Transforming District Health Services in Lesotho:

A collaborative Program of the MOHSW and LeBoHA

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Midterm Review Report

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EXECUTIVE SUMMARY & RECOMMENDATIONS

EXECUTIVE SUMMARY

The *Transforming District Health Services* program focuses on the sustainable and affordable strengthening of the clinical and management components of health care in Lesotho by addressing physician, nursing, and management services using a customized, problem-solving approach. This is done in direct partnership with local counterparts to provide them with the knowledge, skills, direction, and motivation to address the challenges necessary to improve the delivery of health services. This program, implemented with guidance from the Ministry of Health and Social Welfare (MOHSW) and manpower from the Lesotho-Boston Health Alliance (LeBoHA), has made a great deal of progress in transforming health services in the Berea and Leribe districts of Lesotho.

The objectives of the program's midterm review were to review the program's progress, identify gaps and areas for strengthening, and guide future priorities and next steps. This report presents the major findings of the review team.

Brief review of the Transforming District Health Services program

The program was developed by the Ministry of Health and Social Welfare and Boston University Medical Center (BUMC)[1] staff. Although HIV/AIDS is a large problem in Lesotho with ~40% of women and men between the ages of 30 and 39 infected, the health system must still work for all, therefore a systems approach was needed. This led to the submission of a ground-breaking proposal to the W.K. Kellogg Foundation by the MOHSW, designating BUMC as the key implementing partner for a five year program for "*Transforming District Health Services in Lesotho: A Feasible and Sustainable Way Forward*". This was funded effective January 2007 through December 2011 for $3,200,000. In addition, a complimentary 18-month Kellogg Foundation grant of $400,000 was awarded to BUMC from April 1, 2007 – September 30, 2009 for Essential and Complementary Activities in Support of Strengthening District Hospitals and Health Centers in Lesotho. Implementation is done in partnership with the Ministry of Health and Social Welfare through the Lesotho Boston Health Alliance (LeBoHA)[2].

The goals of the program are:

> Over a period of five years the Ministry of Health and Social Welfare (MOHSW), in cooperation with Boston University Medical Center (BUMC) will institute sustainable continuing medical and nursing education programs and 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

[1] BUMC comprises several schools of Boston University (BU) and the University's main teaching hospital, Boston Medical Center (BMC).

[2] The Lesotho-Boston Health Alliance (LeBoHA) is a registered public trust in Lesotho within which the Boston University Medical Campus (BUMC) programs operate.

support of primary care and lay the groundwork for transforming other district hospitals in Lesotho.

The Kellogg Program is built on three pillars:

Family Medicine Specialty Training Program: Initiating the nation's first specialty training program for physicians, thus developing Family Medicine doctors who can lead district teams in providing 95% of the care that most people need most of the time.

Strengthening Nursing Care: Strengthening nursing at the bedside, in outpatient clinics and in health centers, because the Lesotho health care system is nurse driven with nurses providing the bulk of primary care.

Management Capacity Building: Strengthening management so existing resources, both human and financial, can be used far more effectively, as widely available and good care requires the best possible use of the national investment in health care.

The Midterm Review Process

The Midterm Review Team, made up of external consultants and representatives from local stakeholders, conducted key participant interviews, conducted site-visits, participated in daily activities and reviewed organizational documentation.

Key Findings of the Midterm Review Team

Key Accomplishments to date

Family Medicine: In order to increase the number of Mosotho[3] medical students returning to Lesotho, the Family Medicine Special Training Program (FMSTP) identified and contacted medical students in training and many recent graduates, arranged for improved compensation for FMSTP registrars, and provided a world-class, postgraduate training opportunity. To date, the training program has enrolled two classes of registrars (6 doctors in total) with a third class being recruited. There is no doubt the training program is, though still very young, a success. Leribe district hospital (Motebang Hospital), where about 75% of the training takes place, now is a true teaching hospital with nurses and doctors rounding together on the wards, weekly grand rounds for both nurses and doctors, full use of diagnostic equipment that previously was unused, and medical records that tell a coherent story and include vital signs, nurses notes, doctors notes and laboratory findings. As one community member said "Now we are examined."

Nursing: The needs of nurses and the need for improving nursing services were greatly underestimated when the program was initially planned in 2007. Resources were reprogrammed[4] and nursing improvement became a priority. Accomplishments include rewriting the national inpatient policies and procedures, developing and implementing a12-month in-service nursing curriculum, providing in-service mentorship and related quality improvement activities in three district hospitals, and increasing supervision and accountability through the introduction of the clinical supervisor.

[3] Mosotho is the singular and Basotho is the plural for persons native to Lesotho. The Language is Sesotho.
[4] This was largely possible because of the supplementary Kellogg grant to BUMC.

Management: The management strengthening successes are the result of the long-term investment that has been made in building relationships, identifying problems of greatest priority to each facility, and working hand-in-hand with the management team at each facility to develop specific and tailored approaches. Accomplishments include implementing nearly 200 individual problem-solving projects, establishing quality assurance committees, meeting an increased number of accreditation standards, enhancing efficiency and effectiveness across all hospital departments, developing skills in financial management and planning, and building technical capacity in selected ancillary service areas. The greatest achievement is really the secondary benefit of these accomplishments that results from the customized, hands-on, collaborative approach that is used: a staff that is increasingly shifting towards becoming a team that is motivated and able to work together to solve problems to improve the delivery of health services and, ultimately, the health of the people of Lesotho.

Effective Use of Grant Funds

We were amazed to learn that LeBoHA has delivered 685 person-months of technical assistance in the MOHSW-funded program as of the end of May 2009, 560 of which were in Lesotho with about 60% of those based in the districts. This amounts to an average of 23.6 person-months of assistance every calendar month at a rate of $2,774 per person-month ($33,288 per person-year, inclusive of all expatriate and local salaries, fringe benefits, travel, accommodations, training costs, and miscellaneous expenses). The 685 person-months does not even include the resident and medical student volunteers from Boston Medical Center who have paid their own way as well as BUMC legal counsel, accounting, and grants management services, which have all been provided at no cost. This is a very high return on investment.

Identification of Gaps & Needs

Timeframe: The LeBoHA program is, necessarily, very complex. It focuses on systems change. This requires dealing with many different facts and program elements at the district and national levels. Managing this complexity and introducing sustainable change of the type the MOHSW and LeBoHA are aiming for takes time. The original five-year plan was overly optimistic. However, we feel the indictors of success are such that support for a longer period of time is both warranted and necessary.

Improving Coordination and Problem Solving with Central Government: Key members of the Ministry of Health and Social Welfare played an active role in the design and development of the proposal to the Kellogg Foundation. However, the initiation of the program has been carried out by LeBoHA with the MOHSW serving largely to grant permission and to advise on only a limited number of issues. Given the rapid maturing and complexity of the LeBoHA program there is an unmet need for the collaborative identification of problems and solutions and the strengthening of regular and informal communication between the central MOHSW, and likely other ministries.

Cementing Change: Although all program elements are well begun, they are still very young. Enduring institutional change and a sustained change in the work ethic, service delivery and management culture requires time. Role models and mentors must be readily available. The development of local, Basotho staff for each program is a long-term process. Until that time

there will be a slowly decreasing but continuing need for donor support of expatriate staff and advisors.

Nursing – An Essential Investment: To build on the initial successes of the nursing program and to assure that changes will be sustained, we urge continued development and support of clinical nurse supervisor positions at each hospital as the most essential next step for the continued success of the nursing program. Furthermore, as untrained ward attendants are often on duty alone, particularly in the evening and at night, we strongly recommend support for in-service training of ward attendants in basic clinical and nursing skills. Finally, as the hospitals become stronger and more functional, it is possible, appropriate and needed to extend nursing in-service support to the health centers in a way that is effective and sustainable. We believe LeBoHA can do this and support is merited.

Ancillary Services: Ancillary services were omitted from the original proposal, and have only been approached through management strengthening. However, ancillary services, specifically laboratory, x-ray and pharmacy services, need more attention as they are vital for the strengthening of district health services in general and for the full impact the FMSTP to e realized. Technical support is needed to address the issues that management strengthening cannot improve.

Overarching Recommendations

We found the LeBoHA program goes beyond the three pillars as it seeks to develop a model for the integrated transformation of a healthcare system that is far more effective than the uncoordinated, often too insular and overly specialized programs that have been implemented around the world to date. With this program, Lesotho is showing the world a better, sustainable and affordable way to improve health services.

The Review Team's overarching recommendations for moving forward are:

1. Provide additional funding to cement management and work practice changes, stabilize the Family Medicine Specialty Training Program, significantly strengthen and extend nursing service improvements with a focus on health centers and ward attendants, and increase technical support for ancillary services.

2. Funding should be geared to realistic milestones, developed in collaboration by the MOHSW and LeBoHA, that recognize the principle of sustainability and the progressive assumption of funding responsibility by the Government of Lesotho as articulated in the original 5 year Kellogg grant.

3. Funding should be for five years and of approximately the same magnitude as the current grants.

All recommendations are on the immediately following pages and recommendations specific to various review areas are repeated at the end of each relevant section of the narrative.

RECOMMENDATIONS

Overall, we feel that the LeBoHA program is more than its three components. Rather, it is also about developing a model for transformation of any healthcare system so that it becomes an integral part of a society and is thus far more effective than the uncoordinated, often too insular and overly specialized programs that have been implemented around the world to date. We believe that LeBoHA is something different.

There is probably no other program with as much potential as the MOHSW-LeBoHA partnership to measurably improve the health of a people, while contributing a new model for health system development and management to the world. This powerful, cost-effective program is worthy of continued and increased support for at least the next 5 years, with the ultimate goal of being an auto-replicating and self-sustaining health program that is both of and by the people.

Cement and Stabilize the Current Progress

Much progress has been made to date, and we believe LeBoHA should continue to develop the skills and practices introduced, thus creating an environment of sustainable, long-term initiatives with local ownership.

- Because of the very time-intensive approach that is used by LeBoHA, we feel the focus should remain on Motebang, Maluti, and Berea since strong relationships have been built at all three facilities and a great deal of momentum that has been established.
- We agree that the customized approach used by LeBoHA is necessary in order to build capacity that builds off of the existing strengths of each facility and is relevant to the needs faced by the individual institutions, therefore a similar approach should be continued.
- Similarly, we commend the model LeBoHA has implemented of working hand-in-hand with local staff. LeBoHA's partnership with local staff is absolutely essential and separates this program from many others where external expertise operates largely by itself.
- The mix of teaching methods, the comprehensiveness of the content and type of rotations, and the personalized hands-on, problem-solving nature of the teaching all contribute to making the Family Medicine Specialty Training Program an incredibly strong training program. We believe this comprehensive approach should continue to be a priority.
- LeBoHA and the MOHSW should also continue to explore the possibilities of establishing a Masters of Medicine in Family Medicine (MMedFam) degree at the National University of Lesotho (NUL). There are many advantages to having such a degree available at NUL as opposed to depending on South African programs for such a degree, and we recommend that these discussions continue.
- We recommend that Quality Assurance (QA) activities, in all their different forms, continue and the focus be on practical interventions that have a direct impact on the quality of patient care and result in improvements in patient outcomes, patient safety and cost-effectiveness. Many of the interventions LeBoHA is implementing are in essence QA activities, and health workers need to see their daily activities in this light.

- The Clinical Supervisor position is a vital piece of the Nursing Program and an invaluable resource for the hospitals. Support should continue to be provided in order to mentor and develop these nurses.

Strengthen Current Service Improvements

While many of the approaches taken to strengthen district services have been successful, the review team also believes that there are areas within the program that could use strengthening or further emphasis:

- We recommend that continued efforts be made to encourage more team teaching between the FMSTP registrars and nurses.
- As stated above, the Clinical Supervisor is a key resource, and more effort should be provided in order to continue developing the role in general and the nurses' skills specifically.
- While progress has been made to encourage the nurses to improve documentation, continued improvement is needed to ensure that the nursing history is used to plan and implement patient care.

Expand the Program to Cover Gaps

We believe that comprehensive strengthening of district health services requires focusing on all three pillars, and believe that the distribution of resources was appropriate for the first half of the program. While continuing to support Family Medicine, Management and Nursing, we strongly recommend that LeBoHA also consider expanding their focus to incorporate related activities.

- We feel that the time is quickly approaching that the management strengthening activities targeting ancillary services will be stymied by limitations in technical competence. Should additional funding become available, we also feel that the management strengthening activities will benefit a great deal from organizing local consultants to provide technical training and support for ancillary services, specifically in the areas of pharmacy, radiology, laboratory, and maintenance.
- We also feel that the nursing program could be significantly bolstered by the introduction of training geared towards ward attendants that would enable effective task shifting. Chronic understaffing has resulted in ward attendants completing tasks above and beyond their job description and training, and therefore basic nursing training would be beneficial to this cadre of caregivers.
- In addition to their role in acute and chronic care, the strengthening of nursing so that nurses can provide health promotion and prevention programs to the people must be part of the planning and training.
- Expansion of the nursing and Problem Solving for Better Health (PSBH®) programs to the nursing schools would allow for nursing students to integrate practical problem-solving skills with nursing practices thus setting the stage for life-long learning and fullest use of the intellectual and service potential of nurses.
- We agree with LeBoHA that long term strengthening of district health services requires future expansion to the health centers and the community. However, it is abundantly clear

that the resources for the current Kellogg funded program are not sufficient for this expansion.

- While LeBoHA operates primarily within the three pillars, projects have evolved as a result of the *Transforming District Health Services in Lesotho* program that complement and support the three pillars such as the Lesotho Medical Students Association, the monthly Learning and Sharing Forum for health professionals, International Nurses' Day, the Lesotho Medical Association Journal, and wireless internet access at Maluti and Motebang hospitals. Modest funds and more time would allow these activities to become self-sustaining. Currently resource constraints limit LeBoHA's ability to respond to MOHSW requests for assistance outside of the Leribe and Berea districts. A recent example is a request for assistance in training on improved budgeting practices piloted in the Leribe and Berea districts but intended for the entire country.

Increase Government Involvement

In our opinion, the rapid maturing of the LeBoHA program has necessitated an increase in Government involvement to ensure the appropriateness and sustainability of the program.

