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MAIN TYPES OF NEEDS OF THE PUBLIC HEALTH WORKFORCE FOR POPULATION MENTAL HEALTH

REPORT | MARCH 2016

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ABOUT THE NATIONAL COLLABORATING CENTRE FOR HEALTHY PUBLIC POLICY

The National Collaborating Centre for Healthy Public Policy (NCCHPP) seeks to increase the expertise of public health actors across Canada in healthy public policy through the development, sharing and use of knowledge. The NCCHPP is one of six Centres financed by the Public Health Agency of Canada. The six Centres form a network across Canada, each hosted by a different institution and each focusing on a specific topic linked to public health. In addition to the Centres' individual contributions, the network of Collaborating Centres provides focal points for the exchange and common production of knowledge relating to these topics.

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INTRODUCTION

Mental health is an essential part of our individual and collective health and well-being. Public health and its broad workforce are increasingly called upon to protect and improve it. This workforce, however, is not supported enough to intervene in the most effective way with regards to mental health.

The National Collaborating Centre for Healthy Public Policy (NCCHPP), in collaboration with other National Collaborating Centres (NCCs) for Public Health, has undertaken the study of the strengths and needs of public health actors as they relate to population mental health. These activities took place between April and October 2014. Preliminary results were published at different times between November 2014 and May 2015. The present document is the final report on the strengths and needs expressed by 453 public health actors from the broad public health workforce in Canada on the subject of population mental health.

The strengths and needs proposed in this document come from two types of needs assessment: direct encounters with practitioners and a web questionnaire. The NCCHPP had the opportunity to assess practitioners' needs during two face-to-face encounters with public health actors. A first encounter was during a workshop at the Chronic Disease Prevention Alliance of Canada (CDPAC) Conference in Ottawa, in April 2014. Another opportunity occurred in Vancouver in July of the same year during a workshop session organized with the collaboration of the Public Health Association of British Columbia. Between June and mid-October, 2014, a total of 453 public health practitioners from across Canada participated in a web questionnaire.[1] Of these, 335 responded in English and 118 in French.[2] Individuals were invited to participate through the subscription lists generated by the NCCs' common website, the subscription lists of the individual NCCs, or those of other partners. In addition, the questionnaire was available on the NCCHPP's website during this time; therefore other interested practitioners could respond as well.

The questionnaire assessed practitioners' levels of knowledge in the areas of mental health and mental illness. It identified population mental health-related activities and surveyed the tools and resources most used by practitioners involved in this field. Finally, it showed assets, gaps and needs surrounding the practices of the various actors involved in population mental health. There were 3 open-ended questions and 13 closed-ended (i.e., having more structured response possibilities) questions in the questionnaire. The exploratory questionnaire was conducted using FluidSurveys (http://fluidsurveys.com/) and the data was analyzed using that site's tools. To analyze and code practitioners' needs identified through open-ended questions, an open-ended coding procedure was initially used; it was then conceptually refined. A double coding procedure was applied[3] once categories and codes were stabilized, which led to minor modifications.

[1] The web questionnaire is available in Appendix 1.

[2] After sorting the questionnaires, there remained 331 in English and 117 in French. However, as partially completed questionnaires were retained and certain respondents chose not to answer all the questions, we find variations in the total number of respondents for the different questions in the questionnaire.

[3] Two independent coders performed the coding.

To facilitate understanding, the introduction to the questionnaire stated that a population mental health approach implies there is no health without mental health, and that it aims to improve mental health for the entire population, and reduce mental health inequalities. The questionnaire's introduction also offered examples of the potential connections between various sectors of public health and population mental health, in order to highlight how the entire public health workforce can situate its practice within such an approach.

In this final document we have added the strengths identified and needs expressed by the French-language respondents to the previously published preliminary results. This final document explores in greater detail the responses provided earlier, and outlines the most salient elements produced through both the web questionnaire and encounters with practitioners.

1 WHO ARE THE PUBLIC HEALTH PRACTITIONERS WHO RESPONDED TO THE QUESTIONNAIRES?

The actors who responded to the questionnaires come from the general public health sector, but also from broader public health sectors (such as clinical contexts, clinical prevention, or community sectors). In responding to the questionnaires, practitioners could simultaneously identify several areas of intervention (promotion, prevention, etc.) in different fields (mental health [MH], mental illness [MI], or public health [PH]). Hence, the percentages shown below in Table 1 are not mutually exclusive and it is difficult to know precisely how each area or field is represented. This table shows the combined results of English- and French-language respondents. It indicates that certain areas of intervention are more represented than others. This is the case for health promotion, where we see that 55% of practitioners work in the field of public health in general, 29% work more specifically in the field of mental health promotion, and 8% consider their promotion-related work to be connected to the field of mental illnesses (these could be for example, interventions aimed at recovery and improving quality of life for individuals living with mental disorders).[4] Considered together, clinical intervention and prevention concern about 16% of actors in mental health, 9% of actors in mental illness, and 32% of actors in public health in general. We see that 35% of actors identify themselves with the planning and implementation of public health programs, while 17% relate their planning and implementation to the narrower field of mental health and 6% to mental illness. An important proportion of these actors (39%) work generally in public health knowledge sharing, while 20% relate this work to mental health and 8% to mental illness. Moreover results are similar for the research/evaluation and public policy/advocacy areas of intervention: 28% of actors work in the public health field in general, 12% of these actors work directly in the field of mental health, and about 6% work in the field of mental illness.

Appendix 2 shows examples of job titles given by the French- and English-language respondents.

[4] Let us recall that it is quite possible that actors who identify themselves as working in health promotion in public health may also identify themselves as working in health promotion in the fields of mental health or mental illness. Thus, these percentages are not mutually exclusive.

Table 1 Public health practitioners who responded to the questionnaires (English and French)

	MH	MI	PH	Total
Promotion	93 (29%)	25 (8%)	180 (55%)	326
Prevention or clinical preventive services	30 (9%)	14 (4%)	76 (23%)	325
Therapy, counselling, clinical public health practitioner	22 (7%)	16 (5%)	28 (9%)	326
Program Planning and implementation	56 (17%)	19 (6%)	113 (35%)	326
Research and evaluation	40 (12%)	20 (6%)	90 (28%)	325
Knowledge sharing	64 (20%)	27 (8%)	127 (39%)	326
Mass media-communication	23 (7%)	8 (3%)	43 (13%)	326
Public health decision maker	6 (2%)	2 (1%)	50 (15%)	325
Consulting	22 (7%)	5 (2%)	44 (14%)	326
Epidemiology	12 (4%)	11 (3%)	35 (11%)	326
Public policy/advocacy	40 (12%)	15 (5%)	92 (28%)	325
Surveillance	15 (5%)	14 (4%)	57 (18%)	326

Appendix 3 shows results separately for French- and English-language respondents.

2 ASSETS FOR POPULATION MENTAL HEALTH

The needs assessment drew out a number of practice assets, including:

- Good levels of operational knowledge in the fields of mental health and mental illness,
- Involvement in population mental health,
- Implementation of partnerships supporting population mental health, and
- Knowledge and use of orientation documents and approaches and of several tools, resources, and training.

2.1 GOOD LEVELS OF OPERATIONAL KNOWLEDGE IN THE FIELDS OF MENTAL HEALTH AND MENTAL ILLNESS

About 45% of practitioners felt they had an intermediate level of knowledge in these fields (43% in the field of mental health and 46% in the field of mental illness) (see Tables 2 and 3). Furthermore, 71% of practitioners said they knew the links between mental health and physical health (see Table 4). The most common answer given by practitioners through open-ended answers was that they understood the link between mental health, physical health and the social determinants of health, *and* they used this understanding to explain how their public health practice was associated with population mental health (see section 2.2.1 below).

Table 2 Knowledge level about mental health (positive mental health, well-being)

Question: How would you describe your knowledge level about mental health (positive mental health, well-being)?			
Response	Fr n=117	En n=331	All n=448
Zero (I am not familiar with positive mental health)	8% (9)	0% (0)	2% (9)
Weak (I have some familiarity with the subject)	31% (36)	26% (85)	27% (121)
Intermediate (I have received training; I have up-to-date knowledge of the field)	30% (35)	48% (159)	43% (194)
Advanced (I am involved in the field or work in mental health promotion)	32% (37)	26% (87)	28% (124)

Table 3 Knowledge level about mental illness

Question: How would you describe your knowledge level about mental illness?			
Response	Fr n=116	En n=328	All n=444
Zero (I am not familiar with positive mental health)	2% (2)	0% (1)	1% (3)
Weak (I have some familiarity with the subject)	39% (45)	35% (114)	36% (159)
Intermediate (I have received training; I have up to date knowledge of the field)	40% (46)	48% (157)	46% (203)
Advanced (I am involved in the field or work in mental health promotion)	20% (23)	17% (56)	18% (79)

Table 4 Perceptions of strengths of activities with regards to mental health

Question: How would you describe the strengths of your activities with regards to mental health?			
Response	Fr n=50	En n=171	All n=221
Knowledge about the links between mental and physical health	52% (26)	77% (132)	71% (158)
Already involved in interventions potentially related to mental health (determinants of mental health, public policies favouring mental health, surveillance of mental health indicators, etc.)	44% (22)	58% (99)	55% (121)
Other, please specify...	28% (14)	13% (23)	17% (37)

The "other" strengths identified by the French-language respondents' were: the development of personal skills for mental health (in interventions); the development of partnerships with other sectors and entities; bringing a lesser-known or rarely touched-upon subject to the forefront; implementing a clinical-administrative model that reduced the rate of hospitalization and increased clients' autonomy; a new wave of interest and engagement towards mental health on the part of the public health department; the creation of community programs that are accessible and adapted to all, including to those with mental health problems; the links between Health and Social Services Centres (in French, the CSSS) and the community sector; information sharing; the search for obstacles that prevent access to mental health services; and finally, the amount of knowledge gained on the subject in the past ten years.[5]

The "other" strengths identified by the English-language respondents' were: mental health has become a priority; the underlying links between mental health, physical health and social determinants of health are increasingly well understood; evidence-informed mental health promotion strategies are being used more frequently; links with organizations and organizational (or management) practices that can impact mental health (are present), and although many have no knowledge of the topic, they are open to learning and including strategies that improve mental health; and finally, that practitioners are developing routine screening policies.

[5] All responses given in "other" are shown as they were articulated in the questionnaires (with minor adjustments).

2.2 INVOLVEMENT IN POPULATION MENTAL HEALTH

84% of respondents establish links between their practice and population mental health (Table 5). 55% of participants are already engaged in interventions related to population mental health (determinants of mental health, healthy public policy, surveillance of mental health indicators, etc.) and this engagement represents a strength for them with regards to their activities in mental health (Table 4, above).

