Developing the Lesotho Primary Health Care Workforce: 
Nurse Clinicians and Family Medicine Physicians

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Contributions

The United States Department of State Bureau of Educational and Cultural Affairs awarded $133,000.00 to support the development of the primary care workforce in Lesotho. In addition, Boston University and Boston Medical Center contributed $109,436 in cost-sharing.
Program Overview

In September 2004, with support from the United States Department of State Bureau of Educational and Cultural Affairs, Boston Medical Center began working with the Lesotho Ministry of Health and Social Welfare to begin a process that will improve the quality and accessibility of affordable and sustainable primary care, increase the nation’s capacity to respond to the burgeoning medical care demands of the HIV/AIDS epidemic, and improve the recruitment and retention of nurses and physicians. Through a series of workshops with physicians and nurses and exchanges of health professionals between the U.S. and Lesotho, a five-year proposal for strengthening district health services in Lesotho was developed by the Ministry of Health and Social Welfare and funded by the W.K. Kellogg Foundation.

Between March 2005 and February 2006, six leaders from the Boston Medical Center Department of Family Medicine, the Boston University School of Management and the Boston University Office of Clinical Research participated in exchanges to Lesotho. These initial exchanges led to the formation of a Boston-Lesotho Interest Group, the design of a plan for district nursing education, and the development of a five-year program for strengthening district health services.

Between July 2005 and July 2006, seven health professionals from the Lesotho Ministry of Health and Social Welfare, Lesotho College of Education, and the Lesotho-Boston Health Alliance participated in exchanges to Boston. These exchanges significantly contributed to formulating a relevant and sustainable approach for retaining physicians and nurses, for improving management skills in the districts and for conducting clinical research in Lesotho. These exchanges combined with a series of four workshops with physicians and nurses in Lesotho helped to gain consensus on the best approach for transformation.

As a direct result of these activities, the W.K. Kellogg Foundation has committed to funding the Ministry of Health and Social Welfare (MOHSW) for five years to work with the Boston University Medical Center and the Department of Family Medicine at the University of the Free State to institute sustainable continuing medical and nursing education programs, initiate a Family Medicine residency program, increase the return of Basotho physicians to Lesotho, improve the retention of Basotho nurses and physicians in Lesotho, transform two pilot district hospitals into vibrant, sustainable, well-utilized hospitals providing services of good quality in support of primary care and lay the groundwork for transforming other district hospitals in Lesotho.

This program faced and overcame many challenges. There were expected and unanticipated outcomes; however, all were favorable and all objectives were achieved with only minor modifications. This project’s end date is in fact just the beginning of Boston Medical Center’s collaboration to develop the Lesotho primary health care workforce.
Results

Strategies for Strengthening the Primary Care Workforce

A primary care health workforce needs analysis was performed, and confirmed that there are too few providers with insufficient training combined with poor retention and no recruitment of physicians. With roughly 120 active physicians (only one-fourth of which are Basotho), no means to train physicians and no efforts to recruit physicians, the country relies heavily upon nurses. Historically, nurse clinicians have been responsible for operating Lesotho’s 150+ health centers, but since the cessation of the country’s largest training program of nurse clinicians over a decade ago and numerous disincentives for people to train as nurse clinicians, nursing sisters and even nursing assistants have had to take over the operation of most health centers. The details of this needs analysis, after several stages of review, informed the detailed five-year strategy submitted to the W.K. Kellogg Foundation by the Ministry of Health and Social Welfare in September 2006, which was successfully funded for $3.2 million in January 2007 and subcontracted to Boston Medical Center.

Mothers wait with their babies at a health center in Mohale’s Hoek on the day designated for maternal and child health.

Nurse/Physician Workshops

Several very successful interactive workshops were held in order to discuss proposed strategies for developing the primary care workforce, to begin addressing research issues, and to gain specific feedback on program structure.
Two large meetings were held in which specific strategies for workforce development were discussed. The first was held on March 13, 2005 and focused on “Health Workers for the future: Options for HIV/AIDS and after HIV/AIDS.” The purposes of the workshop were: (1) to explore how many health professionals of what types are needed, can be afforded and can be trained and (2) to consider organizational issues that will increase job satisfaction and the retention of key health professionals in Lesotho. The second was held on October 20, 2005 and focused on “HIV/AIDS and Strategies for Strengthening District Hospitals: Seeking a realistic way forward.” This workshop considered experiences from other countries and discussed various approaches to improving the quality, acceptability and sustainability of patient care services in district hospitals and health centers that were laid out in a working paper introduced for discussion. The two strategic planning workshops brought a total of 100 participants.