- For the promise of this program to be realized, the regular and informal communication between the central MOHSW, and likely other ministries, needs to be substantially strengthened.
- Specific issues to be addressed by the MOHSW at this time include accreditation and certification of the Family Medicine Program, and transition of funding for agreed upon FMSTP faculty, registrars and administrative support from the LeBoHA budget to the MOHSW budget. This is essential for program sustainability.
- Until there is a clear and realistic vision and strategy for decentralization at the central level with clear roles and objectives for the District Health Management Teams (DHMTs) and their staff, it will be very difficult for any organization to make a substantial impact with the DHMTs. In addition, the move of health centers to local government under the decentralization plan has disconnected them from the hospital system. Working towards the goal of an integrated system of care with each level functioning at the maximum level of efficiency is going to be very difficult without having clear channels of communication for referrals and management of patients in chronic care. In addition, future expansion of the program to the health centers is going to be very difficult without being able to draw from the hospital as a sustainable base for supervision and training. These issues must be clearly addressed before expansion can occur.
- It is important to work toward an overall environment that is more supportive of health care provision in Lesotho. Training and continuing education are vital elements of the program, but they should be supplemented when possible by enhanced authority, responsibility and accountability at the district level with a particular focus on compensation, opportunities for professional growth, and recognition of jobs well done and continuing public emphasis on the importance of nurses to the system. This can only be done with proactive support from the central level.

- If the MOHSW agrees that there is a need to address some of the broader central level challenges, there is a unique opportunity in the LeBoHA facilities to test some possible solutions to determine the most appropriate approach before changing national policy.

Increase Collaboration with Local Stakeholders

In order for the program to be sustainable and for the people of Lesotho to take ownership, we believe that other individuals, programs and organizations, outside of the Hospital teams and the central MOHSW, must be involved.

- Strengthening linkages with other Southern African clinicians and medical institutions would greatly improve the sustainability and relevance of the FMSTP. Furthermore, we strongly encourage soliciting the continued input of registrars and local and regional physicians in order to further strengthen the program curriculum and schedule.
- Promoting more active participation of the Lesotho Medical, Dental and Pharmacy Council (LMC), Lesotho Medical Association (LMA), and local physicians would be beneficial to the Family Medicine Specialty Training Program specifically and LeBoHA's program in general. Physicians from the region are more likely to be knowledgeable in the skills needed in the district hospitals and more comfortable performing the needed procedures with limited resources and back up. More active participation would also help to garner support throughout the health care field and to bring in different perspectives and ideas.
- Many of the issues facing LeBoHA and the MOHSW must be addressed by a larger audience. We recommended that LeBoHA and the MOHSW hold periodic national forums to address issues at the local, district and national level, with representatives from the LMC, LMA, Lesotho Nursing Association (LNA), Lesotho Nursing Council (LNC), Government health professionals, health professionals in private practice, FMSTP trainees, medical students, and the Government of Lesotho.
- We also see major benefits to operationalizing community participation and increasing community communication. Additional thought should be spent on the issue of involving community members in health services, and we feel that LeBoHA and the MOHSW have the opportunity to show how this might be done, and to set an example for other countries to follow.

Extension of the Timeline and Additional Resources

Based on our experiences in Lesotho, we feel the LeBoHA program with its three components (FMSTP, nursing, and management strengthening) is the right program at the right place at the right time. It is unique in its comprehensive approach and, with time, it should be made even more comprehensive. The LeBoHA program has already made strong contributions in each of its program areas and should continue its efforts for the next five to ten years.

- Though sustainability has been built into all aspects of the program, primarily through the involvement of the local professionals, more time and more support will be needed to put the transformation process on a firm, auto-replicative and self-sustaining footing. For that reason, the review team is recommending a five-year extension of funding, with continued support of family medicine and management, an increased focus on strengthening the nursing workforce, and expansion to include ancillary services.

- The foundation for organizational change is being laid and the LeBoHA program is fostering the development of true change-agents. We are left with little doubt that true transformation is possible, but we expect that it is likely to take closer to ten years.
- Individual skills are being developed, attitudes are changing, and the specific problems that are being identified and addressed are often illuminating larger systems issues that are key to address for more permanent change. However, this direct and individualized style is very time-consuming, which is part of the reason for the need for more time to achieve true transformation
- It is our opinion that the program is effective and low-cost when considering the frequency with which a large number of people are being trained, the quality and relevance of the training, and the large number of problems that are continuously being solved, including ones that have resulted in fairly substantial monetary savings to the hospitals.
- There is no question that the work being done is incredibly challenging and will require expatriate medical and managerial assistance for at least several more years. However, we do think that the overall cost-effectiveness of the program can be improved by hiring additional local counterparts that can be mentored to operate in the roles currently held by expatriates. More funds and time are required in the short-term to identifying local counterparts, develop their skills and requisite attitudes, and to complete the transformation of district health services and build the faculty and administrative structures essential to have a sustainable program.
- LeBoHA should continue to pursue innovative strategies for the long-term sustainability of the program, especially in regards to financial support.

Overarching Recommendations

We feel strongly that Kellogg has made a worthwhile investment and much has been done with the resources available. The original five-year timeline was overly optimistic. In order to complete the process of transformation and cement changes in work practices and organizational behavior, there is no question that additional time and funding is needed to meet the intent of the original program. There is much to be gained by all parties for the continuation of this partnership. This leads us to restate our overarching recommendations:

1. Provide additional funding to cement management and work practice changes, stabilize the Family Medicine Specialty Training Program, significantly strengthen and extend nursing service improvements with a focus on health centers and ward attendants, and increase technical support for ancillary services.

2. Funding should be geared to realistic milestones, developed in collaboration by the MOHSW and LeBoHA, that recognize the principle of sustainability and the progressive assumption of funding responsibility by the Government of Lesotho as articulated in the original 5 year Kellogg grant.

3. Funding should be for five years and of approximately the same magnitude as the current grants.

I. BACKGROUND

THE HEALTH SITUATION IN LESOTHO

With the average life expectancy in Lesotho having declined from 60 years in 1996 to 42 years in 2004, the health of Lesotho's citizens has weakened considerably over the last decade. Under-five mortality has increased from 82 deaths per 100,000 live births in 1996 to 113 per 100,000 live births in 2001. Lesotho's maternal mortality rate has also increased substantially from 282 in the early 1990s to 762 per 100,000 births in 2004, a 270% jump. To further compound the situation, Lesotho suffers from the world's third highest adult HIV prevalence rate, 23.6%, coupled with a high prevalence of tuberculosis co-infection that has further exacerbated this issue.

With the fall of apartheid in the early 1990s, many professional workers, including physicians, nurses and health managers, departed Lesotho for higher paying positions in South Africa. South Africa's GDP per capita is more than three times that of Lesotho. This exodus, together with an increasing HIV/AIDS burden has severely weakened Lesotho's health system.

In short, Lesotho's health system is now inundated with a high disease burden and a deficiency of adequately trained staff to care for the sick and dying. These profound shortages are most evident in Lesotho's district hospitals and health centers.

THE HISTORY OF BUMC INVOLVEMENT IN LESOTHO

The Boston University Medical Campus (BUMC)[5] has a long history of work in Lesotho with and for the Lesotho Ministry of Health and Social Welfare (MOHSW)[6]. In 2001-02 Boston University carried out an economic feasibility and design study for a possible new hospital to replace Lesotho's current National Referral Hospital – Queen Elizabeth II. This engagement led to a discussion between Dr. M. Motloheloa Phooko, then Minister of Health & Social Welfare, as to whether Lesotho would be interested if Boston University were to make a multi-year commitment to work with the country as it grappled with the profound impacts of HIV/AIDS. Dr. Phooko indicated his interest and Dr. John Silber, then Chancellor of Boston University, approved and provided start-up funding on June 10, 2003. The Honourable Minister, Dr. Mphu Ramatlapeng, then in private practice, saw the potential of the Boston commitment and introduced the Boston team to the Deputy Prime Minster in August of 2003. Subsequently, Boston University President's Chobanian and Brown have reaffirmed this commitment. The Government of Lesotho and BUMC agreed to focus on preserving the lives of Lesotho's citizens through building the capacity of the country's health workforce and maximizing the efficiency of Lesotho's existing health system and its use of resources.

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[5] Boston University Medical Campus (BUMC) comprises several schools of Boston University (BU) and Boston Medical Center (BMC).

[6] 1990 – A study on performance indicators for the MOHSW funded by the World Bank; 1993 – a grant from the US Census Bureau to the then sitting Director General of the MOHSW and Dr. Bicknell on the health implications of population aging; 2001 and 2002, the design study for a possible new national referral hospital via a contract from the MOHSW with Irish AID and World Bank funding.

Since January 2004, BUMC has had a continuous presence in Lesotho. Work has focused on supporting the intent of the MOHSW Human Resources Development & Strategic Plan through professional exchanges, multi-cadre discussions on strategy, training community health workers, building capacity for individual problem solving, and the development of a long-term program for the introduction of specialty training in family medicine and health services management improvement in two of Lesotho's ten districts. BUMC has also provided technical assistance and advice when requested to the MOHSW and the Ministry of Finance and Development Planning on multiple issues, including health insurance, resource limitations and antiretrovirals, the formulation of an agreement with the Christian Health Association of Lesotho (CHAL), and research involving human subjects. BUMC, with funding from the International Finance Corporation and World Bank, has an ongoing major role in planning the new national referral hospital. The hospital is now under construction with opening anticipated in two to three years.

LeBoHA's Vision and Mission

The collaboration of Boston University and Boston Medical Center activities in Lesotho is officially known as the Lesotho-Boston Health Alliance (LeBoHA), a registered public trust in Lesotho. [7]

LeBoHA's vision, as presented to the review team, is to see well-trained Basotho physicians and nurses working with strong, empowered hospital management in an environment that supports and fosters innovation and problem-solving, thus resulting in the transformation of district health services in Lesotho. In brief, they aim to develop much improved services within the resources realistically available to the nation.

The mission of LeBoHA is to work with the Government of Lesotho and particularly the Ministry of Health and Social Welfare in building capacity to improve and sustain good quality comprehensive health care in Lesotho. In order to achieve this, LeBoHA's goals include:

- Developing systems and programs to recruit, train, and retain a quality health care workforce that is able to meet the needs of Lesotho, with a focus on providers delivering primary care services;
- Developing management practices and policies that support continuous improvement and maximize the efficiency and effectiveness of health service delivery in Lesotho; and
- Developing capacity for conducting systems analysis and planning that promotes efficiency, equity and sustainability in the administration of health care in Lesotho.

[7] As the operating body of BUMC in Lesotho, LeBoHA personnel consists of both local and expatriate staff, with administrative offices in Boston and Maseru, and a satellite office at Motebang Hospital in Leribe. 17.5 full time equivalent staff operate out of the Lesotho office, and 4.27 full-time equivalent staff are based in Boston. See Appendix A for staffing list.

LeBoHA and the W.K. Kellogg Foundation Program

In 2005, Boston University Medical Center submitted a planning grant to the W.K. Kellogg Foundation entitled "*Strengthening District Hospitals and Health Centres In Lesotho*". They were awarded a one-year grant to support the detailed planning and initial start-up activities in support of a program with the Ministry of Health and Social Welfare to address broad health systems needs in two districts of Lesotho (Leribe and Berea). Although HIV/AIDS is a large problem with ~40% of women and men between the ages of 30 and 39 infected, the health system in Lesotho must work for all, therefore a systems approach was proposed. With the active and enthusiastic participation of the MOHSW, a grant application to the Kellogg Foundation was submitted by the MOHSW on September 20, 2006 entitled *"Transforming District Health Services in Lesotho: A Feasible and Sustainable Way Forward"*. This proposal identified BUMC as the intended primary non-governmental implementing agency. Funding was effective January 2007 through December 2011 for $3,200,000. The goals were: "Over a period of five years the Ministry of Health and Social Welfare (MOHSW), in cooperation with Boston University Medical Center (BUMC) will institute sustainable continuing medical and nursing education programs and 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." In addition, a complimentary 18-month Kellogg Foundation grant of $400,000 was awarded to BUMC from April 1, 2007 – September 30, 2009 for *Essential and Complementary Activities in Support of Strengthening District Hospitals and Health Centers in Lesotho*. [8]

We were informed by LeBoHA program staff that when the original funding was secured that the direct grant to BUMC would be refunded in approximately the same amount for the 2011 and 2012 time period. Budget and expenditure planning was based on this assumption and, given the unanticipated changes in the Kellogg office in Pretoria, there has been no way to pursue this funding. The review team hopes that refunding of the direct grant to BUMC can be pursued with vigor, otherwise serious contractions at a critical time in the development of the LeBoHA program will likely be necessary.

"Transforming District Health Services in Lesotho: A Feasible and Sustainable Way Forward"

There are three pillars to the LeBoHA model of improving district health services in the Kellogg program: (1) the Family Medicine Specialty Training Program, (2) Nurse Training and (3) Management Strengthening.

[8] The supplementary grant has proven to be of great importance and has been the vehicle which has provided interim but urgently needed funding for housing for registrars (mobile homes and furniture), technology for teaching (wireless internet at Leribe and Maluti district hospitals), development of the nursing program, partial support of the clinical volunteer program, support for policy studies related to financial systems, and support for revitalizing the Lesotho Medical Association Journal and assisting the monthly Lesotho Learning and Sharing Forum for health professionals. As well, it allowed some support for implementing vaccination against HPV, a preventive strategy for cervical cancer.

The Family Medicine Specialty Training Program

LeBoHA launched the four-year Family Medicine Specialty Training Program (FMSTP) with the goals of:

- Increasing the number of well-trained Basotho physicians in Lesotho who have the knowledge, skills and commitment needed to meet the health needs of the people of Lesotho, particularly in district hospitals;
- Increasing the return and retention of Basotho physicians to Lesotho;
- Offering training that is first-class and relevant to Lesotho's needs and disease burden; and
- At the conclusion of the program, producing registrars who will have the skills required to be successful and effective district physicians.

