Development of family medicine training in Botswana: Views of key stakeholders in Ngamiland.

Dr. Radiance Morakinyo Ogundipe

Year 4 Masters in Family Medicine

Tygerberg campus

Stellenbosch University

Western Cape

South Africa

Supervisor

Professor Bob Mash

Head, Department of Family Medicine & Primary Care

Tygerberg

Stellenbosch University

Western Cape

South Africa

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Declaration

I, Dr. Radiance M. Ogundipe the undersigned, hereby declare that the work contained in this assignment is my original work and that I have not previously submitted it, in its entirety or in part, at any university for a degree. I also declare that ethical approval for the study was obtained from the Health Research Ethics Committee of Stellenbosch University (Reference number: N/11/06/187).

Signature: Date: .18th August 2013

Abstract

Introduction

Family Medicine training as a specialty commenced in Botswana in January 2011 and Maun, is one of the two sites chosen as training complexes. There has to be an investment in the training programme and facilities by all stake holders in health care delivery in the district, in order to facilitate the success of the training programme. Understanding stakeholder opinions, priorities and attitudes towards Family Medicine training will help to build a more successful programme and a supportive environment.

Aim and objectives

To explore the opinion of stake holders in health care delivery on the future of family medicine and their attitude to family medicine training in the Ngami district, Botswana.

1. To identify and describe the relevant stake holders that would be involved in the transformation of the district hospital and clinics into a family medicine training complex.
2. To explore their attitude towards the development of a family medicine training complex.
3. To explore their perspective on the future role of family physicians and family medicine registrars in the district health care delivery system.
4. To identify gaps in the training opportunities and facilities that needs to be addressed to develop a high standard of training.

Methods

Thirteen in depth interviews were conducted with purposively selected key role players in the district health services. Data was recorded, transcribed and analysed using the framework method.

Results

Participants welcomed the development of family medicine training in Maun and expected that this will result in improved quality of primary care

Participants expected the registrars and family physicians to provide holistic health care, relevant and acceptable research into the health needs of the community, basic specialized care and, that their introduction should result in reduced need for referrals

Inadequate personal welfare facilities, erratic ancillary support services and inadequate complement of mentors and supervisors for the programme were some of the gaps and challenges highlighted by participants.

Conclusion

Family medicine training is welcomed by stakeholders in Ngamiland. With proper planning, introduction of the family physician in the district is expected to result in improvement of Primary Care.

Introduction

In response to the Alma-Ata declaration of 1978 many developing countries embraced primary health care as the most cost effective approach to providing accessible and affordable healthcare for their people. Primary health care thus should be the first level of contact that individuals, families and communities have with the national health system.[1]

The way in which primary health care was implemented in most countries of Sub-Saharan Africa however eventually proved to have its limitations.[2] Despite various vertical programmes introduced, a number of countries reported only minimal improvements in health care delivery.[2] Many patients attended to in primary care facilities were still being referred to the second tier of health care; not because their condition required referral, but because the available health care personnel lacked appropriate skill and knowledge. Similarly, there were patients who should have been referred promptly but were not, and developed complications or even died from avoidable factors. In the light of these weaknesses in primary health care, there was a need for strengthening of referral hospitals. However, the WHO 2008 World Health Report on primary health care maintains that the most cost effective approach to achieve universal coverage with equitable, quality health care is by reorganizing and strengthening primary health care, rather than shifting the focus to the referral hospitals.[3] The report advises that primary health care should be focused on people and their health needs rather than diseases or public health targets. It further highlights that derangement in any of the core components of the health system such as infrastructure, human resources, information, technology or financing would be deleterious to the performance of the entire system.[3] Thus, governments need to develop deliberate policies that would facilitate the comprehensive effectiveness of the primary health care system.[3]

Like many other African countries, Botswana adopted primary health care as their strategy to improve health care delivery in the Sixth National Development Plan (1985 -1991). To this end, the Government made organizational changes at both national and local levels. A Department of Primary Health Care was established at national level to coordinate preventive, promotive, curative and rehabilitative health services. District Health Teams were established to oversee the implementation of the government health policies at local level and encourage community participation in health care delivery.[1]

The primary health care approach in Botswana has been largely nurse driven, with various different cadres of nurses providing the interventions. This was necessitated by the dearth of medical doctors in the country and the concentration of the few available ones in urban areas and central referral hospitals. Botswana established its first medical school in 2008 and is yet to have its first set of fully home trained medical graduates. There has been a high attrition among the medical work force over the years. As a result, the health system in Botswana has been plagued by shortage of adequately trained and skilled medical practitioners. This has made it difficult to achieve the goal of accessible quality primary

health care at community level. Access to specialist care is also difficult and leads to significant mortality and complications as a result of referring patients over long distances. In the light of these shortcomings in health care provision, Botswana has realised that introducing family physicians into its district health care system may help to solve some of these problems.

Family medicine was one of the second groups of postgraduate programmes that were introduced at the School of Medicine (SOM) in the University of Botswana and two training complexes were created in Maun and Mahalpye. The Botswana Health Professions Council has a register for specialist family physicians and the Ministry of Health appears committed to creating posts for the first cohort of locally trained family physicians in 2014.

In a few African countries, such as South Africa, family medicine has been established as a specialty and gained recognition. Other countries like Uganda, Kenya and Botswana are in the early stages of establishing the specialty in order to improve the quality of health care at district level, close to communities.[2]

Although the core values and principles of family medicine are shared globally, the specific competencies and organizational principles that define the role of family medicine need to be explored in each region where the specialty is introduced.[4] Both current and future roles for the family physician in the district need to be explored with all stake holders, taking into cognisance the district health needs, availability of other specialists, and the cultural and socio-economic factors affecting the community.[5]

Exploring the perspective of key stakeholders may provide an understanding of the environment in which the family medicine training programme will be established. Stakeholder acceptance and cooperation with the training programme would hopefully enable a supportive environment for the training of a cadre of family physicians who will lead the primary health care teams. This is likely to contribute to a coordinated, comprehensive, equitable and cost effective health care delivery system in the district.[6]

The potential contribution of family medicine to primary health care and district health services in Ngami sub district, Botswana may not be fully appreciated without determining the specific roles and scope of practice of the family physician. Family physicians in the district are likely to achieve their expected role and impact by close collaboration and team work with other members of the primary health care team.[7-8]

This study therefore seeks to explore the perspective of key stake holders in the Ngami sub-district of Botswana on the family medicine training programme and the role of the family physician in the district health system.

Aim of the study

To explore the opinions of relevant stake holders on the future of family medicine and their attitude to family medicine training in the Ngami district, Botswana.

Objectives of the study

1. To identify and describe the relevant stake holders that would be involved in the transformation of the district hospital and clinics into a family medicine training complex.
2. To explore their attitude towards the development of a family medicine training complex.
3. To explore their perspective on the future role of family physicians and family medicine registrars in the district health care delivery system.
4. To identify gaps in the training opportunities and facilities that needs to be addressed to develop a high standard of training.

Methods

Study design

The study design was qualitative, utilizing in-depth recorded interviews with the relevant stakeholders.

