

A comparative study of the quality of maternal health service provision in church mission and government hospitals in Zimbabwe. The Case of the Harare Central and Karanda hospitals

by

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DECLARATION

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ABSTRACT

The purpose of this study was to compare the quality of maternal health service provision in church mission and government hospitals in Zimbabwe. A purposive sample of 64 participants was used for collecting data. The sample consisted of 60 women seeking maternal health services and four health professionals representing service providers. Participants were drawn from the Karanda Mission and Harare Central hospitals.

Questionnaires were used as interview guides for in-depth interviews with research subjects. The questionnaires were used to investigate how patients perceive service delivery at each of the institutions and their reasons for choosing to visit the particular hospital. Questionnaires for the matron and director of maternity services, on the other hand, investigated the success and challenges faced by maternity health service providers. Interviews were conducted face to face; notes were handwritten, and transcribed at the end of each day. Data coding was used for analysis.

The study revealed that the range of maternal health services at the church mission hospital and the government hospital did not differ significantly. Though they provide similar maternal health services, the major distinguishing factor was the ownership, management and administration of these hospitals. These factors have an influence on user fees; availability of skilled attendants; availability and adequacy of services; and availability of essential medicines and equipment.

The study concludes that women bypass government hospitals in preference of church mission hospitals where they expect more positive health outcomes for them and their newborns. The quality of maternal health service is said to be better at mission hospitals such as the Karanda Mission. Factors mentioned by participants as constituting quality are the ability of service providers at church mission hospitals to manage complications; the availability of skilled local and expatriate doctors; short waiting periods; and availability of essential medicines and equipment such as incubators and resuscitators.

The research hypothesis can be accepted as true though more research needs to be done to cover all mission hospitals and nearby government hospitals.

OPSOMMING

Die doel van hierdie studie was om die gehalte van gesondheidsdienslewering aan moeders deur kerkverwante sendinghospitale en staatshospitale in Zimbabwe te vergelyk. 'n Doelgerigte steekproef van 64 deelnemers is vir die insameling van data gebruik. Die steekproef het uit 60 vroue wat die gesondheidsdiens vir moeders benodig het en vier professionele gesondheidswerkers wat diensverskaffers verteenwoordig het, bestaan. Deelnemers is uit die Karanda Sendinghositaal en die Harare Sentrale hospitaal verkry.

Vraelyste is as onderhoudgidse vir grondige onderhoude met die deelnemers aan die navorsing gebruik. Die vraelyste is gebruik om hoe pasiënte dienslewering by elk van die instellings sien, en hul redes vir die keuse van die spesifieke hospitaal, te ondersoek. Vraelyste vir matrone en direkteure van kraamdienste, aan die ander kant, het die sukses en uitdagings van die diensverskaffers van kraamgesondheid ondersoek. Onderhoude is van aangesig tot aangesig gehou en die handgeskrewe notas is aan die einde van elke dag getranskribeer. Kodering van data is vir ontleding gebruik.

Die studie het getoon dat die omvang van dienste by die kerkverwante sendinghospitaal en die staatshospitaal nie beduidend verskil het nie. Hoewel hulle soortgelyke kraamgesondheidsdienste voorsien, was die belangrikste onderskeidende faktor die besithouding, bestuur en administrasie van hierdie hospitale. Hierdie faktore het 'n invloed op die gebruikergelde; beskikbaarheid van geskoolde diensdoeners; beskikbaarheid en toereikendheid van dienste; en die beskikbaarheid van noodsaaklike medisyne en toerusting.

Die studie tot die slotsom gekom dat vroue staatshospitale omseil vanweë 'n voorkeur aan kerkverwante sendinghospitale waar hulle meer positiewe gesondheidsuitkomstes vir hulle en hul pasgeborenes verwag. Dit word gesê dat die gehalte van die kraamgesondheidsdiens beter is by sendinghospitale soos die Karanda Sendinghospitaal. Ten opsigte van gehalte, noem deelnemers faktore soos die vermoë van diensverskaffers by die kerk se sendinghospitale om komplikasies te hanteer; die beskikbaarheid van bekwame plaaslike en buitelandse dokters; kort wagperiodes; en die beskikbaarheid van noodsaaklike medisyne en toerusting soos broeikaste en asemhalingsmasjiene.

Die navorsingshipotese kan as juis aanvaar word alhoewel meer navorsing gedoen moet word om alle sending hospitale en nabygeleë staatshospitale te dek.

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CHAPTER 1: INTRODUCTION

1.1 INTRODUCTION

Maternal mortality has remained a challenge and a major concern in Zimbabwe. This affects the young and poorest of Zimbabwean women. According to the World Health Organisation (WHO), the Zimbabwean maternal mortality ratio (MMR) has decreased from 960 deaths per 100 000 live births in 2010 to 614 deaths per 100 000 live births in 2014 (WHO, 2014). The decrease has been attributed to intervention by the international community through the health transition fund (HTF), which is a multi-donor fund aimed at improving maternal, new-born and child health in Zimbabwe from 2011 to 2015.

The situation has stabilised, but the maternal mortality remains high and a challenge, with the United Nations considering 500 deaths per 100 000 to be very high (United Nations, 2015). Zimbabwe is failing to meet the MDG target of 71 deaths per 100 000 by end of 2015 (WHO, 2014). The socio-economic crisis in Zimbabwe has affected the Zimbabwean health sector negatively for the past 20 years (United Nations Zimbabwe, 2013). This has been characterised by severe shortages of skilled health professionals, drugs and essential equipment, as well as frequent power cuts which affect some medical procedures and put lives and the health of expecting mothers and their new-borns at risk. The World Health Organisation states that “women die every day as a result of preventable and avoidable factors, also referred to as the three delays” (2015). These factors include the delay by women to seek care; delay due to difficulty in accessing a health facility; and, lastly, the delay faced by a woman within a health facility (Munjanja, Nystrom, Nyandoro & Magwali, 2007).

These avoidable factors have contributed immensely to the high maternal mortality in Zimbabwe; yet they are factors that can be prevented. In addition, women suffer every day in and outside the health facility as a result of delays in referral from small clinics to highly specialised hospitals; inadequate treatment at the hospital; incorrect treatment by health professionals; lack of transport for them to go to the clinic; delays by health professionals in making the decision to refer patients to the referral hospital where there are specialised health professionals; incorrect diagnosis by the health professionals; inadequate resources at the hospitals and at home; and failure by health professionals to assess the severity of health conditions (Fawcus, Mbizvo, Lindmark & Nystrom, 1996).

The availability of maternal health institutions in a country does not necessarily guarantee a positive maternal health outcome. In Zimbabwe, for example, there are municipal clinics which serve as primary care health facilities for the people and make referrals to the main government hospitals in the country in the case of emergency or serious ailments. There are also private health institutions and private non-profit hospitals, the church mission hospitals. With so many care outlets available, one questions the reason for such a high maternal mortality rate in Zimbabwe. To explore some of the reasons for this, I propose to assess the quality of maternal health service provision in the country by undertaking a comparison of a church mission hospital and a government hospital in Zimbabwe. These are the institutions that serve the largest and poorest population in the country.

This introductory chapter presents the background to the rise in maternal mortality in Zimbabwe, focusing on why it has come to this and what has led to the situation. This is followed by the presentation of the hypothesis, objectives, motivation, research design and methodology. The chapter it ends with the outline of the structure of the entire research study.

1.2 BACKGROUND

Zimbabwe is one of several sub-Saharan countries with a high maternal mortality rate, where women die as a result of obstetric complications that can be prevented or avoided. Research shows that 99% of maternal deaths occur in developing countries and the highest rates are found in sub-Saharan Africa and Asia (WHO, 2013). Zimbabwe being part of sub-Saharan Africa, had a maternal mortality rate of 614 deaths per 100 000 live births in 2014 (WHO, 2014). It is possible to argue that maternal mortality is an urgent health problem in Zimbabwe that needs to be solved. This research intends to assess the quality of maternal health service provision in mission and government hospitals in Zimbabwe as these are the two main providers of maternal health services.

Having followed the global trends and development, it is clear that maternal mortality is on the global agenda and that the world seeks to reduce maternal mortality, which is the Millennium Development Goal 5 (MDG5), which aims to reduce the maternal mortality ratio by three quarters between 1990 and 2015 and achieve universal access to reproductive health (WHO, 2014). Research has shown that “maternal mortality has declined by 2, 6% per year from 1990 to 2013 which is far from the annual decline of 5, 5% required for the MDG 5” (WHO, 2014). The Millennium Development Goals report states that, “there is much work to

be done to provide care to pregnant women” (United Nations, 2014). The Africa Union and United Nations Population Fund Agency also launched an initiative in 2010, the Campaign for Accelerated Reduction of Maternal Mortality in Africa, to further strengthen the Maputo Declaration of 2006 which was targeted to reduce maternal mortality and improve sexual and reproductive rights (Africa Union Commission, 2011).

Large disparities between private and public hospitals regarding maternal service provision have motivated me to carry out this study. It seems that large gaps exist regarding the type of service and the care offered by the two different institutions. The United Nations Development Programme has highlighted that most of the maternal deaths in 2013 took place in sub-Saharan Africa (62 per cent) and Southern Asia (24 per cent). They further mention that regular access to health care is a major challenge for women in developing countries (2014).

1.3 MOTIVATION AND RATIONALE

A profound interest in the welfare of women has motivated the researcher to carry out this study in order to establish the quality of maternal health service provision in Zimbabwe and explore the reasons why Zimbabwe keeps lagging behind in reducing maternal mortality. Women should not die from preventable causes and for women to be afforded an environment conducive to giving birth that leaves both the mother and baby safe and healthy is part of the right to health. This qualitative study was therefore undertaken to establish the relationship between maternal mortality (MDG5) and the quality of maternal health service provision in Zimbabwe by exploring the differences and similarities in maternal health service provision of church mission hospitals and government hospitals in the country.

1.4 SIGNIFICANCE OF THE STUDY

This study is of importance because it may help to uncover the underlying conditions emanating from both maternal health service providers and patients themselves, which contribute to high maternal mortality in Zimbabwe. With the maternal mortality rate remaining high in a country where there are available maternity health service providers, it is important to ascertain the quality of maternal health service provision. In addition, it seems that the maternal mortality rate has remained high even after hospitals received external donor support in the form of medical supplies, equipment and help to retain its human resources.

Exploring the maternal health service provision in both church mission and government hospitals will facilitate a broader view and analysis of the service in the country, considering that these two hospitals serve the large and mostly poorer population in the country.

The study allows women who are potential victims of maternal death and those providing maternal service to give their views on the quality of maternal health service provision in relation to the high maternal mortality in the country. Through the outcome of the research study, their views could possibly influence health administrators and policy makers in revamping the maternal health system by developing and enacting policies that are able to bring about positive change in maternal health and the wellbeing of women.

1.5 PROBLEM STATEMENT

Zimbabwe is burdened with a high rate of maternal mortality, reported in 2014 to be 614 deaths per 100 000 live births (WHO, 2014). Compared to the previous rate of 960 deaths per 100 000 live births, the mortality rate has decreased but remains high (World Bank, 2013). Women die as a result of birth-related complications that are said to be avoidable. The target of Millennium Development Goal 5 is to reduce the maternal mortality ratio by three quarters between 1990 and 2015. While it seems that the mortality rate to date has decreased, it does not meet the required target.

The question that remains concerns why the maternal mortality rate remains high in a country where maternity service provision is available. The missing link needs to be established to determine what is contributing to high maternal mortality. The literature has shown that most people favour the use of church mission hospitals as compared to government hospitals (Zwi, Brugha & Smith, 2001). This study will help establish the quality of maternal health service provision in Zimbabwe's hospitals by exploring the differences between church mission hospitals and government hospitals. The study will help discover how maternal health service provision is related to maternal mortality and how best maternal service provision can be improved to influence a reduction in maternal mortality.

1.6 HYPOTHESIS

The basic premise of this study was that church mission hospitals provide better maternal health service than government hospitals.

1.7 OBJECTIVES

The objectives that formed the foundation for the study were:

1. To examine the quality of maternal health service provision in church mission and government hospitals.
2. To establish the type of maternal health service available at church mission and government hospitals.
3. To explore factors attracting maternal patients to church mission hospitals and government hospitals respectively
4. To establish the determinants of maternal mortality at Karanda and Harare Hospitals respectively.
5. To suggest possible ways of reducing maternal mortality in Zimbabwe

1.8 RESEARCH DESIGN AND METHODOLOGY

This qualitative research study takes the form of a comparative analysis of the church mission and government hospitals. Purposive sampling was used in a sample of 64 study units that included directors of hospitals, hospital matron and maternity patients. Data collection incorporated face to face interviews, structured questionnaires and the examination of maternity records.

