A Rapid Assessment of Ward-based PHC outreach teams in Gauteng Sedibeng District – Emfuleni sub-district

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1. Introduction

The implementation of outreach teams in the Gauteng province was assessed in Sedibeng district, at one of its sub-districts; Emfuleni (See Fig 1). Sedibeng is located towards the South of the Gauteng province and is comprised of three sub-districts; Emfuleni, Midvaal and Lesedi [1]. Unemployment is higher than the national average at an estimate of 35%. With 92% accessing a flush toilet and 88.7% receiving electricity, the households have relatively good access to infrastructure. 83% of the population reside in formal housing, while 16.1% live in an informal house (shack) or a traditional house[2]. The District Health Barometer reports that Sedibeng spends 66.7 percent as a proportion of its district health expenditure on Primary Healthcare (PHC). This is higher than the national average of 56.7 percent in 2011/2012 [3]. Sedibeng has experienced an increase in the Tuberculosis (TB) cure rate from 66.0 percent in 2005/2006 to 81.0 percent in 2011/2012. The district prevalence rate of HIV has decreased from 35 percent in 2007 to 30.8 percent in 2011. There are three public hospitals in Sedibeng, two of which are located in the Emfuleni sub-district. The sub-district also has 21 clinics, a total of 4 community health centre and 5 mobile units. [1]. The majority of the population of the district resides in Emfuleni (Table 1).

This assessment was part of a larger national rapid assessment of the state of early implementation of the PHC outreach team strategy - which is linked to PHC Re-engineering. The purpose of the national assessment was to inform further design of the policy, the models and the strategies that would support subsequent phases of implementation and research on PHC re-engineering. The specific objective of this assessment was to examine the state of implementation of Sedibeng's existing PHC ward-based outreach teams and the experiences of adapting it to the current PHC Outreach Team model of PHC Re-engineering. The assessment would highlight the existence of variations of implementation of the strategy and serve as a comparative to other PHC outreach team strategies in the other provinces.

The Centre for Health Policy is part of a team of organisations¹ that conducted the rapid assessment in respective provinces in South Africa. Due to it being based in Gauteng, the researchers focussed on this geographical area. This report is on the findings of a rapid assessment on this populous sub-district, mainly because it was the first sub-district to

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¹ School of Public Health and Family Medicine (University of Cape Town), the School of Public Health (University of the Western Cape), Health Systems Research Unit (Medical Research Council), Centre for Rural Health (University of KwaZulu-Natal), Health Systems Trust (HST), Community Media Trust and Centre for Health Policy (Wits University)

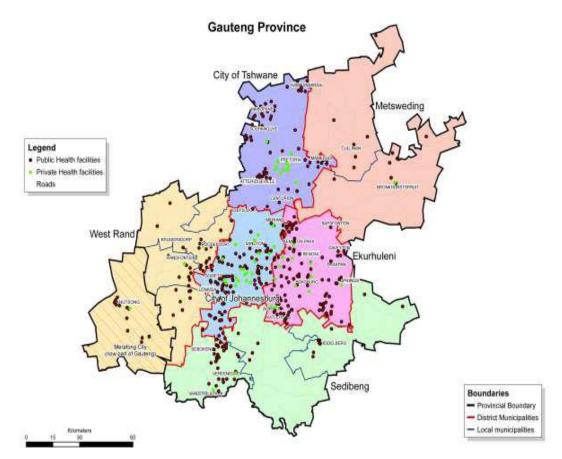
implement the PHC outreach team health post approach before the national policy was introduced. It was therefore selected to pilot its original model in the district. We specifically focused on one of its wards. Boipatong, as it had the most active and fully functional outreach teams.

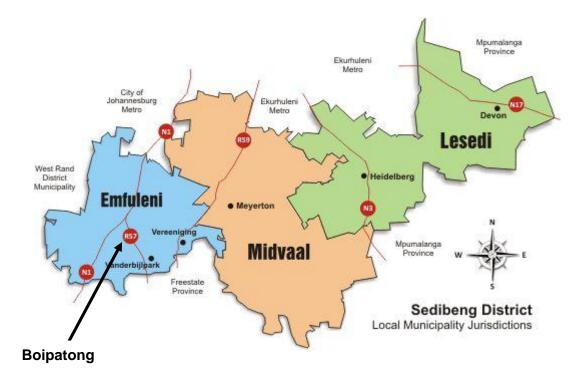
Table 1: Socio-demographic information and health facilities in Sedibeng sub-districts.

			Emfuleni	İ	Midvaal		Lesedi		Total	
	Population		699,874		70,296		76,538		846,706	
jhi	Pop. density		89.95		13.14		6.82		28.65	
rap	Prop. Urban		95.1%		48.2%		76.0%		88.8%	
Socio- demographic	Human development	African		0.53		0.45		0.47		0.52
Socio	Index	White		0.87		0.89		0.89		0.88
S P	Prop. in poverty		37%		33.2%		46.0%		37.5%	
	District hospitals		1		0		1		2	
	CHC (with MOUs)		4		0		0		4	
es	Fixed clinics		21		4		8		33	
liti	Mobile clinics		5		3		3		111	
Facilities	Health posts		4		1		0		5	
<u> </u>	Outreach teams		2		0		0		2	

Source: DHIS

Fig 1: Map of Sedibeng, Gauteng province, South Africa





2. Methods

2.1 Sampling Method and Participants

Prior to data collection, purposive sampling techniques were used to identify key participants for the rapid assessment. During a meeting between the Sedibeng District Health Manager and researchers, key participants involved in the outreach team programme were identified at both the district and sub-district level. A total of 12 participants (Table 2) were included in the study, six of which were community health workers (CHW). The study focussed on one of the PHC Outreach Teams that are active in one of the wards – made up of the 6 CHWs and led by a retired nurse.

2.2 Data Collection

Data collection commenced in August 2013 and was completed in mid-October 2013. A combination of semi-structured and open-ended interviews was conducted with key informants while a focus group discussion (FGD) was conducted with CHWs. Similarly, a combination of structured checklist of items and some open-ended questions guided the FGD. All interviews and the FGD were audio recorded. English was used to conduct all the key informant interviews. The lead researcher is conversant in Zulu, Sotho and English and was able to conduct the FGD in these languages. Table 2 provides a summary of the key participants interviewed, and the type of data collection methods used during the rapid assessment.

The assessment only included a single outreach team from one ward in the sub-district and does not by any means capture a general experience of the implementation of the PHC outreach teams. In addition, the assessment did not include the NGOs and community members.

