Guiding the Development of Family Medicine Training in Africa Through Collaboration With the Medical Education Partnership Initiative

Robert J. Mash, MBChB, PhD, Marietjie R. de Villiers, MBChB, MFamMed, PhD, Kalay Moodley, MBChB, MMed, and Jean B. Nachega, MD, MPH, PhD

Abstract

Africa’s health care challenges include a high burden of disease, low life expectancy, health workforce shortages, and varying degrees of commitment to primary health care on the part of policy makers and government officials. One overarching goal of the Medical Education Partnership Initiative (MEPI) is to develop models of medical education in Sub-Saharan Africa. To do this, MEPI has created a network of universities and other institutions that, among other things, recognizes the importance of supporting training programs in family medicine. This article provides a framework for assessing the stage of the development of family medicine training in Africa, including the challenges that were encountered and how educational organizations can help to address them. A modified “stages of change” model (precontemplation, contemplation, action, maintenance, and relapse) was used as a conceptual framework to understand the various phases that countries go through in developing family medicine in the public sector and to determine the type of assistance that is useful at each phase.

The African continent carries a huge burden of disease, with the lowest life expectancy and lowest ratio of health workers to population of any other region of the world.1 With this in mind, the World Health Organization (WHO) has reemphasized the role and value of primary care in improving people’s health.2 The 2008 WHO report focused on four key areas in primary health care: improving equity through universal coverage, reforming service delivery to be more people centered, reforming leadership to be more inclusive, and making health policy more community oriented. The report notes that effective primary care must include “physicians with a specialization in family medicine or general practice.”

In Africa, a four-year specialist postgraduate degree in family medicine aims to ensure that the physician can provide comprehensive care to people of all ages and both sexes, regardless of the presenting problem, the organ system involved, or the disease. The family physician thus is equipped with a comprehensive set of clinical skills to deliver continuing person-centered care for undifferentiated illnesses. Other members of the primary care team typically include medical officers without postgraduate training, midlevel workers, and nurse practitioners. The family physician usually sees patients referred by other primary care providers and offers mentorship, clinical training, and leadership to the entire health care team. As such, family physicians in Africa differ from their counterparts in higher-income countries in that they are generally not engaged with first-contact care, usually perform additional procedural and surgical skills appropriate to the district hospital, and often share responsibility for clinical governance within the broader district health system.3

In Africa, the district health system is based on comprehensive primary health care and serves a well-defined population with clear geographical boundaries and includes all the health care activities at the level of the community, primary care facilities, and district hospital.4 The district health care system is predominantly within the public sector and is the responsibility of the government. The insured population that can easily access private general practice is usually small; for example, only 16% of the South African population have medical insurance.5 Training expert generalists to practice in public health care systems has become a major priority, and has been the subject at major conferences, such as a recent WONCA-Africa conference.6 In addition, the Primary Care and Family Medicine Education Network (PRIMAFAMED) has been instrumental in promoting family medicine training in Africa by encouraging partnerships between departments of family medicine in South Africa and other countries.7 PRIMAFAMED is a network of academic and training institutions in Sub-Saharan Africa that aims to strengthen training in family medicine and primary care through South-to-South collaboration and with support from Ghent University and Global Health through Education Training and Service.8 South-to-South collaboration implies learning and support between partners in the Southern Hemisphere that share similar, usually underresourced, contexts.

The Medical Education Partnership Initiative (MEPI) aims to strengthen medical education in Sub-Saharan Africa. Over the past three years, training family physicians has emerged as a priority for MEPI.9 Under the MEPI umbrella, the Stellenbosch University Rural Medical Education Partnership Initiative (SURMEPI) was established in 2010 to develop, implement, and evaluate innovative, workable, and effective medical education models, with a focus on strengthening health systems.
within rural and resource-constrained environments in Africa. South-to-South collaborations are important to achieve these aims, and, following requests from several MEPI partner schools, SURMEPI has developed a focus on providing assistance to developing family medicine training programs.

In this article, we, who are all key members of SURMEPI, provide a framework for assessing the stage of development of family medicine training in an African country, the developmental challenges encountered, and how an organization—such as SURMEPI—can assist in addressing these challenges.

