District Wide approach on Ward Based Outreach Teams in Mopani: An Evaluation of the implementation process

By

Lindiwe Fortunate Madikizela

A research report submitted to the Faculty of Health Sciences

University of the Witwatersrand, Johannesburg,

In partial fulfilment of the requirements for degree of Master of Public Health

Date: 21 October 2016

Johannesburg

Supervisor: Professor Shan Naidoo
DECLARATION

I Lindiwe Fortunate Madikizela declare that this research report is my own, unaided work, apart from where recognised. It is being submitted for the degree of Masters in Public Health as the University of Witwatersrand, School of Public Health in Johannesburg. It has not been formally submitted before for any degree or examination at any other university.

Student: Lindiwe F. Madikizela

Signature of candidate: ___Lindiwe Madikizela___________

___21___day of___October______2016 in Johannesburg
DEDICATION

This research is dedicated to my mother, Thoko Olpha Hlongwa, my friend, my pillar of strength, for instilling good principles and disciple throughout my journey in life.

My Father Hamilton Hlongwa, for his guidance, support and a drive to achieve the best possible in life.

My children, Ndumiso, Zenande and Asisipho for their understanding, love, kisses and hugs that encouraged me throughout my study process.
ABSTRACT

District Wide approach on Ward Based Outreach Teams in Mopani: An Evaluation of the implementation process

Integral to achieving country targets in health has been the introduction of the four streams of PHC Re-engineering which include municipal Ward Based Outreach Teams (WBOTs), Integrated School Health Teams, District Clinical Specialist Teams (DCSTs) and Contracted Private Providers. The PHC Re-engineering strategy was launched in South Africa in 2011. The Mopani District started implementation of WBOTs in June 2013.

A retrospective qualitative case study was conducted to investigate the processes and factors that facilitated WBOTs implementation in Mopani District. Also to evaluate the alignment of the Mopani process to the Department of Health Guidelines for Provinces. Using structured in-depth interviews, data was collected from WBOTs programme implementers at the District, Sub-district and NGO level. Programme documents were also used to gather information on the implementation and coverage from June 2013 to June 2015.

The implementation of WBOTs was simultaneously facilitated in all five sub-districts with the guidance of DCSTs. There was consensus on the WBOTs implementation process across all participants. The district achieved 73% ward coverage in two years with 119 active functional WBOTs. Some deviation were reported in some sub-district on the recruitment and selection of WBOTs. DCSTs were the main drivers of the implementation. However, there was concern on the passive role of the sub-districts on WBOTs implementation. Due to a lack of budget allocation, resources were a major challenge resulting in frustration on the WBOTs support staff. Co-ordination and governance of CHWs pose a challenge to the programme due to dual reporting and unclear management of WBOTs. A slight deviations from the DoH guideline on WBOTs implementation was observed but these were necessary to accommodate contextual factors.

The research make practical recommendations to strengthen the implementation of WBOTs at all levels.
ACKNOWLEDGEMENT

I wish to extend my sincere gratitude to the study participants in Mopani District for their assistance and support during the data collection and analysis process. Thank you for your patience and for sharing your insight on WBOTs programme implementation.

To my former Programme Executive, Dr Cephas Chikanda for his continuous motivation, and support from the initial discuss on my research project. I am very grateful that our paths crossed at the time when I needed a leader of your calibre in my career path.

To my employer Anova Health Institute, thank you for allowing me time-off work to work on my research report.

My supervisor, Professor Shan Naidoo, you have been an inspiration to me. Thank you for your encouragement, insight and support throughout the process. It was not an easy journey at all but, with your encouragement, prompt response and constructive guidance, today I am writing this section of my research report.

My most sincere and heartfelt gratitude to Busi Ngoyi for her words of encouragements, patience and support. You are the best and please continue to encourage other students.

To my children, the boring weekends spent at home, no outings and less time with you has finally paid-off. Your understanding and love gave me strength and purpose in my research write-up journey.
TABLE OF CONTENTS

DECLARATION............................................................................................................................. I
DEDICATION............................................................................................................................... II
ABSTRACT................................................................................................................................. III
ACKNOWLEDGEMENT............................................................................................................... IV
CHAPTER 1.................................................................................................................................... 1
BACKGROUND AND RATIONALE OF THE STUDY................................................................. 1
  1.1 Introduction ...................................................................................................................... 1
  1.2 Background to the Study Site ....................................................................................... 2
  1.3 Background Literature Analysis ................................................................................... 4
  1.4 Problem Statement ....................................................................................................... 7
  1.5 Study Justification ....................................................................................................... 7
  1.6 Study Aims and Objectives ......................................................................................... 8
    1.6.1 Study Aim ............................................................................................................... 8
    1.6.2 Study Objectives ................................................................................................... 8
  1.7 CONCLUSION ............................................................................................................... 9
CHAPTER 2.................................................................................................................................... 10
LITERATURE REVIEW............................................................................................................... 10
  2.1 INTRODUCTION............................................................................................................. 10
  2.2 IMPORTANCE OF LITERATURE REVIEW IN RESEARCH ........................................... 10
  2.3 REVIEW OF LITERATURE............................................................................................ 11
    2.3.1 International and Regional Perspective on Health Workforce Shortage ............... 11
    2.3.2 South African perspective on health workforce ....................................................... 12
    2.3.3 Task shifting as a method to curb staff shortage .................................................... 13
    2.3.4 CHW interventions ............................................................................................... 14
    2.3.5 Renewed interest on CHWs in South Africa ......................................................... 17
  2.4 Conclusion ..................................................................................................................... 21
CHAPTER 3.................................................................................................................................... 22
RESEARCH METHODS............................................................................................................. 22
  3.1 INTRODUCTION............................................................................................................. 22
  3.2 DEFINITION OF RESEARCH METHODOLOGY......................................................... 22
  3.3 RESEARCH METHODS............................................................................................... 23
    3.3.1 Research strategy .................................................................................................. 23
    3.3.2 Research design ................................................................................................... 24
    3.3.3 Sampling .............................................................................................................. 25
5.3 Recommendations

5.3.1 Budget allocation

5.3.2 Decentralisation and of WBOTs Programme to Sub-district

5.3.3 Coordination and Governance

5.4 Other Recommendations

5.5 Further Research

5.6 Conclusion

REFERENCES

APPENDICES

Appendices 1: Wits HREC clearance certificate
Appendices 2: Limpopo DoH research approval letter
Appendices 3: Information sheet and Consent Form
Appendices 4: Research study tools
Appendices 5: Plagiarism declaration

LIST OF FIGURES

Figure 1.1 Mopani District and its five sub-districts
Figure 1.2 Distribution of Health facilities in the Mopani District
Figure 3.1 Sample Frame
Figure 4.1 The Mopani District implementation process
Figure 4.2 mHealth coverage, Pilot and roll-out
Figure 4.3 WBOTs roll-out in Mopani District from June 2013 to June 2015
Figure 4.4 WBOTs sub-district coverage as at June 2015

LIST OF TABLES

Table 4.1: Participants description
Table 4.2: Themes and sub-themes
Table 4.3: Reported selection criteria for CHWs
Table 4.4: Characteristics of the CHWs
Table 4.5: Reported selection criteria for Team Leaders
Table 4.6: Comparing Mopani implementation process to DoH guidelines on WBOTs implementation
CHAPTER 1
BACKGROUND AND RATIONALE OF THE STUDY

1.1 Introduction

The Alma Ata Declaration of 1978 called on governments, health and development workers to promote and protect the health of all people of the world by providing universal primary health care (PHC) as a matter of urgency (Walt, 1990). There is global evidence that providing comprehensive health services to communities at primary care level, disease prevention and health promotion is effective where it has been fully implemented as defined in the Alma Ata Declaration. However, in South Africa the implementation of the PHC approach has been insufficient in all 52 health Districts. Despite health reforms, poor population health outcomes continue to be observed and South Africa was unlikely to meet the health-related Millennium Development Goals (Naledi, et al., 2011).

In recent years, the Department of Health (DoH) has undertaken major reforms to improve the quality of health care services in preparation for the introduction of the National Health Insurance (NHI). There has been great focus on health systems strengthening to improve the quality of health services and thereby improve population health outcomes. The South African health system has long been very hospital-centric with communities relying mainly on curative hospital care. In efforts to redress this, the PHC Re-engineering strategy was introduced by the Minister of Health in 2011. The strategy is implemented through four streams which include Municipal Ward Based Outreach Teams (WBOTs), District Clinical Specialist Teams (DCSTs), Integrated School Health Teams as well as the Contracting of General Practitioners (GPs) (South Africa, 2015). This study aims to understand the District approach in implementing the WBOTs stream in the Mopani District of the Limpopo Province. The research assesses the factors at play that has contributed to the implementation of WBOTs and further assess the alignment of the implementation process against the National Department of Health (DoH) provincial guide on the implementation of WBOTs.
1.2 Background to the Study Site

The Limpopo Province is one of the three most rural provinces in the country characterised by poor health outcomes. According to Statistics South Africa, Limpopo Province has a population of approximately 5.4 million people. It has five Districts. The Mopani District has a population size of 1,092,507 with five sub-districts: Ba-Phalaborwa with a population size of 150,637, Greater Giyani 244,217, Greater Tzaneen 390,095, Greater Letaba 212,701, and Maruleng 94,857. The three main sources of income are farming, mining and tourism (Stats SA, 2011).

![Figure 1.1 Mopani District and its five sub-districts](image)

According to the 2013/14 District Health Barometer Mopani is 95% rural with only 16.8% of households with piped water inside, 88.7% use electricity for lighting, and 16.9% of households have a weekly refuse removal service. The unemployment rate was estimated to be 39.4% in 2013 (Massyn & Day, 2014).

Mopani has 104 fixed health facilities, 8 hospitals and 28 mobile health facilities. Of the fixed facilities, 96 are Primary Health Care (PHC) facilities and the remaining 8 are Community Health Centres (CHCs). The facilities are unevenly distributed across the District. An indicator on “outpatient department new clients not referred rate” for Mopani reflects a high percentage (79.2%) on outpatient department utilisation by self-referrals and this is much higher than the national average (60.7%) (Massyn & Day,
2014). This is an indication of how the health system has been hospice-centric with communities relying mainly on hospital care.

![Figure 1.2 Distribution of Health Facilities in Mopani District](image)

Mopani reported the third highest number of pneumonia deaths in children under 5 years in the Limpopo Province. The District has over the years reported the highest incidence of diarrhoea with dehydration in children under 5 years in Limpopo province; 21.3 per 1000 children in 2013/14. The incidence of TB (diagnosed cases of all types) in 2013 was 361 per 100 000 population (Massyn & Day, 2014) while the HIV prevalence rate among antenatal women in Mopani was reported at 25.0% in 2012 (Department of Health SA, 2012).

Given that Mopani is mainly rural, access to health services is a challenge. Re-engineering PHC by introducing WBOTs is intended to facilitate access to basic health care services, promote education and prevention of diseases such as diarrhoea in the community. This will present a shift on access to services, a proactive approach by taking services to the people in the community through the use of community health
care workers (CHWs). This research will investigate the implementation of the community health worker programme known as WBOTs in the Mopani District and document the factors that contributed to the roll-out of WBOTs.

1.3 Background Literature Analysis

Many low and middle-income countries in Sub-Saharan Africa face a triple burden of disease due to HIV/AIDS, TB and maternal and child health complications. This situation is complicated by the shortage of qualified health workers with the necessary skills to provide basic health care services which can ensure that the majority of the health needs of these population are met (Bangdiwala, et al., 2010). In the 1970s, there was implementation of community healthcare workers (CHWs) programmes in low- and middle income countries driven by the primary health care approach adopted at Alma-Ata (Walt, 1990). As many countries are now gearing themselves to achieving the sustainable development goals and ultimately working towards universal health coverage, there is a renewed interest on the role of CHWs in strengthening the health system and community outcomes.

The shortage of human resources for health has played a significant role in refocusing efforts to the revival of the CHW programme. Task shifting was found to be an important strategy which can help to address human resource shortages and help to reduce the workload of the existing healthcare workforce shortage (Hoke, et al., 2012). The resulting outcome where policies have been implemented has been the improvement of service delivery in the health sector (Fulton et al, 2011). This finding was supported by other studies on task shifting including a study on maternal and child care, HIV/AIDS treatment and care support by community health workers in African countries (Callaghan, et al., 2010). In a study conducted in Kenya where CHWs were used to diagnose and treat children, they found that 80% of the treatment guidelines for children were performed successfully by CHWs (Rowe, et al., 2007)

There is a significant body of literature that addresses the effectiveness of community health workers in delivering services at the community level. Research from a Cochrane systematic review has showed that community health workers could
effectively deliver services such as promoting immunization uptake and breastfeeding, improving TB treatment outcomes, and reducing child morbidity and mortality in the communities they served when compared to usual care (Lewin, et al., 2010). However, although CHWs can implement effective interventions, the quality of services they provided are sometimes poor (Lehmann & Sanders, 2007).

A lot of focus is placed on monitoring CHWs programme performance and evaluating its impact and less on understanding the implementation process. Understanding implementation is a critical aspect as it highlights the internal and external strengths or weaknesses of the intervention and accurate interpretation of the outcome of the intervention is dependent on knowing the aspects of the intervention delivered and how well they were conducted (Durlak & DuPre, 2008). However, little attention or research has been directed towards understanding and documenting programme implementation processes. In a review on the influence of programme implementation on the outcomes of prevention and health promotion programs undertaken by Dane and Schneider, they found that of the 162 published articles only 39 articles documented implementation processes (Dane & Schneider, 1998). Furthermore, in the review by Durlak & DuPre (2008), only 5% of 1 200 prevention studies on mental health and physical health provided information on program implementation. On the other hand, the studies that looked at the effect of program implementation on outcomes found that implementation was the most important program feature that influenced program outcomes (Derzon, et al., 2005; Wilson, et al., 2003).

In many countries, community based health services linked to fixed PHC facilities have been recognised as key to achieving good health outcomes (Lehmann & Sanders, 2007). CHWs provide a community based extension of health services and offer an alternative method of care from facility-based services, thereby contributing to the goal of universal health coverage (Hermann, et al., 2009). They are involved in providing preventative and health promotion services to the community, monitoring community health needs and identifying at risk patients (Bangdiwala, et al., 2010). A systematic review on intervention factors influencing performance of CHWs found that the age; educational background; residence and marital status of the CHWs along with the nature of tasks, incentives, supervision, the community itself and health system factors have a direct correlation with CHW motivation and performance (Kok, et al., 2014).
The South African government introduced Primary Health Care (PHC) Re-engineering as part of its efforts to accelerate the improvement and provision of PHC services, with a focus on families and communities. The PHC Re-engineering programme aims to empower individuals within communities and communities at large to take charge of their health and well-being. It is designed to strengthen community-based health services and place greater emphasis on the provision of health promotion and preventive services at household level for improved population based health outcomes. (Pillay & Barron, 2011).

The PHC Re-engineering strategy is comprised of four streams. The Ward Based Outreach Teams (WBOTs), the District Clinical Specialist Teams, the Integrated School Health Teams and Contracted Private Providers. The WBOTs are the backbone of the community based health care service delivery model and play an important role in the promotion of health and prevention of illnesses at community level. The teams are responsible for a defined number of households in a municipal ward in which they reside. The teams are comprised of at least six community health workers (CHWs), an environmental health and health promotion practitioner led by a professional nurse. The WBOTs provide basic health information, education and make the necessary referrals to clinics where required. Each team is linked to a parent PHC facility (Pillay & Barron, 2011; South Africa, 2015).

The main function of the teams is to promote good health and prevent illness. Their services include HIV/TB treatment support, maternal and child health services, chronic and non-communicable disease support. CHWs assist with pregnancy care, postnatal care, adherence support, basic health care for children under five, home-based care and referrals to social services and health facilities (Pillay & Barron, 2011).

Although CHWs play an important role in linking communities to essential basic health services, their role as lay health care providers was not formally structured and defined within the health system in the past (Schneider, et al., 2008). It has been increasingly emphasised that strengthened systems are needed for the support and management of CHWs (Schneider, et al., 2008). The WBOTs approach to primary health care is an effort to address these complexities, but several challenges exist within the programme. Among them are poor governance (Schneider, et al., 2008), inadequate training, inadequate support and supervision, poor coverage and distribution, poor
linkages with facilities, inconsistent remuneration and lack of targets for coverage or quality (Languza, et al., 2011).

It is therefore important to conduct an evaluation of the implementation of WBOTs. Evidence exists which suggests that the evaluation of the CHWs programs is key in demonstrating impact and documenting the factors associated with program successes and failures (Haines, et al., 2007). Perry & Crigler (2013) argues that evaluation of CHW programmes serves as an essential element for both effective programme scale up and long term programme effectiveness at scale. Furthermore, in South Africa there is limited evidence to date recounting experiences at District level on the implementation of the WBOTs stream of PHC Re-engineering since the inception of the programme.

1.4 Problem Statement

Since the introduction of the PHC Re-engineering stream on WBOTs, the assumption has been that the provinces, Districts and sub-districts are implementing the programme as per the guidelines outlined in the DoH guidelines for Provinces on WBOTs implementation. With the absence of policy on PHC Re-engineering WBOTs stream, different approaches have been observed in a number of provinces, Districts even sub-districts. The Mopani District is one of the 52 health Districts that has started implementing WBOTs. All the 5 sub-districts in Mopani Districts have active WBOTs functioning in the communities. The implementation of WBOTs depends on a number of factors including the intervention design factors in each District and therefore, it is important that the process is documented and evaluated. It is however not known as to what processes were followed in the Mopani District in implementing the WBOTs stream of PHC Re-engineering programme. Therefore, the research investigated how the WBOTs stream of PHC Re-engineering was implemented in Mopani District.