Empirical and non-empirical studies were used to gather evidence for the purposes of this research. The empirical study took the form of a comparative study design, which focused on similarities and differences between the church mission hospital and the government hospital. It sought to find out the strengths and weaknesses in each maternal health delivery system and attempted to bring out the differences between maternity service provided in church mission and government hospitals.

Existing data in the form of maternity records were used at the respective hospitals to determine the maternal mortality rates in relation to the maternal health service provided at each hospital. The advantage of using existing data is that cost and time are reduced when data from previous studies are readily available (Mouton, 2001). On the other hand, the

weakness of using existing data is that users of such data have no control over mistakes made in data collection and analysis thereof is threatened by a misunderstanding of the intended original objectives of the research. The researcher also used the hospital's inventory records to check the available equipment and vehicles present at the hospital.

A literature review was also used as a non-empirical study to complement evidence obtained from the comparative study and existing data by giving the study a background of what other scholars have written about on church mission and public hospital.

1.9 SUBJECT OF THE STUDY

The subjects of the study were women seeking maternal health services and health professionals at the respective hospitals. The latter included doctors, the directors of the hospitals and matrons in charge, and maternity patients at each hospital.

The researcher made appointments to reach the medical superintendents/ clinical directors of the hospital and matrons in charge of both hospitals and asked for permission interview their doctors, midwives and nurses. The researcher also asked for permission to access the maternity records to observe the number of maternal deaths and their causes to help assess the determinants of maternal mortality.

1.10 SAMPLING

Non-probability sampling in the form of purposive sampling was used in this study because it enabled the researcher to identify sources of information for a specific purpose in the research. The health professionals had the expertise and knew the problems in the system and women seeking maternity services could provide the client perspective of the maternity service provision.

As shown in Table 1.1, a total number of 64 participants were included in this sample. It was composed of the director of Karanda Hospital, director of Harare Hospital, one matron in charge from each hospital, 10 patients waiting for family planning service at each hospital, 10 patients waiting for delivery at each hospital, 10 patients waiting for post natal service at each hospital. Health professionals were chosen because of their direct involvement in the provision of maternity services. They are the service providers who know the constraints and challenges in the system. They are able to explain why women are dying when giving birth.

The heads of the hospitals were necessary to the study because they have the overall duty of ensuring that services are delivered effectively at the hospital. They are able to provide information on what is affecting the maternity service provision at the hospital. Women seeking maternity services were chosen to provide their own perspective on the quality of maternity service provision from a health service perspective. A small group was chosen for the study as it permitted the researcher to obtain in-depth information on the problem at reduced cost and time considering the researcher's available resources.

Table 1.1: Sample of the Population

| Karanda hospital | No. of participants | Harare Hospital | No. of participants |
|---|----------------------------|---|----------------------------|
| Director | 1 | Director | 1 |
| Hospital matron | 1 | Hospital matron | 1 |
| Patients for family planning service | 10 | Patients for family planning service | 10 |
| Patients waiting for delivery | 10 | Patients waiting for delivery | 10 |
| Patients waiting for post natal service | 10 | Patients waiting for post natal service | 10 |
| Total | | | 64 |

1.11 DATA COLLECTION

Face-to-face interviews, structured questionnaires and examination of maternity records were used to obtain data. Interviews were conducted with doctors, directors of the hospitals and matrons in charge of the hospitals.

Interviews were conducted with admitted patients at the time of the survey to get information regarding their perceptions on the quality of maternal health service provision at the respective hospitals and why they chose the specific hospital compared to other hospitals in their proximity.

A review of maternity patients' records was also carried out to check information relating to the number and causes of maternal deaths.

1.12 DATA ANALYSIS

After collecting all questionnaires, responses were entered into the computer. For the purpose of identification, a number was assigned to each respondent; the first questionnaire received was identified, for example, as “1”. Data from the interviews were hand written and recorded by the researcher and then transcribed within three days to avoid forgetting the meaning of the content of the interview.

Data coding was used in the research study. This is defined as, “the process of combing the data for themes, ideas and categories and then marking similar passages of text with a code label so that they can easily be retrieved at a later stage for further comparison and analysis” (Taylor & Gibbs, 2010:1). Data analysis seeks to see if, “there any patterns or trends that can be identified or isolated to establish themes in the data” (Mouton, 2001:108).

In this qualitative study, information based on the statements that came from the interviews was coded. This allowed data to be put into tiny fragments and be coded and put into nodes.

1.13 STRUCTURE OF THE THESIS

The following section summarises outlines what is presented in each chapter of the thesis.

Chapter 1: This chapter provides the background on maternal mortality in Zimbabwe. This is followed by the problem statement which states why and how maternal mortality is a problem in Zimbabwe. This chapter also presents the rationale for carrying out the study, the hypothesis and objectives of the study, the research design and methodology, sampling data collection and analysis. A definition and discussion of the structure of the study conclude this chapter.

Chapter 2: The literature review provided a discussion on the quality of maternal health service provision on the basis of service accessibility, service availability, infrastructure and availability of professional skilled workers and training going on to upgrade their skills.

Chapter 3: This chapter comprises a discussion of the case study on the Zimbabwean maternal health system. It provides an overview of the relevant legislation and policies relating to maternal mortality at international, regional and local levels to which Zimbabwe is a signatory. It also explores the status quo of the health service delivery in the country and its challenges.

Chapter 4: The research design and methodology used for the study are presented in this chapter. Data collection and data analysis are also explained here.

Chapter 5: The study's field findings from individual in-depth interviews, questionnaires and existing data are presented and discussed in Chapter 5.

Chapter 6: Presents **conclusions** and recommendations.

The researcher will summarise the findings from the study, present conclusions and make recommendations.

1.14 LIMITATION AND SCOPE

The research encountered a potential confidentiality threat from the employees of the hospitals. They probably felt that they were divulging private matters regarding the hospital by giving information that could place the hospitals in disrepute. The researcher stressed that the study was only intended for academic purposes and was not to be used beyond this limit.

The total number of research participants was 64 and the study was confined to Karanda Mission Hospital and Harare Central Hospital.

1.15 CONCLUSION

The current chapter has focused mainly on the background of the study and on explaining the rationale or motivation for the study, and presenting the problem statement, research objectives, research methods, and the mode of data analysis carried out. The last section gave a brief overview of the outline of the rest of the chapters in the thesis. The following chapter is focused on a literature review discussing theories of maternal health system and variables that attempt to explain the concept of quality of maternal health service provision.

1.16 DEFINITION OF CONCEPTS

Maternal death is defined as, “the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes” (World Health Organisation, 2015).

A **government clinic**, and **hospital facility** is a hospital that is owned and funded by the government whereas a **church mission hospital** is a hospital owned and funded by the church. Both are public hospitals.

Maternity service is the service provided to women during the prenatal, labour and postnatal period. Prenatal health care includes health education and promotion, and interventions that minimise complications during pregnancy, delivery and the post natal period. Post natal health care includes helping a woman recover from childbirth and advice given on new-born care, nutrition, breast feeding and family planning methods (World Health Organisation, 2006).

Quality of maternity services is defined as “the degree to which maternal health services increases the likelihood of timely and appropriate treatment for the purpose of achieving desired outcomes that are both consistent with current professional knowledge and uphold basic reproductive rights” (Van den Broek & Graham, 2009).

Service accessibility is defined as the “ease of contacting providers for appointments, length of time it takes to get an appointment and proximity of providers to patients” (Hall *et al.*, 2008). It can also be explained as the spatial distribution of services in relation to the distribution of the needs of people (Savedoff, 2009).

Service availability is defined as, “the availability and adequate supply of maternal services” (Gulliford, Figueroa, Morgan, Beech & Hudson, 2002).

Infrastructure refers to basic facilities, services, and equipment needed for a hospital to function properly.

Staffing and management refer to the professional health workers employed at the hospitals and management incorporates who own the hospitals and the management style.

CHAPTER 2 - CONCEPTUAL FRAMEWORK AND LITERATURE REVIEW

2.1 INTRODUCTION

Chapter 1 provided the background to the study by highlighting the problem of high maternal mortality in Zimbabwe. It explained why and how the research study was going to be conducted. This chapter starts by explaining the theoretical framework of the research study. It exposes the reader to the major contributions by scholars in the field of maternal health regarding the quality of maternal health service provision. A thematic approach has been used in this study to organise the literature. Literature is reviewed on the basis of the concepts of service availability, service accessibility, infrastructure and staffing, and management. The chapter concludes by presenting the major findings in the literature reviewed

2.2 CONCEPTUAL FRAMEWORK

Figure 2.1 provides a conceptual framework for maternal health service delivery or provision. It helps to determine what is needed to have an efficient maternal health service and what can be deemed quality in maternal health service delivery.

Figure 2.1 shows the different variables that affect maternal outcomes in a country. Policy and legal frameworks have great influence on the overall functioning of a hospital. Laws and regulations define access to health: this may involve user fees, availability of a variety of services and availability of transport. Different countries have different rules and regulations that guide how health facilities should operate in serving their respective patients.

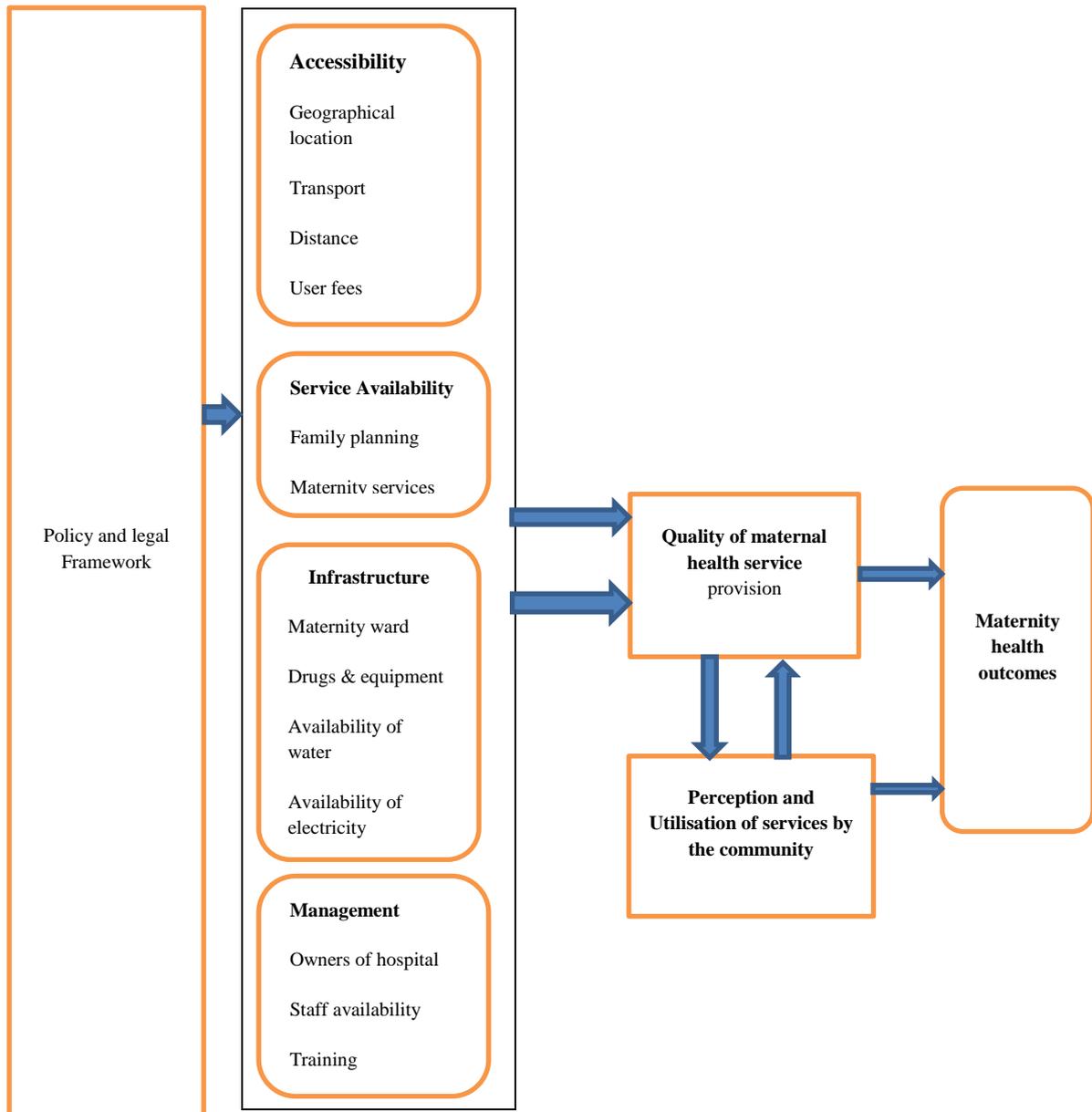


Figure 2.1: Conceptual framework of maternal health service Delivery

Source: *Own 2015*

The diagram illustrates that policy and legal frameworks affects the accessibility of services in an area. Regarding accessibility, one looks at geographical location, user fees, transport and distance. The geographical area where a maternity facility is situated affects the number of women attending it. An institution situated in a remote area and difficulty in reaching it, will result in women giving birth at home without skilled midwives to attend to them. In other cases women will not make use of all prenatal services required for screening possible risk

factors in pregnancy. In some cases user fees are considered to be relatively higher in poor areas.