Table 2: Participants interviewed

Level	Participant	Interview/FGD	No. of Interviews / FGD
Senior management	District Health Manager	Interview	1
	Sub-district manager	Interview	1
Middle	Local Area Manager	Interview	1
management	PHC coordinator	Interview	1
	Facility Manager (Clinic)	Interview	1
Erantlina providera	PHC Team Leader	Interview	1
Frontline providers	CHWs (6)	FGD	1

3 Findings

The findings reported in this report are largely based on what was reported by the participants; however some parts have been sourced from relevant documents and presentations.

3.1 Political support and provincial policy

3.1.1 The Sedibeng PHC outreach team health post model

3.1.1.1 The history of and overview of the PHC Outreach teams - health post model

In 2009, the then MEC of Health was of the view that in order to improve access and health outcomes, health services need to be taken to the community as opposed to households coming to the point of service. It is then that the model of the Health Post to deliver PHC services was established. Moreover, the strategy was refined and led by a Cuban doctor who was active in the district. According to some of the respondents, the model was based on a Cuban model of PHC where a structure within a ward is placed so that it is used as a meeting point for the PHC outreach team before going out to the community. The structure, called a Health Post, would act as a health facility that is linked to a 'mother' clinic, but would be closer in proximity for patients to consult for assessments, other basic health needs and to collect medication. Therefore, the health post was to act as a link between a fixed health facility (a clinic) and the community (through the CHWs), where the community would not have to travel far for basic services, thus alleviating the number of people at the clinic. On the other hand, a PHC outreach team that works within a structure that does not have a health post, would require all community

members to travel to the main clinic, hence making it the only point of services, before a Community Health Centre and a hospital which are both further away.

The doctor who was championing this programme reportedly presented the model at a national meeting on PHC in Durban in the year 2011. In his presentation, he explained the structure of the PHC outreach programme with the health post versus one without a health post: The figures below have been extracted from the presentation (Fig 2 and 3):

Fig. 2 PHC Outreach team with Health Post

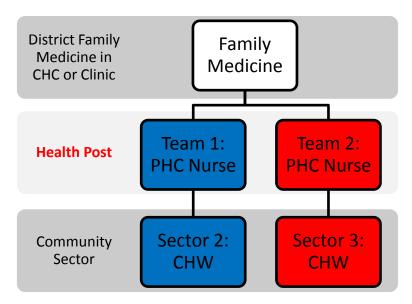
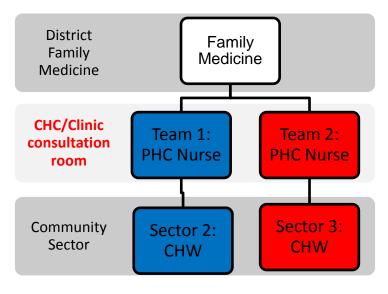


Fig. 3 PHC outreach team without Health post



Source: Dr V. Figueroa power point presentation

3.1.2 The process of implementation & strategies to modify the model

The district proceeded to raise funds by communicating the model to the community, local business and other stakeholders. They also informed the local authority because they required land to erect or identify space for the health posts in the identified wards.

The implementation of this model proceeded for that period. However, in 2011, subsequent to the Minister of Health's visit to Brazil to learn about its community-based PHC system, a national mandate was communicated regarding the establishment of ward-based PHC outreach teams. This was conducted through a meeting which was attended by managers and service providers from the province and the district. During this meeting, the Health Post model was presented. The district was however encouraged to adapt its model according to the Community Oriented Primary Care model as exemplified and learned in Brazil. In light of this adaptation, Sedibeng was then considered a pilot site for this model (which would be a combination of the PHC outreach team and Health post model). One of the respondents commented on the message from the meeting:

"There were meetings (at the district) and we were informed about what national wants and because we had already been having PHC re-engineering, although we were calling it health posts, but they said the name must change it must be PHC re-engineering then that's it." (Sub-district manager 2)

The section below, explains the implementation of the PHC Outreach Teams. It is however important to note that the implementation has largely retained the principles of the Health Post model. The description is therefore mostly about the Health Post model and the attempts made to adapt it to the national model, as noted by one of the respondents:

"After some time, after the visit to Brazil by the Minister of Health, then the whole project had to be re-adjusted according to what the minister indicated" (Senior District representative)

3.1.3 Implementation strategy

3.1.3.1 PHC facility structures

The doctor who initiated the Health Post model assisted with the demarcation of the Emfuleni sub-district into wards. Having noted that the area had 24 000 households, he separated it into six wards, placing a health post in each ward. Boipatong, the study site, is one of the wards. The said doctor assumed the role of a champion who initiated the PHC model, ensuring that the largest sub-district in Sedibeng had allocated and planned allocation of PHC outreach teams. Moreover, due to the dearth of doctors in PHC clinics, he is reportedly a resource in instances where a doctor is needed. One of the respondents alluded to his important role:

"Dr V...he was requested, I don't know by the minister and everybody else, to present in a conference in Durban and all of those things. He feels very strong about this (Health post model). Now and again, the team leaders will phone him and he will rush into the community to go and see the patient." (Senior district representative)

Each Health Post constituted of a PHC outreach team of a single PHC nurse leading 6-10 CHWs. The model started in two wards, with two health posts. After the Minister's message regarding PHC re-engineering, Sedibeng officially launched its PHC outreach teams on the 11th March 2011. The district then mobilised a range of stakeholders to form a steering committee that would oversee the implementation. This constituted the members from the municipality, managers from the province and local authorities, community members and ward councillors. The process of implementing the Health posts and the teams to four more wards also proceeded.

The district took the decision to continue with the health posts, albeit the effort to adapt the structures to fit within the national model. Hence they are now referred to as "ward based PHC team sites". This was based on the premise that the health posts had been originally established due to the need to improve access for patients because Emfuleni (and the Sedibeng district itself) is vast and the distances between households and the clinic are wide. The health posts also provide a base for each team to meet and collect the resources that are needed during home visits, such as chronic medication for those who cannot walk to the clinic. One respondent expressed the objective of retaining the heath posts for the Outreach teams:

"If we were going to destroy those structures and close them for example, it was going to be difficult for the teams to move from point to point because you'll find that the distance between the wards, a clinic and a ward in other areas is more than a 5km radius, so with these structures, the ward-based PHC sites, it makes it easier for people to be closer to the communities" (Senior district representative)

Part of the process of developing the ward structures in the sub-district for the purpose of the Health posts was also to conduct a community profiling and community health diagnosis. Including identifying the number of households in the sub-district, the process also identified types of illnesses, particularly identifying ailments not known to community members such as hypertension and diabetes. The exercise assisted the outreach teams to assess the services that were necessary and the types of interventions thereof.