The setting

Ngami sub-district is the southern half of the North West District of Botswana. The entire district, also known as Ngamiland, is made up of two sub-districts – Ngami and Okavango. The entire Ngamiland has a population estimated at 133,000.[9] Ngami sub-district has a population estimated at 56,865.[9] It consists of Maun, a rural town made up of a number of wards. Maun has a population estimated at 48,000. It is divided into 8 wards, each with a clinic or health post. There are 23 surrounding villages with a total estimated population of 8,865.[9]

Health care in Ngami sub district is coordinated by a District Health Management Team consisting of the hospital arm and the primary health care arm. Ngami sub district is served by 68 mobile clinic stops. These are temporary shelters used to provide outreach health services by nurses on a monthly and ad-hoc basis, 17 health posts, 5 clinics with maternity units, 3 other clinics, and a district hospital. The district hospital – Letsholathebe II Memorial Hospital - is located in Maun and serves as a referral centre for all the facilities In Ngamiland, inclusive of the primary hospitals in Gumare and Ghantzi, which fall under the Okavango district. However, the district hospital still attends to 'walk in cases' who present either due to their proximity to the hospital or due to the perceived seriousness of their condition.

The district hospital has a complement of 17 doctors of which 8 are family medicine registrars, undergoing residency training, which just started in January 2011. Two of these doctors, the Hospital Superintendent and the Chief Medical Officer are mostly involved in hospital administrative duties.

The primary health care arm oversees the other health facilities in the district as well as supervising, implementing, monitoring and evaluating the district primary health programmes. The primary health care arm has a complement of 6 doctors. 2 of these, the Public Health Specialist and the Chief Public Health Officer, are mostly involved in administrative duties.

The health posts and most of the clinics are run by nurses with occasional supervisory and outreach visits by doctors. The clinics in Maun have one doctor each, providing health services on an out-patient basis and supervising implementation of the district health programs.

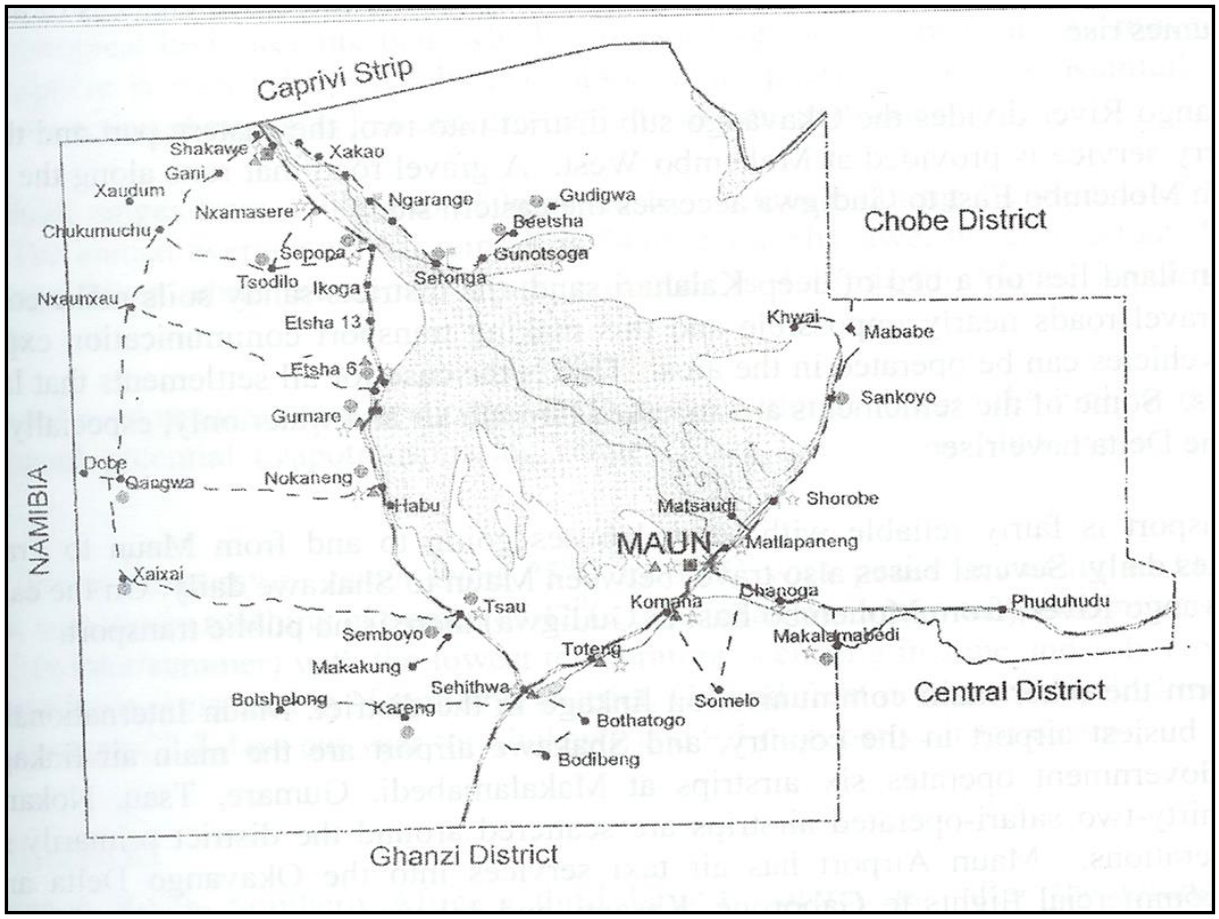
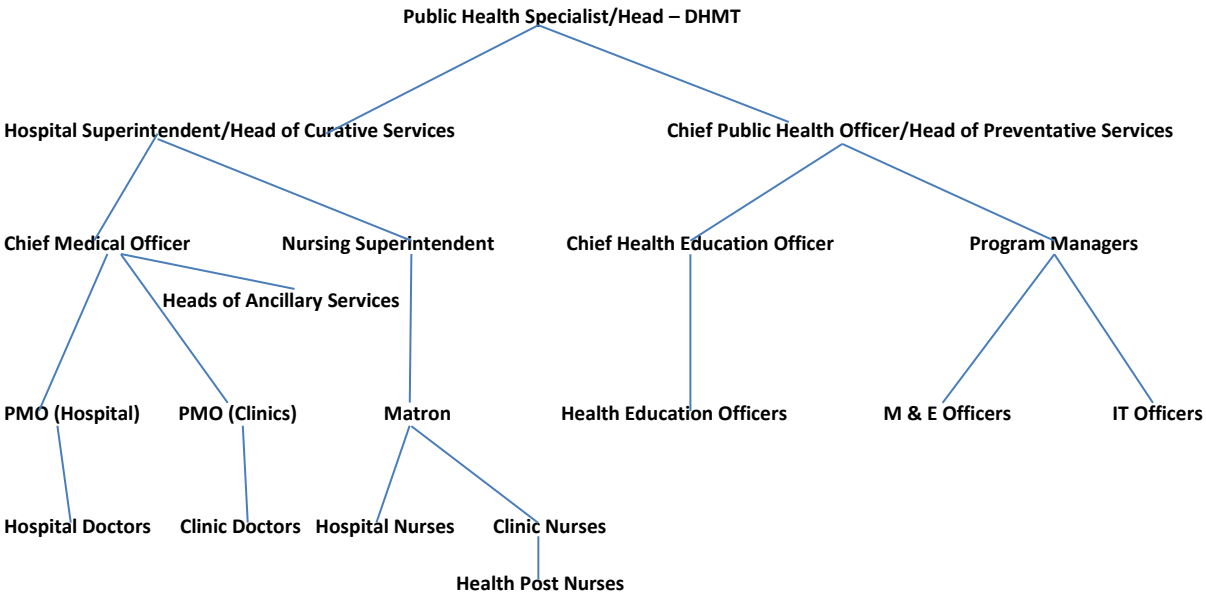