Table 5 Perception of involvement in population mental health

Question: Do you consider your practice to be linked with population mental health?			
Response	Fr n=63	En n=202	All n=265
Yes	83% (52)	84% (170)	84% (222)
No	18% (11)	16% (32)	16% (43)

2.2.1 Perception of the links between the practices of public health actors and population mental health

The question shown in Table 5, "Do you consider your practice to be linked with population mental health?" was followed by this open-ended question: **"If yes, please describe the links between your practice and population mental health?"**

A qualitative analysis of the responses to this question shows that the most frequent response to describe and explain the links between practitioners' practices and population mental health was that respondents considered that the link between mental health, public health, physical health, substance abuse, population health, and determinants of health was *obvious*. They also indicated that the very context in which they worked characterized the link between population mental health and their practice. The most frequent areas of employment mentioned by respondents to clarify and justify the links between their practices and population mental health are shown below[6]:

- Perinatal field, early child development (ECD), or support for parenting techniques;
- Work on the social determinants of mental health (supportive environments, healthy lifestyle, social integration, sense of belonging, individual capacity building, community development, etc.) and mental disorders (isolation, stigma of people living with a mental disorder, poverty, etc.);
- Work defined as health promotion in general;

[6] These are areas of employment mentioned by respondents to explain how and why their practices are linked to population mental health. Therefore, some areas possibly overlap such as for example work on early child development (ECD) also being work on social determinants of mental health. We have chosen to keep the areas of employment as identified by respondents who wanted to point out the importance of the link between, in this case, the perinatal field, ECD *and* population mental health.

- Clinical prevention (integration of people living with a mental disorder, suicide prevention, chronic disease prevention, eating disorders in men, etc.) or mental health promotion;
- Clinical work in schools, whole school approaches, health promotion in post-secondary education;
- Supporting mental health promotion initiatives, accompanying practitioners, supporting local service networks, local community networks, community organizations, capacity building or development, and developing guidelines for mental health promotion and mental health;
- Development, planning, and financing of mental health programs at different levels (for example, regional support for suicide prevention, promotion of wellness strategies, etc.);
- Population mental health surveillance;
- Development of partnerships;
- The particular work needed to address issues pertaining to Francophone minority populations outside Québec.

2.2.2 Respondents' practices

Actors' practices were determined by four closed-ended questions. These are presented in **Appendix 4** and the responses from the English- and French-language respondents are shown separately.

Respondents work with many different clienteles and their public health and mental health practices differ depending on whether they are English or French speaking. For example (from the most frequent to the least frequent), English speakers are mostly involved in the areas of parents and educators (64%), teens and young adults (60%), child development (51%), and vulnerable groups (47%), and are less involved in the areas of seniors (30%) and Indigenous health (33%). The "other" fields received 18% of English-language respondents' answers. French-language respondents are mostly involved in the fields of teens and young adults (60%), children and youth (47%), vulnerable groups (44%), and seniors (42%). "Other" fields received 46% of French-language respondents' answers and the least represented fields for French-language respondents are those of Indigenous health (12%) and child development (21%).

The actions undertaken involve a wide range of social determinants of health. More than 50% of English- and French-language respondents noted that their actions relate to living conditions and environments, isolation and exclusion, community involvement and cohesion, stigma and discrimination, and chronic illnesses and physical health (48% of French-language respondents for this last category). 64% of English-language respondents and 41% of French-language respondents cover resiliency and autonomy. 77% of English-language respondents and 64% of French-language respondents cover health-related behaviours, while 47% of English-language respondents and 38% of French-language respondents cover public policies. Finally, around 26% of English-language respondents and 10% of French-language respondents cover infectious diseases.

For actions undertaken in the field of mental health services or sectors, the actors participate (from the most frequent to the least frequent) in mental health awareness and education campaigns and advocacy (57% of English-language respondents and 49% of French-language respondents), in mental health support and community services (50% of English-language respondents and 57% of French-language respondents), in suicide prevention (40% of English-language respondents and 43% of French-language respondents), in substance abuse and dependencies (44% of English-language respondents and 33% of French-language respondents), in mental health policies (33% of English-language respondents and 31% of French-language respondents), in treatment and recovery (17% of English-language respondents and 26% of French-language respondents), and in sectors identified as "other" (24% of English-language respondents and 28% of French-language respondents). This is in line with the fact that some respondents come from broader public health sectors (clinical intervention, clinical prevention, and recovery).

Finally, interventions in favour of mental health were mostly initiated after a request by local partners (36% of English-language respondents and 32% of French-language respondents); because of personal knowledge of the subject (31% of English-language respondents and 28% of French-language respondents); for "other" reasons (28% of English-language respondents and 26% of French-language respondents), which include all kinds of requests (internal, external, from communities, from clients); mandates (work units, public health departments/units, institutional program, etc.); funding opportunities, etc.; following the incorporation of these objectives into provincial mental health and well-being strategies formulated by a ministry of health (23% of English-language respondents and 26% of French-language respondents), and, less often, following requests by external partners (19% of English-language respondents and 11% of French-language respondents), or following the national Mental Health Strategy launched by the Mental Health Commission of Canada (11% of English-language respondents and 9% of French-language respondents).

2.3 IMPLEMENTATION OF PARTNERSHIPS SUPPORTING POPULATION MENTAL HEALTH

Several partnerships have been formed around goals related to mental health and the various actors see them as a strength in population mental health practice. This was expressed at three different points in the questionnaire:

- In the responses given to the open-ended question (section 2.2.1) pertaining to how practitioners explain and describe the links between their practices and population mental health. We see that the formation of partnerships for mental health is part of the practices that *explain* the link between public health and population mental health;
- In the comments added by respondents to describe the strengths of their actions in the field of mental health (Table 4, "other" responses);
- In the responses given to the closed-ended question presented in Table 6 below, in which we note that the most frequently established partnerships pertain to schools and daycares, as well as to community organizations.

Table 6 Partnerships developed and oriented toward promoting mental health

Question: Have you developed partnerships outside your jurisdiction oriented toward (or that could be associated with) promoting mental health in your community/environment?		
Response	Fr n=52	En n=179
Schools/daycares	35%	44%
Community organizations	44%	59%
Municipal actors	23%	20%
Business sector	6%	11%
Other sectors	20%	8%
Other, please specify...	6%	17%
N/A	39%	25%

The "other"[7] types of partnerships developed by the French-language respondents are with: professional boards and organizations; Health and Social Services Centres (CSSS); the Cavendish CSSS in particular; work environments; universities, McGill University in particular; police officers; the Health Council (Régie de santé is mentioned in French), the Douglas Mental Health University Institute, the Wellness Centre, the municipality of Kuujjuaq-the Kativik Regional Government. The respondents indicated that these last four partnerships were targeted for community projects geared towards social economy.

The "other" types of partnerships developed by the English-language respondents are with: CAMH (Centre for Addiction and Mental Health); a community of practice with other public health units and agencies; Healthline; the justice system; a joint government sector response committee; mental health and addictions agencies; federal and provincial organizations; government; faith communities; First Nations communities; as part of the ACCESS TRAM network project in a region[8]; outpatient hospital programs; resources for healthcare providers; the United Way; housing and social assistance partners; non governmental organizations; academic institutions; ethnic organizations.

2.4 KNOWLEDGE AND USE OF GUIDANCE DOCUMENTS AND APPROACHES, AND OF MANY RESOURCES AND TRAINING

2.4.1 Knowledge and use of guidance documents and approaches

An open-ended question showed that guidance documents are the most important source of support for practitioners' practices. These include, for example, guidance frameworks, strategic plans, and best practices guidelines issued by organizations and associations, or approaches unique to certain sectors such as public health, nursing, or psychology.

2.4.2 Knowledge and use of resources and training

Practitioners base their practices on a variety of available resources. These involve:

[7] All responses given in "other" are shown as they were articulated in the questionnaires (with minor adjustments).

[8] A research network developed by TRAM - Transformational Research in Adolescent Mental Health.

- **Clinical and preventive resources,** such as screening tools (postpartum depression, domestic violence, distress, risk assessment, substance abuse, parent-child interaction scales, etc.) and intervention tools (motivational interviewing, crisis management, brief solution therapy, parent-child interaction support, goal-setting, etc.);
- **Specific resources in mental health promotion,** such as examples of best practices, toolkits and training that are specifically linked to population mental health, or aimed at many clienteles and settings (for example: resources on resilience; best start resources; the Joint Consortium for School Health (JCSH) toolkits; positive mental health resources aimed at youth, students, teachers, families, community, maternal mental health, seniors, etc.);
- **General public health topics,** such as healthy public policy resources, policy toolkits, health evidence appraisal tools, systematic reviews, population strategies and best practices, etc.;
- **Mental health data** such as statistical data, databases, and mental health surveillance data.

2.4.3 Knowledge and use and of a variety of knowledge-sharing formats

Practitioners are sustaining their practices by remaining informed through many forms of knowledge and information resources. They use general research material (papers, literature, reviews and scientific journals), books, online resources (webinars, online modules, and web tools), and in-person training (such as workshops, continuing education, presentations, etc.). They particularly appreciate resources that are short, easy to use and transfer to their intersectoral partners or to the general public or specific clienteles. Respondents also use communities of practice and networks to support their activities, such as: work colleagues, conferences and symposiums, networking among health professionals, collaboration with university researchers and professors, and support groups.

Appendix 5 details the resources mentioned by diverse public health actors who responded to the questionnaires.

3 NEEDS FOR ACTION ON POPULATION MENTAL HEALTH

Needs were identified in the following ways:

- By an open-ended question: “What would you need to do this work better?”;
- By a closed-ended question: “How would you describe your weaknesses with regards to your mental health activities?” (Table 7);
- By discussions with public health actors during needs assessment workshops.

The answers given to the closed-ended question are found in Table 7 below, while all of the identified needs are listed in Figure 1 and itemized after.

Table 7 Perceptions of weaknesses of activities with regards to mental health

Question: How would you describe the weaknesses of your activities with regards to mental health?			
Response	Fr n=53	En n=182	All n=235
Lack of knowledge about mental health	28%	44%	40%
Lack of human and/or financial resources to promote mental health	72%	73%	72%
Lack of clear mandate/policy/strategy for mental health	57%	75%	71%
Other, please specify...	17%	16%	17%

The “other”[9] weaknesses given by the French-language respondents are: Lack of direct involvement; weak political will towards mental health (which is nevertheless essential to public health); lack of an institutionalized network; lack of documentation on mental health and ageing; the sectorial nature of interventions by the Health and Social Service Centres (CSSS)–and in public health in general–that hampers cross-field considerations of mental health for population health; the configuration of the military base in Ottawa and the available means of communication are also identified as challenges for community interventions and the establishment of partnerships.

