

# Are Public Health Academia, Professional Certification, and Public Health Practice on the Same Page?

Allison Foster, MBA, CAE; Laura Rasar King, MPH, MCHES; Kaye Bender, PhD, RN, FAAN

In June 2000, Sommer and Akhter<sup>1</sup> penned an editorial “It’s Time We Became a Profession.” They described the need to align the public health profession with core competencies and values common to all public health professionals and outlined the vision of a task force assembled by the American Public Health Association and the Association of Schools of Public Health.<sup>1</sup> At the time, this idea seemed ambitious, given the multidisciplinary nature of a professional of public health. In 2013, Evashwick et al<sup>2</sup> argued in “Public Health as a Distinct Profession: Has It Arrived” that public health has now met the bar to be considered a distinct profession.

Remarkably, since that time accreditation and credentialing have become widely accepted in public health. The Council on Education for Public Health (CEPH), the accrediting body for schools and programs of public health, now accredits 186 schools and programs around the globe. The National Board of Public Health Examiners (NBPHE), the credentialing body for public health professionals, has certified more than 6000 individuals since its launch in 2008. The Public Health Accreditation Board (PHAB), the national accrediting body for public health departments, has accredited more than 200 state, local, and tribal health departments plus 1 centralized state integrated local public health department system since its incorporation in 2007.

Despite this progress, the myth persists that public health academia, professional certification, and public health practice operate on different planes, plan from varied and unconnected perspectives, and do not

communicate, much less collaborate, on important issues affecting the public health workforce.

## The Certified in Public Health Examination

Since 2008, the NBPHE has certified more than 6000 public health professionals. Its adoption has increased as employers have begun to use certified in public health (CPH) as a job qualification, and 10 CEPH-accredited schools and programs require all public health students to take the examination. The CPH examination is currently based on 13 domains: general principles; biostatistics; environmental health sciences; epidemiology; health policy and management; social and behavioral sciences; communications and informatics; diversity and culture; leadership; public health biology; professionalism; program planning; and systems thinking. The examination was originally developed to incorporate the 5 core public health knowledge areas specified in the CEPH accreditation criteria as well as the 8 crosscutting domains identified in a 2003 Institute of Medicine report.<sup>3</sup> The NBPHE board of directors, aware that credentialing best practice was to test on skills actually used in professional practice, not academic knowledge, commenced with a job task analysis in 2014. The job task analysis led to the development of a new CPH examination content outline which was published in 2016.

An advisory committee comprising public health professionals, mostly midlevel supervisor positions, was formed. After a thorough literature search, the advisory committee crafted a comprehensive survey instrument that asked respondents to rate how important 200 tasks were to their current jobs. The survey was subsequently distributed to individual public health professionals as well as to partner organizations. More than 8100 responses were received, with 4392 usable response sets from employed, non-students working in public health. The advisory committee reduced the number of tasks through a series of processes that included a review of open comments, removal of tasks that were not rated as important enough to keep in the content outline using mean

**Author Affiliation:** National Board of Public Health Examiners (NBPHE), Washington, District of Columbia (Ms Foster); Council on Education for Public Health (CEPH), Silver Spring, Maryland (Ms King); and Public Health Accreditation Board (PHAB), Alexandria, Virginia (Dr Bender).

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**Correspondence:** Allison Foster, MBA, CAE, National Board of Public Health Examiners (NBPHE), 1900 M Street NW, Suite 710, Washington, DC 20036 (afoster@nbphe.org).

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and reliability ratings, and consolidation of tasks that were very similar. The NBPHE then performed a factor analysis on the remainder of the tasks that presented several solutions; the NBPHE decided to use the 10-factor solution because it lent itself to reasonably sized domains. The domains and related tasks were shared with dozens of organizations in a series of presentations and webinars for input and feedback.