**Stages of Change**

Through our work in South Africa and with PRIMAFAMED over the past 20 years and more recently with MEPI, we have recognized distinct patterns in how family medicine training programs have developed. These patterns have largely emerged through our observation of changes in the behavior of key stakeholders. In South Africa, for example, training programs were only supported once the Department of Health realized the contribution that family physicians could make to fill the skills gap at district hospitals. In Botswana, it was the development of the first medical school that enabled policy makers to reconceptualize which training programs should be prioritized.

We have adapted the “Stages of Change” model (Figure 1) that was originally described by Prochaska and Diclemente in 1979 in the field of addictions. We have applied the stages to understand how policy makers in key institutions change in their commitment toward implementing postgraduate training in family medicine. We based our analysis on information gathered from discussions with colleagues at other African medical schools, most of which are part of the MEPI network. We acknowledge, however, that this model might not always accurately reflect the process of family medicine in every African country; it instead provides a useful conceptual lens through which one can make sense of and compare the status of family medicine in different countries.

**Precontemplation**

During this initial stage, academics and other key stakeholders in a country are not considering introducing postgraduate training in family medicine. Tanzania appears to be at this stage. Although there is little active engagement with the issue, it is possible through MEPI and other networks to share information and raise awareness of the need for family medicine training.

**Contemplation**

During this stage, stakeholders might be exploring the possibility of introducing family medicine training, but remain largely ambivalent about doing so. From our experience, typically three key stakeholders are involved: institutions of higher education, the ministry of health, and the professional council, which is responsible for registering different categories of health professionals in the country. These three must overcome their ambivalence in order for the country to move forward. Zimbabwe is currently at this stage.

Key factors that help to resolve ambivalence include:

- Having an opportunity for innovation. In Botswana and Kenya, the establishment of new medical schools in 2009 and 2004, respectively, allowed people the opportunity to plan new programs without being constrained by traditions or entrenched hierarchies.

- Having influential champions who see the need to strengthen district health systems through well-trained generalists. In our experience these champions are typically not themselves family physicians and have included an ophthalmologist in Botswana and a pharmacist in Kenya.

- Having informal training in family medicine and having organizations that advocate for the relevance and importance of the discipline. In South Africa, many universities had provided part-time master’s degree courses in family medicine without formal training posts and before the specialty’s formalization. Most of the advocates for the discipline and the current leadership were trained in this way. In Zimbabwe, the College of Primary Care Physicians has enrolled its leadership in the master of medicine training program at Stellenbosch University and has actively lobbied key stakeholders to introduce similar training programs in Zimbabwe.
Key factors that serve to maintain ambivalence include:

- Policies and practices that tend to support services provided by central and referral hospitals as opposed to increasing resources to district health service providers.2

- Confusion over the nature of family medicine and the role the family physician plays. For example, some stakeholders might think of family medicine in terms of European or U.S. models (such as the first contact care provided by a family physician) and conclude that this will not be feasible or that it will not be possible to train someone in all the skills required.14

- Resistance from medical specialists who feel that family physicians might erode their practice base, will not be as competent as themselves in their areas of expertise, or who view generalists as being inferior and unworthy of recognition.11,14

PRIMAFAMED7,8 and, more recently, SURMEPI, have provided valuable assistance during the contemplation stage by helping stakeholders to more clearly conceptualize an African model of family medicine and imagine how it might benefit their country.6,15 For example, the Zimbabwe College of Primary Care Physicians invited family medicine leaders from South Africa to accompany them when they spoke with key stakeholders in Zimbabwe. Similarly, family physician leaders from South Africa were invited to speak at the 1st National Family Medicine Conference in Botswana, which engaged with key stakeholders on how to deploy the first group of family physicians that will graduate in 2014.16

Action

In this stage, countries implement formal education with the three major stakeholders who have committed, to varying degrees, to training family physicians. The higher education institutions are actively engaged in curriculum development. The University of Malawi and Kenyatta University in Kenya are currently at this stage, and the University of Zambia is about to begin. Relevant educational resources can be shared to streamline development. For example, Botswana licensed online modules on clinical family medicine from Stellenbosch University. Simultaneously, there is a need to establish training facilities. Botswana, for example, established two rural training complexes in 2009 in Maun and Mahalapye, which each include a district hospital and primary care facilities.13