Nurse Training

The purpose of the LeBoHA Nursing Program is to implement continuing education for nurses through site-based, integrated learning in order to improve both patients' quality of care and nurse's job satisfaction. To achieve this purpose, LeBoHA's nursing program was developed in partnership with the Lesotho Nursing Council and Lesotho Nursing Association, and by building on the strengths of faculty at nursing schools as well as other expert nursing professionals. LeBoHA's nursing program has three main areas of focus:

- The development and implementation of an inpatient competency based continuing education program;
- The development of an inpatient nursing policy and procedure manual; and
- Documentation improvement initiatives.

Management Strengthening

It is LeBoHA's belief that the clinical training alone cannot transform district health services in Lesotho. Ultimately, high quality care can only be provided to patients if there is a functional hospital for health care professionals to work within. Therefore, the LeBoHA management strengthening program works with hospital management teams to improve hospital practices and policies through:

- Assessing management needs within Hospitals, District Health Management Teams (DHMTs) and other relevant elements of district Government;
- Focusing management improvement on problem solving, strategic planning, leadership development, finances, human resources, operations, and data for decision-making; and
- Working primarily to remediate district issues and create local system improvements without calling for central Government change wherever possible, and introducing central changes in policies and procedures on a pilot basis only when district level solutions will not suffice.

THE MIDTERM REVIEW PROCESS

THE OBJECTIVES AND CHARGE TO THE REVIEW TEAM

The briefing memo sent to the Review Team by Dr. William Bicknell, Director of LeBoHA, stated:[9]

The overall objectives of the mid-term review are:

- Briefly review progress made towards achieving overall goals to date.
- Obtain expert advice on areas where the program needs strengthening.
- Provide guidance on priorities and implementation steps for the next several years.
- Provide a framework that will assist LeBoHA as it seeks additional funds for completing the Transformation of District Health Services, expanding and intensifying the strengthening of nursing services and completing all aspects of the development of a sustainable specialty training program in Family Medicine.

More specifically, our request to you is straightforward:

- What have we done right?
- Where have we gone astray?
- Does the original intent remain viable?
- What should LeBoHA focus on in the next 3 to 5 years?
- What are critical elements that require action by the Government of Lesotho?
- Do you recommend additional funding? If so, for approximately how much money and for what period of time?
- What specific recommendations do you have that you feel are essential if a sustainable, enduring and successful program to transform district hospitals and related health services is to be achieved in a way that:
    - Institutionalizes the Family Medicine Specialty Training Program
    - Retains nurses
    - Retains well qualified Basotho specialists in Family Medicine

THE MIDTERM REVIEW TEAM

The core Midterm Review Team was made up of external consultants with representatives from the MOHSW and the medical and nursing leadership invited to participate in all activities, as their schedules allowed. Dr. Barry Smith and Dr. Ruth Stark led the team and the content of this report is their responsibility. Ms. 'Maseabata Ramathebane, MPharm, as Vice-President of the Lesotho Medical, Dental and Pharmacy Council represented the Council and accompanied the team on most site visits, as did Ms. Smith. Lauren Babich, Deputy Director of LeBoHA, accompanied the team on all visits and provided technical support in the writing of the report.

[9] For complete memo, see Appendix B.

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(Detailed biographies of the Review Team are available in Appendix C.)

THE MIDTERM REVIEW PROCESS: SITE VISITS AND STAKEHOLDER INTERVIEWS

In order to reach the objectives outlined in the memo, the review team was tasked with critically looking at the LeBoHA programs by interviewing key stakeholders and participants, observing activities first hand, and reviewing documentation of past activities and achievements. The interviews with key stakeholders included hospital staff who have been working with LeBoHA, hospital management who support and monitor LeBoHA's activities, and local organizations and individuals who have provided guidance and advice for LeBoHA throughout planning and implementation. Site visits allowed the review team to experience, firsthand, the activities being conducted at Motebang, Maluti, Berea and Queen Elizabeth II Hospitals. Reviewers were also invited to observe and participate in the daily activities of the program. (See Appendix D for the Midterm Review daily schedule.)

II. MIDTERM REVIEW FINDINGS

Throughout the review, the team was asked to take note of key accomplishments, challenges, gaps, and the way forward for LeBoHA programs. We were also asked to make recommendations about specific issues related to the overall program, including timeframe, approach, focus areas, scale, policy considerations, contextual considerations, the role of the Government of Lesotho, sustainability, and funding.

REVIEW OF THE PROGRAMS: PROGRESS, CHALLENGES, AND GENERAL PROGRAMMATIC RECOMMENDATIONS

The Family Medicine Specialty Training Program (FMSTP)

FMSTP Progress

- The program's first two registrars entered the program in January 2008 and in January 2009 the FMSTP welcomed three new registrars to the program, all of whom were returning from training in South Africa. Two additional registrars joined the program in mid-2009.
- The FMSTP curriculum, policies and procedures, recruitment brochure and other administrative documents have been created and disseminated.
- The FMSTP is centered at Motebang Hospital, which in many respects has become a teaching hospital.
    - Grand Rounds are held on a weekly basis.
    - Weekly teaching sessions are held in the form of case presentations, didactic presentations, and journal clubs.
    - The hospital's District Medical Officer has an adjunct faculty appointment at Boston University and is actively involved in the teaching of registrars.
    - To date, an estimated 200 hours of formal lectures have been conducted, as well as over 300 hours of bedside teaching for each full-time faculty member.
    - While covering inpatient and outpatient services the registrars are benefiting from active teaching and supervision and they learn in a continuous fashion as they take care of patients.
- For the second year registrars, the program has expanded to Queen Elizabeth II Hospital and the Baylor Center for Excellence (specializing in pediatric HIV care) so that the registrars can receive further training in pediatrics, OB-GYN, surgery and orthopedics. They are taught and supervised by senior Lesotho physicians who are becoming increasingly integrated into the training program.
- Registrars and faculty have also been drafting more detailed and relevant clinical guidelines and treatment algorithms for use by the registrars.
- The program is also promoting improved teamwork through weekly combined rounds with doctors and nurses. The clinical supervisor reported, "And the doctors, we are

happy, ka nete[10], to have them here. They are always helping us, always available. Used to be that doctors make rounds then disappear to OPD. They are always willing to help."

- The quality of the Family Medicine Specialty Training Program was readily apparent. Upon observing ward rounds, we were thoroughly impressed with the quality of the registrars' work. Their presentations were as good as anywhere in the world. Their physical examinations and histories were very thorough and the resulting differential diagnoses, very astute. Their treatment plans were well thought out and proactive despite the challenges of limited diagnostic tools in some instances.
- The program faculty have done very well to remain flexible and regularly seek registrar feedback in the continuous strengthening and development of the program. Based on feedback and discussions with registrars, partnering hospitals, and faculty from the University of the Free State and international conferences, improvements were made to the curriculum and competency assessment process for the second class of first year registrars.
- We were also very impressed with the recruitment efforts of the program. LeBoHA's frequent communication with medical students and interns in Southern Africa, through medical student caucuses, recruitment visits, the creation of the Lesotho Doctors website, and support to the Lesotho Medical Students Association, demonstrates the long-term strategic approach being used for this program.
- So far, the FMSTP has met its goal of recruiting two registrars in the first year and four in the second year[11], and, as we understand it, there are currently four individuals interested in applying to the program for next year. LeBoHA's recruitment efforts are to be commended.
- The outpatient department has functioned largely as a center for episodic care. This is true for almost all of the outpatient facilities in Lesotho due to the severe shortage of physicians and nurses. LeBoHA has worked to modify the registrar's role in the outpatient department so that in addition to providing their share of episodic, urgent care, they will also develop their own panel of patients. Using this model the registrars will provide selected patients with a medical base where they will receive coordinated continuous care that is patient and family-centered.

FMSTP Challenges and Gaps

- As the first medical specialty training program ever developed in the county and in a country without a medical school, there have been challenges to determine where in the bureaucracy of the government such a program exist
- One major challenge we see is created by the unique nature of the program to address the training needs relevant to meet the needs of the people of Lesotho. Though the trainees are receiving training in family medicine, their training includes far more surgical experience than the typical family medicine training program, requiring skills beyond

[10] "Ka nete" means "really" in Sesotho.

[11] The FMSTP was faced with a difficult decision when one of the first year registrars ultimately left the program so as to protect the integrity and quality of the program, but was able to make up for this in the second year by recruiting a fifth second year registrar.

those of most family medicine faculty. One of the registrars explains, "Even the University of the Free State says, yeah, you guys have quite a daunting thing to do. They refer because they have specialists around them. What we do here is even beyond what they do." Whether local, regional, or international, it is difficult to find a physician capable in all the areas where the program registrars are being trained. The registrars recognize that the consequence of this is frequent rotations to other sites, and they look forward to the day that they can become faculty of the program with all the knowledge and skills necessary to teach future registrars.

- The registrars also mentioned that housing has been a major issue that has left many of them feeling unsettled during their time in the program. They do not understand why every other doctor in the country is provided housing while they are not. This combined with the difficulty in getting signed contracts and receiving payment from the Government of Lesotho for services they have been providing has resulted in concerns among the registrars that the Government is not supportive enough of the training program.
- The sustainability of the program greatly depends on the transfer of substantial funding of faculty salaries from Kellogg Foundation funding to the Government of Lesotho by or before April 2010, as planned by the MOHSW and LeBoHA at the onset of the grant. The LeBoHA program has so far been able to recruit three highly qualified family medicine specialists to serve as faculty at a rate of US$30,000. This is not too far from the salaries on Grade L of the Lesotho Government pay scale. However, the faculty at this level have stayed for only one year or less. On the other hand, the Program Director is paid the equivalent of an annual salary of US$75,000 and has been in Lesotho for slightly over 1.5 years. The salary level required to recruit and retain faculty long-term is unknown and must be investigated. In addition, Boston University has informed us of a possible cost-sharing arrangement that will allow FMSTP faculty to work with the Boston University Department of Family Medicine for two months of each year in order to supplement the Government salary. This innovative strategy for the long-term sustainability of the program seems worth seriously investigating.
- Accreditation and certification remain major challenges for the program, and must be addressed. We feel that the program would be made more attractive by ensuring that the graduates of the FMSTP have a degree equivalent to their South African counterparts, typically a Masters of Medicine in Family Medicine (MMedFam).
- For the long-term success of medical care in Lesotho, consideration must also be given to ways in which the practice of medicine in general in Lesotho can be made more attractive. Such considerations must include compensation, opportunities for career and personal growth, research opportunities, improved hospital function, enhanced nursing, and similar improvements. The cost of providing a more attractive environment need not be prohibitive. There should be a feeling of excitement about building a healthcare system that is strong – and a model for others to consider.

FMSTP Conclusions and Recommendations

We feel that all of the above issues with the FMSTP are readily resolvable with the creation of a forum for regular communication with and input from the MOHSW. In addition, strengthening

linkages with other Southern African clinicians and medical institutions would greatly improve the sustainability and relevance of the program.

The mix of teaching methods, the comprehensiveness of the content and type of rotations, and the personalized hands-on, problem-solving nature of the teaching, all contribute to making this an incredibly strong training program. To operate such a high-quality training program after only two years is quite an accomplishment. The registrars attested to that fact. One registrar said, "I have learned something new everyday I have been in the program." His fellow registrars nodded in agreement. We believe this comprehensive approach should continue to be a priority.

However, we strongly encourage soliciting the continued input of registrars and local and regional physicians into further strengthening the program curriculum and schedule.

In addition, increased emphasis on hands-on, practical, primary care surgical and emergency skills through the use of clinical instructors from Lesotho and elsewhere in Southern Africa would further strengthen the program. Some of the surgeons from the United States were viewed as less effective because of their inability to adapt their knowledge and techniques to local realities of limited resources and back-up. While specialists from the U.S. certainly can contribute, physicians from the region are more likely to be knowledgeable of the skills needed in the rural hospitals and more comfortable performing the needed procedures with limited resources and back up. Where specialists from the U.S. are used, strengthening the selection process for visiting physicians could be worthwhile.

LeBoHA should continue to pursue innovative strategies for the long-term sustainability of the program, especially in regards to financial support.

A degree equivalent to their South African counterparts is necessary at the completion of the FMSTP, and intensive efforts must be put in to granting an MMedFam.

Consideration must be also be given to ways in which the practice of medicine in general in Lesotho can improve, thus strengthening the entire health service system.

Nursing Program

Nursing Program Progress

- The LeBoHA nursing team developed a competency-based modular curriculum for refresher courses using the nursing process as the theoretical and conceptual framework and focusing on a practical approach to skills learning and development. As one nurse reported, "Since Boston came, we've seen great improvement. We were not doing our work very well, not monitoring vital signs, not writing anything. 'Me Mamakara is teaching us many things about nursing. Actually, refreshing us, because these are things we learned in school." One hospital matron reported, "Really, it has improved our nursing a lot really. Some of the things we knew, but we ignored. We always complain of shortage. Things like vital signs, we were just ignoring them. Like only if they are hypertensive, only then will we check blood pressure. We have even developed a program whereby we check vital signs on every outpatient and we detected so many patients with hypertension. I even had someone stop me on the street last week. She said, 'Now, we are being examined at the hospital, even before we are seeing the doctor.'"