The final domains are evidence-based approaches to public health; communication; leadership; law and ethics; public health biology and human disease risk; collaboration and partnership; program planning and evaluation; program management; policy in public health; and health equity and social justice. In June 2017, the NBPHE published the new content outline and announced that it would be used on the CPH examination on January 1, 2019. In preparation, the NBPHE has mapped its current item bank to the new content outline to identify the tasks that do not have corresponding items. The NBPHE is currently undertaking the first of several rounds of item writing to fill in these gaps. Interestingly, the current item bank has items that correspond to 94% of the tasks in the new content outline. The gaps are somewhat isolated, and most item writing will be to build up the inventory of items for associated tasks. While the new content outline seems to be a radical change, much of the public health knowledge and skills tested on the current examination will carry over to the new content outline. The NBPHE is currently working with partner organizations and stakeholders to ensure that the public health community is aware of the change.<sup>4</sup>

### Accreditation of Academic Public Health Schools and Programs

The Council on Education for Public Health is recognized by the United States Department of Education as the accrediting body to evaluate the quality of public health degree programs in public health at the bachelor's, master's, and doctoral levels. Higher education accreditation works at the intersection of ensuring compliance with current standards and encouraging excellence through continuous quality improvement. For this reason, it is important that accrediting bodies remain abreast of current trends in the profession, the workforce, and in higher education, in general. The Council on Education for Public Health reviews its accreditation criteria on a regular basis—at least every 5 years to ensure that it examines these trends and makes appropriate changes.

The Welsh-Rose Report in 1915 shaped a framework for higher education in public health, emphasizing research rather than teaching and science rather than practice. It also emphasized the “hard”

sciences rather than social and political aspects of public health.<sup>5</sup> Although public health education and training has evolved over the years to a more balanced approach in each of these dichotomies, the basic philosophy related to and structure for the MPH degree has remained largely unchanged for about the last 40 years. Students pursuing the MPH degree have traditionally taken 5 core courses (epidemiology, biostatistics, environmental health, health services administration, and social and behavioral sciences) amounting to approximately 30% to 35% of their total curriculum. The remaining credits were concentrated in a specialized public health disciplinary area. The emphasis throughout the program of study was most often an increase in knowledge base on traditional public health areas generally, and the intended outcome was to create a specialist in 1 disciplinary area.

In 2014, CEPH began the regular revision process with a desire to be more responsive to the needs of public health practice and under the backdrop of the forward-looking work of several organizations and their efforts to define the necessary knowledge and skills for the future public health workforce, including the efforts of the NBPHE described earlier. One such effort, *Framing the Future*, convened by the Association of Schools and Programs of Public Health with broad participation from the academic and practice communities, led to a series of reports intended to focus on how to prepare public health graduates for success in a changing world and global marketplace.<sup>6</sup> The Council on Linkages Between Academia and Public Health Practice (COL) revised its Core Competencies for Public Health Professionals in 2014. The COL Core Competency model outlines a consensus set of skills for the broad practice of public health categorized by employment level—from frontline staff to senior management.<sup>7</sup> The Council on Education for Public Health observed early in its process that the results of these efforts were converging on a set of knowledge and skill areas and aimed to revise its criteria to reflect the “real-world” data gathered in these efforts. The overall goal was to ensure that higher education in public health was designed to prepare future graduates for the workforce awaiting them. The Council made a deliberate decision to emphasize skills and competencies, with specialized knowledge playing an underlying role.

The Council on Education for Public Health began the revision process in spring 2014 by seeking feedback from stakeholders through a variety of methods including a Web-based survey and meetings with representative professional associations. In addition, the Council released several drafts for public review and comment from February 2015 to September 2016. Feedback was robust and participation was

broad. The Council on Education for Public Health received approximately 850 individual comments from more than 50 individuals and institutions, spanning academia and practice. Commenters included public health faculty, employers, students, and alumni. The revised criteria were adopted in final form on October 7, 2016.

While there were many changes to the criteria for accreditation overall, the curriculum expectations represented the most sweeping change. The MPH degree changed from a framework highlighting 5 core knowledge areas, most typically implemented as 5 courses bearing those titles, to a framework highlighting 12 foundational knowledge areas in 2 domains (ie, the profession and science of public health and factors related to human health) and 22 foundational skills-based competencies in 8 domains (ie, evidence-based approaches to public health, public health and health care systems, planning and management to promote health, policy in public health, leadership, communication, interprofessional practice, and systems thinking). In addition, schools and programs must offer either deeper instruction resulting in more advanced mastery of these foundational competencies (often called a “generalist” public health degree) or a different concentration area within public health (eg, maternal and child health,

epidemiology, global health, health promotion). Through their programs, students are expected to have opportunities to demonstrate each of the foundational competencies and to integrate them in a way that produces tangible results in a practice setting.

