The Nursing Education Partnership Initiative (NEPI): Innovations in Nursing and Midwifery Education

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Abstract

The nursing and midwifery workforce is key to improving the performance of the health system overall. Health workforce shortages are significantly influenced by the productive capacity of health professions education institutions. Long-standing underinvestment in preservice nursing and midwifery education severely limits the capacity of institutions to educate nurses and midwives in sufficient numbers, and with the necessary clinical skills, for current and anticipated population health needs. The Nursing Education Partnership Initiative (NEPI) was established in 2011 by the U.S. President's Emergency Plan for AIDS Relief in response to key capacity-building challenges facing preservice nursing and midwifery education in Sub-Saharan Africa. NEPI has formed partnerships with governments and key stakeholders in Ethiopia, Democratic Republic of Congo, Lesotho, Malawi, and Zambia and supports 19 nursing and midwifery education institutions and 1 nursing council. NEPI has been informed by activities that strengthen education systems, institutions, and organizations as well as faculty capacity building. Ministry of health–led advisory groups were established to provide strategic direction and oversight for the work, fostering intersectoral dialogue and ensuring country ownership and sustainability. Three illustrative examples of innovations at the system, institution, and workforce levels describe approaches for country ownership, for addressing the shortage of highly qualified faculty, and for remedying the inadequate teaching and learning infrastructure.

The nursing and midwifery workforce is key to improving the quality, efficiency, and availability of health services and the health system overall.[1] Although progress has been made toward achieving the millennium development goals for health, Sub-Saharan Africa is not on track for reducing child mortality, and the region remains disproportionately affected by communicable diseases, including HIV, and increasingly by noncommunicable diseases.[1] Chronic nurse and midwife shortages throughout Sub-Saharan Africa exacerbate the failure of health systems to thrive and accomplish their missions. These shortages, occurring across the health workforce pipeline, are significantly influenced by the productive capacity of nursing and midwifery education institutions. Long-standing underinvestment in preservice nursing and midwifery education severely limits the capacity of institutions and faculty to educate nurses and midwives in sufficient numbers, and with the appropriate clinical skills, for current and anticipated population health needs.

In a key study that included data from nine Sub-Saharan African countries, the self-reported ability of practicing professional nurses to conduct tasks associated with key nursing roles was suboptimal and varied significantly between Anglophone and Francophone countries.[2] The highest role performance was for "general care and treatment," with Anglophone nurses performing only two-thirds and Francophone nurses less than half of the tasks for this role.[2] The lowest role functioning was for "maternal and child health," with Anglophone and Francophone nurses performing fewer than half of the tasks for this critical role. Although nurses with advanced clinical training (data are only available for the sample from Anglophone countries) reported comparatively higher role functioning across all roles, quality of care was a concern. These findings raise concerns about the relevance of the current nursing and midwifery education programs for population health needs. We echoed the global and regional calls for greater investment in preservice nursing and midwifery education, as well as specialist training, to improve the clinical competency of nurses and strengthen regulatory bodies to ensure high-quality education, care, and patient safety.[3,4]

The Nursing Education Partnership Initiative (NEPI) was established in 2011 with funding from the U.S. President's Emergency Plan for AIDS Relief (PEPFAR) in response to key capacity-building challenges facing preservice nursing and midwifery education in Malawi, Lesotho, Zambia, Democratic Republic of Congo (DRC), and Ethiopia. In this paper, we highlight the approach taken by ICAP at Columbia University in addressing these challenges and, based on PEPFAR's multilevel Framework for Capacity Building, illustrate innovative capacity-building activities undertaken at the systems, nursing education institution, and workforce levels.[5] We also outline key lessons learned in launching the initiative, the anticipated impact of these innovations, and next steps in our ongoing development of nursing education in the region.

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It is important to note that although NEPI and the Medical Education Partnership Initiative (MEPI) are both funded by PEPFAR, they differ in their approaches. Nursing schools to be supported by NEPI are selected by the NEPI advisory groups in the countries where it works. The advisory groups, which include ministries of health, nursing councils, and other stakeholder organizations, solicit applications from nursing schools interested in obtaining NEPI support. These applications are then carefully assessed through established selection criteria. This process ensures that the schools selected (to date, 19 nursing schools) are most likely to succeed and to contribute to the nurse and midwife workforce in the relevant countries. MEPI awards, on the other hand, are the result of a competitive program run by the National Institutes of Health on behalf of the U.S. government in which all Sub-Saharan African medical schools were eligible. Thirteen schools in 12 countries received MEPI grants in this competition.