In some countries, user fees are waived to enable people to access maternal health services. Distance to the maternity hospital also affects utilisation of maternal health services, but the legal framework can put laws in place that permit maternity facilities to be erected in all communal areas to allow easy access to maternity health services. In cases where the distance is a prohibiting factor to maternal health service utilisation, transport should be made available to transport people from home to hospital. Hospital ambulances should be available for emergencies whereby a patient can be fetched from home and taken to a hospital, or transported for referral purposes from one institution to another.

The conceptual framework in Figure 2.1 also shows how the policy and legal framework in a country also affects availability of maternal health services, depending on the religious and cultural background of a country. For example: abortion falls under maternal health service but laws regarding abortion vary from country to country; in some countries it is taboo and is prohibited, so this can result in women reverting to unsafe abortions leading to death. The availability of maternal health services is determined by whether a maternal health facility has all the needed services, which range from having a variety of contraceptives, antenatal services, post natal services, to providing guidance when giving birth. The absence of an adequate maternal health service will also affect the maternal health outcome of women in a society.

Policy and the legal framework also affect the infrastructure in an area with regard to maternity wards, water, electricity, and drugs and equipment. There are laws determining how drugs are imported and used. Water and electricity may be cut at some point and this affects the functioning of hospitals as some hospitals do not have diesel generators to use when there is no electricity. In most rural and remote areas, electricity is lacking and clinics may use candles at night. Policy and legal frameworks should enable the availability of adequate maternity wards, availability of water and electricity, and also smooth importation of drugs and equipment to allow maternal hospitals to function fully.

Policy and legal frameworks affect the management of hospitals in that it determines who owns the hospital, and the style of management differs depending on that. Staff availability and training is also affected by ownership and management of hospitals. For example,

government hospitals are owned by the government in Zimbabwe; it provides for the training of nurses, doctors, midwives and all other health professionals. In government hospitals, the management styles tend to be a top-down approach and is characterised by bureaucracy, whereas in church mission hospitals, the management comprises a private, bottom-up approach. Church mission hospitals receive funding and support from their overseas mother churches, which enables them to have the required drugs, equipment, and better salaries for their employees, compared to public hospital which are funded by government.

The conceptual framework suggests how the policy and legal framework influence service accessibility, service availability, and infrastructure and hospital management, which affect the quality of maternal health service provision. Consequently, the quality of maternal health services will influence the perception and utilisation of maternal health in the community. This, as a result, takes us to the maternal health outcomes which are negatively or positively attained, depending on the events in the chain.

To conclude, regarding the conceptual framework, one can say that the government should put in place policies that enable favourable conditions for service availability, service accessibility, infrastructure and management, which will, in turn, create better quality service provision. When the quality of maternal health service provision is established, the community will have a positive perception of the provided service, which will encourage them to seek services. Hence, utilising maternal health services will enable a positive maternal health outcome for the population.

2.3 LITERATURE REVIEW

The following section is devoted to a discussion of the quality of maternal health service provision in church mission and government hospitals. Quality of maternal health services has been defined as, “the degree to which maternal health service increases the likelihood of timely and appropriate treatment for the purpose of achieving desired outcomes that are both consistent with current professional knowledge and uphold basic reproductive rights” (Van de Broek & Graham, 2009).

Quality is explained from two dimensions: from that of the service delivery and the system, and, on the other hand, from that of the experienced user. It can be measured by the availability and accessibility of services, infrastructure and physical accessibility by users. This section of the literature review is based on the concepts of service availability, service

accessibility, infrastructure, staffing and management in an attempt to highlight the concept of quality of maternity service provided in church mission hospitals and government hospitals.

2.3.1 SERVICE ACCESSIBILITY

Lohela, Campbell & Gabrishy emphasises that access to good quality delivery care is a priority in the reduction of maternal mortality (2012). It can be measured by checking the number of ambulances available to move a patient from one point to another. The ratio of home to hospital deliveries can also be used to measure accessibility. More deliveries at home would mean that there is less accessibility. It can also be measured by calculating the number of hospital admissions for maternity visits.

Poor service accessibility, delay in seeking care and substandard care factors in health institutions were identified as factors responsible for low use of public health institutions and high maternal mortality (Stekelenburg, Kyanaminas, Mukelebai, Wolffers & Van Roosmalen, 2004). These authors further state that distance to the health facility, financial expenses and perceived quality of care has also influenced the decision not to seek maternal care (Stekelenburg *et al.*, 2004). Failure to access maternal health services can result in women using a back door service or giving birth alone with no supervision. Governments need to look at the aforementioned factors inhibiting access to maternal health care and ensure that women are able to seek maternal health care at hospitals. Service accessibility is explored below in terms of distance to the facility, interpersonal aspects of care and cost of service.

2.3.1.1 Distance to the facility

It is a requirement of maternity facilities to have transport in the form of ambulances that fetch women from home to transport them to hospitals or from hospital to hospital in case the patient is referred to another hospital. A study by Deen (2012) found that women in Sierra Leone do not have transport to go to hospitals and cannot afford to use a taxi; hence women are forced to walk long distances or use a motor cycle. Again, in another study conducted in Brazil, it was noted that distances travelled to maternity hospitals were long, regardless of whether the hospital was private or public (Simões & Almeida, 2010).

Deen (2012) explains that, in Sierra Leone, most women missed their appointments because of the distance to the hospital; among 24 respondents, 1% gave the distance to the hospital as

a reason, while 9,6% mentioned having no transport as inhibiting them from accessing services. This shows that maternity facilities that do not have transport to fetch patients results in women walking a long distance to the facility; women giving birth on their way to the facility; and women giving birth at home.

Distance is a critical factor in getting to the hospital, because it inhibits accessibility to maternal health care. Cost, availability of transport and the condition of the roads should be considered (Stekelenburg *et al.*, 2004). When the distance is significant, it leaves the population with a choice between church and government hospitals. Several factors determine the preference for either of these service providers.

Lohela *et al.*, 2012 argued that distances to health centres in developing countries are very long and there rarely is an ambulance available to transport the women, although geographical access to delivery care and level of care offered at a health facility are determinants of facility delivery. One can say that service accessibility in terms of user fees, distance and availability of transport is a major factor in accessing maternal health facilities and the choice of using a hospital is determined by the possibility of accessing a facility. Mutseyekwa (2010) argues that lack of transport upon admission for referral purposes to major public hospitals contributes to inaccessibility of maternal health services. He further mentions that, in one district of Zimbabwe where there are 50 primary health facilities, only two ambulances are available to deal with emergencies. A pregnant woman interviewed in Zimbabwe stated that she preferred the St Luke Catholic mission hospital despite the distance, since it receives funding, equipment, and drugs from Europe and the United States where the parent churches are. She also believed that such funding was the reason why the service is of quality and cheaper compared to government health care centres which are poorly equipped (The National, 2009).

In addition it was noted that some people in urban areas prefer to go to church mission hospitals in rural areas where they claim they are being treated with dignity (Zim Eye, 2015). Moreover, a spokesperson for 126 members of the Zimbabwe association of church-related hospitals reported that many people in Zimbabwe seek maternity services at church mission hospitals to the extent that their service is now stretched (The National, 2009).

Transport and distance to maternal facilities inhibit access to maternal health services. It has been argued that the timely access to emergency obstetric care is important to save the lives of

women experiencing complications at delivery. It has been emphasised that there should be a sound financial mechanism in health systems to ensure that women access services and reduce out of pocket spending (Honda, Randaoharison & Matsui, 2011).

Non-medical costs involving transport and accommodation hinder access to emergency obstetric care in the public sector. Honda, Randaoharison and Matsui (2011) further add factors such as geographical distance; lack of knowledge and cultural barriers; and inadequate antenatal care as other possible reasons for not accessing health facilities. However, a study conducted in South Africa found that when the government removed user fees affordability remained an issue because of the high cost of transport to the facility and the purchasing of items required for delivery (Sihal, *et al.*, 2012).

A study undertaken in Bolivia, in Yacapani rural villages, revealed that barriers to accessing health service are extended beyond cost to include transportation, lodging, number of days of work lost, cost of service, payment for medicine in the hospital pharmacy, cotton sheets, gas for ambulance, laundry service and food (Otis & Brett, 2008). This shows that a number of factors besides user fees that affect access to maternal health services. In order to enhance access to maternal health services, there is a need to solve the problem of user fees, distance, and transport and ensure that resources needed for delivery are available.

2.3.1.2 Cost of service

User fees are a factor that inhibits access to maternal health service. A study carried out by Levin *et al.* (cited in Widmer *et al.*, 2011) revealed that government and church mission hospitals provided similar services but maternal health services were more expensive at church mission facilities. Costs related to obstetric complications were higher at government facilities in Malawi and Ghana, but in Uganda costs were found to be higher at church mission hospitals because of more resources, staff and time used.

The main reason given for the low cost of services in most church mission hospitals was that these hospitals are able to maintain skilled health staff on a voluntary basis. Gill & Carlough (2008) affirm that most church mission facilities value and promote compassionate services, as established by their research in Uganda which revealed that some of the qualified medical staff earn less than market wage but were more likely to provide service with an element of public good. This shows that there are variations in the use of church mission and government

hospitals in different countries but the most determinant factor is the cost of service which varies from one country to another.

Cost of services is a constraining factor in accessing maternal health services. Tunçalp, Hindin, Adu-Bon Saffoh & Adanu (2012) state that the cost of service was a factor limiting accessibility to health service in Ghana because the national health insurance only covered delivery ; if a woman has a severe maternal morbidity, the cost of hospital charges would rise rapidly. Drugs, for example, are not included in insurance and are not found at the hospital.

A study conducted in four hospitals in Zimbabwe, established that cost at the hospital per inpatient admission were 40%-50% lower at the church mission hospital than at two government hospitals. On the other hand, outpatient costs to the hospital per visit were up to four times more at the government hospital than at two mission hospitals (Gill & Carlough, 2008). This shows the differences in the expenses incurred by both hospitals and how it affects the cost of service to the population in the country. The cost of services will naturally have an influence on women's choice of hospital, whether a church mission or a government hospital.

Generally, the cost of maternal health service in mission hospitals is less, compared to public hospitals, and although this still varies from one country to another. In some countries mission hospitals are more expensive than government hospitals, as shown by Levin, Dymytraczenko, McEuen, Ssengooba, Mangani & Dyke (2003), who state that cost for obstetric care was higher at the mission than the public hospitals in Malawi and Ghana, due to high user fees and travelling costs.

The higher user fee at church mission hospitals was attributed to the amount of work and the use of highly skilled professionals at these hospitals. The differences between public and church mission hospitals in the unit cost of maternal health services are illustrated by church mission hospitals in Malawi and Ghana, where the cost is 30% more than in public hospitals because of more effort and materials used in providing services (Levin *et al.*, 2003). Services are expensive where expertise, knowledge and skills are available.

The literature has shown that church mission hospitals are favoured by women. In their survey of the Tudor District in Tanzania, Tabatabai, Henke, Susac, Kisanga, Baugarten, Kynast-Wolf, Ramroth & Marx (2014) mention that Tanzanian church mission facilities have a good reputation and are perceived to be a provider of better maternal health services than the

government care provider. In another study, carried out in Swaziland, higher user fees of mission hospitals than that of public hospitals led to a lower demand for their service although their services are perceived to be of higher quality (Yoder, 1989). This shows that user fees can turn away maternal patients even if the service of the facility is perceived to be good and of high quality.

Church mission hospitals have also been identified as having lower user fees compared to public hospitals. In a study conducted in South-East Nigeria, the cost of service delivery in church mission hospitals was regarded as almost free, compared to public hospitals (Ogunnyiyi *et al.* (2002), cited in Onah, Ikeako & Iloabachie, 2006). This shows why women in this region make use of church mission hospitals rather than government hospitals. Levin *et al.* explain, however, that government hospitals suffer from scarce resources, limited government budgets, mal distribution of health centres, and lack of transport (2003). This explains why church mission hospitals are preferable to public hospitals, as shown in a study carried out in three countries, with women in Malawi, Ghana and Uganda indicating that they preferred services at church mission hospitals above public hospitals (Levin *et al.*, 2003).

