

Development of core public health competencies for Ethiopia

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Abstract

Introduction: Acknowledging the global consensus that current public health training is not preparing health professionals to solve the challenges of the 21st century, the Ethiopian Public Health Association established a taskforce to review global trends and come up with recommendations. The taskforce affirmed that the world is decisively shifting to competency-based education and, as a critical first step, defined core competencies for professional public health education in Ethiopia. In this paper, we describe the process and outcomes of the development of core public health competencies for Ethiopia.

Methods (Development process): The competency development process followed a systematic approach: review and adaptation of global competency frameworks, empirical study and national stakeholder consultative workshop. Initially, the taskforce reviewed the American, Canadian and European public health competency frameworks. Through a series of deliberations, the taskforce identified competency domains and subsequently constituent competency statements. Throughout the process, the taskforce sought to ensure that the domains and competencies are relevant to Ethiopia's public health context, the competencies emphasize achievement of higher order learning, and the competency statements are stated using action verbs. Secondly, a practice analysis study was conducted with public health specialists to validate the draft core competencies and identify education and practice gaps. A qualitative study was also conducted with public health leaders to gain deeper insights about priorities and gaps in public health education and practice. This was followed by a national stakeholders' consultative workshop to review the draft core competencies. Finally, the taskforce critically reviewed the suggestions from workshop participants and finalized the list of competencies.

Results: The Ethiopian public health core competencies are organized into nine domains: values and ethics; assessment and analysis; policy and program; leadership and systems thinking; communication skills; cultural competency; community engagement and empowerment; collaboration and partnership; and education and training. Each domain consists of varying numbers of specific competency statements. The taskforce formulated 87 core public health competencies for undergraduate education in any health profession, 119 for Master of Science in Public Health (MSPH), 104 for Master of Public Health (MPH), 118 for Doctor of Philosophy (PhD) in Public Health, and 117 for Doctor of Public Health (DrPH).

Conclusions: The core public health competencies are expected to stimulate re-design of curricula and standardize graduate outcomes for the different levels of health training. [*Ethiop. J. Health Dev.* 2020; 34(Special issue 1):11-15]

Key words: Public health core competencies, competency development process, Ethiopia

Introduction

There has been a growing concern globally that current education systems do not adequately prepare public health professionals to solve the complex health challenges of the 21st century, as they have not evolved with the rapidly changing demography, disease epidemiology and health systems (1). Hence, health professionals with new competencies are needed to serve the needs of society and address the new epidemiological and demographic challenges. This requires defining core competencies that are appropriate to local conditions by drawing on global resources (2).

Several initiatives have been launched to specify essential competencies for health professions (3-6). There have also been initiatives to redefine core competencies for health sciences education in different countries. To mention some, USA, Canada and Britain reviewed the core competencies for physician training and the International Confederation of Midwives defined core competencies for midwifery education (7,8). In the public health space, core competencies for

public health professionals have been developed by US, Canadian, European, English and Australian public health associations (9-14). For example, the Harvard School of Public Health redesigned its Master of Public Health (MPH), Master of Science (MS), Doctor of Public Health (DrPH) and Doctor of Philosophy (PhD) programs based on the recommendations of the 2010 *Lancet* report (15).

The Government of Ethiopia developed a Health Sector Transformation Plan as part of its 20-year strategy to achieve its vision of universal health coverage through strengthening primary health care. The realization of this transformational public health vision demands a stronger public health capacity and firmer commitment to the values of public health. Undoubtedly, this requires transformation in the capacity and capability of the public health workforce, which in turn requires a fundamental shift in the education of public health professionals. However, there are major deficiencies in Ethiopia's higher education, including public health education (16-20).

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Appreciating the importance of the issue, at its 2014 annual conference, the Ethiopian Public Health Association organized a panel discussion on “Meeting public health needs of the 21st century: drawing on global experiences and increasing relevance of training of health professionals”. Subsequently, the EPHA established a taskforce to transform professional public health education in Ethiopia. Recognizing the decisive shift to competency-based education in health professionals’ education in general and public health education globally, the taskforce embarked on developing core public health competencies for Ethiopia. The taskforce decided to develop the competencies not only for public health professionals – individuals whose main job is public health – but also for health professionals, as they have a partial public health role on top of the clinical services they provide. Core public health competencies are the essential knowledge, skills and attitudes necessary for effective public health practice, including policy and strategy development and implementation, leadership and partnership, population health assessment and surveillance, disease and injury prevention, health promotion, and health protection (11,14).