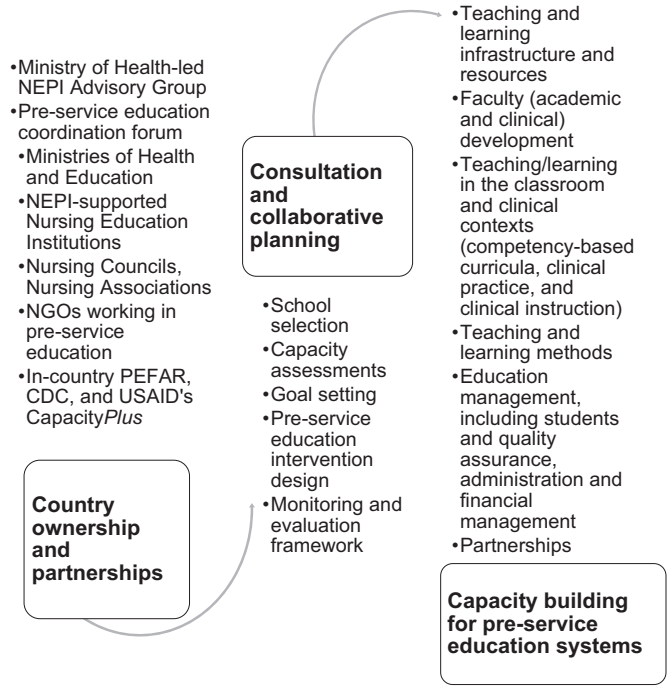

Figure 1 Illustration of the iterative phases and focus areas of NEPI, based on PEPFAR's capacity-building principles of country ownership and partnerships, collaboration, and capacity building for sustainable development. NEPI indicates Nursing Education Partnership Initiative; NGO, nongovernmental organizations; PEPFAR, President's Emergency Plan for AIDS Relief; CDC, Centers for Disease Control and Prevention; USAID, United States Agency for International Development.

NEPI's Approach

NEPI's multilevel preservice education systems strengthening strategy is underpinned by organizing principles and processes of the PEPFAR Framework that ensure country ownership and partnerships, consultative and collaborative planning, and capacity building (Figure 1). NEPI has partnered with 19 nursing and midwifery education institutions and 1 nursing council in five Sub-Saharan African countries (Ethiopia, DRC, Lesotho, Malawi, and Zambia) to address priority capacity challenges identified by baseline assessments (Table 1).

Similar priority challenges affect the capacity of these institutions to increase preservice enrollments to meet nursing and midwifery workforce targets and quality-of-service goals. The NEPI preservice education systems strengthening model, which includes 31 capacity-building outputs, was developed to address these challenges based on evidence from the education literature, recommendations from institutional assessments, review of country reports, and expert advice from stakeholders. These capacity-building activities are described in greater detail in Supplemental Digital Appendices 1 and 2, http://links.lww.com/ACADMED/A213. Notably, the activity outputs are options rather than prescriptions, influenced by the country's specific goals, priority needs and resources, and existing capacity gaps. Of these 31 outputs, 7 target workforce capacity building, 17 address organizational capacity building, 4 focus on both workforce and organizational development, and 3 focus on organization- and systems-level capacity building.

Capacity Building: NEPI Advisory Groups

At the core of the NEPI strategy is the establishment of a NEPI advisory group, led by the ministry of health in each country. Members of the advisory groups play critical roles in forging clear and formal links between the various ministries of health and education (in the DRC, Malawi, and Ethiopia); between these ministries and the ministry of social and development planning (in Lesotho); between different ministry of health directorates (in Malawi and Zambia); and between NEPI and the ministerial technical working group for health workforce development in each country.