Fig 1: Map of Ngamiland. Ngami district is the southern half of Ngamiland with Maun as administrative capital. Ngami district has 8 clinics, 17 Health Posts and 68 mobile clinic stops.

Organogram of Key Health Positions in Ngami District Health Management Team (DHMT)



Key:

- PMO – Principal Medical Officer
- M & E – Monitoring and Evaluation
- IT – Information Technology

Study population and sampling

The relevant stakeholders in health care provision for the purpose of this study were defined as the district health managers, the doctors in charge of the clinics and nurses in charge of the clinics/health posts. Thus leadership role and/or influence constituted the main criterion for purposive inclusion.

The 15 initial key stakeholders I planned to interview were:

1. The public health specialist
2. The coordinator of the district health management team
3. The chief public health officer
4. The district hospital superintendent
5. The primary health care manager
6. The hospital nursing superintendent
7. The hospital manager
8. One principal medical officer at the hospital
9. One principal medical officer at the primary health care team
10. 3 doctors, each of whom was in charge of one clinic
11. 3 nurses, each of whom was in-charge of one clinic

Data collection

Interviews were conducted in English by the researcher at a place convenient for the interviewees. An interview guide (See Appendix 1) was used to conduct the in-depth interviews but respondents were allowed to freely express themselves in answering.

The interviews were audio recorded and backed up with field notes taken during or immediately after the interviews. The interviews were then transcribed verbatim and checked by comparison to the recording. A few of the transcribed interviews required correction due to interjection of colloquial words and idioms. This was needed when I checked to ensure the accurate grammar, but I was careful to avoid distorting the statements expressed by the participants.

Data analysis

The transcribed data were analysed using the framework method.

After thorough familiarization with the data, a thematic index was developed and the transcripts systematically coded using Atlas-ti qualitative analysis software. The coded data was then further grouped into families. Charts developed from these families were then interpreted for emerging themes expressed by the respondents.

Ethical approval

The research was approved by the Health Research Ethics Committee at Stellenbosch University (Reference Number N/11/06/187) and The Ministry of Health Botswana Research and Ethics Board. The study was conducted according to the ethical guidelines and principles of the International Declaration of Helsinki; South African Guidelines for Good Clinical Practice and the Medical Research Council (MRC) Ethical Guidelines for Research.

Results

Thirteen interviews were conducted. Unfortunately, the public health specialist, who was also the head of the district health management team, resigned his appointment and left the country shortly before I commenced interviews. At the time of this study, the post of Chief Medical Officer for the district was vacant. The principal medical officer at the hospital declined to give consent to participate in the study for personal reasons which he preferred not to disclose. The post of Primary Health Care Manager was scrapped and the officer transferred to another district. One audiotape, with a doctor in charge of a clinic, was discarded due to poor quality. After the eleventh interview, I observed that no new themes were emerging and this was confirmed by the final two interviews. The key themes to emerge from the interviews are described below.

Advent of the family medicine training complex a welcome development

Overall respondents welcomed the establishment of the family medicine training complex. Most respondents were excited about the development and expressed various expectations from the advent of the training:

> *"The coming of the family medicine training especially in Maun is really welcomed. It has offered to us as a nation a background where we can have the knowledge and skills. It has brought to us a forum to discuss from time to time as doctors and be closely guided. It has given to us as physicians the opportunity to discuss about the patients and their cases and keep us upgraded." (Doctor in charge of a clinic in Maun)*

The training was expected to increase knowledge and information sharing through interactions between the family medicine trainees and other health care workers in the district. This was expected to facilitate upgrading of the skills and performance of the others in the health team:

> *"With their presence here, time and again we sit around them and put them around the table and discuss cases. It is education to all of us. It is not all about them, we are also benefitting from them. And this, we cannot take away from them. Two,they are also assisting in the coverage of attending to our community. Maun is very far from the rest of the country and having them here is a real blessing. We are learning and at least the patients are also getting benefits from their presence." (Senior district nursing administrator)*

Other respondents who shared this view felt this information sharing will ultimately lead to improved health delivery to the community:

> *"It is important. Like I said, it is going to benefit the community and the health workers, not only the community but also health workers who are working hand in hand with the Family medicine trainees. They can get more information and new ideas from doctors who are doing family medicine. And, some of the trainees can come back to Maun and work. So, it is a benefit to Maun not only to the personnel but also to the community and will benefit every doctor undergoing family medicine training." (Nurse in charge of a clinic in Maun)*

Some respondents felt the training would lead to better interaction between health care workers and the community, encouraging better understanding of community health needs while facilitating the appreciation of health services provided to the community:

> *"It is a very good development since they are general. It's a good development since they are not only focussing on patients who are receiving health care services from us, they are even extending their services to the community so, it is something which is going to break the barrier between the health care personnel and the community since they will seeing them as their family, it means there is going to be a very good relationship between them and the health care workers and the community." (Nurse in charge of a clinic in Maun)*

Others felt that the training will attract and enhance the retention of Batswana medical doctors who would have better understanding of the cultural perspective on health issues in the community. Also, Batswana medical doctors, trained as family physicians, would not require interpreters to communicate with their patients. This they felt would improve patient-doctor interaction, lead to better diagnosis and more holistic health provision at individual, family and community levels:

> *"But even from long time back, we didn't have enough Batswana specialists. So it means it's an improvement for us to have our doctors who are specialising. When they are in the community especially where the services of the doctors are needed, their services will be better as most people will understand them than somebody who is not a Motswana who will need an interpreter and these are not always available. Sometimes this is a hindrance and barrier for giving service." (Nurse in charge of a clinic in Maun)*

Some felt that developing Maun into a family medicine training complex would offer the trainees an opportunity to experience life in Maun. This they felt would increase the likelihood that they would remain in the district on qualifying and facilitate their integration into the district health system:

> *"By training here also, they will know it's a nice place and whenever they are posted here they will not hesitate to come. I think it's a good thing." (Senior district administrator)*

The family medicine training complex was seen as bringing significant benefit to the community because of the remote location of Maun, far away from other urban centres, where most of the specialists are usually based:

> *"The first benefit I can see is bringing health care closer to the people. Maun is far from Gaborone in the south there. And you will see that the biggest part of development is at that side, the southern part of the country. So, bringing the training this side is a good thing because it will help us to develop this area at this level of health care and training people this side directly will also increase the number of health care providers that you can have who can work directly here." (Principal medical officer)*

Other benefits expressed as expectations of family medicine training in Maun were improved economic and social growth:

> *"But by the publicity that the training is giving to Maun, it will bring, to me, more economic benefits to the area, more expansion and growth at the aspect of social life." (Senior district administrator)*

The perceived benefits of the training complex are summarised in Figure 2 below.