The “other” weaknesses given by the English-language respondents are: Lack of clear mandate and political will; lack of institutionalized network and support; absence of supporting foundational pieces; lack of awareness to connections and sub optimal linkages between mental health and public health; lack of advocacy work; silo mentality; lack of understanding of public health’s role in mental health, and on addressing the determinants of health; under qualification/training of frontline community support workers; absence of mental health in (Ontario Public Health Standards) OPHS/lack of separate foci in the Ontario Provincial standards; absence of clear and official mandate in transportation planning; lack of understanding of differences and links (mental health/substance abuse, chronic diseases); lack of surveillance, and mental health indicators; lack of funding for research on mental health services, epidemiology and public policy; focus on illness, not wellness; stigma.

The needs targeted reflect the issues for population mental health action that have been identified by several types of actors from the broad public health workforce (including clinicians, those involved in clinical prevention, as well as some actors involved in community settings).

[9] All responses given in “other” are shown as they were articulated in the questionnaires (with minor adjustments).

We have thus graphically shown the various actors with whom it is essential to establish collaborations for public health practice in population mental health. All of these actors are part of the general workforce necessary for promoting the population's mental health. Many representatives from these different roles have stated their needs for support in order to more optimally intervene in population mental health. We have illustrated five types of actor in Figure 1, below:

1) Public health actors in general, which includes decision makers and program managers, "local" health promoters and prevention practitioners and "other" public health actors, i.e., those who support the interventions, who engage in advocacy, knowledge-sharing, research, surveillance, etc. Actors from the broader public health workforce, including 2) primary health care (PHC) actors in physical health 3) PHC actors in mental health and their social services partners; and 4) community actors and local partners; and finally, 5) decision makers and actors from other sectors. The respondents were clear on the need to adapt support resources to the realities of these different actors and sectors, in both French and English, so as to facilitate the access to and use of these resources.

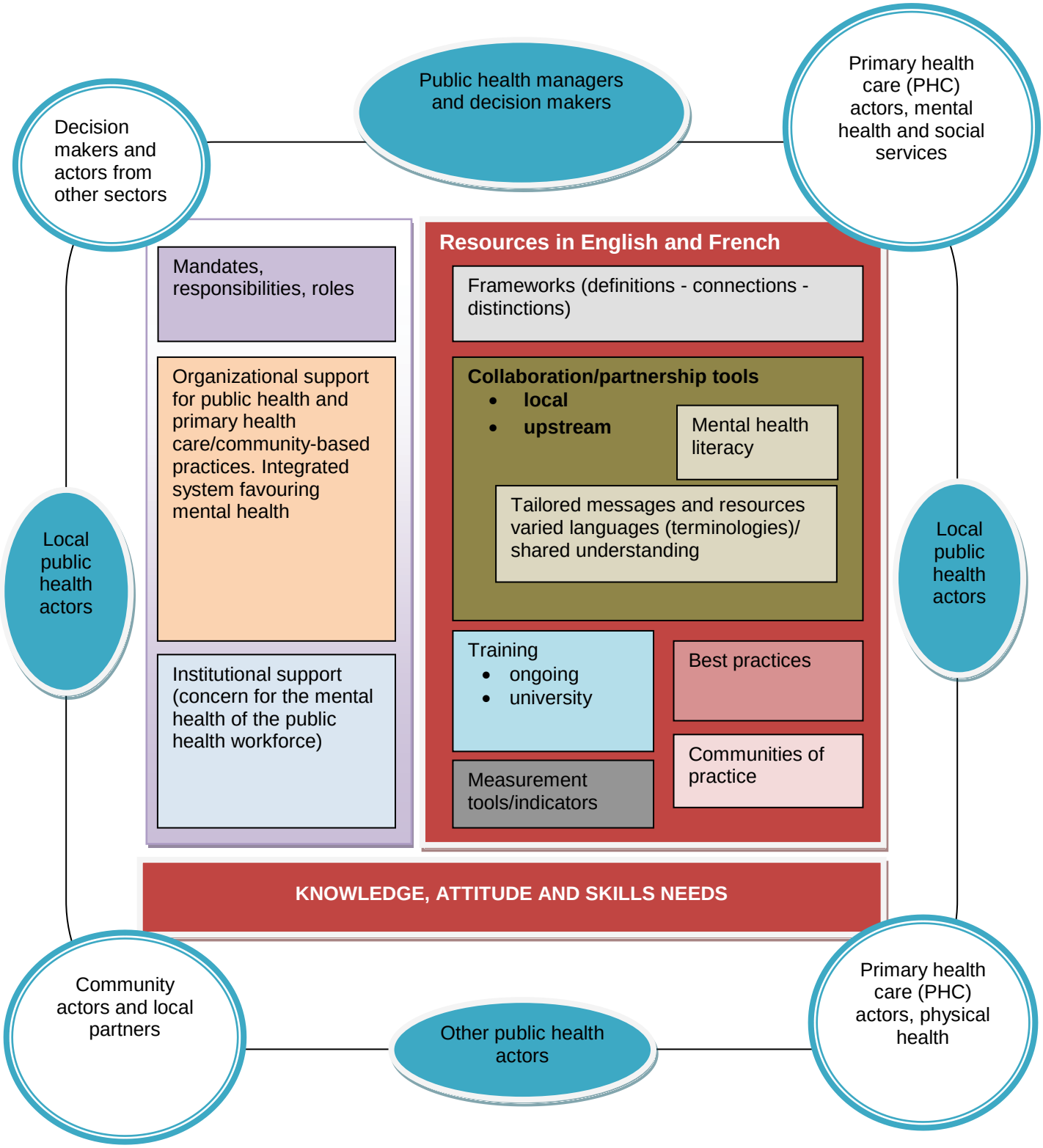

Figure 1 **Main categories of needs of the broad public health workforce for intervening in population mental health**

In this section, we present the main categories of needs as expressed by respondents. Within each of the main categories, knowledge-, attitude- and skills-types of needs are expressed. These are then highlighted in summary boxes.[10]

3.1 CLARIFY MANDATES, ROLES AND RESPONSIBILITIES

Participants identified the lack of a clear mandate and a lack of understanding of public health's role in mental health as being at the heart of their needs. They expressed the need for clear guidelines for the practice of public health in mental health. They also highlighted the usefulness of gaining the support of other institutions, such as universities, which could integrate mental health into their public health curriculum. This would clarify early on the roles and responsibilities of the various actors through university training.

The need for a **clear mandate** for public health practitioners to intervene in favour of population mental health includes the need to see mental health expressed as a priority in public health standards.

> "Need to legitimize this work through clear mandate and resourcing to support mental health promotion";
>
> "Mental health must be positioned as a priority within public health";
>
> "If by policy you mean having a mandate to incorporate consideration of mental health in infrastructure planning I would say that's first priority - Council needs to incorporate these into strategic plans."

The need for **a clear description of public health practitioners' roles in mental health** concerns local actors' needs to understand their own practices as well as a more general need for the field of public health to position itself on this topic:

> "More information about Canada's Strategy and community resources and our role";
>
> "Also, a clear understanding of what is public health's role in mental health. (What is the) difference between mental health promotion and mental health interventions? For example: we were running support groups for women experiencing PMD [Postpartum mood disorder] or difficulties coping with transition. The group, the content, and skills were very similar to a program that maybe done in hospital or as outpatients. Is this our role?"

Know key orientations and available resources.	Know the difference between mental health promotion and mental health interventions.

It was suggested that public health practitioners may act as **champions for population mental health, and may need to be supported in developing these responsibilities**.

[10] Many of the answers provided by respondents and presented in verbatim excerpts have been translated from French. The excerpts are from both English and French-speaking respondents, and have been collected using the web questionnaires as well as direct encounters with practitioners.

"Resources are a huge challenge. Financial resources obviously, financial resources at the ministry level [...], in the health authority, you find the same tension when you're working you know in a not for profit organization, within a provincial agency that's affiliated with the health authority. It's a challenge right down the line, and again I think that the nice thing about this work is that in a lot of cases it actually doesn't require a lot of resources. It just requires us actually coming to the table and understanding we all have something to contribute to it. Exactly, a shared initiative is a shared initiative."

Understand that everyone has something to contribute to the work.

"The responsibility piece for the work is a huge one, because we work in our silos; people want it to be a cleanly-cut matter of who's responsible for those? Who's going to take the lead on this, therefore, who's going to pay for it? Right? [...] And I think that again it gets some of that shared responsibility piece and I found with public health, working with colleagues in public health that it's difficult when I say 'you folks are best positioned to be champions for this work.' You don't have to necessarily pay for it; you don't necessarily have do it all yourselves; you just need to be the champions out there saying this is about the health and well being of the entire population. Being in public health we have a vested interest in that. So therefore, we need to mobilize the troops around this one. Maybe we can't pay for it, maybe we can't deliver the services that are required to do all of it but we could be champions. So I think again if there are some tools along the lines of what people have been talking about around bringing multiple sectors to the table and helping to work more collaboratively together and you can kind of take a leadership role as champions in that context, that would be really helpful."

Adopt a champion role.

Know how to effectively communicate the importance of mental health to partners.

3.2 PROVIDE ORGANIZATIONAL SUPPORT (PUBLIC HEALTH/PRIMARY HEALTHCARE FOR PHYSICAL AND MENTAL HEALTH/COMMUNITY SECTORS), AND AIM FOR AN INTEGRATED SYSTEM FAVOURING MENTAL HEALTH

Practitioners discussed the systemic and organizational challenges in public health and in the capacity of first responders to intervene in a holistic manner in support of the different dimensions of mental health. Their support needs take the following forms:

1) **The need for more support from public health management** concerning the prioritization of mental health promotion in resource allocation (financial, human, time), policy decisions and program orientation.

"More vocal support from public health decision makers and management about the essential nature of mental health (promotion) in public health";

> "It is difficult to incorporate activities to promote mental health when our agency does not recognize mental health as part of health promotion - too often the agency has an antiquated idea about mental health as outside our mandate (believing it is the prevention of mental illness instead of the promotion of mental health)";
>
> "A budget for training, staff development, staff orientation, impetus for governments to follow through on the lip service they put in strategies to mental health promotion, more time";
>
> "Resources assigned to health promotion do not include this as a focus of programs; staff add it in when they can find a way to slip it in there as an additional program component."

Public health managers know, defend and support links between mental health, its promotion, and public health practices.

A positive note was expressed, however, in one comment which reveals that although management may be seen to have little knowledge on the topic, practitioners noted that they are open to learning and including strategies that help to improve mental health. This was considered a strength for the practice.

2) **The need for training and resources specifically for first response purposes**. Here practitioners desire access to training and resources for screening, identification, assessment, referral, treatment and intervention.

Frontline responders know best practices for screening and intervention.