1.5 Study Justification

A comprehensive Cochrane review and meta-analysis has shown that community health workers (CHWs) are effective in delivering services to the community such as promoting immunisation uptake and breastfeeding, improving TB treatment outcomes, and reducing child morbidity and mortality when compared to usual care (Lewin, et al.,
2010). But there is limited research in South Africa on evaluation of the CHWs programmes implementation and the factors that influence the implementation (Nxumalo, et al., 2013). Furthermore, there is a need for a systematic approach in implementing community health worker interventions in order to strengthen the quality of services provided by CHWs (Lehmann & Sanders, 2007).

This research will provide an insight into the implementation of the community health worker programme, the WBOTs approach at a District level. Furthermore, there is limited evidence to date recounting experiences on WOBTs implementation after the introduction of the PHC Re-engineering strategy in South Africa. The findings and recommendations from the study will assist in strengthening the roll out of WBOTs in Limpopo Province and other Districts in the country. It may also highlight implementation challenges for consideration for policy makers.

1.6 Study Aims and Objectives

1.6.1 Study Aim

The studies main aim is to investigate a District approach in the implementation of the WBOTs stream of PHC Re-engineering programme using its implementation in the Mopani District of the Limpopo Province as a case study. The research will examine both the positive and negative factors at play that facilitated WBOTs implementation. Furthermore, the research will evaluate the processes undertaken in Mopani against the DoH guidelines for Provinces on the implementation of the WBOTs.

1.6.2 Study Objectives

The objectives of the research study are to;

1. Investigate processes and mechanisms employed in implementing WBOTs in Mopani District since June 2013 to June 2015.
2. Investigate the factors (positive or negative) including actors that have contributed to WBOTs implementation during the same time period.
3. Evaluate how does the Mopani District implementation processes align with the DoH guidelines for Provinces on the implementation of WBOTs.
1.7 CONCLUSION

The chapter gave a brief overview on the background of the study. It highlighted the global evidence that suggest that the use of Community Health Workers (CHWs) in delivering health services to communities has been effective. This has been the case in low and middle-income countries where CHWs were found to be effective in delivering health services such as encouraging immunization, breast feeding, TB treatment support resulting in an improvement in community and population health outcomes.

To address the persisting poor health outcomes in South Africa, the government has placed great emphasis on provision of health promotion and preventive services at household level for improved population based health outcomes. The Primary Health Care Re-engineering strategy which includes Municipal Ward Based Outreach Teams (WBOTs) was introduced in South Africa in 2011 aimed at rejuvenating and strengthening primary health care by extending health services to the community. The Mopani District started implementing WBOTs in June 2013. The chapter also gave a brief summary on the Mopani District highlighting some poor performing health indicators and high utilisation of outpatient department in Mopani hospitals demonstrating a hospice-centric approach to primary care.

This research examine the process of WBOTs implementation in the Mopani District by assessing the implementation process, understanding the factors contributing to the implementation and assess the alignment of the process in Mopani to that of the DoH implementation guidelines for WBOTs.
CHAPTER 2
LITERATURE REVIEW

2.1 INTRODUCTION

This chapter will present some of the literature that was selected relative to the research question. The literature review will give a background to the research study, starting with an overview of current literature and its significance in relation to the research questions. Subsequent topics which will be explored in this review include the health workforce, task shifting in healthcare, community health work particularly in South Africa, programme implementation research and the re-engineering of primary health care with a focus on ward based outreach teams (WBOTs).

2.2 IMPORTANCE OF LITERATURE REVIEW IN RESEARCH

A literature review is a systematic analysis of existing research and non-research literature that exists on the topic under investigation. It is an objective analysis of a selected existing literature relevant to the research topic (Bryman, 2012). By undertaking a literature review the researcher acquires better insight on the area of research that is under investigation as well as experience of the work that has been done on the topic. The aim is to gain insight on what is already known about the research topic. This process strengthens the researchers understanding of the concepts and assists in identifying concepts that relate to the research topic (Bryman, 2012).

In this way, the literature review becomes a foundation of the research under investigation as it gives more insight on the published and unpublished work done on the topic. Such exposure to literature strengthens the researcher's justification of the topic under investigation by highlighting the need for the study and the gaps that exist in the literature. Furthermore, knowledge gained will help guide the formulation of the research question, methodologies and data collection tools and providing a theoretical framework to guide the research study. A good review, analysis and critique of existing
literature gives the researcher credibility and a more comprehensive grasp of the chosen research area (Bryman, 2012).

For the purpose of this research study, the literature review was conducted using online electronic databases on published and unpublished literature from e-journals and reports on the research topics.

2.3 REVIEW OF LITERATURE

2.3.1 International and Regional Perspective on Health Workforce Shortage

The world is battling with persistence shortage of health workforce. These are classified as "all people engaged in actions whose primary intent is to enhance health" (WHO, 2006). There is consensus globally that without the required skilled workforce, universal health coverage will be unattainable. According to the World Health Organization (WHO), the shortage is estimated to be at four million, half of whom are doctors, midwives and nurses. The greater need of health workforce has been reported in middle and low income countries, in sub-Saharan Africa, South-East Asia mainly in Bangladesh, India and Indonesia and South America. In total 57 countries of which 36 are in sub-Saharan Africa are in dire need of an adequate health workforce (WHO, 2006).

The shortage of staff has resulted in a decreased nurses or doctors to patient ratios putting a strain on the workforce and the health system. Furthermore, a benchmark of 230:100 000 population to workforce ratio was set by WHO (WHO, 2006). At a primary health care level, it is argued that countries with fewer than 2.3 doctors, midwives and nurse density threshold per 1000 population will be unlikely to achieve better population health outcomes (WHO, 2006). There is literature that suggests a direct relationship between workforce distribution and patient numbers for better population health outcomes. Workforce density is found to be associated with a reduction in disease burden, maternal mortality, child mortality and especially communicable diseases, (Anand & Barnighausen, 2007; Castillo-Laborde, 2011; Speybroeck, et al., 2006).
African countries face a triple burden of disease due to HIV/AIDS, TB and maternal and child health complications. About 45% of the world’s disease burden is in Africa with 71% of people living with HIV/AIDS live in sub-Saharan Africa (WHO, 2013). This situation is compounded by a shortage of qualified health workforce with the necessary skills to provide health care services (Bangdiwala, et al., 2010). According to WHO, Africa has only 3% of the world’s health workers with about 29% of government health expenditure allocated for workforce remuneration, a percentage that is far less than that recommended by WHO of 42% (WHO, 2006). Low remuneration, poor working conditions and high demand for services has led to a gradual increase in the number of highly skilled health workforce migrating out of Africa for better opportunities over the past years. This has exacerbated inequalities and poor access to health care services in Africa (Marchal & Kegels, 2003). For Africa to achieve better health outcomes, a 139% increase in the health workforce is needed (WHO, 2006).

2.3.2 South African perspective on health workforce

Just like other African countries, South Africa continues to experience a shortage in health workforce. However, there is evidence to suggest that the shortage in workforce is not only due to unavailability of health workers but to other historical factors related to the structure and management of the South African health system (Lloyd, et al., 2010). A national review of the health workforce undertaken in 2012 indicated that South Africa has a density of 230 health professionals per 100 000 population with a ratio of 24 medical practitioners per 100 000 population in 2008; much higher than the standards proposed by WHO (120/100 000) (George, et al., 2012).

However, poor distribution between public and private health sectors was reported with only 30% of the medical doctors and 60 % of nurses working in the public sector serving 85% of South Africa’s population. South Africa, like all other African countries has experienced a significant number of out-migration of highly qualified health workers. Also, the public sector reported a high number of vacant positions with 42.5% of positions vacant in 2010 (Lloyd, et al., 2010). Poor geographical distribution of health workers in the public sector also aggravated the situation. For example rural provinces like Limpopo had 80% of vacant medical practitioner’s positions and a density of 17.4 medical practitioners per 100 000 population in 2008 (George, et al.,
2.3.3 Task shifting as a method to curb staff shortage

In efforts to address the health workforce shortage and the demands placed on the health system, WHO recommended Task Shifting as a strategy to assist the low and middle-income countries as they struggle with workforce shortages (WHO, 2007). Task shifting is defined as “the rational redistribution of tasks among health workforce teams, from highly qualified health worker to those with shorter training and fewer qualifications” (WHO, 2007). The primary focus was to improve access to health services while increasing service delivery (Fulton, et al., 2011). Task shifting was found to be an important strategy for addressing human resource constraints and improving healthcare service delivery (Fulton, et al., 2011).

The task shifting strategy resonates with the 1978 Alma Ata principles on Primary Health Care, which facilitate integration of community health services in Primary Health Care (PHC) as a frontline for access to good quality health services for all (WHO, 2007). The first community health worker (CHW) interventions were recorded as early as 1960s in Latin America, Tanzania, China, Malawi and Mozambique. China called them barefoot doctors or nonclinical physicians while other countries called them lay health workers or volunteers (Earth Institute, 2014). In African countries like South Africa suffering from health workforce shortages and a high burden of infectious diseases (HIV and TB), as well as high rates of maternal and child deaths, CHWs are often used to reach out to the community by taking primary care to the community and promoting health and disease prevention. They visit households and conduct screening for chronic diseases, offer health education, home based care and health promotion to prevent the spread of diseases.
A systematic review of peer reviewed studies on task shifting to CHWs supported the wide conclusion that good health outcomes can be achieved by task shifting to lay or community health workers. These findings were supported by other studies on task shifting including a study on maternal and child care (Haver, et al., 2015; Lewin, et al., 2010), HIV/AIDS treatment and care support by community health workers in African countries (Emdin & Millson, 2012). However, the same studies also caution for “careful implementation” of the task shifting strategy to CHWs (Callaghan, et al., 2010). In a study conducted in Kenya where CHWs were used to diagnose and treat children they found that 80% of the children guideline treatment procedure were performed successfully by CHWs (Rowe, et al., 2007). In South Africa, task shifting from nurses to community health care workers grew largely in response to the growing need for HIV care and treatment support. In a study conducted in the Free State, although the concept of task shifting was not fully understood by nurses, CHWs were fully utilised at facility level for counselling and testing services and care for ART patients (de Wet, et al., 2011). Community health care workers became a vital extension in the provision of ART services at facility and community levels (Schneider, et al., 2008).

2.3.4 CHW interventions

In the middle- and low-income countries, community health workers are seen to be a possible alternative to mitigate the increasing shortage of health workforce. The systematic review of CHW interventions indicates that CHWs have played a significant role in responding to the service demands for essential health services at community level. In these countries, CHWs provide general primary health care services to the community and their services are unique as they are informed by the context in which they exist. As a result, CHWS have become the first point of contact with the health system (Lewin, et al., 2010).

The approach towards provision of comprehensive primary health care (PHC) adopted in the 1978 Alma Ata declaration facilitated the renewal of CHW interventions. The Alma Ata declaration called on governments, health and development workers to promote and protect the health of all people of the world by providing universal primary health care. It emphasised the use of community health care workers to provide services at a community level in order to promote access to primary health care and
improve population based outcomes (WHO, 1978). The principles of the Alma Ata declaration continue to be relevant as countries strive to achieve universal health coverage and improved health outcomes.

The term Community Health Worker is an umbrella term used to define a varied group of lay health workers. Internationally, CHWs have different titles ranging from lay health workers, community health volunteers, paid community health workers, birth attendants and treatment supporters amongst others (Earth Institute, 2014). This term is used for a member of the community who has received basic training to facilitate and support community-based health interventions. The scope of work varies; some CHWs have a narrowly defined scope while others have a broader scope of work and this is informed by the kind of training received by CHWs (Earth Institute, 2014). According to WHO definition;

‘Community health workers should be members of the communities where they work, should be selected by the communities, should be answerable to the communities for their activities, should be supported by the health system but not necessarily a part of its organization, and have shorter training than professional workers’ (WHO, 1989).

For the purpose of this project, CHWS are defined as follows:

“Community health care worker is a member of the community with basic training on home based care, HIV/AIDS, working in the community in which they reside, promotive, preventative, curative and rehabilitation services” (DoH, 2011).

Furthermore, the concept of Ward Based Outreach Teams (WBOTs) will be used to refer to CHWs as this is an approach adopted by the National Department of Health for providing PHC services at community level.

“The WBOTS are composed of 4 to 6 community health workers working in a municipal ward in which they reside, led by a team leader who is a professional nurse. Other members of the WBOTs include environmental and health promotion practitioners. The WBOTs is responsible for providing primary care
to 1622 families/households (7660 persons) with each community health worker allocated 270 households. The community outreach services include promotive, preventative, curative and rehabilitation services. The WBOTs team is linked to a primary health care facility in the allocated ward (National Department of Health, 2011).

Internationally post the Alma Ata conference, a growing interest in community health work as a component of primary health care was observed. A number of large and small scale CHW programme-specific interventions prompted by country specific health needs and disease burden emerged. High income countries adopted the CHW programme as a way of delivering services in minority communities, whereas low to middle-income countries adopted community health work as a strategy to reach hard to reach communities (Walt, 1990). Different successful interventions were reported in Brazil (agentes comunitários de saúde), Bangladesh (BRAC CHWs), Pakistan (Lady Health Workers) and Thailand (Village health workers). In Africa, some success in CHW interventions has been noted in Tanzania, Mozambique, Malawi, Botswana and South Africa (Earth Institute, 2014).

Given the drive towards universal health coverage and attainment of the Sustainable Development Goals, a number of countries have adopted national scale CHW interventions with formalised country-specific approaches and methods of service delivery as opposed to the initial generalised services and small scale CHW programmes approach. Since 2010, several countries including Kenya, Tanzania, Zambia, Nigeria, Malawi and South Africa have introduced national strategies on CHW as an approach to formalise and standardise the role of CHWs. The existing literature globally has demonstrated evidence on the effectiveness and contribution of CHWs towards better population health outcomes. A review on HIV specific interventions where CHWs were used to render services found improved health outcomes. Similar outcomes were observed in TB, malaria, and vaccine studies globally (Callaghan, et al., 2010; Anand & Barnighausen, 2007; Lewin, et al., 2010).

On the other hand, there is a body of evidence that suggests that a slowdown or failure of some countries’ CHW programmes in the late 1980s resulted from a lack of funding and commitment by government to scale up community interventions (Tollman & Pick,
Some CHW intervention were implemented as vertical programmes, whereby CHWs offered selective programmes and this lead to an increase in the number of CHWs. Other factors highlighted in these studies indicate that the CHWs suffered from poor programme implementation as a result of inadequate conceptualisation and planning (Gilson, et al., 1989). In a review conducted by Dane and Schneider, they found that of the 162 published articles on CHW interventions, only 39 articles documented implementation processes (Dane & Schneider, 1998). Furthermore, in the review by Durlak & DuPre on mental health and physical health prevention studies with CHWs, only 5% of 1200 studies provided information on program implementation (Durlak & DuPre, 2008).

Studies investigating the effect of program implementation on outcomes found that implementation was the most important program feature that influenced program outcomes (Derzon, et al., 2005; Wilson, et al., 2003). Also a systematic review on intervention factors influencing performance of CHWs found that individual factors like age; educational background; residence and marital status of the CHWs along with the nature of tasks, incentives, supervision, the community itself and health system factors have a direct correlation with CHW motivation and performance (Kok, et al., 2014).

2.3.5 Renewed interest on CHWs in South Africa

The first successful CHW intervention reported in South Africa (SA) was reported in Pholela, a village in Kwa-Zulu Natal. The Community Oriented Primary Health Care (COPC) approach to community work introduced was found to be effective but could not be implemented at scale due to a lack of funding and change in government post 1948 (Kautzky & Tollman, 2008). An increasing number of small community health work project was observed in 1980’s. However, post 1994, CHW interventions were further slowed down in SA as the country was preoccupied with developing a focused and responsive District Health System (DHS) and CHWs were perceived to be a “second provider of care”, further crippling the gains made from CHW interventions (Schneider, et al., 2008). It was only in late 1990 that South Africa observed a renewed interest in CHWs as part of the response to better health outcomes.
In 2002, the CHWs were reintroduced in support for the HIV/AIDS programme including TB. The country observed an emerging cadre of community health workers in other government departments with different titles namely, community development workers, mid-level workers, community care givers, youth care workers and community health promotion officers (Schneider, et al., 2008). In 2004, the estimated number of CHWs was at 62 445 of which 40 000 were found in the health sector (Freedman 2006, Schneider 2008). Even in the health sector, CHWs were quite diverse with different title such as home-based-care supporters, Door-to-Door supporters, adherence counsellors, all providing services on HIV/AIDS care and support and all operating under the HIV/AIDS programme (Friedman 2006). In the effort to formalise the existence of the CHWS interventions, the DoH launched a National SA CHW policy 2004. This was an attempt to provide a platform for standardisation of CHWs interventions. However, there was vagueness around issues of CHW remuneration, recruitment and their scope of work resulting to different approaches and strategies on CHW interventions.

In 2011, the South African government introduced Primary Health Care (PHC) Re-engineering as a strategy to restructure the health system and strengthen its effectiveness with an ultimate goal of better population health outcomes. The strategy was born from lessons learned from other countries, particularly Brazil which was one of the countries that was able to improve its health outcomes through the use of CHWs through a programme known as the Family Health Programme (FHP). The FHP team was comprised of a multidisciplinary team of a doctor, nurse, nurse auxiliary and four to six CHWs. The team focus was the provision of family care at household level. The FHP programme has yielded remarkable improvements in health outcomes in Brazil (Earth Institute, 2014).

The South African PHC Re-engineering strategy is comprised of four streams; Ward Based Outreach Teams (WBOTs), District Clinical Specialist Teams, Integrated School Health Teams and Contracted Private Providers. The WBOTs are the backbone of the community based health care service delivery model and they play an important role in the promotion of health and prevention of illnesses at community level. The community health care workers form part of the Ward Based Outreach Teams. The PHC Re-engineering outreach strategy was adopted as a vehicle to
empower individuals within communities and communities at large to take charge of their health and well-being. It is designed to strengthen community-based health services and place greater emphasis on the provision of health promotion and preventive services at household level. (Pillay & Barron, 2011; South Africa, 2015).