Gill & Carlough (2008) claim that church mission hospitals have the advantage of more resources and greater access to expatriate staff, especially for training, and more flexibility in hiring and managing staff and in procuring medicines and supplies. This shows that the strength of church mission hospitals is the availability of adequate drugs, equipment, service at low cost and its continuous external support.

2.3.1.3 Interpersonal aspect of care

Other factors affecting access to maternal health care are the way people are treated when they reach the maternal facility. Health professionals disrespect patients and the time they take to attend to them is long. It has been argued that from a health systems perspective, service delivery and interpersonal aspects of care play a crucial role and that poor quality health care services affect access and effectiveness (Turnçalp *et al.*, 2012).

In a study carried out in South-east Nigeria, it was revealed that the promptness of care and friendliness of health professionals were factors mentioned in favour of church mission hospitals as compared to the delays in initiating treatment, leading to maternal deaths in public hospitals. Unfriendliness and the lack of compassion of professional health workers in government hospitals were mentioned particularly (Onah *et al.*, 2006). A study carried out in

Bolivia revealed that women were ridiculed by professional health workers because of their poverty, clothing, smell, and cries of pain (Koblinsky, Mathews, Hussein, Mavalankar, Mridha, Anwar, Achadi, Adjei, Padmanabhan & Lerberghe, 2006). The way maternal patients are treated when they reach a facility determines whether they will seek help again at the same facility in the near future.

In a study conducted in Uganda, Parkhurst, Penn-Kekana, Blauw, Balabanova, Danishevsky, Rahman, Onama & Ssengooba (2012) argued that clients perceived the quality of maternal service at church mission hospitals as higher than at government hospitals. Examples given included flexibility of visiting time and shorter time spent queuing; in addition, private non-profit or church mission hospitals were found to have more diagnostics and service equipment compared to government facilities. Women described government maternity facilities as not accepting their perceived knowledge and they described health professionals as uncaring, negligent and abusive (Islam & Nielsen (1993), cited in Mathole, Lindmark, Majoko & Alhberg, 2004). This shows how women perceive the quality of maternal health care provision and stresses the fact that the user perspective is important in determining what quality of maternal health service provision means and what it should constitute to have full meaning accepted by the maternal service provider and the user.

Turnçalp *et al.* (2012) further add that obstetric care does not exist in isolation with health care providers and patients only, but within the health systems environment where policy and environment such as effectively allocated resources and financial policies allow access to affordable care. This supports other reasons why women fear government hospitals and shows that it is not only human and financial resources that affect access to maternity facilities. The way maternity patients are treated when they reach the maternity facility is important.

A study from Ghana highlighted women's perception of care as including factors such as good communication, attitude, the presence of doctors, physical resources like beds at the facility and also information provided to women about their condition and treatment protocols (Turnçalp *et al.*, 2012). Positive interactions in terms of communication and attitude between patients and health care providers enhance quality of care as perceived by women and it improves the way women seek health in the future (Turnçalp *et al.*, 2012). This shows that it is of vital importance to listen to the needs of the maternity patients. Incorporating their

beliefs and culture in trying to reduce maternal mortality will be helpful for both the maternity service provider and the patients.

Church mission hospitals have been rated the better providers of higher quality services because their main objective is social mission and inclusion; 90% of clients at private not-for-profit hospitals in Kenya reported that the health services providers asked about client concerns, compared to 65% of public health care service providers who did this (Hutchinson, Agha & Do, 2011). Vogel and Stephens (1989) furthermore point out that it has been argued that there is a great perception within the population of Senegal, Mali, Ivory Coast and Ghana that the quality of health care provision provided by church mission hospitals is superior to that provided in public or government facilities. For example, confidentiality was assured to be higher in private not-for-profit hospitals compared to government service providers, and waiting times were seen to be longer at public health services in Kenya and Tanzania (Hutchinson *et al.*, 2011).

Church mission hospitals have characteristics that attract women to their maternal health service which are lacking in public hospitals. Gill and Carlough (2008) point out that some government hospitals may even view mission facilities as their rivals, as women prefer mission obstetric services due to the belief that they offer quality services to all who seek care, including the poor, and often charge lower fees. It was argued that client-provider interaction contributes immensely to client satisfaction and continuous use of services, thus non-governmental health services were seen to be better in relation to government hospitals in Ghana and Kenya (Hutchinson *et al.*, 2011).

To summarise, factors such as distance to the hospital, cost of service, unavailability of transport, and shortage of resources needed for delivery were seen as inhibiting access to maternal health services. It was also concluded that, even if the maternity service at a maternity facility is good, other factors such as the attitude of the skilled professionals and the price of that same service can inhibit access to service use. In the end, the women decide which maternity facility to use depending on what they perceive to be a good service.

The following section is focused on the literature review with regard to the availability of services; it looks at what happens when women reach a maternity facility, whether they get the service they are looking for or the service they are supposed to receive when they reach a maternity facility.

2.3.2 AVAILABILITY OF SERVICE

Availability can be measured according to the availability of prenatal services such as health promotion, education, screening and interventions, detection of complications and, in the post natal period, nutrition, family planning, and counselling. Lack of service availability would also imply a shortage of midwives, obstetricians, anaesthetists and absence of support and management staff (Koblinsky *et al.*, 2006). Essential components needed at a maternity facility can be measured to claim that it offers adequate services needed by women. Ameh, Msuya, Hoffman, Raven, Mathai (2012) argue that the availability or presence of emergency obstetric care depends on the seven key components of key interventions referred to as the signal functions for basic obstetric care and nine interventions for comprehensive emergency obstetric care. Service availability is discussed below with reference to the availability of essential services, adequacy and equity of service.

2.3.2.1 Availability of essential services

Basic emergency obstetric care involves having antibiotics; oxytocic drugs; anti-convulsants; the use of a manual vacuum aspirator; assisted vaginal delivery or ventouse extraction; and resuscitation of the new-born baby using bag and mask. In order to offer comprehensive emergency obstetric care, a health facility should have all the above-mentioned items in addition to a caesarean section service and blood transfusion (Ameh *et al.*, 2012). These features are the critical components needed for adequate availability of service at a maternity facility. The absence of these components will lead to questions about the kind of service women are receiving at a facility.

Not all maternity facilities have the essential or basic functions needed at a hospital. In a study carried out across six African countries, Ameh *et al.* (2012) discovered that 65-100% of health centres surveyed across Africa could not perform the seven signal functions of basic emergency obstetric care and 63-87% of the basic emergency obstetric care centres in South Asia were not fully functional. However, it has been argued that, for skilled attendance to have an impact on maternal death, it has to be in an enabling environment of a well-functioning health care system that provides access to comprehensive emergency obstetric care that includes caesarean sections, blood transfusion and other emergency services, as required (Sital *et al.*, 2012).

The situation on the ground portrays a different picture, as most maternity facilities cannot provide all the signal functions of emergency obstetric care. Ameh *et al.* (2012) state that the removal of retained products of conception and assisted vaginal delivery were the least performed signal functions and that 3-18% of health facilities in the six African countries, and 40% in Asian countries performed assisted vaginal delivery. This shows that the quality of service offered was inadequate, seeing that many of the health centres failed to provide all nine signal functions. This may be a possible contribution to a high maternal mortality in the world as hospitals fail to provide an enabling environment for mothers to deliver safely.

The availability of services at maternity facilities can assist women to deliver safely through getting advice from skilled attendants at the maternity facility; maternal mortality could be reduced if women get the right information for their needs. In a study carried out in South-West Nigeria, one fifth of the respondents (26% of whom were heads of maternity facilities) had never cared for a maternity patient with post-partum haemorrhage; obstructed labour; puerperal sepsis; eclampsia; complications of unsafe abortion; or retained placenta (Ijadunova, Fatusi, Orji, Adeyemi, Owolabi, Ojofeime, Omideyi, & Adewinyi, 2007). Accessing a maternity facility is a challenge on its own and there is no guarantee of receiving the needed maternity service once a woman reaches the facility. It means that there are issues that governments need to address in order to reduce maternal mortality.

Antenatal and postnatal care provides essential services for women. Antenatal care is important because it helps women identify the danger signs in pregnancy and how they can be prevented, but it seems there are wide gaps between the proportion of women in the developing world receiving antenatal care and those who receive postnatal care. Postnatal care is frequently missing, even for women who give birth in a health facility, and it seems that these disparities are in contrast to the high coverage of postnatal care in developed countries (Matijasevich, Santos, Silveria, Domingues, Barros, Marco & Barros, 2009).

2.3.2.2 Adequacy and Equity of service

It has been noted that maternity services, where available in least developed countries, are usually inadequate or inequitable (Gill & Carlough, 2008). Citizens have been seen to avoid and not use poorly-resourced public hospitals and seek medical attention at church mission hospitals. Failure by government hospitals to provide technical skills and adequate services to

those in need of help has been identified as one crucial factor in developing countries (Stekelenburg *et al.*, 2004).

Ameh *et al.* (2012) note that signal functions requiring little skill such as administration of antibiotics, anticonvulsants and oxytocic drugs are still not fully available at health facilities. Ameh *et al.* (2012) conclude by saying that the population is aware of non-availability of obstetric services and this affects their accessibility to obstetric care. One can say that the unavailability of essential and adequate services compromises the safe delivery of women in maternity facilities; this, in turn, renders high maternal mortality.

Availability of maternal health services is seen to differ between private not-for-profit, private and public hospitals. In Brazil, for example, where the public health system is fully funded, disparities found in post natal care between private and public patients were due to transportation costs and distance. Higher maternal health service coverage was found in private hospitals than in public hospitals (Matijasevich *et al.*, 2009). A study carried out in Tanzania revealed that government district hospitals were bypassed by women seeking health care because patients were not examined with the use of medical tools (Kahabuka, Moland, Kvale & Hinderaker, 2012). Women preferred church mission hospitals over government district hospitals. Even if government hospitals were fully funded, women would not access them because of transport cost and distance to the hospital, as well as their preference for the high level of maternity service coverage in private not-for-profit facilities.

Unavailability of drugs and midwives in public clinics resulted in women bypassing them. Frequent shortage of drugs and being asked to buy the required drugs in pharmacies were mentioned as factors in not using public hospitals in Tanzania (Kahabuka *et al.*, 2012). A study carried out in Tanzania, revealed that the clinic closed at 4 p.m. and when women go into labour, there is no one at the hospital to help them, and most of the health professionals had their homes outside the community (Kahabuka *et al.*, 2012). This indicates that unavailability and inadequacy of maternity services in government hospitals makes patients shun them.

A study in Nigeria and Ivory Coast revealed that inappropriate management of complications and poorly timed care in public health facilities were common. It was noted that women would prefer to give birth alone or with untrained midwives or assistants, with no supervision (Koblinsky *et al.*, 2006). Levin *et al.* further added that maternal health service quality

indicators are better at church mission hospitals than at public hospitals in Ghana, Malawi and Uganda (2003, cited in Widmer *et al.*, 2011). The discussion confirms that, in comparison to church mission hospitals, most government hospitals have inadequate or no maternal health service at all. This shortage of maternity services makes people bypass government facilities and women tend to consult at church mission hospitals.

A study carried out in rural Tanzania found that unavailability of services during evenings, weekends and holidays was a cause for concern for maternal and new-born health outcomes (Kahabuka *et al.*, 2012). The unavailability of services in public hospitals leaves women at risk of maternal mortality as they will be forced to deliver by themselves, or find other routes for delivering that cannot manage complicated births.

Unavailability of maternal health services included lack of expertise; shortage of drugs; and inappropriateness of the birthing culture, which led to the service being unavailable or limited in public hospitals. Further literature also shows that only a minority of women in China reported for antenatal and post natal care; they failing failed to access maternal health services because of the cost of the service; the poor quality of hospitals in the villages and the inappropriateness of the culture of birthing practices that caused discomfort and embarrassment (Harris, Zhou, Liao, Barclay, Zeng, & Gao 2010).

Gogoi, Unisa and Prusty (2012) state that it was discovered that hospitals in Sierra Leone would go for months without a stock of medicine, thereby limiting antenatal health care. In addition, deficiencies in medication were worsened by lack of professional expertise in the pharmacy professional. A combination of factors affects the availability of maternal service; at one point, the trained birth attendants would be present but there would be no medication, or the birthing culture did not incorporate the culture of the local community.

The availability and the manner in which maternal health services at a facility is provided builds confidence in women and it determines whether they will use the facility or not. It will also influence whether they will recommend the facility to others or not. Gogoi *et al.*, 2012 state that women who are offered good care during pregnancy and childbirth are more likely to put their trust in health services for them and their families. However, a study carried out in India revealed that rural women received slightly less health education and recommendations than other women in other facilities (Singh, Pallikadavath, Ram & Oggollah, 2012). This

shows that those who are poor and in need of advice were given less help than their rich or better off counterparts in the same area.