Core competencies have been used to reform curricula for health professionals’ education in recent decades (20-22). Clearly defined and agreed upon core public health competencies can provide a national blueprint to assess the knowledge, skills and attitudes of the public health workforce, design or re-design public health education and training programs, and standardize graduate outcome competencies across different education institutions. Thus, Ethiopian public health competencies will be useful for schools of public health, the Ministry of Health and other public health organizations, accreditation bodies, licensing examination agencies and even individual public health practitioners (9, 20).

This paper reports the process and outcomes of the development of core public health competencies for Ethiopia, across the continuum of undergraduate medical or health professionals’ education (MD or baccalaureate degree in any health profession), second degrees in public health (Master of Public Health and Master of Science in Public Health), and terminal degrees in public health (Doctor of Public Health and Doctor of Philosophy).

Core competency development process and outcomes

Literature search to identify global public health competencies: To define the core competencies, we needed to review the scope of practice documents to learn what is expected of graduates in their roles as public health professionals, the curricula to find out what public health competencies were taught and global public health competency documents (the Council on Linkages between Academia and Public Health Practice (USA), Public Health Agency of Canada, and Association of Schools of Public Health in the European Region (ASPHER)) to gain insight into international experience and adapt core competencies for the local context.

The curricula review showed there was no nationally agreed upon core competencies for public health to guide expected outcomes of pre-service education at different levels of public health education. The draft scope of practice directive for health professionals did not cover public health activities adequately and consistently. In the global competency documents, the US and Canadian public health competency frameworks are similar. However, the European public core competencies are organized differently, despite overlaps in specific competency statements. The Council on Linkages between Academia and Public Health Practice in the USA defined eight public health competency domains, reflecting skill areas within public health (9). The domains are analytical/assessment skills; policy development/program planning skills; communication skills; cultural competency skills; community dimensions of practice skills; public health sciences skills; financial planning and management skills; and leadership and systems thinking skills. The Public Health Agency of Canada identified seven competency domains, namely: public health sciences; assessment and analysis; policy and program planning implementation and evaluation; partnerships, collaboration and advocacy; diversity and inclusiveness; communication; and leadership (23). The Association of Schools of Public Health in the European Region (ASPHER), on the other hand, organized public health competencies in six chapters and sub-divided each chapter into intellectual and practical competencies. The chapters cover methods in public health; population health and its social and economic determinants; population health and its material-physical, radiological, chemical, and biological-environmental determinants; health policy, economics, organizational theory and management; health promotion: health education, health protection and disease prevention; and ethics (24).

Adaptation of global public health competency frameworks for local needs: We reviewed public health core competency frameworks from the USA, Canada and Europe, and undertook a series of deliberations considering the local public health context, history and priorities. This was the most important step in the process and took most of the time in the development process. Decisions were made by consensus, and majority rule applied if differences could not be resolved after discussion. This activity generated 11 public health competency domains, namely: analysis and assessment; policy and program planning; communication skills; cultural competence; community dimensions of practice; public health sciences; financial management; leadership and systems thinking; teamwork, collaboration and partnership; public health values and principles; and education and training. The taskforce then populated the list of specific core competencies under each domain by adopting, adapting and composing competency statements. The key considerations were that the competency outcomes should be relevant for public health practice in Ethiopia; the competencies should emphasize achievement of higher order learning; and the competency statements should be

stated using action verbs. Recognizing that all health professionals have a partial public health role to fulfil, that there is a need to develop academic, practice and research leaders in public health, and that the MSPH and PhD are primarily academic and research degrees, while the MPH and DrPH are professional degrees, the taskforce drafted five sets of public health core competencies for the different levels and types of public health training: undergraduate medical or health profession education, Master of Public Health, Master of Science in Public Health, Doctor of Public Health, and Doctor of Philosophy in Public Health.

Study to solicit empirical data on draft public health competencies: The taskforce wanted to confirm the relevance of the draft public health competencies to the Ethiopian context and substantiate the presumed gaps in public health practice and education with empirical data. Although the initial plan was to obtain a broad range of perspectives from students and practitioners from the five qualifications (undergraduate degree in any health occupation, MPH, MSPH, DrPH and PhD), we succeeded only in conducting a practice analysis study with public health specialists (master's degree holders) and a qualitative study with senior public health leaders from academia and practice. Both studies affirmed not only the relevance of the draft public health core competencies but also the substantial gaps in mastering them. After completing the studies, the taskforce members convened to discuss the implications of the results and refined the draft competencies. The findings reinforced the relevance of the competency lists and helped to elaborate competencies that had serious performance gaps.

Validation with key stakeholders: A national stakeholders' consultation workshop was organized to further validate the draft core competencies. Over 50 participants, the majority from schools of public health and public health program implementers and funders, took part in the workshop. The Ministry of Health and health professional associations, mainly the Ethiopian Public Health Association, were among the key participants. The workshop had three sessions.