Each team is responsible for a defined number of households in a municipal ward in which they reside. The WBOTs provide basic health information, education and make the necessary referrals to clinics where required. Each team is linked to a parent PHC facility (Pillay & Barron, 2011).

The main function of the WBOT stream is to promote good health and prevent illness. Their services include HIV/TB treatment support, maternal and child health services and chronic non-communicable disease support. CHWs assist with pregnancy care, postnatal care, adherence support, basic health care for children under five, home-based care and referrals to social services and health facilities (Pillay & Barron, 2011).

In the previous CHW interventions, the role of CHWs as lay health care providers was not formally structured and defined within the health system in the past (Schneider, et al., 2008). In the absence of a National WBOTs policy, the DoH Provincial Guide for the Implementation of WBOTs was a step towards a standardised approach to implementation of WBOTs interventions with a clearly defined scope of work, roles and competencies. The provincial guide further highlights an integrated approach to CHW services as opposed to the original approach that was fragmented and needs based. The main components of the guide include;

- Role clarification at every level (District, sub-district and facility) on WBOTs implementation
- Composition of WBOTs and the role of each team member (professional nurse, CHWS, health promoter, environmental health practitioner)
- Selection of CHWs including core skills, personal attributes and experiential competencies
- Training for CHWs—a standardised approach including training material

It has been increasingly emphasised that strengthened systems are needed for the support and management of CHW programmes (Schneider, et al., 2008). Several challenges that exist within WBOT programmes as factors affecting programme
implementation are related to real life contextual factors and these may vary from one District to another. Among them are poor governance (Schneider, et al., 2008), inadequate training, inadequate support and supervision, poor coverage and distribution, poor linkages with facilities, inconsistent remuneration and lack of targets for coverage or quality (Languza, et al., 2011).

Without proper implementation, CHW programmes may experience numerous barriers and result in failure. In a study undertaken in Kwa-Zulu Natal, it was reported that CHWs were discouraged as they did not feel supported by the health facilities and the communities they were serving. Furthermore, constant disruptions of supplies and excessive workload which did not match the stipend impacted negatively on their performance (Suri, et al., 2007). Another study conducted in the North West Province, documented the process that was followed for WBOTs implementation in North West Province. This study also highlights the importance of having systems in place to support implementation of WBOTs prior to programme implementation (Schneider, et al., 2013).

Despite the existing knowledge on the effects of the CHW interventions, there is limited information on the implementation of these interventions, the approached and factors that drives the implementation. By investigating the implementation process adopted in Mopani, these factors will be better understood and will provide the basis for decision making and recommendations for strengthening the implementation process in other provinces. Furthermore, given that a large scale WBOTs programme may not yield similar outcomes at national, provincial, District and sub-district level due to varying contextual factors, understanding the implementation processes remains critical.
2.4 Conclusion

This chapter began by reviewing the literature relevant to the research question. It then highlighted the existent literature on the emergence of the community health work and their importance in a public health system, highlighting the factors that have contributed to the rise of CHW programmes globally. The contribution of CHWs towards better health outcomes is also noted which has led to a renewed interest in large scale national CHW programmes in a number of countries including South Africa. This chapter also gives an overview of the SA Ward Based PHC outreach teams, the composition of teams, roles and scope of work and argues for the importance of understanding the implementation process in determining programme success or failure.
CHAPTER 3

RESEARCH METHODS

3.1 INTRODUCTION

This chapter presents an overview of research methodology and research design employed in the research study. The discussion begins with the description of research methodology and further highlight the methodology selected to address the research study question. It further gives a description of research design and study sample. This chapter also reflects on data collection, analysis, reliability and validity measures undertaken to ensure validity of the study. It further describe ethical considering observed when conducting the research study.

3.2 DEFINITION OF RESEARCH METHODOLOGY

Methodology in research is a systematic way of responding to a research question. It outlines various steps that a researcher undertakes to obtain, organise and analyse data in a logical way in order to respond to a research question. It is critical for a researcher to understand the research methodology in order to determine the methods or techniques that are relevant for the study (Bryman, 2012).

It is also critical for the researcher to have a clear understanding of the assumptions that underpins various approaches as this will guide the researcher in selecting appropriate research questions, design and procedures applicable for the research study (Miles, 1984). The quantitative strategy adopts a positivism approach using the scientific method to do research and view social reality from a position of objectivism whereas the qualitative approach adopts an interpretative approach which emphasizes the way in which individuals interpret their social world. The qualitative approach further acknowledges that social phenomena constantly evolve and thus its view of social reality is constructivism orientated (Bryman, 2012).
Although there are differences in orientation and approach, the two approaches are also complementary. Qualitative methods can be used to understand findings generated from a quantitative study, and vice versa. When both methodologies are employed in the same investigation, the study outcome tend to yield more comprehensive and informative results than it would have if only one methodology guided the research effort (Bryman, 2012). However, for the purpose of this research, the qualitative method was used.

3.3 RESEARCH METHODS

3.3.1 Research strategy

The study employed a qualitative research method. This was the best method to respond to the researcher study objectives. The focus of the study was to evaluate the implementation process on WBOTs in the Mopani District. Given the nature of qualitative research, a qualitative strategy was better suited to respond to the research questions as it facilitated a detailed exploration and understanding of the social phenomenon of interest (Miles, 1984). The qualitative strategy provided a detailed description of process and the factors at play in WBOTs implementation. It further provides a detailed account of the events in the Mopani District. The detail in qualitative research was important as it provided a comprehensive interpretation of the context within which WBOTs implementation took place. (Bryman, 2012).

The qualitative research method further facilitated in-depth understanding of the actors at play as it committed to observing the social world through the eyes of the respondent. It places a great emphasis on the view that the social needs to be interpreted as the respondent sees it. This was observed in this study as all the interviews were open-ended and the majority were done face-to-face. In this way, it brings out the voices of the participants in the analysis of findings and thus enriching the meaning of the reported perceptions on the implementation process. Contrary, quantitative methods are concerned more about why things are by looking at the causal relationship between two or more variables. Looking at causes and effects. In this approach, in-depth understanding of the processes observed in the social world will be lost (Bryman, 2012; Miles, 1984).
The concept of programme implementation at a District level is not a straight-forward process, it is complex and dynamic given the diversity within each sub-district. It would therefore could not have been fully understood through quantitative methodology as it is focused on numbers, generalisation and replication of findings beyond the context that the study was undertaken. The results of the study will not be used to generalise to similar contexts but to understand the complexities in WBOTs implementation in Mopani. In the study, the process on WBOTs implementation was investigated through in-depth interviews with study participants and by examining programme documents as opposed to direct observations in real time.

Furthermore, the flexible nature of qualitative research facilitates in-depth understanding of the experiences and perceptions of the participants as the interview process permitted the researcher to explore in detail questions raised in the interview guide. It further provided an opportunity to probe for more information and for clarity. This would have not been possible had a closed ended questionnaire been used. Again, some questions that emerged during the discussion process were answered, allowing for a better understanding and meaning on WBOTs implementation and the processed undertaken in Mopani (Bryman, 2012).

3.3.2 Research design

The study employed a qualitative case study research design. A case study is an in-depth investigation of an activity, event, an individual or a process as it evolves in a social context. A case study is structured but also allows for flexibility as needed when describing the organisation and their actions in real life (Bryman, 2012). According to Yin 2009, the word ‘case’ means ‘an instance of’ which is the central feature of case study research design. Therefore, a case study is the investigation of the one or more specific ‘instances of’ something that comprise the cases in the study (Yin, 2004). Other researchers define a case as something rather tangible such as a group of people or an organisation or something abstract like a prevention programme or event (Gomm, 2000).
In case studies, the case(s) are studied in their social context and/or real life context and this allows the investigator to assess or observe how the case(s) is influenced by its context, the factor and the actors at play that influence the phenomenon under investigation. In this instance, the cases are not manipulated by the investigator but they occur naturally. Depending on the design of the case study, that is, a single or multiple case design, the case(s) serve as the unit of analysis (Yin, 2004).

Furthermore, case studies often employ multiple sources of data which makes this research design a valuable method when describing the implementation of a programme as the focus of the investigation is on responding to “how and why” questions and where generalisability is less important in the research study. The multiple sources of data may include direct observations, interviews and document review and allows for triangulation of findings (Yin, 2004). On the other hand, a case method can also be employed on research around process in particular the implementation process as the multiple data sources allows for a retrospective investigation of events (Bryman, 2012).

In this research study, the case study approach was deemed the appropriate qualitative design as it can allow for the two methodologies (descriptive case study and evaluative analysis) to be used in one study and thus giving a detailed description of the process and its context. A single case being the District with embedded subcases that is, the five sub-districts, the research design was used to allow for comparison across sub-districts in the analysis.

### 3.3.3 Sampling

Sampling is one of the crucial processes in qualitative research. It is important that a relevant study group is selected from a study population since it is not practical to interview everyone in the study population. The selection of a study group from a study population is called sampling. In qualitative research, the decision on the sampling process cannot be made in isolation, the researcher needs to take into account the research question as it will guide the selection of participants. Furthermore, the sample size for qualitative studies is usually small, therefore the researcher needs to select relevant study participants from a larger research population. For a qualitative study,
a good sample size is one that can respond to the research question. Qualitative research is not concerned about how much data is collected but whether the data that is collected is sufficient to respond to the research question (Marshall, 1996).

The study was conducted in the Mopani District. It is one of the 5 Districts of Limpopo province. In Limpopo Province, Mopani was the only District of the 5 Districts that has implemented WBOTS across its five Districts. A purposive sampling method was used to select the study participants. This is a non-probability way of selecting study participants whereby the researcher deliberately selects study participants from the study population (Bryman, 2012). All WBOTs coordinators at District and sub-district were considered. Only NGOs which were considered as big NGOs in the sub-districts were considered for the study. These were NGOs with a larger number of CHWs participating in the WBOTs programme. A total of 9 study participants were selected to take part in the study. The participants included programme coordinators (1), sub-district WBOTs coordinators/Master Trainers (4), and Non-Governmental Organisation managers (4).

![Figure 3.1 Sample Frame](image)

A purposive sample was used to ensure that the study participants were relevant to the research and were able to respond to the research question (Bryman, 2012). Given the sample size, it was crucial that participants were involved in the implementation of WBOTs in the District in order to support a convincing study conclusion.
3.3.4 Data Collection

The purpose of data collection in qualitative research is to gather information on the phenomenon being investigated. The information is informed by the study participants experience and this information is analysed to generate the description of the phenomenon under investigation. In this way, data collection is the crucial step in any research study as it is the base in which research findings and conclusion are based (Bryman, 2012). Qualitative studies are oriented towards describing and understanding human experience as it evolves in a social context. Through data collected from the study participants, the researcher illustrate the findings and how the findings and conclusion were drawn from the data gathered (Polkinghorne, 2005).

In qualitative research different approaches are used to gather data and these include structured or unstructured interviews, focus group discussions, client observations and document reviews methods. One-to-one or dyadic interviews is one of the mostly used method of data collection in qualitative research. This is based on the premise that qualitative research seeks to describe or clarify the phenomenon investigated through the eyes of the study participant therefore, the data collected in the study should be a self-report of each study participant’s experience (Polkinghorne, 2005).

Data collection occurred between December 2015 and February 2016. Due to December holidays, some study participants had to be followed up in late in January and February of 2016. In the study, different approaches on data collection were used. Firstly, data was collected using a semi-structured interview guide (see appendices 4). The purpose of the interview was to gather a full and detailed account of events in WBOTs implementation. The semi-structured interview guide ensured that the research question is answered as it guided the study participant’s response and at the same time allowed the respondent to give in-depth responses and explanation in their own way. Furthermore, the questions were generated based on literature on CHWs intervention programmes and the DoH guidelines for WBOTs implementation at Provincial level. Given that this is a retrospective interpretative case study, study participants were allowed to tell their stories on how the WBOTs implementation process evolved in their District, the questionnaire was mainly used to guide the discussion (Bryman, 2012).
An open-ended semi-structured questioning were used in the interviews and the majority of interviews were conducted face-to-face facilitated by the researcher. Some participants preferred to be interviewed in their own language and in this instance, a local interviewer was recruited and used to conduct the interviews. The semi-open structured approach to data collection allowed for rich and broader responses and understanding of the issues related to WBOTs implementation process. Open ended questioning also afforded the researcher freedom to ask questions in the sequence that allowed for the discussion to flow, meaning that the researcher did not have to stick to the interview guide sequencing (Bryman, 2012). The probes were also used during the interview to ensure that the question has been answered fully. Only four of the eleven interviews could be recorded as some of the responded did not feel comfortable for the discussion to be audio taped. The researcher took notes throughout the interviews and these were reviewed and finalised immediately after the interview while the discussion was still fresh in the researcher’s mind.

A review of WBOTs programme data was also conducted to understand coverage and service rendered by CHWs in order to give a description on WBOTs implementation and spread in the area. Information gathered was used to describe the implementation process, coverage and to assess alignment of Mopani implementation process to the DOH WBOTs implementation guidelines.

### 3.3.5 Data Analysis

Data analysis is one of the key processes in research. It is defined as a process of tabulating, testing, examining, categorising data collected through qualitative or quantitative methods to address the proposition or hypothesis in the study. In qualitative studies, data analysis involves the search for patterns in the data set which are interpreted according to the research theoretical framework or the social context. In case studies, the main focus on data analysis is to identify the patterns, the emerging themes that lead to constructing sound conclusions or theory (Yin, 2004).

In qualitative studies, data comes in various forms from interview transcripts, video, documents, focus groups, photograph and so on. Different approaches are used to
make meaning of what Miles (1979) in Brymas (2012), called “attractive nuisance” as the result of identifying patterns for analysis give the richness of qualitative data. The most common approaches include, coding, pattern matching, explanation building, time series analysis, using the logic model and cross-case analysis (Bryman, 2012).

In the study, recorded interviews were transcribed by the researcher immediately after the interview and before the next interview to facilitate easy transcribing. The same approach was followed for non-recorded interviews. All the transcripts were typed in MS Word. Coding was used as an analysis approach. Coding is a process of labelling, compiling and organising data (Bryman, 2012). Data was organised according to categories and common themes that emerged from the transcripts on the process of WBOTs implementation. Furthermore, in the analysis process, double coding also known as intra coder reliability (Miles, 1984) was used. In this process, the researcher sampled transcripts and conducted coding at two different intervals.

Project documents were reviewed. The finding from both the interviews and project documents are reported highlighting the characteristics of WBOTs, coverage at District and sub-district and to compare key attributes of the WBOTs programme to the DOH Provincial Guidelines on WBOT implementation highlighting similarities and deviations from the guidelines. Given the design of the case study, the analysis adopted an embedded case approach as presented in the study research design. The research findings are presented at District level and comparisons are made across the sub-districts where difference exist. The analysis of data was enriched by consulting the existing literature to assess if the study findings concurs or differ with the literature on CHW implementation interventions.

3.3.6 Validity and Reliability

In qualitative research, the researcher is the data collection tool thus the validity of research is subject to researchers perceptions and views about the phenomenon being investigated (Golafshani, 2003). External validity outlines the degree to which the research study can be repeated and the same results can be observed, which is not possible in qualitative research given its ontology, that knowledge is socially
constructed and it constantly evolves as it gets to be influence by the circumstances and the context (Bryman, 2012).

For the purpose of this research, internal validity was assessed using the concept of trustworthiness and credibility as a criterion. This was to ensure that the study is carried out according to a standard of good practice. To ensure that the findings of the study captures the respondent’s response and that the findings are as close to reality as presented. Respondent validation of the analysis was conducted with the participants where preliminary analysis of results were shared with the participants in a form of a discussion of findings. This was done with four participants, a draft report was shared with the participants. This was done to ensure member check and validation of findings in the analysis phase of the study. Furthermore, triangulation of data was used in the analysis whereby different perspectives from the different groups of participants were observed (Golafshani, 2003). The questions on WBOTs implementation were asked to all participants at District, Sub-district and NGO managers.

The process that was followed in the analysis of study findings must give the reader confidence on the findings, this was done to ensure reliability or dependability of the research outcomes (Bryman, 2012). Detailed analysis was carried out to inform dependable conclusion. Given the study design the researcher does not aim to create generalisation of findings but rather trustworthiness of conclusion drawn out of the data generated.

### 3.4 Study Limitations

Findings of this study cannot be used to generalise to other health Districts in the province, nor can they be used to explain similar processes in other Districts as the context under which WBOTs implementation evolve may be different. The study aim was to conduct in-depth interviews with twelve officials in Mopani District but only nine could be reached. It must be noted that the nine responded were able to respond to the research question as all of them were involved in WBOTs implementation since
the inception of the programme in Mopani. Data saturation on the research questions was therefore reached.

Furthermore, the research study was undertaken for academic purpose in partial fulfilment of the requirements for degree of Master of Public Health therefore, some findings could not be probed further due to time limitation. The views of other players on WBOTs implementation in Mopani District could not be reported as other actors such as community health care workers, team leaders, facility managers and the beneficiaries of the service provided by CHWs were not considered for this research study.

### 3.5 Ethical consideration

In every research study undertaken, it is the responsibility of the researcher to ensure that the study participants are not harmed in the process of doing research. Ethics in research means doing what is right in a fair manner and ensuring that no one is hurt when conducting research. Ethical procedures are to be observed in both the process of data collection and when the researcher interact with the data (Banister, 2007).

A letter of request together with the research proposal and tools were submitted to the Limpopo Provincial Ethics committee for approval. Approval was granted in November 2015 (see appendices 2). The University of Witwatersrand Health Research Ethics Committee granted ethical approval for the study (see appendices 1). Each respondent signed a consent form.

