6-1-2011

The Afya Bora Consortium: An Africa-US Partnership to Train Leaders in Global Health

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Suggested Citation:
Farquhar, C. and Nathanson, N. (2011). The Afya Bora Consortium: An Africa-US Partnership to Train Leaders in Global Health. *Infectious Disease Clinics of North America.* Vol. 25(2). p. 399-409.

DOI: 10.1016/j.idc.2011.02.005

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Abstract

The Afya Bora Consortium is a partnership of 8 academic health institutions, 4 in Africa and 4 in the United States. The Consortium is developing a Global Health Leadership Fellowship for medical, nursing, and public health professionals, largely drawn from the 4 African partner countries. The fellowship provides trainees with practical skills to prepare them for future positions leading the design, implementation, and evaluation of large, high-impact programs in governmental agencies, nongovernmental organizations, and academic health institutions in their own countries. This article describes a Pilot of the proposed program.

Keywords

Global health, Africa, Education, Training, Research, HIV/AIDS, Leadership, Partnership

Disciplines

Medicine and Health Sciences

Comments

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The Afya Bora Consortium: An Africa-US Partnership to Train Leaders in Global Health

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KEYWORDS

• Global health • Africa • Education • Training • Research • HIV/AIDS • Leadership • Partnership

In the last 10 years, the sub-Saharan African AIDS epidemic has been a major stimulus for rapidly increasing investments in newly developed and existing health programs. These burgeoning programs have generated an increasing demand for African leaders in global health. The largest program is the President's Emergency Program for AIDS Relief (PEPFAR), launched in 2003. Many other health programs have recently been launched in Africa, supported by national and international agencies, such as the Global Fund, the Global Alliance for Vaccines and Immunization, United Nation (UN) AIDS, the World Health Organization (WHO), the World Bank, and others. In addition, there is a panoply of health programs supported by foundations, private philanthropy, and other nongovernment organizations (NGOs). It has been estimated that there are more than 1000 NGOs operating in Kenya alone.[1]

Rapid expansion of these programs has created a need for African medical, nursing, and public health professionals who can design, manage, and evaluate large health programs. Similar growth in the research arena has resulted in an increased demand for trained investigators to lead complex research programs. At present, too many programs depend on expatriates who have been recruited because of the shortage

This work was supported by a supplement to Grant No. D43TW000007-22S3 from the Fogarty International Center of the U.S. National Institutes of Health.

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of local professionals with appropriate skills. Several independent groups have recognized the need for African leadership and have called for new training initiatives.[2–4] The Afya Bora Consortium is a response to this call to action. This consortium is founded on the premise that a consortium of African and international health institutions can pool resources to develop an innovative, robust, and sustainable program to train future leaders in global health. The authors present this interdisciplinary experiential approach to leadership training as a model that could be adapted to meet the needs of other regions and expanded to include additional institutional partnerships.

HISTORY OF THE AFYA BORA CONSORTIUM

The vision for a consortium of US and African institutions dedicated to building leadership capacity in global health was born in May 2008 when a group of US faculty members, who are leaders of global health programs at their 4 institutions, met in Washington, DC. Each university has an established "twinning" relationship with an African academic health center, and all 8 institutions have both schools of medicine and nursing and many have schools of public health (**Table 1**). As a next step, it was decided to convene a workshop for an exploration of needs and opportunities.[5–7]

In April 2009, representatives of the 8 institutions met at a 2-day workshop in Nairobi, Kenya. After much collegial discussion, the group decided to create a Consortium to develop a 2-year Fellowship. This Fellowship was designed for medical, nursing, and public health professionals who had recently completed their training and were judged to have leadership potential. A 1-year fellowship and individual short modules for in-service training were also included in response to requests for options that would meet a broader array of leadership training needs. The following month, the proposal was presented to potential sponsors at a meeting in Washington, DC. A 1-year planning grant was funded by the Fogarty International Center of the US National Institutes of Health, beginning in September 2009.

This Africa-US partnership has been named the Afya Bora (Swahili for "Better Health") Consortium. At a meeting in Nairobi, Kenya, in January 2010, it was decided that a 1-year Pilot program of the Fellowship should be conducted to test its components, evaluate outcomes, and prepare for a sustainable program. In July 2010, a grant proposal for a Pilot program of the Afya Bora Leadership Fellowship was presented, a summary of which is the subject of this article.