- The Adult Inpatient Competency Skills Lists are used as mentoring assessment tools with a long-term goal of linking the tools to nursing performance appraisal in the future.
- "Skills Day," a supplemental skill-based training module, was also added to make the modules more hands on and interactive.
- The Matrons have been very involved in the planning and coordination of scheduling nurses to attend trainings. In addition to this, Matrons are given the modules prior to the training for their contributions to the content. Reports on the results of the trainings are also shared at the end of the month for their suggestions for strengthening of the training program.
- In an effort to improve supervision, accountability and patient care, nursing ward rounds were implemented on a weekly basis at Motebang and Maluti Adventist Hospitals.
- The hospital position of Clinical Supervisor was introduced in order to provide direct supervision of nursing care, which was often lacking due to the busy schedule of the Matrons. In addition, the Clinical Supervisor assists in improving the competency of nursing staff including assisting by scheduling, teaching, and evaluating the nurses on the necessary competencies and by organizing and facilitating the nursing rounds. On a daily basis, the Clinical Supervisor will also monitor daily activities, including attendance, staffing levels, supply inventory, and performance of duties.
- The nursing team, with approval from the Lesotho Nursing Council and the Chief Nursing Officer (CNO), developed an updated Inpatient Nursing Policy and Procedure Manual, which parallels and provides the foundation of the competency-based modules. This manual is structured to incorporate the most updated clinical procedure information that is relevant and feasible for district hospitals as well as updated inpatient ward standards of care and clear scopes of work among nursing sisters and assistant personnel. One LNC member described the collaboration: "They have been working with the LNC at each step of the development until today that it is complete and the LNC has adopted it and the CNO. We do have this document and I believe for the first time in Lesotho, we will place this document in Lesotho as the conceptual framework for our work."
- The Nurse Matrons at Berea, Maluti and Motebang Hospitals, in discussions with LeBoHA, identified poor nursing documentation as an area they wished to address. In collaboration with nurses and Matrons from these respective hospitals, four new nursing documentation forms were developed or modified: the admissions assessment, the nursing care plans, the vital signs monitoring, and the intake and output monitoring.
- To monitor the use of these forms, weekly documentation rounds were implemented in the three hospitals to assess the existing shortcomings with documentation and to implement corrective measures.
- Monitoring of documentation was also done through a documentation chart review. Baseline data was collected with follow-up data collected about six and 12 months after implementation of on-the-ward documentation training. Overall, the chart review has demonstrated an increase in the proper documentation procedures at Motebang, Maluti and Berea Hospitals, particularly in the recording of vital signs at admission and the recording of nursing diagnosis, plans, and notes, all of which can have a tremendous

impact on patient care by both nurses and doctors. One senior representative of the Lesotho Nursing Council described her findings upon evaluating the hospitals, "I found out that there is a lot of improvement in documentation. We were doing things but we were not documenting. I found out the morale of nurses is a bit higher whereas before they were complaining of shortage of staff. The team, they have done a wonderful job."

- Sustainability has been built into the program with the clinical supervisor position and mentoring and there's frequent mutually beneficial exchange of experiences between the different facilities.
- Another achievement of the nursing program that was cited frequently was LeBoHA's efforts to motivate the current work force. The 2008 and 2009 celebrations of International Nurse's Day in the districts sponsored by Global Primary Care were incredibly popular and the motivational talks by local speakers at Berea, Motebang and Maluti Hospitals have allowed nurses and colleagues the opportunity to come together in a supportive environment and realize the vital role they play in improving the health of the country. One of the hospital managers stated, "When I came here, I saw that people were demotivated and people don't do their work, we came up with a plan to come up with an award for the best department. We had a ceremony for the best cleaner and the best ward. It was very good. People are now working." Another manager gave a similar report, "[The other wards] were happy for that ward. And now they are working hard to get it themselves."

Nursing Program Challenges and Gaps

- The appropriate use of the ward attendants contribute significantly to the efficiency of the nurses. When asked how LeBoHA's work could be strengthened, one clinical supervisor suggested, "We could do more teaching of ward attendants. Now they are trained on the job. And some have been taught in the competency classes we have every Wednesday." She went on to explain, "There might be two people covering a ward: 1 registered nurse and 1 ward attendant. The nurse leaves at 4:00, so the ward attendant is left alone. Some of [the ward attendants] are interested to learn, and they can just ask for assistance. Some even apply [Plaster of Paris] with experience."

Nursing Program Recommendations

The most essential next step for the continued success of the nursing program is providing adequate support to the continued development and mentorship of the clinical supervisors.

We also feel that the nursing program could be significantly bolstered by the introduction of training geared towards ward attendants that would enable effective task shifting.

Since nursing personnel are the backbone of the health services in Lesotho, we recommend that additional funds be allocated to support a five-year intensive, integrated hospital and health center nursing development program. This would build on the current system and also include further expansion of topics and locales.

While progress has been made to encourage the nurses to improve documentation, continued improvement is needed to ensure that the nursing history is used to plan and implement patient care. The next step should be to focus on critical thinking skills. Problem Solving for Better Health (PSBH®) workshops have proven to be useful in this regard and regular bedside clinical

teaching that focuses on what care a particular patient needs will be essential. The clinical supervisor can play a key role in expanding this work, and we commend the LeBoHA team for their vision in introducing this cadre. This is an important demonstration for a position that could potentially be expanded to other hospitals nationally, so documentation of challenges with the introduction and implementation of such a role as well as critical elements for success is very important.

We would also recommend that continued efforts be made to encourage team teaching between the FMSTP registrars and nurses. If the registrars are assigned a panel of patients, they could be paired with a team of nurses and care for those patients as a team.

Nursing is the backbone of the Lesotho healthcare system, and it is important to work toward an overall environment that is more supportive of nursing in Lesotho. Training and continuing education are vital elements of the program, but they should be supplemented when possible by enhanced authority, compensation, opportunities for professional growth, and recognition of jobs well done and continuing public emphasis on the importance of nurses to the system.

Because nurses can have a direct influence on the health practices of patients and their families, in addition to their role in acute and chronic care, the strengthening of nursing so that nurses can provide health promotion and prevention programs to the people must be part of the planning and training. It would be a mistake to restrict their training to just that required for patient care in health centers and district hospitals.

Management Strengthening Program

Management Strengthening Program Progress

- Problem Solving for Better Health (PSBH®) has been an essential part of LeBoHA's management and clinical improvements since the beginning of Kellogg funding[12].
    - Since June 2007 LeBoHA has trained and followed 198 individuals who work across the four hospitals in the Leribe and Berea districts.
    - LeBoHA has worked with hospital management staff to have all the various cadres that work in these hospitals represented. Past PSBH® participants include cleaners, maintenance technicians, pharmacists, nursing staff ward attendants, physicians, administrators, human resource officers and statisticians.
    - Projects have included developing new policies and procedures, improving patient care, improving patient education, and improving scheduling systems. As one nurse reported, "I was so pleased to go to the problem-solving workshop. Thereafter I enjoyed my work… I see a difference, and it's motivating for me and my colleagues."
- To further strengthen staff problem solving initiatives at Berea Hospital, LeBoHA brought in a motivational speaker to discuss the importance of problem solving and working as a team to overcome challenges.
- LeBoHA also sought to further encourage participants by posting "Success Stories". Stories were posted around each hospital to encourage participants and inform hospital

[12] PSBH® participants address a problem they face in the workplace that they can solve using available resources, while simultaneously improving leadership skills and accountability.

staff of the activities currently going on. These posters were popular with staff and patients alike, and worked to initiate discussions about the problems the hospital was facing.

- LeBoHA's core approach to management strengthening is to customize activities to respond to issues identified by hospital leadership. Issues addressed using this "case-based" approach have included improving the gathering and analyzing of data, improving the availability of drugs and supply in casualty, improving after-hour and weekend services, decreasing pharmacy stock-outs, improving waste segregation, improving patient utilization records, and improving skill set to perform duties
- LeBoHA assisted with the restoration of the Hospital Therapeutics Committee. The Head Pharmacist, who leads this committee, stated: "For the first time, we know how much we will be ordering from NDSO [National Drug Supply Organization]. They don't know how many bottles I need for the whole year, so they just order, say 1,000 per year even thought they don't know because they don't know our average monthly consumption. We really laid out the plan to estimate how much we need. So I could really justify. We are very short-staffed, so most of the things, we are not effectively doing them. So we are able to do that with them."
- LeBoHA has also been working with Maluti, Motebang and Berea Hospital personnel to address hospital-identified accreditation concerns. These and other achievements have had an immense impact on the progress toward accreditation, especially at Maluti.
- LeBoHA assisted in forming Quality Assurance (QA) committees at Maluti and Motebang Hospital, trained 22 staff on QA techniques, and initiated 3 pilot QA projects at Maluti.
- LeBoHA has been working on financial management strengthening at Motebang, Maluti, Berea and Mamohau Hospitals, which deals with issues including poor record keeping, procurement systems delays, budget monitoring, and problems relating to the introduction and implementation of new financial systems (i.e. the Medium Term Expenditure Framework, or MTEF, and the Integrated Financial Management Information Systems, or IFMIS).
- There is no question that the success achieved to date in management strengthening has depended on the close relationships that have been nurtured and developed with the management team members, the heads of department, and the general staff at the district hospitals. When asked how LeBoHA compares to other international organizations, many of the interviewees responded that LeBoHA is not just passing out manuals or holding a workshop but is working with the staff on a day to day basis, right on the ground, working hand in hand. One administrator compared LeBoHA to another international partner, "LeBoHA is the primary group. [The other international partner] just comes when they need something. We don't really interact. LeBoHA even comes for our management meetings. Carrie is always with us. LeBoHA is like part of us. LeBoHA is us. Other groups don't really work together. They are just there." This partnership approach has given people confidence and a sense that they are capable of making changes and progress. This has been one of the most important and one of the most visible outcomes of LeBoHA's work.

Management Challenges and Gaps

- Although the management strengthening activities are constantly developing the capacity necessary for key individuals to solve their own problems, there has not yet been any individual or group of individuals identified that are being mentored to work across departments to assist in systems strengthening and system-wide problem-solving.
- Local consultants are needed to support the technical strengthening of ancillary services. Up to this point, ancillary services have been grouped together with management strengthening and their needs have been identified and either addressed directly or coordinated by the management strengthening team.

Management Strengthening Recommendations

The most essential next step to the sustained success of the management strengthening activities in the next phase of the program is the introduction of a role akin to the Clinical Supervisor for management strengthening that can be developed to oversee and facilitate systems improvements and problem-solving activities occurring across the hospital.

We commend the model LeBoHA has implemented of working hand-in-hand with local staff. LeBoHA's partnership with local staff is absolutely essential and separates this program from many others where external expertise operates largely by itself. We feel strongly that expatriate staff and consultants should work with local counterparts, assigned in consultation with the appropriate local health officials. Though this relationship would involve mentoring, the relationship is more of a collaboration between equal professionals, each contributing their particular knowledge and skills to address priority issues. This would ensure that interventions are acceptable to the stakeholders, appropriate to the social context and sustainable beyond the life of the project.

We feel that the time is quickly approaching that the management strengthening activities targeting ancillary services will be stymied by limitations in technical competence. Should additional funding become available, we also feel that the management strengthening activities will benefit a great deal from organizing local consultants to provide technical training and support for ancillary services.

Finally, we would recommend that QA activities continue and the focus be on practical interventions that have a direct impact on the quality of patient care and result in improvements in patient outcomes, patient safety and cost-effectiveness. Many of the interventions LeBoHA is implementing are in essence QA activities, and health workers need to see their daily activities in this light. Essential to this is that the members of the healthcare team feel that their efforts to improve quality are valued by LeBoHA and the MOHSW.

Other Extension Projects

While LeBoHA operates primarily within the three pillars, extension projects have evolved as a result of the *Transforming District Health Services in Lesotho* program.

Lesotho Medical Student Association

Following the medical student caucuses in 2008, medical students from the University of KwaZulu Natal formed the Lesotho Medical Students Association (LEMSA), with plans to expand to all universities with Lesotho medical students. This organization has been working

cooperatively with LeBoHA, particularly in attracting Basotho graduating medical students back to Lesotho and co-hosting the annual medical student caucuses.

Resident and Medical Student Volunteers

Since 2004, more than 80 faculty, fellows, residents, and medical students from Boston University and Boston Medical Center Departments of Family Medicine, Pediatrics, Internal Medicine, and Emergency Medicine have completed rotations at Maluti and Motebang Hospitals. One registrar described how the Boston University medical students and residents add value to the program, "It's nice to have them around. They're working, they see patients, and there are things they do here that they won't do anywhere else. They somehow changed the environment; made it more academic. When it comes to research, they are much better than us. They help us a lot with that."

Mountains of Hope

A fourth year medical student at Boston University, Kara-Lee Pool, inspired by the W.K. Kellogg Foundation supported work of LeBoHA, produced a 34 minute documentary, *Mountains of Hope,* to educate her fellow students about the health care challenges faced in resource-constrained settings, to raise general awareness about the situation in Lesotho, and to present a message that will help draw Basotho physicians and nurses back to Lesotho. Produced with support from the American Medical Association Foundation, Pfizer Inc., and others, this film highlights the massive departure of Lesotho's health care professionals to the Republic of South Africa, and tells the harrowing story of the courageous doctors and nurses who stayed, what they go through on a day-to-day basis, and what is being done to lure more of them back to a place in a dire state of need. A *Mountains of Hope* CD is attached to the back cover of this report.

Lesotho Medical Association Journal and Lesotho Doctors Website

LeBoHA has served as the editorial and publishing arm for the revitalized Lesotho Medical Journal, a publication of the LMC[13]. LeBoHA has also worked with the LMC to host a website with information for doctors currently practicing in Lesotho as well as medical students and interns abroad[14].

The Lesotho Learning and Sharing Forum

LeBoHA has provided technical and administrative support for the monthly meeting of the *Lesotho Learning and Sharing Forum* for all interested health professionals in Lesotho. A typical meeting has 60 to 80 attendees with doctors, nurses, laboratory technicians and health administrators all well represented.

Cervical Cancer Vaccine (Gardasil)

LeBoHA, because of prior contacts with Merck, was able to acquire enough donated Gardasil to vaccinate 40,000 girls and young women against human papillomavirus (HPV) with the expectation that this will lead to a long-term reduction in new cases of cervical cancer and a continuing program of cervical cancer prevention. As the donated vaccine came with no support other than the vials of vaccine, the grant to BUMC allowed LeBoHA staff to provide essential logistical help in distributing the vaccine. The Gardasil vaccination campaigns simply would not have happened were it not for the Kellogg-funded LeBoHA program. This has led to the active

[13] Several issues are included in the CD that contains mid-term review briefing materials.
[14] www.lesothodoctors.com

consideration of a program to introduce a nationwide program for the early detection and treatment of pre-cancerous lesions by visual inspection with acetic acid and cryotherapy along with a continuing program of Gardasil vaccination.

