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Building the Evidence Base: Networking Innovative Socially Accountable Medical Education Programs

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ABSTRACT

Introduction: To date, traditional biomedical hospital-centered models of medical education have not produced physicians in quantities or with the competencies and commitment needed to meet health needs in poor communities worldwide. The Global Health Education Consortium conducted an initial assessment of selected medical education programs/schools established specifically to meet these needs. The goals of this assessment are to determine whether there is a need for and interest in collaborating and developing a common framework of core principles and evaluation standards to measure the impact of the programs on access to care and on health status in the communities they serve.

Methods: A literature review of 290 articles was conducted focusing on standards, tools and multi-institutional evaluation efforts of socially accountable medical education programs designed to increase the number of doctors in underserved communities. Site visits, which included semi-structured interviews with deans, faculty and students, were carried out at eight schools on five continents, whose core mission is self-described as training to meet the needs of the underserved. Preliminary findings form the framework around which a rigorous outcome and impact evaluation tool will be developed by participating schools.

Findings: No systematic international evaluation of socially accountable medical schools was found and current tools to measure the social responsiveness of programs need more rigor. All target schools identified a need to develop common evaluation and



collaborative frameworks. Preliminary findings suggest that these schools, although operating in different contexts and employing somewhat different strategies, share common principles and a core mission to serve marginalized communities.

Conclusion: There is a clear need for a common rigorous evaluation tool for socially accountable medical education, particularly for schools created to address the shortage of doctors in neglected areas. While it will be difficult to determine the impact of socially accountable medical education on health outcomes, target schools agreed to collaborate and develop a common evaluation framework to strengthen the evidence base on how to train doctors to meet health needs in underserved area.

Keywords: Medical education, innovative medical schools, post-Flexner, human resources in health, scaling-up, innovation, network, collaboration, community-based education, public health and medicine, socially accountable medical schools

Introduction

Since the 1978 Alma Ata Declaration committing to “Health Care for All by the Year 2000”, the role and social responsibility of medical education in pursuit of this goal has been discussed. Scattered reform efforts followed, some prompted by The World Federation for Medical Education’s 1988 Edinburgh Declaration on reorienting medical education towards the goal of health for all, as well as the work of the World Health Organization (WHO) and others on social accountability of medical schools (Woollard, 2006).

Despite these efforts, health disparities among and within countries continue to increase. Most medical schools, not least those operating in countries with the greatest health needs, do not produce enough doctors with the knowledge, skills or commitment needed to serve the health needs of poor communities. Traditional medical education in high- and low-income countries alike continues to emphasize a biomedical disease-oriented model that alone does not fully address today’s public health need, and often lacks firm social mandates (WHO, 2006; Chen *et al.*, 2004, Woollard, 2006; Boelen, 2002).

Project Description

A number of innovative medical education programs, building on social accountability principles, have been established to address the shortage of doctors for rural, isolated and poor communities. In 2007, the Global Health Education Consortium (GHEC) received funding from The Atlantic Philanthropies to facilitate the development of a network of socially accountable medical schools whose express mandate is to train physicians for addressing health needs in resource-constrained settings. We are undertaking a three-part project in response to the paucity of evidence on effective ways to train and deploy doctors in neglected communities. This article describes the findings of the first phase, which is to determine whether there is a need for and interest in collaborating and developing a common framework of core principles and evaluation standards to systematically measure the impact of the programs on access to care and health status in the communities they serve. A joint evaluation tool will be developed during phase II. Phase III, from 2009 to 2011, foresees development of a knowledge base, including available global evidence on socially accountable medical education, as well as testing of the common evaluation tool. Through the three phases, a priority research agenda, evaluation standards and indicators will be jointly developed by participating schools with input from external experts. Other collaborative learning and research activities are also foreseen.



Methods

GHEC identified eight medical education programs of varying sizes and operating in high- and low-income countries, whose self-described mission is to train doctors for service in underserved areas. These schools are: the Latin American School of Medicine in Cuba (ELAM); the Comprehensive Community Physician Training Program in Venezuela (CCPTP); the Northern Ontario School of Medicine in Canada (NOSM); the Faculty of Health Sciences at Walter Sisulu University in South Africa (WSU); Flinders University School of Medicine (FLINDERS) and James Cook Faculty of Medicine, Health and Molecular Sciences (JCU) in Australia; and Ateneo de Zamboanga University School of Medicine (ADZU) and the University of Philippines School of Health Sciences (SHS) in the Philippines.

In phase I, to determine whether there is a need for and interest in developing a common framework of core principles and evaluation standards, we conducted a focused literature review, gathering preliminary information on targeted programs and assessing their commitment to collaboration. The review focused in particular on systematic evaluations of socially accountable medical education programs that train doctors for underserved areas. The literature search also identified existing evidence on socially accountable medical education that will be included in a more detailed examination during phases II and III of the project. The project team visited each school and conducted semi-structured interviews with deans, faculty and students to understand each school's recruitment, education, faculty development and evaluation strategies. The team examined available internal and external documentation on the programs and discussed current evaluation tools.

Findings

Need to Strengthen Global Evidence Base on Socially Accountable Medical Education

While all the target programs are very promising, the programs in the Philippines are the oldest and the only ones to have demonstrated long-term success in producing graduates who remain in underserved areas (Afdal, 2006, Siega-Sur, 2005). The literature review of 290 articles and discussions with stakeholders revealed, however, a lack of systematic collection of experiences and evidence on socially accountable medical education on a global scale.

The review revealed a multitude of successful efforts at improving community-orientation and social accountability of medical education around the world. However, much of the literature is either descriptive, focuses on particular interventions or examines widely different outcomes. No rigorous, comprehensive international evaluation of socially accountable medical schools was found.

