Interprofessional Fellowship Training for Emerging Global Health Leaders in Africa to Improve HIV Prevention and Care: The Afya Bora Consortium

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HIV continues to challenge health systems especially in low and middle-income countries in Sub-Saharan Africa. A qualified workforce of transformational leaders is required to strengthen health systems and introduce policy reforms to address the barriers to HIV testing and treatment and other HIV services. The year Aya Bora Consortium Fellowship in Global Health capitalizes on academic partnerships between African and universities to provide interprofessional leadership training through classroom, online, and service-oriented learning in countries in Africa. This fellowship program prepares health professionals to design, implement, scale up evaluate and lead health programs that are population-based and focused on prevention and control of HIV and other public health issues of greatest importance to African communities and health service settings. Aya Bora nurse fellows acquire leadership attributes and competencies that are continuously and systematically tested during the entire program. This multinational training platform promotes interprofessional networks and career opportunities for nurses.

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Key words: African nurse leaders, Aya Bora Consortium, global health leadership, global partnerships, HIV care, interprofessional training

The burden of HIV continues to challenge health systems in high-income as well as low- and middle-income LIC countries especially those in Sub-Saharan Africa. While the notion of combating HIV/AIDS, malaria and other communicable diseases by establishing the millennium development goal G: combating HIV/AIDS, malaria and other diseases, several countries still face high disease burdens directly related to HIV and even more so in maternal and newborn populations. Loma Borisch Lasser

The success of many screening and scale-up treatment initiatives has improved HIV management and treatment globally but has not achieved the reach of Gin Africa. As of the world Health report, Africa was home to more than half of people living with HIV in the world, and where HIV-related deaths occurred. For nations facing short of meeting goals, Naimoli atsubayashi and Peters have questioned whether the right models were in place to scale up interventions. They proposed a practical approach suggesting more promising inroads to coming up with solutions through learning by doing approaches that engage key stakeholders to data to address constraints and consider pilot or small scale projects to bring about needed changes in health care.

While advances in HIV testing continue to evolve, several areas are in need of improvement. For example, certain parts of the African continent lack access to HIV testing, and it is a direct result of deficiencies in procurement, supply, and management. Pand distribution of testing supplies, proper communication channels between eye players in various regions and their central administrations, unclear definitions of roles and responsibilities and ambiguous costing, of Pand distribution are all contributing factors to poor access to testing supplies as well as to antiretroviral therapy. Nurses as frontline care providers assume a major role in provider-initiated HIV testing and counselling (PTC) but lack of leadership space and resources and word choices often operate to deter PTC. Evans Ndirangu. In Sub-Saharan African, nurses have expressed the need for training and management support and health systems reform to promote PTC. Evans Ndirangu.

African health care leadership therefore require training to better understand the complexities of health care delivery, strategically plan, and test more efficient and sustainable PSM and distribution mechanisms and to affect policy reforms to positively influence changes at the point of care. Evans Ndirangu, Kapesaru, and Olabata Hlas emphasized that transforming and scaling up health professions education is dependent on relational activities and interactions between education, health and other sectors and embedding training for leaders in health care settings. H
The Afya Bora Consortium

The Afya Bora Consortium was formed as a response to the urgent need for qualified African health care leaders. In leaders from eight academic health professions institutions in Africa paired with four in the uedates convened to envision a new partnership to advance training in global health leadership. Each of the four Africapartnerships in Botswana, Kenya, Tanzania, and Uganda have had a long standing record of productive collaborations in research, education, and training of health professionals students and faculty. A fifth partnership was created recently when the University of Buea in Cameroon joined the consortium, with the early conception of a formal infrastructure to unite and African academic partners

The name Afya Bora wahi for Better Health was adopted to reflect an Afrocentric initiative that would leverage existing partnerships in a global consortium to build a sustainable training program for health care leadership. The program was envisioned to develop a powerful collaboration by merging and consolidating education, training, and research experiences and resources. A focused mission was set to prepare future global leaders for careers in health care settings and governmental and nongovernmental organisations. The goal was to transform health care delivery systems and serve health care communities.

Afya Bora used academic partnerships to engage nursing, medical, and public health schools from multiple African and universities. To provide the breadth and depth of leadership training beyond the reach of any individual institution or discipline the fellowship in Global Health Leadership program employs innovative and experiential approaches to training that promote the integration of core leadership topics into academic and service-oriented leader mentorship training at five African institutions.

