EHR, Vol. 68, Issue 4

Environmental public health and the *Core Competencies for Public Health in Canada: Release 2.0*: contribution and impact

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Background

The release of *Core Competencies for Public Health in Canada: Release 1.0* in 2008 (Public Health Agency of Canada, 2008) was a significant milestone in strengthening the environmental public health workforce nationwide. The core competencies served as a framework of essential skills, knowledge, and attitudes to guide public health practice, workforce development, policy development and integration, as well as education and training for public health professionals including environmental public health practitioners. In fact, the 2008 competency framework directly informed the design and content of the Canadian Institute of Public Health Inspectors (CIPHI, 2018), which created an important alignment between national workforce standards and professional certification requirements. The release of the 2025 *Core Competencies for Public Health in Canada: Release 2.0* (National Collaborating Centres for Public Health, 2025) is timely and essential for CIPHI and its members. Aligning with the new competencies in practice, education and training, and certification, Environmental Public Health Professionals (EPHPs) will develop greater clarity and a stronger role in the Canadian public health system. Release 2.0 can be a strategic roadmap for innovation and leadership for EPHPs.

In his 2014 commentary (de Burger, 2014), the late Ron de Burger called for reflection and renewal within the CIPHI. His leadership and belief that EPHPs are indispensable frontline protectors of population health remains as urgent today as it was over a decade ago. de Burger's call for collaboration and leadership is just as important today. We need strong partnerships across all sectors—government, academia, associations, public health organizations and practitioners—to solidify Environmental Public Health's position within Canada's overall public health systems. CIPHI, through its ongoing competency work and the commitment of the National Executive Council (NEC), the Board of Certification (BoC), and the Council of Professional Experience (CoPE), is ready to drive this unified, future-proof vision.

Process of engagement

From the start of the project to update the core competencies for public health, there was no doubt the collective voice of CIPHI and its members would be included. Public health inspectors were invited to all the virtual and in-person engagement sessions where the proposed competencies were shared (Haworth-Brockman et al., 2025). In addition, and in collaboration with the National Collaborating Centre for Environmental Health (NCCEH), a dedicated engagement session was held virtually on February 1, 2024. CIPHI members and others in the EPHP sector were invited. During the session, the project's intent and progress was shared and, crucially, input and feedback were sought from the audience. This feedback was vital for collectively assessing the core competencies—the essential knowledge, skills, and attitudes necessary for effective public health practice—as a discipline/profession.

The engagement session had a strong turnout, with 358 registrants, including many EPHPs and CIPHI members. One hundred and ninety people (about 55% of those who registered) attended the virtual session, and engagement was high with two-thirds of attendees taking part in the Slido polls during the session.

Dr. Claire Betker, Scientific Director and Lynda Tjaden, Project Manager, of the National Collaborating Centre for Determinants of Health (NCCDH), led the event. They presented the project's context and progress, framing the session as an opportunity for audience input and feedback. In addition to a live Question and Answer period, concurrent Slido polls were used to record participants' demographic and professional information and their responses to questions specific to the core competencies (Table 1).

Findings

Key findings from the Slido polls are depicted in Figures 1–5. Of the 126 participants who provided responses, most had been

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 DOI: 10.5864/d2025-019 Published on 10 December 2025

in their roles for 2–5 years (n = 44, 34.9%). The next largest groups were those in their role for more than 20 years (n = 17, 13.5%) and those in their role for 6–10 years (n = 14, 11%). Only 8 participants (6.3%) indicated they had been in their role for 16–20 years. Overall, the data (Figure 1) show a strong concentration of responses from those who are early in their EPHP role. This is an important note, as participants represents EPHPs who are beyond entry-level, and have an established understanding of their role. While they may not have the depth of experience of senior-level EPHPs, these individuals can have a desire for career growth.

In terms of geographical representation (Figure 2), of the 115 respondents most came from Ontario (n = 55, 47.8%), followed by British Columbia (n = 22, 19.1%) and Alberta (n = 16, 13.9%), contributing 80.8% of participants. Less than 20% of participants were from Manitoba (n = 3, 2.6%), New Brunswick (n = 2, 1.7%), Yukon (n = 3, 2.6%), Saskatchewan (n = 7, 6.1%), Quebec (n = 2, 1.7%), and Nova Scotia (n = 6, 5.2%). There were no participants from Newfoundland and Labrador, Northwest Territories, Nunavut, and Prince Edward Island.

As seen in Figure 3, most participants were Environmental Public Health Professionals. The remaining segments were represented by Other Roles (e.g., policy analyst/advisor; medical officer of health; public health physician; epidemiologist; public health nurse; researcher) and consultant/specialist.