Table 1
The Afya Bora Consortium institutions and health sciences schools

Country	African-US Partner Institutions	Medical School	Nursing School	Public Health School
Uganda	Makerere University	Yes	Yes	Yes
United States	Johns Hopkins University	Yes	Yes	Yes
Tanzania	Muhimbili University of Health and Allied Sciences	Yes	Yes	Yes
United States	University of California San Francisco	Yes	Yes	Yes
Botswana	University of Botswana	Yes	Yes	No
United States	University of Pennsylvania	Yes	Yes	No
Kenya	University of Nairobi	Yes	Yes	Yes
United States	University of Washington	Yes	Yes	Yes

DESCRIPTION OF THE PILOT PROGRAM

The Pilot program is a scaled-down version of the full Afya Bora Fellowship, designed to "beta test" the key elements of the full fellowship within the limits of a 1-year funding period. The Pilot program structure includes the following 3 components:

1. Core Curriculum didactic blocks. A didactic Core is taught during 2 separate 3-week sessions through direct participation and problem-solving learning methods.
2. Attachment Site rotations. This phase consists of an experiential mentored assignment in which each fellow is attached to a host government agency, an NGO, or an academic institution to complete two 3-month assignments.
3. Posttraining program. The third phase provides virtual and in-person opportunities to continue to interact and collaborate with faculty, other fellowship graduates, and incoming fellows.

The proposed Fellowship is focused on African fellows, but it also includes some US fellows because it is thought that this mix will enhance the training experience for both groups of fellows. Furthermore, there is hope to create an international network of leaders that will be sustained long after completion of the Afya Bora Leadership Fellowship.

Pilot Program Structure

The structure of the Pilot program is summarized in **Table 2**.

Orientation

Before the first section of the Core Curriculum, a 2-day orientation is held for fellows and primary mentors. This orientation presents the overall goals of leadership training and the desired outcomes for fellows, mentors, faculty, and Afya Bora Consortium members. It describes expectations for Attachment Site rotations and explains the role of the primary mentor and the mentoring team. Orientation emphasizes effective mentoring and mentorship and the timeline for Attachment Site project reports. This session also stresses the importance of full participation by trainees, mentors, and Consortium members.

Core Curriculum Blocks

The Core Curriculum is taught at the African partner institutions and brings together the new cohort of 20 African and US trainees. The first 3-week segment is conducted at the University of Nairobi, Kenya and consists of three 1-week modules: (1) Leadership Skills, (2) Program and Project Management, and (3) Implementation Science and Health Systems Research. The second segment is conducted at the Muhimbili University of Health and Allied Sciences in Tanzania and consists of 3 additional 1-week modules: (4) Monitoring and Evaluation, (5) Technology and Bioinformatics, and (6) Communications and Media Skills. These topics are essential to global health leadership, yet they are rarely included in medical and nursing curricula.

Courses are taught by African and US instructors who collaborate to develop training materials, make presentations, and lead discussions. A variety of teaching methods are used, including problem-based learning in small groups and face-to-face didactics, supplemented, in some instances, by videotaped lectures and other distance learning resources. All modules highlight gaps in health care delivery and disease prevention and emphasize the research and policy priorities that are most relevant at the national and regional levels.

Table 2
Structure and timeline for the Pilot fellowship

Core Curriculum: 3 wk	Rotation: 3 mo	Core Curriculum: 3 wk	Rotation: 3 mo
2-d orientation	Independent projects at Attachment Sites	1-d project presentation	Independent projects at Attachment Sites
Core Curriculum: three 1-wk modules Leadership Program management Implementation science	1-d workshop for mentoring teams within the first 2 wk Weekly meetings with the primary mentor Semi-monthly meetings with the country lead and in-country fellows Monthly meetings with the mentoring team Project report due last day of rotation	Core Curriculum: three 1-wk modules Monitoring and evaluation Technology and bioinformatics Communications and media skills	1-d workshop for mentoring teams within the first 2 wk Weekly meetings with the primary mentor Semi-monthly meetings with the country lead and in-country fellows Monthly meetings with the mentoring team Project report due last day of rotation

The Core Curriculum modules are also available for in-service training. There are employed African health professionals who would like to take short courses to build their skills and increase their career opportunities. However, many of these health professionals cannot be released for a full 1- or 2-year fellowship. To respond to this need, the Pilot Program includes 4 places for trainees who will only take the Core Curriculum modules. If successful, this aspect of the program will be expanded in the future.