In the study, participants were taken through a study information sheet by the researcher and consent form (see appendices 3). The information sheet, informing the prospective respondent of the study was read through and explained to the study participants. The respondent was also given a consent form informing the participants of their rights, that the study is voluntary. Issues of confidentiality, risk and benefits to the respondent were also addressed.

Four of the twelve interviews were tape recorded. The tape was used to gather information as the researcher facilitated the interview. This was done to strengthen
rapport during the interview and to facilitate writing of interview notes after the interview. However, the majority of the participants were not comfortable being recorded. All the participants were informed about the use of the tape through a consent form and their rights to choose to or not to be recorded.

3.6 Conclusion

This chapter described the methodology and the methods that were undertaken in the research study. A qualitative methodology was used in the study as was perceived to be the best method to respond to the research question given that it allows for a detailed exploration and understanding of social phenomenon and present the social world through the eyes of the respondent. A retrospective interpretive single case with embedded cases study design was used to understand the WBOT process implementation in Mopani District.

The chapter further highlight the research methods. A purposive sample of twelve key informants was selected and nine responded to an in depth questionnaire. In the analysis an embedded case approach was used to highlight observed differences by sub-districts. A document review was also undertaken to gather more understanding on the WBOTs coverage and CHWs characteristics. Furthermore, a detailed description on validity and reliability was applied to inform dependable conclusion.

Ethical considerations were observed as the study was approved by the University of the Witwatersrand Ethics Committee and the Limpopo provincial Ethics Committee. All study participants completed a consent form.
CHAPTER 4

RESEARCH FINDINGS

4.1 INTRODUCTION

This chapter presents the research results and an analysis of research findings. It highlights the views of participants, their perceptions on the processes undertaken in the Mopani District on WBOTs implementation. This chapter further present findings on the WBOTs characteristics, coverage and highlight the similarities and the deviations of the implementation of WBOT in Mopani to that prescribed in the National DoH guidelines for Provinces on WBOTs implementation. The data was collected from 9 study participants in five sub-districts. The results were collated by categories and differences observed at the sub-district level are highlighted. The findings are presented in different forms including, tables, charts and a narrative format including direct quotations of participants’ responses.

4.2 DESCRIPTION OF STUDY PARTICIPANTS

The study participants were selected from all the five sub-districts. A total of 9 participants responded to an in-depth questionnaire. In each sub-district, a sub-district WBOTs Coordinator known as Master Trainer and an NGO/NPO manager were interviewed. However, not all of the intended participants could be reached. In one of the sub-districts, the sub-district coordinator could not be reached and in another sub-district the NGO manager could not be reached. At the District level, one programme coordinator was interviewed telephonically as they were on leave when data was collected. All the participants were involved with the implementation of WBOTs in the Mopani District since its inception in 2013. All the 6 interviews were done face to face at the venue chosen by the study participants. The remainder of the interviews were conducted telephonically as the participants could not be reached at the time of data collection. There was no sequence followed for interviews, the appointments for interviews were guided by the availability of the study participants.
Table 4.1 Participants Description

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender Distribution</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>1</td>
</tr>
<tr>
<td>Female</td>
<td>8</td>
</tr>
<tr>
<td>District WBOTs Coordinator</td>
<td>1</td>
</tr>
<tr>
<td>Sub-district Coordinators</td>
<td>4</td>
</tr>
<tr>
<td>NGO Coordinators/Managers</td>
<td>4</td>
</tr>
</tbody>
</table>

4.2.1 District WBOTs Programme Coordinator

There were two managers involved in WBOTs implementation at the District level however, only one could be reached. Both the District WBOTs coordinators were involved in the implementation of WBOTs since its inception in the Mopani District. They are both part of the District Specialist Team (DCST) which is one of the streams of PHC Re-engineering strategy. They both hold different positions in the DCST team, one is a Primary Health Care Nurse and the other manager is a Family Physician and they are both based at the District office supporting the Mopani District. In the absence of leadership due to a vacuum that was created by the vacant position of the District PHC Director and Deputy Director, they stepped in and facilitated the programme. In the District, they were both instrumental in establishing the WBOTs in all of the five Sub-districts in Mopani. They were also involved in coordinating WBOTs activities at the District level which involved training, community awareness and buy-in of WBOTs activities at community level and oversight at the sub-district level.

4.2.2 Sub-district Coordinator/Master Trainers

Four sub-district coordinators were interviewed. They are known as Master Trainers and they will be referred to as sub-district coordinators through-out the report. In one of the sub-district, the sub-district coordinator had resigned from her role. The sub-district coordinators were professional nurses who were assigned a Master Trainer position at the sub-district level. They were PHC trained professional nurses with a background in training and community service. Prior to joining the programme, three were working as professional nurses at the PHC facility and one was based at the sub-
district as a local area managers. Their roles differed by sub-districts. In two of the four sub-districts, the sub-district coordinators that were based at the clinics were released from their clinics and placed at the sub-district or local area office to coordinate training and other CHWs activities. In one sub-district, the sub-district coordinator continued with clinical work at the PHC facility but would be released occasionally to attend to WBOTs activities. The sub-district coordinator who was at the sub-district level as a local area manager continued with her role and took over WBOTs coordination and training as an added activity.

4.2.3 NGO Managers

The CHWs in Mopani District are contracted by the NGOs for community work, they are NGO contract employees. The NGOs are contracted by the District to run community services in their communities. The participants were the managers of the NGOs that are involved in WBOTs activities in the sub-districts. In each sub-district, there were more than one NGO that supported WBOTs implementation. However, one NGO per sub-district was selected through referral by the sub-district coordinators. The NGO managers were responsible for allocation of CHWs into WBOTs, reporting on WBOTs activities, supervision, stipend payment, uniform and overall programme management and monitoring.

4.3 EXPLORATION OF RESEARCH FINDINGS

The data was analysed manually. The themes and sub-themes were generated through reviewing all the transcripts. Only the data that was relevant to the research question was used to generate the themes. It must be noted that the interviews generated enough information to respond to the research question. Data saturation was reached on the WBOTs implementation process in Mopani and there was coherence in the reports from the NGO and the DOH participants in Mopani. The themes generated were as follows;
### Table 4.2 Themes and Sub-themes

<table>
<thead>
<tr>
<th>Themes</th>
<th>Sub-Themes/Categories</th>
</tr>
</thead>
</table>
| WBOTs team establishment                         | 1. Selection of District WBOTs Coordinators and Sub-district Coordinators  
|                                                  | 2. Selection of NGO’s and Community Health Workers                                     |
|                                                  | 3. Selection of Team Leaders                                                            |
| Getting stared with WBOTs implementation         | 1. WBOTs implementation process                                                        |
|                                                  | 2. First phase of implementation/Pilot phase                                             |
|                                                  | 3. Community awareness and engagement                                                   |
|                                                  | 4. WBOTs activities                                                                      |
|                                                  | 5. WBOTs Municipal ward coverage                                                        |
|                                                  | 6. The role of different role players                                                    |
| Perceived factors that contributed to WBOTs implementation | 1. Positive factors to WBOTs implementation                                             |
|                                                   | 2. Negative factors to WBOTs implementation                                              |
| Perceptions on WBOTs implementation              | 1. Integration of WBOTs into health facility                                            |
|                                                   | 2. Integration of WBOTs into community                                                  |
| Alignment of Mopani implementation process to DoH guidelines for WBOTs implementation at provincial level | 1. Awareness of DoH WBOTs implementation guidelines                                     |
|                                                   | 2. Adopted characteristics of DoH implementation guidelines                             |

The findings highlighted the perceptions of the study participants in relation to the implementation of WBOTs in Mopani including factors that are reported to have led to programme implementation. The findings present difference perspectives based on the participant's involvement and the level of involvement in the implementation.
process. The discussion further highlights the role of different role players in WBOTs implementation, these include the role played by the District, Sub-district and NGO's in the implementation. It further highlight challenges in the implementation process and the alignment of the processes to the DoH guidelines for WBOTs implementation. The research findings are presented in themes and theme specific sub-themes that emerged in the analysis.

4.3.1 WBOTs Establishment

a. Selection of the District and Sub-district Coordinators

There was common understanding on the coordination of the WBOTs programme in Mopani. The programme was coordinated at the District level by two DCSTs who are referred to as District Coordinators in the report. The District coordinators volunteered to implement WBOTs in the Mopani District given the gap in the PHC District structure created by vacant positions of PHC Director and the Deputy Director. They participated in all the provincial briefing meetings in the Province and took upon themselves to rollout WBOTs in all five sub-districts in Mopani. They facilitated District buy-in with programme managers and planning on WBOTs implementation. The WBOTs District coordinator reported WBOT Programme buy-in by District programme managers and sub-district managers as their first task towards implementation. This was facilitated through District Management meetings at the District level.

Furthermore, the recruitment of sub-district master trainers referred to as sub-district co-coordinators in this report, was the first step towards programme roll-out at the sub-district level. This process evolved concurrently in all the five sub-districts in the District. The sub-districts were to recommend professional nurses that are PHC trained with the potential to train CHWs.

The recruitment process was at the discretion of the sub-district managers hence the variation noted at the sub-district level in the selection process. In some sub-districts, the sub-district coordinators were appointed in a process including sub-district managers whereas in other sub-district, the coordinators volunteered.
“The sub-district received a request from the District for one master trainer, in their meeting they decided to select me, the five local area managers and the sub-district manager and I was informed”. -- SD1

“I volunteered myself because of my passion for training”. – SD2

“I received a letter from the sub-district informing me that I have been nominated to be a Master Trainer and I should subsequently go for training”. — SD3

Furthermore, it was noted that there was no creation of positions for the sub-district coordinators. They were appointed and tasked to carry out additional activities in support for the WBOTs programme. The sub-district coordinators continued with their day to day clinical work as professional nurses at the clinic and on the other hand carried out the activities of a sub-district coordinator. However, different sub-districts adopted different approaches as two of the four sub-districts released their professional nurses to attend fully to WBOTs activities and they were placed at sub-district offices. In one of the sub-districts, the sub-district coordinator was based at the sub-district when appointed and she continued with her role as a local area manager whereas in the remaining sub-districts, the coordinators continued working as a professional nurses at the local clinic as well as supporting the WBOTs.

b. Selection of Non-Governmental Organisations (NGOs) and CHWs

The District adopted an NGO approach in the recruitment and management of CHWs as the NGOs were already in the communities rendering health services at household level. Again, the NGOs had a pool of trained community health workers working as home based carers or TB door to door supporters. However, not all NGOs were considered, only those that provided home based care activities and funded by the District through the conditional grant were considered for the implementation of WBOTs. The selection of NGOs was done at the District level and it was standard across all the five sub-districts. The sub-districts were not involved as stakeholder management of NGO was done at the District level.
“I was in partnership with the District, I was funded by DoH for community work on home based care and health promotion”.—NGO2

“My NGO was selected as a pilot because the CHWS had NQF level 3 and therefore this site was selected as a pilot site for PHC Re-engineering”.—NGO3

“We were selected because we were considered to be the best performing NGO and we have so much impact in the community”.—NGO4

Through the sub-district coordinators, the District facilitated the recruitment of CHWs at the sub-district level. A set criteria was used in all the sub-districts. Selection of CHWs involved a consultative process between ward councillors, traditional leaders (induna’s) and some members of the community. Further guidance was given on the number of CHWs required per ward to ensure that the wards were not over populated with CHWs or under staffed resulting in an unequal distribution of work load.

“They were given a criteria to select the CHWs and they were given time to go back to their wards and select the relevant CHWs. They were also given 2011 population census figures as a guide for the number of required CHWs per ward”.—SD1

“We were given specifications for CHWs. The CHWs were to be below 50 years. We also looked at educations and ward coverage”.—NGO2

Table 4.3 Reported selection criteria for CHWs

<table>
<thead>
<tr>
<th>Criteria for selection of Community Health Workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>• CHW already receiving stipend</td>
</tr>
<tr>
<td>• Female only</td>
</tr>
<tr>
<td>• Between ages 25 to 50 years</td>
</tr>
<tr>
<td>• They should reside in the ward where they will be working</td>
</tr>
<tr>
<td>• Completed grade 10-12</td>
</tr>
<tr>
<td>• Home based care training, level 1-4</td>
</tr>
</tbody>
</table>
Having a standardised guide was perceived to have been a good initiative by NGO managers as it facilitated a fair selection process. There were no issues of favouritism or manipulation on the selection of CHWs. Furthermore, a standardised approach in the selection process facilitated uniformity in the cadre of CHWs across the District and promoted transparency in the process. The table below highlight the WBOTs characteristics at District level. On the other hand, the CHWs who did not meet the selection criteria were retained to continue with the NGO community services, but not WBOTs related. Data from the programme documents revealed that 85.9% of the CHWs were affiliated to an NGO and were on a stipend. CHWs not affiliated to an NGO CHWs were recruited from the community as an effort to ensure full coverage of the wards. This resulted in 78 CHWs not receiving stipend including uniforms. This number of CHWs not receiving stipend does not include data from one sub-districts as the sub-district data was incomplete. The table below highlight some of the characteristics of the CHWs.

Table 4.4 Characteristics of the CHWs

<table>
<thead>
<tr>
<th>Categories</th>
<th>Number</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHW Population</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>1047</td>
<td></td>
</tr>
<tr>
<td>Ward Coverage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Wards</td>
<td>125</td>
<td></td>
</tr>
<tr>
<td>Active Wards</td>
<td>120</td>
<td></td>
</tr>
<tr>
<td>In-active Wards</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Age Distribution</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20-30 years</td>
<td>63</td>
<td>6</td>
</tr>
<tr>
<td>31-40 years</td>
<td>341</td>
<td>32.6</td>
</tr>
<tr>
<td>41-50 years</td>
<td>529</td>
<td>50.5</td>
</tr>
<tr>
<td>51-60 years</td>
<td>106</td>
<td>10.1</td>
</tr>
<tr>
<td>Blanks</td>
<td>8</td>
<td>0.8</td>
</tr>
<tr>
<td>Average Age</td>
<td>41 yrs</td>
<td></td>
</tr>
<tr>
<td>Oldest CHW</td>
<td>60 yrs</td>
<td></td>
</tr>
<tr>
<td>Youngest CHW</td>
<td>23 yrs</td>
<td></td>
</tr>
<tr>
<td>Highest Level of Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grade 6</td>
<td>4</td>
<td>0.4</td>
</tr>
<tr>
<td>Grade 7</td>
<td>5</td>
<td>0.5</td>
</tr>
<tr>
<td>Grade 8</td>
<td>11</td>
<td>1.1</td>
</tr>
<tr>
<td>Grade 9, Grade 10</td>
<td>78</td>
<td>7.4</td>
</tr>
<tr>
<td>Grade 11</td>
<td>316</td>
<td>30.2</td>
</tr>
<tr>
<td>Grade 12</td>
<td>437</td>
<td>41.7</td>
</tr>
</tbody>
</table>
The average age for the CHWs was 41 years with the youngest at 23 years and the elders at 60 years of age. In contrast to the reported selection criteria, 10% of CHWs were between ages 51 to 60 years. All CHWs had some form of schooling with the most CHWs (41.7%) having completed grade 12.

Furthermore, not all sub-district were happy with the CHW selection process. In one of the five sub-districts, the selection process was reported to have been managed and manipulated by the sub-district coordinator resulting in great tension between the NGOs and the community. Furthermore, the exclusion of male CHWs was not explained and it was reported to have created further tension as male patients preferred to be visited by male CHWs.

“*The selection criteria was flawed in terms of leaving out CHWs who are above 50 years and males. This has caused greater tension within the home based carers and the community*”. NGO3

“She included people in the programme without following the criteria, CHWs who were not on stipend including NGOs which were not funded by the Department of Health and this ultimately caused chaos”. NGO3
c. Selection of Team Leader

The appointment of Team Leaders was done parallel to the CHW appointment process. This was to ensure that every team in every ward had a team leader before commencing with WBOTs activities. Only the sub-district coordinators were aware of the team leader selection process as the NGO Managers could not recall how the team leader were selected. The criteria provided by the District was adopted by the sub-districts across the Districts. The selection was done by the facilities through their area managers. It was however not clear as to how the professional nurses were identified or whether they were consulted in the process or not and whether consent was sourced.

“The clinics were requested to nominate a nurse and the names were given to the area managers who submitted the sub-district list to the Districts”. SD1

“The Team Leaders were selected by the clinics and the sub-districts. They were to select professional nurses living in the ward they will be supporting”. NGO2

“No idea about the selection criteria for Team Leaders”. –NGO3

“The initial criteria were retired nurses, this did not materialise because the programme didn’t have funding. Two professional nurses were selected per facility to become Team Leaders, this was to ensure that when one is off, the other one can take over”.—SD3

Table 4.5 Reported selection criteria for Team Leaders

<table>
<thead>
<tr>
<th>Team Leader selection criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Must reside in the ward they will supervise</td>
</tr>
<tr>
<td>• Must be a professional nurse</td>
</tr>
<tr>
<td>• Must have done Community Health Nursing</td>
</tr>
<tr>
<td>• Must be based at the facility the WBOTs is linked to</td>
</tr>
<tr>
<td>• One team leader to one WBOT of 7 CHWs</td>
</tr>
</tbody>
</table>
Variations in the selection criteria adopted by the sub-districts was observed. In four of the five sub-districts, the Team Leaders were professional nurses based at the health facility working as professional nurses whereas, in one sub-district, the team leader was removed from the facility and based in the community focusing only on WBOTs activities. Furthermore, the number of teams supervised by one Team Leader varied depending on a number of factors including:

- The number of teams in each ward, some wards had larger groups of CHWs reporting to one facility.
- Availability of health facilities, some wards did not have health facilities forcing the WBOTs to report to a team leader at a clinic closer to their wards.
- Team Leaders were removed from their clinical work to focus on WBOTs activities resulted in one team leader overseeing more than one team in different wards.