Leadership programs in Africa that augment academic degree granting programs can have a profound effect on expanding a workforce of emerging transformational leaders capable of health systems reform. The ability to bridge learning from academic institutions with service-oriented training in leadership development program management and evaluation and quality improvement and outcome measurement is critical to prevent and control HIV in African countries. Alliances between African and academic institutions are ideally suited to provide such training because they create effective interprofessional and nursing collaborations between African universities, government organizations, and health care settings.

Afya Bora Fellowship in Global Health

In 2010, the Afya Bora Consortium piloted the first cohort for leadership training. Following a successful trial, the consortium was fully funded for a year period July to June by the Health services and resources Administration, the President's Emergency Program for AIDS Relief, the Office of AIDS Research, a unit of the U.S. National Institutes of Health, and members from each African and academic institution have served as the leaders for the consortium in collaboration with health care leaders across the African country sites who assume roles as mentors for fellows. For more information about the Afya Bora Consortium, it can be found at http://afyaboraconsortium.org/newabout.html.

Afya Bora offers an innovative, comprehensive, and interprofessional curriculum and service training experiences to prepare future African and health care leaders to affect systems-based changes in the delivery of HIV care. The 5-year specific aims of the fellowship program along with measures of success are outlined in Table. Each year nurses, physicans, and public health professionals are selected for a year fellowship from regional Centers for Disease Control and Prevention (CDC) offices, in the ministries of Health and participating universities in Africa and the United States.
must be citizens of KenyaBotswanaGanda TananiaCameroon or the nited tatesand must meet one of the following education requirements:

- Medical applicants need to have an or BChB with an edPHor aster degree in a related field.
- Nursing applicants need to have a aster degree in Nursing, Public Health, or a related field (PhD preferredor substantial woreperience
- ther Public Health professionals those without a clinical degree must have an advanced degree in Public Health or a related field.

The Afya Bora Fellowship in Global Health offers postgraduate formal leadership and engagement training through a series of innovative sills building modules and placements in ministry of Health or healthoriendent NGAttachment ites that allow intensive mentorship from and African expert researchers, clinicians, and influential leaders. Etally important the multinational training platform promotes interprofessional net wors that position fellows for career opportunities that might otherwise not be realied or possible for fellows who have completed the Afya Bora program and who responded to a survey in response rate reported career advancementand of thoseattributed their pro motions to experience gained from completing the Afya Bora fellowshipfellowships immersed in African health care settings fully appreciated the realities facing African health systems when responding to HIVand theytoo have developed productive relationships with African colleagues woring sidebyside in situ.Because of the Afya Bora fellowshipfellowships contemplate careers in African countries.
Table 1. Specific Aims for the Afya Bora Fellowship in Global Health

<table>
<thead>
<tr>
<th>Specific Aims</th>
<th>Indicators</th>
</tr>
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<tbody>
<tr>
<td>AI: recruit and train highly qualified African and fellows</td>
<td>● Number and qualifications of applicants from medicine, nursing, other health fields</td>
</tr>
<tr>
<td></td>
<td>● Qualifications and gender of fellows selected to participate</td>
</tr>
<tr>
<td></td>
<td>● Learning objectives achieved</td>
</tr>
<tr>
<td></td>
<td>● Practical skills gained by fellows</td>
</tr>
<tr>
<td></td>
<td>● Performance objectives achieved by fellows at Attachment sites</td>
</tr>
<tr>
<td></td>
<td>● Frequency duration and utility of mentorship</td>
</tr>
<tr>
<td>AI: Build capacity with African partnering institutions to provide leadership training</td>
<td>● Content and innovative teaching methods included in modules</td>
</tr>
<tr>
<td></td>
<td>● Background and experience of African and instructors</td>
</tr>
<tr>
<td></td>
<td>● Relevant Attachment sites and meaningful Attachment site support</td>
</tr>
<tr>
<td></td>
<td>● Utility and relevance of fellow Attachment site experiences to public health priorities</td>
</tr>
<tr>
<td></td>
<td>● Number of African instructors and courses transferred</td>
</tr>
<tr>
<td>AI: demonstrate short and long term impact of the program</td>
<td>● Feedback provided to the program leads in real time and incorporated to improve project implementation</td>
</tr>
<tr>
<td></td>
<td>● Interdisciplinary collaboration and involvement in the Afya Bora Consortium post fellowship</td>
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<tr>
<td></td>
<td>● Institutionalisation of Afya Bora fellowship program in host institutions</td>
</tr>
<tr>
<td></td>
<td>● System in place to facilitate networking of Afya Bora alumni/faculty and mentors</td>
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<tr>
<td></td>
<td>● Afya Bora fellowship influence on leadership positions of alumni</td>
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<tr>
<td></td>
<td>● Alumni impact on institutional and health systems</td>
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</table>