3.1.3.2 Training and Community engagement

Implementation proceeded with the simultaneous processes of training and community engagement. All those who would be and were part of the PHC outreach teams received training. It is reported that there were two components training that were provided by different

service providers. The one was specifically on PHC Re-engineering and its principles and was attended by all those who would constitute the outreach teams, including the CHWs. One of the respondents indicated that the key members who were particularly required to attend were the team leaders and the CHWs as they would be using the PHC manual to provide services to the community.

"Because we are working with them, we are supposed to be in the same training so that you know what you are looking for and you know what they have been trained to do. So that when you supervise them, I can see that whatever they are doing is right" (Team Leader/Retired nurse)

Another component of the training was geared at the Team Leaders; focusing on professional development.

The outreach teams are ideally meant to be a headed by a retired nurse who is PHC trained. However, in reality, a few are, but those who are not received basic training by the doctor who started the concept of the health post. This reportedly entailed training on the four core conditions, hypertension, diabetes, tuberculosis and HIV/AIDS. In this regard, the nurses that have the basic training are able to attend to controlled chronic cases and refer to the 'mother clinic' for conditions that are beyond their scope, while the PHC trained nurses can address other conditions.

3.1.3.3 Communication and consultation

A key part of the beginning of implementation was a process of engaging with the community and other stakeholders. Due to the reported acceptance of the established health posts and the outreach teams prior to launching the revised model by the communities, there was a need to ensure buy-in and to explain the PHC outreach teams and the revision of the services. Part of this process involved communicating the policy with the ward councillors. They act as a link between the community and local government; hence it was important that they be informed of any implementation or changes. One respondent explained the importance of this process:

"We communicate with the councillors directly in the wards. If you don't talk to the ward councillor it becomes difficult because the community wouldn't easily listen to you. So we approach the ward councillors in the imbizos (meetings) and then we present our case to community members. And then we get a buy in" (Senior district representative)

The respondent added on the importance of consultation of different stakeholders:

"Implementation of PHC re-engineering is a real community-based process. You have to talk to municipalities. You have to talk to political leadership. You have to talk to officials in the

municipality. You have to talk to other prominent figures. You know we even went to the ministers of different religions. So you really have to be as participative with the community as possible. If you don't then you miss out completely." (Senior district representative)

Despite this revision, the Emfuleni sub-district was also reluctant to change the model by closing down the health posts as they were concerned that they would be met with resistance.

"In Boipetong, with all the ward based PHC sites, we want to keep them as they are, we don't want to change them. One fear is that communities are already comfortable with that system (health post). If we now start to close or change, they might feel, we are really playing games with them." (Senior district representative)

In essence, the district took the initiative to adopt the national model but retain aspects of the Health Post model in order to adapt it to the context of the area and the community.

Engagement and communication was also extended to multi-sectoral agencies such the Department of Social Development, which would deal with the social issues that the teams would identify in households. They also communicated the principles of the programme to the wider business sector. This was mostly because the expectation to revise and implement the outreach team programme was not met with the needed funding. Since the health posts were designed to provide minor services, they required the allocation of land and the building of structures if there was none that were already available. The health posts also require infrastructure such as electricity, water and furniture. The sub-district therefore also linked up with the municipality in relation to land and the building of the health posts. Through a series of donations from local business and other departments, in monetary terms or by the donation of an existing building, the sub-district managed to provide the 4 extra health posts in the ward of Boipatong. The district has currently secured 14 health posts which translate into 14 PHC outreach teams (at the time of data collection).

The sub-district also spoke with the NGOs in the area as they would be the source of the CHWs who would be part of the PHC teams.

3.1.4 Implementation process of the Health Post PHC Outreach teams

The initial process of implementation began with an identification of a target area to launch the PHC outreach teams and to erect the health posts. Some of the criteria for selection² were:

- A geographically well-defined area
- Existence of community structures and leadership
- Availability of CHWs

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 $^{^2}$ Presentation by Dr Victor Figueroa who initiated the concept of PHC outreach teams through the health posts – which was based on COPC

Existing infrastructure for services or potential to develop it.

In order to tailor the provision of PHC services, a Community Health Diagnosis was conducted (CHD). This exercise was defined as "a continuous, multi-leveled, holistic, interventional and participatory epidemiologic tool which aims to reach all individuals and families and elicit their health needs. (It) evaluates itself and the system of COPC by virtue of its continuity."³. Although this initial CHD was conducted at the beginning of implementation, the outreach teams also conducted registrations of all the households; recording in particular, the disease profiles of their respective wards. The exercise was subsequent to the training on PHC re-engineering outreach teams. The training provided each team with a kit that had a registration form which each CHW has to complete at each visit as a process of collecting household information.

Headed by a retired nurse, a team of 6-10 CHWs conduct daily visits to their designated households to provide services. Each team leader (on behalf of the team) reports to a facility manager that is based at the 'mother clinic'. The CHWs in this ward are sourced from one of the main non-governmental organisation (NGO – NGO 1) that provides services in the same area. The CHWs provide services such as home-based care, attend to pregnant women by providing education and referring them for antenatal and post-natal intervention. In both instances, they also provide education and information to the mothers. The CHWs also conduct environmental health assessments and provide education on how to grow and attend to backyard gardens. As is generally known about the nature of this cadres' work, over and above the role and or scope of work they are mandated to conduct, they also perform other tasks in the households, such as cleaning and cooking for those who are not well. Some of the CHWs in the FGD expressed and interestingly, seemed to be under the perception that this was part of the activities within home-based care:

"Sometimes you find a patient with no food and now you have to find food for them or maybe cook some porridge and clean up the house" (CHW – FGD)

While another added:

"Sometimes when they cannot get out of bed or they are very sick, we make sure that we don't only take care of you by cleaning you up,....we also make sure that your home is clean so that even if the sister (nurse) can come with a doctor. We don't just come to your house and clean you up but then leave your home and environment dirty. We have to clean for you, cook for you...we make sure that there is food for you." (CHW – FGD)

One of the retired nurses however acknowledged that CHWs worked beyond what is expected:

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³ Power point presentation, Dr Victor Figueroa

"They are really doing a good job. I wish they could be absorbed. It's such a pity, as you that there is no way of showing that they work beyond their scope. But they do." (Team leader/Retired nurse)