In all the five sub districts, team Leaders were never formally appointed to the Team Leader position but they were assigned tasks to facilitate and supervise WBOTs activities. In four sub district, Team Leaders were based in the health facilities working as profession nurses and WBOTs supervisors.

**4.4 Getting Started with WBOTs Implementation**

There is common understanding on the approach adopted to implement WBOTs in Mopani. The sub-district coordinators concurred with the District and NGO perceptions on the approach used for WBOTs implementation. There was also some understanding on the roles of the different actors or players in WBOTs implementation reported by all participants.

**4.4.1 WBOTs Implementation Process**

The pictogram below depicts the implementation process as understood by the participants. It is crucial to note that the process adopted was not a linear approach as there were occasions where some activities were running concurrently. It was noted that the implementation followed the same pattern in all five sub-district and that the roll-out was done at the same stages in all the sub-districts. Some of the activities
relating to the implementation process were discussed above as they constituted the establishment of WBOTs. This section will highlight activities at the sub-district starting with the activities at the pilot sites and the activities carried including WBOTs coverage.

**Figure 4.1 The Mopani District Implementation process**

The District guidance to the sub-district indicated that for full implementation of WBOTs in Mopani District, 125 teams were required to cover all the wards. This amounted to 900 CHWs with 7 CHWs per team. This meant that there was one team allocated per ward given that the Mopani District had 125 municipal wards in total.
a. First Phase of Implementation/The Pilot Phase

WBOTs roll-out was implemented in phases in all the sub-districts. The first phase included piloting the WBOTs implementation process in all the five sub-district. The pilot commenced in August, 2013. The municipal wards, Team Leaders, NGOs and CHWs were selected for the pilot. Two municipal wards per sub-districts were selected as pilot sites. The Team Leaders were trained for five days by the Foundation for Professional Development (FPD). The CHWs in the pilot sites were appointed as per the CHWs recruitment criteria and they were taken through a 10 days basic CHW Training. The training constituted 10 days of classroom lectures in a form of presentations and activities. Upon completion, CHWs were placed at a health facility under the supervision of a team leader for a five day experimental learning. The aim was to orientate them on the different aspects of services rendered at the facility.

“This NGO was selected as a pilot because the CHWs had NQF level 3 and therefore this NGO was selected as a pilot for PHC Re-engineering (referring to WBOTs)”—NGO3

It was further reported that two approaches of WBOTs implementation were piloted in Mopani. These included the general approach which used a paper based system for data collection and mobile health (mHealth) based system using technology for data collection. Both Systems were piloted. In the beginning of the WBOTs implementation, the paper based system was piloted in three sub-districts namely, Greater Tzaneen, Greater Maruleng and Greater Ba-Phalaborwa and mHealth was piloted in the Greater Maruleng and Greater Giyani sub-districts. The paper based system was piloted for five months, August to December 2013 and rolled out to more CHWs in January 2014. On the other hand, mHealth was piloted for a period of 14 month in the two sub-districts (Greater Maruleng and Greater Giyani), commencing in November 2013 to December 2014. In January 2015, mHealth was introduced in the Maruleng and Baphalaborwa sub-districts. It was noted that not all the WBOTs in the four sub-district were covered with mHealth at the time of data collection. The graph below presents coverage on mHealth in the four sub-districts.
mHealth was introduced as a strategy to facilitate good quality data, to streamline reporting tools for WBOTs and to improve data collection and reporting. The Paper based system used the seven WBOTs tools for data collection and reporting. The seven WBOTs tools were built in the mobile application of the mobile phones used by CHWs. Instead of carrying a file filled with forms, CHWs carried their cell phones around for data collection in the households.

a. Community awareness and engagement

One of the strategies used to cascade information on the establishment of WBOTs to the community was through community awareness and engagement. The initial campaigns were undertaken in January 2013 known as “Road Shows”. These were driven by the District WBOTs teams comprising of DCSTs (PHC Nurse and Family Physician) who were the drivers of the WBOTs programme at the District. Other programme managers at the District participated in the road shows across the Districts. Working together with the sub-district coordinators, the awareness campaigned were conducted in all of the five sub-districts, one after the other.
“The first consultations was an imbizo style where all the stakeholders were called to one venue and thereafter they were visited in their local areas”.—SD2

“The community stakeholders such as ward councillors, municipality, inyanga, pastors were called to introduce the programme to them”.—NGO3

“A multi stakeholder consultative meeting was held to introduce the programme. The programme was also introduced at facilities by engaging the patients at the waiting areas”.—SD3

The stakeholders in the initial sub-district consultations included NGOs, PHC facility managers, ward councillors and representatives from the tribal authority. The stakeholder meetings had a multiple purpose. Firstly, to inform all the structures in the community of WBOTs and its implementation process in their areas including the different role players involved. Secondly, it was to discuss the selection criteria for the NGOs, CHWs and Team Leaders and further stressing the ward based approach to WBOTs as opposed to conventional CHW targeted household visits. Thirdly, it was to facilitate a planning process at the sub-district and municipal ward level for the selection of the CHWs, Team Leaders and also the selection of pilot NGO’s and facilities in each sub-district. Lastly this forum was to facilitate partnerships.

“At first there were hiccups and it was decided that the consultative meetings should continue at the NGO and community level”.—NGO2

“The awareness campaign and community mobilisation were conducted with the assistance of ward councillors, chiefs and other community stakeholders”.—NGO4

The stakeholder consultative meetings were followed by further consultation session at the local area level. The local area consultations had a dual purpose. Firstly, to further strengthen the partnerships and to establish a forum to engage on WBOTs activities in the area. Lastly, to clarify misunderstanding or misconceptions on the programme and provide clarity on the role of different role players. Local area
consultations continued over time as the implementation of WBOTs was phased in all the sub-districts. The full programme was then initiated in the pilot sites.

b. WBOTs Activities

It was reported that the WBOTs carried out a number of activities in their demarcated wards. The first thing that they embarked on was mapping of municipal wards, this was carried out in all the pilot wards. The purpose was to assist the WBOTs to familiarise themselves with the area and to identify possible referral points. It was also to assist with the allocation of households per CHWs. There was no formal process reported for this activity. WBOTs used papers and pens to draw their area maps. The mapping process was found to be useful as WBOTs had a better understanding of the community before conducting house to house visits. Hot-spots (high risk areas) were identified as well as referral points. When the programme was rolled-out, all CHWs were encouraged to start by mapping their wards. The allocation of households per CHWs was informed by the area where the CHWs resided. Each CHW was assigned 250 households. However, this was not standard as some areas were too far apart given the household geographic spread in a rural community. It was reported that some CHWs had fewer households than 250 while others had up to 270 households to look after.

Household registration was the second main activity that was undertaken by CHWs. This entailed registration of members of the households and screening for health conditions that could require a follow-up visit by the CHW. During this process, information on socio-economic status for each household was also documented. Those who needed referrals to different service points were also referred. Registration and referral systems were standard across all sub-districts and DoH tools were used. Given the two approaches used in the District for data collection, it was reported that there were no differences on the tools. The mHealth tools were designed based on the DoH household tool. The only difference was the method of data collection that is, using a mobile phone whereas others used paper. It was further reported that standards were set for each CHW on household registration per day. Each CHW was expected to register a maximum of 4 household per day and this was standard across all sub-districts.
Follow-up visit were conducted in the identified households and these were done as prescribed by DoH clinical guidelines depending on health condition. DoH individual health record tools were used per individual in the households. Furthermore, there were no difference noted on the two approaches of data collection as the mobile phone tools mirrored the paper based tools.

“When we use to collect information on paper, the household registrations were done repeatedly because there was mix-up on the information collected. When the phones were introduced, CHWS were motivated. The mobile phones is also assisting to monitor progress”.—NGO2

c. WBOTs Municipal Ward Coverage

The roll-out of WBOTs in the Mopani District was perceived to have been a huge success as the District managed to reach 73% ward coverage in two years and three months of WBOTs programme implementation. This was attributed to the different role players involved in the programme including the support of the tribal authority. Data presented below highlight the progress on establishment of teams since the first month of WBOTs implementation in the Mopani District.

Figure 4.3 WBOT roll-out in Mopani District from June 2013 to June 2015
The progress on establishment of teams and roll-out was observed in all the sub-districts. The graph below highlighted ward coverage per sub-districts as at June 2015.

“All wards have WBOTs teams working in the wards but we cannot say that each ward has a 100% coverage, some are partially covered and we are planning to extend to the areas not covered by WBOTs”.—DC1

Figure 4.4 WBOTs Sub-district Coverage as at June 2015

The graph above illustrate that in all the sub-districts, all the municipal wards had an active WBOTs team, translating to nearly full ward coverage in the District.

4.5 Role Players or Actors in WBOTs Implementation

4.5.1 Sub-district Coordinators

All the sub-district coordinators indicated that their role in WBOTs was to train CHWs and where necessary and Team Leaders too. They trained all the CHWs and Team
Leaders on the phase 1 training, a 10 day training for CHWs. Furthermore, they facilitated together with the Team Leaders the CHWs phase 1 assessments. Their role stretched from the logistical aspects of training to administrative and coordination role of WBOTs activities at the sub-district level. Furthermore, they also provided mentoring and support for the team leaders. The sub-district coordinators also functioned as the liaison between the DoH, NGOs and the tribal authority in the area.

“We go the indunas, chiefs to explain the programme, introduce the CHWs and explain what they will be doing”. – SD2

“We always have meeting with them (tribal authority and NGOs) to check if they are still certified or if there are issues with CHWs or the department”.—SD1

“We facilitate training for CHWs on phase 1 and 2. We also supervise household registrations”—SD3

Day to day management and coordination of WBOTs in the sub-district was reported as a responsibility of the sub-district coordinators. This included feedback report to all stakeholders, meeting and reporting on CHW activities. They also facilitated stakeholder relations and management with tribal, political and religious stakeholders to ensure full implementation and support for WBOTs activities in the community.

4.5.2 The role of the District Office

The District role in the implementation of WBOTs was explained in two ways. Firstly in reference to the two DCSTs managing and coordinating WBOTs activities at the District. Secondly, in relation to the District Management in the District office. The participants, both the sub-district coordinators and the NGO Managers highlighted the crucial role played by the DCSTs in the programme. They were reported to have provided leadership and guidance on the implementation and roll-out of WBOTs in all the wards in the District. They facilitated the establishment WBOTs teams, community stakeholder partnerships and provided some of the required resources.
On the other hand, the District office was seen to have not provided the needed resources and funding for the programme. It was further seen not to be supportive of the programme as there were no positions created for the WBOTs supporting staff, all those involved at sub-district and facility level had to volunteer their time and continue to do what they were employed to do.

“The District office did not contribute much in the implementation of WBOTs except for paying for my training but the DCSTs has done a lot as they are supporting and leading the programme. They also give us feedback on our performance. They listen to our problems though they do not have much to offer. The District also pays stipend for the CHWS”. SD2

“When we started, we did not have anything because we were told about no budget for WBOTs, I remember one of the DCST’s bought us our first marking pens and flip chart to kick-start training, using money from his pocket”. SD1

“There is minimal support from the District office, they are not that involved with the programme”—SD3

The different views on the role of the District was observed amongst the NGO participants. They all agreed that the DCSTs is a coordinating body for WBOTs. The DCSTs was reported to have facilitated the establishment of WBOTs in all sub-districts and community mobilisation. Some NGOs also found the District not doing much to support the WBOTs programme financially.

“The District office fund most services for the department of health but there is no funding for this programme”.—NGO3

“Support from the District office is limited”.—NGO4

“There is no support from the District office, the only thing they require from us is the report”—SD4
4.5.3 The role of the sub-district

Different views on the role of the sub-district were observed across the five sub-districts. The participants could not clearly define the sub-district role with some participants’ indicating a disconnection between sub-district WBOTs coordinators and the sub-district office programme managers. The sub-district involvement was noted in relation to the preparatory stages of implementation by assigning sub-district coordinators to support the programme at sub-district and facility level. Furthermore, in some sub-district, support was also reported in relation to availability of transport to the sub-district coordinators as opposed to involvement in the WBOTs programme.

“The sub-district is supportive in terms of transport and they allow the Team Leaders to go to the community and provide services”.—SD4

“They are using the master trainers to run the programme. The role of the sub-district is not clear. The local area managers and the sub-district manager are not involved …”—SD2

“The master trainers from the sub-district plays an important role in supervising the overall work of WBOTs in this area”—NGO1

“The PHC Re-engineering (WBOTs) is now on the agenda of the sub-district PHC review meetings”—SD1

On the other hand, other participants felt that the sub-district was not involved as they should be in the management and implementation of WBOT activities. There were no relations between NGOs and the sub-district. The NGO managers felt isolated by the sub-districts as a result of poor coordination and communication on WBOTs programme activities.

“There is no good interaction between NGO’s and the sub-districts hence there is poor coordination of WBOTs activities”—NGO2

“Support from the sub-district is limited”—NGO4
Some NGOs indicated that the sub-districts are not doing enough to support the CHWs for example they are not providing equipment or stationary. Only Team Leaders and sub-district coordinators were seen to be involved with in WBOTs.

### 4.5.4 The role of facility

The facilities were noted to be responsible for implementing and reporting on WBOTs activities at community level. Through the Team Leaders, they provided support to the WBOTs by doing home visits to patients and to the WBOT teams to ensure that work done is in line with the WBOTs scope of work. In some sub-districts, the facility was noted to be supporting WBOTs with training and mentorship. It was the role of the facility through Team Leaders to monitor, manage CHWs activities and supervise and report on WBOTs activities.

“At facility level, WBOTs are fully supported, when they send their data every month, they don’t send WBOT data directly to me, it comes as a package of clinic data”.—SD1

“All facilities have Team Leaders, though it came slow”.—SD2

“The facility staff also conduct supervisory visits when the Team Leaders are not available”.—DS4

“The facilities also link vulnerable clients to CHWs”.—NGO4

It was also indicated that the DCSTs were more involved in WBOTs than they should be at the facility level, pushing sub-district managers out and leaving the sub-districts and facilities with no role to plan in the implementation. Furthermore, the role of CHWs was not clearly understood by facilities.

“The facility managers were supposed to be overseeing the programme but their participation is about 30%, they are not providing enough support at all.
Most stakeholders involved in the programme see the programme as being managed from the District by the DCSTs”.—NGO2

“The facility was supposed to support the CHWs with stationary, referrals and care plans however there is minimal support from the facility except from the Team Leaders”.—NGO3

4.5.5 The role of the NGOs

The NGO managers reported that their role involves day to day management and monitoring of CHWs. They ensure that work gets done and that activity reports are compiled and submitted to the sub-district. They argued that relations between the NGOs and the department of health (District office and DCSTs) has been strengthened as they share a common understanding on the WBOTs programme. This is evident in the partnership reported in some of the wards whereby, Team Leaders are accommodated with office space at the NGO facilities. The NGOs have also been supportive by providing Team Leaders with transport to conduct home visits and to attend meetings. This has made reporting, supervision and management for WBOT easy as it is done under one roof. It has further facilitated coordination of activities. Reporting for duty for WBOTs in some wards has been streamlined by this intervention as they report only at the NGO office as opposed to others CHWs who report for duty at two levels, at the NGO office and the facility daily.

“They have ownership since the CHWs are still their caregivers, they pay them stipend”.—SD1

“The NGOs assist with uniform and stationary…they also assist in monitoring and supervision of CHWs including supervised visits”.—SD3

“Support the CHWs in household registrations, ensure that the CHWs have the tools to complete their work”.—NGO3

“Provide support for CHWs and resources for travelling even through its limited. They provide coordination of activities with stakeholders in the
community, report on WBOTs activities and give feedback to relevant stakeholders” — NGO2

NGOs are found to be supportive in the implementation. They do more than allocating and supervising CHWs, they also provide resources that enabled the WBOTs teams and their Team Leaders to perform their work. By providing transport to Team Leaders they contributed a great deal to the CHWs support visits but more so to the community health needs as those that could not access facilities could be visited at home, which is the crux of the WBOTs programme.

4.6 Factors that contributed to Implementation of WBOTS

The sub-district and the NGO managers indicated a number of positive and negative factors that contributed to the progress observed in the Mopani District on WBOTs implementation. The District was reported to have achieved 73% ward coverage with WBOTs by September 2015 in a space of two years and three months. This was seen to be a great achievement especially that good coverage was observed in all the sub-Districts. The achievement were attributed to a number of factors and actors involved since the inception of WBOTs in Mopani. However, negative factors were also highlighted to have affected the implementation of WBOTs.

4.6.1 Positive factors

a. District Health Specialist Teams (DCSTs)

The team of the DCSTs was reported to have initiated the programme in the Mopani District. They introduced the programme to all the sub-district and provided guidance on programme implementation. Through their guidance, the sub-districts were able to facilitate buy-in with stakeholders in the communities. It was further reported that the DCSTs supported the training of sub-district coordinators, CHWs and Team Leaders. They were reported to be the champions of the WBOTs programme in the Mopani District.
“DCST Team by driving the programme and giving direction to the staff at District, sub-district and even facility level. By facilitating buy-in with NGO’s as well” – SD1

“But the DCSTs have done a lot as they are supporting and leading the programme. They also give us feedback on our activities, they listen to our problems though they have nothing to offer”. (In terms of funding and resources) – SD2

“The DCSTs contributed a lot by driving the programme”.— NGO2

“The DCSTs contributed by conducting quarterly reviews and meetings to review progress and address challenges”.— SD3

Given the lack of funding at the time, the DCSTs were reported to have been instrumental in sourcing support from a PEPFAR funded NGO to provide much needed equipment to get the WBOTs off the ground.

b. PEPFAR Partner Support

The managers at the District, sub-district and the NGOs are all in agreement on the vital role played by the PEPFAR Partner on the establishment and the roll-out of WBOTs in the five sub-districts in Mopani. The PEPFAR Partner support was reported in five ways namely, as contributed towards equipment, training of CHWs, human resources, regular support visits and mHealth for data collection and supervision of WBOTs.