The Afya Bora fellowship is predicated on Knowles' classic theory of andragogy, which posits that adult education is most efficient and effective when learners are self-directed. Draw on their personal experiences are motivated and can immediately apply learning to relevant problems faced by the learner. The months of didactic content combined with months of practicum experiences in Africa referred to as Attachment sites or health service sites site-based and service-based within Afya Bora oring Group members/faculty from African institutions, and influential leaders at health service sites ensure the success of fellowship experiences. Learning is augmented by ongoing independent guided debriefing modules with opportunities for online discussions with faculty experts. Learning modules are used to organize instruction content in topical areas such as Leadership Communication Project Management Health Information System Monitoring and Evaluation and Implementation Science. Each module may include opportunities for case-based participatory and interactive learning and the application of content to real-life situations. All modules and training resources are accessible at [http://afyaboraconsortiumorgnewmaterials.htmlmodules](http://afyaboraconsortiumorgnewmaterials.htmlmodules).

Service learning occurs during month practicum experiences. Immediately after entering the fellowship information is provided about Attachment sites to help fellows select sites where they have the flexibility to focus on areas of interest for their fellowship projects. Fellows are assigned to Attachment sites with suitable and accessible mentors who work with the fellows to facilitate their project. WorFellows are encouraged to target HIV testing/care and populations of greatest importance to improve health outcomes and the quality and efficiency of care delivery at the Attachment site. Table 1 illustrates the number of projects and specific topics that fellows have addressed in the past. Examples of the scope depth, and breadth of projects conducted in specific African countries by the fellow cohort are shown in Table 2.

**Afya Bora Narrows Gaps in Leadership Training**

Effective leadership has been identified as key to promoting health care reform in low-income countries. A recent systematic review of transformational leadership training for physicians revealed few interprofessional and transprofessional training programs in the listed tates and no such programs in Africa.
Table Attachment for Projects Related to Key Issues in HIV Testing/Care Populations

<table>
<thead>
<tr>
<th>Number of Projects</th>
<th>Subset of Topics</th>
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<tbody>
<tr>
<td>Implementation of ption B</td>
<td>Early infant diagnosis and PTCT</td>
</tr>
<tr>
<td>Access to testing</td>
<td>Care and treatment for pediatric HIV infections</td>
</tr>
<tr>
<td>Adult access to care and treatment</td>
<td>Care and treatment services in key populations (fishers, adolescents, GBV survivors)</td>
</tr>
<tr>
<td>AT adherence and treatment outcomes</td>
<td></td>
</tr>
</tbody>
</table>

Note: Project B is Life-long ART to all pregnant and breastfeeding women living with HIV regardless of CD4 cell count or CD8 Health regimen clinical stage PTCT prevention of mother-to-child transmission GBV gender-based violence AT antiretroviral therapy

Transoobia Levinson The Afya Bora fellowship fills a major gap in leadership training for African and health professionals working in global health. These gaps include training in interprofessional leadership, system strength, enacting transformational leadership, and innovative leadership.

Interprofessional leadership training Health care professions preand postlicensure academic programs both in the United States and Africa focus on discipline-specific education, which often leads to education that occurs in silos. In general, African academic curricula are by design often inclusive of classroom-based didactic content in the traditional pedagogy for academic degrees within established disciplines. Practical and service experiences dedicated to leadership development may be limited and dual curricula are often devoid of formal training in leadership science management. Mentorship science program evaluation policy and other critical areas that are reseum for effective leadership. Promising graduates of academic programs may not have sufficient exposure to governmental organizations or NGOs to launch careers in industries of Health or other prominent organizations involved in delivery of prevention curative disease management health services.

A unique feature of the Afya Bora Fellowship in Global Health is its interprofessional model for classroom and service learning. The Afya Bora Working Group and affiliate members represent nursing medicine and public health disciplines and have expertise in epidemiology, biostatistics, implementation science, and sexuality science outcomes research, and evaluation and program leadership.