Interestingly, the Emfuleni sub-district has incorporated programmes that were initiated several years prior to the establishment of the ward-based health post outreach teams into the implementation of the outreach teams. One such programme was the Kgatelopele programme which was geared at improving the management of chronic patients, particularly those on diabetes and hypertension treatment [4]. In collaboration with the said NGO 1, the sub-district department of health utilised the CHWs to deliver medication to the enrolled patients, while also conducting basic assessments of clinical indicators during the home visit and delivery. One of the respondents also described the process:

In terms of the Kgatelopele, or 'couriered medications', medication is packaged by the pharmacist assistant, names are written on patients, then they are closed in plastics (bags) and then they are given to the team leader which is the retired nurses, and then they are sub-divided according to the wards, where the patients are and the CHWs have got their bags with all the equipment and then they deliver the medication. (Senior district representative)

The CHWs reportedly also provide counselling with the aim of improving knowledge and adherence behaviour, while encouraging patients to visit the clinic when necessary. Part of the aim of the programme is to alleviate the burden of visiting the clinic particularly for elderly patients for whom it would have been physically difficult to reach the clinic, but it was found that it also alleviates the cost of transport to the clinic [4]. Reduction of patients who visited the clinic only to collect medication alleviated the queues in the clinics. Patients are required to visit the clinic for a 6-monthly physical examination by a doctor for another prescription [4]. Now as part of the PHC outreach teams, the CHWs have continued to attend to chronic patients within the established process of the Kgatelopele programme.

4 Inputs and Resources

4.1 Funding and health post structures

Although now currently funded, the establishment of the PHC outreach teams was initiated without funding and relied on the efforts of sub-district representatives to conduct the fund raising. This continued subsequent to the request and mandate by the national DOH to adapt the Health Post model of outreach teams to the national model. The respondents indicated that the implementation of the ward-based outreach teams have continued to grow with little funding and most of the funding has been acquired from private business. Despite this limitation, the exercise to communicate the programme to a range of stakeholders enabled the staff members to request resources from agents such as the municipality, other government departments,

NGOs and local business. This was expressed by a respondent who is responsible for the coordination of the outreach teams:

"We also had to ask for donations, because it was a mandate but it was an unfunded mandate. So they said we should ask for donations from business people or from wherever. So, those health posts at Boipatong, we got a donation from the Department of Education (laughs). We also communicated with the industry. African Cable donated two structures (to be used as health posts)" (Sub-district outreach team co-ordinator).

The district was therefore able to secure resources such as structures for the health posts (Fig 3) by collaborating with the range of stakeholders. For instance, local business not only donated structures, but also 'adopted' a school which they provided material such as furniture and school uniforms while in another ward, they built an additional classroom. Moreover, the municipality was able to erect a health post within the school. The outreach team is therefore able to provide services to the school and fulfil its mandate to conduct the Integrated School health programme while providing services to the surrounding community that use the health post for consultation.

"They (African Cable) also forged the relationships with the schools. Where we erected all the health posts in the school, they adopted one school. In that school, they bought school uniform for the children and said it was a donation to say to plough back because their parents are working in the industry. And in another school, they put a class... they did everything; they put in the furniture as well as flooring and painting the school" (Sub-district outreach team co-ordinator).

Communication with surrounding NGOs secured a collaborative relationship such that some NGOs were able to create space for the nurses that were part of the outreach teams. The CHWs consult with the nurses based in some of the NGOs in the morning before heading towards their daily visits. As one respondent explained:

"We communicated with the NGOs so that they could accommodate the sisters who are part of the outreach teams to start there (at the NGO premises) with the CHWs, to go out and do the outreach and come back and compile the information that they got" (Sub-district outreach team coordinator).

This therefore indicates that various strategies were employed to secure structures that are used as health post, hence reducing the cost of erecting new structures and rather use existing resources. The collaborative relationships therefore secured resources for implementation of the outreach team activities.

The district has however currently allocated a budget for PHC implementation, which includes the outreach teams. This is reportedly across all districts in Gauteng. Each district has to report the number of teams it has established, put a plan together and cost it.

"When we started it was not funded, but now it is funded. Each and every district is expected to prepare a specific budget to implement. They will request, how many teams have you established, then you will for instance say out of 72 wards, I have established maybe 20. Then you will put a plan as to how you are going to roll-out, then your plan must be costed" (Senior district representative).

Fig 3: A health post in Boipatong ward in Emfuleni sub-district



Photo: Shakira Choonara

4.2 Human Resources

The district has provided inputs to the implementation of the outreach teams in other ways as well. It has ensured that every health post is manned and managed by a retired nurse that provides basic PHC services to the community in the respective ward. The retired nurse also acts as the team leader of the Ward-Based outreach team, providing supervision for the CHWs. Although the initial strategy was to recruit PHC-trained professional nurses to be the team leaders, too few of the nurses recruited for implementation have undergone the training. Most of the nurses that are being currently recruited to continue with implementation are nurses that have done community health nursing. The rationale is that the training included health promotion and community participation, which is an integral principle of PHC Ward-based outreach teams. Going forward, the retired nurses will be gradually replaced by the younger community health trained nurse. It was reported that the current transition process requires that every facility manager from the 'mother clinic' nominate a nurse who will be the team leader at the point of the retired nurse's exit. The nominated team leader will shadow the

retired nurse to learn the tasks and services that they are providing at the health post until they are ready to take over the role of the retired nurse.

This nurse will, according to the PHC re-engineering Ward-Based outreach team model, be based at the clinic as the team leader. The health post will be used as a consultation base for the nurse to attend to the patients that have been referred by the CHWs from the respective wards surrounding the clinic. The CHWs will however have to return to reporting at the clinic (as opposed to reporting at the health post) when in need of resources and for meetings. However, it was not clear whether the health posts will still be retained and how they will be accommodated in the future.

Inputs such as the forms or guidelines for daily house visits, where each CHW records the status of the patient were provided during their PHC re-engineering training. Some of the participants however noted that this was the only time that they received the forms which are used to record monthly activities of the teams, such that they have resorted to photocopying them every month. This includes basic stationery, which is reportedly meant to be supplied by the province from national.