Public health professionals tend to share a common set of values and attitudes that guide our decision making and actions. Clarifying values when developing competencies helps to state the purpose or why the knowledge and skills are essential to practice and policy. During the engagement sessions, a values clarification process was undertaken to answer the question: What values are essential to effective public health practice in Canada?

Participants in the webinar had the opportunity to indicate the top values that influence their work. They were asked to identify the top three values that they felt should underpin the work of public health. Additional exercises invited participants to rank values in response to the following two prompts: 1. Of the list of values, please identify the top 5 that resonate for you; 2. Of the list of values, please identify the 5 that you recommend be removed from this list. They ranked values found in the literature through a focused literature synthesis.

Figure 4 shows the frequency of participant response in the February 1, 2024, webinar. Due to the large number of individual responses, those with a frequency of 5 or less have been consolidated into an "Other" group. The values that were most frequently (N = 39) suggested by participants were Accountability and Health Equity. Health was the next highest (N = 34), followed by Competence (N = 26), Wellbeing (N = 26), and Transparency (N = 26). In contrast, the audience indicated their preference to remove the following values: Prudence (N = 49); Liberty (N = 4); non-maleficence (N = 28); Solidarity (N = 28); Utility (N = 25).

These results, combined with those from the other engagement sessions, affirmed that public health professionals in Canada share a common set of values. The values named most often included a commitment to health equity and social justice, respect, humility, accountability, transparency, cultural safety and evidence-informed approaches. These values were integrated into the update of the competency categories and statements in *Core Competencies for Public Health in Canada: Release 2.0*.

The categories and statements were revised several times over the course of the project. At the NCCEH hosted session, participants were presented with the then-current version and asked to the identify the categories of competencies that needed to be

Table 1: In-session Slido questions

Poll questions	Poll type
In which province or territory do you work?	Multiple Choice
Which population do you primarily work with?	Single choice
Which best describes the organization you work for at the system level?	Single choice
Which best described the type of organization that you work for?	Multiple choice
How many years have you worked in this area?	Single choice
Which best describes your role?	Multiple choice
From the list of values, please identify the Top 5 that resonate for you.	Ranking
Of the categories listed, pick the Top 3 that you want to ensure remain.	Ranking
From the list of values, please identify 5 that you recommend be removed from the list.	Ranking
Are there any categories missing?	Word cloud
What are anticipated barriers to using the core competencies? Please provide suggestions to address those barriers.	Word cloud
Identify the Top 3 values that you feel should underpin the work of public health.	Word cloud
How do you see core competencies supporting public health training and practice?	Word cloud
Write 1–2 competency statements.	Word cloud
What would you recommend we continue to include in these sessions?	Word cloud
What, if anything, would you suggest we do differently?	Word cloud
Anything else that you would like to share?	Word cloud

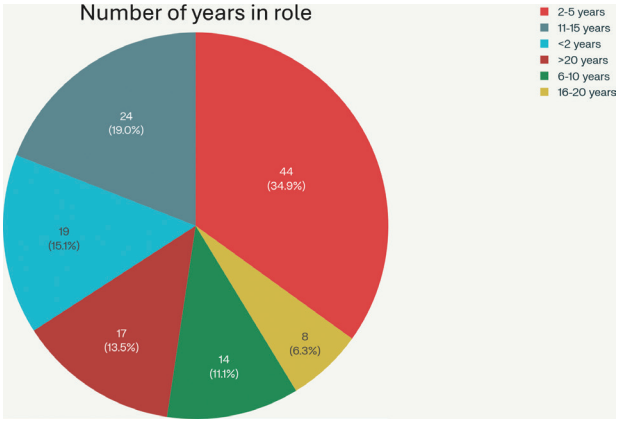

Figure 1: Number of years in role of Slido participants.

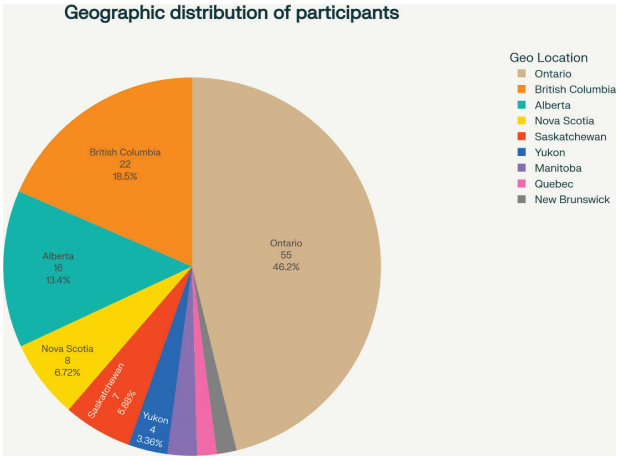

Figure 2: Geographic locations in Canada of Slido participants.