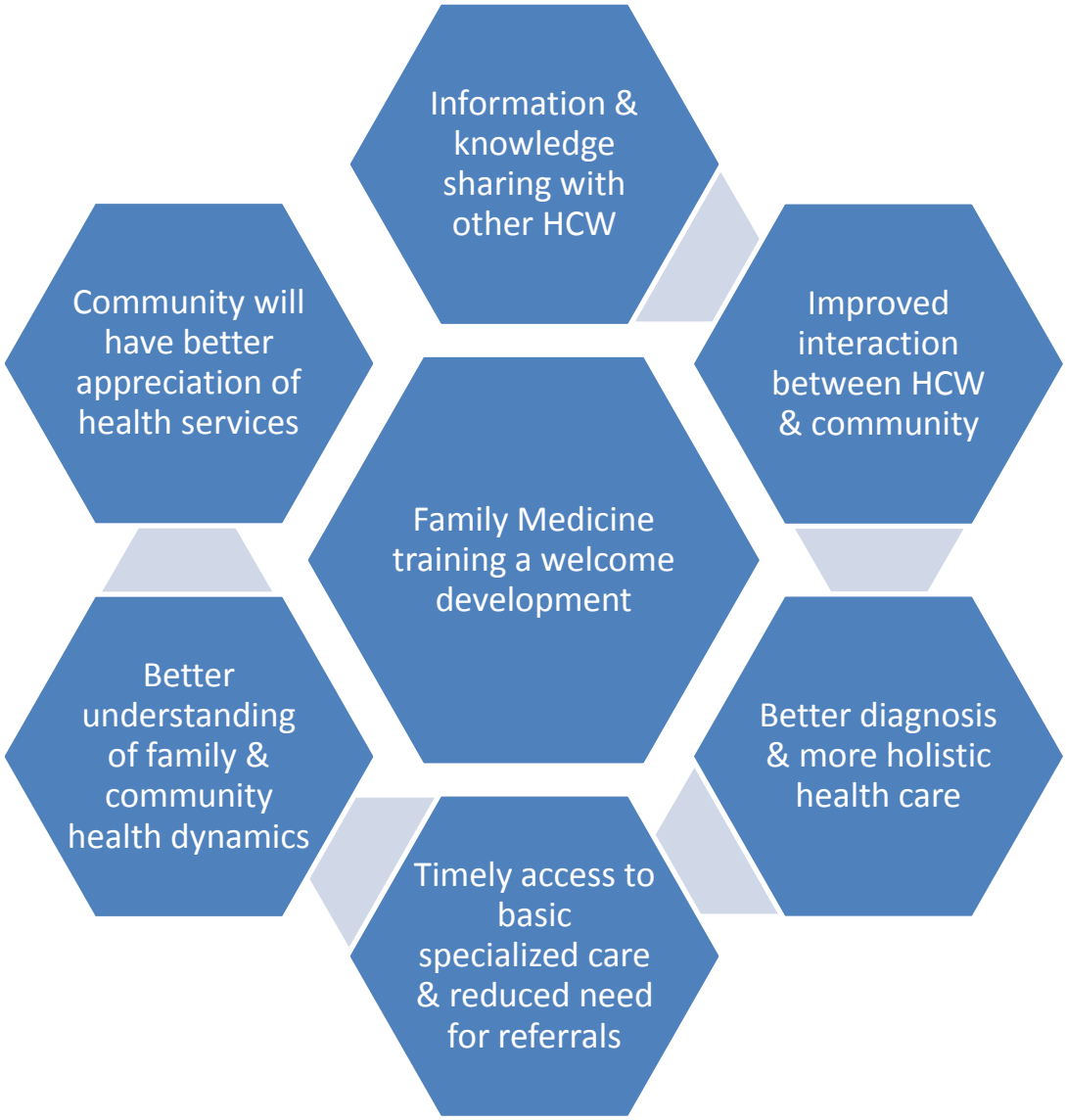


Fig 2: Expected benefits from the advent of family medicine training in Maun

Roles and expectations of family medicine registrars and family physicians

Family medicine was expected to foster community integration and improve the acceptance of health services by the community. It was suggested that by working within the community, family medicine registrars and physicians will bring health care closer to rural dwellers:

> *"So, I think there will be, I mean as the program evolves there's gonna be the opportunity for the training, I mean for the trainees to be exposed to what is happening in remote areas, in villages and in places where people don't even have access or the only person they can see is a nurse or you know, the problem you can have there..," (Doctor in charge of a clinic in Maun)*

It was also suggested that the deeper interaction of family medicine registrars and physicians with the community can be expected to lead to better understanding of the causes of diseases and health conditions that patients present with:

> *"I think they will be better prepared in the sense that they will be managing the cases and the conditions of the people who surround them. They have studied and because the patient's conditions does not start right here in the hospital, it starts right there in the community and for the access of going out there to see exactly where it originates from and come up with the remedial actions as to how best such conditions can be managed; so I see them as having been better prepared unlike studying in a different place and sending them to another place to go and serve, meet more challenges unlike when you started, knowing exactly the type of community you are serving." (Senior district nursing administrator)*

The family medicine registrars and physicians were also expected to play a role in community diagnosis and analysis of family dynamics and their role in disease processes. These they felt would lead to more holistic patient care:

> *"then they would know why.., I mean.., in case there are some disease, some pattern of disease that are happening so, they'll understand why this is happening. May be , because of proximity to let's say animals which we had not always had in Maun, uhm…, uhm…, maybe.., we understand this happenings because they.., I mean…, they eat some type of food which we don't see in Maun or they would understand why people are, why the person behave in such a way other than the other one because may be they are exposed to some type of dagga, by example; 'okay' which may not be here or you know, teenage pregnancies which may not be more prevalent in remote places or even child abuse because of these organisations that fight against it, may be more because they focus on what is happening in Maun, not necessarily in other places. You know, these are social patterns that we may find, I don't know, they might have a community out there which, you know where polygamy in their homes then that one, also calls for different…, different thing or so. 'Okay'." (Doctor in charge of a clinic in Maun)*

Other roles expected of the registrars and family physicians as a result of their closer interaction with the community included primary care research into the health needs and burden of disease in the community:

> *"Maun has many problems some of which are cases of malaria and gonorrhoea outbreaks which are unique in this region. I think having the students of family medicine here will ensure further digging into patients' cases such that more problems of the people are identified and appropriate advice are given accordingly. That however, does not mean that the doctors working presently are not doing a good job, but family medicine being a specialty course on its own will enable further research and contribution into the problems patients are bringing forth." (Nurse in charge of a clinic in Maun)*