Family Literacy Lesotho

Appendix E describes a very different, unanticipated and fortuitous benefit of the Kellogg funding – a program to promote the writing, illustration, printing and publication of books for Basotho pre-school children in Sesotho by Basotho authors and about Lesotho.

SPECIFIC ISSUES IDENTIFIED BY THE LEBOHA TEAM

A. Program Timeframe

***Issue**: We were asked by the LeBoHA team to assess a realistic timeframe for achieving true transformation in the Leribe and Berea districts.*

Findings:

- The current nursing program is well on its way to being fully integrated within the existing system by the end of 2011. However, the funding to assure this may not be sufficient.
- The initial specific systems changes that have been introduced as part of the management strengthening program will almost certainly be fully accepted by the end of 2011. However, assuring a long-term commitment to these changes will likely require several more years of mentoring, technical assistance and on-the-ground reinforcement.
- The framework for the Family Medicine Specialty Training Program will be fully developed as the first registrar completes the program by 2011. However, sustainable change and complete local ownership of the program will take more than five years.
- True transformation of district health services requires fundamental organizational change, which may include reorganization of the workforce and redefinition of its duties/requisite skills of the team members.

Conclusion/Recommendation:

The foundation for organizational change is being laid and the LeBoHA program is fostering the development of true change-agents. We are left with little doubt that true transformation is possible, but we expect that it is likely to take closer to ten years.

B. Program Focus Areas

***Issue**: LeBoHA asked us to consider the appropriateness of the distribution of attention and resources across the four areas required for good hospital services: management and finance, physician services, nursing services, and ancillary services.*

Findings:

- Based on a review of LeBoHA activities and discussions with the staff, we agree with LeBoHA's view that the original proposal fully recognized the importance of management,

finance, and physician services, but grossly underestimated the need for strengthening nursing, and completely omitted ancillary services.

- LeBoHA is to be commended for allocating additional resources to nursing when they recognized the extent of this need[15]. Though the amount of the resources committed has been much smaller compared to the investment in physician services and management and finance, nursing has managed to develop as much as these other areas due to the approach of seconding a part-time team of highly skilled and motivated nurses from Maluti to work with and develop as the leaders and implementers of the program.
- The major omission from the nursing program has been the neglect of the ward attendants.
- We quickly noticed that further progress in strengthening physician services is being limited by weaknesses in management and ancillary services.
- Although considerable resources are being invested in management and finance, the direct and personalized approach that has been so effective really demands even more time and resources. It seems that LeBoHA recognizes this need as they have recruited an additional intern[16] to focus on management.

Conclusion/Recommendation

We believe that comprehensive strengthening of district health services requires focusing on all three pillars, and believe that the distribution of resources was appropriate for the first half of the program. While continuing to support Family Medicine, management and Nursing, we strongly recommend that LeBoHA also consider ways to provide technical assistance in the areas of pharmacy, radiology, laboratory, and maintenance. Perhaps this can be done by identifying good local consultants or perhaps by sharing expertise between hospitals. Adapting and focusing the PSBH® methodology to focus on these areas is yet another possibility. We also believe more support should be provided to Nursing Program, with expansion to include ward attendants.

C. Program Approach

***Issue**: We were also asked to assess the (1) effectiveness, (2) cost-effectiveness, and (3) future directions of the overall approach to providing continuing education for health professionals.*

1. Effectiveness of the Approach

Findings:

- The specific approach that is being used by LeBoHA has without question been very effective for nursing, management, ancillary services, and physicians alike. LeBoHA has emphasized on-site, one-on-one and small group training and mentorship in all its program areas.
- For nursing, we found the most effective approaches to be:
    - The use of practical refresher trainings on real patients in the wards of their own hospital;

[15] This is due to the flexibility allowed through the supplementary grant from Kellogg directly to BUMC.
[16] Interns are carefully selected recent graduates or public health graduate students who make a 6-12 month commitment to work with LeBoHA in Lesotho.

- Brief didactic sessions conducted done on-site and offered to small groups;
- Weekly on-site visits to the wards by the LeBoHA training specialist;
- The introduction of a Clinical Supervisor role;
- And the conducting of quarterly matron meetings, serving to bring the matrons and clinical supervisors from the three hospitals together to share challenges and lessons learned and to promote the continued development of the nursing program.

For management strengthening, effective approaches include:

- Identification of the priorities for each hospital by regularly talking with the hospital management teams and staff, by attending all the management meetings, and by being continuously present, allowing LeBoHA to assist with urgent as well as chronically irritating matters as they arise.
- Using an on-site approach that allows LeBoHA to customize the management program for each hospital in order to address the needs in a way that is most appropriate for the context and leadership of the hospital.
- Using the Problem Solving for Better Health approach to encourage hospital employees to develop an individual action plan that addresses a problem they face in the workplace that they can solve using available resources.
- Providing mentorship and training of management and ancillary staff in order to build capacity.

In its initial design, the Family Medicine Specialty Training Program, even though a formal training program, was intended to provide on-site, practical, one-on-one or small group training to Lesotho's registrars[17]. We had the opportunity to observe first-hand the many advantages to LeBoHA's method of training, and believe the effective approaches include:

- Conducting training alongside other registrars, resulting in the development of a strong sense of camaraderie and promoting team approaches to learning and working;
- Working with the program faculty daily, thus receiving regular feedback about every aspect of providing care, including their diagnostic, procedural, presentation, and interpersonal skills;
- Relating grand rounds and skills development workshops to the topics and areas that are most needed and relevant to daily practice; and
- Making use of local doctors as lecturers, resulting in increased relevance of topics and improved support and communication between the FMSTP and local physicians and organizations.

Conclusion/Recommendation

There is little doubt as to the effectiveness of the LeBoHA approach for continuing education. Individual skills are being developed, attitudes are changing, and the specific problems that are being identified and addressed are often illuminating larger systems issues that are key to address for more permanent change.

[17] This differs from the traditional postgraduate training in South Africa, which expects registrars to complete a minimum number of procedures independently at their own practice site and provides several 3 to 5 day didactic trainings each year over the four years.

However, this direct and individualized style is very time-consuming, which is part of the reason for the need for more time to achieve true transformation.

2. Cost-Effectiveness of the Approach

Findings:

- We do not feel that the less intensive, off-site workshops are sufficient for the skills development and attitudinal changes needed to make the long-term impact required on the targeted individuals and institutions.
- We note with interest the actual costs per person-month of effort by LeBoHA.
    - Of 685 person months of total effort, 82% was delivered in Lesotho and of that over 60% in the districts.
    - At US$2,774 per person per month inclusive of all costs (expatriate and Lesotho personnel, international and local travel, direct training costs) and overhead at 0%, the costs are remarkably low.

Conclusion/Recommendation

It is our opinion that the program is effective and low-cost when considering the frequency with which a large number of people are being trained, the quality and relevance of the training, and the large number of problems that are continuously being solved, including ones that have resulted in fairly substantial monetary savings to the hospitals.

There is no question that the work being done is incredibly challenging and will require expatriate medical and managerial assistance for at least several more years. However, we do think that the overall cost-effectiveness of the program can be improved by hiring additional local counterparts that can be mentored to operate in the roles currently held by expatriates. More funds and time are required in the short-term to identifying local counterparts and then develop their skills and requisite attitudes and to complete the transformation of district health services and build the faculty and administrative structures essential to have a sustainable program.

3. Future Direction of the Approach

Findings:

- There are several issues regarding the recruitment and/or maintenance of physicians and nurses in the districts that we believe requires continued examination and thought.
    - The new national referral hospital being built in Maseru will be a strong draw for all staff in Lesotho as salaries are very likely to be above the civil service pay scales. Further, Maseru has better housing and schools than available in district towns.
    - The attractions of higher pay and better hospital facilities in South Africa represent yet another challenge.
    - Still other issues relate to the overlapping lines of authority of the District Health Management Teams (DHMTs) and the hospital-based authorities.

Conclusion/Recommendation

If strong physicians are to be retained in the district hospitals, new approaches to the multiple issues posed, including the use of available manpower and cost-effective communication technologies, as well as improved local management, need to be considered.

D. Program Scale

***Issue**: LeBoHA asked the Midterm Review team to assess the appropriate scale of the program with regard to the number and type of facilities that should be included in the program at this time.*

Findings:

- To date, LeBoHA has done work in all four hospitals in the Leribe and Berea districts with most of the focus on Motebang and Maluti, some focus on Berea, and minimal focus on Mamohau. These hospitals represent CHAL and Government hospitals of different sizes and categories (local, district, and regional hospitals).
- Based on our review, the LeBoHA program has focused largely on hospital improvement with only limited engagement with the health centers. While we agree with LeBoHA that the district hospital must function well in order for health centers to function well, the reverse is also important and it will be important to strengthen health centers in order to achieve the true transformation of district health services.
- An additional aspect we believe to be worthy of consideration in longer-term planning is the extent to which better-health practices can be moved out of the health centers into villages and people's homes. The key here is helping the people themselves to take on some responsibility for their own health. The people must be brought into the health system as active participants.

Conclusion/Recommendation

Because of the very time-intensive approach that is used by LeBoHA, we feel it is important to continue to focus on selected hospitals before the program is further expanded. We feel that for now the focus should remain on Motebang, Maluti, and Berea since strong relationships have been built at all three facilities and a great deal of momentum that has been established.

However, we agree with LeBoHA that long term strengthening of district health services requires future expansion to the health centers and the community. It is abundantly clear that the resources for the current Kellogg funded program are not sufficient for this expansion. We support LeBoHA's strategy to begin expansion to the health centers by piloting a program that will mentor a core group of community-based trainers and supervisors that can support the strengthening of their own and neighboring health centers. We understand that funding from the Izumi Foundation will allow this pilot to begin, but we caution that substantial additional resources will be required to truly strengthen health centers in a meaningful way without detracting from the essential focus on hospitals.

Additional thought should also be spent on the issue of involving community members in health services, and we feel that LeBoHA and the MOHSW have the opportunity to show how this might be done, and to set an example for other countries to follow.

E. Key Policy Considerations

***Issue**: LeBoHA has also asked us to review the major policy issues that will be the greatest hurdles to overcome in achieving the successful transformation of district health services.*

Findings:

We have identified several challenges related to decentralization that may impede successful transformation. We understand that LeBoHA has already discussed these issues with the MOHSW in depth in other contexts, but it is worth highlighting the key issues as they relate to the LeBoHA program.

- There is a great deal of uncertainty around the roles of the members of the DHMT and the role of the DHMT as an organization. We understand that LeBoHA has pulled back a great deal from its work with the DHMTs because of these challenges.
- Another concerning issue is the separation of hospitals and health centers that has resulted from shifting health centers to local government under decentralization. We believe this will hinder the integration of strong, coordinated district health care, as well as make expansion to health centers more difficult.
- There is a lack of provision for autonomy of hospitals in the strategy for decentralization. The challenges at the hospital level resulting from their lack of autonomy were apparent in nearly every interview. Most dangerously, the lack of autonomy leads to a lack of accountability and no sense of ownership among the staff in the hospital. Furthermore, the hospital managers are transferred so frequently that developing this sense of ownership is made even more difficult. This general feeling of being controlled centrally has even filtered into areas that are supposed to be controlled locally.
- LeBoHA's original proposal to Kellogg made mention of a plan to "introduce, on a pilot or test basis, central changes in policies and procedures only when district level solutions will not suffice." This has not yet happened in the LeBoHA program. There were a few central policies that were reported by our district hospital interviewees repeatedly as major challenges to moving forward. Chief among them was the lack of serious consequences for poor performance and serious misconduct.

Conclusion/Recommendation

Until there is a clear and realistic vision and strategy for decentralization at the central level with clear roles and objectives for the District Health Management Teams and their staff, it will be very difficult for any organization to make a substantial impact with the DHMTs. In addition, the move of health centers to local government under the decentralization plan has disconnected them from the hospital system. Working towards the goal of an integrated system of care with each level functioning at the maximum level of efficiency is going to be very difficult without having clear channels of communication with referrals and management of patients in chronic care. In addition, future expansion of the program to the health centers is going to be very difficult without being able to draw from the hospital as a sustainable base for supervision and training. These issues must be clearly addressed before expansion is to occur.

It is important to work toward an overall environment that is more supportive of health care provision in Lesotho. Training and continuing education are vital elements of the program, but they should be supplemented when possible by enhanced authority, responsibility and

accountability at the district level with a particular focus on hospitals, compensation, opportunities for professional growth, and recognition of jobs well done and continuing public emphasis on the importance of nurses to the system. This can only be done with proactive support from the central level.

There is no question, however, that many of these issues are difficult problems to solve and any proposed solutions should be tested on the ground before changes are made to national policy. We believe the LeBoHA program presents a unique opportunity for the MOHSW to test potential solutions that can be very closely monitored with regular reports by the LeBoHA team.

F. Key Context Considerations

***Issue**: LeBoHA has also asked us to assess the reality of the program's goal to train family medicine physicians in order to staff district hospitals with physicians that have the relevant knowledge and skills to meet the needs of the majority of the people at the district level.*

Findings:

We see two major challenges to achieving this aim that have become further complicated by recent developments.

- First, recruiting and retaining physicians for work in Lesotho, which is the highest priority of the LeBoHA program, will be made even more difficult if the proposed salary increase in South Africa goes into effect. The most recent figure being considered by the South African government as the annual salary for interns is R314,023. This figure is higher than the annual salary of the highest paid Government employed physician in Lesotho. If the Lesotho Government is unable to narrow the gap in physician salaries between Lesotho and South Africa, other efforts of the Government of Lesotho to appeal to physician concerns become essential. The physicians we spoke with concurred that the salary increase in South Africa would make it more difficult to recruit and retain physicians in Lesotho. One senior specialist physician said, "I was listening to the news in South Africa about the environs for doctors. A 50% increase for interns. We're going to lose everyone. This means this government is going to have to do something. This means that an intern is making more than me… The salaries won't be the major cause, but we really need to pay attention because it's just going to be that much more difficult."
- Even if the challenges of recruiting and retaining physicians for work in Lesotho are overcome, the challenge of effectively distributing them throughout the country remains. This will be made even more difficult when the new referral hospital becomes operational in the next two to three years.
- When we asked the registrars if they would encourage their physician peers to join the Family Medicine Specialty Training Program, one responded, "I have quite a few friends at QE II. The concept of the program, they love, but they don't want to go to Leribe. Their life is in Maseru."