Singh *et al.* (2012) argue that the socio-economic status of clients determined the advice given to them. The same study furthermore found that health workers perpetuated the inequalities in the system of accessing maternal health care service. Singh *et al.* (2012) state that the rich were likely to receive better advice from public health workers, which was vital to improve maternal health in the low-resource setting like rural India. This is an example of how the poor suffer in times of crisis, yet they are the ones who need help more. It raises the issue of inequality in accessing available services and also points out how health workers or maternal health service providers influence maternal health service provision and its outcomes.

It is not enough that a service is available at a facility; it must also suit the need of the clients. Singh *et al.* (2012) furthermore discovered that health workers offered advice to clients on the basis of their own perceptions and not according to the clients' needs. In a study carried out in Ghana, though, Turnçalp *et al.* (2012) noticed that some patients were happy as the doctors explained every stage of a procedure to them, in contrast to what happens in public hospitals where medical personnel carry on with their work without informing the patient about what they are about to do. Nevertheless, some women did report that they had problems with midwives who do not attend to them but sit, talk and laugh at them, even when the head of the baby was emerging (Turnçalp *et al.*, 2012). This shows that, in as much as the availability of maternal health service is essential, it is also important to match the service to the needs of the client and to their perspective. This will help to provide acceptable maternal health service delivery that suits both the service provider and user.

In conclusion, one can argue that the availability of maternal health services in a church mission hospital and a government hospital varies from hospital to hospital and country to country, although church mission hospitals are perceived to be providing a better maternal health service than government hospitals. An investigation needs to be carried out to determine why church mission hospitals are providing a better service and also to establish why government hospitals are failing to provide the service needed by communities and to propose what can be done to improve their maternal health service provision. The next section deals with infrastructure, in a discussion on how infrastructure is affecting maternal health service provision in both church mission hospitals and government hospitals.

2.5 INFRASTRUCTURE

Infrastructure refers to basic facilities: the equipment needed for a hospital to function properly. This is explained under hospital facilities and availability of equipment.

2.5.1 Hospital Facilities

The literature survey has shown that church mission hospitals have far better infrastructure than government hospitals. Widmer points out that research on the not-for-profit health care facilities in Africa that was conducted in Uganda in 2001, shows that 70% of all not-for-profit health centres in Uganda are owned by diocese and parishes and that 40% of the health care infrastructure across sub-Saharan Africa is provided by church hospitals and church organisations. Olivier, Tsimpo, Gemignani, Shojo, Coulombe, Dimmock, & Wodon (2015) report that the Adventist church operates 173 hospitals and sanatoriums, and the Catholic Church runs an approximate 5 300 hospitals worldwide.

2.5.2 Availability of equipment

Widmer *et al.* (2011) further state that the WHO estimates that 30-70% of health care infrastructure across Africa is owned or run by church organisations. While Levin *et al.* (2003) argue that the availability of drugs and equipment is not very different between mission and public hospitals; it was found that the availability of equipment is better at church mission hospitals than at public hospitals. This shows that much of the infrastructure in Africa has been provided by churches sponsor nearby hospitals.

A study carried out in rural Tanzania found that the working environment at government hospitals was not conducive to health professionals working at night because there was no electricity and lamps had to be used for lighting (Kahabuka *et al.*, 2012). It is clear that basic infrastructure plays a crucial role in service delivery. In its absence hospitals become dysfunctional; this can result in women failing to receive even basic maternity services.

Turnçalp *et al.* (2012) conducted a study in Ghana that revealed that treatment at the facility was delayed and mostly involved emergency surgery; this was linked to a high load of cases and unavailability of operating rooms. Delays were also identified in a study carried out in Bolivia, where most of the women interviewed complained about insufficient resources; technical capacity; including ambulances and pharmaceuticals; insufficient beds; accommodation for family members; and that the service was not culturally appropriate and

accommodating (Otis & Brett, 2008). This shows how service unavailability takes different forms in government hospitals and lead to a limited maternal health service delivery that puts women at risk of maternal death.

The availability of equipment in maternity facilities helps to boost confidence in women and will result in women making use of such facilities. In Nigeria, the availability of equipment was a crucial factor for women who delivered in institutions as they felt lifesaving equipment was present (Onah *et al.*, 2006). However, the condition of physical infrastructure and equipment in Nigerian public hospitals was poor; a study carried out in 2001 proved that 5.9 % of 676 primary health care centres did not have the minimum equipment for use and public hospitals were characterised by broken down equipment and ambulances that were not working; it was argued that, in order for Nigerian hospitals to meet the perceived expectations of users, they should improve their infrastructure and equipment (Fatusi (2004) cited in Onah *et al.*, 2006).

The above discussion shows that the presence of equipment in maternity facility gives women confidence that an emergency procedure can be carried out if need arises and it appears that church mission hospitals are the most equipped as compared to government hospitals. Simoes and Almeida stated that in their study in Brazil, maternal deaths in maternity wards were less common than in general hospitals without maternity wards, mainly because the general hospital has less equipment for obstetric interventions (2010). Earlier, Hearn (1998) had noted that, in Kenya, Tenwek is the biggest and most established Protestant mission hospital. It is supported by Americans and is equipped with computerised medical records and doctors from America.

Church mission hospitals are rated higher in terms of equipment, drugs, wards and the general condition of the maternity facility. It was noted that church missions focused on building hospitals and clinics and on training health professionals to improve access to affordable health and rehabilitation services (Widmer *et al.*, 2011). Equipment is a major factor in maternity facilities as it facilitates medical procedures like caesarean sections to be carried out efficiently and effectively. According to Kruk, Mbaruku, McCord, Moran, Rockers, & Galea (2009), mission facilities in rural Tanzania scored much better than government facilities with 34% of them having all requirements as compared to 6% of government facilities who had little or no equipment. Furthermore a 2006 national facility survey established that 7% of

dispensaries had the entire basic delivery room infrastructure such as a bed and examination lights. The analysis shows a comparison of infrastructure in government and church mission hospitals and concluded that church mission hospitals are better than government hospitals, due to the external support from their parent churches.

The literature has shown that better church mission hospitals tend to have better infrastructure compared to government hospitals. In a study carried out in Zimbabwe, it was clear that the resources available at health centres varies according to who runs the institutions. Unavailability of resources in terms of equipment, drugs, water and electricity also lead to further problems by contributing to staff shortages, through staff migrating to greener pastures.

Zimbabwe has experienced a massive emigration of health professionals due to this problem (Gerein, Green & Pearson, 2006). Health workers could not cope with water and electricity shortages aggravated by shortages of equipment and drugs. To illustrate this, it was noted in 2008 that Harare and Parirenyatwa, the two biggest referral hospitals in Zimbabwe were shut down because of a protest by health workers against poor salaries and working conditions. Health workers argued that they did not want to endanger the lives of patients by working in hospitals that are not properly equipped (IRIN, 2009).

Moreover, distance, quality of care and cost influences the choice of health facility for pregnant women (Onwudiegwu (1999) cited in Onah *et al.*, 2006), but water, electricity, drug and equipment shortages at public hospitals resulted in women being willing to travel long distances to get service at church mission hospitals. A pregnant woman in Zimbabwe for example travelled 170 km to a Catholic mission hospital to deliver because it was cheaper and doctors, drugs, equipment and electricity were guaranteed, unlike in public hospitals where there were shortages and the midwives and doctors were unavailable or on strike (National, 2009:1). According to Audo *et al.*, cited in Kruk *et al.*, (2009) women in Kenya responded that they would not use government hospitals due to lack of laboratory services (21, 2%), lack of drugs (30,4%) and 37% due to poor care.

A study carried out in Uganda revealed that a government funded hospital had limited labour rooms and, due to their non-refusal of care policy, take in all patients but prioritise those women with complications, which resulted in women giving birth in corridors and undesigned labour rooms (Evans, Potts & Donald, 2009). At a non-government hospital,

women, on the contrary, had their own rooms and two midwives to attend to them throughout delivery while the health professionals were supported by a wide range of resources whereas a government hospital was understaffed and immensely under resourced (Evans *et al.*, 2009). The difference between the two maternity service providers establishes the grounds for why women prefer church mission hospitals to public hospitals.

Another study carried out in south-west Nigeria, revealed that supplies and equipment such as infusion fluids, latex gloves, partographs, sterilisers, sterile syringes, needles and vaginal speculums needed for emergency obstetric care were not available at the public hospitals (Ijadunova *et al.*, 2007). This can result in a grave situation as doctors and midwives are unable to carry out basic and emergency procedures as a result of the shortage.

As shown in a study done in Uganda, a delay of 30 minutes, the standard expected for the treatment of an obstetric emergency, occurred as a result of limited resources and family members having to seek anaesthetic drugs and intravenous fluids and equipment to carry out the emergency procedure (National Institute for Health and Clinical Excellence, 2004). It shows how limited supplies and shortages of maternity wards can influence the choice of a maternity facility by women and how the shortages of supplies needed to carry out emergency procedures can endanger the lives of pregnant women.

One can conclude that infrastructure plays an important role in accessing maternal health services and it also influences maternal outcomes. Long distance to maternity facilities, shortage of transport, overcrowded maternity wards and shortage of drugs and equipment have been mentioned as constraints to accessing maternal health services. Governments must therefore try to establish hospitals close to communities, build roads, and provide transport from home to hospitals in trying to improve access to maternity clinics. Maternity wards must be equipped and be in an acceptable condition to accommodate pregnant women.

The following section reviews staffing and management in discussing how ownership, management style, recruitment and staffing of the two maternity hospitals affect functionality and maternal health service provision.

2.6 STAFFING AND MANAGEMENT

Government and church mission hospitals both offer maternal health services but differ in management style, organisational objectives, types of service, the role, location, and organisational culture. Government maternity services are provided by government with the objective of providing for the welfare of its citizens. Church mission hospital services are intended for welfare, rights and evangelism. Hospital staffing and management are explored through the following discussion on hospital administration and management

2.6.1 Hospital management and administration

There are differences and a variety of management styles in the public and church mission hospitals (Green, Shaw & Dimmock, 2002). Furthermore, the culture and management of church mission and government hospitals differ in that church mission hospitals have a culture emanating from the religious organisation on which it is founded (Green *et al.*, 2002). This culture has great influence on staff relations and how policies and planning take place whereas there is dominance of civil service culture characterised by hierarchy and procedure in government (Green *et al.*, 2002).

Church mission hospitals provide a social service and are not profit driven (National, 2009). Widmer *et al.* (2011) add that employees in church mission hospitals are motivated by the religious commitment to the organisation, unlike in public hospitals where there are impediments such as bureaucracy. In government hospitals, staff management and patient welfare are not the priority as compared to church mission hospitals where the principle is to provide for the sick and marginalised (Green *et al.*, 2002). This explains the differences existing between the two service providers, though their catchment areas are similar.

Church mission hospitals and government hospitals provide health services to poor and marginalised communities in sub-Saharan Africa, but research conducted by Chand & Patterson (2007) reveal that 90% of church mission hospitals provide maternal health services in southern Africa and Dimmock (2007) and WHO (2007) reported earlier that faith-based facilities offered 70% of sub-Saharan Africa's health care services.

In an interview conducted at two health facilities by Chimbani *et al.* (2008) as cited in Osika, Altman, Ekbladh, Katz, Nguyen, Rosenfeld, Williamson & Tapera, (2010:74), health staff responded that church mission hospitals are preferable as the extra funds supplied by churches

/ faith-based organisation provide better salaries, more incentives such as free housing and car loans, and are better staffed and equipped health facilities which make it easier. Government hospitals are characterised by staff turnover and inexperienced health professionals, so that women tend to seek maternal health service at church mission hospitals.

The church mission hospitals draw their strength from the higher levels of resources and subsidised staff, and the ability to work efficiently within limited resources but remaining committed to patients' welfare and striving to achieve higher standards. Whereas government hospitals have the advantage of access to government resources such as central medical stores, legal and audit services and full funding from government, the priorities of church mission hospitals are linked to their mission statements and the community rather than national policies, and their governance and participation is by community through the local church body or officials (Green *et al.*, 2002). As health ministries are underfunded in most Southern African countries and public hospitals rely more on government funding, which is always little, it would seem that church mission hospitals have an advantage over government hospitals because of the support gained from church affiliates locally and abroad.

Resources available for use vary according to who runs the institutions or facilities and this creates a huge difference between Church mission hospitals and public hospitals. Gill and Carlough,(2008) established that the access to external funding furthermore gives church mission hospital administrators autonomy and flexibility in implementing services, including lowering user fees or providing free care to those who cannot meet costs. As church mission hospitals tend to have better resources, professional input and access to transport (Mathole *et al.*, 2004), it can be argued that their strength is derived from the capacity for using resources efficiently and ethically and having access to external funds (Tabatabai *et al.*, 2014). The above discussion shows how the difference in sourcing resources for maternal use creates a gap between the two maternal health service providers.