This primary care research, arising from issues identified within the community, was expected to yield findings that are more acceptable to the community and bring about more effective interventions:

> *"Where they are accepted and derive conclusions that are accepted by the community and the policy makers make use of them effectively." (Senior district health administrator)*

The presence of family medicine registrars and physicians was also expected to enhance the appreciation and acceptance of health services by the community:

> *"Yes I think this is very important because we are in an area that functions like many other areas in Africa, where the community is very important, solidarity of the people is important and the support of one another is important. So, if the health services are offered directly, at the level of the family, this will be very crucial because many people are used to be taken care of at the family level, by their relatives and loved ones. Now, if the health care provider comes at this level, he becomes like the member of the community and will easily be accepted by them. That way, the services are easier to provide and done at the level of the consumer consequently expediting delivery and acceptance by those who benefit from his services." (Principal medical officer)*

Community identification with, acceptance of and, participation in health care provision was expected to result in greater benefits from the health services for the community:

> *"Acceptance being an integral part of service delivery as people might reject the good services being offered in some cases. However, when due visitations are carried out, you are functioning at their level and this makes things a lot easier. The most important activity to embark on is to understand exactly the community and how they function; what are their needs? The peoples' understanding of issues including the healthcare provider; discussing with them and finding out how best you can provide the services, that way you can involve them in what you are doing consequently leading to greater benefits." (Principal medical officer)*

Another role expected of the family medicine registrars and family physicians was provision of high quality health care and mentoring of other health care providers. Respondents felt that the registrars and family physicians will provide a crop of skilled and capable practitioners that will deliver high quality health care at community level:

> *"With this development, we can have people at hand and with proper organisation of specialist clinics regarding to health care in this district, we shall be able to have quite a number of skilled practitioners." (Doctor in charge of a clinic in Maun)*

The proximity of and ready access to this high quality health care was identified as a major benefit of the registrars and physician's presence in Maun:

> *"Actually, those who are in further places, faraway places are the ones who are in need of these services generally. Some of them will live with a tumour, glaucoma or whatever growth for the rest of their lives because they are too far from the areas of development. Yeah, if we are to take these students that site, the community will develop and actually they will really appreciate the role that the government is playing because they will be taking now, services closer to the people, on the doorsteps of the people." (Senior district health administrator)*

Timely access to basic specialized care was another benefit expected from the presence of the registrars and family physicians:

> *"if she has skills of that particular speciality, the client will be assisted in good time and it will benefit the community and the nation." (Nurse in charge of a peripheral clinic)*

The presence of the registrars and family physicians was also expected to cut down the need for referral to other specialists. Basic specialist care in many fields was expected to be provided by the family physicians:

> *"family medicine, as it incorporates all those specialities: obstetrics, gynaecology and what, what.., I think the whole community will benefit because, now it will be a doctor who has done family medicine who will be able to do all those err…, issues, all those err…, specialities in one person. So, you will be looking at the client holistically" (Nurse in charge of a peripheral clinic)*

Development of other health care workers through information sharing and clinical mentoring was another role expected of the registrars and family physicians:

> *"I think they are in training, it means you are focussing much on learning and you know learning at some stage knowledge is shared, so they give information to staff members. So, the staff members benefit from the new information which they didn't know. Thus, those working are being empowered." (Nurse in charge of a clinic in Maun)*

One participant however felt the advent of family medicine registrars and family physicians was a threat to other medical practitioners in the district:

> *"by doctors that are not trained in family physician medicine, then it'll mean those who are trained in family medicine, for them to work, they have to replace the doctors who were not trained then, that's…., that's where I can see some kind of friction coming there because it means, getting jobs, losing your job to somebody else.*" (Doctor in charge of a clinic in Maun)

He explained further that this threat to the job security of other generalist medical officers would materialize after some years:

> *"I know long term, could be ten years, could be twenty (20)years, I'm not sure, but in the long term, uhm…., uhm…, doctors' post would be occupied by doctors who are trained in family physician, family medicine, 'okay'. So in a way doctors who are in primary care should also join the program 'okay', if they are emm…., if they, they still hope to keep their post in the next twenty (20) or thirty (30) years." (Doctor in charge of a clinic in Maun)*

Another participant felt it would be a misuse of manpower for family physicians to be engaged in administrative duties:

> *"administratively, emm…, I wouldn't be for the idea that these specialists that are trained, we push them in the administration of this health system per se. No, my view is that these specialists are being so trained so that they can specifically you know, go in that field and you know, be hands on to help the community on issues that they have been on, on, on pathology that they have been trained on or, I mean issues of health not necessarily to get into management, administration – help me buy drugs, help! Those people, I expect them, my expectation is that they should just be focussed on management of patients not administration." (Senior district health administrator)*

Trying to clarify his opinion, he reiterated that it was a wrong use of resources to involve medical professionals in health administration:

> *"You see, like I am now, I am a doctor and I have found myself to be in administration, I'm learning on the job. It's different from someone who specifically learnt health administration okay. You know …….. And it's in a way actually misplacing our manpower. And doctor you put to become a manager of a health system, you know may be at a higher level. Yes, but a doctor? Let us put a doctor where he belongs and we can reward him everything that he deserves and we put him to look after the patient and help the patient that walks through his door but not to be in the management aside of the health system." (Senior district health administrator)*

The beneficial role of the family medicine registrars and physicians was appreciated. Participants did not anticipate problems with integration of the family medicine specialty into the district health system.

Their views on the different roles of the registrars and family physicians are summarised in Figure 3.

