Round Table Discussion

A Bangladeshi approach

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The base paper by Petrakova and Sadana is a thought-provoking call for innovation and action in public health education. The approach used by the BRAC University James P Grant School of Public Health (BSPH) in Bangladesh addresses many of these issues.

To be relevant to the needs of society, we envision our graduates to:

- be committed to the health needs of the global South;
- be equipped to deal with problems faced by disadvantaged sections of the society;
- be aware of the interplay and importance of factors such as poverty, education, women's status, environment and power relations within and beyond family, as they affect health and health care;
- appreciate that health is "not merely the absence of disease, but a state of complete physical, mental and social well being";
- be life-long, problem-based learners and critical interdisciplinary thinkers;
- be promoters and practitioners of both the science and art of public health; and
- be future leaders in public health practice, research and teaching.

Set up in 2005, two batches of 51 participants from more than 12 countries have now graduated from BRAC through its master of public health (MPH) programme, all of whom are now back in their own countries and have taken up responsibilities in government, donor agencies, media and nongovernmental organizations (NGOs). Some have started doctoral-level studies.

Research

We are building research capacity in the BRAC school. We have initiated collaborative research with other existing research groups in the country, such as BRAC's Research and Evaluation Division and the International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR). From the research carried out at the school the students learn issues and challenges in global health. The students choose a topic from among the many health interventions being implemented in Bangladesh for their final end-of-the course thesis.

Training

Starting with a small nucleus recruited from within the BRAC organization, the faculty is now growing through recruiting from among the school's own graduates. With the school becoming known, there is also some interest among non-resident Bangladeshis to return. To overcome staff shortage and to bring diversity, we have adjunct faculty from partner institutions who also train our faculty in good teaching practices.

Curriculum development is an ongoing process and we constantly review it for further improvement and relevance.

The BRAC school promotes a field- and problem-based experiential learning approach. Village exposure is the foundation of the programme. The students spend half of their 12 months in a village campus allowing continuous interactions with villagers as well as the local health systems. International students are paired with their local counterparts to overcome the language barrier.

Practice

Discovering and providing knowledge is meaningless unless it is put into practice to protect and save people from unnecessary disease burden. For this to happen, a close interaction with policy-makers and implementers of interventions is necessary. The school links with NGOs, government and international organizations, as they recruit many of the graduates who find a ready constituency to practice what they have learned. ■

Solving problems

Barry R Bloom[b]

Public health schools are critical to the development of knowledge and information about the health of populations and countries. As the economist Dean Jamison stated: "Knowledge about disease prevention, good surveillance for infectious diseases, the lessons from intervention research, sharing of health data, and the development of new products such as vaccines – all are public goods." In terms of providing new knowledge in public health and compelling evidence to affect policy in meaningful ways, schools of public health should, in my view, seek to contribute in each of four areas:

- research: defined as the generation of new knowledge and providing scientific evidence for decision-making at the individual or societal levels;
- training: not only of doctoral and master's degree students, practitioners and researchers, but of political leaders and public officials at national and local levels;
- communication: providing skills to inform leaders, the media and the public about health risks and prevention and health promotion best practices;
- practice: as an integral component of training; taking knowledge from the laboratory and population research into communities that inform about cultural contexts, disparities, needs and barriers, to have a real impact on the public's health.

A dilemma faced by all schools of public health is the balance between our responsibility to create new knowledge and transmit that knowledge to a future generation, and the need to apply existing knowledge to improve the health of populations now. In the United States of America (USA), we struggle

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to define what it is that students should know, from broad disciplines like epidemiology, biostatistics and health management, to new categories of competencies, such as informatics, communications, cultural competency, global health, policy and law, and ethics.[1]

My view is simpler: it is that in contrast to most graduate or postgraduate programmes organized around disciplines, professions, skills or sectors, our overarching aim in public health is to train our students to solve problems affecting the public's health. Our vision at Harvard is to encompass a continuum of scientific disciplines and programmes, from fundamental science to application locally and globally, in order to address most effectively the big problems in public health. To do so, we place great emphasis on multidisciplinary and interdepartmental approaches to problems and education. Education should not stop with satisfying the disciplinary or credentialing requirements. BRAC has brilliantly immersed the students directly in the health problems in villages. We are revising our curriculum to include, in addition to a practicum experience in the community, more case-based learning and analytical thinking. In both schools, the aim is to provide our students with the best skills in solving problems in public health.

What is the knowledge that is important? I believe there are three kinds: "public knowledge" accessible to everyone, as in published scientific literature; "contextual knowledge", namely how to apply public knowledge in a particular place or health context; and "tacit knowledge", the knowledge that cannot be taught but is learned by example, that breaks down barriers of culture or training, and is transformational in the lives of people.[2] These are the great challenges, as I see them, in public health education. ■

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Producing a capable workforce

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Public health education must be viewed in the context of globalization and practical plans applied to the current situation. Disease knows no border; the developed and developing worlds are united by one scourge – the shortage of a public health workforce. Therefore the issue is not about whether the emphasis should be about the art or science of the discipline, but about public health schools producing a workforce that is capable of protecting the public's health.

The capacity of public health schools differs vastly, both inter- and intracountry. The argument could be: who determines quality? Clearly, a core curriculum which includes strong leadership training is a useful base from which the different strands of public health can be launched. However, the burden of disease and health of the population within each region and country will influence the emphasis in each focus area. Private, public, academic and other institutions that could contribute to the improvement of public health should collaborate. This innovative approach is being encouraged in public health schools as best practice for community engagement. There is evidence that such practice is beneficial to the community, trainees and the public sector.[1]

Public health as a discipline requires broadening and should include non-medical disciplines that could contribute to, and thus enrich, the workforce. The health sector can no longer manage and deliver public health without contributions from these other sectors. The type and quantity of the public health workforce is rarely mapped, therefore graduates could be mismatched and may not meet the population's health requirements. The Essential National Health Research model established by the Commission on Health Research for Development,[2] currently used in 60 countries, can be expanded to map health needs against human resources for health supply.

In Africa, the AfriHealth project has endeavoured to map the capacity of institutions offering public health education and training. Regrettably, South–South collaboration, which could help to establish a robust sandwich programme using inter- and intracountry expertise, is uncommon.

The use of technology needs to be exploited to address ways of meeting the needs of a modern world in a resource-poor setting. The Knowledge Management for Public Health (KM4PH) project of the WHO should be considered and analysed as to whether it can benefit public health alumni in rural settings in developing countries.

Supportive links with alumni and purposeful mentorship graduate programmes should be established. These are known to be powerful tools for networking, and for retaining and informing the workforce post-training. ■

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The challenges of scaling-up

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Petrakova and Sadana make an important distinction between the science and the art of public health, where the art is concerned with application. However, while it is correct to say there is still much to be learned about how to deliver public health interventions, there is a growing body of research on health systems and policies that helps to guide the delivery of preventive and curative services at different

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