DHIS told us that we should wait. That national is going to supply us with the stationery and all. We relaxed in April but in May they wanted the (monthly) reports so I had to manipulate and do the photocopies (of the forms). We hardly get anything like it was promised from national." (Subdistrict outreach team co-ordinator)

Another respondent added that:

They gave us a manual (at the training) and they gave us forms that we are supposed to be using. But some of the forms we don't have, in the districts, so unfortunately some of the forms, we improvise, some of the forms we use the original ones, but mostly we photocopy them. (Outreach team coordinator)

On a positive note, the CHWs indicated that the manual that they were given during the training comes in handy during their work in the field because they use it as a refresher or to remind them of issues that they have to deal with in the community. One of them explained why they found them useful:

"Because sometimes you forget and you say ok let me go back to the manual." (CHW - FGD)

It was also evident that they received most of the supplies they needed in their kit bags, although they expressed their wish to be provided thermometers because they deal with a lot of households that have children. Thermometers would enable them to assess the babies' temperatures so that they can advice accordingly, as noted by one of the CHWs below:

"If they could give us maybe a thermometer...because sometimes when you get to a house and you find a child who is too hot...you can take the temperature and you can advice the mother and so that you can refer if you see that the child is really not well..." (CHW – FGD)

The CHWs indicated that the training provided on PHC Re-engineering, specifically on their roles within the teams was useful and well co-ordinated. Most of them expressed how they found the component on antenatal care and child development most useful because they are now able to advise mothers adequately. One CHW noted that:

Because people will ask "my child is like this, what should I do?" and we now can do screenings and before the training, we could not understand the birth-cards. Now we can explain the importance of going for antenatal…and once we explain they will see sense in doing the visits…because some people are just lazy to go to the clinic and now we can encourage them to go to the clinic early." (CHW – FGD)

5 Mobilisation of actors

The beginning of the implementation of the original model of the PHC outreach teams (with health posts) evidently relied on a range of stakeholders to generate most of the resources and inputs (Table 3)

Table 3: Community participants communicated and involved in implementation

- Local business & industries
- Department of Health (Provincial & District)
- Department of Social Development
- Local NGOs
- Religious representatives
- Ward councilors

This has remained the case for the current model of the outreach teams. A lot of the mobilisation was conducted at the local level and it was evident from some of those that were driving the mobilisation that they had a vested interest in the strategy and therefore strategized in ways that yielded the desired results. Communication and collaboration with **local business** generated other networks, for instance, by establishing relationships with the local private industry and **local schools**. Due to this collaboration, the DOH was also able to leverage on this network, particularly with the **Department of Education**, hence the placement of some of the health posts in the schools so that the teams are also able to provide the Integrated School Health programme.

This was equally the case with the **local NGOs**. Although districts have a history of partnership with regards to utilising CHWs while they provide funding, the sub-district used this existing relationship to provide a working base for the recruited nurses who were part of the outreach teams. In addition, the department also uses the NGO to share resources such as supplements that are needed by patients. The **Department of Social Development** has also remained a central partner in the effort to address the social needs of households, hence it remained an integral actor in the implementation. Moreover, the CHWs continue to refer relevant cases to the CHWs from the department, while also interacting with them without conflict: "We do interact. We sometimes visit the same house with those from Social (Social Development). They come there for social issues. And we come for health issues." (CHW – FGD).

Government actors such as the **municipality** and the **ward councillors** were mobilised such that they played an integral role in generating the health post structures and on informing the communities about the programme, respectively.

All of these mentioned stakeholders eventually formed a **steering committee** which assisted with the implementation process.

Although the process of implementation has been a mandate that otherwise could have been perceived as an imposition on the district by national department, it seemingly was accepted, particularly by those nurses and staff members who had been involved in the establishment of the original PHC outreach teams, as championed by the doctor who proposed the programme. The district seemingly accepted the mandate and proceeded to adapt their model with very limited resources and input from national. This was done by generating resources, through the by mobilisation of the range of actors as mentioned above.

6 The challenges of implementing the PHC outreach teams

Although the establishment of the PHC outreach teams has gained some successes which will be dealt with further in this report, it has also experienced some challenges.

6.1 Limited resources in the health posts

The health posts were originally established to act as a link between the main clinic and the community as illustrated in figure 2. However, the limited resources within each post made it difficult for the nurses managing it to provide effective services and the community appears to perceive the structures as fully functional facilities when they are not. One of the managers commented:

"It's a health post yeah, and I'm saying that the perception from the community is not the same as our understanding because they see it as a clinic. They go there as though it's a clinic. Some of the health posts are very busy, and they don't have the infrastructure. They don't even have the means of communication to be functional as a fully-fledged clinic." (Sub-district manager 2)

A similar sentiment was communicated by one of the managers who explained the resource limitations in some of the health posts.

"At the present moment these health posts, when they were placed at these strategic places, they were placed without basic needs (resources), without water. It's only now that they are in process of getting resources, since 2011. Not all of them have basic water, not all them have got sanitations. As a result, presently, no electricity nothing, even if they can see babies they cannot immunise babies in all the structures. All the babies must go to the main clinic, because of no electricity...because they cannot take the vaccines." (Sub-district manager 2)

One of the health professionals based at one of the health posts added her concern with regards to limited resources:

"Do you know there's no electricity here? You can feel there's no electricity. We use gas and this year they said it's too much...it's too expensive. So I supply it, because I am the one who is sitting here. We have a real, a real problem." (Team leader/ Retired nurse)

To add to this sentiment, at one health post that we (as researchers) visited at the ward Boipatong, at the request to use a restroom, I was directed to use one at a local police station; a building very close to the health post which was a two-minute walk away. The nurse indicated that they did not have any toilet facilities.

6.2 Provincilisation - conflicting lines of accountability

Some of the sub-district managers highlighted an aspect that to a certain extent exacerbates the challenges at the district. They noted that provincialisation at the Sedibeng district was not complete; hence the district was a combination of provincial and local authorities. This reportedly posed some tension between those that are employed by the province and those by local authority. For instance, one manager indicated that she found it difficult to request for resources from the province (PHC re-engineering is reportedly resourced by the province) because she was employed by local authority, hence she was accountable to and reporting to the local authority. This included her supervisory role, where she indicated that most of the health facilities she is meant to oversee have provincial staff, which makes it difficult for her to facilitate her managerial role. She mentioned that she often had to work "through" her counterpart who is employed by the province, to request for any resources or to deal with managerial issues. The manager expressed her experience as follows:

"For example, if at all they need a communication, something like a telephone, I won't be able to provide that because I'm from outside ("outside" meaning from local authority, not in province), so I will always have my counterpart (who is employed by the province) to say, these guys don't have a means of communication, how best can we help them? Or because they are seeing the patients, they've got to take bloods but there's no courier. I then just communicate this to my counterparts to say these guys need 1, 2, 3, 4." (Sub-district manager 2)

Another manager expressed the same view. However her view interestingly highlighted the complication with lines of reporting between those employed by the province and local authority.