3) **The need for additional or reconfigured primary health care or community-based services and resources** to better respond to unmet needs and particular clienteles in a more efficient and less segmented manner. Here practitioners expressed the following needs: more universally-accessible services, more timely psychiatric services, better access to community partners, improved peer-to-peer support, facilitation of intersectoral cooperation, a one-stop type of resource in communities that would be able to guide practitioners with regards to available services, and tools such as "laminated pocket cards" that allow for easier interventions and references. In short, there is a need to break down barriers and intervene in a more integrated, holistic, and timely manner across different services.

Frontline and community practitioners know, have access to, and use available resources and networks.

3.3 DEMONSTRATE A CONCERN FOR INSTITUTIONAL SUPPORT (CONCERN FOR THE MENTAL HEALTH OF THE PUBLIC HEALTH WORKFORCE)

Respondents mentioned **the importance for those in the public health workforce to pay attention to their own mental health** and to have the means to suitably intervene on the population's mental health:

> "Raising management's awareness of mental health policies and work-related mental health problems";

> "I particularly observe that the workforce in public health at all levels portrays many aspects of society and are themselves mentally not well. Promotion of mental health in staff is tokenism at best, particularly from management levels up. Without leadership modelling mental health behaviours, making a difference in communities is unlikely".

Understand how your own mental health interacts with your ability to promote mental health at the population level.

3.4 PROVIDE GUIDANCE FRAMEWORKS: CLEAR DEFINITIONS, DISTINCTIONS, CONNECTIONS

Practitioners expressed the need for clear guidelines for a public health practice in mental health. This implies **clear definitions, distinctions between concepts** and **connections** between elements of a population mental health approach and public health practices, all framed in guidance or policy documents.

Practitioners need clear definitions of many dimensions, such as *population mental health* and *mental health promotion*. They need clarification on the distinctions between prevention of mental disorders and promotion of mental health, between mental disorders and mental health, and between mental health interventions (supporting the mentally ill) and mental health promotion interventions (improving mental health levels for all). They need to better grasp that public health actions refer to the elements that make up a population mental health approach. For example, the promotion of healthy settings, interventions aiming at promoting healthy lifestyles, interventions aiming at preventing chronic diseases, infectious diseases, or addictions, as well as actions aiming at the social determinants of health or at the reduction of health inequalities, are an integral part of a population mental health approach. They specifically need these definitions and connections to be enshrined in frameworks or guidance documents which can establish working standards that will ensure quality and sustainability, as well as serve for advocacy work. Comments included, for example:

Expand the knowledge base: know key definitions, approaches, distinctions, perspectives and connections.

> "Need of illustrative framework that depicts linkages, better guidelines";

> "Clear mandate and guidance documents; connect public health work with mental health";
>
> "Traditional health models integrating well-being and the development of community capacity";
>
> Recognition of mental health as a critical part of physical wellness and treated in the same manner with the same respect";
>
> "A conceptual framework in population mental health (recently developed) and a mental health framework for university communities."

Understand how mental health and community capacity are part of known public health frameworks.	Understand that mental health and physical health ought to be treated with the same importance.

3.5 ESTABLISH COLLABORATIONS (FRONTLINE/UPSTREAM)

Practitioners expressed **the need to have collaboration supported at two levels: frontline and upstream.**

For frontline support, practitioners identified coordination challenges and expressed the need for improved links, specifically in terms of stronger and more formal connections and relationships between public health and mental health staff, agencies, fields, and approaches. For example:

> "As a public health frontline staff dealing with inner-city/vulnerable housing, I would find it useful to have further mental health resources/referrals as well as a more formal relationship with mental health practitioners (an interdisciplinary team is ideal)";
>
> "More collaboration between different agencies, treatment centres, and health care practitioners";
>
> "Connect public health work with mental health";
>
> "Better connections between public health and mental health fields (frontline, etc.)."

Local practitioners know available resources.	Local practitioners adopt a collaborative and integrated practice.

For upstream support, practitioners expressed the need for resources that can facilitate links with other sectors and with decision makers, and that can aid in advocacy work.

To address these needs, two specific and interrelated strategies were targeted:

The development of **mental health literacy.** Specifically,

> "Tools to facilitate conversations and advocacy with decision makers and those outside of health who play a role in (acting on) the determinants of mental health";
>
> "Given that any sort of disease/illness prevention and health/wellness promotion (including mental health) takes second place to acute care practices, any activities that can emphasize the cost savings of upstream prevention would be useful. Somehow we need to capture the attention of the fiscal decision makers to give more than simple lip service to the concept that 'an ounce of prevention is worth a pound of cure'."

Effectively communicate
the economic value (return on investment)
of promotion and prevention.

The need for **key messages and resources** which pay attention to the **language** used to address mental health in the context of partnerships, both within the mental health sector or with outside partners. The need mentioned here was to avoid the obligation of a common language and opt rather for a language that is adapted and meaningful within the context of specific partnerships.

> "What I would say is that I found the stakeholders in mental health are particularly diverse. So certainly more time and energy I think is needed in to making sure you have the right stakeholders at the table and that you're speaking their language and you're on the same page in terms of language and those kinds of things.[…] But I think that there's so much mutual benefit for everyone to be working together and if you really frame it as: 'this is a way for you to take credit for some of the things that you're already doing in a broader scope and influence that it can have,' rather than just saying: 'we want you to come and help us do what we're trying to do over here,' the conversation takes on a very different tone to them for sure. […] So if we could move away from that and be more flexible about how we describe mental health in all of its dimensions, in all of its ways of being understood by stakeholders, I think we're far more well-positioned to do this work."

Adapt your language to your audience
when you speak of mental health
to better reach people and to facilitate
a common understanding and more collaboration.

3.6 DEVELOP CUSTOMIZED TRAINING AND MAKE IT AVAILABLE FOR VARIOUS AUDIENCES

Practitioners expressed the need to have more **accessible and affordable training in mental health that would also be adapted to the contexts**. The needs identified reflect the diversity of respondents. We thus find needs for mental health training in public health and mental health promotion in different environments, training needs more specifically related to the practice of clinical and preventive mental health and training needs related to community intervention. The actors also indicate the need to be more aware of opportunities for learning.

Suggested **formats** for training include workshops, continuing education, online opportunities, and networking.

In certain cases, training needs are expressed for specific **clienteles** such as public health nurses, school nurses, teachers, decision makers, managers, clinical practitioners, and volunteers.

Specific training **topics** were proposed: the mental health of new immigrants, perinatal mood disorders, mental health promotion models, mental health in the workplace, raising managers' awareness about mental health policies and work-related mental health problems, development of resilience in young people from 5 to 18 years old, positive mental health, mental health and addictions in Indigenous communities, laws and policies concerning mental health, the success of connecting mental health and ageing in the training of volunteers.

Finally, practitioners expressed the need for training in certain underserved settings, such as the Far North.

In certain cases, general training needs were specified. These include "the need for advanced training in documentary search, drafting of policy procedures in health facilities, and critical reading of scientific literature."

3.7 INSTITUTE COMMUNITIES OF PRACTICE

Practitioners expressed the need for **networks and communities of practice.** They need the "[o]pportunity to network with others" and "to be paired with expertise that allows us to understand best practice and evaluate interventions." They mentioned the usefulness of attending conferences. In some instances, specific topics that communities of practice could address were identified, such as health promotion in Indigenous communities, policy analysis, program evaluation and advocacy.

3.8 DEVELOP AND MAKE EASILY AVAILABLE BEST PRACTICE RESOURCES

The practitioners identified the need to have access to, and to become more familiar with best practices for interventions in mental health promotion, prevention of mental disorders and mental health (interventions aiming at treating mental disorders), as well as in program planning, such as:

> "Strategies and interventions directed to structural, community and individual levels, best practices as well as new and innovative solutions to promote mental health at the community level, but also to address determinants of health at a structural level";
>
> "Simple documents that clearly show which programs/initiatives have greater effectiveness";
>
> "Tools for schools, how to develop protective factors for preventing mental health problems in young people";

> "Successful practices for the links between community organizations and the Health and Social Services Centres (CSSS) in supporting the social participation of seniors with mental health problems, behavioural disorders, or cognitive impairments."

Know what works at many levels (structural, community, family, within settings, individual).

The respondents made clear that these **resources should be adapted for specific clienteles and topics**. They wish for:

- **The development of resources for the various professionals and levels of intervention:** decision makers, managers, physicians and nurses, local public health actors, volunteers, community groups, etc.;

Know what works for various types of actors.

- **The development of resources for the different subgroups within a population or settings:** the population in general, families and concerned significant others, seniors, the homeless, men, gay, lesbian, bisexual, transgender, and transsexual people (GLBT), new immigrants and refugees, minority francophone populations; and settings such as kindergartens, schools and universities, workplaces, the military base in Ottawa, Indigenous communities, rural communities, etc.;

Know what works, with whom and where.

- **The development of resources on specific topics, such as:** stigma, resilience building, mental health and substance abuse, the impacts of climate change or industrial camps on mental health, inequalities and mental health, workplace mental health, ageing and mental health, updating knowledge about treatments, diagnoses, and therapeutic approaches, a framework for mental health in universities, and, in specific fields of public policy such as the links between transport and mental health or between the built environment and mental health, or, more broadly, on laws and policies that affect mental health in general.

Know best practices and resources on various topics.

Propositions were made to **facilitate access to these resources, and their use, such as:**

- A "repository" or centralized area for these materials, "a platform for sharing initiatives and knowledge";
- Easier access to journals, databases, websites and updates on research in the field;

- Short and practical, easily usable knowledge sharing material; and
- e-tools, access to more mobile apps, targeted scientific intelligence, informative emails about the latest research, and easy access to mental health information through listservs.

Finally, from a procedural point of view, respondents wish that concerned parties participate in the development of these different resources: "to be consulted during research development and during the development of programs and communication tools."

> Include participatory processes in resource development and sharing.

3.9 DEVELOP AND MAKE ACCESSIBLE MENTAL HEALTH MEASUREMENTS, INDICATORS AND DATA

Practitioners **need access to measurements, indicators and data of positive mental health**. They expressed the need to access data at many levels, including general population-level data (such as prevalence and incidence of mental health by province, by gender, etc.). They also mentioned specific data and measurements needs for certain settings and clienteles, such as well-being indicators for youth; local- and regional-level data, clinical-level data (such as anonymous patient data), data on seniors, on social climates in schools, on Francophone minority populations, on mental health and the justice system, and data linking mental health and multiple chronic diseases. They also wish to know which measures to use for the follow up of their interventions.

> Know and use follow up and evaluation data and measures of mental health in various contexts.

4 SYNTHESIS

The results of this exploratory questionnaire show that actors in the broad public health workforce already do a lot of work in mental health promotion and mental disorder prevention, that they build partnerships and have a good level of understanding about mental health, mental disorders, and the links between these and physical health, social determinants of health, and the diverse practice environments in public health. They also know of and use a variety of resources and tools to support their practices. They are also already involved within many areas of intervention and fields of practice that are associated with population mental health.