Conclusion/Recommendation

We did not talk with enough physicians to get a good sense of the extent of this challenge and possible solutions. However, we recommended to LeBoHA that they hold a forum that would focus on a discussion among health professionals in Lesotho of the different possible scenarios

for the delivery of health care services in the districts that recognize the economic and social realities faced by Lesotho. They organized such a meeting the weekend following the completion of our on-site review. Their summary of that meeting concludes:

> Overall, the meeting raised many important issues, but confirmed the need to consider the social and financial realities and constraints in seeking creative solutions to strengthening Lesotho's health system."

Based on our discussions with the registrars and other practicing physicians and this summary, we do not feel that it is realistic to expect that the FMSTP graduates will serve as the primary core medical staff of all Lesotho's district hospitals. We therefore recommend a continuing dialogue between the MOHSW and LeBoHA to explore and test ways to sustainably and effectively bring the skills of specialists in family medicine to bear in all the districts, with representatives from the Lesotho Medical Association, Lesotho Medical Council, Lesotho Nursing Association, Lesotho Nursing Council, Government health professionals, health professionals in private practice, FMSTP trainees, medical students, and the Ministry of Health and Social Welfare be formed to develop a strategy for staffing district hospitals that fully recognizes the contextual realities.

G. The Role of the Government of Lesotho

Issue: *LeBoHA asked us to assess the relationship between the Government of Lesotho and LeBoHA.*

Findings:

- As we understand it, key members of the Ministry of Health and Social Welfare played an active role in the design of the program and development of the proposal to the Kellogg Foundation. However, the initiation of the program has been carried out by LeBoHA, with the MOHSW serving largely to grant permission and to advise in a limited number of issues.
- The need for increased Government involvement is essential for the continued success of the Family Medicine Specialty Training Program. Decisions about accreditation and certification are vital and long overdue and the source for continued financial support of the program needs to be resolved soon[18]. Programmatic and policy decisions may need to extend beyond the Ministry of Health and Social Welfare to include other Government Ministries. The role of the MOHSW, however, is essential to coordinate the different players and to make the key decisions about the future direction of the program.
- Another potential role for involvement of the MOHSW is in the management strengthening component of the program. There is an abundance of problems that can be solved at the district level and plenty of enthusiastic counterparts willing to address them. However, as we mentioned earlier, these facilities are ripe for implementing bigger change.

[18] LeBoHA informed us that a very productive meeting took place shortly after the midterm review with all key players in the MOHSW to discuss the necessary steps to reach a decision about accreditation and certification. We are very encouraged by this and feel that if this type of collaboration continues going forward, the future of the program will be assured.

- The MOHSW-LeBoHA program is complex and holds out great promise. However, a program of this complexity necessarily has challenges that require collaborative identification of problems as well as collaborative development of solutions.

Conclusion/Recommendation

In our opinion, the rapid maturing of the LeBoHA program has necessitated an increase in Government involvement to ensure the appropriateness and sustainability of the program. Specific issues to be addressed by the MOHSW at this time include accreditation and certification of the Family Medicine Program, and the planned, but yet to be implemented, assumption of FMSTP recurrent personnel and related costs by the MOHSW. We suggest that the MOHSW and LeBoHA not only work together more closely but also collaborate more actively with the Ministry of Public Service and the Ministry of Finance and Development Planning.

Furthermore, if the MOHSW agrees that there is a need to address some of the broader central level challenges, there is a unique opportunity in the LeBoHA facilities to test some possible solutions to determine the most appropriate approach before changing national policy.

In general, it is our belief that, for the promise of this program to be realized, the regular and informal communication between the central MOHSW, and likely other ministries, needs to be substantially strengthened. As the challenges facing the program often raise policy issues, the participation of senior MOHSW policy staff is essential.

H. Program Sustainability

Issue*: LeBoHA asked us to consider what Boston University's role should be in the continuation of the program and asked us to recommend key strategies to assure that the program becomes one that is sustainable and truly owned by Lesotho five or ten years from now.*

Findings:

In addition to the critical role of the Lesotho Government in the continuation of the program as described above, we feel that there are also essential roles for health training institutions, the professional health organizations, civil society, and the continued involvement of Boston University.

- There is a major potential role for the health training institutions in the long-term sustainability and ownership of the training programs. This has already been demonstrated by incorporating teaching of the nursing process and the revised documentation forms in the Maluti School of Nursing curriculum. Members of the Lesotho Nursing Council and Lesotho Nursing Association thought that expansion of the nursing program to the nursing schools was an essential next step. One nurse stated, "Can you go to the other hospitals? At least have one [clinical supervisor] in each training hospital. Because you've done only one school of nursing at Maluti. So at least you will have someone looking at the quality at the training hospitals." Another nurse emphasized the importance of introducing the policy and procedure manual in the nursing schools, "We cannot forget the school of nursing, so we want to introduce it there where they get comfortable with this document and then they will use it later when they go out to work."

- There may also be an important role for the National University of Lesotho in sustaining the Family Medicine Specialty Training Program. Specifically, the registrars expressed a great deal of interest in earning a Masters of Medicine in Family Medicine (MMedFam) degree as part of the FMSTP.
- It is unclear to us how seriously Lesotho is considering a medical school. If Lesotho does begin to seriously pursue developing a medical school, there could be tremendous benefit from building off of the groundwork that has been laid by the FMSTP.
- It is clear that the Lesotho Nursing Council and the Lesotho Nursing Association have been closely involved in the oversight and direction of the nursing program and the development of the policies and procedures. We also see many areas where the Lesotho Medical Council and the Lesotho Medical Association have worked together with LeBoHA, including the strengthening of the Learning and Sharing Forum, the publication of the Lesotho Medical Association Journal, and participation in the annual medical student caucus meetings. However, the Family Medicine Specialty Training Program could benefit from more active participation of the LMC and LMA.
- Although it is always a challenge to effectively involve civil society, the importance of their involvement was raised during our discussions. One member of the Lesotho Medical Council made the point, "No one is talking to the people about what they want. Bring the people into the system… We need to have a hospital board where there is enough pressure on the real decision-makers." Both addressing issues that are identified as critical by the communities and enhancing communication of information to the communities will further enrich the service strengthening activities and are likely to improve patient satisfaction as a whole.
- Finally, there is no question that the role of the Boston University Medical Campus team has been essential in the implementation of this program to date. This role continues to be essential but the growing emphasis on capacity building needs to be supported and strengthened. We feel that this should continue with the involvement of even more local counterparts so that every aspect of their work is more likely to survive should funding discontinue.

Conclusion/Recommendation

In order for the program to be sustainable and for the people of Lesotho to take ownership, we believe that other programs and organizations, outside of the MOHSW, must be involved. This includes:

- Expansion of the nursing program to the nursing schools;
- Continuing to explore the possibilities of establishing an MMedFam degree at the NUL. There are many advantages to having such a degree available at NUL as opposed to depending on South African programs for such a degree, and we recommend that these discussions continue.
- Promoting more active participation of the LMC and LMA in the Family Medicine Specialty Training Program.

- If Lesotho does begin to seriously pursue developing a medical school, there could be tremendous benefit from building off of the groundwork that has been laid by the FMSTP**.**

We also see major benefits to operationalizing community participation and increasing community communication and encourage LeBoHA and the MOHSW to approach this matter.

Sustainability and ownership can also be improved by transitioning the program to local counterparts. The BUMC team will be essential to the core program activities over the next three to probably five years. After that time, particularly in the area of family medicine specialty training, it would be desirable to build toward low cost ways to maintain a continued relationship.

I. Program Funding

Issue: *LeBoHA also asked the team to decide whether additional funding would be necessary, and if so, how much and for how long.*

Findings:

- The W.K. Kellogg Foundation has been a wonderful source of support for LeBoHA and a good fit for the nature of the program. The Kellogg Foundation's long-term view and recognition of the need to adjust to the unanticipated challenges and changing priorities have been essential to the success of their program. It is our understanding that the funding that was given directly from Kellogg to Boston Medical Center, in addition to the planned activities, was essential for meeting many unanticipated needs including the expanded training of nurses and support of improvements in ancillary services that has occurred to date and was also essential for establishing the FMSTP at Motebang Hospital by providing accommodations for the registrars, which was another major unanticipated need.
- We feel that LeBoHA is to be commended for the amount that they have accomplished with the resources they have available. They have made extensive use of carefully selected recent graduates or graduate students in public health that make 6-12 month commitments to work in Lesotho as interns. In addition, the identification and mentorship of Basotho for use in the nursing program and in Problem Solving for Better Health has been very effective. They are also increasing the use of medical specialists working elsewhere in Lesotho for grand rounds teaching and as adjunct faculty of the FMSTP. The program has also benefited a great deal from a volunteer program that recruits, orients, and manages physician volunteers from Boston Medical Center, and occasionally elsewhere to work in Lesotho.
- We mention again and were amazed to learn that LeBoHA has delivered 685 person-months of technical assistance in the MOHSW-funded program as of the end of May 2009, 560 of which were in Lesotho with about 60% of those based in the districts. This amounts to an average of 23.6 person-months of assistance every calendar month at a rate of $2,774 per person-month ($33,288 per person-year) inclusive of all expatriate and local salaries, fringe benefits, travel, accommodations, training costs, and miscellaneous expenses. The 685 person-months does not even include the resident and medical student volunteers from Boston Medical Center who have paid their own way as well as BUMC

legal counsel, accounting, and grants management services, which have all been provided at no cost. This is a very high return on investment.

Conclusion/Recommendation

We feel strongly that Kellogg has made a worthwhile investment and there is much has been done with the resources available. However, there is no question that additional funding is needed for both the continuation of LeBoHA's existing activities and for the continued development and gradual expansion of the program. There is much to be gained by all parties for the continuation of this partnership.

III. CONCLUSION

We believe that LeBoHA's model successfully strengthens both clinical and management components of health care through a process that (1) offers a balanced mix to address physician, nursing, and management services, (2) takes a customized stepwise approach that addresses the problems identified as highest priority by those managing the facilities, (3) is based on working together with the facility's health professionals to provide them with the knowledge, skills, direction, and motivation to address the challenges necessary to improve the delivery of health services and (4) always considers long-term sustainability and works within available resources.

Few organizations attempt to address both clinical and management aspects of health in parallel. The value and necessity of this approach was clear to us during the review. As physicians improve their clinical skills, they require tests, tools, equipment, and drugs to effectively treat the patient. Their efficiency and effectiveness are dependent upon the efficiency and effectiveness of the system within they operate as well as the efficiency and effectiveness of the nurses and ancillary staff they work with. All of these components really must be taken together, and LeBoHA's model does just that.

To truly transform district health services in Lesotho, major organizational transformation is needed within the health system. That transformation starts with changing the basic values and norms of health workers at every level. This type of change happens gradually and is dependent upon incremental successes that serve to reinforce positive change. This process for improvement is not based on a prescribed formula that is imposed on an existing system but is instead customized to fit the nature and needs of the institutions and individuals. The hospitals visited in the two districts have represented a variety of needs and the training that LeBoHA has conducted was tailored to meet the particular needs of each individual facility. We agree that this customized approach is necessary in order to build capacity that builds off of the existing strengths of each facility and is relevant to the needs faced by the individual institutions.

As mentioned earlier, the success achieved by LeBoHA to date has depended on the close relationships that have been nurtured and developed. This partnership approach has given people confidence and a sense that they are capable of making changes and progress. Through this process leaders are being identified and mentored to take on this work long-term. LeBoHA's approach is releasing human potential.

Though we recommend that LeBoHA continue to focus on Motebang, Maluti, and Berea with the current resources available, we feel strongly that LeBoHA's model can be successfully expanded and applied to other hospitals as well as health centers in Lesotho with additional manpower, financial resources, and time. It should be noted that implementation of the model anywhere requires a real investment of time and people. To be sustainable in the long run and operate within the Government of Lesotho's existing resources requires supplementary and external financial and human resources to initiate the process of transformation. The model cannot be diluted and still maintain its effectiveness. This customized, personalized approach does not take an army but it does take a few highly skilled and committed people over a number of years striving for transformation. The transformation team for one hospital could be supported for a month for less than the cost of a one-week workshop for 50 people; and there is no doubt that this approach is far superior to the more traditional seemingly infinite stream of workshops.

Ten years from now, if things are done correctly, Lesotho's health care system and the health of its people will be a model for others to emulate. To achieve this goal, we asked ourselves what should LeBoHA focus on in the next five years? First, thinking outside the usual box is essential; just because health care is delivered in certain ways in other places does not mean that it has to be done that way in Lesotho. Secondly, LeBoHA must keep its focus. It should not spread itself too thin. Focusing practical implementation of concepts and policies at Motebang, Maluti, and Berea is good, although the policies and concepts themselves ought to be designed and thought out with the full realities of Lesotho in mind. One can summarize the approach as thinking big while at the same time implementing pilots and tests on a manageable scale until the ideas are better tested.

Overall, we feel that the LeBoHA program is more than its three components. Rather, it is also about developing a model for transformation of any healthcare system so that it becomes an integral part of a society and is thus far more effective than the uncoordinated, often too insular and overly specialized programs that have been implemented around the world to date. We believe that LeBoHA is something different.

Based on our experiences in Lesotho, we feel the LeBoHA program with its three components (FMSTP, nursing, and management strengthening) is the right program at the right place at the right time. It is unique in its comprehensive approach and, with time, it should be made even more comprehensive. The LeBoHA program has already made strong contributions in each of its program areas and should continue its efforts for the next five to ten years.

In summary, the W. K. Kellogg Foundation is making a valuable contribution to the people of Lesotho through its support of the LeBoHA program. In our view, the LeBoHA program is comprehensive, cost-effective, appropriate to the social context, and acceptable to the community of health professionals as well as to the patients it serves. Our review team took seriously our responsibility and probed deeply in our interviews. In all cases, as reflected in the quotations throughout this report, the response to the LeBoHA interventions were positive. But much remains to be done. Though sustainability has been built into all aspects of the program, primarily through the involvement of the local professionals, more time and more support will be needed to put the transformation process on a firm, auto-replicative and self-sustaining footing.