However, if well-funded and managed, public maternal health services could function and offer service delivery just like church mission hospitals. They have the advantage of location as they are situated in highly populated areas with staff that are government employees and have access to government resources (Green *et al.*, 2006). Their weakness lies in the uncertainty of government funding; lack of supervisory capacity; shortage of funds and material; and lack of management and training (Green *et al.*, 2006). One can argue that, in as

much as public hospitals have government as their source of funding and church mission hospitals have their parent churches as their sponsors, neither can be self-sustaining as they have to rely on others to generate funds.

It has been established that there is more flexibility in church mission health facilities for changing management style and adopting or applying private management to facilitate focusing on efficient maternity health service delivery. This is evident in Kenya where there is a committee of clinicians from church mission facilities for essential drugs and supplies and pharmacists who review and update the drug list according to prevailing disease patterns, changing treatment guidelines and recommendations which are evidence-based (Gill & Carlough, 2008). However, Church mission hospitals also have their downside because they are not part of the national health policy and planning and depend on government for professional staff, yet the availability of midwives nurses, doctors and obstetricians is essential in guaranteeing high quality maternal health services (Gerein *et al.*, 2006).

2.6.2 Skilled attendants

A skilled attendant has been defined as an accredited health professional such as a midwife, doctor or nurse who has been educated and trained for proficiency in the skills needed to manage normal uncomplicated pregnancies, childbirth and the immediate postnatal period, and in the identification, management and referral of complications in women and new-borns (WHO, 2013). Parkhurst *et al.* (2005), however, argued that what constitutes a skilled attendant is not uniform in all countries since the doctor and trained midwife are accepted as skilled attendants though other medical staff with little midwifery training is also included in many countries. They argue further that, even if skilled attendants are available, they will still need resources, systems, and motivation to provide maternal mortality reducing services (Parkhurst *et al.*, 2005). However, Graham *et al.*, cited in Parkhurst *et al.*, 2005 stated that there is no linear relationship between maternal mortality rate and skilled attendant at delivery in a number of countries. This shows that skilled attendants are not the only contributing factor affecting maternal mortality, but there are several factors that need to be borne in mind to reduce maternal mortality in the world.

The expertise or level of education that a health professional has can also be questioned as they may fail to meet the basic and comprehensive emergency criteria needed for a maternity facility to function effectively. This is illustrated by a report on Zimbabwe, where 90%

antenatal care coverage and 66% of skilled birth deliveries are claimed, but the maternal mortality remains high and the problem has been attributed to quality of care (UN, 2013).

Meanwhile, the Zimbabwean National Integrated Health Facility Assessment reported that only 14% of health workers could identify danger signs in pregnancy; 4% could check for fever; 20% screened for preeclampsia signs during antenatal care and about 11% assessed for eclampsia during labour and delivery. Less than 46% provided all routine preventative medicine (UN, 2013). This shows that the incompetence of health service providers and absence of essential and adequate services in maternal health facilities leave women in dire situations contributing immensely to maternal mortality.

What is positively identified, is the good quality and availability of health care services at mission hospitals (Osika *et al.*, 2010:13), as shown by a report on Zimbabwe that revealed that women in labour travelled to Howard mission hospital which is 60 km away and Karanda mission hospital which is 150 km from the capital city, Harare as a result of service unavailability at government referral hospitals (IRIN, 2009). One can note that accessing a maternal facility and receiving maternal service are two different things. One may reach a maternal facility where the service is not available, which may mean that women with complications die and become part of the statistics of maternal mortality.

It was cited in the Zimbabwe National Health Strategy 2009-2018 that having fewer senior staff reduced the ability of senior staff to provide mentoring and on-the-job training to junior staff. Junior staff have consequently found themselves having to make critical decisions with limited knowledge and experience (Osika *et al.*, 2010:76). In contrast, Gill & Carlough (2008) highlight that long-term expatriate's make up a huge number of skilled personnel and leadership in church mission facilities. This point is further supported by Osika *et al.* who postulate that church mission hospitals do not seem to have the same shortages as public sector hospitals and are better able to retain their staff in having more funds available than the public system can offer for various incentives (2010:79).

Government hospitals in Southern Africa experience shortages in all its spheres and it has been noted that absence of trained and competent staff has impacted on the quality of service in all government hospitals (Stekelenburg *et al.*, 2004). In addition, it is estimated that 1 to 1, 4 million additional of maternal health service professionals are needed to provide essential health interventions to achieve the Millennium Development Goals (Gerein *et al.*, 2006). Gill

and Carlough further emphasise that it will be difficult to achieve MDG 5 unless there is an increase in skilled birth attendants attending to women and pregnancy-related complications (2008).

Staff shortages characterise public hospitals and this makes it difficult to make maternal health service available as there is no one to deliver it. A study carried out in Madagascar, revealed that public health services were constrained by an inequitable distribution of human resources between urban and rural areas, and lack of essential goods and equipment to facilitate diagnosis and treatment (Honda *et al.*, 2011). In addition to this, a study in Uganda showed that there were no skilled attendants to accompany the referred patient to another facility (Kahabuka, 2012). This shows that the poor, marginalised, and less privileged suffer whenever there are inadequacies in the health sector as they fail to receive the maternal health care needed for their survival.

Parkhurst *et al.* (2005) argue that the reduction of maternal mortality should be looked at from a systems perspective concerning how people access health facilities and what happens when they reach a health facility and the quality of care received. They further mention that a reduction in maternal deaths needs all factors of a health system to function in coordination (Parkhurst *et al.*, 2005). He quotes the example of Srilanka and Malaysia where maternal deaths decreased through the use of midwives, but also through added factors that worked alongside them, like female education and improved access to treatment for complications at rural health facilities. Finally, one can say that a comprehensive approach is needed for dealing with maternal mortality as there are interrelated factors affecting the quality of maternal health service delivery in Southern Africa.

To conclude, the management and ownership of maternity service providers determine the management style, objectives and financial and resource sourcing that influence how a facility functions, and in turn affects maternal health outcomes. It has been noted that church mission hospitals operate at an advantage as they are able to receive external support from their mother churches in other countries. However, public hospitals are said to have the same potential as church mission hospitals with the exception that their sponsor is the government, which sometimes underfunds the health ministry. This leaves public hospitals with scarce resources; low salaries for employees and short supplies of drugs and equipment, which makes it difficult to deliver maternal health service efficiently and effectively.

2.7 Sustainability of church mission hospitals

Although church mission hospitals are favoured by communities, their functionality is not sustainable because they rely on external funds. Church mission hospitals and government hospitals can be said to be in the same situation, except that the church mission hospitals have an external injection of funds which enables them to provide a higher quality of service. Hearn (1998) has argued that neither of the maternal health service providers in Kenya is sustainable as they cannot generate funds locally, but USAID has decided in favour of church mission hospitals rather than government hospitals. This shows that church hospitals may have the best equipment and health professionals, but once those inputs are withdrawn by the external supporting agencies, church mission hospitals will fall into the same trap as government hospitals.

The sustainability of church mission hospitals has always been questionable since donor funds can cease anytime. Olivier *et al.* (2015) stress that governance of most church mission facilities has been shifted from international churches to local churches, resulting in reduced support from traditional sources and reduced growth of the mission work.

Chand and Patterson, (2007) argue that church mission hospitals have for long provided comprehensive care but they are now struggling to maintain their system because of decreased support from their international partners, for example mentioning challenges in recruiting and retaining health professionals. Whether churches can still prioritise provision to the rural poor in the face of the diminishing support is a growing concern for everyone. Krupp and Madhivanan (2009), as a possible solution, propose that realigning human resources through public private partnerships may offer the best opportunity for achieving improved health outcomes for women and children in resource-constrained settings like developing countries.

2.8 CONCLUSION

The discussions have focused on the four major concepts of the research study, which are service availability, service accessibility, infrastructure and staffing and management. In order to have efficient and effective maternity service delivery, the aforementioned concepts must be taken into account as a whole, as they are interrelated and work hand in hand.

In order to resolve maternal mortality in relation to the quality of maternal health service delivery, it is of vital importance to use the systems approach whereby one looks at every

aspect of the whole system, starting from the inputs which are the resources needed for maternal health service provision to be effective and efficient, then, the processes which are the way the service delivery is carried out under the influence of laws and legislation and then, lastly, the output, which forms the maternal health outcomes. As long as these concepts are considered in isolation, maternal mortality will remain high and the quality of maternity service provision will remain questionable.

The next chapter provides the background to the Zimbabwean health system and the legal framework surrounding maternal mortality. It commences by describing the health delivery system and examining the international, regional and local legislation that Zimbabwe has signed and should adhere to. It concludes by highlighting the major challenges faced by the system.

CHAPTER 3 - ZIMBABWEAN HEALTH SYSTEM

3.1 INTRODUCTION

This chapter entails a discussion of how maternal health service is provided in Zimbabwe. The key international and regional covenants that Zimbabwe has enacted and signed to help curb the high rate of maternal mortality in the country are considered and local legislation and initiatives concerned with maternal mortality are explored, as well as the main challenges facing the system.

3.2 ZIMBABWEAN HEALTH DELIVERY SYSTEM

Public health service delivery in Zimbabwe is organised into a hierarchical system of four levels, from the least specialised to the most specialised, namely primary, secondary, tertiary and central, as determined by the Ministry of Health and Child Welfare (MoHCH, 2010:3). The four-tier health service delivery system is meant to function as a referral chain (NHS 2009-2013, cited in Chiremba, 2013:4).

Primary health care is the first level and first point of contact of communities with health services and it is the main vehicle by which health programmes are implemented in the country (MoHCW, 2012:5; Chiremba, 2013:4). This level comprises a network of clinics and rural health centres assisted by village health workers providing comprehensive promotion, preventative, curative and community health-based services (MoHCH, 2010:3). These health centres must be able to deliver the essential package of maternal health services such as antenatal care; post natal care including early detection and timely referral of women with complications; normal delivery using partograph and ensuring appropriate breast feeding practices (MoHCH, 2010:3).

The next level is the secondary level which consists of district or church mission hospitals. There are about 164 district hospitals and approximately half of them are church mission-run hospitals staffed by government medical officers (MoHCH, 2010:3). Services provided at this echelon include surgical procedures including Caesarean section; safe blood transfusion; comprehensive obstetric and new-born care; and comprehensive management of childhood illness including paediatric emergency care. The third level involves the provincial hospitals as the highest level of referral at provincial level, with posts for specialised health services.

Services offered include caesarean section; blood transfusions; comprehensive management of paediatric emergency care; and surgical cases referred from district level (MoHCH, 2010:4). As these posts are largely vacant, these centres currently provide services similar to district level.

The fourth level consists of the central hospitals. There are five central hospitals in Zimbabwe, namely Harare Central, Parirenyatwa, Chitungwiza Central, Mpilo and Bulawayo Central Hospitals (MoHCH, 2010:4). These are the highest and most specialised levels for maternal and child health. The specialists include obstetricians, gynaecologists, neonatologists, paediatricians and paediatric surgeons.

The Ministry of Health and Child Health Welfare, Zimbabwe, is in charge of the health care system for policy planning, administration and allocation of funds (ZHSA, 2010 cited in Chiremba, 2013:4). The majority of health services in Zimbabwe are provided by the Ministry of Health and Child Welfare and local government (MoHCW, 2012:5). It is further complemented by the private sector, which incorporates both the private for profit, for example private hospitals, maternity homes and general practitioners, and the not-for-profit private sector, which includes church mission hospitals and non-governmental organisation health facilities (MoHCW, 2012:5, MoHCH, 2010:4). Health services in Zimbabwe are integrated and all health facilities offer maternal and child health services, including family planning (MoHCW, 2009:5).

An access to health care services study carried out in 2008 found that 0% of communities live within a 5 km radius of the nearest health facilities, 23 % live between 5 to 10 km away and 17 % are over 10 km from such facilities (MoHCW, 2010:4, 5). The study further discovered that access to health services was extremely difficult because of lack of transport in rural areas and that the majority of roads were in a poor state (MoHCW, 2010:5).

3.3 LEGISLATION, POLICIES and INITIATIVES ON MATERNAL MORTALITY IN ZIMBABWE

The Zimbabwe government signed international and regional treaties that promote the reduction of maternal mortality in Zimbabwe and the world at large. It further enacted legislation intended to provide a policy environment that will foster a reduction of the high maternal mortality rate in Zimbabwe and enable an environment that supports the maternal wellbeing of women.

3.3.1 INTERNATIONAL LEVEL

This section focuses on the declarations and legislation that Zimbabwe signed.