"We have a mixture of provincial and local authorities and because we are in the provincialisation process, the province employed the retired nurses, but then they are based, at local authority clinic." (Sub-district manager 1)

This element reportedly added to some of the staff members resisting the changes in implementation. Some views indicated that those in local authority felt that the PHC reengineering mandate was the responsibility of the province (hence all the resources came from the province) and therefore did not involve them, hence not buying into the changes.

"We need to work as a team and this is the directive from the minister and it is here to stay, but apparently it does not dawn to them (other health staff). They see themselves different. They will always say, I'm not employed by the district .But the community does not know who is local authority, who is district, and whatever service that they get from a nurse is perfectly fine. I'm not sure if it is resistance or what I don't know." (Sub-district outreach team coordinator)

The strain of limited resources was reportedly not only experienced by those in management, but the retired nurses that manage the health posts. With little to work with, but only the medication supplied by the 'mother' clinic, the retired nurses appeared to be expected to manage cases that are beyond their means due to lack of tools or equipment.

One manager expressed her concern:

"It is sort of abusing the retired nurses because presently are running mini-clinics. They are seeing patients, they've got medicine cupboards in their health posts, they are issuing treatment to people." (Sub-district manager 2)

One of the retired nurses added:

"But you know, where you expect support you don't get it, I don't wanna lie. There is not much support... The people down there in HR ...there is no support. I think maybe the premise is that we are retired nurses... there is an attitude towards retired nurses." (Team leader/Retired nurse)

A coordinator was also concerned about the workload that is diverted onto the retired nurses, from the clinics:

"There is a vast problem. The facility managers (situated at the 'mother' clinic, to whom the retired nurses report to) are not just the facility managers. They are also functional people, and they've got a lot on their plates and most of the time they are neglecting the retired nurses." (Sub - district outreach team coordinator)

6.3 Disjuncture between management at NGO and district health level

The partnership between district health and local NGOs has helped to sustain the implementation of PHC over many years. However, it remains to yield difficulties. Although the CHWs are able to carry out the mandate of the Department of Health, facilitating their management was reportedly a challenge. Some of the respondents, particularly the team leaders that work with CHWs on a daily basis pointed out that not being able to be involved in the management of the CHWs has rendered it difficult to retain the same group of CHWs in the team. If there are any difficulties between the CHW and management, they are not able to intervene. One respondent indicated how, because some of the CHWs are changed frequently by the NGO and this affects consistency in the quality of skills of the CHWs:

"In terms of how they relate with the CHWs, it's a bit difficult to intervene, because they are not contracted to us. We only have a relationship with the NGOs. They have quite a number of challenges, where the NGO manager is not in good terms with a CHW. Then they are just dismissed. They are replaced in the team and as they are replaced. You find that they are replaced with a person who doesn't have the knowledge and the skills. So you know we have to train all of these people again. So consistency is a problem. If there are people that are not trained then we have to train them again. So sustainability becomes a bit challenged in that area, but if the CHWs are continue to work then it's easier" (Senior District representative)

One of the team members lamented how, when one works with a similar team, she learns to know each of the strengths and weaknesses of the CHWs and is able to distribute the responsibilities according to those variations. The rotation of CHWs by the NGOs, interrupts that process, where she is left to relearn the particular potential of a new CHW: She explained the concern:

Although some of the things go according to the training to me some are beyond their scope. Remember some of the CHWs...the level of education is not the same, so with others, you have to know and understand that. That's why I say that it really bothers me when this juggling around (of CHWs) because you actually know your, staff when they are with you. For instance, I've got one whose level of education is really low but she's good with dressings, she's good" (Team leader/Retired nurse)

She added that:

"We depend on the NGO. I wish they could be absorbed and not be at the mercy of the NGO. It puts us in a problem, cause now, every week they take from the ward based teams to the hospital. They now allocated to the hospital for a week. Rotation." (Team leader/Retired nurse).

Despite these challenges, the sub-district in Emfuleni has been able to generate 12 outreach teams (at the time of data collection), with 6 teams in Boipatong. There was also a process of rolling out the programme to the rest of the 72 wards in the district (there were 14 teams in the whole district). However, the outreach team were reportedly not the ideal composition; with only the retired nurse as a team leader, the CHWs and a part-time doctor that consults on particular days at the clinic.

One of the respondents reported that the teams are meant to consist of an Environmental Health Officer (EHOs), but due to a proclamation of the Health Act, they were moved to the municipality, hence they are not involved in teams. They changes in structures created a barrier to establishing a complete team. However, it was noted that there was an effort to communicate with the municipality to advice the EHOs to join the teams:

"Our teams are incomplete because we don't have an environmental health practitioner. Remember with the proclamation of the Health Act, the environmental health practitioners had to move over to the municipality. Because of the confusion with all the other environmental health practitioners that had to move over to local government and all of those things we are still not stable. We will be writing letters as well, you know to the municipal managers to say, we request them to delegate those people to be part of the ward based PHC teams" (Senior district representative).

Although Emfuleni was a pilot site with the establishment of pilot teams and it had provided some lessons and successes through the health post-based outreach teams, rolling out to the other wards in the district seemingly was difficult. This is possibly due to the challenges reported.

6.4 The experiences of the community health workers

Despite all the changes, and the DOH alluding to work even closer with CHWs (through the outreach teams), the engagement with this group of CHWs, indicate that their challenges remained the same as those documented over the years. Although the principle of the outreach teams is to recruit CHWs that live in the same communities, this depends on how vast and widely distributed the area is. As reported, the ward of Boipatong is vast, thus resulting in the teams walking long distances. Therefore, availability of transport remains an issue and this included how their remuneration does not go far to sustain them, as some of the CHWs pointed out:

"The walking. Sometimes it's hot. Sometimes it's windy. Sometimes it's raining. Sometimes, you don't have money and you are hungry. You don't have money to buy lunch... It's hard... (CHW – FGD)

On the issue of lack of adequate remuneration, the group indicated that they relied on their grants to sustain them through the months, an issue that raises question about the adequacy of the rates that CHWs are paid through eh stipends:

"We manage because some of us we get some money from grants. Some of us are able to keep going even without getting paid because we use the money we get from grants. We survive with that...the R300 from the grant... (CHW – FGD)

A second issue that was raised by the CHWs was the workload created by that they are accountable to two different authorities. They indicated how their role to provide services that are related to the NGO and those that are mandated by the district created more work than they could manage. The CHWs expressed their experiences:

"Sometimes it's too much because you cannot get everything done. The NGO expects you to do certain work and then here (the clinic) they expect you to do certain things as well..." (CHW - FGD)