The three areas in need of development for long-term retention of health professionals are incentives, work environment, and opportunities for career development. Incentives and work environment are heavily addressed in the five-year strategic plan, but the only opportunities presented for career development are the faculty positions resulting from the Family Medicine residency program. The other area in high demand for career development is research. Research has the potential to provide both physicians and nurses opportunities for advancement. However, before a research program can begin, a great deal of groundwork must be laid. In February Dr. Sue Fish led two one-day workshops to begin introducing concepts around research ethics. The first was held on February 24, 2006 and focused on, “Protecting Human Subjects: When research is proposed, how should it be evaluated and what are the guiding principles?” Seven carefully selected participants from the Ministry of Health and Social Welfare explored the principles underlying the protection of human subjects, the meaning and value of informed consent, the five criteria that should be met by every research proposal and where to turn for additional expertise, if needed, in the review of proposals, all within the context of Lesotho. The second was held on February 27, 2006 and focused on, “Policy Analysis and Adapting International Standards to National Needs: The pros and cons of using single dose nevirapine for
PMTCT if the HIV status of the woman cannot be determined.” Ten participants discussed this controversial but possibly sensible alternative approach to the conventional use of nevirapine that drew on many of the principles discussed in the previous week’s workshop that considered research on human subjects and their protection.

After the five-year strategy began to take shape, 20 physicians from private, CHAL, NGO and Government practices were gathered on June 18, 2006 to discuss “Clinical and Managerial Strategies for Strengthening District Hospitals: Actively planning a realistic way forward.” The discussion elicited feedback from physicians on (1) working conditions and the practice environment, (2) continuing medical education, and (3) developing a formal post-graduate, multi-year residency or house officer training program based in Lesotho. From this workshop, an initial survey on continuing medical education identified some of the higher priority areas for training. Emergency medicine/trauma, HIV/AIDS, and neonatal resuscitation were identified as a result and trainings in two of the three were completed in the first quarter of 2007.

Finally, consensus had been reached on a clear five-year strategic plan, but the target group had still not been consulted. Between September 2006 and February 2007, several discussion groups with Basotho medical students from each of four medical schools in South Africa (31 altogether) were gathered in order to (1) provide information about Family Medicine as a specialty and the envisioned structure of the MOHSW-Boston--Kellogg program, (2) learn about the goals and plans of Basotho medical students in South Africa and (3) gain feedback from Basotho medical students on the residency program structure and content as well as strategies for recruitment. The main reasons cited for not returning to Lesotho were the absence of opportunities for training, inadequate salary and benefits, poor work environment, and most surprising was their frustration at not having received any form of communication from the Government during their time in school. There was, however, significant interest in a residency training program and young students were quite eager to return to Lesotho.
Distance Learning Technology

Early on, it was determined that the introduction of distance learning would have to be postponed until resources became available to improve telecommunications nationwide. However, by special agreement, it is now possible to access these resources through South Africa, and distance learning is a significant part of the five-year strategic plan.

Exchanges

Dr. Sue Fish talks to the pharmaceutical technician at Maluti Adventist Hospital about the logistics supply chain in Lesotho.
All but one of the six American participants have extended their involvement in the Lesotho program beyond their two-week exchange. Dr. Sue Fish is assisting in putting together a research team from Boston to develop a research program in Lesotho and has also been selected as one of the key management consultants in the five-year strategic plan (will be making a second trip in May 2007). Mark Allan has been selected as the management director in the five-year strategic plan (made a second trip in June 2006). Dr. Avra Goldman initiated and continues to organize monthly meetings for the Boston-Lesotho Interest Group and helps to prepare and debrief residents completing an elective rotation in Lesotho. Alysa Veidis has assisted in developing the plan for nursing education and will be leading nursing education activities that fall under the five-year strategic plan (will be making a second trip in May 2007). Dr. Larry Culpepper has continued actively supporting the program from the Department of Family Medicine and has also recently expanded the Department’s portfolio of international programs (made a second trip in March 2007).

All of the seven Basotho participants have continued their commitment to supporting the development of primary care workforce. Johanna Jobo continues to advocate for the college’s support of health activities on the Lesotho College of Education campus. Mpane Nthunya has contributed significantly to coordinating initial communication with prospective candidates of the residency program. Tse pang Mohlomi was promoted to a position in the National AIDS Commission. Dr. Senate Matete is the lead person on prospective HIV/AIDS research activities in Lesotho and is eager to implement a patient-centered, physician-initiated program similar to that of Community Research Initiative of New England. Yolisa Pulumo expanded the activities of the Lesotho College of Education clinic to include community outreach and opt-out testing.
Julia Makhabane has provided valuable input regarding community health and has been selected as one of the key local consultants for the development of problem-solving skills in the hospital setting for the duration of the five-year strategic plan. Mary Piet continues to train community based counselors (really a different sort of front line worker) and is expected to contribute significantly to assisting with the site-based training of nurses in the two selected pilot districts.