At the District level, the PEPFAR Partner seconded a data analyst and an administrative assistant to support the DCSTs with reporting and coordinating administrative work for the programme. The seconded staff were equipped with laptops, 3G modem for connectivity and a printer for the DCSTs District office. Furthermore, the Partner printed the data collection and reporting tools for the District which facilitated household registrations and reporting on WBOTs activities throughout the District. In terms of strengthening coordination and the feedback platform with all
the stakeholders involved, the PEPFAR Partner paid for venues as recommended by the District for the District, sub-district, and NGO meetings. These meetings created a platform for the sub-district to share programme progress and share good lessons. Furthermore, these meetings served as a reporting platform to the community stakeholders as the NGOs and tribal authority were represented. Addressing challenges and planning was also key in these meetings. The meetings were held quarterly and they were called “PHC Re-engineering District quarterly review meetings”.

“PEPFAR Partner supported with stationary for data collection, stationary for training, equipment such as laptops and projector, food for participants during training” — SD2

“PEPFAR partner contributed by conducting regular support visits to WBOTs”. — SD3

“PEPFAR partner staff in terms of support visits and assisting addressing challenges encountered in the implementation of WBOTs”. SD4

At the sub-district, the PEPFAR partners was reported to have contributed towards the training of CHWs. This Partner donated laptops with 3G modems for connectivity and projectors for the five sub-district coordinators. Catering for the 10 day CHW phase 1 trainings was provided for by the Partner. The Partner also donated training stationary for all the sub-district. In two mHealth pilot sub-districts sites, the Partner donated cell phones for data collection to the CHWs and tablets for the Team Leaders to facilitate team monitoring and supervision and the rollout to other two sub-districts. All the trainings on mHealth were funded by the Partner.

“Support from PEPFAR Partner, at first we thought they were the owners of the programme. They provided support on training of CHWs, mobile phones for CHWs and Team Leaders”. NGO2

“The PEPFAR Partner contributed the most in terms of constant support visits, identifying challenges and disseminating information”. NGO3
Furthermore, at the community or ward level, the partner contribution was noted as technical guidance and support to WBOTs programme implementation.

c. The Department of Health District office

The District office was considered to have contributed by allowing the programme implementation in Mopani and by releasing staff at sub-district and facility level to support the programme.

“The department of health by allowing us to work in the on the programme”.—SD1

“The DCSTs contributed by intervening when there are challenges and resolving them”.—NGO Manager

The District office was also commended by its efforts on community and stakeholder awareness and engagement in the beginning of the programme.

d. Local NGOs

The local NGOs were reported to have played a vital role by taking on the government initiative and implementing it in their communities using their human resources. NGOs were reported to be the key players in the implementation as they are responsible for the CHWs. In some of the sub-districts, the NGOs also provided space in their premises for the WBOTs to run their administrative work on a day to day basis. Furthermore, some NGOs also provided transport when needed for home visits by Team Leaders and to attend quarterly review meetings.

“These NGOs allow the CHWS and the Team Leader to use their resources when needed for the benefit of the people in the community and the WBOTs”—SD1
“The good relationship with the NGOs, they have assisted by monitoring and supervision of CHWs, including supervised visits.”—SD3

“NGOs that have allowed their CHWs to work on the WBOTs programme.”—SD2

It was reported that the partnerships formed in the beginning of the programme facilitated the roll-out of WBOTs with speed. Constant engagements and support facilitated entry for CHWs in the households to carry out household registrations. Also the communication between the DCSTs and NGOs has facilitated understand on the new role and scope of work for CHWs. Furthermore, at community level, some communities were found to be supportive of the programme because of their relationship with the NGOs.

At an organisational level, the NGOs indicated that the WBOTs Programme has given them the opportunity to diversify their services by focusing not only on curative care but also on prevention and health education. They felt that the changes in the scope of work for the CHWs has benefitted both the CHWs and the NGOs.

“Personally I am happy with the WBOTs. We have improved as NGOs managers on documentation. Also working with more households in the community, we are getting more exposure as the NGO and have also gained more support from the community”.—NGO2

“The new scope of CHWs has assisted the CHWs to improve their skills, the change in their approach and has strengthened their skills, it has broadened their thinking and their way of doing things”.—SD1

“We feel good about the programme as it has improved service delivery in the community as the CHWs are now well trained”.—NGO1

Their CHWs have been capacitated to provide more than just one service and this has broadened their level of knowledge and created confidence and excitement in their
new role. On the other hand, NGOs have increased their capacity as their focus is now on more households in the ward as opposed to only households with people in need of their services.

4.6.2 Negative factors

Given all the positive factors above driving the successful implementation of WBOTs in the Districts, negative factors were also noted by all participants. The participants shared similar view on the negative factors but there were some differences noted between the NGO and the sub-district coordinators.

a. Budget allocation and lack of resources

There was general consensus amongst all participants on the lack of budget allocation for WBOTs programme as one of the major factors that affected the implementation of WBOTs. They argued that the District office could not provide needed resources for the establishment of teams and the roll out in all the sub-district in the Districts. There was mention of DCSTs buying stationary from their own pocket to get the programme started.

“There is no funding for PHC Re-engineering, the department is not giving anything”.—SD2

“Lack of funding and resources for the programme”.—NGO3

“There is no budget and the person to drive the programme at the sub-district level”.—SD1

“The unfulfilled promises and low stipend and lack of support from the District”. —SD4

Furthermore, they argued that lack of funding resulted in the lack of resources such as transport for Team Leaders. Lack of transport was reported to have prohibited Team Leaders from providing support to CHWs in the form of supervised household visits and in responding to services required at household level. Patients identified in
the community who could not go to the facility on their own were hard to reach due to lack of transport for Team Leaders, compromising the core of the WBOTs programme.

“Transport is a challenge, for Team Leaders. Transport for CHWs as well especially when it is reporting time as some live far from the central venue”.-- NGO2

“Lack of availability of computers for Team Leaders, statistics has to be compiled manually and submitted manually to the sub-district and this requires transport too”.—SD1

b. Coordination and Governance

The NGO Managers felt that coordination of the programme at the sub-district level was one of the down factors of the Programme. They argue on two factors firstly, that the communication on the role of the NGOs in the programme was not clearly defined and communicated to the NGO’s resulting in resistance to the programme by some NGOs. As a result, there may be a possibility that not all NGO’s with qualifying CHWs were involved and this may have compromised ward coverage.

“Poor Corporation from the NGOs because in the beginning, the understanding was that DOH will take over the CHWs and the future of the NGO’s was not clarified and as a result, some NGOs did not allow their CHWs to work on the WBOTs programme”. —NGO2

“Sub-district coordinator communicating and working with the CHWs without involving NGO Managers”.—NGO3

“There are two centres of power and the NGO managers are often side-lined…there is no interaction between NGO managers and Team Leaders at the clinic”. —NGO1

Lastly, as much as the NGOs acknowledges the progress made, the partnership in a few sub-districts between the NGOs and the department of health (District and sub-
District) remains poor. The participants argued that poor coordination of activities persisted resulting in confusion and disruption on programme implementation. The lack of coordination of activities was considered to be related to the perceived sub-district passive role in the WBOTs programme, a view that was also shared by the coordinators.

“The sub-district coordinator WBOTs plans are not aligned to the NGO and even sub-district programme plans. There is no coordination of WBOTs, NGO and sub-district plans, you find that activities are clashing”. — NGO2

“Lack of the person to drive the programme from the sub-district level, sub-district is not given a role to play and in not understanding the impact at facility level because no one is driving the programme, trainers/sub-coordinators cannot do everything”. — SD1

c. Stipend for CHWs

Unanimously, the local NGOs and the sub-district coordinators agree that the stipend offered to CHWs was low and this has resulted in demotivated CHWs in the District. They also argue that the workload of CHWs on the WBOTs programme has increased given the new role and the scope of work for CHWs and yet the stipend remained the same.

“The stipend is very low”. — NGO 1

“Unfulfilled promises and low stipend”. — SD3

“The stipend is low and the CHWS are demoralised”. — SD4

“The District has put additional work on the CHWs without increasing the Stipend for CHWs”. — NGO3

The workload in relation to the new role of CHWS was perceived to be much higher than before as the CHWs are visiting more households than they used to and they offered more services.
4.7 Perceptions on WBOTs Implementation

4.7.1 Integration of WBOTs into health facilities

The National Guidelines for WBOTs indicated that CHWs are an extension of the facility to the community. They facilitate the link between the facility and the community and they identify patients in need of care and refer them to facility. There is a need for integration of CHWs to facilities in order for the facility to provide a comprehensive package of primary care. It was reported in most sub-district that an improvement was observed on the way the facilities relate to WBOTs. This was noted in most sub-districts.

"WBOTs are well integrated in the facility. They report at the clinic every morning and collect their work aid. They are also delegated work like vital signs check, wound dressing etc.".—SD3

"WBOTs are well integrated at the facility, they assist with referrals, defaulters tracing and they are incorporated in to the health events conducted by the facility".—SD4

"The relationships with the clinics is now good because there are regular interactions between CHWs and the clinic. The facility managers also invite the NGO to attend facility meetings".—NGO2

"They (health facilities) have a healthy working relationship with the CHWs and they often delegate duties to them".—NGO1

Although some sub-district have noted some improvement, the integration of CHWs has been slow in other sub-districts. It was reported that the staff lack of interest in WBOTs programme and in understanding the role of CHWs due to poor communication has led to slow integration of WBOTs into health facilities.
“Its 50 50, it is still seen as a one man show, the mentality that the team leader own the programme, there is still resistance with some of the nurse. If the operational manager is involved its better”.—SD1

“The challenge is that not every nurses working in the facility is involved to support CHWs”.—SD2

However, the situation has improved over time as some facilities were reported to have started using CHWs to trace treatment defaulter and for other interventions.

4.7.2 Integration of WBOTs into community

CHWs are the first point of entry to primary care as they offer health services at household level and refer where needed. It is thus important for the CHWs to be accepted by the members of the community they serve as this would make their jobs easy and service delivery would improve and better the health outcomes in the community. CHWs were reported to be well accepted in the communities they serve. This was a view shared by both the NGO and the sub-district coordinators.

“They are well accepted because we normally give community feedback and now they get invited to every meeting in the community. We were recently even invited by the police to join in their campaign”.—NGO2

“The CHWs are well received by the community and the members of the community calls them from time to time for assistance”.—SD3

“The CHWs have been accepted by the community mostly, although some have reservations”.—SD4

“The CHWs are well accepted in the community, the community members recognise their work and they refer cases to the CHWs”.—NGO4

The good relations reported between CHWs and communities was a result of consistent engagements with the community and the District on the programme. It was
reported that community engagements and awareness campaigns on the programme were carried out over the two year period.

“*We had to continue with community engagements to facilitate community buy-in and access for CHWs. The first one was in January 2013 followed by May 2014, October 2014 and July 2015*.”—DC1

4.8 **Alignment of the Mopani approach to the DoH Guidelines**

a. **Awareness of DoH WBOTs implementation guidelines**

In order to gauge the participants understanding of the PHC Re-engineering provincial guidelines for WBOTs implementation and its applicability in the Mopani District, they were asked two questions. One on the awareness of the strategy and the second question was on whether it was used as a guide in the implementation of WBOTs in Mopani District.

Only sub-district coordinators and the District coordinator were asked to respond to this question, the NGOs were omitted. Only two of the sub-district coordinators indicated awareness of the DOH Provincial guidelines for WBOTs implementation. The remaining two were not sure if the document they had was the DoH Implementation Guidelines for WBOTs.

“I only know of the management pack”.—SD 3

“No, I know only of the management pack that was given to us”.—SD4

The two sub-district coordinators who were familiar with the DoH WBOTs implementation guidelines indicated that it was followed when WBOTs were introduced and implemented in the Mopani District. Reference was made on the appointment of the CHWs and training and the selection of Team Leaders.
“Yes it was followed, very much followed. The training of CHWs we have been doing is in line with the DOH training for WBOTs and the support given to CHWS after the training to ensure that they are competent is in line with the provincial guide”.—SD1

“Linking to schools and crèches, CHWS also visit crèches is according to the provincial guide”.—SD1

“Yes it was followed. The assessment that we have been doing in the sub-district is in line with the guide but we have not been doing written assessments but have been conducting the verbal assessments”.5—SD2

b. Adopted characteristics of DoH WBOTs Implementation Guidelines

The process that was reported as followed in the Mopani District was compared to the process laid out by DoH. on page 66 of the Provincial Guidelines for the Implementation of the Three Streams of PHC Re-engineering September 2011 version, a process map is laid out specifically on the establishment of WBOTs. For the purpose of this report, our focus was on the implementation process as presented for Districts and Sub-districts on page 64 of the Provincial Guideline for the implementation of the three streams. In table 4.6 below, the DoH Proposed implementation plan is compared to the Mopani implementation process as reported by the participants.
Table 4.6 Comparing Mopani Implementation process to DoH Guidelines on WBOTs implementation, 2015

<table>
<thead>
<tr>
<th>Detailed Roadmap: Districts / Sub-districts</th>
<th>Mopani Experience</th>
<th>Align or Deviate</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1 Plan phased implementation in the District and sub-districts</strong></td>
<td><strong>1 Preparation phase at the District and Sub-district</strong></td>
<td><strong>Deviate</strong>: Resources were not used as a guide or a prerequisite for the selection of the sub-districts for implementation of the WBOTs programme in Mopani. All the sub-districts were keen to roll out WBOTs, at sub-district level, one ward with active CHWs were selected as a pilot ward.</td>
</tr>
</tbody>
</table>

- **Mopani Experience**
  - Initial meeting held with the province where the WBOTs programme was introduced. District were given a mandate to start rolling out the programme in their Districts.
  - The Province took the initiative and facilitated buy-in at the District by engaging programme management such as PHC, HAST, Stakeholder Coordination and TB.

- **Align or Deviate**
  - Resources were not used as a guide or prerequisite for the selection of the sub-districts for implementation of the WBOTs programme in Mopani. All the sub-districts were keen to roll out WBOTs.

- **Sub-district briefing on the programme for sub-district management including facility managers, NGO Managers and all stakeholders was facilitated by the DCSTs. This meeting facilitated initial planning for each sub-district.**

- **Deviate**: Community audits were not done prior to implementation.

<table>
<thead>
<tr>
<th><strong>2 Meet with civil society organisations providing health services</strong></th>
<th><strong>2 Meet with civil society organisations providing health service</strong></th>
</tr>
</thead>
</table>

- **Mopani Experience**
  - Discussion on local community audits did not take place however census 2011 data was used to determine the number of CHWs required to cover all the households in each sub-district.
  - Data on existing NGOs was sourced from the stakeholder management office in the District.

- **Align or Deviate**
  - Community audits were not done prior to implementation.

- **Align**: Briefing for sub-district was done by DCSTs, Ideal timing was not a factor as all the five sub-districts wanted to start implementing WBOTs at the same time with or without resources.
Further stakeholder engagements were facilitated at the ward or local area level by the sub-district coordinators and Team Leaders facilitated the commencement of activities, clarify coordination, reporting, and foster partnerships with the selected NGOs, ward councillors and tribal authority.

Meetings with stakeholders and NGOs were ongoing informed by WBOTs roll-out activities in different wards/communities.

<table>
<thead>
<tr>
<th>3 Assess needs in each area - and determine the composition of each team</th>
<th>3 Assess needs in each area - and determine the composition of each team</th>
</tr>
</thead>
</table>
| • Determine how many CHWs and HCs are needed in each facility, based on various local factors – especially 
  - the burden of disease 
  - the nature of area (rural/urban) and density of housing 
  - the number of households(CHWs) and clients that can be seen each month 
  • This can be done in a variety of ways - one of which is to involve the sub-district, facilities and NPOs/NGOs working the area in doing a community audit. 
  - Convene and participate in community audit. 
  - Make recommendations to the province regarding the composition of the outreach team for each facility in your area – as well as which facilities should be prioritised for early implementation |
| • A ward based approach was used to determine the number of CHWs. This was informed by population data from 2011 Census. 
  • This was a consultative process between the District, Sub-district and the NGOs identified for WBOTs implementation |
| • Align: A needs assessment for WBOTs teams were calculated for all sub-districts. It was estimated that for a District with 125 wards using the DoH guide on the number of teams per ward, 125 teams of seven CHWs per team were estimated. 
  • Using census 2011 data, household were calculated per CHW |

<table>
<thead>
<tr>
<th>4 Distribute guidelines for systems</th>
<th>4 Distribute guidelines for systems</th>
</tr>
</thead>
</table>
| • Customise the provincial guidelines regarding 
  - Supervision, data collection, monitoring, referrals—both to the facility by CHWs and health facilities and from health facilities and hospitals to suit the local conditions and existing systems in the District/sub-district |
| • There was no Provincial guide customisation of the DoH guide. The DoH guide to provinces was used to clarify roles, data collection and reporting for WBOTs. 
  • The District presented the guidelines to the relevant stakeholders in a form of presentation and discussion |
| • Align: The DoH guide was used as guide in the absence of the Provincial guide. Supervision, data collection and monitoring systems were put in place through a consultative process with the sub-districts and their stakeholders. |
- Distribute to facilities at the sub-district Imbizo's/road shows. Specification on the criteria for CHW selection and Team Leaders were discussed and shared with stakeholders. The new role of CHWs and the approach on the WBOTs programmes were all discussed with stakeholders. Some of the systems like referral systems were developed along the way as the implementation happened.