Attachment Site Rotations

Attachment Site is the term coined for organizations that operate in the African partner countries. Entities with the potential to serve as Attachment Sites include Ministries of Health, NGOs, PEPFAR missions, Centers for Disease Control and Prevention (CDC) field stations, USAIDS missions or offices, WHO regional offices or sites, and universities. Because AIDS is at present such a cross-cutting salient problem in the African partner countries, all the training projects involve human immunodeficiency virus (HIV)/AIDS issues. Working Group members visited more than 25 potential Attachment Sites between January and March 2010 in Botswana, Kenya, Tanzania, and Uganda and met with directors and senior staff who were uniformly enthusiastic about participating in the Afya Bora Fellowship.

A 3-month Attachment Site rotation takes place after each of the Core Curriculum blocks. During these rotations, fellows conduct independent projects. Potential areas of focus include clinical research, public health and disease prevention, health policy formulation, health systems research, implementation science, and program management and evaluation. All projects include some type of applied research experience.

A final report, which varies in length and format depending on the type of project and needs of the Attachment Site, is required at the end of each rotation.

The overarching goal is to prepare fellows to assume leadership roles in a variety of large-scale health programs, whether they are focused on specific diseases or on strengthening health systems. This experiential training provides fellows with skills that are relevant to effective leadership in many health areas so that they will have the flexibility to respond to evolving health needs of their countries.

During their time at their Attachment Sites, fellows are also encouraged to take occasional short courses, attend scientific meetings, and engage in skill-building activities that will support their career goals and job aspirations. Weekly meetings for fellows with their primary mentor are mandatory to discuss progress and review challenges. In each African partner country, a member of the Consortium Working Group serves as the country program leader. The program leader meets monthly with fellows in that country. This provides a forum for fellows to present their work and obtain input as they come together to review their projects, share experiences, and receive mentorship and group instruction. These meetings also help the trainees bond and form professional networks across Africa.

Fellow Recruitment and Selection

African fellows

For the Pilot program, the African partners advertise widely at all the in-country health centers and within their own Fellowship programs for health professionals interested in the program. Attachment Sites also have the opportunity to nominate their professional staff for the Pilot program. The aim is to select 12 African applicants to complete the Pilot Fellowship, 3 from each African partner country, with at least 1 professional in nursing or public health. As indicated earlier, an additional 4 African applicants are enrolled only in the Core Curriculum blocks.

There are challenges inherent in identifying "potential future global health leaders," and selecting the most promising fellows to maximize success of the fellowship is also important. A major criterion for selection is the commitment of candidates to work in-country health centers for 2 years after completion of the Pilot program, and this is assessed during the interview. In addition, the selection process seeks to optimize the gender balance among the trainees from each profession. The Consortium is committed to recruiting qualified graduate nurses to ensure a balance of trainees from different health professions. The schools of nursing at the African institutions are particularly enthusiastic about the Afya Bora Fellowship and make a major effort to identify appropriate candidates for the program.

The recruitment process begins with a written application form and letters of reference. Selected applicants are brought in for an interview with the Selection Committee. The Selection Committee is composed of 3 members of the Working Group, 3 representatives of potential Attachment Sites, and 1 or 2 members from collaborating academic health centers. The Committee seeks evidence of prior leadership activities and characteristics such as initiative, creativity, and strong interpersonal skills. Once the candidates are selected, there is a subsequent matching process in which trainees are interviewed by representatives of Attachment Sites and then ranked to optimize alignment between the objectives and interests of fellows and Attachment Sites.

US fellows

For the Pilot program, a total of 4 US trainees are accepted. The goal is to recruit individuals who will not only benefit greatly from the experience but also contribute unique perspectives and different approaches that will enhance the learning experience for

all. Among the 4 US institutions, we will search for physicians and nurses who are already enrolled in post-doctoral fellowships or doctoral or master's programs and who have demonstrated a strong interest in global health. The US Consortium members have access to potential recruits through existing fellowship programs and those working in several specialties, such as adult and pediatric infectious diseases. The application process and selection of US fellows is otherwise similar to that described earlier for African fellows.