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The consortium is structured to provide interprofessional fellowship training beginning with the first module on leadership led by the Center of the Faculty of Health sciences at the University of Botswana, who through his vast professional networks throughout Africa, runs interactive sessions with accomplished influential leaders from multiple disciplines. Other faculty bring discipline-specific perspectives into dialogues and debates about strategies and solutions for health systems thinking about change at the Center of the Faculty of Health sciences at the University of Botswana.

The Afya Bora nurse fellows who comprise a substantial number of health professionals enter the program with varied education backgrounds and employment experiences.

Interprofessional education IPE and training in global health is paramount to the preparation of future health leaders. It has endorsed IPE globally especially in resource-constrained countries, to improve the efficiency of learning and to address the Human resources for Health HHCrisis. However, a recent systematic review of publications on IPE as lessons for developing countries yielded only two from universities in LIC countries including the University of Namibia, which has a partnership between the schools of medicine and Pharmacy.

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Table Afya Bora Fellow Projects

<table>
<thead>
<tr>
<th>Country</th>
<th>Attachment sites</th>
<th>Projects</th>
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<tbody>
<tr>
<td>ganda</td>
<td>edical search CouncilVirus research Institute</td>
<td>Access to HIV prevention methods for fishing communities in Uganda</td>
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<tr>
<td>Botswana</td>
<td>BP</td>
<td>Cryptococcal meningitis characterization and prevention in Botswana</td>
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<tr>
<td>Botswana</td>
<td>ITECH</td>
<td>Evaluating eternal utility assurance for rapid HIV testing in Botswana</td>
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<tr>
<td>Botswana</td>
<td>inistry of Health</td>
<td>Perceptions of schoolgoing adolescents about substance abuse in amotswa</td>
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<tr>
<td>Botswana</td>
<td>inistry of Health</td>
<td>Integrated management of HIV and NonCommunicable iseases: Knowledgeattitudespracticeperiences of health care worers in GaboroneBotswana</td>
</tr>
<tr>
<td>Kenya</td>
<td>AEF</td>
<td>utility improvement of care and treatment services at Comprehensive Care Centre in ambush County eferral Hospital in Kenya</td>
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<tr>
<td>Kenya</td>
<td>AEF</td>
<td>Immunological and virology all outcome among HIV patients in Mibera AEF AT Project</td>
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<tr>
<td>Kenya</td>
<td>CCKisumu</td>
<td>HIV service deliveryuptaand gaps among Fishefalin the Nyana region</td>
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<tr>
<td>Kenya</td>
<td>CCNairobi</td>
<td>Kenya’s journey towards the eTCT target</td>
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<tr>
<td>Kenya</td>
<td>ITECH</td>
<td>Improving the utility of data available in Kenya Efor C</td>
</tr>
<tr>
<td>Kenya</td>
<td>Kenyatta National Hospital Comprehensive Care Clinic</td>
<td>The impact of HIV inservice training programs on health care worers knowledgeattitudesand practices at the Kenyatta National Hospital</td>
</tr>
<tr>
<td>Tanzania</td>
<td>EastCentraland southern African College of Nursing</td>
<td>Experience from supporting CPfor nurses and midwives in Tanzania through electronic site</td>
</tr>
<tr>
<td>Tanzania</td>
<td>anagement development for Health</td>
<td>ho should discloseInconsistencies in child HIVinfected status disclosure by health care providers in ar es aallamTaniana</td>
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<tr>
<td>Tanzania</td>
<td>inistry of Health and ocial elfare</td>
<td>Assessment of the magnitude of secondline AT failure in HIVinfected patients in ar es aallam</td>
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<tr>
<td>Tanzania</td>
<td>inistry of Health and ocial elfare</td>
<td>Prevalence of HIV infection and factors determining early infant diagnosis in Loe oneTaniana</td>
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<tr>
<td>Tanzania</td>
<td>nistry of Health and ocial elfare</td>
<td>Assessment of utility of PTCT program data in Tanania activators and barriers to VC in partners of women attending ANC in Kampala</td>
</tr>
<tr>
<td>ganda</td>
<td>Infectious iseases Institute</td>
<td>Assessment of factors associated with HIV transmission in HIVaposed infants at sina egional eferral Hospitalganda</td>
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<tr>
<td>nited tates</td>
<td>AEF</td>
<td>afe Birth ates: Evaluating the acceptabilityusabilityand feasibility of Hafe childhood checklist tool in hinya a egional Hospital</td>
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</tbody>
</table>