(a) Alma Alta Declaration

Zimbabwe is a signatory to the Alma Alta declaration which was adopted at the International conference on Primary Health Care (PHC) in 1978. It is the first declaration underpinning the importance of Primary Health care in Zimbabwe and the world in general. In the light of this declaration Zimbabwe is said to have succeeded in implementing the primary health care principles soon after independence in 1980 as it changed its health system and became one of the best in sub-Saharan Africa (Criel, Bossyns, Hoeree, Macq, Vander Plaetse, Van Geldermalsen, Mabiza, Mhlanga, Tshuma & Chimusoro, 2008:1). The primary health care approach became the main strategy for delivering health care to the majority of the population with emphasis on increasing community access to health services (MoHCW, 2010:5).

Major changes were noted from 1980 to 1990 with the increase in access to health facilities with 85 % of the population living within 8 to 10 kilometres of a facility (MoHCW, 2010:5). Zimbabwe's commitment to the primary health care approach was reaffirmed in the Ouagadougou Declaration of 2009 (MoHCW, 2010:5), which stated that the Primary Health care approach has the potential to accelerate the achievements of MDG 5. It urges nations to update their national health policies and plans according to the Primary Health Care Approach in order to strengthen health systems to achieve MDGs. It prioritises health, health service delivery, health technologies, community ownership and participation, research for health and health information systems.

However, in the period from 2000, the provision of primary health care was disturbed due to the political upheaval in Zimbabwe and it resulted in a lack of professional health workers and essential medicines at the primary health care level, which consequently resulted in a rising maternal mortality ratio. Nevertheless, the principles of the Alma Ata declaration still form a major foundation for the strategies being used by Zimbabwe to reduce maternal mortality. Zimbabwe established the National Health Strategy 2009-2013 aimed at reviving the health system using the Primary Health Care Approach, which is the main principle of the Alma Ata declaration.

Furthermore, these principles are being considered for the post 2015 agenda on accelerating progress on the health MDGs. Zimbabwe's guiding policy, The National Health Strategy for

Zimbabwe 2009-2013 for Equity and Quality in Health: A people's right. The major focus is the protection of the poor and vulnerable through exemption of user fees for all health services in the public sector (MoHCW, 2010:6)

(b) Convention on the Elimination of all forms of Discrimination

Zimbabwe is also a signatory to Convention on the Elimination of all forms of Discrimination against Women (CEDAW). Article 12 of the convention condemns any form of gender discrimination, including discrimination in the field of health care resulting in unequal access to services. It calls on government to ensure equal access to all health care services, including family planning services related to pregnancy, delivery and post natal care.

It has been difficult for the convention principles to be applied fully in the country because CEDAW and its optional protocol have not been domesticated into Zimbabwean law (Zimbabwe, 2009:7). Another challenge is that the convention is not known by women mainly in rural areas and this makes it difficult for these women to claim their rights (Zimbabwe, 2000:4).

(c) International Covenant on Economic, Social and Cultural Rights 1966 (ICESCR)

Zimbabwe acceded to the International Covenant on Economic, Social and Cultural Rights 1966 (ICESCR) in May 1991. Article 12 of the covenant articulates, "The right to the enjoyment of the highest standard of health". Maternal health is a human right as articulated in the convention, but it seems that it is still on the rise despite Zimbabwe signing the convention. One of the major challenges is that Zimbabwe has not ratified the optional protocol on ICESCR and the right to health was not enshrined in the constitution until recently in January 2013 when the right to health was incorporated in the new constitution. Another obstacle that remains is that of not domesticating international law.

(d) Millennium Development Goals 2015

Zimbabwe is one of the member states of the United Nations that adopted the Millennium declaration which was coined Millennium Development Goals (MDG) that serve as a guide for development efforts. MDG 5 is the call for a reduction by three quarters between 1990 and 2015 of the maternal mortality ratio and its indicators for measuring progress are the maternal

mortality ratio and the proportion of births attended by a skilled health professional (Zimbabwe, 2012:42).

One can say that Zimbabwe has made progress but suffered setbacks during the decade of economic decline and political disturbances in 2008. However, the MDG 5 target is unlikely to be met by 2015 as the trends show that the maternal mortality ratio has increased from 612/100 000 in 2005-06 to 960/100 000 in 2013, showing a median age of maternal death at 28 years.

Identified as major challenges for meeting the target in 2015, are the unaffordability of maternity fees, reduced attendance of expectant mothers at antenatal clinics due to cost, long distance to clinics and inability of some women to make choices on reproductive health issues due to social and cultural pressures (Zimbabwe, 2012:9). Mentioned further, is the reduced proportion of births attended by skilled health workers; fewer women attending at least four antenatal care visits; unavailability of critical drugs; and lack of communication and information (Zimbabwe, 2012:46)

3.3.2 REGIONAL LEVEL

This section focuses on the legislation and initiatives at regional level that the Zimbabwean government committed itself to.

(a) The Protocol to the African Charter on Human and People's Rights on the Rights of Women 2005

Article 14(1) of this protocol declares that women have the right to control their fertility, the right to choose any method of contraception to control their fertility, the right to be informed about one's state, particularly if infected with sexually transmitted infections including HIV, and the right to family planning education. With regard to this convention, Zimbabwe has made efforts to comply with it by enacting the Zimbabwe Family Planning Act which establishes the Zimbabwe national family planning responsible for distribution of contraceptives, the enactment of the Sexual Offences Act, the Domestic Violence Act, the Criminal Codification Act that helps to prevent and protect women from being infected with HIV, which makes women more vulnerable to maternal mortality.

(b) Maputo Declaration 2008

Zimbabwe ratified the Maputo declaration in 2008. It focuses specifically on the promotion and protection of women's rights. It highlights the need to improve women's health and reduce maternal mortality as priorities for African countries to achieve the MDGs. It is a short-term plan for the period up to 2010 built on nine action areas: Integration of sexual and reproductive health (SRH) services into PHC; repositioning of family planning; developing and promoting youth-friendly services; unsafe abortion; quality safe motherhood; resource mobilisation; commodity security; and monitoring and evaluation (African Union, 2006:10). Zimbabwe has managed to review the curricula for nurses, midwives and doctors and has also integrated STI/HIV and nutrition (African Union, 2006:11).

(c) Campaign on the Acceleration in Reduction of Maternal Mortality in Africa (CARMMA)

Zimbabwe launched CARMMA in 2012 under the Theme: Zimbabwe Cares, no woman should die giving birth. The initiative was launched within the context of the Maputo Plan of Action and the objectives of the ICPD Plan of Action. It was initiated by the African Commission and UNFPA to intensify the Maputo Plan of Action for the reduction of maternal mortality in Africa. CARMMA was launched after the Africa Commission had recognised the challenge to reduce maternal mortality by 75% as per the MDG 5 target by 2015. This called for redoubling efforts in order to reach the target. It is derived from the key priority areas enshrined in the AU Policy Framework for the Promotion of Sexual and Reproductive Health and Rights in Africa (2005) and the Maputo Plan of Action (2006) (African Union Commission, 2010). The main objective of CARMMA is to expand the availability and use of universally accessible quality health services, including those related to sexual and reproductive health that are critical for the reduction of maternal mortality (African Union Commission, 2010). With the help of the health transition fund, Zimbabwe is revitalising its maternity waiting homes and strengthening the use of traditional birth attendants and village health workers.

CARRMA encourages women to register their pregnancies within 16 weeks after conception and it advises women to consult a health facility for antenatal and post natal care. It has been noted that most women in Zimbabwe fail to register their pregnancies and attend antenatal classes because of a high user fees. This shows that Zimbabwe has violated the Maputo

Protocol which makes provision for adequate, accessible and affordable health services to women (Du Toit, 2013:1).

3.3.3 NATIONAL LEVEL

This section focuses on the local legislation, campaigns and initiatives undertaken by the Zimbabwean government in the reduction of maternal mortality.

(a) Maternal and Neonatal Health Road Map 2015

The Zimbabwe government developed its Maternal and Neo Natal Health Road map 2007-2015 in line with the Africa Commission which called for all governments to develop their country-specific road map in line with the Africa road map guiding governments to accelerate the attainment of MDG 5. Its main objective was to ensure provision of skilled attendance during pregnancy, child birth and the post natal period and to strengthen the capacity of individuals, families, communities and civil society organisations to improve maternal and new-born health.

It aims at working with the four pillars of maternal and child care which are Family Planning, Antenatal Care, Clean and Safe Delivery for the mother and the new-born, and Essential Obstetric Care (Zimbabwe, 2007:13). It emphasises distribution of family planning services at the health facility and in the community; antenatal services including prevention from mother to child; and nutrition to be made available to all pregnant mothers. Lastly, and mentioned as key to reducing maternal mortality, is that there should be a skilled health worker and quality obstetric care to take care of the mother and child.

(b) Zimbabwe National Family Planning Act

The Government of Zimbabwe enacted the Zimbabwe National Family Planning Act “to establish the Zimbabwe National Family Planning Council and to provide for the structure, functions and powers thereof; to provide for child spacing and fertility services in Zimbabwe and the promotion and implementation of primary health care and other community-based development programmes relating to family health”. This act results in education on family planning and distribution of contraceptives to the population.

According to Nehanda Radio, Dr Parirenyatwa, the Minister of Health, said that, “Since ICPD (2014) Family Planning Services in Zimbabwe have immensely contributed to the increase of contraceptive usage currently at 60 percent from 48 percent in 1999”. He further said that,

“knowledge of family planning methods is almost universal at 99 percent from 96.3 percent in 1988 and [the] total fertility rate has significantly decreased to four children per woman from 5.5 in 1988. However, he states that, “despite these improvements the unmet need for contraceptives remains at 13% and there is a need to reach out to all underserved populations” (Parirenyatwa, 2014).

(c) Prevention from Parent to Child Transmission Programmes

There are programmes on the Prevention from Parent to Child Transmission (PPTCT) through use of medicines and the Government of Zimbabwe has established a National Aids Policy, a National Aids strategic plan and has enacted the Sexual offences Act and Criminal Act. (Zimbabwe, 2009:16). These strategies and Acts provide a framework under which violent and sexually related offenses can be prevented, with the result that the rate of HIV infection is reduced, which curbs maternal mortality. Under this Act, there is also sensitisation of Faith Based Organisations (FBOs) which normally refrain from using health facilities (Zimbabwe, 2009:17). However, challenges in service delivery have occurred because clinics which have been affected by shortages of fully qualified health workers. This made it difficult to make provision for long-term and permanent family planning methods.

(d) Termination of Pregnancy Act

The government of Zimbabwe also enacted the Termination of Pregnancy Act in which Section 4 provides for termination when “pregnancy endangers the life of the woman concerned or so constitutes a serious threat of permanent impairment of her physical health that the termination of the pregnancy is necessary to ensure her life or physical health, as the case may be; or (b) where there is a serious risk that the child to be born will suffer from a physical or mental defect of such a nature that he will permanently be seriously handicapped; or (c) where there is a reasonable possibility that the foetus is conceived as a result of unlawful intercourse”. Section 5(1) of the Act stipulates that a pregnancy may only be terminated by a medical practitioner in a designated institution with the permission in writing of the superintendent thereof.

The sentence in the case of a transgression shall be a period not exceeding five years. The termination of Pregnancy Act is further strengthened by the ICPD programme of action, paragraph 8.25, which states that “in no case should abortion be promoted as a method of family planning”. It emphasises that prevention of unwanted pregnancies should be given the

highest priority and every attempt should be made to eliminate the need for abortion. It goes further to say that, in circumstances where abortion is permitted, it should be safe.

The main challenge of this Act is that the process and legal procedure are lengthy, which leads to a high prevalence of illegal abortions taking place (Zimbabwe Civil Society's Shadow report, 2012:24). For example, in the case of Mildred Mapingure vs the State, a woman who had been raped in the course of a robbery was forced to give birth because of delays in procuring a legal abortion; by the time she received authorisation, it was medically dangerous to terminate the pregnancy (Zimbabwe Civil Society's Shadow report, 2012:24). After an appeal, the Supreme Court of Zimbabwe on 25 of March 2014 stated that the Zimbabwe government was liable for charges for the grief, stress and trauma that the woman suffered. Examples like this lead to back street abortions as they are conducted quickly at risk, unlike the legal abortions which are lengthy and involve too much proof and paperwork to prove the legality of the condition.

(e) Labour Relations Act

The Zimbabwean Government enacted the Labour Relations Acts. Section 18 (1) of the Act stipulates that, "Unless more favourable conditions have otherwise been provided for in any employment contract or in any enactment, maternity leave shall be granted in terms of this section for a period of ninety days on full pay to a female employee who has served for at least one year". This helps women to deliver their babies and attend to their pregnancies without fear of being discriminated against on the grounds of being pregnant.