On a positive note, the CHWs mentioned that their team leader was supportive on a work and personal basis and relied on her for emotional support and in terms of gaining of knowledge and skills:

"She gives us advice and when there are things we don't know about, we ask her and she explains a lot of things for us. She encourages us to do school visits, to apply for different opportunities (skills improvement). The things that we did know about and the knowledge we did not have we now have because of her. She imparts a lot of knowledge and in such a way that you can never forget it. Even when she's not there, you are able to apply the knowledge she taught you... you say, when we did A, B, C, she said we should do this..." (CHW - FGD)

Another CHW added that:

"She is like our mother. We speak about everything. Even when we have our own problems we will go to her. Even if you have problem back where you live, you go to her...besides issues at work." (CHW)

This positively indicates that the health post-based team leaders have the space to develop a mentoring and supportive approach for the CHWs. One of the concerns by some of the managers was related to that the revised PHC outreach team model requires the team leader to be based at the main clinic and that team leader will then take over the responsibility of the six team leaders in the ward. She felt that this was a lot of responsibility to be taken over by one person, in addition to their clinical duties at the clinic:

"We were told sometime last year that the clinics must bring their clinic profiles and choose a team leader and that team leader will be trained. She must take over from all these people (the retired nurses). To me it's a big mammoth task, because this person is also a clinician at the facility. She must take the responsibility of each and every team leader at Boipatong. There are six (team leaders), then this person is the only one." (Sub-district manager 2)

This may have implications on the extent to which this team leader, now based at the clinic, will be able to provide them same level of support and mentoring, as the current team leader (retired nurse) is offering. This is more so because, as mentioned above, the retired nurses (team leaders) will be replaced by a younger community health trained nurse. It was noted by some of the respondents that this cohort of nurses are resistant to provide services in the community and insist on being facility based.

With the PHC teams, the younger nurses are not willing to go out. They don't even want to walk in the streets and be knocking at people's doors...but the retired nurses do and they do it with a passion. It's only a small number of young nurses that are doing it. So much that I made an input that once the curriculum of nurse training is revised as they are revising it now, they must include PHC re-engineering. So they know that once they come out they will be knowing that, this is what we are going to do. (Senior district representative)

One of the sub-district outreach team coordinators also felt that this resistance by the younger nurses to conduct community-based care should be addressed through a revised curriculum:

"The young ones (nurses)... I understand they are not interested. So I think, because now, PHC reengineering is the requirement from the national, I think it needs to be incorporated (in training) so that community nursing training should be strengthened. It should also include PHC reengineering, which is part of community nursing. It needs to be strengthened, so these new nurses

when they complete they have got the total overview of what nursing entails. Not only that you work in the hospital or in a CHC clinic. They need to know that you should go out because at some stage or the other retired nurses will gradually be phased off, and they should take over." (Subdistrict outreach team coordinator).

The resistance from the new nurse, will therefore have implications on the support and supervision of the CHWs in the communities and context where they provide services.

7 Benefits of the PHC outreach teams - health post model

Despite all the challenges, most of the respondents were of the view that the PHC outreach teams based at the ward health posts contributed to successes and was beneficial for the teams to provide community services. Some of the views were mostly that treating more controlled cases at the health post has alleviated the overcrowding in the clinics. One of the managers expressed her view:

"Fortunately with this outreach team, the facilities have been offloaded (reduced), because they (the retired nurses) are seeing the patients there, the patients are being treated there. They get supplies from the mother clinic, so as to attend to those cases, so in Boipatong (the main clinic), the flow is very low" (Sub-district outreach team coordinator)

It was also seen as a convenient and an enabling base for the CHWs, because they had a central base to start off and complete the day and they had premises to go to for consultation with the nurse. The health posts reduce the burden of walking long distances to a central clinic to meet the team leader:

"We are more advantaged because we have got these sites (health posts). In other areas, CHWs have to meet under a tree which is bad enough. There isn't even space in the clinics to accommodate CHWs to meet. But then if they have these sites, they can meet. They can come, they have meetings, they refill their bags, you know everything, all the activities that they have to do and they are closer to communities. With those that don't have sites, the CHW have to move from one area to another. Some of the wards are quite far, the distances are long, they have to go and wait in the clinic and sometimes you find that the whole day is wasted in the clinic, having done nothing, but in the sites, they give statistics, they do everything and then they go out. Even if they go at 10 o'clock, you'll find that they are nearer to communities at that time." (Senior district representative)

Some of the respondents mentioned that the Health post approach has resulted in the improvement of identifying cases and therefore developing interventions:

In Boipatong we did a study after something like two years, where we noted that the ward based PHC model really yields good results. Chronic disease patients, patients with hypertension, diabetes, stress related conditions, you know all of those things they were identified by the CHWs. They were then referred. Pregnant teenagers sitting at home unbooked, they were identified and then they were referred. Malnutrition, a huge percentage of malnutrition in babies and children was diagnosed in Boipatong and we had to have an intensive programme for managing these children. So it really yielded results." (Senior district representative)

Another respondent added to this sentiment:

"When they (the team) did the community survey to see how many households, how many diseases in the community, the healthcare workers and retired nurses picked up people that were never aware that they were sick at all. They detected hypertension, diabetes. If that early detection wasn't there, the complications would have been so much more. So definitely, the outreach team (at the health posts) assisted the health system a lot, and it has downloaded (reduced) the facilities (of high patient numbers), you know because people will sit in queues for six hours just to collect medication. So it has assisted the health system to reduce waiting time.... Because if you are not sick and you are on chronic medication, you don't want to sit in a queue between sick people." (Sub-district manager 1)

Some added that patients from the ward communities developed a trust in the facilities (despite its limitations), hence this helped not to overcrowd the higher level health facilities:

"What I like about this outreach, is that the patients or the clients become so attached to their ward-based health post. They even feel free to come for whatever problem. For instance, even the STIs, they come for voluntary testing so they don't wait in long queues, they are just referred. They come, they are tested and off they go. And they come back for the results" (Sub-district outreach team coordinator)

Many of the respondents therefore felt very strongly that the health post model was the most effective approach. There was acknowledgment that it is initially costly, but argued that in the long-term, it becomes cost effective. One manager expressed her view:

"For me, that's the most ideal (the health post model). I know it needs resources. To implement ward-based PHC team needs resources, it really needs resources, financial resources. You need human resources, you need funding. It's quite expensive to establish, but once it's established and then for maintenance it's quite reasonable. Cost-effective, just the establishment part is the one that is really really expensive. But maintenance is quite cost-effective." (Senior district representative)

8 Lessons learned

The Sedibeng district of Gauteng took the initiative to establish a PHC outreach team model that was based on the principle of COPC. This was in response to the context of the district. Its vast rural-like nature renders most services, such as health, far and apart, such that households have to travel great distances to access care. Establishing the outreach teams in one of the most vast of all the sub-districts, Emfuleni, highlights that when the local health system responds to the needs of the community, it encourages (and requires) a mobilisation of a range of actors. To some extent, there was also a bottom-up approach to the commencement of this health post approach. In recognising the context of the district, the needs of the community were the central driver to initiating and proposing this to the province and the national department of health. It is the district that proposed a PHC implementation strategy to the other levels above and it is from this initiative that the province launched the model as a pilot, which if successful, could be rolled out to the rest of the district. This is an example of how local government can be instrumental in informing policies, precisely because those who work closer with and in the communities understand the contextual nuances.