Despite these strengths, the public health workforce still has a host of needs that must be addressed in order to expand its actions for the improvement of the population's mental health. These needs can be seen as being of two orders, the first more structural and the second more operational.

4.1 STRUCTURAL NEEDS

Structural needs refer to:

- The need for public health to position itself and clarify its role and responsibilities in the field of mental health so that actors can have clear mandates and guidelines that legitimize their practices;
- The need to obtain the necessary organizational support in order to develop or reinforce action supporting mental health, whether this is in public health, in the practices of primary health care and community actors, or in reinforcing the links between these actors so as to break down silos and make the proposed services more holistic, integrated and optimal;
- A request that is made to provide the necessary institutional support to benefit the mental health of the public health workforce.

4.2 OPERATIONAL NEEDS: RESOURCE NEEDS

Operational needs are characterized by the identification of an array of resources required to support and guide practices. This means proposing resources in English and French such as:

- Guidelines that aim at expanding knowledge, and lay out and clarify certain definitions, approaches, distinctions, perspectives, and connections specific to population mental health;
- Accessible continuing education on various themes that is adapted to different sectors and actors, and to insure that mental health is inserted into university curriculum in the various fields in question;
- Communities of practice;
- Best practices for intervening in mental health promotion:
    - In different settings (home, learning environments, workplaces, communities, health care settings [physical and mental], etc.),

  - At different moments in the life course (early childhood, adolescence, adulthood, old age, during transitions),
  - Through different means (public policies, promotion of healthy living, work, and health care environments, community development, interventions aiming at supporting individuals, communicating with the media, advocacy, etc.),
  - According to the needs and specific realities of sectors and types of actors involved (local health promoters, clinical prevention actors, clinicians, community actors, political actors, managers and decision makers, etc.).
  - While integrating participative processes which are necessary to context and cultural adequacy and adaptations;
- Tools which support the building of partnerships and collaborations (frontline and upstream)
  - By aiming at a shared understanding of the importance of promoting mental health in the population while respecting the diversity of languages and terminology used in the different sectors or intervention settings regarding mental health (positive or flourishing mental health, mental well-being, resilience, socio-affective development, recovery, etc.);
  - By reinforcing the mental health literacy of the different actors involved at different levels (managers and decision makers, planning, support, promotion and prevention actors, clinical and community actors, etc.).
- Access to data, indicators and instruments of measure for the implementation, assessment, and monitoring of population mental health activities in numerous contexts.

4.3 OPERATIONAL NEEDS: KNOWLEDGE, ATTITUDE AND SKILLS NEEDS

Operational needs are also characterized by the identification of a number of knowledge, attitude and skills needs which could be addressed by the proposed resources. These are summarized in Table 8 below.

Table 8 Summary of knowledge, attitude and skills needs identified by respondents

"Knowledge"-type needs	"Attitudes and skills"-type needs
• Know key mental health orientations, strategies, policies and available resources. • Expand the knowledge base: know key definitions, approaches, distinctions, perspectives, and connections of the field. (key elements include but are not limited to: mental health, mental disorders, social determinants of mental health, life course, inequalities in mental health, a holistic approach, mental health promotion, mental illness prevention, population mental health, etc.). • Know what works at many levels (structural, community, family, within settings, individual). • Know what works for various tiers/levels of practice (for various types of actors). • Know what works, with whom and where. • Know best practices on various topics. • Know mental health data, follow up and evaluation measures and strategies adapted to various contexts. • Know resources and networks in own field and level of practice.	• Understand that everyone has something to contribute to the work (mental health is everyone's business). • Adopt a champion role in public health. • Know how to effectively communicate the importance of mental health to partners. • Adapt your language to your audience when you speak of mental health to better reach people and to facilitate a common understanding and more collaboration. • Know, defend and support links between mental health, its promotion, and public health. • Understand how your own mental health interacts with your ability to promote mental health at population level. • Understand how mental health and community capacity are part of known public health frameworks. • Understand that mental health and physical health ought to be treated with the same importance. • Adopt a collaborative and integrated practice. • Effectively communicate the economic value (return on investment) of promotion and prevention. • Adopt a participatory practice and include participatory processes in resource development and sharing. • Integrate and use mental health data, measures and follow up and evaluation strategies in various contexts.

CONCLUSION AND DISCUSSION

The results of this exploratory questionnaire show the respondents' assets and needs. They do not necessarily represent an overall view of the broad public health workforce. They outline the main types of needs targeted by the respondents to this questionnaire on population mental health produced by the NCCs, and through direct meetings between practitioners and the NCCHPP. These are structural and operational needs, and in particular, the needs for a variety of multiple format-resources aiming at expanding the knowledge, attitudes, and skills base identified by respondents as being needed for population mental health intervention.

This questionnaire had certain limits; it did not allow us to know, for example, the specific needs of certain types of actors or sectors of intervention, i.e., to clearly identify the specific needs of managers in relation to those of public health nurses, or to understand the variable needs of different public health units or intervention sectors who may appropriate in various ways the strategies that guide their actions.

The biggest issue with the exploratory questionnaire was in its title: "Population Mental Health Needs Assessment Survey." Although the introductory paragraph set out a short definition of population mental health, the questionnaire's results showed that the term itself raised a number of issues associated with its many potential interpretations. Although we referred to a population mental health *approach*[11] largely inspired by the population health approach currently used in Canada, we realized that the term *population mental health* was not only broadly understood as a concept (rather than an approach), but broadly used that way.

The *concept* of population mental health refers to the mental health *of* a population. For some, mental health may correspond to variations of mental disorders in the population; for others, it may also include positive mental health variations in the population. The use of the term as a concept does not necessarily imply the idea of an approach that would aim to improve positive mental health levels in the population (through action on the social determinants of mental health) or reduce mental health inequalities.

This issue of the framing and use of the term had some repercussions for the questionnaire's results: sometimes clear repercussions, as the fact that many clinical actors felt challenged by the questionnaire and pointed out realities and needs that were firmly rooted in clinical concerns; and other repercussions, less clear, but about which we are able to form some hypotheses, such as the fact that some actors were able to report a presence or absence of connections between their practices and population mental health which might have been conveyed differently if the term were not so subject to such a range of potential meanings and hence to multiple interpretations (i.e., the relationship between their practices and population mental health might have been understood differently).

[11] Mantoura, P. (2014). Defining a population mental health framework for public health. Montréal, Québec: National Collaborating Centre for Healthy Public Policy. Retrieved from: http://www.ncchpp.ca/docs/2014_SanteMentale_EN.pdf

These terminological and interpretive difficulties became a strength of the exploratory questionnaire.

- For one thing, we were able to grasp some realities regarding clinical and para-clinical environments which we might not otherwise have known about or taken into consideration. We thus grasped and conveyed the broad importance of relationships and partnerships at the local level, and of a more integrated and holistic primary health care system that is more allied to public health in the area of intervention to improve the population's mental health.
- For another, we are obliged to consider these terminological issues and the multiple interpretations to which population mental health is subject. It is difficult to avoid a double use, referring to both an approach and a concept: *a population mental health approach* (population-level interventions that target mental health determinants) that aims for widespread, equitable improvement in *population mental health* (ideally considered as a "complete"[12] state, and thus thought of as the absence of mental disorders and the presence of positive mental health). Further thought on this matter is needed, in conjunction with the actors and partners involved; we must also make sure the meaning assigned when the term is used is very explicit.

[12] Keyes, C. (2007). Promoting and Protecting Mental Health as Flourishing. A Complementary Strategy for Improving National Mental Health. *American Psychologist*, 62(2), 95–108. Retrieved from: http://tapartnership.org/enterprise/docs/RESOURCE%20BANK/RB-PUBLIC%20HEALTH/General%20Resources/Promoting_and_Protecting_MH__Keyes_2007.pdf

APPENDIX 1

WEB QUESTIONNAIRE

Population Mental Health Needs Assessment Survey

Thank you for taking a few minutes of your time to fill out this short questionnaire. This survey will allow the National Collaborating Centres for Public Health (NCCPH) to identify the needs of public health practitioners whose practices are concerned by population mental health.

The National Collaborating Centres for Public Health are made up of six centres whose mission is to translate relevant evidence produced by academics and researchers so that it can be used by public health practitioners and policy-makers. Here are some examples of their possible implications in population mental health:

- The National Collaborating Centre for Aboriginal Health (NCCAH): identify best practices in Aboriginal mental health, linking mental health and social determinants of health
- The National Collaborating Centre for Environmental Health (NCCEH): relationship between mental health and the environment, impact of bedbugs on mental health
- The National Collaborating Centre for Infectious Diseases (NCCID): impact of infectious diseases (Tuberculosis, HIV, STIs, etc.) on mental health
- The National Collaborating Centre for Methods and Tools (NCCMT): knowledge translation strategies, methods and tools related to evidence in population mental health
- The National Collaborating Centre for Healthy Public Policy (NCCHPP): relationship between healthy public policy and population mental health
- The National Collaborating Centre for Determinants of Health (NCCDH): understanding of the links between the social determinants of mental health and well-being and ways to improve them.

A population mental health approach implies that there can be no health without mental health and aims at improving mental health in the population and increasing equity in mental health outcomes. As such population mental health is a concern for all public health practitioners.

Questionnaire

How would you describe your knowledge level about mental health (positive mental health, wellbeing)

- ○ Zero (I am not familiar with positive mental health)
- ○ Weak (I have some familiarity with the subject)
- ○ Intermediary (I have received training, I have up to date knowledge of the field)
- ○ Advanced (I am involved in the field or work in mental health promotion)

How would you describe your knowledge level about mental illness?

- ○ Zero (I am not familiar with mental illness)
- ○ Weak (I have some familiarity with the subject)
- ○ Intermediary (I have received training, I have up to date knowledge of the field)
- ○ Advanced (I am involved in the field or work in mental illness)

Please indicate which field(s) of work best match your practice and answer the open-ended questions:

	Mental Health	Mental Illness	Public Health	Job title
Promotion	☐	☐	☐	
Prevention or clinical preventive services	☐	☐	☐	
Therapy, counselling, clinical public health practitioner	☐	☐	☐	
Program Planning and implementation	☐	☐	☐	
Research-evaluation	☐	☐	☐	
Knowledge sharing	☐	☐	☐	
Mass media-communication	☐	☐	☐	
Public health decision maker	☐	☐	☐	
Consulting	☐	☐	☐	
Epidemiology	☐	☐	☐	
Policy/ Advocacy	☐	☐	☐	
Surveillance	☐	☐	☐	

What tools, training or resources are useful in your work?

What would you need to do this work better?

Please indicate at which level of intervention you are working:

Local

Regional

Provincial

Federal

Do you consider your practice to be linked with population mental health?

