preventive Medicine Residency Program	University of Toronto
98	Jasmine Pawa	President	Public Health Physicians of Canada
99	Thomas Piggott	Medical Officer of Health of Labrador-Grenfell; Executive lead for population and rural and remote health	Newfoundland and Labrador
100	Elizabeth Rea	Associate Medical Officer of Health	Toronto Public Health, ON
101	Joss Reimer	Medical Officer of Health	Winnipeg Regional Health Authority, Manitoba, MB
102	Leah Salvage	Secretariat Support Officer	Urban Public Health Network
103	Nadine Sicard	Medical Consultant	Ministry of Health and Social Services, Québec, QC
104	Chris Sikora	Medical Officer of Health	Alberta Health Services, Edmonton Zone, AB
105	Isaac Sobol	Medical Health Officer	Northern Public Health Unit, La Ronge, SK
106	Penny Sutcliffe	Medical Officer of Health and Chief Executive Officer	Public Health Sudbury and Districts, ON

Annex D:
Discussion Group Objectives and Discussion Questions

Overall objectives for the discussion groups

- Discuss new ways to envision system change in public health
- Identify tangible opportunities to transform public health
- Prioritize actions for the way forward

Discussion group	Objectives	Discussion questions
System Thinking and Social Innovation (May 12th)	• Discuss new ways to envision system change in public health • Identify tangible opportunities to transform public health • Prioritize actions for the way forward	1. We have proposed some attributes as important for moving forward. What do you define as important for the public health system? 2. What new ways can we envision system change in public health? 3. What opportunities exist now for system change? 4. What can be different this time?
Public Health System and Infrastructure Innovation (May 14th)	• Discuss system-level changes needed to strengthen public health • Identify tangible opportunities to achieve these changes • Prioritize actions that could lead to the most impact	1. We have proposed some attributes as important for moving forward. What do you define as important for the public health system? 2. What key areas in the public health system need strengthening? These could be areas that need fine-tuning, altering, or to be radically transformed. 3. Based on your research and experience, what tangible actions could have the most impact for strengthening the public health system?

Discussion group	Objectives	Discussion questions

CPHO Health Professional Forum (May 19th)	• Discuss system-level changes needed to strengthen public health
	• Identify tangible opportunities to achieve these changes
	• Consider collaborative actions that could strengthen public health and the larger health system
		1. What key areas in the public health system need strengthening?
		  • These could be areas that need fine-tuning, altering, or to be radically transformed.
		  • If appropriate to your profession, please consider the areas that intersect public health and health care.
		2. What tangible actions could be taken to strengthen these areas in the public health system?
		  • What do you think the top three priorities should be?
		3. Which of these can we work on together, and how (e.g., to reduce strain on the larger health system)?

Special Advisory Committee on COVID-19 (May 30th)	• Discuss system-level changes needed to strengthen public health
	• Identify priority actions, barriers to achieving those priority actions, and potential solutions
	• Identify opportunities for cross jurisdiction and cross sector collaboration
		1. We have suggested some attributes for public health to aspire to, moving forward. Do you agree with these?
		2. What key areas in the public health system need strengthening?
		3. What tangible system-level actions could be taken to address these?
		  • What are the main barriers to achieving these actions, and what could be potential solutions?
		  • Please specifically consider how we can improve collaboration between the different system levels and sectors.

Discussion group	Objectives	Discussion questions
Local Medical Officers of Health (June 8th)	• Discuss system-level changes needed to strengthen public health • Identify priority actions, barriers to achieving those actions, and potential solutions • Identify opportunities for cross jurisdiction and cross sector collaboration	1. We have suggested some attributes for public health to aspire to, moving forward. Do you agree with these? 2. From your perspective, what key areas in the public health system need strengthening? 3. What tangible actions could be taken to address these? • What are the main barriers to achieving these actions, and what could be potential solutions? • Please specifically consider how we can improve collaboration between the different system levels and sectors.

Annex E:
List of Interviewees

June 21–29, 2021			
	Name	**Title**	**Affiliation**
1	John Kania	Executive Director	Collective Change Lab
2	Neil Squires	Director of Global Public Health	Public Health England, United Kingdom
3	Louise Potvin	Professor	Université de Montréal
4	Claire Betker	Scientific Director	National Collaborating Centre for Determinants of Health
5	Barbara Hamilton-Hinch	Professor	Dalhousie University
6	Chad Hartnell	Assistant Secretary	Privy Council Office
7	David Donovan	Lead, Strategic Policy and Innovative Finance	

Annex F:
Interview Questions and Probes

General questions

1. We have proposed some attributes as important for moving forward in the public health system. Do you agree with these?
2. What key areas in public health need strengthening? These could be areas that need fine-tuning, altering, or to be radically transformed.
3. What tangible actions could have the most impact for strengthening the public health system?
    - What do you think the top three priorities should be?
4. What are the main barriers to achieving these actions, and what could be potential solutions?

Specific probes depending on interviewee

- Community perspectives
- Equity
- Community nursing
- System specific/systems thinking and innovation
- Lessons learned from other transformations
- Intersectoral action

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