A particular challenge at this stage is finding suitably qualified faculty. In some countries, such as South Africa, a prolonged phase of informal training has created a critical mass of suitable people.11 In other countries, such as Botswana and Zimbabwe, local doctors have trained through distance education at Stellenbosch University and elsewhere, and small numbers of family physicians are expected to become available. In many instances, however, it is necessary to look to Europe or North America as sources for more senior academics to fill senior positions and lead departments until suitably qualified and experienced local academics emerge. This approach could lead to conflicting models of what is appropriate in an African context because the scope of practice for the African family physician is broader than typical first-contact care in many other countries.14 This could be mitigated by selecting people having experience of working in Africa and who are sufficiently aware of their assumptions and the need to hold them lightly in such a different context.

Eventually, the process of curriculum development, establishment of training complexes, and recruitment of faculty members will lead to a postgraduate program and enrolling students. Botswana will, for example, graduate its first class of locally trained family physicians in 2014. SURMEPI has assisted in this stage by contributing to the development of the curriculum and the planning of training programs at Kenyatta University and with the University of Zambia.

The country’s ministry of health at this stage includes family medicine in its policy framework and speaks specifically of the need for this discipline in the health system. Such a positive policy environment has proved to be essential in Kenya and Botswana. There is also a need to establish and fund registrar or training posts—public sector positions set aside for family physician training and which usually allow the incumbent to rotate among a variety of supervised training opportunities in selected hospitals, primary care facilities, and the community. In some countries, such as Uganda, the funding model for registrar posts appears to have been a barrier to recruitment because registrars are unpaid and must find alternate means of support during training. Finally, the commitment of the health professions council is evident when it establishes criteria for and recognizes practitioners as family physicians. This has happened recently in Kenya and Botswana but has yet to happen in Zimbabwe.

Maintenance

South Africa and Botswana are currently in the maintenance stage, which is characterized by the availability of family physicians who must be integrated into the health care system. Kenya has also entered this phase, with Moi University having graduated small numbers of family physicians during each of the past several years.17 The development of family medicine in Uganda and the integration of family physicians and registrars into the health care system have been challenging because of the lack of district-funded posts.

Several key issues need to be resolved at the maintenance stage:

- A consensus among key stakeholders on the role of the family physician in the health care system must be established, and decisions made as to the types of facilities where posts will be created. For example, officials in Botswana must decide whether to create posts in primary care clinics, district hospitals, or regional hospitals and determine family physicians’ responsibilities.16

- Human resource policy and budgets must be aligned with the emergence of a new cadre of family physicians to ensure adequate remuneration and career pathways. Ideally, this should occur during the action phase, but in our experience, this has organically developed during the maintenance stage. Training programs must also plan to supply a sufficient number of family physicians for the country’s needs.9 In South Africa, for example, the initial goal is for 1,000 family physicians at a modest ratio of 0.2 family physicians per 10,000 population. The country’s eight training programs must ensure that they can train to this scale over the next 10 years.18
• Tensions within the health care system may arise as medical officers and other specialists adapt to the presence of family physicians.11 Medical officers who have often trained themselves and made a career of service in the public sector can resist the introduction of younger, newly trained family physicians in more-senior positions.

SURMEPI has provided assistance during the maintenance stage in several ways:

• Advising on the establishment of a distance learning program and training sites at Makerere University in Uganda. SURMEPI also facilitated a visit by senior staff from Makerere to investigate models of training at Stellenbosch University and the University of Botswana.

• Contributing to the planning on roles, posts, and career pathways and sharing experiences from South Africa. For example in Botswana, Stellenbosch University cohosted the first family medicine conference in 2013 in which key stakeholders planned how best to use the graduation of their first group of family physicians.16

• Supporting research capacity building among inexperienced faculty and students. An initial contribution in this area has been the sponsorship of a series of articles on African primary care research methods in the African Journal of Primary Health Care & Family Medicine.19

• Supporting faculty and program development to help revise curricula, develop assessment methods, and equip clinical trainers for their roles as supervisors and mentors. In Botswana, SURMEPI plans to support local faculty in developing their own examination for the master’s degree and have supported faculty by providing both coaching for faculty and teaching for students during the academic program.