- ☐ Yes
- ☐ No

If yes, please describe the links between your practice and population mental health:

Please indicate the populations that are the object of your public health/ mental health activities

- ☐ Early development (0-6)
- ☐ Children and youth (7-14)
- ☐ Adolescents and young adults (15-25)
- ☐ Parents/caregivers/guardians
- ☐ Elderly (over 65)
- ☐ Aboriginal health
- ☐ Vulnerable groups, please specify... _____
- ☐ Other, please specify... _____

Please indicate the areas of intervention, linked to social determinants, that are the object of your public health / mental health activities

- ☐ Living conditions and environment (housing, urbanization, recreation areas, work conditions, etc.)
- ☐ Social isolation/exclusion
- ☐ Community participation and cohesion
- ☐ Resilience and empowerment
- ☐ Stigmatization and discrimination
- ☐ Health behaviours (physical activity, smoking, alcohol, etc.)
- ☐ Chronic Diseases/physical health
- ☐ Infectious diseases
- ☐ Public policies
- ☐ Other, please specify... _____

Please indicate the areas of intervention, linked to mental health, that are the object of your public health/ mental health activities

- ☐ Community-based mental health support and services
- ☐ Suicide prevention
- ☐ Substance abuse and addictions
- ☐ Treatment and recovery services for mental health
- ☐ Education campaigns/advocacy on mental health
- ☐ Mental health policy
- ☐ Other, please specify... _____

If you have implemented activities on issues related to mental health, what was the primary impetus for these initiatives?

- ☐ Mandate from board of health
- ☐ Provincial mental health/wellness/wellbeing strategy from the Ministry of Health (if existing)
- ☐ National Mental Health Strategy from the Mental Health Commission of Canada
- ☐ Request from local partner (school board, community organization, …)
- ☐ Request from an external partner
- ☐ Personal knowledge about mental health literature
- ☐ Other, please specify... _____
- ☐ Don't know
- ☐ N/A

Have you developed partnerships outside your jurisdiction oriented toward (or that could be associated with) promoting mental health in your community/environment?

- ☐ Schools / daycares
- ☐ Community organizations
- ☐ Municipal actors
- ☐ Business sector
- ☐ Other sectors
- ☐ Other, please specify...
  _____
- ☐ N/A

What activities would you identify as strengths with regards to mental health?

- ☐ Knowledge about the links between mental health and physical health
- ☐ Already involved in interventions potentially related to mental health (determinants of mental health, public policies favouring mental health, surveillance of mental health indicators, etc.)
- ☐ Other, please specify... _____

What activities would you identify as weaknesses with regards to mental health?

- ☐ Lack of knowledge about mental health
- ☐ Lack of human and/or financial resources to promote mental health
- ☐ Lack of clear mandate / policy /strategy for mental health
- ☐ Other, please specify... _____

Please rank the activities that could be developed by the National Collaborating Centres for Public Health (NCCPH), and that you would find useful for advancing your work on population mental health.Drag the boxes on the left and drop them in the right hand column according to how useful they would be.

	1 (the most useful)	2	3	4	5	6	7	8	9	10	11	12 (the least useful)
Definition and clarification of concepts related to population mental health	○	○	○	○	○	○	○	○	○	○	○	○
Determinants of mental health	○	○	○	○	○	○	○	○	○	○	○	○
Measurements and indicators of positive mental health	○	○	○	○	○	○	○	○	○	○	○	○
Healthy public policies favouring mental health	○	○	○	○	○	○	○	○	○	○	○	○
Inequalities and mental health	○	○	○	○	○	○	○	○	○	○	○	○
Evidence-informed practices in mental health promotion	○	○	○	○	○	○	○	○	○	○	○	○
Aboriginal mental health	○	○	○	○	○	○	○	○	○	○	○	○
Links between physical health and mental health	○	○	○	○	○	○	○	○	○	○	○	○
Infectious diseases and mental health	○	○	○	○	○	○	○	○	○	○	○	○
Mental health and chronic diseases	○	○	○	○	○	○	○	○	○	○	○	○
Environmental health	○	○	○	○	○	○	○	○	○	○	○	○
Putting evidence related to population mental health into practice and policy decisions	○	○	○	○	○	○	○	○	○	○	○	○

Again by dragging and dropping the boxes on the left, please rank the ways that these activities could be best conveyed

	1 (best way)	2	3
Synthesis	○	○	○
Workshop and/or webinar	○	○	○
Multimedia tools	○	○	○

Any final comments?

Thank you for your participation.

We wish to thank Connecting the dots Ontario whose survey in “Connecting the Dots, How Ontario Public Health Units are Adressing Child and Youth Mental Health” was used as a basis and inspiration to support the development of this survey.

If you have any questions or comments, please contact Pascale Mantoura at the National Collaborating Centre for Healthy Public Policy (NCCHPP) by telephone at (514) 864-1600, ext. 3611 or by emailat: pascale.mantoura@inspq.qc.ca.

After clicking the "submit" button you will be redirected to a page where you can register to the NCCHPP ebulletin or mailing lists.

APPENDIX 2

EXAMPLES OF JOB TITLES

Job titles are listed as they were reported by respondents. Job titles in French are listed in the masculine form for brevity.

<table>
<tr><th>Health promoters</th><th>Clinical prevention practitioners & clinical practitioners</th><th>Policy advocacy</th><th>Policy advocacy</th></tr>
<tr><td rowspan="2">Public health planner/Program manager
Provincial injury prevention coordinator
Director healthy living
Manager chronic disease & Injury prevention
Health Policy specialist
Public Health Nurse (PHN)/Nurse educator/consultant
M.D.
Family health manager in public health (PH)
Community development coordinator
Youth engagement specialist
Mental health promotion worker
Health promotion (HP) worker
HP facilitator addiction and mental health
Population health promotion practitioner
Public health Inspector
Academic/epidemiologist/ Research analyst</td><td rowspan="2">Public Health Nurse (PHN)/home care nurse/Registered Nurse (RN)
M.D.
Public health inspector
Mental health worker/therapist/ social worker/private practice counsellor/ Case manager
Program manager
Family health manager in PH
Provincial injury prevention coordinator
Community health
Team manager
Prevention project coordinator
National Native Alcohol and Drug Abuse Program coordinator
Resident</td><td>Policy Analyst (PA) and Senior PA
Quality standards specialist
Community development coordinator
Public health nurse (PHN)/Registered Nurse (RN)
Psychiatrist
Director
Community Health
Tobacco reduction
Manager Healthy Public Policy
Research Analyst
Health & Safety Rep.
Communicable disease consultant
Health Promotion specialist</td><td>Director
Public health nurse (PHN)
M.D.
Team Manager
Program Manager
Manager of EH
Medical Officer
Sr. Policy analyst
Communicable disease coordinator
Director Public health practice and population health
Clinical Nurse, Educator in public health nursing</td></tr>
<tr><td>Coordonnateur (coordinator)
Directeur (director)
Agent de (recherche (research assistant)
Étudiant (student)</td><td>Coordonnateur (coordinator)
Médecin-conseil (consulting physician)</td></tr>
</table>

• Gestionnaire en promotion de la santé *(health promotion manager)* • Agent de programmation, de planification et de recherche (APPR)/agent de recherche *(planning, programming, and research officer [PPRO]/research officer)* • Nutritionniste *(nutritionist)* • Coordonnateur *(coordinator)* • Agente de promotion de saines habitudes de vie *(healthy lifestyles promotion officer)* • Directeur général (DG) *(executive director)* • Analyste-recherchiste *(research analyst)* • Infirmier *(nurse)* • Médecin spécialiste en santé communautaire/médecin *(physician specializing in community health/physician)* • Organisateur communautaire *(community organizer)* • Conseiller (advisor/consultant) • Résident *(resident)* • Responsable de veille informationnelle *(lead information*	• Coordonnateur *(coordinator)* • Médecin-conseil *(consulting physician)* • Directrice adjointe *(deputy director)* • Agent de programmation, de planification et de recherche (APPR) *(planning, programming, and research officer [PPRO])* • Nutritionniste *(nutritionist)* • Intervenant en santé mentale *(mental health worker)* • Organisateur communautaire en centre de santé et de services sociaux (CSSS) *(Community organizer at a Health and Social Services Centre* • Counselling		

monitor) • Intervenant en santé mentale *(mental health worker)* • Cadre *(manager)* • Conseiller en promotion de la santé *(health promotion consultant)*			
Research-evaluation	**Knowledge Sharing**	**Program planning and implementation**	**Surveillance**
• Community health • Health research specialist • Project coordinator • Community development coordinator • Family health manager in public health • Research policy analyst • Public Health Nurse (PHN) • Ph.D candidate • Health and safety representative • Epidemiologist • Senior policy analyst and research scientist • Health promotion specialist	• Community health • Project manager, research and knowledge sharing • Health analyst • Manager, knowledge exchange/family health manager • Public health nurse (PHN) • Community development coordinator • Ph.D candidate • Health and safety rep • Research analyst • University nursing instructor • Research associate • Family visitor • Health promotion consultant	• Director, • Community health • Public health nurse (PHN)/nursing instructor • Manager family health/manager • Suicide prevention • Epidemiologist • Program consultant • Health promoter • Academic • Senior policy analyst • Health promotion • Health equity lead • Assistant director, health research • Campus health volunteer coordinator	• Community health • Public health nurse (PHN) • Epidemiologist • Research analyst • Communicable disease consultant • MD • Director • Research associate • Program manager
• Agent de programmation, de planification et de recherche (APPR)/agent de recherche *(planning, programming, and*	• Agent de programmation, de planification et de recherche (APPR)/agent de recherche *(planning, programming, and*	• Gestionnaire en promotion de la santé *(health promotion manager)* • Agent de programmation, de planification et de	• Agent de programmation, de planification et de recherche (APPR) *(planning, programming, and research officer [PPRO]/research*

research officer [PPRO]/research officer) • Nutritionniste *(nutritionist)* • Coordonateur *(coordinator)* • Agent de promotion des saines habitudes de vie *(healthy lifestyles promotion officer)* • Co-chercheur *(co-researcher)* • Directeur général (DG) *(executive director)* • Médecin *(physician)* • Travailleur social *(conseiller en santé mentale) (social worker [mental health consultant])*	*research officer [PPRO]/research officer)* • Nutritionniste *(nutritionist)* • Coordonnateur *(coordinator)* • Travailleur social *(conseiller en santé mentale) (social worker [mental health consultant])* • Gestionnaire en promotion de la santé *(health promotion manager)* • Étudiant au doctorat (chaire d'études sur l'application de connaissances) *(doctoral student [research chair on knowledge application])* • Moniteur clinique et enseignant (externat en médecine communautaire) *(clinical instructor and teacher [medical clerkship in community medicine])* • Médecin *(physician)* • Directeur général (DG) du Réseau franco-santé du Sud de l'Ontario *(executive director, French Health Network of Central Southwestern Ontario)* • Chercheur *(researcher)*	recherche (APPR)/Agent de recherche *(planning, programming, and research officer [PPRO]/research officer)* • Nutritionniste *(nutritionist)* • Coordonnateur *(coordinator)* • Agent de promotion des saines habitudes de vie (spécialisation en santé mentale) *(healthy lifestyles promotion officer [specializing in mental health])* • Médecin-conseil *(consulting physician)* • Intervenant en santé mentale *(mental health worker)* • Travailleur social (conseiller en santé mentale) *(social worker [mental health consultant])*	*officer)* • Coordonnateur *(coordinator)* • Médecin (*physician)* • APPR Direction de santé publique de Montréal *(planning, programming, and research officer [PPRO] at the Montréal Public Health Department)*