### 5 Set up selection committees

<table>
<thead>
<tr>
<th>• Identify sub-district staff to participate in selection of outreach team staff</th>
<th>• The selection of Team Leaders was done by the sub-district and the facility managers. They identified professional nurses in each facility according to the criteria provided by the District for the Team Leaders in each ward.</th>
<th>• Align: The sub-district managers’ together with the local area managers and facility managers were tasked to facilitate selection of Team Leaders.</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Convene facility-level selection committees</td>
<td>• The selection of CHWs was facilitated by the NGO Managers together with the local area councillors and stakeholders in the wards. They were also given a guide on the criteria for the selection of CHWs. They were also given population estimates for their areas to guide the number of CHWs to be selected per ward.</td>
<td>• Deviate: There were no facility level selection committees. The responsibility on CHWs selection was given to the Facility managers, NGOs and community stakeholders in some cases supported by Team Leaders or sub-district coordinators. Though in some areas facility managers were involved, this was not standard across the District</td>
</tr>
<tr>
<td>• With HR staff from the province, facilitate the training of selection committee procedures, including reviewing selection criteria and the testing procedures</td>
<td>• At the District Level, Sub-district coordinators were trained on the selection criteria and the testing procedure for the CHWs. They orientated the clinic selection teams on the CHW criteria and the sub-district team on the Team Leader criteria. Testing of the CHWs was facilitated by the sub-district and Team Leaders.</td>
<td>• Deviate: Orientation on the selection criteria was done internally by the DCSTs and sub-district coordinators, HR staff from the Province was not involved.</td>
</tr>
</tbody>
</table>

### 6 Recruit and select staff for the outreach team

<table>
<thead>
<tr>
<th>• Participate in identifying / recruiting and selecting outreach team supervisor (a professional nurse)</th>
<th>• The selection of Team Leaders was done by the Sub-district Managers, local area managers together with the facility managers. A criteria was sent to the facilities and at facility level, the manager recommended professional nurses to support WBOTs.</th>
<th>• Align: The sub-district managers’ together with the local area managers and facility managers participated in the recruitment and selection of Team Leaders.</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Ensure that application forms and tests provided by the province are available at the facility-level selection processes</td>
<td>• All the selected CHWs were assessed on literacy and numeracy skills and those who passed were assigned to the WBOTs programme. The assessment tools were provided by the DCSTs to all the Sub-districts.</td>
<td>• Align: Assessment tools were provided by the Regional Training Centre</td>
</tr>
<tr>
<td>Task</td>
<td>Details</td>
<td>Deviation</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Secure the availability for the selection process of people in the</strong></td>
<td>The assessment were facilitated by the sub-district coordinators and in some cases, Team Leaders or NGOs were involved. There was no standard guide prescribed for the District.</td>
<td>There were no assessors selected, the sub-district coordinators worked with the Team Leaders or with NGOs.</td>
</tr>
<tr>
<td>District/sub-district who can act as assessors and moderators for the**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>assessment process for CHWs and HCs</td>
<td>The District distributed a selection criteria/guide for CHWs in all the sub-districts. Orientation on the guide was done by Sub-district coordinators with all the local areas and wards stakeholders including NGOs in preparation for the selection of CHWs.</td>
<td>The DOH guide was used as there was no provincial customised guide. Selection criteria was circulated to NGOs, councillors and tribal authority to facilitate transparency on the selection process.</td>
</tr>
<tr>
<td><strong>Distribute notices (using standard wording provided by the province)</strong></td>
<td>The Team Leaders and the sub-district coordinators participated in testing of CHWs. The selection was coordinated by the NGOs.</td>
<td>This process was not standardised across the District.</td>
</tr>
<tr>
<td>to all local civil society organisations who employ some form of**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>community-based care worker in each facility's 'catchment' area – **</td>
<td>there was no short listing of CHWs or Team Leaders and all selected people were enrolled in the WBOTs</td>
<td>it was not done. All appointed candidates were enrolled in WBOTs.</td>
</tr>
<tr>
<td>with a view to recruit CHWs and HCs</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Participate in selection committee (incl. testing) – and in deciding</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>who to employ as CHWs and HCs.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Ensure signed contract received and send to province for payroll</strong></td>
<td>CHWs from DoH funded NGOs only receiving stipends were assigned to WBOTs. There were no new contracts signed by CHWs in relation to WBOTs programme. CHWs were reassigned by ward and activities.</td>
<td>The CHWs were not contracted to WBOTS as they were active CHWs working in the community. They were given new roles and guidelines for WBOTs. Team Leaders and Sub-district coordinators were also not contracted for WBOTs.</td>
</tr>
<tr>
<td><strong>Induct and orientate staff – and facilitate initial top-up training</strong></td>
<td>No provincial customised guide was developed, the District used the DOH guide to plan for training.</td>
<td>Training of CHWs and Team Leaders was facilitated at sub-district level. Some Team Leaders were trained by FPD.</td>
</tr>
<tr>
<td><strong>Convene and facilitate induction of outreach team supervisors and</strong></td>
<td>CHWs training was facilitate by the sub-district coordinators. Training plans were drawn, aligned to the WBOTs roll-out plans. The Team Leaders were orientated on the programme by FPD.</td>
<td>Training of CHWs and Team Leaders was facilitated at sub-district level. Some Team Leaders were trained by FPD.</td>
</tr>
<tr>
<td>CHWs and HCs. (This to include basic ‘top-up’ training that enables**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>each cadre to start work.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Facilitate top-up training</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>•</strong> Send names of newly appointed outreach team supervisors to the provincial training co-ordinator – to facilitate their attendance at supervisory training.</td>
<td>• A list of selected sub-district coordinators was sent to the province for them to be included in a training of trainers that was organised by the province.</td>
<td><strong>• Align:</strong> Names of appointed Sub-district coordinators were forwarded to the province to facilitate their training.</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>• Compile a list of training needs identified during selection at various facilities and submit to provincial training co-ordinator – noting the priority areas with burden of disease in each area.</td>
<td>• A list of training needs in terms of equipment and stationary was compiled at sub-district level and submitted to the District. Due to lack of funding, the DCSTs sourced out support from the District PEPFAR Partner.</td>
<td><strong>• Deviate:</strong> There were no priority training needs identified as the majority of CHWs were involved in home based care. Training need assessment only focused on resources.</td>
</tr>
<tr>
<td>• Keep and submit to province records of who was trained in what – and keep a database of training in this period.</td>
<td>• Data base of all trained CHWs and Team Leaders was submitted to the District and the Regional Training Centre (RTC).</td>
<td><strong>• Align:</strong> Training data base was compiled by sub-district coordinators and submitted to the District.</td>
</tr>
<tr>
<td><strong>10 Monitor progress</strong></td>
<td><strong>10 Monitor progress</strong></td>
<td><strong>10 Monitor progress</strong></td>
</tr>
<tr>
<td>• Monitor the progress of the implementation of outreach teams - within the larger context of delivering PHC</td>
<td>• Quarterly review meetings were used as a vehicle to monitor programme implementation. These were facilitated by the DCSTs and attended by the Sub-district coordinators, Team Leaders, representatives of CHWs and NGOs. These meetings were used as a platform for sharing best practice, feedback on WBOTs activities, planning and to resolve concerns or misconceptions on the WBOTs</td>
<td><strong>• Align:</strong> Monitoring of programme implementation was done at all levels, NGO, Facility and sub-district level. Reports were compiled every month using the DOH WBOTs reporting tools. Quarterly review meeting served as a platform for programme monitoring and review</td>
</tr>
<tr>
<td>• Engage in consultations with the facilities and the Province regarding concerns and challenges – and record these with a view to refining the systems</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4.9 Conclusion

The study findings present the participants' views and perceptions on the implementation process for WBOTs in the Mopani District. The participants' views are presented in themes which describes the implementation process. There is consensus on the process that was implemented in Mopani District when WBOTs were introduced. This was reported by the DCST, sub-district and the NGO managers.

Furthermore, there is agreement on the NGO and the department of health staff (DCST and sub-district) on what they perceived to be factors that facilitated the implementation. A combination of factors were noted. However, the contribution of the DCSTs was seen to be the main driver behind the reported success on WBOTs roll-out in Mopani. Additionally, this chapter highlighted different role players and their contribution to the programme. There is general agreement that the District did not provide resources to facilitate implementation. The sub-district was reported to have been partially involved with a bigger role played by the sub-district coordinators.

The implementation process observed in Mopani was found to be in aligned with the proposed guidelines to WBOTs implementation. However, deviations observed were adjustments made to accommodate internal or context specific processes. Again, communication between actors and players in WBOTs implementation needs strengthening for effective programme implementation in the Mopani District.
CHAPTER 5

DISCUSSION OF FINDINGS, RECOMMENDATIONS AND CONCLUSION

5.1 Introduction

This chapter presents discussion of the research findings as presented in the previous chapter. The research project was set out to describe the processes adopted when WBOTs were implemented in the Mopani District and highlights the positive and negative factors and actors that contributed to progress observed in the District. Furthermore, it sought to evaluate the Mopani’s process with that prescribed in the DoH guidelines for Provinces. The analysis of findings highlight the key findings in relation to the research questions and research objectives as set out in chapter one of this report. Informed by the research findings, the study objectives are used as a framework to guide the discussion of findings. Furthermore, this chapter presents practical recommendations to be considered for strengthening WBOTs implementation in the Mopani and other Districts implementing the WBOTs programme. The conclusion is also presented including consideration for further research on the views of other actors and beneficiaries of the programme.

5.2 Discussion of Findings

The discussion on the study findings aim to unpack the findings in relation to the research question. The discussion is guided by the study objectives though out this section.

The first objective of the research study was to investigate the implementation process of the WBOTs programme in the Mopani District. There is evidence to suggest that understanding programme implementation allows for confident conclusions on the link between the programme implemented and observed outcomes. When implementation is done correctly and documented, it creates a platform to attribute outcomes on the
implementation (Durlak & DuPre, 2008). Findings of the research confirmed that a process was followed when WBOTs was implemented in Mopani. It was also evident that the same process was undertaken in all the five sub-districts. One of the key steps towards programme implementation is to gain buy-in from the implementers and the recipients of the interventions (Schouten, et al., 2009). This was the first step undertaken in Mopani and this was done at District and Sub-district level first. It facilitated common understanding of the programme, the benefits thereof and a shared vision. This platform further facilitated planning taking into account the nature of the programme and the context, that is, the five sub-district with diverse communities.

At community level, a number of factors can facilitate or prevent programme implementation hence, community awareness and mobilisation was critical to facilitate community involvement and programme buy-in. It is evident from the research findings that community awareness and mobilisation was done prior to programme inception and was continued through-out to ensure understanding and access to communities. These included meetings in a form of big gatherings “imbizo” and smaller meetings at local ward level. It is also evident from the research findings that the local NGOs and community structures were also involved in the selection of the CHWs using criteria provided by the DCSTs. The literature support a need for community participation in the implementation of CHWs intervention including the selection of CHWs and supervision as this would facilitate access and even uptake of CHWs services at community level. It further highlights the importance of recruitment of the CHWs in the communities where they will be serving. This was also observed in the Mopani District (Perez, et al., 2009). Lewin (2010) argues that the selection process for CHWs that does not involve community participation could lead to lack of support and trust for CHWs and thus impede access to the community resulting in poor programme uptake (Lewin, et al., 2010).

On the other hand, challenges on WBOTs coordination between the NGOs and the sub-district and the health facilities was perceived to be disruptive and has a potential to compromise the implementation. The NGOs felt that the department staff at sub-district level was not involved in the management of the WBOTs programme and as a result there was poor coordination of WBOTs and other community intervention at sub-district level. Furthermore, some NGOs refused to co-operate claiming that their role
and their future in the WBOTs programme was never clearly defined. With fewer NGOs involved, the ward coverage could be compromised resulting in an increase in number of CHWs not affiliated to NGOs and therefore not receiving stipends. The sub-districts passive role was also seen to be impacting on a lack of resources for the programme with some WBOTs teams relying on the NGOs for resources. In a number of research studies, collaborative processes with shared vision and understanding in programme implementation was associated with positive programme uptake and programme sustainability, this is imperative for the success and sustainability of CHWs interventions (Riley, 2003; Wandersman, 2003). Furthermore, ensuring availability of systems to support WBOTs programme prior and throughout the implementation was recommended to strengthen CHWs performance (Schneider, et al., 2013; Suri, et al., 2007).

The second objective of the research study was to investigate factors including actors that contributed to WBOTs implementation. Leadership by the DCSTs was unanimously reported as one of the factors that facilitated WBOTs implementation in the Mopani District. They facilitated common understanding which lead to consensus on the roll out in the District. They also played a significant role in managing implementation at sub-district level. Although, their role was perceived by some of the participants as overshadowing the sub-district resulting in the sub-district not playing an active role. Centralising the WBOTs programme implementation seemed to be the option to standardisation of activities across all sub-district. However, decentralising CHWs interventions is critical as it could strengthen relations and programme support and respond to local health needs. However, in the absence of budget allocation, decentralisation could jeopardise programme implementation as a shortage of human resources and support services would result in programme failure (Guigliani, et al., 2014). The allocation of sub-district coordinators as programme coordinators or champions at local level was one of the approaches towards programme decentralisation. Given a shortage of human resources to support WBOTs at sub-district level, sub-district coordinators had multiple roles and responsibilities and they struggled to fulfill all WBOTs coordination activities at the sub-district. Nonetheless, having well trained and skilled sub-district coordinators and CHWs facilitated programme implementation and uptake at sub-district and community level.
Furthermore, sub-district coordinators facilitated training for CHWs resulting in close to full coverage of CHWs having completed phase one training as prescribed by the guidelines. By June 2015, 1010 (97%) CHWs had completed phase one training. The training of CHWs is one of the key success factors highlighted in the literature in relation to the implementation and outcomes of the CHWs intervention. Having staff with the right skills and skill mix is key in programme implementation success (Fulton, et al., 2011; Schouten, et al., 2009). Again, based on the identified health challenges in the community on child mortality and malnutrition, the sub-district trained the CHWs on Maternal and Child Health (MCH) issues to respond to the need in the community. There is evidence in the literature that CHWs interventions need to be flexible to adapt to the patterns of diseases in the communities they serve. Such CHWs interventions lead to better health outcomes and facilitate successful programme implementation and sustainability (Schouten, et al., 2009). Furthermore, the role played by NGOs by accepting the WBOTs programme and having facilitated the selection of better skilled CHWs to implement the programme had a significant contribution to WBOTs implementation. Their willingness to change their work environment and culture to accommodate WBOTs activities had a huge positive impact on programme uptake and implementation.

On the other hand, resource allocation was reported as a major challenge for WBOTs implementation as there was no budget allocated by the District for the WBOTs programme. The technical assistance provided by the PEPFAR Partner could not be downplayed as it facilitated WBOTs programme roll-out across the District. However, projects that are dependent on donor funding have a potential to fail when the donor exits the programme. Furthermore, lack of transport for Team Leaders resulting in poor supervision for CHWs had a potential to undermine the efforts in WBOTs implementation. Supervision and on-going support for CHWs is critical as it facilitated quality service delivery. If the staff at the facilities get involved in the supervision of CHWs, this could strengthen the linkage and understanding of CHW roles and activities in relation to the health facility and the community.

Again, lack of remuneration for the CHWs and sub-district coordinators could lead to demotivated staff. The absence of confirmed positions for sub-district coordinator resulting in different approaches observed in the sub-districts could also lead to
frustration for sub-district coordinators. Additionally, the low stipend was reported to have demotivated CHWs. The literature highlights lack of or low stipends for CHWs as one of the barriers that undermine the CHW interventions as it result in a high attrition of CHWs (Guigliani, et al., 2014; Schouten, et al., 2009; Suri, et al., 2007).

The final objective was to access the alignment of the process adopted in Mopani to that proposed process by the DoH provincial guidelines on implementation of WBOTs stream of PHC Re-engineering. The implementation in Mopani was mostly aligned to the DoH provincial guide with a few deviations reported to accommodate the contextual factors and programme demands. One of the deviations noted was in relation to the planning phase on site selection based on the availability of resources. Resources availability was not considered to be a determining factor as there was no budget allocated for the project. However, other factors were considered such as support at sub-district level, willingness of stakeholders and technical support available through the PEPFAR partner to facilitate implementation. Again, due to a lack of resources, local community audits could not be done but alternatively, census data was used to inform planning at all levels. Furthermore, there was no formal process on the appointment of the selection committees as internal processes were adopted at both community and sub-district level. The training of all cadres involved in the implementation complied with the DoH guidelines. However, further training for CHWs on Maternal and Child Health issues was introduced to respond to the health needs observed in the District on child mortality and poor detection of malnourished children. The introduction of mobile health (mHealth) for data collection for CHWs and Team Leaders was also noted as a deviation to the DoH guidelines but the same guidelines were not restrictive on intervention to enhance WBOTs programme implementation and management. In programme implementation, cases where programme guidelines are implemented 100%, especially in large scale programmes, changes are limited as there is always a need for adjustment in order to adapt to the context for good programme implementation (Schouten, et al., 2009).
5.3 Recommendations

The research findings highlighted critical factors leading to the successful implementation of WBOTs in Mopani Districts. The recommendations focus on the main areas and these include budget allocation, coordination and governance, and decentralisation of the WBOTs to sub-district as well as other recommendation that could help strengthen the WBOTs implementation in the District.

5.3.1 Budget allocation

According to the research participants, there was no budget allocated for the WBOTs programme in Mopani. The programme has been running without a budget since 2013. Given that there is no guarantee on the extent of the PEPFAR partner support, the District needs to ensure budget availability in order to sustain the gains made in the past two years. It is recommended that a costed plan for the programme is drafted and incorporated in the District Health Plan and long term financial planning is recommended at District level. Furthermore, resources required at sub-district and facility level to strengthen programme implementation should be fast tracked. It has also emerged from the findings that the majority of the CHWs were on a stipend however, a sizable number was not on stipend. The District needs to reduce the gap between CHWs receiving and those not receiving the stipend as this could pose a threat to the programme implementation and sustainability.