Note BP university of Botswana and university of PennsylvaniaAEF African edical and search FoundationCC Centers for isease Control and PreventionITECH International Training Education Center for HealthTCT elimination of mothertohild transmissionE electronic medical recordC clinical decision support systemCP continuing professional developmentPTCT prevention of mothertohild transmissionAT antiretroviral therapyVC voluntary medical male circumcisionANC antenatal CareH ord Health ganimation course option Peluso, Hafer, Sipsma, & Cherlin, aleviversity faculty have examined stuentsperceptions of such education and models for curricularating that studentfaculty collaboration and professional development are ey themes for establishing meaningful interprofessional partner ships in global health educationThe Afya Bora fellowship program has established IPE and interpro fessional training beyond degreegranting programs and the classroom and has embedded learning in interdisciplinary African health care settings and organizations such as NGOs and CC sites. According to a recent reportleaders from across the world envision IPE and training as transformative learning and a reusite for transforming health sys tems Frenet al Instructional reforms rely on interdependence in educationwhich will reuire a new professional era to tredown professional
silosenhance collaborative and nonhierarchial relationships. gender highperforming teamsedploit the power of information technology for learning and emphasis faculty development. Frenet al. 

The Institute of edcines. Global Forum on Innovation in Health Professional Education calls for actions to designimplement ed test innovative interprofessional models for global health education with partners outside of the nited tates. The report also underscored the need for these models to reflect the diseases and societies that trainees will eventually serve. which is exactly what the Afya Bora fellowship program service learning model accomplishes.

Health systems strengthening. A recent report from the Agency for International development AI has called for action to examine in frastructures of health systems to improve health and to generate evidence to support leaders of LICs in implementing strategic initiatives to build stronger health systems to promote the health and wellbeing of their citizens. The report analysed systematic reviews of health systems and concluded that health systems strengthening played a pivotal role in achieving priority health goals. The report consolidates health systems strengthening functions believed to be of greatest importance and impact in transforming health systems. These include but are not limited to finance, governance, information, and service delivery. AI. Each of these functions was further defined by types of interventions substantiated by research that resulted in desired outcomes such as improved service utilization, increased in-service utilization, and reduced morbidity and mortality in systems strengthening for education in underresourced areas of ubahan African countries has been a priority of partnerships between and African academic institutions through faculty collaborations to improve the training of nurses and physicians. Kolars et al. Inter national health school partnerships are striving to teach students to work interdisciplinary teams and learn management skills. However, more work must be done to determine how this type of training will strengthen health care systems.

The developmentimplementation and evaluation of serviceoriented projects conducted by Afya Bora fellows generated evidence for small tests of change. Afya Bora fellows learned to do rapid situational analyses that allowed them to identify ratelimiting steps to their implementations and to develop measures of success for their projects. The results of these projects have been used to improve efficiencies in HIV care and testing. Overcome barriers to access to care and inform new health policies. In these ways, the Afya Bora Fellowship in Global Health used the ind of model suggested by ubaman and colleagues who contended that learning by doing was an effective method for health system change.

The type of projects that Afya Bora fellows developed and implemented. Table have been aligned to health system strengthening interventions that result in health impacts and outcomes in areas of improved service provision, increased financial protection, increased service utilization, and uptake of healthy behaviors. AI.

Transformational leadership training. Transformational leaders are required to transform, reform, and strengthen health systems. Nurses are the largest global workforce and backbone of health systems worldwide. ey components in transformation. Ferguson To prepare transformational leaders, health profession education must be revamped to include new curricular frameworks for leadership training and experiences and organizations and initiatives must provide formal programs to expand the scope and influence of global nurse leaders. The International Council of Nurses is an international pioneer ensuring that global nurse executives possess the knowledge, skills, and abilities to lead effectively, and are qualified to meet global health challenges. Ferguson The Nursing Education Partnership Initiative NEPI and edical Education Partnership Initiative EPStrive to strengthen and transform education in nursing and health sciences in ubahan African countries burdened by HIV to prepare a more qualified health professions workforce to confront the challenges of HIV care. Glassaaaid Goosby von inerageldiddon et al. NEPI and EPI were built on the assumption that African academic institutions must excel in education and service. NEPI has strengthened nursing education programs in
Table distribution of male and Female Fellows by Country Citizenship and discipline