These advisory groups embody country ownership in their many roles, which include ensuring stakeholder consensus on NEPI's strategic direction; advising on institutional assessments, school selection, and prioritization of capacity-building activities; coordinating the involvement of government partners; facilitating access to ministerial decision-making bodies; advocating for the establishment of regulatory bodies; and integrating the project into the country's human resources for health plans.

Faculty Workforce Capacity Building

A key challenge for preservice education in the five NEPI-supported countries is the paucity and often-limited capabilities of nursing and midwifery clinical and academic educators. Educators consistently report working in underresourced circumstances, with limited teaching and reference materials and few opportunities for continuing professional development, maintaining clinical competency, or career advancement.

Both Malawi and Zambia have reported operating with less than half of their national target number of educators,[6,7] and all 19 nursing and midwifery education institutions supported by NEPI indicated that the limited number of clinical instructors (more than 10–15 students

Table 1
NEPI-Supported Institutions, by Country and Authority

NEPI-supported institutions, by country	Ministry of education nursing education institutions	Ministry of health nursing education institutions	Faith-based nursing education institutions	Regulatory bodies
Democratic Republic of Congo (4)	Kinshasa ISTM Lubumbashi ISTM	Kintambo Kamalondo		
Ethiopia (3)	University Gondar University Addis Ababa	Arbaminch College Health Sciences		
Lesotho (6)	National University Lesotho	National Health Training College	Christian Health Association Maluti, Roma, Scott, and Paray	
Malawi (4)	Mzuzu University University Malawi	Malawi College of Health Sciences		Nurses and Midwives Council of Malawi
Zambia (3)	University of Zambia	Lusaka School of Nursing	Christian Health Association Monze	

Abbreviations: ISTM indicates Institute Higher Medical Education; NEPI, Nursing Education Partnership Initiative.

per instructor) negatively affected the quality of clinical education and potential for expanding student enrollment.[4,7–10] In one of the countries, three-quarters of the students experienced dissatisfaction with the quality of academic and clinical instruction. As one student described the learning gap: "We are part of the new education reform which places students at the heart of the training process. Certain teachers find it hard to adapt to this change as they haven't mastered skills-based learning methods."[10]

To address the clinical and academic educator shortage and competency gap, two NEPI-supported nursing education institutions in Malawi are implementing a comprehensive faculty development strategy for nurse educators from the country's 16 nursing education institutions and advisors from the nursing council.[11] The strategy aims at increasing the number, quality, retention, and motivation of nurse educators and clinical preceptors in four interrelated ways. First, two new programs were developed to provide opportunity for professional development and career advancement in nursing and midwifery education. A master's degree program in nursing and midwifery education prepares nurse educators with advanced knowledge in educational methods and research, and clinical competence in their specialty area. This ensures that faculty can bridge the service–academic divide, providing clinical and academic education that is relevant and up-to-date. The other program, a postgraduate certificate in preceptorship, prepares experienced clinical nurses to instruct and support students in developing clinical competencies and confidence, critical thinking abilities, and effective nurse–patient relationships and provides opportunity for advancement in clinical services.

Second, NEPI-supported scholarships were created to support candidates undertaking programs in nursing and midwifery education. These resulted in a 70% increase (from 20 to 34) in enrollments for the bachelor of nursing sciences degree (education specialty) and a 35% increase (from 40 to 54) in postgraduate enrollments from 2011 to 2013. These scholarships are awarded not only on the basis of candidates' academic performance and current service in the rural nursing colleges but, importantly, on their commitment to return to serve in rural and/or understaffed colleges after graduation.

Third, needs-based training was used to address faculty requests for updating their educational knowledge and skills. In the case of one institution, faculty received training to implement problem-based learning in core undergraduate modules. Fourth, faculty exchanges are supported with other nursing schools in the region, including NEPI-supported institutions.