For that reason, the review team is recommending a five-year extension of funding slowly phasing out to zero, with continued support of family medicine and management, an increased focus on strengthening the nursing workforce, and expansion to include ancillary services. We reiterate our overarching recommendations:

1. Provide additional funding to cement management and work practice changes, stabilize the Family Medicine Specialty Training Program, significantly strengthen and extend nursing service improvements with a focus on health centers and ward attendants, and increase technical support for ancillary services.

2. Funding should be geared to realistic milestones, developed in collaboration by the MOHSW and LeBoHA, that recognize the principle of sustainability and the progressive assumption of funding responsibility by the GOL as articulated in the original 5 year Kellogg grant.

3. Funding should be for five years and of approximately the same magnitude as the current grants.

There is probably no other program with as much potential as the MOHSW-LeBoHA partnership to measurably improve the health of a people, while contributing a new model for health system development and management to the world. This powerful, cost-effective program is worthy of continued and increased support for at least the next 5 years, with the ultimate goal of being an auto-replicating and self-sustaining health program that is both of and by the people.

APPENDICES

Appendix A: Lesotho-Boston Health Alliance Staffing list

Appendix B: Midterm Review Briefing Memo

Appendix C: Midterm Review Team Biographies

Appendix D: Midterm Review Schedule

Appendix E: The Lesotho Family Art and Literacy Centre

APPENDIX A: LESOTHO-BOSTON HEALTH ALLIANCE STAFFING LIST

Lesotho Personnel

Carrie Cafaro	Management Specialist
Tlalinyane Chakache	Driver
Dr. Laura Dooley	Deputy Director, FMSTP
Dr Luckson Dullie	Lecturer, FMSTP [80% effort]
Dr. Phil Elkin	Director, FMSTP
Mahali Kahlolo	Office Assistant
Teboho Kitleli	Senior Advisor [10% effort]
Dr. Senate Matete	Country Representative
Liteboho Mlakaza	Program Administrator
Mamakara Motanyane	Nurse Education Specialist
Martina Moturmane	Nurse Trainer [25% effort]
Sandy Phoenix	Nurse Consultant
Mary Piet	Health Trainer
Dr. Jorge Rodriguez	Lecturer, FMSTP [10% effort]
Gloria M. Ntsaba Sefuthi	Nurse Trainer [25% effort]
Lisebo Tsumane	Financial Manager
5 Graduate Interns	

Boston Personnel

Dr. William J. Bicknell	Director [75% effort][19]
Lauren P. Babich	Senior Program Advisor [20% time paid]
Josh Berman	Associate Director -
Elizabeth Cunningham	Program Manager
Dr. Brian Jack	Clinical Director [20% time]
Caylan Kenney	Administrative Assistant
Alysa Veidis	Nursing Director [7% time]
Taryn Vian	Senior Management and Finance Advisor [5% time]

[19] Dr Bicknell and Josh Berman are currently Boston-based but split time between Boston and Lesotho. Dr Bicknell spends four months per year in Lesotho. Josh Berman is 30% time in Boston and 70% time in Lesotho.

APPENDIX B. MIDTERM REVIEW BRIEFING MEMO

June 5, 2009

To: Mid-Term Review Team

From: Bill Bicknell

Re: Background, Charge to the Team, an Overview of Issues and Selected Documents

Background:

In 2001-02 Boston University carried out the economic feasibility and design study for a possible new Queen Elizabeth II (QE II) hospital. This engagement led to a discussion between Dr. Phooko, then Minister of Health & Social Welfare, as to whether or not Lesotho would be interested if Boston University (BU) would make a multi-year commitment to work with the country as it grappled with the impact of HIV/AIDS. Dr. Phooko indicate his interest and Dr. Silber, then Chancellor (functionally President) of BU approved and provided start-up funding for a decade or more commitment on June 10, 2003. Attachment 1 is a summary of our activities and all sources of funds from 2003 until the present.

Dr. Barry Smith introduced our program to the W.K. Kellogg Foundation Program Officer for Lesotho, Ms. Fernanda Farinha. Discussions with her led to our submitting a planning grant in 2005. We soon received notice that the Kellogg Foundation had awarded us a one-year planning grant for calendar year 2006 to support detailed planning and initial start-up activities in support of a program with the Ministry of Health and Social Welfare (MOHSW) to transform district health services. This grant was substantially based on a working paper, "Primary Care, Effective District Hospitals & Health Centres" (Attachment 2) presented at a workshop on October 20, 2005 opened by the Minister of Finance and Development Planning, the Honourable Minister Timothy Thahane.

With the active and enthusiastic participation of the MOHSW a grant application to the Kellogg Foundation was submitted by the MOHSW on Sept 20, 2006 that identified Boston University Medical Center as the intended primary non-governmental implementing agency[20].

The grant (attachment 3): Transforming District Health Services in Lesotho: A Feasible and Sustainable Way Forward had two major foci:

- Demonstrating the effects of improved management in the MOHSW and Christian Health

[20] Subsequently the Lesotho-Boston Health Alliance was chartered on September 4, 2007 as a charitable trust to act as the agent for all activities of Boston University and Boston Medical Center in Lesotho. Dr. Senate Matete was appointed as our first Country Representative on January 15, 2008.

Association of Lesotho (CHAL) hospitals and health centres in the districts of Leribe[21] and Berea with the intent of applying successful lessons learned to other districts in Lesotho and possibly other countries in the region.

- Initiating the first post-graduate specialty training program in Lesotho – the Family Medicine Specialty Training Program (FMSTP) - with a focus on attracting young Basotho physicians and providing them with the skills needed to meet the bulk of the medical and public health challenges facing district doctors. In brief, our objective is to produce good district physicians.

With good physicians, with relevant clinical skills, and better functioning hospitals the practice environment becomes conducive to retaining physicians and the real objective – better patient care – should be attainable. It soon became clear that we had not adequately recognized or planned for the need to improve nursing services and that has become a third leg of the program.

The grant was for five years as that was the longest funding time period that Kellogg supports. For purposes of flexibility and to allow LeBoHA to do complementary and essential activities that were not explicitly within the grant through the MOHSW, the Kellogg Program Officer felt it was desirable to directly fund BMC from April 1, 2007 through September 30, 2009 for $400, 000 with the informal understanding this would be supplemented with a follow-on grant to end December 31, 2011. Our Program Officer also recognized that it was quite likely it would take more than five years to accomplish our ambitious work plan. We agreed. This led to initial planning for the mid-term review to take place in mid-2009 as 1) the timing would fit within Kellogg funding cycles and 2) the findings would support and illuminate the need for additional funding and an extension of time. The intent was to refund the small, direct grant to BMC and set the stage for extending, with additional funding, the large grant through the MOHSW, probably for another three years. All of course, subject to performance.

In late 2008 we learned of the difficulties facing the Kellogg Foundation due to improprieties discovered in their Pretoria office. Although our funds for both grants were assured, all new Kellogg grant-making activities in Southern Africa were placed on hold until at least the end of September 2009. At that time, Mr. Jim McHale, WKKF Senior Vice-President for Programs advised me that the Board would consider whether or not to continue any activities in Africa and, if so, how. He concurred in our conducting the mid-term review as planned. He also advised all grantees that Mr. Tom Sessel had been appointed to serve as an evaluator and advisor to Kellogg on their African Program. We have provided Mr. Seessel with considerable material about our work. I have spoken with him several times by phone and he met on April 1, 2009 with our Country Representative, Dr. Senate Matete; Drs Elkin and El Rayess, our Family Medicine Director and Deputy Director; 'Me Mamakara our nurse educator; Carrie Cafaro, resident management consultant in Leribe; and Josh Berman who plays a general problem solving and trouble-shooting role. Mr. Seessel later joined several of the staff for dinner.

[21] Mohale's Hoek is stated in the grant proposal. However, it soon became clear that Leribe (Motebang Hospital) was a much better choice and with the concurrence of the MOHSW, we substituted Leribe for Mohale's Hoek.

Objectives and Charge to the Team:

The overall objectives of the mid-term review are:

1. Briefly review progress made towards achieving overall goals to date.
2. Obtain expert advice on areas where the program needs strengthening.
3. Provide guidance on priorities and implementation steps for the next several years.
4. Provide a framework that will assist LeBoHA as it seeks additional funds for completing the Transformation of District Health Services, expanding and intensifying the strengthening of nursing services and completing all aspects of the development of a sustainable specialty training program in Family Medicine.

More specifically, our request to you is straightforward:

- What have we done right?
- Where have we gone astray?
- Does the original intent remain viable?
- What should LeBoHA focus on in the next 3 to 5 years?
- What are critical elements that require action by the Government of Lesotho?
- Do you recommend additional funding? If so, for approximately how much money and for what period of time?
- What specific recommendations do you have that you feel are essential if a sustainable, enduring and successful program to transform district hospitals and related health services is to be achieved in a way that:
    - institutionalizes the Family Medicine Specialty Training Program
    - retains nurses
    - retains well qualified Basotho specialists in Family Medicine

Overview of Issues and Program Principles

The major issues, as we see them and you may very well have others or disagree with us, include:

1 - Organizational change and developing a sustainable program is more than a five-year process. We feel it is closer to 8 to 10 or possibly even more years. This holds true for the overall program to transform district health services and for the Family Medicine Specialty Training Program:

- There are many large and somewhat open questions including: accreditation, the role of the National University of Lesotho (NUL), the desirability/need for a M Med Fam degree, and exactly where and how to house the FMSTP, so that the program endures without regard to support from Boston including activities from recruiting registrar candidates through continuing education and meaningful employment within Lesotho after the completion of training (see Attachment #4, memo to Mrs. Makhakhe from Drs. Matete, Jack and Bicknell with its own two attachments).

- Health centres used to be directly linked to a parent hospital. With decentralization they have become/are becoming part of local government. Staffing support, in-service education, coordination of care and referrals are now less defined and rather problematic. This stands in the way of rational services and improved primary care.

- As district hospital services improve and as physicians advance in their training and ultimately graduate as specialists in Family Medicine, they will form the core medical staff at district hospitals. District hospitals will always need more funds than government can provide. What are the pros and cons of a geographic full-time practice for faculty, senior registrars and ultimately graduates of the FMSTP at district hospitals with retention and sharing of revenues on-site?

- What are key strategies and specific steps we should be taking with Government and civil society to assure the program becomes one that is sustainable and owned, in the broadest sense of the word, by Lesotho?

- Looking ahead 3 to 5 years, is there a continuing role for Boston or is this code for dependence and control and we should plan to pack up and leave?

2 - It has become very clear that effective continuing education whether for physicians, nurses, accountants, administrators or laboratory personnel is best done on-site, one-on-one and in small groups, sometimes with one discipline and sometimes across disciplines. This is time consuming, expensive and, we feel, it works. Individual skills are built, attitudes change and the specific problems identified and addressed often illuminate larger systems issues setting the stage for engagement with central government.

3 – We have focused on hospital improvement so far with only limited engagement with health centres as we found and continue to believe that until a district hospital is functioning well, it is a waste of resources to work on heath centres.

4 - Good hospital (ambulatory, emergency and in-patient) services require continuing improvement and often reform in four areas, co-equal in importance:

- Management and finance
- Physician services
- Nursing services
- Ancillary services – laboratory, x-ray, pharmacy and maintenance

In our original proposal we fully recognized the importance of the first two areas, recognized, but grossly underestimated the need for strengthening nursing and more or less omitted ancillary services. Going forward we feel imbalances in our approach must be remedied. Do you agree?

5 - Initiating our work mostly only required the GOL to be permissive, letting us get started. Now the maturity and complexity of the program is such that far more day-to-day involvement with central government senior staff in the MOHSW, Ministry of Public Service (MOPS) and

Ministry of Finance and Development Planning (MOFDP) is needed with time for a full discussion of issues and challenges along with collaborative participation in resolving management, financing, personnel dilemmas and complex systems issues. However, government at these levels is short-staffed and over-burdened. For some current examples see Attachment #5, Bicknell's April 9, 2009 memo to the recently arrived new Principal Secretary in the MOHSW.

6 – We feel we have done a great deal with rather modest amounts of money. This has been possible by:

- Extensive use of carefully selected graduate students making 6 month and, in one case, a one year commitment to work in Lesotho,
- The identification, development and use of Basotho in management and training – see particularly PSBH, PSBN and the overall nursing program and, to a growing degree, the use of medical specialists working elsewhere in Lesotho as adjunct faculty for the FMSTP.
- Initiating a volunteer program that recruits, orients and manages physician, nurse and laboratory specialists from Boston Medical Center, and occasionally elsewhere, to work within our program.

To what extent do you feel this has worked? Where and to what extent should changes be made?

7 – We are facing a critical need for additional funds for at least 3 and preferably five years. Based on your analysis, please identify and put in priority order with a rationale the program areas that most need funding.

The Team

Barry Smith and Ruth Stark are the external members and co-team leaders. Representatives from the MOHSW are being invited as well as representatives of the medical and nursing leadership. The registrars (residents) have been asked to select two of their number to be team members and represent the views of the registrars.

Selected Documents

By the end of next week, we will be providing you with 1) a focused summary of issues and accomplishments for the nursing program, FMSTP, management, and PSBH and PSBN activities, 2) a list of the people involved in the program including the current staff list as well as volunteers, med students, interns, partial volunteers and consultants, and 3) a current financial report including expenditure and budget reports.

You will be added to the Kellogg project on our web-based project management program, so you can both peruse some of the day-to-day updates and access a folder called "Mid-Term Review." You will receive an email shortly from Lauren Babich with instructions for accessing and

logging onto the site. In addition, one copy of most documents – we are trying to give everyone good access while limiting deforestation - will be available in hard copy for all members of the team to share once everyone assembles in Maseru.

Provisional Schedule & Process

(n.b. The schedule is a work in progress and will be more firm by the time you arrive. However, you can count on some unplanned changes during the week of the site visit.

Saturday

- Open and catching up as team members arrive.

