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The Medical and Nursing Education Partnership Initiatives

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Abstract

The Medical and Nursing Education Partnership Initiatives (MEPI and NEPI) are innovative approaches to strengthening the academic and clinical training of physicians and nurses in Sub-Saharan African countries, which are heavily burdened by HIV/AIDS. Begun in 2010 by PEPFAR with the National Institutes of Health, investments in curricula, innovative learning technologies, clinical mentoring, and research opportunities are providing a strong base to advance high-quality education for growing numbers of urgently needed new physicians and nurses in these countries. The MEPI and NEPI focus on strengthening learning institutions is central to the vision for expanding the pool of health professionals to meet the full range of a country's health needs. A robust network of exchange between education institutions and training facilities, both within and across countries, is transforming the quality of medical education and augmenting a platform for research opportunities for faculty and clinicians, which also serves as an incentive to retain professionals in the country. Excellence in patient care and a spirit of professionalism, core to MEPI and NEPI, provide a strong foundation for the planning and delivery of health services in participating countries.

The impact of HIV/AIDS on Sub-Saharan Africa has brought into stark relief the urgency to increase the capacity of health professionals and the health systems to provide effective care for chronic and progressive diseases. More than 70 percent of the global burden of HIV resides in Sub-Sahara, with 25 million people of the 35 million now living with HIV.[1, 2] The disproportionate burden has maximally challenged countries to respond and mount a sustained national response to rising morbidity and mortality. In 2002, only approximately 50,000 people were receiving antiretroviral therapy (ART) within Africa, and existing health systems were neither prepared nor had the capacity to manage the spectrum of disease presenting in vast numbers.[3] The advent of the Global Fund for HIV/TB and Malaria (GFATM) in 2002, followed by the U.S. President's Emergency Plan for AIDS Relief (PEPFAR) in 2003, has demonstrated that patients with complex chronic, progressive disease can successfully be cared for in resource-poor settings and with responses brought to scale. This transformation of the response to HIV/AIDS has been profound.

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The HIV virus is not only devastating to the individual's immune system, but it also challenges the medical delivery system to recognize and treat opportunistic infections. Across the region, the inevitable saturation of hospitals and congestion of outpatient delivery systems was most evident in those areas heavily affected by HIV. Physicians, nurses, and health workers were challenged to remain engaged with clinical work in the face of illnesses they could not treat, and for which they were being paid below-acceptable minimum wages. Working conditions for providers were difficult, with large numbers of patients, poor support, and undependable supplies, a situation that although improved, still remains in many areas today. Country leadership was often unable or unwilling to reform the civil service system to bring in equitable wages that would diminish the numbers of professionals leaving country medical systems, and also invest in increasing the supply by expanding pre-service education. Workforce needs alone continue to be huge in Africa, which is home to 3% of the global health workforce in a continent that carries 25% of the overall global disease burden and 11% of the world's population.[4] Addressing the supply issues necessarily involves dependence on medical education systems that take years to produce qualified health care providers.[5, 6]

Facing the Challenges

Providers are often challenged to understand how to diagnose and treat disease as well as how to develop and introduce effective medical delivery systems using laboratory diagnosis of opportunistic infections and the monitoring of ART. A feature of PEPFAR's expanded support was the movement away from the syndromic approach to public health, in which diagnosis and treatment are based on symptoms, and toward clinical diagnosis with laboratory monitoring to better target specific diseases. Across Sub-Saharan Africa, embracing the model of care and services over the lifetime of an individual was challenging, especially in a culture geared only toward acute care on an episodic basis and that had not embraced routine primary care for the general population. Indeed, the concepts of “continuity of care” and “patient-centered services” have been accelerated in every country with the introduction of PEPFAR's robust HIV response.

The shortage of providers, combined with limitations inherent in many medical delivery systems, resulted in the wide-scale adoption of a public health approach to HIV treatment services. Governments developed protocols to diagnose and treat opportunistic infections and to initiate ART—to define one combination of antiretrovirals (first line)—directed by physicians and medical officers. More recently, nurses have received specific training to initiate and monitor therapy. The successful initiation of ART by trained providers has allowed for the rapid expansion of treatment services to millions in Sub-Saharan Africa: 7.5 million of the 7.6 million on treatment in Africa as of December 2012. [7] This treatment expansion, along with continued prevention interventions, has reduced the incidence of new infections in many of the most heavily burdened countries in Sub-Saharan Africa by more than 50%, an accomplishment not previously seen.[1, 8] The delegation of responsibility for diagnosing and initiating treatment for HIV, referred to as “task shifting,” has moved to nurses in more countries, commensurate with their training.[9] However, in the face of an overall shortage of health professionals in Africa, task shifting is not an adequate solution in itself.

Supported by PEPFAR through the National Institutes of Health (NIH) and the Health Resources Service Administration (HRSA), the Medical Education Partnership Initiative (MEPI) and the Nursing Education Partnership Initiative (NEPI) responded to the need to increase the number of trained physicians and nurses. The platform of health care services put in place for HIV can be expanded to address the needs of non-communicable diseases (NCDs). The health professions will be the foundation on which services can be maintained and expanded. Through the collective work of PEPFAR, GFATM, and various countries, we are now at the dawn of a new era of health care delivery in Sub-Saharan Africa, one that builds on the HIV disease-focused response toward a platform that can deliver a more comprehensive set of essential services.