*Mpane Nthunya (right) has the opportunity to speak with Nobel Peace Prize winner, Dr. Wangari Maathai (center), at the University President’s inauguration where she presented her approach to development and democracy in Kenya.*

**Nursing Curriculum**

Early in the program, USAID’s Capacity Project adopted the training of front-line workers and nurse clinicians as their own so that the focus of this program shifted to the retention and training of nurses already in practice. Reasons for poor retention of nurses are the same as those given by physicians and will be addressed in the five-year management improvement plan. Nursing care varies greatly from person to person, and both nurses and doctors are confused about the roles and responsibilities of nurses. The plan for nursing education is focused on developing those nurses in the hospitals and health centers of the two selected pilot districts (Berea and Leribe).

The first phase for nursing education will ensure basic competencies. After reaching agreement with the Lesotho Nursing Council on competencies required for nursing sisters, nursing assistants, and ward attendants, a survey will be administered to all nursing sisters, nursing assistants, and ward attendants at Berea, Maluti, and Leribe hospitals and all connected health centers to determine whether they are "confident, somewhat confident, or not confident" with each of the identified competencies. From that survey, a plan for competency-building will be developed and local nurse consultants will be hired to refresh those who are confident, train those who are not confident and refresh/train those somewhat confident based on evaluation of
individual need. A process will then be developed for ensuring competencies in all new hires.

The second phase will ensure strong competencies in more specialized areas (midwifery, psychiatry, laboratory technicians, pharmaceutical technicians, x-ray technicians, physiology, nursing assistants focusing on maternal and child health, counselors, etc.). Competencies will be identified for relevant specialty areas of nursing and allied health professionals and staff in the pilot districts will be surveyed similarly to the first phase. The third phase will provide more advanced nurse education. A system will be organized that identifies and addresses more specific needs of training that are beyond the basic competencies but are needed and/or wanted nonetheless.
This process emphasizes on-site, in-service training and the development and strengthening of those skills necessary to provide quality care in the hospitals and health centers of Lesotho. It is a practical approach aimed at greatly improving the administration of district health services in the Berea and Leribe districts. If successful, this approach will be recommended to the Lesotho Nursing Council for expansion to the other districts and introduced at the nursing schools throughout Lesotho.

**Family Medicine Residency Curriculum**

Boston Medical Center will assist the Government of Lesotho to develop and implement a sustainable Family Medicine residency program with training support from Boston University and the University of the Free State in Bloemfontein, South Africa. The residency program will train six residents each year beginning in January 2008. The training will be designed to ensure that each resident completing the four-year training program has the skills and the requisite knowledge and attitudes to be an effective district physician in Lesotho. Training will occur at three sites: (1) Maluti Adventist Hospital in the Berea district, (2) Motebang Government Hospital in the Leribe district, and (3) the new national referral hospital scheduled to open in 2010 or 2011. Graduates will leave with the skills and knowledge essential for effective practice anywhere in Lesotho.

*Dr. Brian Jack (left) supervises as a nurse practices her neonatal resuscitation skills at a training for physicians and nurses in the Berea and Leribe districts.*

The program includes clinical, public health, and leadership components. Their clinical training will encompass aspects of adult medicine, pediatrics, obstetrics and gynecology, surgery, emergency medicine, critical care medicine, orthopedic surgery and musculoskeletal medicine,
dermatology, and psychiatry. By the end of the program, registrars will be expected gain experience in all disciplines of family medicine, integrate public health into clinical practice, and, in their last year, focus on developing leadership skills in teaching, research, and/or health management.

Three or four full-time faculty members will organize the program in conjunction with all current physicians at training sites. Initially, full-time faculty will be brought in from outside of the country, but these positions will be transitioned to local faculty within three to four years. Continuing medical education will support faculty development of current physicians. The Government of Lesotho has already committed to funding these positions from the fourth year of the program. There will also be short-term teaching by both family medicine and specialty faculty from Boston University and the University of the Free State who will provide on-site consultations and resident teaching.