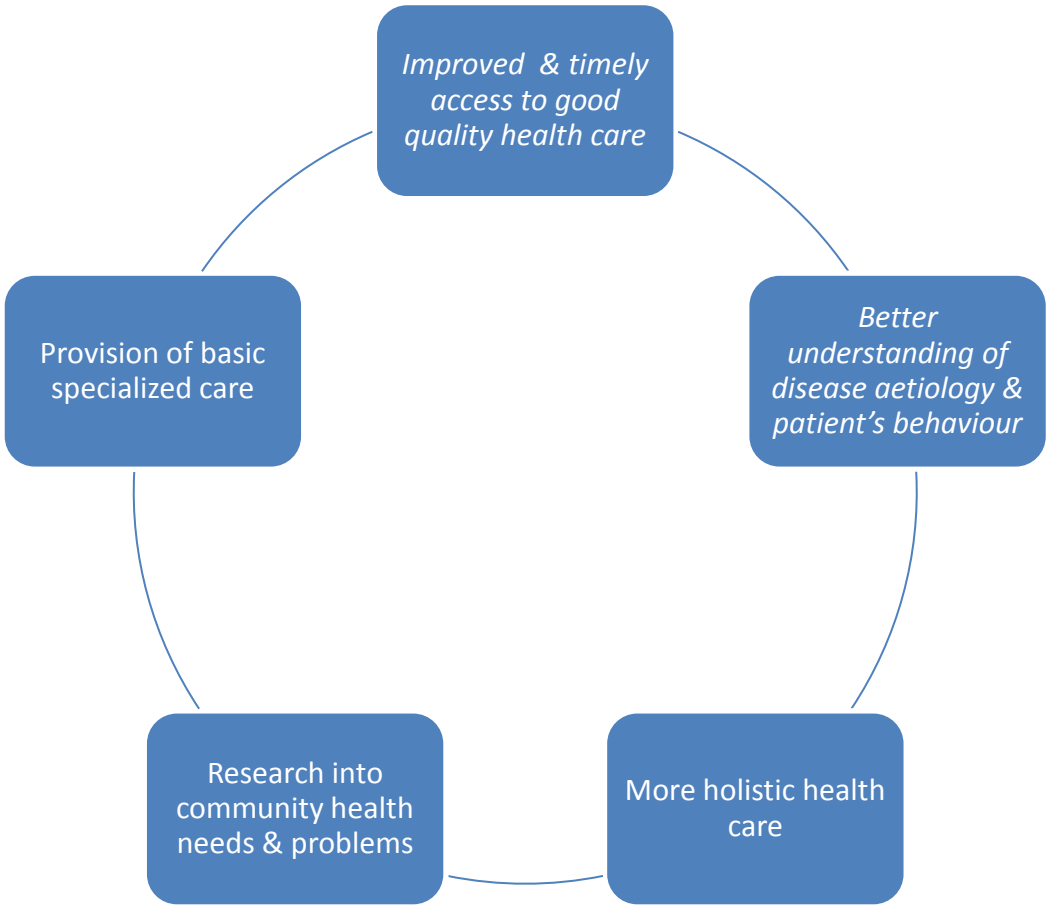


Fig 3: Summary of the roles expected from family medicine registrars & physicians in Maun

Gaps in training opportunities and challenges of developing family medicine training

A number of challenges were discussed in terms of the personal welfare and lifestyle expectations of the registrars in this rural area. The personal issues raised by respondents included concerns about accommodation, transport, electricity, portable safe water and access to good quality food. Although most respondents agreed that there is the need for the registrars to be trained at the community level, they also anticipated that this would be a challenge in terms of these personal issues:

> *"They can, they have to be accommodated so we have to find a place for that in Maun. I mean if this accommodation can be found and then when you go to places where water.., running water is the problem, or electricity is not provided then you have a different type of accommodation that you need to offer even, the type of food; and it's a logistic problem which…, err…, because you can also find that there might also be err…., transport problems to move them from one place to the other place" (Doctor in charge of a clinic in Maun)*

Transport to 'hard to reach' areas such as the communities in the riverine Okavango delta was viewed as particularly challenging:

"But then, a challenge might come on how they go out there, on how they reach those areas; be it by flying, or by road, there are those areas there …. Koreee…, sometimes, you cannot cross the rivers by car. You need to cross by boat. Areas like Shakawe by outside …. Where you have to cross the river and the swamps" (Nurse in charge of a satellite clinic)

One participant actually felt these personal issues may hinder recruitment for the programme, but others suggested starting with an initial low number of registrars and, providing a retention allowance to compensate for the personal challenges involved in compulsory short term rotations to rural facilities:

"But I feel if we have to retain them in this area, we need to change the issues around accommodation and to place a specific retention allowance for such people who accept to do service to people in the remote" (Senior health administrator in Maun)

Participants were concerned about the scale of the training programme and whether there would be sufficient infrastructure to accommodate a large number of registrars, even in the town of Maun:

"Also, Maun has a problem in terms of accommodation. We might be limited by the number of people we might have to train. For example, the country might decide to train 500 people, however, where will the trainees stay in Maun? We do not have enough accommodation facilities to accommodate them. Evidently, these factors are challenges that we might have to face. If we start with smaller intakes, it will be easy to take care of them. If it is possible to remain with a smaller number for the certain time and see how it works and at the same time increase facilities then it is possible" (Principal Medical Officer in charge of the district clinics)

The general consensus was that the anticipated personal and lifestyle challenges could be overcome by proper planning and resource allocation.

The general staff complement in the district health team was considered inadequate to support the training of family physicians in Maun:

"If you place a family physician in a facility that is understaffed, he might end up doing a job of a simple nurse who has just graduated and therefore dilute the whole reason why we place a family physician there." (Senior district health administrator)

They also expressed concern that there may not be an adequate complement of specialists to supervise and mentor the registrars and to ensure good quality professional exposure and training in Maun:

"I think for a good training in family medicine, we would have loved to have all these specialists well represented here so that when the new physician is graduating, he/she becomes a rounded up somebody who has a hint of everything up to the scratch." (Senior district health administrator)

The reason for the dearth of specialists was attributed to the remoteness of Maun and there were suggestions that the government should consider providing incentives to attract specialists to assist with the training:

"Government can also say maybe, we are going to provide some incentives when, the further away you are from town you will get some extra kind of incentive allowance you know. It may also help to drive the professionals to village setups, where they have been shunning before." (Senior district health administrator)

Participants also felt there could be financial challenges to the development of Maun into a family medicine training complex. They were concerned that the present government budgetary constraints may impact adversely on the training:

"We need a budget which has been allocated to do those kinds of things to train the doctors. And, emm…, even the people who train, maybe those professionals, who come from outside; the government has to look into how the, the package …… the remuneration for those kind of people, but then, if the government is not prepared at the moment to do that, maybe it can be a challenge, a problem for the training to go on." (Nurse in charge of a peripheral clinic)

One participant however felt that the government ought to see the financial commitment to the training as an investment, which would have considerable future benefits. Another felt that if the government prioritized the training, it would be feasible:

"This is an investment for a nation. It's an investment when you aah, educate your people especially in health, and again not to talk of the productive machinery in a nation which does not have a good health. So, health is a springboard, 'yeah' for everything. If you have a healthy community, healthy population, it means that you have got, you can produce good teachers, you can produce good agriculturist; those agriculturist are going to produce enough food." (Senior district health administrator)

One participant however believed that coping with deficiencies and learning to improvise was a characteristic of working in remote areas and should be an essential learning aspect of the training:

"I believe that is part of the training, to be able to work in any type of environment even if it is under a tent," (Doctor in charge of a clinic in Maun)

Another issue that participants felt could affect learning opportunities for the family medicine training in Maun was sub-standard ancillary facilities:

> *"They will have loved to have all the right investigation supports here. Equipment like scan, sophisticated laboratories and x-ray facility. But what we have currently in Maun are just the basic things and that might be a challenge to their learning process, it will limit them." (Senior district health administrator)*

The inadequate support facilities were also perceived as a limitation to the effective performance of the family physicians after they qualify:

> *" So even if the doctors are here, they just have the brains but their.., their hands are tied because they don't have the equipment to perform the duties. I was, I'm thinking of maybe, instruments for, for performing minor surgeries, instruments for maybe resuscitation instruments." (Nurse in charge of a peripheral clinic)*

Inadequate drug supply was also expressed as a concern that could limit learning opportunities for the registrars and affect their future role as family physicians in the district:

> *"When they come here, do they have adequate drugs to use because that comes from the central medical stores and, how regular are we going to receive our supplies? Not only that, there are so many things that sometime are down up and down in terms of our equipment to use because training is theory and practice." (Senior district nursing administrator)*

Other issues which could be problematic were also mentioned:

1. Ignorance of the community about family medicine
2. Lack of any local benchmark for postgraduate training
3. Mobility of the patients from one clinic to another
4. Relevance of the textbooks and training materials to Botswana communities
5. Developing a training curriculum of international standard
6. Need for a formalized training institute

Supervision and mentoring of the family medicine registrars

Participants felt that this was a crucial challenge to overcome for successful family medicine training. They felt there was a need to ensure adequate numbers of mentors and supervisors for the registrars to be well trained. The need for family physician trainers that have in-depth knowledge of family medicine and would be able to give the necessary hands-on mentoring to the registrars was expressed:

> *"The first change I can think about is at the level of the supervisors. We need people that are qualified enough to supervise and monitor the students. Students come to provide services*

but hey need to be guided, oriented and monitored and supervised in what they are doing. So, it will take someone who is qualified to know the needs of the students of the family medicine programme to be able to offer the right supervision." (Principal medical officer in charge of clinics)

The need for specialists in other clinical specialties was also emphasized as a necessary prerequisite for the successful training of registrars:

"We are saying let's have lecturers who are specifically for these doctors so that they can benefit from whatever teachings emm…, and any of that. Also all these hospitals where these doctors are being trained, we need also, specialists. We need doctors, specialised doctors who do not necessarily, who will be directly linked to the academics of these students, but who will be working in these hospitals where they will be attached to." (Senior district health administrator)

The impact of language barriers in effective mentoring and supervision of the registrars was also seen as a concern:

"but they have to be you know….. under a supervisor or a particular person who is that…, that can always be there if he were…, and I believe may be the language barrier would be…, will not be there because they will always be somebody under…., who knows the language uhm…, now, what if the supervisor…., the supervisor does not understand the local language but a student does? Uhm…, are they going to be the one to explain to the supervisor what they are saying or the other way out?" (Doctor in charge of a clinic in Maun)

Offering of incentives to attract family physicians and specialists that would provide high quality supervision and mentoring of the registrars was suggested as a way forward:

"Let's look for example now, right now, we have problems of specialist 'of course', 'yeah'. Now if as a nation, we say no, we want to attract the specialist so that if you want to bring for this purpose, lets, lets, lets offer them greener pasture that will make them leave their countries and come over here, you know, the specialist will come. It may be a little bit expensive but you need them. You are building future for the nation, the health of the nation." (Senior district health administrator)

There was also a concern about the lack of a local benchmark for the quality of the training programme, especially considering the need for adherence to international standards training s with a locally relevant curriculum:

"Do we have the correct curriculum? Do we have the lecturers who are going to give a correct teaching to our students? That is going to determine the quality of doctors that we will, we are producing. 'That's right'. But if we don't plan, again we don't plan well in

teaching of these students concerned, we will have so many graduates 'but the quality', but we will have mediocre type of specialist." (Senior district health administrator)

The possibility that the textbooks recommended for training may not be locally relevant was expressed as a concern:

"the assumption is – if the…, they are using books that are relevant for South African society, they will be relevant to…, for the Botswana society but that is just an assumption until it is proven." (Doctor in charge of a clinic in Maun)

It was suggested that having a formalized training institute for family medicine may be a better approach for planning and developing the training complex:

"a formalised institute because these are not the only doctors who are going to come to do this, maybe as time goes on, more will have to be trained on this kind of medicine- family medicine. 'Yeah'. Then if maybe, there is just a plan for an institute, maybe school of err…, that particular err…, training where doctors will be trained there because during that training they go to maybe, the hospital or the facilities to see the clients." (Nurse in charge of a peripheral clinic)

It was also felt that the present clinics and hospital may be sub-standard in design and thus not meet the prerequisites for acceptable family medicine training:

"the institutions in terms of infrastructures for example, hospitals and clinics and other health facilities were not constructed primarily for training. So, they might not meet the prerequisites for training. We might need the laboratory that is not available, we might need some other structures and services to offer that are not available locally." (Principal medical officer in charge of clinics)

Maun community specific challenges to family medicine training and the role of family physicians

Some participants felt that a general lack of awareness of the nature and importance of family medicine by the community in Maun could be a challenge to the learning opportunities of the registrars and their future role as family physicians. The need to educate the community on the nature and importance of family medicine was seen as very important to the success of the training in Maun:

"The third challenge might be at the level of the community which will receive the service later. I have spent some time here in Maun and noticed within the 18months I have spent that the community here is different from the ones we have in the rest of the country. Thus, it will take a lot of work of education to bring them to know what it is about the need of family medicine before we can obtain the benefit of what we are planning for." (Principal medical officer in charge of clinics)

One participant expressed concern about the utilization of different clinics at different times by members of Maun community. This is a challenge to continuity of care; which is a desired aspect of family medical practice:

> *"A person can be treated here and in…, if it's in Maun, Boseja, and after one or two months, go and be treated in Sedie…. with his family members!..... Who can move that way. But if things are to be a bit clearer, then they will have somebody who is registered in Sedie who'll be treated in Sedie with the whole family." (Doctor in charge of a clinic in Maun)*

It was considered that community education and mobilization will help prepare the way for the training complex and facilitate the integration of the family physician into the district health system.

Discussion

The participants welcomed the development of a family medicine training complex and anticipated better quality and more holistic care, reduced need for referral to higher levels of care and, more exploration of the role of the community and family dynamics in disease aetiology. They also thought family medicine registrars and physicians would bring relevant and acceptable research into the health burden and needs of the community. These expectations from key health stakeholders in the district, suggest that they recognize these deficiencies in primary health care in the district and see the advent of family medicine in the district as a solution. The participants seemed to appreciate the importance of family medicine in strengthening primary health care in the country and they saw the need for necessary budgetary allocation to ensure the successful development of the specialty and its integration into the health system of the country.

In a recent study exploring the views of key academic and government leaders in some African countries on family medicine, the respondents similarly expressed their expectation that family medicine will introduce an improved quality of more comprehensive health care and reduce referrals to the overburdened higher level of health care.[10] This expectation was reported to be a reality in the Western Cape when the impact of family medicine on district health care delivery was evaluated.[11]

The expectations of the participants of this study are in line with the growing realization of the need for a shift in emphasis from health investment in sub-specialization to the generalist approach as the way to achieve cost effective health care delivery at district and community level.[3, 12]

Principles of generalism in medical care, such as a holistic approach to patient care in the context of the family and wider social environment was a role the participants expected from the family physicians and registrars. Others roles expected from family physicians, such

as co-learning, mentoring of other health workers and continuity of care were also in line with the goals of generalism.[12]

The roles of family physicians in the Western Cape have been described as care provider, providing clinical care within the context of the community, consultant to the primary health care team, capacity builder and mentor to other health care workers; supervisors of junior doctors and medical students, and community leader - playing a leading role in engaging with the health needs of the community.[11] These were similar to some of the roles expected of family physicians and registrars by key health stakeholders in Maun. The training of family medicine registrars in Maun should aim to develop these capabilities in the trainees, to deliver on the desired impact in the district health care delivery.