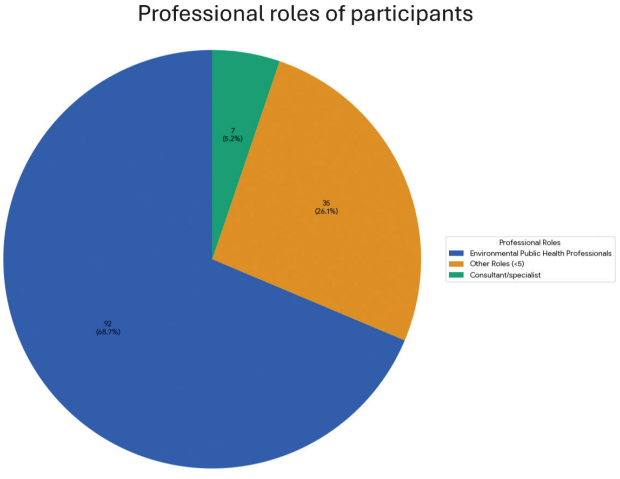

Figure 3: Professional roles of Slido participants.

retained for Release 2.0. The participants ranked the following three categories highest: Health equity and justice; Public health sciences; and Public health emergency preparedness and response (Figure 5).

As noted, the results from this engagement session were combined with those from the other engagement sessions, and each piece of feedback and input was considered. Over an 18-month period, there were 58 engagement sessions (in person and online) held with nearly 2,300 participants, representing diverse perspectives and roles across Canada. Targeted feedback from many groups was sought to ensure alignment with current public health needs and priorities. The consolidated set of core competency categories and statements incorporating all the insights gathered was validated through an online survey using a modified Delphi method (MacKay et al., 2025). The final document, the *Core Competencies for Public Health in Canada: Release 2.0,* consists of 64 core competency statements organized into 10 categories (Figure 6) and reflect the essential knowledge, skills and attitudes necessary for effective public health practice in Canada.

When asked about anticipated barriers to using the core competencies, 68 individual responses were gathered using a Slido word cloud. The most common themes were the challenges, barriers, and perceived issues related to the development, implementation, and practical application of professional core competencies in the context for EPHPs. Solutions suggested to address the challenges included:

Practical application and scope: A recurring theme was that the competencies are too broad, theoretical, and removed from daily work. Participants stated the statements are often "too 'big picture'" and use "too many big words, keep it simple." Participants suggested fine-tuning the competencies for environmental public health practice, citing that they are currently "difficult to evaluate," "unclear, too vague," and "too zoomed out." Respondents stressed the need for clear interpretation and practical application to EPHP work, suggesting the development of practice examples.

Resources, time, and funding: The second major challenge related directly to capacity and resources. Respondents repeatedly cited critical "financial constraints" and a pervasive "lack of funding." Resource constraints, both human and financial, could prevent effective implementation. Heavy "workload/priorities" and a chronic "lack of time" make prioritizing competency development alongside immediate job duties extremely difficult. The other engagement sessions also reflected this challenge.

Training and professional development: Respondents clearly underlined a gap between the updated competencies and the education and training opportunities to master them. They perceived a "lack of training programs to equip in specific competencies," cited significant "learning curve and training needs," and noted a "lack of training advocacy." Throughout the project, participants called for tailored opportunities for training and continuing professional development.

Organizational, political, and cultural barriers: Participants named organizational, political, and cultural obstacles to the use and implementation of the competencies. These obstacles are often rooted in leadership, structure, and professional attitudes. Respondents cited a "lack of leadership support" and limited "comprehension at leadership levels for implementation." More fundamental system issues were also evident, with respondents pointing out that "EPHPs are not a regulated profession" and expressing concerns about a resulting "lack of recognition in the health systems." These concerns highlight an urgent need to address the "lack of knowledge on how to apply those competencies."