APPENDIX 3

INFORMATION ABOUT THE QUESTIONNAIRES' RESPONDENTS PRESENTED SEPARATELY FOR ENGLISH- AND FRENCH-LANGUAGE RESPONDENTS

English-language respondents n= 244	MH	MI	PH
Promotion	70 (28.7%)	19 (7.8%)	143 (58.6%)
Prevention or clinical preventive services	23 (9.5%)	10 (4.1%)	64 (26.2%)
Therapy, counselling, clinical public health practitioner	15 (6.1%)	12 (4.9%)	25 (10.3%)
Program planning and implementation	36 (14.8%)	11 (4.5%)	92 (37.7%)
Research/evaluation	29 (11.9%)	14 (5.8%)	67 (27.5%)
Knowledge sharing	47 (19.3%)	20 (8.2%)	101 (41.6%)
Mass media/communication	14 (5.7%)	5 (2.0%)	33 (13.5%)
Public health decision maker	5 (2.1%)	1 (0.4%)	44 (18.0%)
Consulting	18 (7.4%)	4 (1.6%)	37 (15.2%)
Epidemiology	9 (3.7%)	9 (3.7%)	30 (12.3%)
Policy/advocacy	36 (14.8%)	13 (5.3%)	82 (33.6%)
Surveillance	8 (3.3%)	9 (3.7%)	41 (16.9%)

French-language respondents n=82	MH	MI	PH
Promotion	23 (28.0%)	6 (7.3%)	37 (45.1%)
Prevention or clinical preventive services	5 (6.1%)	4 (4.9%)	12 (14.6%)
Therapy, counselling, clinical public health practitioner	7 (8.5%)	4 (4.9%)	4 (4.9%)
Program planning and implementation	20 (24.4%)	8 (9.8%)	21 (25.6%)
Research/evaluation	11 (13.4%)	6 (7.3%)	23 (28.0%)
Knowledge sharing	17 (20.7%)	7 (8.5%)	26 (31.7%)
Mass media/communication	9 (11.0%)	3 (3.7%)	10 (12.2%)
Public health decision maker	1 (1.2%)	1 (1.2%)	6 (7.3%)
Consulting	4 (4.9%)	1 (1.2%)	7 (8.5%)
Epidemiology	3 (3.7%)	2 (2.4%)	5 (6.1%)
Policy/advocacy	4 (4.9%)	2 (2.4%)	10 (12.2%)
Surveillance	7 (8.5%)	5 (6.1%)	16 (19.5%)

APPENDIX 4

ENGLISH- AND FRENCH-LANGUAGE RESPONDENTS' PRACTICES

Question: Please indicate the populations that are the object of your public health/mental health activities		
Response	Fr n=57	En n=194
Early development (0-6)	21%	51%
Children and youth (7-14)	47%	47%
Adolescents and young adults (15-25)	60%	60%
Parents/caregivers/guardians	32%	64%
Elderly (over 65)	42%	30%
Indigenous health	12%	33%
Vulnerable groups, please specify...	44%	47%
Other, please specify...	46%	18%

Vulnerable groups that are the object of French-language respondents' activities: people with addictive behaviours, clientele of non-government organizations, people in Nunavik at risk for mental health concerns, women living with HIV, transsexual people, isolated individuals, disadvantaged families, single-parent and socio-economically vulnerable families, Francophones in minority situations, homeless people, individuals from Indigenous communities, female victims of violence, seniors, sex workers, people in various ethno-cultural groups, and adults of all ages.[a]

"Other" groups that are the object of French-language respondents' activities: military and civilian adults, the general population, men, employees, teenagers 14-18, people in various cultural communities, Francophones in minority situations, employees with CSSS (Health and Social Services Centres) (with *Entreprises en santé*), actors working with Indigenous communities, elected officials and entrepreneurs, and caregivers.

Vulnerable groups that are the object of English respondents' activities: Any clients identified as vulnerable per social determinants of health; those with HIV or Hep C, addictions clients, mental health clients, LGBT clients, drug users, troubled youth and youth in distress, low-income clients, men who have sex with men, prenatal/postpartum clients, Indigenous clients, teen parents, newcomers and refugees, persons of colour, at-risk families with children age 0-6, homeless clients, single parents, victims of family violence, isolated clients, parents in shelters, sex trade workers, injured or mentally ill workers, people in contact with the law, those living in poverty including rural poverty, and seniors.

"Other" groups that are the object of English respondents' activities: the entire community, public health professionals, policy actors, public health nurses, family visitors and social workers, working age adults, expecting parents, military personnel, workplace wellness promoters, undergraduate nursing students, local and regional government workers, those involved in: inter-agency collaborations, industry, business, NGO's, schools, hoarding issues, surveillance and research for youth in distress, and university students, faculty and staff.

[a] All responses given in "other" are shown as they were articulated in the survey (with minor adjustments).

Question: Please indicate the areas of intervention, linked to social determinants, that are the object of your public health/mental health activities		
Response	Fr n=58	En n=193
Living conditions and environment (housing, urbanization, recreation areas, work conditions, etc.)	50%	52%
Social isolation/exclusion	59%	58%
Community participation and cohesion	53%	54%
Resilience and empowerment	41%	64%
Stigmatization and discrimination	52%	53%
Health behaviours (physical activity, smoking, alcohol, etc.)	64%	77%
Chronic diseases/physical health	48%	51%
Infectious diseases	10%	26%
Public policies	38%	47%
Other, please specify...	10%	12%

"Other" areas of intervention mentioned by French-language respondents: nutrition, sexual health, cohabitation, resilience development, parenting skills, violence at school and in relationships, development of protective factors, and social and emotional skills.

"Other" areas of intervention mentioned by English-language respondents: alcohol and other drug abuse, active transportation - *Accessibility for Ontarians with Disabilities Act* (AODA), Canada Prenatal Nutrition Program (CPNP), healthy built environments, outdoor/indoor air quality, water quality, waste disposal, income, employment, food security, education, literacy, early childhood experiences, advocacy of culturally sensitive services, maternal child health and parenting, workplace policy, climate change adaptation, harm reduction work, institutional policy, stress, and early identification of mental illness.

Question: Please indicate the areas of intervention, linked to mental health (the field of mental health services or sectors), that are the object of your public health/mental health activities		
Response	Fr n=51	En n=178
Community-based mental health support and services	57%	50%
Suicide prevention	43%	40%
Substance abuse and addictions	33%	44%
Treatment and recovery services for mental health	26%	17%
Education campaigns/advocacy on mental health	49%	57%
Mental health policy	31%	33%
Other, please specify...	28%	24%

"Other" areas of intervention mentioned by French-language respondents: stress-management training, anger management, promotion of asking for help, resilience; support for Health and Social Services Centres (CSSS), policy and procedure drafting, mental health program in a CSSS; financing and monitoring of projects for improving mental health; healthy development of young people, surveillance of (physical and mental) health, production of useful data for decision making, promoting positive mental health, nutritional counselling, food safety, healthy lifestyles.

"Other" areas of intervention mentioned by English-language respondents: all of the above (in table); climate change mitigation option; the Healthy Babies Healthy Children program, supporting families at risk; housing, including mental health considerations in resource management decisions and processes; individual education and linking clients with supports to help mental well-being; not necessarily intervention but provision of infrastructure in order for *Accessibility for Ontarians with Disabilities Act* (AODA) and active transportation to be real choices in a community; school-based positive mental health; support for moms with premenstrual dysphoric disorder (PPMD); through work on determinants of health in vulnerable populations; advocacy for changes in income policy, housing, etc.; coping with mental health factors in daily life, parenting, relationships; health surveillance; healthy school communities; hoarding response activities; in-home services to families; integration of traditional health support and healing; managing our ACCESS project; mental health promotion, enhancement of parenting knowledge and skills; parenting resources that include mental health; perinatal depression screening and prevention intervention; positive mental health promotion; school-based mental wellness work through comprehensive school health approaches; supporting community partners to deliver mental health initiatives; workplace policy; access to restorative green space; enforcement of minimum public housing accommodation regulations and standards; public health policy; intersectoral collaborative upstream work; resilience and adaptation to climate change; collaboration with community partners; evidence-informed practice and decision making; supporting mothers with mental illnesses; prevention of eating disorders; indirectly through identifying individuals that may require additional referrals, as well as conducting joint inspections with mental health practitioners; surveillance; stressors of role transition to parenthood.

Question: If you have implemented activities on issues related to mental health, what was the primary impetus for these initiatives?

Response	Fr n=53	En n=181
Mandate from board of health	0%	13%
Provincial mental health/wellness/well-being strategy from the Ministry of Health (if existing)	26%	23%
National Mental Health Strategy from the Mental Health Commission of Canada	9%	11%
Request from local partner (school board, community organization, …)	32%	36%
Request from an external partner	11%	19%
Personal knowledge about mental health literature	28%	31%
Other, please specify...	26%	28%
Don't know	2%	3%
N/A	26%	18%

"Other" reasons given by French-language respondents: our work mandate has four areas of intervention: active lifestyle sports injury prevention, addiction prevention, nutritional well-being, social well-being; grant from an organization; guidelines from regional public health authority to develop mental health promotion; institutional health program launched by the University of Montréal, HEC, and Polytechnique; personal initiatives (experimentation with a new approach and wish to recreate a living environment in which the participants [includes clientele, employees, outside partners] recognize themselves in the management style and dispensing of clinical services); the organization's mission for the past 35 years; limited accessibility to physical activity programs adapted for all; part of our mandate, services for Francophones/Local Health Integration Network (LHIN); internal request, link with the QPHP [*Québec Public Health Program*], PAR [*Regional Action Plans*] and PAL [*Local Action Plans*]; community needs and requests.