In the first session, the taskforce members presented the rationale for transforming public health education in Ethiopia and the process followed in developing the draft core competencies. This was followed by an open discussion to receive general comments from workshop participants. Among other things, participants noted the growing complexity and multi-sectorality of public health and the challenges in equipping public health professionals with all the required competencies. Participants highlighted how the low performance of students in public health sciences in the pilot national licensing examination reflects the weaknesses of public health education in undergraduate curricula of health professionals.

In session two, participants were divided into smaller groups to review the draft core competencies. Each group was tasked to primarily review two to three competency domains, depending on their expertise and

breadth of the activity, but were also welcomed to provide additional feedback on the entire document. A member of the taskforce sat with each group as they discussed the draft competencies. All groups critiqued the draft competency document thoroughly, including rephrasing, merging, and proposing for addition and deletion domains of competency and competency statements.

In session three, apart from the written feedback, the working groups presented the changes they proposed for discussion, which allowed the plenary to debate contentious issues. The following points were forwarded for consideration, among other things: to distinguish the roles of MPH from MSPH trainees and DrPH from PhD trainees; to have flexible education pathways (MPH to PhD or DrPH; and MSPH to PhD or DrPH); and to include education and training competencies as one competency domains for postgraduates.

Finalization of core public health competencies for Ethiopia: The taskforce read through, reflected upon and discussed the reviews and comments gathered from the national stakeholders' consultative workshop. The majority of the recommendations were accepted and thorough editing and proofreading for clarity and redundancy was made before the document was finalized.

The final list included nine public health competency domains: values and ethics; assessment and analysis; policy and program; leadership and systems thinking; communication; cultural competency; community engagement and empowerment; collaboration and partnership; and education and training. The taskforce decided to eliminate the public health sciences domain as it was redundant with other domains. Financial planning and management were subsumed under the policy and program category. Each competency domain consisted of several specific competency statements. The total number of public health core competencies were: 87 for undergraduate education in any health profession; 119 for Master of Science in Public Health (MSPH); 104 for Master of Public Health (MPH); 119 for Doctor of Philosophy (PhD) in Public Health; and 119 for Doctor of Public Health (DrPH) (see Tables 1, 2 and 3).

Discussion

This is the first attempt to develop core public health competencies for Ethiopia. We recommend re-designing Ethiopian public health curricula based on the identified core competencies. These core competencies can also serve as a basis for developing core public health competencies for Africa.

The competency development process was an expert panel effort with calls for input from public health practitioners, policy stakeholders, academicians and programmers. More than 400 individuals contributed to the development of the final core competency document, either through participating in the study or final consultative workshop.

The limitations and constraints associated with one expert panel and the process of selecting competencies are well recognized. A single expert panel was engaged to identify the list of competencies. A structured systematic approach, such as the Delphi process, with several taskforces of various disciplines, was not employed to refine the draft competency lists (24).

However, apart from expert group work, our approach involved practice analysis, a qualitative study and validation workshop with stakeholders which would compensate for the multiple task force groups, and the Delphi process, which was used in other competency development approaches.

A body of literature has reported on the movement for the need for greater accountability in both undergraduate and graduate education, the transition to increased transparency and clarity in learning expectations, and enhanced practice-based public health graduate programs. Many in public health practice and academia have recommended that schools of health professions put greater emphasis on measurable, competency-based training that coincides with the rise of outcomes-based higher education (24). The education of health professionals in Ethiopia has slowly moved to competency-oriented education in the last few years. More recently, Ministry of Education has promoted modularization of all higher education programs, which is consistent with the principles of outcomes-based and learner-centered education (16). The core public health competencies for Ethiopia can serve as a resource for enhancing the quality and accountability of public health education and training.

Competency development is an ongoing process, and the competencies will have to be regularly updated. Competency sets usually have a maximum of a 5-year life span, and it will soon be time to revise the list and initiate new initiatives for further refinement and update in line with new thinking and emerging public health challenges (24).

Conclusions

The newly defined core competencies are expected to serve in standardizing public health training in the country. Defining the core competencies is just the first step to ensuring outcomes-based public health education. Moving forward, the competency documents should be made available to the users, particularly public health schools to review existing curricula. While developing or reviewing the curricula, core competencies should be integrated to address the needs of 21st-century public health practice. Teaching methods, learning activities, training setting and assessment methods must be aligned with the learning outcomes. Faculties in public health institutions should be supported to be able to implement the new curricula. Accordingly, a series of faculty development workshops should be planned. In addition, a strong monitoring and evaluation system to assess execution and outcome of the curricula should be put in place.

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