5.3.2 Decentralisation and of WBOTs Programme to Sub-district

It has also emerged that the WBOTs programme was driven by the DCSTs. Though the DCSTs efforts and leadership was highly commended, a disconnection was reported at the sub-district level which resulted in poor linkage of the WBOTs programme to other PHC programmes at the sub-district. It is recommended that WBOTs programme be fully decentralised to the sub-districts. The sub-district would need to be capacitated on the programme and the requirements thereof. Furthermore, there is a need for a formalised WBOTs programme human resource structure at the sub-district level to ensure appropriate programme management, coordination, reporting and implementation. It is further recommended that the role of the sub-district
coordinators and Team Leaders be formalised and standardised across the sub-districts in order to streamline the dual role of sub-district coordinators and Team Leaders. Their roles must be clarified and formalised in the structure of WBOTs at the sub-district level.

5.3.3 Coordination and Governance

It is recommended that WBOTs activities are integrated into the sub-district programme activities in order to eliminate poor coordination. Furthermore, there is a need to coordinate activities between NGO and the sub-district to facilitate collaboration and coordinated implementation of community interventions. Sub-districts need to take an active role on WBOTs implementation, coordination and supervision in its local areas. Again, supervisory visits by PHC sub-district programme managers must incorporate WBOTs programme activities at facility level as this will strengthen integration of WBOTs activities at facility and sub-district level.

Furthermore, the reporting structure for WBOTs on a day to day basis need to be streamlined in order to maximize the time spent by WBOTs in the community, this can be done by facilitating one reporting point in the morning and afternoon.

The District also need to facilitate and strengthen the WBOTs governance structures at sub-district and facility level with clear roles, responsibilities and lines of reporting for a sustained WBOTs implementation at the sub-district and even ward level. The role of the NGO’s and their future in the WBOTs programme needs to be clarified to encourage full participation and support by the NGOs.

5.4 Other Recommendations

a. Capacity Building

In order to ensure full integration of WBOTs at the facility, there is a need to capacitate all the staff members at facility level on the role of WBOTs and its relation to the facility. Also exposure of all the staff members to WBOTs activities will facilitate better understanding and full integration of WBOTs into PHC facilities.
b. Community Mobilisation and Involvement

Community involvement, awareness and participation is the critical aspect of community interventions as it facilitates access for WBOTs to community and households. It is recommended that community mobilisation and involvement is sustained as the WBOTs are rolled out in order to address any misconceptions and challenges that may arise in the community. This platform can also be used for feedback on programme activities for the community and the structures in the community.

c. More NGOs with CHWs needed

The CHWs that were not on stipend were also not affiliated to an NGO. The District needs to identify and fund more NGOs with CHWs to ensure that all CHWs are on stipends. CHWs not receiving stipends and are already in the WBOTs programme should be placed within the funded NGOs.

5.5 Further Research

This research study was undertaken for an academic purpose, to fulfil the requirement for a Master’s degree and as a result it has taken a rather broader perspective on the factors that contributed to WBOTs implementation in the Mopani District due to time limitation. Moreover, a deeper analysis on the factors presented in this report is needed for better understanding of the implementation process in Mopani.

Furthermore, the views of other actors involved in the implementation could not be captured. A research study looking at all role players and their contribution to WBOTs implementation in Mopani could be documented and shared with other implementing Districts.

The views of the recipient will also add a different perspective as this will inform WOBTs implementation at household level.
5.6 Conclusion

This chapter is the final chapter of the research report. It presents the analysis of the research findings. It further proposes recommendations to strengthen implementation of WBOTs and research considerations for in-depth research to facilitate better understanding of the implementation process.

The research study was to investigate the implementation of WBOTs in Mopani District and document the process thereof. The research has demonstrated that there was a process that was undertaken across all the sub-districts under the guidance of the DCSTs. It further indicated that the implementation was run concurrently across all five sub-districts. There were some deviations observed across the sub-districts but these did not hinder programme implementation.

The research went on to describe factors that were reported to have had a positive and a negative effect on the implementation. These were common factors across all sub-districts in the District.

The evaluation of the alignment of the Mopani’s process on the WBOTs implementation to the DoH guidelines was found to have some deviations but the observed deviations were context specific. The DCSTs had employed other strategies which enabled successful WBOTs programme implementation at a sub-district level. Further research to fully understand implementation by all stakeholders is recommended.
REFERENCES


HUMAN RESEARCH ETHICS COMMITTEE (MEDICAL)

CLEARANCE CERTIFICATE NO. M150826

NAME: Ms Lindiwe Madikizela
(Principal Investigator)

DEPARTMENT: School of Public Health
Anova Health Institute, Mopani District, Limpopo Province

PROJECT TITLE: District Wide Approach on Ward Based Outreach
Teams in Mopani: An Evaluation of the Implementation
Process

DATE CONSIDERED: 28/08/2015

DECISION: Approved unconditionally

CONDITIONS:

SUPERVISOR: Prof Shan Naidoo

APPROVED BY: Professor P Cleaton-Jones, Chairperson, HREC (Medical)

DATE OF APPROVAL: 12/10/2015

This clearance certificate is valid for 5 years from date of approval. Extension may be applied for.

DECLARATION OF INVESTIGATORS

To be completed in duplicate and ONE COPY returned to the Research Office Secretary in Room 10004,
10th floor, Senate House/2nd Floor, Phillip Tobias Building, Parktown, University of the Witwatersrand.
I/we fully understand the conditions under which I am/we are authorized to carry out the above-mentioned
research and I/we undertake to ensure compliance with these conditions. Should any departure be
contemplated, from the research protocol as approved, I/we undertake to resubmit the
application to the Committee. I agree to submit a yearly progress report.

Principal Investigator Signature Date 15/10/2015

PLEASE QUOTE THE PROTOCOL NUMBER IN ALL ENQUIRIES
Enquiries: Lefli Shamila  015 2836210

Madikizela L
ANCWA Health
University of Witwatersrand
Human Research Ethics Committee

Greetings,

RE: District wide approach on Ward Based Outreach teams in Mopani: An evaluation of the Implementation process

The above matter refer

1. Permission to conduct the above mentioned study is hereby granted.

2. Kindly be informed that:
   - Permission must be cited on the HREC form (http://hrec.nbuc.org.za) by the researcher.
   - Further agreements should be made with the targeted institutions.
   - In the course of your study there should be no action that disrupts the services.
   - After completion of the study, a copy should be submitted to the Department to serve as a resource.
   - The researcher should be prepared to assist in the interpretation and implementation of the study recommendations where possible.
   - The above approval is valid for a 3 year period.
   - If the proposal has been amended, a new approval should be sought from the Department of Health.

Your cooperation will be highly appreciated.

Head of Department

Date

19 Olivier Street, Polokwane, 0700. Private Reg 41500. POLOKWANE, 0700
Tel: (015) 283 8000, Fax: (015) 283 8214/20 Website: www.limpopo.gov.za

The heartland of Southern Africa--development at heart of people.
Information sheet and Consent Form

Study Title: District Wide approach on Ward Based Outreach Teams in Mopani: An Evaluation of the implementation process

Who am I and what am I doing
Hello, my name is Lindiwe Madikizela. I am a student at Wits School of Public Health doing a Master’s degree in Public Health. I am conducting a study on the implementation of Ward Based Outreach Teams (WBOTs) in Mopani District for partial fulfillment of my degree.

What is the purpose of the study?
The study investigate the processes or mechanisms that the district employed in implementing WBOTs in Mopani district. The study will further look at the factors that have contributed towards implementation and the alignment of the approach adopted in the Mopani district to the Department of Health WBOTs implementation Strategy. I am interested in the views of the managers involved in WBOTs implementation. You are one of the twelve that I have identified.

Why have you been invited to take part?
You have been invited to take part because of your involvement in the implementation of WBOTs in the Mopani district. I believe that you have substantial insight and experience and you may provide me with information on how the implementation process unfolded.

What procedures are involved?
I will ask you to answer a few questions that explores your views on the implementation of WBOTS in the district, the factors that contributed to implementation and recommendation that could contribute to strengthening WBOTs implementation.

Do you have to participate in the interview?
No. You can refuse to be interviewed, your participation in voluntary. Even if you agree, you can change your mind at any time. You will not be prejudiced in any way for non-participation. If you agree, the interview will take approximately 40 minutes.

What are the risks of taking part in the interview?
At this present time, I do not foresee any risk in your participation. If there is a question that you are not comfortable responding to, you are allowed not to answer it or to stop the interview.
What are the Benefits?
Also note that there are no direct benefits to you if you agree to the interview. However, lessons learned from this study will assist the other districts in Limpopo province and in other provinces in strengthening their WBOTs programmer implementation.

What will happen to the data and how will confidentiality be maintained?
I am not going to record your personal information in the questionnaire (that is your name). The interview is completely confidential. Your participation and the records of the interview will be kept confidential and they will only be utilized for the purpose of the study.

What will happen to the results?
The results will be included in the MPH academic publications, conference presentations and reported back to all the participants (you will be able to see the results and a summary report).

What do you need to do?
If you agree to participate, you will need to sign the informed consent form below and return it to me. You are free to discuss any questions you may have about the study with me. The facilitation of the interview will be done by myself at a time and place convenient to you and may take about 45 minutes to one hour. Because the interviews will be taped I will ask for your permission separately for audiotaping.

Will participants be paid?
Persons who take part in the interview will not be paid.

Was this study ethically approved?
This study proposal was approved by the Human Research Ethics Committee (Medical) at the University of the Witwatersrand before it was implemented.

Who can I contact if I have questions?
For questions related to the study, please contact me, Lindiwe Madikizela at 011 581 5000 or email me at lfmadikizela@gmail.com. If you are unhappy in the way the research is conducted you may contact the Chairman of the Ethics Committee Professor Peter Cleaton-Jones through the secretariat at 011 717 1234.
Informed Consent for In-depth Interviews

DECLARATION (CONFIDENTIAL)

Consent to take part

I, ______________________________________________________________ (full names of participant) confirm that I understand this consent form and the nature of the study and agree to take part.

I agree to participate in the in-depth interviews?

I understand that I can withdraw from the study at any time.

SIGNATURE OF PARTICIPANT: ________________________________

Study Code: ______________

Date: _________________________ Place: _________________________
Consent for audio taping

I hereby confirm that I have been informed by the researcher, Lindiwe Madikizela, about the nature, conduct, benefits and risks of the study. I have also received, read and understood the written participant sheet.

I understand that I can decide on whether or not for the interview to be tape recorded and that there will be no prejudicial consequences for me if I do not want the interview to be recorded. I understand that if the interview is tape-recorded, the tape will be safely stored for five years after the interview has been transcribed, and then destroyed.

I understand that I can ask the person interviewing me to stop tape recording, and to stop participating altogether, at any time.

I hereby give my written consent to be tape recorded.

Participant

____________________________  ____________________
Print Name                     Signature

Date: _________________________  Place: _________________________

I Lindiwe Madikizela herewith confirm that the above participant has been fully informed about the nature and conduct of the above study and freely consented to be tape recorded.

Researcher

____________________________  ____________________
Print Name                     Signature

Date: _________________________  Place: _________________________
Study Title: District Wide approach on Ward Based Outreach Teams in Mopani:

An Evaluation of the Implementation Process

NB: After each probing question reflect on the in-depth interview findings and assess if there is consensus or if a new argument is developing?

Background Information

1. Sex  a. Female  b. Male (Circle the right answer)
2. What is your current position ________________
3. Length of service in the current position __________ (Years or Months)
4. For how long have you been involved in implementation of WBOTs in the district/sub-district ______
5. What is your role in the implementation of WBOTs? (Please explain the level of involvement)
6. How were you appointed to this position?
   a. Probe if the position is full time or the person still does other work in the position she/he was in.
7. Please describe your work in WBOTs implementation? (Probe for both positive and negative aspects)
   a. How do YOU feel about what you are doing (your works)? Please explain why

Role of District, sub-district, facility and NGO on WBOTs implementation

8. In your understanding, what role do the district play on WBOTs implementation? (Please explain—Probe for the role played by district in ensuring full implementation of WBOTs)

9. In your understanding, what role do sub-district play on WBOTs implementation? (Please explain—Probe for the role played by sub-district in ensuring full implementation of WBOTs)

10. In your understanding, what role do facility play on WBOTs implementation? (Please explain—Probe for the role played by sub-district in ensuring full implementation of WBOTs)

11. In your understanding, what role do the NGO play on WBOTS implementation?
   a. Probe for support provided by NGOs

Implementation process questions

In-depth Interview Guide for DOH Programme Staff
12. Please describe the process followed when planning for the implementation of WBOTs in the district.
   a. **Probe for** the selection of CHWs—who are the CHWs and how were they selected?
   b. **Probe for** selection of team leaders—who are the team leaders and how were they selected?
   c. **Probe for** other staff categories that were appointed in the DoH side to support the implementation of WBOTs—Who are they? their role? and if they are full time on WBOTs?
   d. **Probe for**: what was done to prepare the community, the facilities—the approaches that was used for community awareness and if it was effective or not—How was it effective? Why was it not effective?

13. Do you know of the National Guide for implementation of PHC Reengineering especially the implementation of Ward Based Outreach Teams (WBOTs)?
   a. Yes
   b. No

14. If yes, would you say that the process followed in implementing WBOTs in your district is in line with this guide? **(Please explain how it is inline or not in line with the NDOH Provincial guide)**

15. What do you consider to have contributed the most towards the implementation of WBOTs in your area? **Please explain.**

16. What do you consider to be the most programme positive aspects (characteristic)? **Please explain**

17. What do you consider to have contributed the least? **Please explain**
   b. **Probe**: and how has this compromised the implementation of WBOTs?

18. Are the WBOTs well received in the community by community member and structures?
   a. **Probe**: Do the WBOTs find their work well recognised/appreciated by the community? **(Please explain)**

19. In your view, how is the relationship between WBOTs and health facility they are linked to? **(Please explain)**
   a. **Probe**: Do you think the WBOTS are well integrated in the facility **(please explain)**
   b. **Probe**: Do the WBOTs find their work recognised/appreciated by the staff at the in the facilities they are linked to? **(Please explain or give examples)**

**Recommendations**

20. What would you recommend for WBOTs programme continuity, any suggestions to improve the programme implementation? **Please explain why**
In-depth interview Guide for NGO Managers

Study Title: District Wide approach on Ward Based Outreach Teams in Mopani:

An Evaluation of the Implementation Process

NB: After each probing question reflect on the in-depth interview findings and assess if there is consensus or if a new argument is developing?

Background Information

1. Sex a. Female b. Male  (Circle the right answer)
2. What is your current position ________________
3. Length of service in the current position___________  (Years or Months)
4. For how long have you been involved in implementation of WBOTs in your area_____
5. What is your role in the implementation of WBOTs? (Please explain the level of involvement)
6. How did your NGO get involved with WBOTs implementation?
   a. What was the NGO doing prior to being involved with PHC Reengineering?
   b. What role does your NGO play on WBOTs implementation?
7. Please describe your work in WBOTs implementation? (Probe for both positive and negative aspects)
   a. How do YOU feel about what you are doing (your works)? Please explain why

Role of District, sub-district, facility and NGO on WBOTs implementation

8. In your understanding, what role do the district play on WBOTs implementation? (Please explain)

9. In your understanding, what role do sub-district play on WBOTs implementation? (Please explain)

10. In your understanding, what role do facility play on WBOTs implementation? (Please explain)

11. What role does your NGO play on WBOTS implementation in your area?
   a. Probe for support provided by NGOs and activities.

Implementation process questions

12 Please describe the process followed when planning for the implementation of WBOTs in your area.

   a. Probe for the selection of CHWs—who are the CHWs and how were they selected?
b. **Probe for** selection of team leaders—who are the team leaders and how were they selected?

c. **Probe for**: what was done to prepare the community, the facilities—the approaches that was used for community awareness and if it was effective or not—How was it effective? Why was it not effective?

13. What do you consider to have contributed the most towards the implementation of WBOTs in your area/sub-district? **Please explain.**

14. What do you consider to be the most programme positive aspects (Characteristics) in your area/sub-district? **Please explain**

15. What do you consider to have contributed the least? **Please explain**
   a. **Probe**: and how has this compromised the implementation of WBOTs?

16. In your view, are the WBOTs (community health workers) well received in the community by community member and structures?
   a. **Probe**: Do the WBOTs find their work well recognised/appreciated by the community? (Please explain)

17. In your view, how is the relationship between WBOTs and health facility they are linked to? (Please explain)
   a. **Probe**: Do you think the WBOTS are well integrated in the facility (please explain)
   b. **Probe**: Do the WBOTs find their work recognised/appreciated by the staff at the staff in the facilities they are linked to? (Please explain or give examples)

**Recommendations**

18. What would you recommend for WBOTs programme continuity, any suggestions to improve the programme implementation? **Please explain why**
PLAGIARISM DECLARATION TO BE SIGNED BY ALL HIGHER DEGREE STUDENTS

SENATE PLAGIARISM POLICY: APPENDIX ONE

I, Lindiwe Fortunate Madikizela________ (Student number: 0214744N) am a student registered for the degree of MPH______________ in the academic year 2016_____.

I hereby declare the following:

- I am aware that plagiarism (the use of someone else’s work without their permission and/or without acknowledging the original source) is wrong.
- I confirm that the work submitted for assessment for the above degree is my own unaided work except where I have explicitly indicated otherwise.
- I have followed the required conventions in referencing the thoughts and ideas of others.
- I understand that the University of the Witwatersrand may take disciplinary action against me if there is a belief that this is not my own unaided work or that I have failed to acknowledge the source of the ideas or words in my writing.

Signature: ___________________________ Date: 21/10/2016