Mentoring

The success of experiential work at the Attachment Sites critically depends on supervision of each trainee by a primary mentor and a mentoring team. The mentoring team works with the primary mentor and fellow to select and develop the project and determines the skills and collaborations needed to complete it within the available time. Mentors are selected from the Attachment Sites to which trainees have been assigned and from the Consortium institutions. They include both African mentors who can provide on-site support and US mentors chosen for their expertise relevant to the activities of the trainees. The mentoring team is chosen considering the career interests of each fellow, a history of successful mentorship, and the nature of the project. Ideally, the primary mentor is identified before beginning the first Core Curriculum block. To emphasize the importance of this activity and maximize their active participation, African mentors are paid for their time.

All African mentors attend a 1-day mentoring workshop, which is held within 2 weeks before the Attachment Site rotation start date. US mentors are asked to attend selected portions via teleconference. During the first part of the workshop, mentors are given an intensive briefing regarding the goals of the program and their responsibilities. They are given a Mentoring Manual that sets forth established mentoring guidelines. This Manual was developed and refined at mentoring workshops that were held between April and September 2010 in Kenya, Botswana, Tanzania, and Uganda.

Program Evaluation

A formal monitoring and evaluation plan is tested during the Pilot program. For this purpose, the consortium is collaborating with the International Training and Education Center for Health (I-TECH). I-TECH is a collaborative center operated jointly by the University of Washington and the University of California in San Francisco. I-TECH has established a global network for building health care delivery capacity and training a skilled health workforce and has extensive experience in program evaluation. I-TECH has been commissioned to conduct an internal assessment using data they collect from faculty, mentors, Attachment Site staff, and fellows. The I-TECH evaluation includes an I-TECH observer who attends the Core Curriculum modules and may visit some of the Attachment Sites. I-TECH personnel collect and compile data throughout the Pilot program and prepare a summary for the wrap-up meeting to be conducted at the completion of the program.

As part of the internal assessment, trainees are evaluated for their achievement of competencies that are needed to operate effectively in domains such as leadership and management, health systems management, health service delivery, program evaluation, communications, bioinformatics, and research. Faculty, Attachment Site staff, and mentors are also asked to assess the performance of each fellow after each 3-week Core Curriculum block and Attachment Site rotation.

At the conclusion of the Pilot program, there is a wrap-up meeting of fellows, key faculty, Attachment Site staff, and mentors. This meeting evaluates the Pilot program

by identifying its strengths, and weaknesses and recommending approaches for improvement. During the meeting, I-TECH conducts an anonymous evaluation by fellows of instructors, mentors, faculty, and Attachment Sites.

As part of the wrap-up meeting, a group of experts is convened to conduct an external assessment. The external assessment committee includes experts in program evaluation as well as African health leaders who have had experience with fellowship programs. The external assessment uses data collected by I-TECH and summarized in their preliminary report.

Roles and Responsibilities of African and US Partners

For the Afya Bora Consortium to be successful, it is essential to define the responsibilities and rewards for both the African and US partner institutions. The African partner institutions are putting their reputations and support behind the vision of the Consortium to provide a novel type of training for future health leaders in their countries. In addition, they are committing faculty effort, recruitment of outstanding trainees, and institutional resources to the program. The participating African faculty has contributed critical thinking to developing the vision for the Fellowship, with a combination of innovative ideas and reality testing, to ensure a culturally appropriate plan for the Fellowship. Potential rewards include access to external funding, an expanded role for their academic health training institutions, and a training opportunity that may help counter the brain drain problem.

The US institutions have contributed to the Afya Bora Consortium in several critical areas. They have provided some of the concepts that have inspired the Consortium vision, enthusiastic participation of global health faculty, and funding opportunities. The US institutions bring access to a wide array of schools in their Universities, including expertise in program development and management, monitoring, evaluating, and research technologies, both in health and nonhealth fields. The Afya Bora Consortium provides the US institutions with an important new opportunity to expand their global health programs and a robust global network that offers many resources for service, training, and research.

