

African Health OER Network Background White Paper

Addressing the health crisis in Africa requires a variety of interventions. An international collaboration of educational institutions is seeking to leverage Open Educational Resources (OER) as a means to advance the quality and capacity of health education in Africa.

Introduction

In May 2008, the Hewlett Foundation and the Open Society Institute supported a planning workshop in Accra, Ghana on OER as applied to health education in Africa. From that workshop, the following participants joined together to launch the Health OER Initiative:

Open Educational Resources (OER) are materials for teaching and learning (lectures, lesson plans, quizzes, syllabi, instructional modules, simulations, etc.) which, through the use of Creative Commons and compatible licenses,¹ are freely available for use, reuse, adaptation, and sharing.

- University of Ghana
- Kwame Nkrumah University of Science and Technology
- University of Cape Town
- University of the Western Cape
- OER Africa
- University of Michigan

With funding from the Hewlett Foundation, the team spent 2009 piloting the development and distribution of OER. Materials produced during this phase included learning modules on Caesarean section, Buruli ulcer, severely malnourished children in the Eastern Cape, South Africa and an introduction to problem-based methodologies. In 2010, building on the success of the 2009 pilot and with the continued support of the Hewlett Foundation, an expanding international partnership launched the African Health OER Network² to draw in more African and, eventually, global participants to create, adapt, share and use OER to benefit health education in Africa, while developing models of collaboration and sustainability that can be replicated in other regions of the world.

Human Resources for Health Challenges in Africa

This project is set in the context of the global health crisis that is articulated in the UN's Millennium Development Goals (MDGs).³ A shortage of healthcare providers negatively affects a country's health outcomes. To address the health targets set forth in the MDGs, governments are pressuring medical, dental, nursing, public health, midwifery, and allied health schools to increase the number of enrolled students. In many developing countries, the teaching faculty do not have the capacity to enroll additional students.

¹ OER are most often shared under a "some rights reserved" framework through Creative Commons. OER are also occasionally under "no rights reserved" if the materials are part of the public domain. This is in contrast to traditional copyright restrictions of "All Rights Reserved" which require permission for most uses of the copyrighted work. OER, therefore, allows learners, instructors, and researchers the flexibility to use the educational resources under certain conditions (e.g., attribution, noncommercial vs. commercial use) without requesting permission from the copyright holder.

² <http://www.oerafrica.org/healthoer/>

³ <http://www.un.org/millenniumgoals/>

Despite strong gains in expanding access to tertiary education, Africa still significantly lags other developing regions in producing higher education graduates.⁴ Ghana, for example, is among the countries with the lowest health worker density but high overall mortality. In response, the country has the goal of tripling the number of healthcare providers. However, the country can only admit 30% of its qualified applicants to medical school, as it cannot increase the faculty size.

As a further issue, retention of trained healthcare workers is necessary in order to provide for future faculty members, who themselves are more likely to stay in the country if advanced training programs are available to them.⁵ The current reality is, however, that approximately half the physicians who have graduated from medical school in Ghana have left the country, with the lack of opportunity for post-graduate training being one of the factors.⁶

The Potential Impact of OER on Health

Open educational resources for health are developed with, and for, healthcare providers at all levels (ranging from student trainees to professionals seeking continuing education) and in all disciplines (medicine, nursing, dentistry, allied health, etc.). Health OER is a means to an end. That is, the intention is that open educational resources contribute to a value chain that starts with making teaching and learning resources easier to access, adapt, and disseminate; which leads to increased collaboration across institutions and disciplines by reducing the technical and policy barriers to sharing and modifying learning materials; which enables increased throughput of trained healthcare workers by increasing the teaching productivity of faculty and the self-regulated learning opportunities by students; and ultimately contributes to improvements in the health outcomes of patient populations.

OER for Health Design Phase (January 2009 – March 2010)

During the 2009 Design Phase, the partnership had the following objectives:

1. Engage university leadership in implementing institutional policy frameworks that facilitate the success of OER.
2. Hold faculty development workshops to build institutional capacity in OER.
3. Enhance an innovative, low-cost, and scalable process for converting educational materials into OER.
4. Collaboratively develop educational materials as OER and deploy them in our respective curricula.
5. Promote the collaboration and its outputs through a community of practice web site.

⁴ Murphy, et al. (2002). Enhancing Learning Opportunities in Africa. World Bank Working Paper.