Relapse
Relapse is extremely rare but can occur when the commitment from one or more of the three major stakeholders wavers. Relapse may cause the initial commitment to be lost or even reversed. Although not a member of the MEPI network, Rwanda appears to be in this phase. After establishing a postgraduate training program and graduating family physicians in 2012, it changed its mind about the need for family physicians in the health care system.20 Countries at this stage might benefit from support similar to that suggested for the contemplation stage and, if interested, examine what can be learned from the factors that led to the relapse for the new attempt.

A Framework for Expansion
MEPI is providing a unique platform to facilitate South-to-South collaborations. The implementation of a multicountry mechanism to support the development of family medicine is challenging because countries are at different stages of development (Table 1). SURMEPI’s approach aims to interact with the key stakeholders in each country, understand the complexity of the issues they face, and collaboratively determine how best to help. This approach has both facilitated realistic local solutions and also fostered key relationships based on mutual respect, trust, openness, and clear communication, similar to other ongoing capacity-building initiatives in Africa in the areas of biostatistics and epidemiology.21,22 This dynamic process sets in motion a development program having clear goals, joint agendas, and collaborative activities. Despite different contexts, similar patterns of development in each country should result in an increased pool of family physicians.

Progression from one phase to the next might be accelerated by harnessing support from and sharing expertise with countries that have already successfully implemented the process so that challenges can be mitigated or avoided. Successful family medicine departments and those in the process of development can contribute to the evidence for best-practice models. Through the MEPI network, Africa can benefit from lessons learned to implement family medicine on a fuller scale.

Through MEPI, the exploration and development of family medicine has been enhanced, with the goal of increasing

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Table 1
Summary of the Stages, Developmental Challenges, and Useful Guidance for Developing Family Medicine in Africa

<table>
<thead>
<tr>
<th>Stage</th>
<th>Developmental challenges</th>
<th>Useful guidance or assistance</th>
<th>Countries in Medical Education Partnership Initiative network</th>
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</thead>
<tbody>
<tr>
<td>Precontemplation</td>
<td>Need to think about whether family medicine training might be useful</td>
<td>Raise awareness of the need for family medicine training through the network or other regional interactions</td>
<td>Tanzania</td>
</tr>
<tr>
<td>Contemplation</td>
<td>Need for all three key stakeholders to resolve ambivalence about implementing family medicine training</td>
<td>Show the importance and build confidence through sharing models, evidence, and experiences from other African countries</td>
<td>Malawi, Zimbabwe</td>
</tr>
<tr>
<td>Action</td>
<td>Need for all three key stakeholders to deliver commitments in implementation</td>
<td>Assist with curriculum development and planning of training complexes</td>
<td>Kenya (Kenyatta), Mozambique, Zambia</td>
</tr>
<tr>
<td>Maintenance</td>
<td>Need for all three key stakeholders to plan the entry of family physicians into the health system Need to build the quality of training programs</td>
<td>Facilitate discussion and share solutions from elsewhere on key issues such as posts, career pathways, job descriptions Support development of faculty for teaching, assessment, and research</td>
<td>Botswana, Ghana, Kenya (Moi), South Africa, Uganda</td>
</tr>
<tr>
<td>Relapse</td>
<td>Need to learn from the relapse, reexplore ambivalence, and try again</td>
<td>Facilitate critical reflection on what has been learned</td>
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the number of expert generalists in the public sector. The expansion of family medicine will contribute to health systems development as it targets human resources for health, service delivery, leadership, and governance. This will result in increased coverage, improved quality of health care, and better health outcomes for the peoples of Africa.

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Prof. Mash is professor, Division of Family Medicine and Primary Care, Stellenbosch University, Tygerberg, South Africa.

Prof. de Villiers is professor, Division of Family Medicine and Primary Care, and deputy dean for education, Faculty of Medicine and Health Sciences, Stellenbosch University, Tygerberg, South Africa.

Dr. Moodley is public health medicine specialist and project manager, SURMEPI, Stellenbosch University, Tygerberg, South Africa.

Prof. Nachega is associate professor, Department of Medicine, Epidemiology, and Infectious Diseases, Pittsburgh University, Pittsburgh, Pennsylvania, and professor extraordinaire, Department of Medicine, and director, Centre for Infectious Diseases, Stellenbosch University, Tygerberg, South Africa.

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