The experience of the Sedibeng district indicates that implementation of the PHC re-engineering needs to be adapted to the context of the area. Confining it into a blanket process across the country may compromise the achievement of intended outcomes of PHC outreach team interventions, thus undermining the implementation of PHC re-engineering. For instance, in the effort to adapt the health post model to that of the national approach, the team leaders were now being moved back to the clinic. This therefore returned to a situation which the district was trying to address. Patients have to resort back to walking long distances to the closest clinic, therefore re-establishing barriers to accessing care. This applies to CHWs as well. While the health post provided an adequate working space to gather and consult, they will have to walk to the 'mother' clinic to collect equipment, consolidate their records and meet the team leaders. Considering the reluctance of the nurses that will take over the role of the retired nurse, it is also likely that the patients that cannot reach the clinic, will have little chance of being treated by a health professional.

Although implementation at the sub-district proceeded without a dedicated budget, the team managed to galvanise resources whether in kind or in material resources. This was due to the strength of communication and mobilising actors that are relevant to the process. Local business made substantial inputs to providing structures and material resources, while community stakeholders such as churches, ward councillors and NGOs assisted with information and communication with the community and thereof getting buy-in. In fact, mobilising these stakeholders into a steering committee ensured legitimate community participation.

It is important to highlight that this level of communication will be important to inform the community of the changes. One of the reasons the district decided not to have a complete removal of the health posts was because they were concerned about the resistance from the communities that have grown to rely on the health post nurses to provided basic services that do not require a visit to a clinic.

The relationship between local government and the province, in terms of political changes and interventions, evidently has the possibility of affecting implementation. The process of provincialisation creates a tension between being employed by the province or by local authority and this has the potential to hamper services, as reported in the findings. This is something to be mindful of if implementation is to gain success.

The on-site support that is evidently provided by the retired nurses at the health posts and during home visits is an important component to learn from. The positive views of the CHWs about their team leader indicate that if the district continues to invest in team leaders that not only have the technical/clinical skills, but also have leadership and mentoring skills, they can provide the support that CHWs require to respond to community needs. One of the concerns about the absorption of CHWs into the health system is whether team leaders (nurses) will be able to assume the managerial and mentoring role that some of the NGO have historically adopted. However, the Sedibeng model, which assigns a team leader to each team, but is placed outside of the main clinic, indicates that this approach creates a context that allows there to be a mentoring and supportive element in the relationship between the CHWs and the team leader. One therefore has to question whether the removal of the team leader from the health post back to the clinic will allow the same relationships to develop. This is more so because the team leaders in the revised PHC outreach teams will also act as facility managers, which means there will be additional responsibilities. Will they have the capacity to provide the depth of support that the retired nurses have evidently been providing in the health post - retired nurse approach?

Finally, CHWs evidently still experience constraints and difficulties that have an effect on their work and their general status within the health system. The lack of transport; poor remuneration; providing work beyond their mandate in the household, highlight issues that still need to be addressed. A pressing issue for most of them was the inconsistency in receiving their monthly stipends. Moreover, their views on the issue of stipends touched on their working condition, which seemed to highlight that, their future in this type of work is precarious. One of the CHWs described their difficulties on what has become known as 'the dry season'. Referring to those months when stipends are not received:

"How are we supposed to survive?" "You cannot go to a patient not having eaten. You're working with TB patients but you're hungry. You're at risk of infecting yourself with TB. Even if you contract that TB, you don't get anything, they just say now you're sick, go home. They are going to replace you...when you come back they've replaced you." (CHW – FGD)

These challenges have been central to the high turnover of CHWs, thus resulting in the inconsistent training, and therefore variation in skills within a single team. The consistent flow of CHWs out of the teams makes it difficult for the outreach teams to grow and develop skills consistently across the same team members.

9 Limitation of the assessment

The assessment was only conducted in one ward of a sub-district that was piloting the PHC outreach teams and had more activity than in any of the other wards in the district. It also assessed one of the outreach teams. Despite the limitation, it is possible to identify the experiences of implementing on a context basis and recognise this as a lesson for implementation in general.

10 Conclusion

The findings of this assessment highlight the importance of mobilising and involving local stakeholders to generate support and resources. They also can develop networks that can continue to support implementation. Communities are known to prefer higher level health facilities than local ones such as PHC clinics; however, the findings indicate that if services are tailored to the needs of the community, it is possible to achieve high utilisation rates at local clinics. However, as evident in the findings, local health facilities, such as health posts require resources.

Policy changes need to be communicated efficiently, both to health professional and the community to avoid resistance and confusion. Implementation of PHC re-engineering will require change from all stakeholders. Health professionals will experience changes that require a change in the way 'things have been done'. District actors will require innovative ways to encourage health professionals that are faced with a series of policy changes and communities gradually need to learn that the local health facility and/or the CHW is the primary point of contact when in need of health care. This was evidently able to be acknowledged and practiced in the pilot phase. The challenge will be in scaling up the approach in the rest of the district. The fact that further implementation will require resources, funding, more hands (health professionals to make up the outreach teams is an important aspect to consider.

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References

- 1. IDP, Intergrated Development Plan 2013-2014. Sedibeng District Municipality 2013.
- 2. IDP, Sedibeng Intergrated Development Plan 2011/2012. 2012.
- 3. Massyn, M.D., C; Dombo, M; Barron, P; English, R; Padrath, A, *District Health Barometer* 2012/2013. 2013.
- 4. Ndou, T., et al., A rapid assessment of a community health worker pilot programme to improve the management of hypertension and diabetes in Emfuleni sub-district of Gauteng Province, South Africa. Global Health Action, 2013. **6**(19228): p. 213-218.