Institutional-Level Capacity Building

Another challenge for preservice education in the five NEPI-supported countries is the poor state of the teaching and learning infrastructure and resources. Institutional capacity assessments demonstrated that the overall teaching/learning infrastructure and resources were severely limited, rendering it nearly impossible to expand student enrollment, implement innovative teaching methods, and enhance student learning. Thus, the need to focus on clinical simulation and eLearning as important capacity-building innovations to improve students' clinical skills and knowledge was identified.[12]

Lesotho is integrating clinical simulation into all nursing and midwifery curricula. The strategy aims at increasing the quality of clinical teaching by providing lifelike experiential learning opportunities for students to develop requisite competencies, as well as contributing to the evidence base for clinical simulation in low-resource settings. Clinical simulation laboratories were installed and equipped with low- and medium-fidelity simulators (such as manikins and models) at the six NEPI-supported nursing education institutions in the country.[12] Simulation laboratory coordinators were recruited to oversee the laboratory environment and resources, assist faculty in running simulations, and support students in achieving their clinical learning objectives.

ICAP at Columbia University, in partnership with the Forum of University Nursing Deans in South Africa, developed a training program in clinical simulation to support faculty in assessing their resources and capacities for simulation; developing and implementing simulation

scenarios; building technical relationships with other institutions in the region that are using this method; and evaluating student satisfaction with this method, including changes in attitudes, knowledge, and clinical competencies. To these ends, the clinical laboratory coordinators initiated a clinical simulation research group motivated by the need to evaluate the effectiveness of this method in building students' competence and confidence.

Lessons Learned and Next Steps

At the systems level, the NEPI advisory groups play a significant role in ensuring that the relevant interventions, guidelines, and standards that are developed through this initiative are adopted at a subnational and/or national level, which could increase and sustain their impact. These advisory groups have helped bridge the service–education divide in all five NEPI-supported countries, by promoting regular dialogue between government ministries and key stakeholders and maintaining nursing and midwifery at the forefront of the health workforce development agenda. Future plans include providing support at the overarching systems level; strengthening interventions, including strengthening nursing councils where they exist (Zambia, Malawi, and Lesotho); and supporting in-country efforts to establish such councils where they do not exist (DRC and Ethiopia). Regulatory councils that both monitor the quality of professional education and practice and recognize progressive levels of nursing excellence serve a vital function in promoting an effective and motivated health workforce.

At the level of educational organizations, preparing to build capacity in teaching and learning infrastructure, resources, methods, and curricula takes time. Concurrent capacity building in finance, administration, and grants management is essential to ensure timely procurement processes and build institutional ownership. Managing the education institution's expectations involves highlighting the "hidden" time of these preparatory activities as a facet of capacity building. A key principle of the NEPI approach is to foster South-to-South learning across the NEPI-supported nursing schools to enable direct and relevant sharing of experiences and expertise.

Going forward, teaching and learning infrastructure development will continue to be prioritized. Significantly, Lesotho is gaining recognition in the region for best practices in clinical simulation, with more than 1,300 nurses and midwives completing skill laboratory competencies in 2013. This model will be adopted in Malawi, Zambia, DRC, and Ethiopia. Documenting best practices in education systems strengthening is necessary to inform further expansion and replication of effective models. New elements are being included in the educational curriculum, such as Option B+ for prevention of mother-to-child transmission of HIV infection while keeping the mother healthy, and providing care for HIV-TB coinfected patients.

At the faculty workforce level, new opportunities for clinical and academic educational career pathways have been established. Preceptor training in Malawi and Zambia is well under way, and the first 32 graduates from the postgraduate certificate course in Malawi are now engaged in teaching and supporting students at health facilities. Master's degree programs are catalysts for education reform, and this preparation can directly affect the quality of the education system. As one faculty member stated during the launch of this program: "It has helped to improve students' performance because of the knowledge that I have acquired. The institution has taken a new approach of student-based learning … hence improvement in performance." NEPI will continue to support faculty development by expanding technical assistance and faculty and student exchanges between the NEPI-supported countries and with universities in the Global South, including Francophone countries in particular. Lastly, plans are in place for a systematic evaluation of NEPI's effect on the quality of teaching and learning, clinical practice, and education management processes, to be conducted in 2014.

In summary, NEPI has brought a new focus to supporting the nurse and midwife workforce in Sub-Saharan Africa, by building on existing country leadership and government planning to increase the number and competencies of new nurses entering the profession. The approach of building a sustainable response through country-level leadership, support for faculty workforce development and key educational processes and practices, and scaling up of proven educational methods and interventions at nursing educational institutions are key to ensuring that NEPI's investments and contributions will be long lasting and will help to achieve priority health goals for the countries of this region.

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