MEPI and NEPI-Expanded Clinical Excellence

Launched in 2010, MEPI grants support 13 academic medical institutions in 12 Sub-Saharan African countries. These institutions were encouraged to partner with academic institutions of their own choosing in the United States, Europe, and elsewhere. The program is designed to strengthen African medical schools to increase the quantity and competence of graduating physicians. It also targets attending physicians in teaching hospitals to provide them with modern training in clinical teaching methods, expanded skills in disease surveillance, and clinical research skills. Although concerns arose that resources were being diverted from “services,” it was evident to PEPFAR leadership that the ongoing and expanding needs of the HIV-infected community could not be successfully sustained without increasing the number of trained health professionals. Developing a clinical and research capability was another strategy to retain professionals' in-country and in clinical settings most in need and avoid “brain drain” to better-paying jobs elsewhere.

We also felt that this approach would further enhance the growing network of clinicians and researchers already working in the HIV field. Having a cadre of clinical faculty who valued and praised excellence in diagnosis and treatment would create a role model to further enhance intangible qualities that were critical to effective medical/nursing school faculty. This elevation of the clinical faculty has the potential to transform the delivery of health care in Sub-Saharan Africa, with physicians taking responsibility for the outcome of a therapeutic intervention and being willing to discuss with colleagues and with patients and their families therapeutic interventions and potential outcomes. The move away from reliance on a predominantly syndromic approach to one of clinical and laboratory diagnosis supporting treatment of a specific disease—typified by the care and treatment required in HIV—would prime the African medical delivery system to be able to add care for additional chronic diseases, including NCDs. This expansion of diagnostic and treatment capability also enhances the intellectual honesty in the delivery of services. The trust that allows a patient to accept care from a provider is based on the belief that the provider is going to make decisions and justify interventions that are always in the patient's best interest. Realizing that “standards” alone would not be enough to transform and sustain high-quality care, we felt that MEPI and NEPI would be in part a catalyst for further incorporation of these practices into the foundational infrastructure, to create a self-regulating accountability emanating from the profession itself.

Because nurses deliver most of the health care services in Sub-Saharan African countries, increased attention and investment in nursing education will be critical to meet the goals of population health. NEPI is structured to support nursing education institutions in five countries, guided by the national Ministries of Health and Education, relevant nursing councils and regulatory agencies, and academic leaders. This inclusive group of stakeholders reflects the necessity of coordinating the nursing workforce within broader human resources for health planning, recognizing scopes of practice and the distribution of nurses to meet population health needs. Many constraints influence the production of well-prepared nurses, including outdated teaching methodologies and curricula, inadequate numbers of prepared faculty, lack of supervised field experience, and a mismatch between curricula and local conditions and disease realities.[6] NEPI's core objectives include preparing an adequate supply of well-trained nurses to serve their communities. Improving curricula, incorporating competency-based learning and skill labs, and providing clinical rotations under knowledgeable supervision increase the competence and confidence of new nurses. Parallel attention to faculty development and retention has been important to reward professionalism, and in turn to incorporate this self-expectation and practice in graduating nurses.

Convergence of Economic Factors

This change in the professional model of delivery of patient care comes at a time of economic expansion in many African countries, creating an opportunity to take advantage of new resources to support health care service expansion.[10] This economic expansion, accompanied by the potential for more young people to enter and contribute to a more productive health care workforce, presents a formula for service expansion in countries that until now could not have hoped to sustain delivery systems whose requirements exceeded available resources. Emerging economic opportunities to define a standard of health care will require knowledgeable professionals who are able to establish and use information systems and manage, monitor, and evaluate programs to meet the health care needs of populations as they change over time.

Already existing medical infrastructure, typically focused on maternal and child health, family planning, and immunization services, has been expanded through PEPFAR and the GFATM in many countries to provide a platform that will allow for additional services, including the diagnosis of NCDs. This expansion accommodates the needs of those infected with HIV as well those without. The opportunity is clearly before us to take advantage of this economic growth to support expansion of sustainable health care services.

Research activities further anchor faculty to remain within their academic medical institutions and stay within the country. The growing use of academic medical centers as resources to support service delivery, surveillance, and the evaluation needs of the National and Provincial Ministries of Health is evident in all countries. The partnering of local academic medical centers with Ministry of Health-supported facilities and local community-based organizations is becoming commonplace. To be successful in garnishing the new resources generated by expanding country economies, systems must be ready to fully

assume management and oversight of the delivery of medical care down to the village level. MEPI and NEPI are supporting the expansion of this professional cadre.

The Vision Ahead

MEPI supports the revitalization of African academic medical centers. It is the cadre from these medical centers who will continue to educate the physicians of the future and define the professional behaviors at a time of transformation in service availability and the growing inclusion of civil society in planning and implementation decisions. This combination of a professional standard of clinical care, matched with a self-defined code of behavior, better ensures that African health care will continue to evolve in its ability to effectively identify, enter, and retain patients in a continuum of high-quality services that are responsive to the changing needs of disease over a patient's lifetime for the entire population. Likewise, NEPI sets a roadmap and precedent for country investment in high-quality nursing education to expand this essential workforce. Countries are also exploring various regulatory and continuing education models to ensure that these professionals maintain the knowledge and skills they need.

It is our hope that MEPI and NEPI will continue to support the already robust network of exchange between medical education and training facilities both within and between countries. We have seen the sharing of curriculum, the development of eLearning efforts, and the institutionalization of inter-professional education in these academic institutions; these changes are transforming the quantity and quality of health professionals. The importance of strengthening institutions as a foundation of capacity expansion has challenged the development and donor communities to revisit their models. The continued economic constraints of donor countries and the growing self-expectation of high quality from those who depend on these services necessitate a rethinking of our approach to sustainable development. The broader global health community must find ways to aggressively support the ability of our partner country governments and civil society to develop and expand high-quality services for their people, recognizing the strengths and contributions of country institutions to this goal.

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Biography

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