<table>
<thead>
<tr>
<th></th>
<th>nites tates</th>
<th>Botswana</th>
<th>Kenya</th>
<th>ganda</th>
<th>Tanaia</th>
<th>Cameroon</th>
<th>Total</th>
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<tbody>
<tr>
<td>Nurses</td>
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Note: PH = public health

Lesotho was a democratic republic of Congo and Ethiopia and conducted work to build an evidence base to inform global policy guidance to scaleup nursing and midwifery education to prepare a more qualified nursing workforce (iddleton et al). NEPI supports the development of new asters programs in nursing and midwifery provides scholarships to faculty development training and facilitates regional faculty networks across schools of nursing.

The Afya Bora fellowship compliments these initiatives by helping health professionals design and implement scaleup and evaluate lead health programs particularly those that are population based and focus on prevention and control of HIV and other public health issues of greatest importance to communities and health service settings.

Innovative leadership training. Innovative leadership is another requisite for introducing positive and sustainable changes in HIV care in African countries. A review by Kani (Kaattiland) highlighted examples from Botswana Nigeria and ganda of leaders at all levels of government organizations academia and health service successfully transforming health care systems to meet the demands for HIV care. In Botswana leaders forged an academic partnership with Harvard University in the nites tates which led to an HIV clinic for education and research. Nigerian leaders engaged the international community to scaleup HIV prevention and treatment programs and mounted countrywide outreach responses. Leaders from ganda catalyzed community level engagement in and ownership of a program to reduce HIV stigma and discrimination by breaching down barriers to HIV care. Innovation is a major factor of the Afya Bora fellowship training and the Afya Bora fellowship training. Fellows are encouraged to design innovative service oriented projects with solutions that will have the greatest and most lasting impact for improved systems redesigns, workflow and processes, and population outcomes.

Afya Bora Fellows

To date, the consortium has reached its specific target to recruit fellows. Table 1 illustrates the numbers of male and female fellows by discipline. The composition of Afya Bora fellows shows an encouraging trend toward narrowing the gender gap for rising African health care leaders with female Afya Bora fellows. The gender gap in HH in Africa continues to pose a serious challenge to health systems across the continent. The gender gap is caused by factors such as the heavy burden of HIV on women on the continent and sociocultural and economic factors that relate to the African continent. The gender gap indicates that health workforce gender imbalances are a major challenge for health policy makers. urnal PotilwellAdams

Additionally, improving gender equity can strengthen workforce distribution and silt mised but human resource policy and planning failures have been traced to HH leadership failures to account for gender eichenbach ownseif

Hooroand Fitzgerald summarized the root causes for the underrepresentation of African women as global health leaders. The obstacles they found included challenges with career advancement due to discrimination salary inequities between men and women, difficulties balancing family...
responsibilities and lack of women role models. The Afya Bora fellowship program empowers women with solutions to overcome these barriers and insures that women benefit from exposure to and mentoring from successful African women role models who are Afya Bora oring Group memberscollaborators and Attachment site mentors.

The Afya Bora fellows have been nurses and of these held doctoral degrees Ph or NP when entering the fellowship the others all had asters degrees. The fellowship includes training that is directly aligned to what African nurse leaders believe to be most important to successful leadership careers in health policy. Hariff conducted a elphi survey with national nurse leaders from Kenya, Tanzania, and Ghana who served as informants to define the attributes of nurse leaders needed to influence health policy. Consensus revealed essential leadership utilities including the abilities to influence, communicate effectively, build relationships, feel empowered, and demonstrate professional credibility. Afya Bora nurse fellows acquired these leadership attributes throughout training competencies. In these areas were continuously tested through modules, case-based, and interactive learning, and during service-oriented experiences in HIV population health.

Program Evaluation

Formal monitoring and evaluation have been critical components of the Afya Bora fellowship program since its inception. Each module is evaluated through participant feedbacks as well as by the direct observation of a program evaluator. Each cohort of fellows evaluates their Attachment site experiences including the mentoring they received at the midpoint and end of the year. These data were analyzed and reported bacto Afya Bora leaders in real-time for the purpose of program improvement.