"Other" reasons given by English-language respondents: as part of the Healthy Babies Healthy Children (HBHC) program funded by the provincial government; early years centres; general connection with preventing health effects of climate change; health disparity report and study of root causes of mental health problems; Ministry of Children and Youth - HBHC; support of land use secondary plans within our organizations, transportation master plans, trails use by cyclists and pedestrians - by request of public or as part of larger plans; they are part of the mandate for National Native Alcohol and Drug Abuse Program (NNADAP); "We have had a

mandate since 1996 but it has been very difficult to get a focussed attention on it. I have initiated several research projects and tried to promote the file in general because it is an area of great neglect in our region. I also respond to requests for data from some communities; client caseload in HBHC"; direction support from our mental health staff and senior leaders; educator role to provide orientation/staff development on promoting mental health/well being in their care of populations; internal need from other programs to increase capacity to build mental wellness into program and support individuals with MH problems; knowledge of systemic gaps that require attention; lived experience; local health data and need; mandate from Healthy Child Manitoba; Public Health Agency of Canada (PHAC) funding opportunity: population & public health scope; mental health was identified as a priority area by our healthy communities partnership; part of national mandate; research partner; staff passion to address this significant issue; Bill 14 (bullying in the workplace); National Standard of Canada for Psychological Health and Safety in the Workplace; youth concern about the issue; client request/interest; community-identified priority (as part of the Healthy Communities Partnership community picture process); collaboration and integration of programs and services between public health and mental health; access to a small fund to kick-start a project; health unit strategic priority is mental health; several ad hoc partnerships have evolved with: agencies working with hoarding, ICPACT (inner city police and crisis team) and other mental health workers; concern for mutual human-ecological health as a volunteer; see the link to chronic disease and our strategy needs to address this.

APPENDIX 5

EXAMPLES OF DOCUMENTS, APPROACHES, TRAINING AND RESOURCES USED BY RESPONDENTS

A) Guidance documents and approaches used by respondents[a]

Guidance documents and resources
• ACCESS Canada, a research network developed by TRAM - Transformational Research in Adolescent Mental Health Available online at: http://tramcan.ca/ • Addictions Foundation Manitoba (AFM) Available online at: http://afm.mb.ca/ • British Columbia (BC) - Mental Health resources • Canadian Mental Health Association (CMHA) Available online at: http://www.cmha.ca/ • Canadian Nurses Association (CNA) Available online at: https://www.cna-aiic.ca/ • Collaborative for Academic, Social and Emotional Learning (CASEL) Available online at: http://www.casel.org/ • Centre for Addiction and Mental Health (CAMH) Available online at: http://www.camh.ca/en/hospital/Pages/home.aspx • Centers for Disease Control and Prevention (CDC) Available online at: http://www.cdc.gov/ • Dieticians of Canada - Resources on Mental Health and Nutrition Available online at: http://www.dietitians.ca/Dietitians-Views/Health-Care-System/Mental-Health • Health Canada Available online at: http://www.hc-sc.gc.ca/index-eng.php • Health and social services agencies in Québec (which are now Integrated university health and social services centres (Centres intégrés universitaires de santé et de services sociaux- CIUSS) • Institute of HeartMath (researching heart intelligence and stress management) Available online at: http://www.heartmath.com/ • Institut national de santé publique du Québec (INSPQ) [Québec's Public Health Institute] - Documents, health profiles, and advisory Available online at: https://www.inspq.qc.ca/en • Local public health action plans (Québec) • Mental Health Commission of Canada (MHCC) - National framework, standards, guidelines; national programs and evaluation tools Available online at: http://www.mentalhealthcommission.ca/English • Mental Health Commission of Canada (MHCC) - Evergreen report - Evergreen: A Child and Youth Mental Health Framework for Canada Available online at: http://www.mentalhealthcommission.ca/English/node/1132 • Mental Health Commission of Canada (MHCC) - National Standard for Psychological Health and Safety in the Workplace Available online at: http://www.mentalhealthcommission.ca/English/issues/workplace/national-standard • National Collaborating Centre for Healthy Public Policy (NCCHPP) - Defining a Population Mental Health Framework for Public Health.

[a] The documents, resources, frameworks, approaches, and training are proposed as they were mentioned by respondents. We have taken the liberty of adding some links when specific organizations, plans, programs or resources were mentioned. These resources merely reflect the responses given by respondents, and are not a scan of the diverse available resources within these fields.

Available online at: http://www.ncchpp.ca/553/publications.ccnpps?id_article=1268

- National Collaborating Centres for Public Health (NCCPH)
  Available online at: http://www.nccph.ca/en/home.aspx
- Ontario Public Health Standards and Protocols (OPHS)
  Available online at:
  http://www.health.gov.on.ca/en/pro/programs/publichealth/oph_standards/ophsprotocols.aspx
- Ottawa Charter for Health Promotion
  Available online at: http://www.phac-aspc.gc.ca/ph-sp/docs/charter-chartre/index-eng.php
- Pan-Canadian Joint Consortium for School Health (JCMH) - Mental health promotion resources, toolkits and assessment rubric
  Available online at: http://www.jcsh-cces.ca/
- Perinatal Services BC (PSBC) - Newborn Nursing Care Pathway
  Available online at: http://www.perinatalservicesbc.ca/health-professionals/professional-resources/pathways-toolkits/newborn-nursing-care-pathway
- Provincial government strategic plans such as: the Ontario Ministry of Health and Long-Term Care's Open Minds, Healthy Minds
  Available online at:
  http://www.health.gov.on.ca/en/common/ministry/publications/reports/mental_health2011/mentalhealth.aspx
- Psychology Foundation of Canada
  Available online at: https://www.psychologyfoundation.org
- Public Health Agency of Canada (PHAC)
  Available online at: http://www.publichealth.gc.ca
- Public Health Agency of Canada (PHAC) - Canadian Best Practices Portal
  Available online at: http://cbpp-pcpe.phac-aspc.gc.ca/
- Public Health Ontario (PHO)
  Available online at: http://www.publichealthontario.ca/en/Pages/default.aspx
- Québec's Provincial Public Health Program
  Available online at:
  2003-2012 : http://publications.msss.gouv.qc.ca/msss/fichiers/2003/03-216-02A.pdf
  2015-2025 : http://publications.msss.gouv.qc.ca/msss/document-001565/ (in French only)
- Québec Network of Health Promoting Institutions
  Available online at: http://www.eps.santemontreal.qc.ca/en/
- Regional public health action plans (Québec)
- Registered Nurses' Association of Ontario (RNAO) - Nursing Best Practice Guidelines
  Available online at: http://rnao.ca/bpg
- Towards Flourishing research project
  Available online at: https://www.gov.mb.ca/healthychild/towardsflourishing/tf_overview.pdf

General frameworks and approaches

- Health behaviour change
- Community engagement and development
- Health impact assessment (HIA), health in all policies (HiAP).
- Social emotional learning frameworks & literature/research
- Program planning

B) Resources and training

i) Topics

- Clinical and preventive domains (screening/diagnosis and intervention)
- Mental health promotion
- General public health topics
- Mental health data and indicators

Screening and diagnosis
• Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5)
• Edinburgh postpartum depression screening tool (EPDS)
• Domestic violence assessment tools
• Distress screening tools (e.g., HADS (Hamilton depression and anxiety scale), BDI (Beck depression inventory), BSI (Beck suicide inventory)
• Screening and assessment tools
• Assessment/risk management for use in primary care
• Substance Abuse Subtle Screening Inventory (SASSI screening tool)
• The Global Appraisal of Individual Needs (GAIN screening)
Intervention
• Crisis management training
• Clinical tools
• Brief solution focus training/therapy
• “Watch, Wait and Wonder” training
• General change and stress management strategies
• Internal Perinatal Mood and Anxiety Disorder Workgroup
• Client handouts about PMD (Post partum mood disorder)
• Perinatal Mental Health Program clinic
• Physician Postpartum Mood Disorder Desk Reference
• Counselling strategies
• Fact sheets and checklists for staff to use with clients/families
• Motivational interviewing training, and goal setting
• Cognitive Behavioural Therapy (CBT), Dialectical Behavioural Therapy (DBT)
• SafeTALK (suicide prevention training)
• S4 program?[b]
• LivingWorks (suicide safer communities, Alberta)
• ASIST training (Applied Suicide Intervention Skills Training)
• Mental health fist aid training (MHCC)

[b] As no further details were given by respondents about this, we have hypothesized that perhaps this refers to the S4 in schools program in Alberta (Start Smart, Stay Safe): http://startsmartstaysafe.ca/s4-in-schools/

Mental health promotion
• Health promotion for mental well-being and resilience • Resiliency-based information & research • Positive Mental Health Toolkit • Positive mental health resources aimed at youth, students, teachers/staff, and families (school based and community mental health) • Training on mental health • Tools supporting maternal/paternal and infant mental health • Evidence-based practices for the prevention of suicide and the reduction of stigma • Social emotional learning frameworks • Knowledge on mental health for seniors • *Nursing Child Assessment Satellite Training* (NCAST) Promoting Maternal Mental Health; NCAST Parent-Child Interaction Scales • Joint consortium for school health (JCSH) positive mental health toolkit • Best start resources • HeartMath resources (HeartMath Institute) • Books about promotion/prevention • “Mindful bottles” (stress reduction in Ontario schools [Porcupine Health Unit])
General public health topics
• Public policy toolkits • Health evidence appraisal tools • Systematic reviews • Population-based strategies and best practices • Canadian healthy policy discussion papers • Meta analysis studies • Summary documents that summarize research findings • Tools and workshops based on "best practices" for policy analysis and advocacy • Tools which have assessed other programs/kits for effectiveness
Data and indicators
• Mental health surveillance by health administrative databases, • Mental health surveillance by population health surveys, Ontario • Mental Health Reporting System, • Relevant, timely surveillance data, • Disaggregated data (ethno-racial background, (dis)ability, gender, sexual orientation, gender identity, immigration & citizenship status, family status, etc.), analytical tools, indicators. • Data, databases, and report cards on indicators

ii) Knowledge-sharing formats

General research material	e-material	Brief & practical	In-person
• Newspapers, books • Scientific journals • Policy & general papers • Library & library staff • Literature reviews • Articles on social determinants of health • Reports, studies, surveys	• Webinars • Online modules and courses • Online mental health resources • Educational tools for the public including e-tools and digital signage • Mental health and wellness webinars • Social media	• Plain-language resources • Fact sheets • Updated information in different languages. • Audience-targeted and translated tools (i.e., appropriate for newcomers/diverse Indigenous communities, and other specific audiences) • Documents outlining best practices as well as key practical messages to share with intersectoral colleagues • Checklists on strategies to support child mental health and well-being	• Professional development/continuing education • Face-to-face presenters to provide knowledge sharing • Group presentations, 30 min in length • Workshops / • Public Health Ontario (PHO) workshops. • Meetings, Journées annuelles de santé publique (JASP) (annual public health conference in Québec)
Communities of practice and networks			
• Support groups • Teamwork and networking • Multidisciplinary teams and other health professionals • Collaboration with researchers and academics • Memorandum of understanding with institutional partners			

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