Case competitions to engage students in global health

Although experiential (bedside) learning has been the mainstay of clinical training, problem-based education is less emphasised in public health. Adaptation of a problem-based competition to promote global health in universities has not been reported. However, competitions in business schools that reward competencies in the management of profit-driven problems or development of entrepreneurial ventures are common. In 2009, and 2010, the Emory University global health case competition adapted this model of case-based competition (panel) to pose cases depicting actual disease burdens. Sociopolitical and economic affairs were woven into each scenario. This new model engaged students from university-wide disciplines to competitively seek solutions to real life global-health challenges. The competition encourages innovative recommendations that are feasible and sustainable, multidisciplinary inputs, and application of wide-ranging skill sets (eg, assessment of evidence, financial planning, and examination of legal and ethical aspects). The short timeframe of competitions provokes creativity and passion, and exemplifies the spirit that students bring to global health.

Although traditional educational models have often focused on didactic, specialised training that is led by instructors, case competitions are intense, problem-based educational experiences that encourage students to adopt macro-level perspectives instead of focusing on individual components. These competitions typically comprise real or fictional problems, which are open-ended or complex. Furthermore, they emphasise self-driven learning, rigorous time constraints, and facilitation and rigorous assessment by content experts, which emphasises clarity of reasoning through gruelling inquiry.

Case-based approaches cultivate analytical thinking, increase understanding of core principles, and enhance communication skills and self-motivation. To disentangle complex problems, students must deliberate, synthesise findings, prioritise issues, recognise constraints and viewpoints, negotiate conflicting perspectives, apply evidence-based, insightful decision making, and confidently defend their stance. Focused reflection is important to the learning experience.

Relevant studies of this topic show equivalent content knowledge, better problem solving, improved integration of concepts, and self-directed studying abilities in students who are enrolled in problem-oriented education compared with those in conventional curricula. Additionally, application of defined parameters, precise criteria for assessment, and provision of faculty and expert guidance reduces

Panel: Past global-health case competitions at Emory University

2009 case
Involved 40 students from Emory University representing eight academic or vocational disciplines.
A large philanthropic foundation is seeking proposals for strategies to reduce the burden of uncomplicated cases of severe acute malnutrition in children aged up to 5 years in the Oromiya region of Ethiopia. With a limited budget (US$1 million) eight teams of student consultants are invited to deliver their recommendations and should consider the health and social returns, feasibility, and short-term and long-term impacts of the investment.

2010 case
Involved 68 students from four universities representing 15 subject areas.
In Gujarat, India (population 50·7 million), the Chief Minister and state legislative assembly have convened an advisory committee to outline strategies to reduce the health and socioeconomic burdens of tobacco. The committee have indicated broad political endorsement and state-funded support for a justifiable tobacco prevention and control plan, which will be implemented at the start of the next fiscal year. 12 multidisciplinary teams of student advisers can present the costs, benefits, and trade-offs of their proposals for tobacco control in Gujarat.

Authors’ comments
These cases describe real and complex disease burdens with several interconnected underlying factors. No impartial evidence can conclusively support one specific intervention or strategy, and sociocultural issues should be considered. Both cases described difficult sociopolitical contexts. In reality, the regional government of Oromiya cannot allocate resources to address childhood nutrition and, therefore, in the near term, any investments would require the support of private donors. Similarly, the economic and political trade-offs involved in severely curtailing tobacco production and use would need to be carefully considered in Gujarat, a state that produces a large share of India’s exportable and nationally consumed tobacco. Teams were required to consider tradeoffs, sustainability, and interdisciplinary perspectives in delivering targeted, actionable recommendations.
the cognitive overload that students might encounter when first exposed to problem-solving and complex global-health issues.\(^9\)

The 21st-century world compels all students to integrate a global consciousness into their education because global health has implications for political, economic, sociobehavioural, and cultural milieus.\(^10,11\) Case competitions emphasise the spectrum of considerations (eg, economics, anthropology, ethics, politics, and law) that are needed to address global-health issues and allow cross-pollination of professional and interpersonal skills and viewpoints. Competitions such as these enhance the experience of higher education by providing finishing touches—ie, opportunities to optimise one’s repertoire of skills—therefore producing more rounded and marketable young professionals by better equipping students with crosscutting skill sets.

Our ongoing experiences with case competitions suggest that longstanding traditions of academic global-health programmes that are located exclusively in public health schools might need to give way to more integrated instruction that incorporates competencies and training from several disciplines. Development of synergies within and across professional, vocational, and technical schools will be important to tackle future multidimensional challenges in global health. With the substantial and increased interest in global health among students worldwide, the model of case competitions complements traditional, structured and specialised higher education. Student teams optimise their combined inventories of diverse, but synergistic, skills and experiences, thus making the whole greater than the sum of its parts. Reflections from past participants suggest that the competition is a more

memorable university experience than are obligatory prerequisites for career qualifications.

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