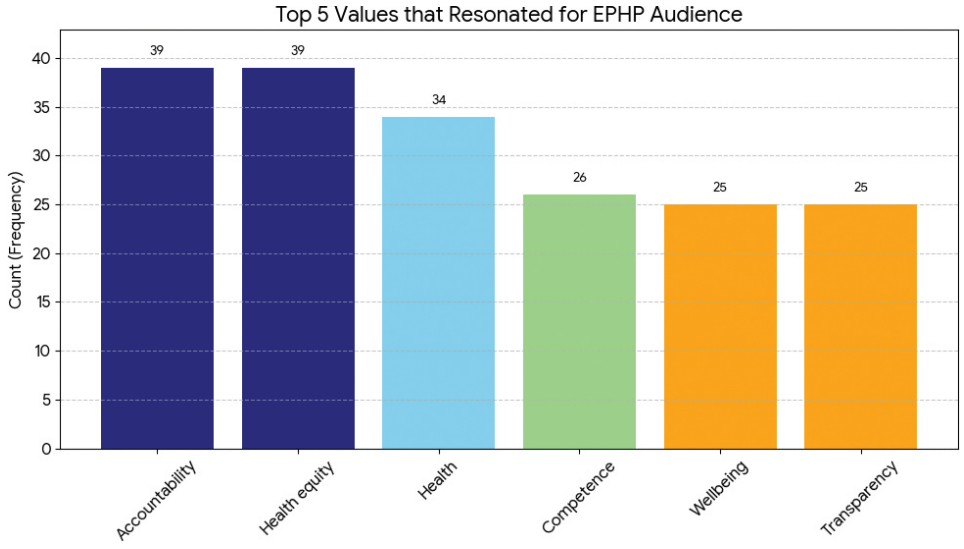

Figure 4: Top 5 values selected by Slido participants.

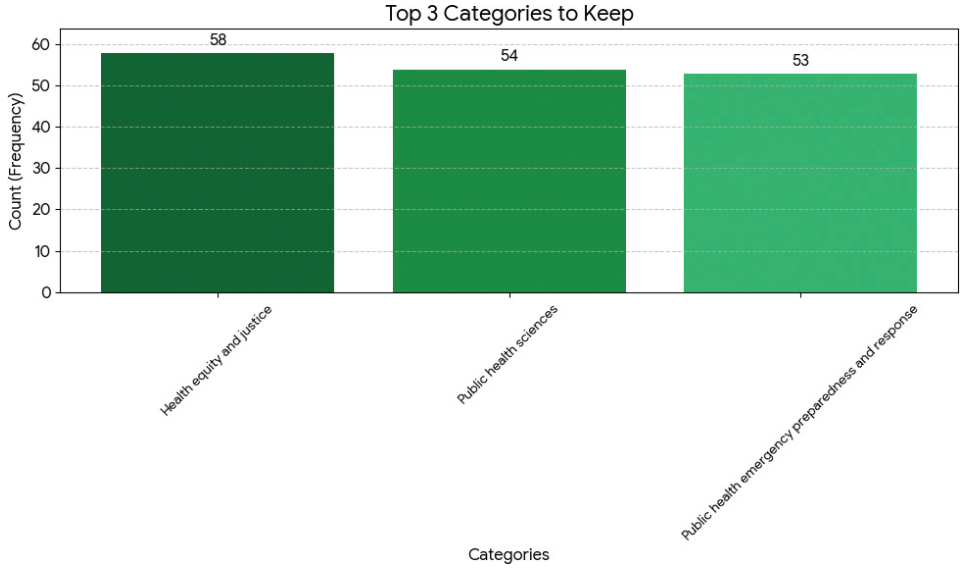

Figure 5: Top 3 categories of importance selected by Slido participants.

It is important to note that these sentiments were shared across the public health community as were the opportunities to pool educational and workforce-related materials and training.

Considerations

To update the *Core Competencies for Public Health in Canada*: *Release 2.0*, the National Collaborating Centres (NCCs) undertook an extensive multistage engagement process to obtain input and feedback from a broad and diverse range of perspectives, including public health practitioners, decision- and policymakers, educators, researchers, students, and health-influencing community organizations from every province and territory. The engagement session hosted by the NCCEH was critical to ensure that the voices of EHPH were heard.

Core competencies for public health provide a baseline for the workforce needed to fulfill the aims and essential functions of public health in Canada including health promotion. health surveillance, health protection, population health assessment, disease and injury prevention, and emergency preparedness and response. The common language and purpose of the core competencies will help to define and describe what is required to practice effectively in a complex public health environment involving different disciplines, sectors, and jurisdictions. The core competencies provide framework to assess and create the right mix of knowledge and skills in a team, program, or public health organization. Ensuring a competent and sufficient public health workforce in Canada is essential and it is a share responsibility.

Figure 6: *Core Competencies for Public Health in Canada: Release 2.0* competency categories.
Source: National Collaborating Centres for Public Health, & Public Health Agency of Canada. (2025). The Core Competencies for Public Health in Canada Release 2.0. National Collaborating Centres for Public Health.

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