CONCLUDING COMMENTS

It is thought that the proposed Afya Bora Leadership Fellowship is an innovative model, which has several features that distinguish it from other existing fellowship programs, including:

- An African-centric focus emphasizing HIV/AIDS. Most trainees, training sites, faculty, and mentors are African or located in African partner countries. Training in research relevant to HIV/AIDS provides skills that can be used to address the current AIDS pandemic in Africa and serves as an entry point for addressing other health challenges in developing countries.
- Emphasis on leadership, evaluation skills, and practical experience to prepare trainees to lead large, evidence-based health programs. The model provides an integrated program to fill a critical health leadership gap that currently exists in many African nations, including the 4 African partner countries. It delivers leadership training and management skills to a select group of African and US health professionals early in their careers. Trainees are prepared to design, implement, evaluate, and iteratively improve large-scale programs that link research, preventive and curative health services, training, and policy development.

- Links to future employment. To proactively address the problem of brain drain among this talented pool of future leaders, the Fellowship emphasizes experiential learning assignments to in-country Attachment Sites during which trainees would conduct projects at organizations or agencies that could provide future employment, which is coupled with the clear responsibility of Mentoring Committees to facilitate posttraining placements. The commitment of African trainees is reinforced by a written agreement to work at in-country health centers for at least 2 years after completion of the program.
- The power of a Consortium. As stated earlier, the Consortium involves 8 academic health training institutions, each of which has a medical school, a nursing school, and (in many instances) a school of public health. In aggregate, the different partners bring a broad array of resources and opportunities to the Consortium, much more than any single twinning partnership. The involvement of multiple institutions greatly strengthens the fellowship program and increases its sustainability.
- Interdisciplinary framework across medicine, nursing, and other health-related disciplines. It is believed that training across disciplinary, geocultural, and gender lines is critical to the development of effective health leadership in Africa and around the globe. Therefore, integrating trainees from medicine, nursing, public health, and other relevant disciplines from the 5 participating countries to learn and work together is a crucial component of the program. The emphasis on nursing also helps advance interdisciplinary training and collaboration as well as achieve gender equity.
- Targeting sustainable African training capacity, not just trainees. A key long-term goal is to establish the training capacity of African institutions rather than just launching one more program to provide additional trainees. The eventual goal is to move the primary direction of this training program to the African partner institutions. The fellowship program is viewed as a catalyst for institutional development in research, education, clinical practice, and policy development. To this end, most of the training takes place in the African partner countries. The South-South partnership will play a major role in establishing a sustainable training program led by African institutions.
- Experiential training for US trainees in African programs. Another long-term goal of the program is to establish the capacity of US institutions to train US trainees in real-life programs of global health relevance. There is a cadre of junior US health professionals with a career interest in global health, which strongly desires immersion experiences in African health programs. Furthermore, training in a cohort with their African peers markedly enhances the impact of their international experiences. It offers emerging African and US global health leaders opportunities to develop critical thinking skills in cross-cultural negotiation and collaboration and launch the next generation of sustainable North-South and South-South partnerships.

Significance

During the frequent meetings and conference calls, it has become clear that the Afya Bora Consortium has enthusiastic support from the African partner institutions, which has endowed the proposal with significant credibility. In addition, the participation of a large number of African and US institutions markedly increases the probability that the program can be sustained on a long-term basis. The proposed Fellowship, once evaluated and refined, could be scaled up in several ways, such

as (1) expanding the program by including other interested academic institutions in Africa and the United States, (2) replicating the program by initiating similar consortia, perhaps in other geographic areas, (3) using specific components of the program for in-service training of health service professionals in established positions or for strengthening existing training programs, and (4) including opportunities for fellows to do rotations outside Africa at international organizations, such as WHO, CDC, and UNAIDS. Thus, this model has the potential to have an impact that reaches beyond the immediate scope of the present Consortium, both in Africa and in the northern countries.[8–10]

ACKNOWLEDGMENTS

The Working Group of the Afya Bora Consortium includes Robert Bollinger, Carey Farquhar, Nancy Glass, Ephata Kaaya, James Kiarie, Yohana Mashalla, Gorrette Nalwadda, Marjorie Muecke, Neal Nathanson, Oathokwa Nkomazana, Teresa Odero, Thomas Quinn, Esther Seloilwe, Christopher Stewart, Nelson Sewankambo, Gloria Tshweneagaeg, Joachim Voss, and Judith Wasserheit. Their mailing addresses and e-mail addresses are provided in Appendix 1.

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(*continued on next page*)

APPENDIX 1 *(continued)*

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