Additional evaluation methods were used to assess program effectiveness as well as support the fellows’ learning experiences. Fellows completed bi-weekly journal entries, which prompted reflection on the leadership the fellows observed and practiced at their Attachment sites. The ournding activity thus encouraged the development of metacognition.

and because the entries were submitted to the evaluation team, the journals also provided evidence of leadership development. Anielis et al Isaac Katai Lee Carnes Fellows also completed lists logbook which included performance domains lined to learning module competencies. The logbook helped guide fellows to practice essential leadership skills during the attachment experience and the completed logbook, signed by Attachment site mentors, provided evidence of the fellows’ progress and how well they were able to implement didactic and service learning.

Finally, to evaluate the impact of the Afya Bora program, a biannual survey was sent to alumni to collect information on what if any improvements the fellows had made to health systems in their home countries. Self-report is a common method of leadership training evaluation. Anielis et al. Fernande Noble, Jensentesffen

Afya Bora attempted to reduce inherent limitations of the method by using fellows to provide concrete details of changes they had catalyzed as well as metrics of their successes. Competency-based assessments were also conducted with fellows specific to modules and service learning experiences in specified content and performance domains reflected in the overall fellowship program: leadership and management, health systems management, mental health service delivery, program evaluation, communication, bioinformatics, and research. Fellows regularly completed evaluations of modules, faculty presenters, and Attachment site mentors.

As part of the ongoing monitoring and evaluation process, the achievement of indicators aligned to specific aims were regularly assessed. For example, Aim 2 specifies building capacity with African partnerships to provide leadership training. The expansion of new partnerships is now being forged in Cameroon at the university of Buea and the Cameroon Baptist Union. For Aim 3, a comprehensive survey of alumni has been conducted to assess the success of past fellows in securing leadership positions and the fellows overall impact on health systems.

Based on ongoing evaluation data from fellows, faculty, and mentorship, teaching, and learning strategies have been introduced, modified, and enhanced to
strengthen the training experience. Faculty have indicated the need for more interactive learning formats, such as case-based learning, and reflective learning achieved by fellows sharing their experiences at Attachment sites. Fellow collaborative learning groups are used to develop and analyze solutions to complex systems issues and challenges, and to health care core interactive discussions with African health care leaders have been used to expose fellows to role models influencing change in health care systems. Faculty have been assigned to modules to bring a diverse perspective on content and to provide more faculty-fellow interactions. Faculty evaluated modules for data management and analytical techniques and software programs reflected the need to tailor learning to varying levels of expertise among the fellows.

Teaching is now directed to basic and more advanced learnerservice-based learning has been strengthened by recruiting more active Group members from Africa and Attachment sites. Faculty mentors have conducted more debriefing sessions with fellows to critically analyze effective and ineffective leadership strategies. Afya Bora mentors encourage stronger engagement with health care professionals and administrative personnel at Attachment sites to ensure feasible solutions for fellow projects to ensure success in improving health systems and HIV care delivery.

Conclusion

The Afya Bora fellowship program trains leaders from public/private and academic organizations by empowering partnering universities to offer leadership training directly relevant to the needs of nonacademic organizations including intries of Health conducted by Afya Bora fellows has made meaningful contributions and impacted HIV prevention and services at Attachment sites. In this way, the fellowship goals have been synergistic with recent initiatives to build training capacity at African nursing and medical schools including those of the International Council of Nurses (NEPland EPI while the International Council of Nurses (NEPland EPI have concentrated on implementing health programs within academic institutions. The Afya Bora Fellowship in Global Health takes this approach one step further by creating leadership training opportunities and resources that can be adapted to both university-based education and postgraduate professional development. As other health training programs evolve in Africa, it is anticipated that the fellowship will be a model program for new initiatives and will maintain the success of all training programs through collaboration and shared resources.

Disclosures

The Afya Bora Fellowship is funded by a year award July to June. Afya Bora is sponsored by the Health Resources and services Administration (HRSA), the Harvard School of Public Health, the Office of AIDS Research and the National Institutes of Health.

Key Considerations

- Key areas to improve HIV care include but are not limited to: access to care, antiretroviral therapy adherence, testing, health system improvement through workforce development and capacity building.
- Afya Bora interprofessional training is specifically geared toward addressing HIV in Africa.
- The Afya Bora training model has empowered nurses and women who are critical to the health workforce in Africa to be transformational leaders capable of being effective change agents in HIV prevention and care.
- The Afya Bora interprofessional and innovative leadership training through didactic modal case-basedand practical onsite training in select Attachment sites addresses various components of HIV care that can lead to health system strengthening.
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