For the first time, CEPH has also defined a curriculum for a DrPH degree. There are 20 DrPH foundational competencies in 4 domains (ie, data and analysis; leadership, management and governance; policy and programs; and education and workforce development) upon which a DrPH program must be based. The DrPH is also required to have concentration-specific competencies appropriate to the doctoral education.<sup>8</sup>

### Accreditation of State, Local, Tribal, and Territorial Health Departments

The Public Health Accreditation Board was incorporated in May 2007 to develop accreditation standards and a review process for governmental public health departments in the United States. Working with and through over 400 public health practitioners, academicians, and researchers, PHAB launched the first national public health department accreditation program in September 2011. Funded by the Centers for Disease Control and Prevention and the Robert Wood

**TABLE**  
**Alignment of Certification and Accreditation for Education and Practice**

NBPHE Certification Domains	CEPH Accreditation Criteria	PHAB Accreditation Domains
Evidence-based approaches to public health	Evidence-based approaches to public health	Contribute to and apply the evidence base of public health
Communication	Communication	Inform and educate about public health issues and functions
Leadership	Leadership	Maintain a competent public health workforce
Policy in public health	Policy in public health	Develop public health policies and plans
Law and ethics		Enforce public health laws
Public health biology and human disease risk		Investigate health problems and environmental public health hazards to protect the community
Collaboration and partnership		Engage with the community to identify and address health problems
Program planning and evaluation	Public health and health care systems	Promote strategies to improve access to health care
Program management	Planning and management to promote health	Evaluate and continuously improve processes, programs, and interventions
	Interprofessional practice	Maintain administrative and management capacity
	Systems thinking	Maintain capacity to engage the public health governing entity
Health equity and social justice		Conduct and disseminate assessments focused on population health status and health issues facing the community

Abbreviations: CEPH, Council on Education for Public Health; NBPHE, National Board of Public Health Examiners; PHAB, Public Health Accreditation Board.

Johnson Foundation, PHAB decided early in the process to develop a voluntary national accreditation program that was reflective of public health practice, as well as some “stretch” goals aimed at transforming governmental public health for the future. The Public Health Accreditation Board also valued that the accreditation program be “owned” by public health practitioners so that accreditation would be viewed as a credible peer-review process fostering quality improvement.<sup>9</sup>

The Public Health Accreditation Board chose as its organizing framework the 10 essential public health services. This framework built on the 3 core functions of public health (assessment, policy development, and assurance) in the 1988 Institute of Medicine report “The Future of Public Health.”<sup>10</sup> In the 1990s when the first conversations about health care reform were occurring, a “core functions of public health steering committee” was convened to address a more detailed description of public health. The committee produced a statement called “public health in America,”<sup>11</sup> which included a vision and mission for public health; a context of what public health should be prepared to do; and how public health services are typically delivered. Since this framework was well received and understood by the field, PHAB chose to use it as a starting point for accreditation. The essential public health services are monitor health status; diagnose and investigate; inform, educate, and empower; mobilize community partnerships; develop policies and plans; enforce laws and regulations; link people to needed services/assure care; assure a competent workforce; evaluate health services; and research.

The Public Health Accreditation Board’s domains for accreditation, based on the 10 essential public health services, are to conduct and disseminate assessments focused on population health status and health issues facing the community; investigate health problems and environmental public health hazards to protect the community; inform and educate about public health issues and functions; engage with the community to identify and address health problems; develop public health policies and plans; enforce public health laws; promote strategies to improve access to health care; maintain a competent public health workforce; evaluate and continuously improve processes, programs, and interventions; contribute to and apply the evidence base of public health; maintain administrative and management capacity; and maintain capacity to engage the public health governing entity (Table).

## Summary

Each of these organizations used a unique knowledge or competency base to guide their accreditation or credentialing process. While the underlying basis was much the same, there were apparent differences. Furthermore, CEPH and NBPHE had long heard from public health employers that there was a need to train public health students differently to address the challenges of contemporary public health practice. And PHAB has worked to develop performance standards for health departments that both reflect current practice and transformation. Over the past few years, CEPH, NBPHE, and PHAB have embarked on processes to update and improve their standards. While the works were informed by each other to some extent, each followed a separate and unique process. The fact that there is so much similarity speaks to the convergence of the relationship between academic public health and public health practice.

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