Sunday late afternoon and evening

- Overview of LeBoHA and Kellogg funded activities and plans for the mid-term review.
- Viewing of the 35-minute film: Mountains of Hope produced by a fourth year Boston University Medical Student. It was done by Hollywood professionals she recruited and funded. We will be showing this Sunday evening when the team assembles at Lancer's Inn.

Monday

- Queen Elizabeth II hospital visit and meeting with registrar on a rotation there
- Breakfast with Lesotho Nursing Council and Chief Nursing Officer, MOHSW
- Meetings with Senior Staff, MOHSW – Probably the Director of Health Planning and Statistics and possibly the Director General
- Drive to Maluti for meetings in the late afternoon at Maluti Hospital with the Matron and Medical Superintendent of the hospital.
- Drive to Leribe for dinner with Phil Elkin and Fadya El Rayess, FMSTP BU faculty
- Stay overnight in Leribe

Tuesday

- Nursing rounds at Maluti
- Quality Assurance meeting at Maluti
- Meeting with other key hospital staff and problem-solvers at Maluti
- Meetings with key hospital staff at Motebang including but not limited to the Director, Matron and Administrator.
- Dinner with Carrie and Taryn and other management strengthening team members
- Stay in Leribe

Wednesday

- Joint nursing and physician ward rounds and discussions with registrars and nurses at

Motebang Hospital
- Meetings with key staff at Motebang including the Head of Pharmacy, Accountant, and Radiology
- Return to Lesotho for the Learning and Sharing Forum

Thursday

- Early morning departure for Berea (~50 minutes away) for a short visit. Then you will have seen three of the four hospitals we are working with.
- Return in time for lunch meting with the Director of Health Planning and Statistics and the Director of Operations
- Afternoon meetings with the Director of Family Health, the Director for Decentralization and the Director for Clinical Services.
- Thursday evening pre-dinner meeting with the registrar selection committee – Invitees to include Dr. Mokete, Dr. Monyamane, Dr. Moji, Dr. T. Mohapi and Dr. L. Mohapi. N.b. This may become a dinner meeting with an abbreviated post dinner meeting in preparation for Friday debriefings.
- Thursday evening working dinner or after dinner meeting in preparation for debriefings on Friday.

Friday

- Debriefings and wrap-up

LeBoHA staff will organize site visits and meetings. If and as possible you can write up – no need for elegance – your thoughts, we will integrate them into a summary document one to two work weeks after the site visit is over and circulate to each of you in draft for your further comments. We will then revise, recirculate and hopefully have a final document sometime in late July.

Cell phones:

- Senate 62000550
- Lauren 62267866
- Bill 58963922

Summary

In brief, we want to prepare the team in advance so you can quickly move into insightful, forward-looping and penetrating analysis that will help us identify weaknesses, set priorities for the next 3 to 5 years and contribute to informed requests for more time and additional funds so as to assure sustainable improvement in patient care in the districts. And where our assumptions and beliefs seem at odds with reality as you see it, we want to know that too.

Attachments: 1) Program Summary as of May 2009

2) Africa Workforce Development Working Paper – October 20, 2005
3) Kellogg grant
4) Memo to Mrs. Makhakhe from Drs. Matete, Jack and Bicknell with roundtable discussion summary and budget attachments
5) Bicknell April 9, 2009 memo to the new Principal Secretary in the MOHSW.

APPENDIX C. MIDTERM REVIEW TEAM BIOGRAPHIES

Barry Smith, MD
Director, Dreyfus Health Foundation
Professor of Clinical Surgery, Weill Cornell Medical College
Attending Physician, New York Presbyterian Hospital
Director, The Rogosin Institute

Dr. Smith received his undergraduate education at Harvard and his PhD in molecular biology/neuroscience from MIT. His MD was awarded by Weill Cornell Medical College in 1972. His internship and residency programs in general and neurosurgery were undertaken at New York Hospital (now New York Presbyterian Hospital – Weill Cornell Medical Center) and Massachusetts General Hospital, the latter with a Schering Fellowship from the American College of Surgeons. He spent five years at the National Institute of Neurological, Communicative Disorders and Stroke (NINCDS) from 1973 to 1978, where he was involved in neuro-oncology research and where he became Deputy Director of the Surgical Neurology Branch. He returned to New York to Memorial Sloan Kettering Cancer Center, where he continued his research in brain tumors and also became Director of what was to become the Dreyfus Health Foundation. In this latter role he developed the Problem Solving for Better Health® program/movement that ultimately spread to 32 countries and became a component of LeBoHA's program in Lesotho. The Dreyfus Health Foundation became a division of The Rogosin Institute (affiliated with Weill Cornell Medical College and New York Presbyterian Hospital) in 1988. Along the way, Dr. Smith became Professor of Clinical Surgery at Weill Cornell and an Attending Physician at New York Presbyterian Hospital and, in 2008, Director of The Rogosin Institute, as well as the Foundation. He continues his research work in oncology, including the conduct of clinical trials, and has added a research program in diabetes to his efforts.

Dr. Smith has served, or is serving, on the boards of non-profit organizations concerned with health (such as Global Health Action), the Kornfeld Foundation, the New York City Rescue Mission, and the Desmond Tutu Peace Foundation. He is the author of more than 100 scientific papers, the editor of two books including the Encyclopedia of Neuroscience, and a reviewer for several professional journals.

Dr. Ruth Stark, RN, PhD
Country Representative for South Africa, Catholic Relief Services
Chief of Party, AIDSRelief

Dr. Ruth Stark has served as Catholic Relief Services' Country Representative for South Africa since 2003. As Country Representative, she oversees a $25 million budget and a staff of 18 to implement CRS programs in South Africa in response to the HIV/AIDS pandemic. In this role, Ruth also serves as Chief of Party for AIDSRelief, a five-member consortium headed by CRS and funded by the President's Emergency Plan for AIDS Relief (PEPFAR) that provides

lifesaving antiretroviral therapy to poor and underserved populations in nine countries, including seven in Africa.

Prior to joining CRS, Ruth spent 30 years in the international development field in a wide variety of positions. From 1989 to 2002, she worked for WHO, her last assignment serving as Country Representative in Papua New Guinea. Other positions she held at WHO included Regional Nursing Adviser and Acting Director of Health Services Development for WHO's Western Pacific Region, and Nursing Adviser for the Pacific Islands. She has also served in a number of education roles, including Faculty Development Consultant and Family Nurse Practitioner for the National Health Institute in Botswana as well as Public Health Educator for the Swaziland Institute of Health Sciences. From 1978 to 1983, Ruth worked at Stanford University Medical School as Director of Women's Health Care and Midwifery Education Project; as lecturer in the Department of Family, Community and Preventive Medicine; and as Training Coordinator for the Stanford University Primary Care Associate Program.

Over the years, Ruth has been a member of numerous mission teams seeking to appraise and improve development initiatives. She has also participated in a range of health studies, authored multiple publications, and delivered health presentations worldwide, including many presentations focused on HIV/AIDS and antiretroviral therapy. A member of the Southern African HIV Clinicians Society, Ruth holds a Ph.D. in Health Services from Walden University in Minneapolis. She also holds a master's degree in Health Services from the University of California, Davis; an R.N. degree from the College of San Mateo in California; and a B.S. degree in Social Welfare from Arizona State University in Tempe.

Mrs. Carley Smith
Formerly Director of Operations, Dreyfus Health Foundation

Mrs. Smith was Director of Operations for the Dreyfus Health Foundation from 2000 through 2007 and continues to oversee many of the Foundation's PSBH® programs. With a background in health and non-profit administration, she has also participated in PSBH® workshops and program and grant administration in almost all of the 32 countries

APPENDIX D. MIDTERM REVIEW SCHEDULE

Day 1: Introduction to the Midterm Review (Sunday):

- Introduction of review team, LeBoHA staff, and key stakeholders
- Overview of LeBoHA and Kellogg funded activities
- Overview of objectives and plans for the midterm review

Day 2: MOHSW, QE II, Nursing Organizations, and FMSTP Faculty

- Lesotho Nursing Council and Lesotho Nurses Association
- Senior Staff at the MOHSW: Director General and Director Health Planning and Statistics
- FMSTP Faculty: Program Director and Deputy Director
- Site Visit to QE II Hospital: Hospital Tour and Registrar Interview

Day 3: Maluti and Motebang Hospitals

- Maluti Hospital Matron: QA, Nursing Program, Accreditation, and General Management Strengthening
- Maluti Hospital Nurse: PSBH Participant
- Maluti Hospital Wellness Centre Manager: PSBH Participant and Financial Management Training Participant
- Maluti Hospital Statistician: Statistical Training and Data Management
- Motebang Hospital Matron and Motebang Clinical Supervisor: Nursing Program and Management Strengthening Activities
- FMSTP Faculty and Registrars: FMSTP Activities and Lunchtime Case Study
- LeBoHA Management Strengthening Team: Management Strengthening Activities
- Maluti Nursing Rounds: Led by LeBoHA Nurse Trainer with Maluti nurses and physicians
- Maluti Quality Assurance Committee Meeting

Day 4: Motebang Hospital

- Motebang Ward Rounds: Joint Nursing and Physician Ward Rounds and Discussions with Participating Registrars and Nurses
- Motebang DMO: FMSTP, Nursing, and Management Activities
- Motebang Administrator: Management and Nursing Activities
- Motebang Head of Pharmacy: Management Activities
- Motebang Head Accountant: General and Financial Management Activities and Training
- Motebang Head of Radiology: Technical Training and Management Activities

Day 5: Berea Hospital, Decentralization Coordinator, MOHSW, and FMSTP Selection Committee

- Berea Hospital DMO and Matron: Management and Nursing Activities
- Berea Nurse: PSBH Participant
- Berea Ward Rounds: Review of Nursing Activities and Documentation Initiative
- Debriefing with MOHSW: Director General and Director Health Planning and Statistics

- MOHSW Decentralization Coordinator: History and Challenges with Decentralization
- FMSTP Selection Committee: Review of FMSTP Progress and Health System Challenges

Day 6: Debriefing and Review with LeBoHA Team (Friday)

- Debriefing with LeBoHA Team: Review of Findings and Suggestions

APPENDIX E. THE LESOTHO FAMILY ART AND LITERACY CENTRE

The LeBoHA program is unique in that its extension projects also address the social causes of illness and vulnerability, supporting activities that enrich community life and foster human development through the innovative Family Art and Literacy Centre. Our team visited the Lesotho Family Art and Literacy Centre in Khubetsoana, a village on the outskirts of Maseru. A bit of background about the Centre will explain its relationship to the Kellogg Program to Transform District Health Services.

The Centre was recently founded by Professor Jane Hale, wife of Bill Bicknell, Director of the Kellogg Program to Transform District Health Services. Professor Hale, who teaches French and Comparative Literature at Brandeis University, received two Fulbright Senior Specialist grants in 2006 and 2007 to provide teacher training for the Lesotho College of Education and the Ministry of Education and Training. When she discovered that reading tended to be a chore rather than a pleasure even for the most educated Basotho, she initiated a pilot international site for Reach Out and Read, a U.S. -based pediatric literacy program, at the Baylor Pediatric AIDS Clinic in Maseru. The quick success of that project, which is now fully funded by the Bristol-Myers Squibb Employee Giving Program, convinced Professor Hale of the need for locally published children's picture books written about Lesotho in the local language, Sesotho. In 2007 she brought together a group of Basotho colleagues to form Family Literacy Lesotho for the purpose of developing such literature. The Queen of Lesotho became the patron of the group because of her deep interest in education for young children. Family Literacy Lesotho's first two books were created by Basotho artists and writers and published at Lesotho's historic Morija Press in 2008. In the same year the Kellogg Foundation granted Professor Hale $20,000 to buy books back from the publisher for free distribution to families with young children in Lesotho's hospitals and clinics.

Family Literacy Lesotho subsequently joined with the Children's Art Organisation of Lesotho to apply for a Rotary International matching grant of $11,800 to establish a Family Art and Literacy Centre, in order to provide a space for the creation of children's picture books as well as supplies, work space and a meeting place for Basotho artists and writers. It also serves as a community cultural center for children and families in the densely populated neighborhood of Khubetsoana.

When our team visited the Family Art and Literacy Centre, we found a well-designed, culturally sensitive, and highly effective project for fostering literacy and art in a society that is struggling to move forward despite what at times seem to be overwhelming obstacles. A critical component of the well-being and optimal functioning of any society is the development of its people's ability to express—and recognize—themselves and their lives in literature and visual art. In fact, the United Nations Development Program uses literacy as one of the major components in its Human Development Index, along with life expectancy, school enrollment, and gross development product per capita. While the difficult material conditions in Lesotho (40% of its population lives below the minimal US poverty line) leave few resources for the support of literature and the other arts, these realms of human expression are vitally important to its citizens' quality of life. The Centre's demonstrated ability to draw in children to read books and, even more importantly, to create stories and art under the supervision and stimulation of

local artists, is a tremendous accomplishment. The enthusiasm and creativity of the children are wonderful to see.

Beyond making available a substantial library of already published children's books from around the world, the Centre continues Family Literacy Lesotho's mission of encouraging the creation of high-quality children's picture books about Lesotho in Sesotho so the nation's children can see and take pride in beautiful representations of their own culture, natural environment, and traditions. In addition to the two books already published, five more are in various stages of production, with two scheduled to appear this summer. The Centre is thus simultaneously nurturing the minds and spirits of local families while it preserves and enriches the cultural heritage of the entire nation.

Clearly, what the Centre represents is a model that can be replicated across Lesotho. The short- and long-term contributions that such Centres can make to Basotho society, especially to the well-being of its children and families, cannot be overestimated. Since health is both a product of and a prerequisite for a well-functioning society, the Family Art and Literacy Centre helps promote good health and a better quality of life for the Basotho people, in addition to being a strong force for lifelong education. As such, it is a vital cultural tool for recognizing and nurturing the enormous capabilities of the Basotho people. One can only conclude that the Lesotho Family Art and Literacy Centre is deserving of more and stronger support in every respect. It represents a powerful concept implemented in a practical and effective way with a minimum of resources, but with great commitment and an even greater impact.