⁵ Anderson F., et al. (2007). Who Will be There When Women Deliver?: Assuring Retention of Obstetric Providers. *Obstet Gynecol.* 110(5):1012-6.

⁶ Dovlo, D., Nyongator, F., 1999, Migration of Graduates of the University of Ghana Medical School: A Preliminary Rapid Appraisal, *Human Resources for Health Development Journal*, Vol. 3, No. 1, pp. 34–37.

6. Establish a framework for a longitudinal study of faculty productivity and the effect of OER on learning outcomes and provide feedback on socio-technical aspects of collaborative OER practices.
7. Produce an evidence-based long-term logic model for Health OER based on a vision that multiple stakeholders will own, in which funders will invest, and which institutions are committed to sustaining. This consensus-driven model will be the basis of a Global Health OER follow-on proposal.

The activities in support of those objectives led to the following outcomes:

1. Reduced policy barriers to OER development and use.
2. A community of trained health OER developers and implementers.
3. A published portfolio of OER health education learning materials.
4. An accessible engagement process in health OER.
5. Documentation of best practices for inter-institutional collaboration in OER development and use.

An external review of the 2009 efforts concluded that, “in each institution, project coordinators and participants have engaged OER in creative ways that are most appropriate to their own contexts. In short, the project has shown the power of OER development: with good management and the goodwill of coordinators and academics who are its champions, it can succeed in different contexts and organizational cultures. The project has yielded lessons of experience, theoretical arguments and draft policies and concrete OERs as a foundation to extend the Network.”⁷

The African Health OER Network (April 2010 – Present)

A highlight of the Design Phase was a workshop held in Cape Town during August 2009 to assess progress and determine next steps. The approximately 50 workshop attendees came from the current partner institutions along with guest representatives of universities from South Africa, Malawi, Kenya, and Botswana that had expressed interest in joining the initiative. Reflecting the continued interest in working together and the successful progress that had been made, the group developed the concept of the African Health OER Network. This idea was turned into a proposal to the Hewlett Foundation for a two-year, \$1 million effort. In November 2009, the Hewlett Foundation awarded the grant jointly to OER Africa and the University of Michigan.

This project, which launched in April 2010, is designed to strengthen the intellectual and policy infrastructure within and between African institutions. Its objective is to build on the partnerships and OER developed in 2009 and to strategically draw in more African and, eventually, global participants to create, adapt, share, and use OER to the benefit of health education in Africa, while developing models of collaboration and sustainability that can be replicated in other regions of the world.

⁷ Harley, K. (2009). Formative Evaluation of Health OER Design Phase.

The four primary objectives are to:

1. Ensure that the OER infrastructure model, successfully deployed during the Design Phase, maintains momentum with current participants and begins growing the Network while simultaneously seeking to expand the community of support.
2. Aggregate a critical mass of African-produced health open educational resources published through both institutional and regional repositories.
3. Continue to enhance (e.g., through functionality and localization) an innovative, low-cost, and scalable process for converting educational materials into OER.
4. Build on pilot and formative analyses undertaken in 2009 to establish the basis for an evidence chain that connects from faculty productivity and career satisfaction measures through efficacy in learning contexts to application of acquired knowledge in health care settings.

Next Steps

African Health OER Network efforts in 2010 and 2011 will focus on network building, including growth and awareness of the African Health OER Network, identifying generalizable lessons in community building, promoting policies, practices and tools and aggregating content, by which a critical mass of learning materials will help sustain a community of OER providers and users.

We are currently seeking additional participants in and supporters of the Network. The Network is creating online reference materials for self-directed OER publishing. However, we recognize that there are organizations and projects without the staff or expertise to establish their own OER sourcing, adaptation, or publishing efforts. Therefore, the African Health OER Network will offer fee-for-service OER support options, managed by the Network coordinators, OER Africa and the University of Michigan. These support services will include:

1. Advisory Services: training, awareness, assessment, mentoring, and consulting.
2. Publishing Services: instructional design, content assessment, clearing, packaging, and content distribution.

We envision a network that will grow to include institutions across the Continent through work with individual universities, consortia and research networks in health, population, and other related disciplines. In addition, we are hoping to engage foundations, governments, and other funding organizations that currently support learning material development. We wish to facilitate integration of OER approaches into their existing programs and to gain financial support for the Network's activities.

Get Involved

For more information, please email us at healthoer@oerafrica.org