The National Health Service in the United Kingdom has realized the vital role of clinical governance and continuing medical education in ensuring quality of care, especially in general practice. They have consequently re-organized their primary care, introducing measures to increase accountability in the medical practitioners and motivating high quality health practice. These are expected to booster public confidence in the practitioners and enhance their appreciation of the health services.[13] Family medicine development in Botswana should also be pro-active on this issue by championing the role of leaders in clinical governance for primary care.

A comment by a participant on his personal fear of an eventual take-over of the jobs of medical officers by family physicians in the district should reopen discussions on the desirability of training all generalist doctors in the district to the diploma level of Family Medicine while gradually expanding the pool of fully trained family physicians.[11]

It is however reassuring that key health stakeholders in Maun had expectations that are in line with the roles and attributes of the family physician that have been demonstrated to significantly improve the quality of primary care.[14]

Challenges to the development of Maun as a family medicine training complex and, learning gaps expressed by the stakeholders are indeed genuine concerns. The quality and performance of the first cohort of family physicians trained will influence the interest of others who may consider training in the specialty. It will also influence the credibility and recognition of the specialty by specialists in other clinical domains.[11]

Inadequacies of training facilities, mentors and supervisors can be detrimental to the quality of the family physicians produced. Similarly, poor working conditions may discourage the further intake of registrars into the training programme. A suggestion to donor organizations to commit 15% of their budgets to the strengthening of primary health care in developing countries may be an avenue to exploit for financial leverage to address the working conditions and some of the infrastructural inadequacies that will be a challenge to the success of the programme.[15]

At the recent First Botswana Family Medicine Conference, May 2013 in Gaborone, the collaborative support of Stellenbosch University for the University of Botswana on the development of family medicine was acknowledged. This collaboration, which is similar to that pledged to South Africa by the Royal College of General Practitioners of the United Kingdom,[13] may help to build capacity amongst the new academic staff and faculty members. There is a need in Botswana for family physicians to be employed in the health services as role models and mentors and not just as academics. It was also proposed at the conference that the support of the private health sector should be explored for the developing family medicine programme. Thus facilities at selected private medical centres could augment the available ones in the government sector. Specialists at private medical facilities may also be involved in the mentoring of the family medicine registrars. Opinions of the key health stakeholders interviewed in this study seems strongly in favour of retaining Maun as a training location rather than shifting the training to district and primary hospitals closer to Gaborone as suggested by some participants of the conference. This is supported by findings in the Western Cape and Gelukspan health ward in South Africa, where training of the registrars in rural communities enhanced their understanding of the health issues and increased the chance that they would remain in those communities after graduation.[11,14]

Thus, despite the allure to relocate the training to health facilities close to the capital as a way of solving some of the challenges to the development of the training programme, this study, like the ones cited above, suggest that it may be counter-productive eventually if such a move is actualized. The better way to address the issue is to support the registrars to cope with training and working in rural environments through financial and other incentives. This exposure to working in disadvantaged areas helps them to develop confidence in their abilities and makes them better prepared to meet the health needs of the community. This ultimately increases the chances of retaining them in the community when they qualify as family physicians. Relocating the training closer to an urban setting will only further perpetuate inequitable distribution of health care provision.[16]

Limitations of the study

I realised while conducting a few of the interviews that though all my respondents were literate in the English language, some were rather limited in their ease of expression in English. They might have expressed themselves better if the interview had been conducted in Setswana.

I am a family medicine trainee and certainly have a deep desire for the successful integration of the speciality into the health system in Botswana. Although I did my level best to remain neutral while conducting the interviews, nevertheless, this interest may have affected my perception of the views expressed by my respondents.

I have worked as a senior level officer in the health team in Maun for more than six years at both the clinics and the hospital. Most of the respondents are known to me and some have

worked with me. This fact may affect the way they expressed their views despite my assurance of confidentiality.

My inability to interview the Public Health Specialist/DHMT – Head could be a possible limitation to the study because of his key role in the district health management.

The findings of this study cannot be generalised, nevertheless many of the findings could be transferred and applied to similar settings.

Implications and recommendations

The following recommendations can be made on the basis of this study:

- Family medicine training should be prioritised as a strategy to strengthen primary health care and district health services
- There is an urgent need to improve working conditions and develop incentive packages to attract and retain health workers in the rural areas of Botswana.
- Maun should be retained as a rural training complex within the family medicine training programme.
- The University of Botswana will need to explore ways of incorporating family physicians in clinical practice into the programme.
- The supply of resources to district level medical facilities should be improved so as to create a better training environment
- Maun as a training complex will need to develop measures for evaluating the impact of the registrars and family medicine on primary health care in the district
- Strengthening of regional collaborations with institutions in South Africa where family medicine has been well established should be a priority
- Research to evaluate the cost effectiveness and impact of the introduction of family physicians in similar districts in sub-Saharan Africa will be useful to demonstrate objectively the benefits of family medicine.

Conclusion

This study demonstrates that key health stakeholders in Ngamiland support the need for family medicine registrars and physicians in the district health services and the development of a family medicine training complex in Maun. The roles described for the family physicians and registrars by the stakeholders are consistent with the main roles of the African Family Physician in the African Consensus Statement. Gaps in facilities and learning opportunities that may be a challenge to the development of Maun into a family medicine training complex were identified and articulated by the respondents. There was a generally optimistic outlook by the stakeholders that with proper planning, the challenges would be overcome and, primary health care in the district would benefit from the introduction of family medicine registrars and physicians.

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Appendix

1. Interview Guide

My opening question was “How do you feel about having these new family medicine registrars in the district?”

Further questions were then used to explore the respondent’s attitude towards the development of a family medicine training complex.

- How important is the development of the family medicine training complex for you?
- What do you think are some of the benefits of developing a family medicine training complex?
- What do you look forward to as the family medicine training complex develops?
- What are some of the difficulties that you anticipate in the development of a family medicine training complex?
- Do you have any concerns regarding the development of a family medicine training complex?

These questions were used to explore their perspective on the future role of family physicians and family medicine registrars in the district health care delivery system.

- Once these registrars graduate and become specialist family physicians, what role do you see them fulfilling in the district health system?
- What concerns do you have about having these specialist family physicians in the future?
- Do you anticipate any other difficulties?
- What do you think are the pros and cons of having specialist family physicians in the district health system?
- What impact or effect do you think these specialist family physicians will have on the district health system?

These questions were used to identify gaps in the training opportunities and facilities that need to be addressed to meet the standards of family medicine in sub-Saharan Africa.

- What changes do you think are necessary to your facility to make it suitable for training of family medicine?
- What are the main training opportunities that your facility can offer to registrars in family medicine?
- What essential training opportunities do you think the district will struggle to provide?
- Do you anticipate any issues with the supervision of these registrars?