*Plan for Decentralized Management*

In this context, clinical strengthening and management strengthening are inseparable and must be done in an integrated and carefully coordinated manner. A detailed assessment of the management structure of Motebang Hospital in the Leribe district and TY Hospital in the Berea district very clearly lays out the problems and challenges with the current system. The Leribe and Berea districts have been selected as pilot districts where decentralized management and the integration of public and private service can be implemented on an experimental basis. Then as problems are addressed at the district level, national policies essential to supporting district hospitals and clinicians will be identified and put in place. This transformation will provide a much improved work environment that supports the new knowledge and skills of its physicians and nurses.
Conclusion

Five of the seven program objectives were achieved fully and with greater success than was originally anticipated. It had been determined early on that the introduction of distance learning technology would be delayed as a result of shifting national priorities, but this still remains an objective of the long-term program and the infrastructure required is expected to become available in the very near future. With the arrival of many new international partners in October 2004, maintaining flexibility became increasingly important. When it became clear that nurse clinicians and a special HIV/AIDS cadre were the priorities of USAID’s Capacity Project, it made sense to direct attention to nursing cadres elsewhere. In the end, this change resulted in a better integrated, more comprehensive program.

Recommendations

It was a pleasure working with the U.S. Department of State. The Program Officers provided effective oversight and guidance without micromanaging program activities and sufficient flexibility to allow for overall program success without forcing activities that do not make sense. The administrative requirements are also very reasonable and user-friendly. The levels of management and administration were exactly appropriate to guarantee program success. The U.S. Department of State should certainly continue its practices in this capacity and expand its practices to other Government agencies as well.

The single greatest benefit of the exchange program was the opportunity afforded to form strong relationships and build trust between Boston Medical Center and the Government of Lesotho. The logistical challenges were well worth the long-term benefits that resulted ultimately in the formation of a five-year commitment. The best exchanges were those where participants were accompanied by a colleague from their country of origin to allow for adequate debriefing throughout the exchange. Careful selection of participants is a worthwhile investment and each participant should have clear goals for the exchange. Supporting exchanges in the context of the implementation of a greater program helps to make the experience more valuable for participants, hosts, and program coordinators.

Next Steps

Over a period of five years the Ministry of Health and Social Welfare (MOHSW), in cooperation with Boston Medical Center (BMC), will institute sustainable continuing medical and nursing education programs and Family Medicine residency program, increase the return of Basotho physicians to Lesotho, improve the retention of Basotho nurses and physicians in Lesotho, transform two pilot district hospitals into vibrant, sustainable, well-utilized hospitals providing services of good quality in support of primary care and lay the groundwork for transforming other district hospitals in Lesotho.
The follow-on program we are proposing directly addresses strengthening district hospitals, beginning with two carefully selected pilot or demonstration districts, Berea and Leribe, to test and refine novel and sustainable methods and approaches that strengthen clinical capacity while simultaneously improving management in anticipation of, but prior to, nationwide dissemination and possible use in other countries. The four pillars and essential components of the program are:

1. Strengthen District Clinical Services
   a. Implement site-based continuing medical and nursing education.
   b. Identify all and recruit some Basotho secondary school graduates who are in training in South African and other medical schools to return to Lesotho to enter the Family Medicine residency training program (see immediately below).
   c. Establish a Lesotho-based postgraduate, four-year competency-based residency program in Family Medicine with a curriculum derived from national needs with strong and enduring ties to BMC and the University of the Free State (UFS).

2. Strengthen Management Practices and Policies
   a. Assess management needs within hospitals, District Health Management Teams (DHMTs) and, as relevant, other elements of district Government.
   b. Focus management improvements on problem solving, strategic planning, leadership development, finance, human resources, operations and data for decision-making.
      i. Remediate district issues and create local system improvements without calling for central Government change wherever possible.
      ii. Introduce, on a pilot or test basis, central changes in policies and procedures only when district level solutions will not suffice.

3. Data, Documentation and Dissemination
   a. Develop data and documentation sufficient to evaluate progress, inform program improvements and set the stage for dissemination.
   b. Identify individuals and organizations within Lesotho who can assist with the hospital transformation and district management improvement process with the intent they will be central to introducing and implementing the transformation process in other districts and possibly in other countries.

4. Sustainability
   This program will be built on the principle of sustainability. All long-term activities intended to continue after Kellogg Foundation support ceases will be designed so that the financial and human resources necessary to continue good-quality activities can
be provided within a realistic projection of available public and private financial and human resources.

After two years of building trust and relationships, developing clear strategies out of multiple discussions and assessments, and gaining consensus on a defined five-year plan, implementation has begun. The momentum with which implementation has begun is, without question, the result of these planning years.