

# “Clinical Topics in Global Health” Instructor Guide

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## SUMMARY

The *Clinical Topics in Global Health* course at Harvard Medical School introduces students to the most important global health problems with a focus on clinical practice. This resource includes the materials (e.g., course manual, selected presentations, and knowledge assessment) used to deliver the course in 2012. Educators may use the resource as-is or adapt it based on local needs and the existing expertise of local faculty. *Clinical Topics in Global Health* has been particularly useful for first-year medical students who lack sufficient preparation before their international electives in the summer between first and second year. It has been well received at Harvard Medical School. We hope it may be of value to other global health educators seeking to provide a practical overview of important global health problems for pre-clinical medical students.

## SIGNIFICANCE AND INNOVATION

Medical student interest in global health has been growing rapidly nationwide.<sup>1</sup> As a result of global health experiences, students encounter a wider variety of diseases and health systems, improve their clinical examination skills, decrease their reliance on technology and laboratory resources, enhance their awareness of costs and resource allocation, and develop improved cultural sensitivity.<sup>2,3,4,5</sup> However, pre-travel training opportunities remain limited, and many students participate in global health rotations without adequate preparation.<sup>6</sup> This under-preparedness negatively impacts trainees as well as host communities.<sup>7,8,9</sup> At Harvard Medical School, existing global health curricula did not fully meet the needs of pre-clinical students whose first global health rotation generally occurred in the summer between their first and second years.

In response to this recognized need, we developed the course *Clinical Topics in Global Health*. This multi-disciplinary, skills-based global health elective has been offered yearly to Harvard medical students since 2009. Ten 3-hour evening sessions introduce students to the evidence-based knowledge, skills, and attitudes needed to perform at an appropriate level as a rotating student in a resource-limited international setting. The ten leading causes of global burden of disease are complemented with key crosscutting issues to generate the core syllabus for the course. Topics covered include neonatal, child, and maternal mortality, major and neglected infectious diseases, chronic non-communicable diseases, mental health, blindness, oral health, primary health care, health systems and delivery, populations in humanitarian crisis, and working in global health. Wherever possible, topics are paired with practical skills appropriate to resource-limited settings. Examples include neonatal resuscitation, partogram monitoring of active labor, basic bedside ultrasound, and basic tooth extraction. Teaching methods are tailored to each clinical topic and include lectures, practical skills sessions, case discussions, key readings, and invited guest speakers.

## LEARNING OBJECTIVES

1. Introduce students to the evidence-based knowledge, skills, and attitudes they will need to perform at an appropriate level as a rotating student in resource-limited international settings.
2. Orient students to the most important global health problems with a particular focus on clinical practice.
3. Provide practical guidance for students interested in pursuing further training or careers in global health.

## HOW TO USE THIS RESOURCE

This resource includes the following documents:

- 2012 Course Manual
- 2012 Selected Course Presentations in PDF format
- 2012 Knowledge Assessment

The Course Manual outlines the topic-specific learning objectives, class schedule, and readings for each of ten course sessions:

1. Introduction to global health
2. Maternal and newborn health
3. Non-communicable diseases, mental health, and oral health
4. Child health
5. Global health systems and delivery
6. HIV/AIDS and tuberculosis
7. Malaria and neglected tropical diseases
8. Malnutrition, diarrheal illnesses, rehydration
9. Populations affected by humanitarian crisis
10. Working in global health

The Course Manual may be used as-is with the accompanying presentations. Or it may be used as a template to build similar multi-disciplinary global health courses based on the existing expertise of local faculty. For example, some medical schools may not have access to dental or ophthalmologic faculty with global health experience. In these instances, the “global blindness” or “global oral health” lectures and/or practical skills sessions may be omitted.

The 50-item multiple choice question knowledge assessment may be administered before and after the course as a self-study tool for students and faculty to gauge the uptake of core concepts resulting from the course. It was not intended for use as a graded component of the course.

We recommend planning the course schedule in consultation with pre-clinical medical students and the Office of Student Affairs (or its equivalent). Since *Clinical Topics in Global Health* is most likely to be offered as an optional elective, timing of course sessions is important to maximize student attendance and participation. At Harvard Medical School, this consultative process resulted in ten 3-hour evening sessions taught on Tuesdays and Thursdays during February and March with a week off for Spring Break.

One of the most rewarding aspects of *Clinical Topics in Global Health* has been the opportunity to foster community and horizontal mentorship among students and course alumni. We have chosen to engage current and former students at all levels of course design, implementation, and evaluation. This ‘meta’ feature of the course has enhanced its word-of-mouth popularity and

may further contribute to improving students' preparedness for global health practice. We would encourage educators to explore whether similar arrangements may be welcome and feasible at their home institutions.

## OUTCOMES

*Clinical Topics in Global Health* has been offered annually to Harvard Medical Students as an optional, pass/fail elective since 2009. The course has received praise from students in two local publications.<sup>10,11</sup> It has also been described in a peer-reviewed publication.<sup>12</sup>

Anonymous course feedback has been positive. For example, 100% of medical student respondents strongly agreed (10 of 10 on a Likert scale) that "I would recommend this course to my classmates and colleagues" and that "this course has prepared me to work more effectively in developing countries." In addition, 100% agreed ( $\geq 8$  of 10 on a Likert scale) and 71.4% strongly agreed (10 of 10 on a Likert scale) that "the practical skill sessions helped clarify the instruction." Qualitative feedback has also been positive. One student wrote that the course was an "extremely thoughtful introduction to the topic [of global health], perhaps the most thoughtful approach to any topic I have encountered thus far in medical school." Another student wrote, "The mixture of broad coverage of issues in global health and the practical sessions [were] a great way to know what is important and what to do about it." A third student said, "Had I taken this course before my last trip to do clinical work in rural Africa, I would have been far more able to contribute to the work that needed to get done at the facility where I was working."

## FUTURE DIRECTIONS

The curriculum has several limitations. First, the knowledge assessment could be more tightly aligned to session-specific learning objectives. Five questions could be linked to each of the ten sessions and administered electronically following each session. This would improve students' ability to track their progress through the core concepts. Second, the current course website, which presently serves as a digital repository for course resources, could be expanded to include social media capabilities to complement the in-class activities and provide a forum for continued engagement and mutual learning between students and faculty during students' international electives. Third, a more formal mixed-methods evaluation could be conducted to test the efficacy of the curriculum in improving student preparedness to perform at an appropriate level as a rotating student in resource-limited international settings. The Course Co-Directors are currently seeking funding support to implement these improvements.

## ACKNOWLEDGEMENTS

The authors are deeply grateful to the many students, course alumni, and faculty who have contributed to *Clinical Topics in Global Health*.

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