WHO's initiative to define and develop measures to evaluate socially accountable medical education provides a solid foundation for systematic evaluation (Boelen & Heck, 1995) and includes a grid to assess progress towards social accountability. However, WHO's document "Defining and Measuring the Social Accountability of Medical Schools" called for developing specific indicators and defining benchmarks to be used by medical schools around the world. While others have discussed this need, we could find no evidence that WHO's call has been heeded on an international scale. A 2001 report based on the WHO's comprehensive survey of the world's medical schools suggests that standards and criteria used by most these schools still fall short of measuring the impact the programs have on health system development and health outcomes (Boelen & Boyer, 2001). Canada is



the only country which has explicitly incorporated the social accountability framework into its accreditations standards of medical schools (Woollard, 2006).

All eight medical schools agreed on the need for new common evaluation instruments and committed to collaborating on their development. There was also an agreement that the common evaluation framework should include context-specific indicators to systematically measure performance and the impact the programs have on access to care and on health in the communities each school serves.

Context and Support of Institutions

Despite an increase in funding for human resources for health, limited emphasis has been placed on building institutional capacity, particularly in the Global South. Most of these programs are fragile; some operate in health systems that are, at best, non-supportive and, at worst, hostile to these efforts. All struggle with resource constraints and with gaining acceptance among peers and stakeholders, and, until now, most operate in isolation from one another. Interviews with leaders and faculty of these initially selected schools revealed that although operating independently from each other, there is commitment to developing a collaborative platform and sharing resources with like-minded schools.

Core Principles

Although the participating schools emerged out of highly different contexts, the health and social needs of their target communities was the starting point for all of them for their development of education, research and service components. The schools look beyond the traditional curriculum, seeking input from communities and other stakeholders to determine the competencies physicians must have to serve those needs. The answers to those questions help guide which educational methodologies are selected to instill the defined knowledge, skills and attitudes in students, given the context and resource constraints.

With some contextual variations, the schools have embraced several common principles, adopting somewhat different strategies in responding to the divergent contexts in which they operate (see Table 1). Strategies such as recruiting and training students from and in target areas and aligning curricula with target community health needs have shown positive effects on retention rates and relevance of training (Dussault *et al.*, 2006; Lehmann *et al.*, 2008). However, there have not yet been any international, multi-institutional evaluation efforts to assess the impact of adopting these principles and strategies on the production, deployment and retention of doctors in underserved areas.

Conclusion

The literature review and interviews at target schools clearly identify a need for a common rigorous evaluation tool to measure the impact of socially accountable medical education programs on deployment and retention of doctors in underserved areas and on health outcomes. While it will be difficult to demonstrate a linear relationship between socially accountable education interventions on health outcomes, the target schools committed to conducting collaborative research and developing a common evaluation framework to strengthen the evidence base on how to train doctors to meet health needs in underserved area.



Table 1: Descriptions of participating community needs-focused medical education programs and their core principles

Program	Core Principles	Variations and Sample Context-Driven Strategies
ELAM	1. Health and social needs of targeted communities guide education, research and service programs	Established in 1999 Large scale, currently training 9,000 students with 6000 graduates Recruit students from underserved communities in Latin America-Africa-North America Scholarships offered for study in Cuba, including training in Cuban communities Last year of six-year curriculum in internship in country (community) of origin Is developing a "Graduate Observatory" to track and support graduates
CCPTP	2. Students recruited from the communities with the greatest health care needs 3. Programs are located within or in close proximity to the communities they serve	Established in 2005 Large scale, currently training 23,000 All learning takes place in the communities students are from or in close proximity Faculty are community-based physicians, most with masters degree in medical education The faculty in collaboration with underserved communities is simultaneously developing and integrating medical education program into primary care infrastructure
NOSM	4. Much of the learning takes place in the community instead of predominantly in university and hospital settings 5. Curriculum integrates basic and clinical sciences with population health and social sciences; and early clinical contact increases the relevance and value of theoretical learning	Established in 2005 Smaller scale and rural Two campuses in rural Northern Ontario. Up 40% of distributed learning takes places in urban, rural and aboriginal communities in the North, facilitated by trained practitioners and faculties miles away from students Highly integrated curriculum with no courses by discipline, instead organized around five themes Case-based, e-curriculum allows students posted in different communities to work as teams and participate in virtual academic rounds
WSU		Established in 1985 as a rural medical school, reformed curriculum in 1992 Leading problem-based learning and community-based medical education program in Africa Learning activities occur in rural provincial health system and through community partnerships program
FLINDERS	6. Pedagogical methodologies are student-centered, problem and service-based and supported by information technology;	Established in 1975, Parallel Rural Community Curriculum established in 1997 PRCC students are placed in rural general practice, with medicine, surgery, pediatrics, obstetrics and gynecology and specialties integrated throughout the year Program has government support with university- local service provider and community partnerships
JCU	7. Community-based practitioners are recruited and trained as teachers and mentors	Established in 2000 Innovative medical curriculum with a focus on rural & remote health, indigenous health & tropical medicine Clinical experience in the rural and remote context at an early stage
ADZU	8. Partnering with health system actors to produce locally relevant competencies	Established in 1994 Problem- and competency-based learning model with strong locally oriented public health and behavioral perspectives; includes working on clinical problems and on the method of problem analysis itself Service learning model—students provide services from the 1 st year, including implementing intersectorial health development programs. Students spend close to 50% of their time in the community
SHS	9. Faculty and programs emphasize and model commitment to public service	Community- and competency-based step ladder curriculum Integrates training of health workers, midwives, nurses and physicians in a single, sequential, and continuous curriculum



While there is not one model that fits all, shared principles and strategies were identified among all eight schools. Multi-institutional collaboration and common standards are needed to build an aggregate evidence base on effective strategies to meet the global health workforce crisis.

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