3.4 CHALLENGES IN MATERNAL HEALTH SERVICE DELIVERY

Public health financing is managed through allocations from the national budget but in recent years there has been a decline in public health expenditure as a percentage of Gross Domestic Product. This meant a shortfall of the Abuja declaration's goal of a 15% allocation from the national budget (Chiremba, 2013:4). In the past the government of Zimbabwe funded the majority of health-related activities with partners filling in the gaps, but in recent years funding from donors including bilateral agencies and the UN family has been critical to the provision of health services. Due to insufficient resources from the national budget, health facilities have been more dependent on user fee revenue to support their budgets (NHS, 2009-

2013, cited in Chiremba, 2013:4). This meant that the cost was shifted to the population who could not afford to access the hospitals due to high user fees.

A budget deficit in the health sector had a huge impact on the smooth functioning of public health services as it resulted in a lack of equipment and medical supplies which made it difficult for health professionals to work efficiently and provided a push for them to migrate to neighbouring countries for better opportunities. A marked increase in the vacancy rate of health professionals in Zimbabwe from the late 1990s worsened in 2009 with the deterioration of the economy. In December 2008, the vacancies in public sector human resources for health reached 69 % for doctors and over 80 % for midwives (MoHCW, 2012:5). As result, a high attrition rate of experienced health service and programme managers weakened the health management (MoHCW, 2012:5).

Massive migration of health professionals meant that few experienced professionals remained, leaving the few with skills struggling to train student nurses and midwives well enough to meet the national demands (MoHCW, 2012:8). This resulted in the loss of experienced professionals capable of working with minimum supervision and inadequately trained health professionals at the point of care (MoHCW, 2012:8)

The challenges around drugs and equipment remained dire because of the low capacity of surgical and laboratory services; problems with maintenance of available equipment; and severe shortages of blood and blood products at a district level. Autoclave machines and oxygen cylinders were either absent or non-functional, resulting in an increasing number of referrals requiring caesarean sections (MoHCW, 2012:8).

A survey of the availability of vital medicines and health services carried out in May and June 2009 including 96 % of all health facilities in the country discovered that 56 % of the facilities had no selected essential drugs and primary health care facilities were the most affected. There were no antibiotics at 20% of the surveyed sites, and trained pharmaceutical staff members were available at only 5% of the sites (MoHCW, 2012:9). Only 85% had a functional maternity clinic. It was also noted that medical equipment that is critical for diagnosis and treatment is old, obsolete or non-functional (MoHCW, 2012:5). Several programmes, including patient transfer and supervision of district and rural health centres, had been compromised as a result of serious shortages and disruption of transport and telecommunications (MoHCW, 2012:5).

As a result of the failing Zimbabwe Health system and rising Zimbabwean maternal mortality, the international community had to urgently intervene to revive the Zimbabwe health system. It intervened through an initiative called the Zimbabwe Health Transition Fund (ZHTF), which is discussed below.

3.5 ZIMBABWE HEALTH TRANSITION FUND

This is a multi-donor fund managed by UNICEF to support the MoHCW with its National Health Strategy to improve access to quality health care. The governments of Ireland, Sweden, Norway, the UK and the European Commission Delegation to Zimbabwe contributed to the ZHTF.

The main goal of the transition fund is to eliminate user fees for children under five and pregnant and lactating women by 2015, which is in line with the Zimbabwe national policy. The health transition fund recognises that health millennium development outcomes cannot be achieved without adequate investment in the health system that underpins health service delivery (Zimbabwe, 2011:9). It is focused more on four thematic areas: firstly, maternal, new-born and child health and nutrition; secondly, medical products, vaccines and technologies; thirdly, human resources for health including health worker management, training, and retention schemes; and, lastly, health policy, planning and financing (Zimbabwe, 2011:9).

The first thematic area was designed to enhance obstetric and new-born care, aiming at raising the capacity of the health system by improving access to antenatal care (ANC) to 90% with skilled birth attendance (Zimbabwe, 2011:24). The HTF seeks to achieve a minimum standard of at least one midwife for every 5000 people through:

3.5.1 Strengthening the capacity of midwifery training

The Government of Zimbabwe recruited registered nurses nationally to be trained in midwifery, and strengthened the capacity of the midwifery training school in order to have competency-based midwifery training. For this purpose, the midwifery training curriculum for registered nurses was revised to provide comprehensive midwifery education. The number of midwifery schools was increased from 13 to 20; availability of five midwifery tutors for each school was ensured; and policies for retention of midwives were strengthened, for example by

bonding midwife nurses to an equivalent of number of years of training received (Zimbabwe, 2012:24).

3.5.2 Revitalising Maternity Waiting Homes

This was an action taken with regard to maternity waiting homes to make them fully functional and to ensure that all high-risk mothers are in contact with health facilities for ante and post natal care (Zimbabwe, 2011:25). This allows addressing the problem related to the three delays by permitting identification of intervention for life threatening complications for both mother and new-born. Key maternal and new-born health practices, for example early initiation, new-born health practices, breastfeeding, thermal care and family planning, will be provided in maternity waiting homes (Zimbabwe, 2011:25).

3.5.3 Village Health Worker

Village health workers are trusted women chosen by the community to be trained by the Ministry of Health in order to provide health education for preventive purposes in the community. The HTF will help ensure the continuum of care from household level to the health facilities. This will empower families to take care of their own health and strengthen the health-seeking behaviour of the community by strengthening the capacity of the village worker (Zimbabwe, 2011:26).

The village health worker will be provided with training materials dealing with maternal and new-born health and nutrition. They will be provided with in-service and pre-service training and there will be social mobilisation efforts to engage apostolic communities and other religious organisations that normally steer away from using modern-day health cures (Zimbabwe, 2011:26). Village health workers are important because they are the first health service providers to have contact with people in the community. They can always advise on what pregnant women can do and refer them to maternity waiting homes or clinics where they can receive advanced treatment.

3.5.4 Primary Care Nurse

Primary care nurses were to be trained specifically to function at primary health care level in rural and remote areas (Zimbabwe, 2009:44). The great challenge for establishing this was the lack of lecturers and tutors; the vacancy rate for tutors was estimated to be 68% and this led to a high failure rate of among student nurses, especially with regard to midwifery (Zimbabwe,

2009:97). The Primary Care Nurse will ensure that skilled nurses are always available for rural and remote areas and will provide the maternal service needed in the area, therefore avoiding the death of women because they cannot access a health facility due to shortage of transport or distance.

3.5.5 Reorientation of Traditional Birth Attendants

Traditional birth attendants mobilise for skilled birth attendants. They help by providing maternal health education to women in maternity waiting homes and also in communities. This will help to ensure that women are attended to before they are in the health facility, as traditional birth attendants have the knowledge to help them. The result would be a reduction of maternal mortality as no women will die before reaching a health facility.

3.6 MEDICAL PRODUCTS AND VACCINES

This is the second thematic area and is also linked to the national strategic plan, the goal of which is to increase access to and utilisation of quality primary health care services and referral facilities by ensuring that essential health commodities are available (Zimbabwe, 2011:28). Its main objective is to ensure 80% availability of essential medicines and commodities. Essential is the provision of selected essential medicines and supplies; emergency obstetric equipment; and maintenance and repair of equipment (Zimbabwe, 2011:28). The availability of medicines and commodities will ensure that obstetric procedures are carried out successfully, avoiding situations in which medical procedures fail because there are no gloves, equipment and medicines.

3.7 HUMAN RESOURCES FOR HEALTH WORKER MANAGEMENT, TRAINING AND RETENTION

Its main emphasis with regard to human resources is to ensure that 95 % of health management offices and health facilities are staffed with the minimum standard of qualified health professionals by 2015, which is linked to Goal 23 of the Zimbabwe National Health Strategy 2009-2003 (Zimbabwe, 2011:29). To realise this, the following were launched:

(a) Human resource retention scheme (HRRS)

This scheme was launched in 2008 as an emergency intervention to attract public health workers by providing them with temporary allowances that complement government salaries. The scheme is aimed at ensuring that the health system based on primary health care principles has appropriate numbers and categories of human resources for health for effective and efficient implementation of the National Health Strategy (Zimbabwe, 2009:96-101). The scheme was established to make sure there were enough skilled health workers to attend to pregnant women to ensure that they deliver safely and do not become part of maternal mortality statistics.

What follows is a discussion of retention plans in the form of rural incentive pay to retain workers, from government to private institutions, and their challenges.

(b) Rural Incentive Payments

These incentives were essential to retain and attract staff to areas where vacancy rates are higher and health care coverage is lower (Zimbabwe, 2011:31). Health professionals going to remote areas were paid an additional 10 % of basic salary, together with support for relocation of employees' families and suitable accommodation. An education allowance and low interest rates were given to those interested in furthering their studies (Chimbari, Madhina, Nyamangara, Mtandwa, & Damba, 2008:11). The Rural Incentive Pay is significant because it drew health workers from cities to rural areas as they appreciated the benefits of rural location. Skilled health workers thus became available in rural areas to attend to pregnant women.

(c) Retaining workers in Government and preventing them from joining the private sector

Methods such as bonding; provision of vehicles and houses; permission to do consultancy; and autonomy in their work were implemented in trying to retain health professionals and prevent them from leaving public hospitals. Bonding with the health profession whereby a newly qualified health professional is not given a certificate until completion of two years of service in government is another method applied for the retention of medical professionals. Vehicle provision schemes for critical members of staff, accommodation; transport allowances; study opportunities; and low interest loans for study were provided to health

professionals in the attempt to retain them and prevent them from going to the private sector where there is a perception of better remuneration and packages (Chimbari *et al.*, 2008:11).

According to Chimbari *et al.*, health professionals were also permitted to undertake regulated private consulting during working days and to take cash payments instead of going on leave. Necessary equipment has been made available and decentralised decision making to avoid bureaucracy was instituted to give health professionals autonomy in making decisions that affect their work (2008:11). The retention scheme was successful in encouraging staff to return to work and improving attendance rates by health workers as it resulted in a reduction in vacancies; some institutions, for example, were reporting no vacancies by September, 2009. It is noted that between the period of 2008 and 2011 the HRRS had enabled the return and retention of 16 527 to 20 555 health workers (Zimbabwe, 2011:19)

(d) Health worker retention scheme challenges

A research study that was conducted revealed that inadequate staff housing was a challenge as the government could not afford to build new houses and shortages of funds prevented vehicles promised to staff from materialising (Chimbari *et al.*, 2008:12). These researchers also noted that fuel shortages added to transport costs and eroded the transport allowance and most employees felt that, although the allowances were good, basing them on their salary was not good since their salaries were low (Chimbari *et al.*, 2008:25).

Another negative side of bonding as a retention method is that it was seen as an infringement on their rights as individuals by staff (Chimbari *et al.*, 2008:28). Bonding of health professionals is unpopular and promotes the desertion of staff without honouring the contractual notice period (Chimbari *et al.*, 2008:3). Chimbari *et al.* further noted that selectively awarding allowances to health workers seemed to have a demoralising effect on those that do not receive them, particularly in circumstances where the working hours and the conditions are similar (2008:3).

3.8 CONCLUSION

To conclude, one may say that international, regional and local legislation have links and are interconnected in trying to reduce the maternal mortality ratio. This can be seen in how the Primary Health Care Approach enshrined in the Alma Ata Declaration is continuously mentioned and emphasised in all the conventions and how it has influenced the policies and

initiatives on maternal mortality reduction in Zimbabwe. However, a major downside of the international conventions is the failure to domesticate them into Zimbabwe national law for them to be applied fully.

Another major hindrance is that most of these laws from international to local are enacted for women, but most women are not aware of the laws and the procedure to be followed in order to be protected by the legislation. One can say that efforts to domesticate the laws and awareness of the legislation should be explained to them to be fully functional and contribute to the reduction of maternal mortality. Commendable changes were noted concerning the positive effect of the Health Transition Fund, but its sustainability is questionable since the fund is donor funded lasting at the end of 2015. The following chapter explains the research design and methodology used for this study.

CHAPTER 4 - RESEARCH METHODOLOGY

4.1 INTRODUCTION

Chapter 3 presented the background and legal framework of Zimbabwean maternity health service delivery. It described the four-tier health service delivery system which functions as a referral chain from the primary to the tertiary level. The chapter further explored the international covenants, local legislation and all policies that were put in place in trying to reduce maternal mortality in the world and in Zimbabwe in particular.

This chapter outlines the research design and methodology used to address the objectives of the study, which aimed to examine the quality of maternal health service provision in Zimbabwe; explore the differences in the maternity service delivery system of church mission and public hospitals; explore factors drawing maternal patients to church mission hospitals and driving them away from public hospitals; explain the relationship between maternal health service provision and maternal mortality (MDG 5) in Zimbabwe; to establish the determinants of maternal mortality in Zimbabwe's hospitals; and to suggest possible ways of reducing maternal mortality in Zimbabwe.

The geographical setting where the study was conducted, the study design and the sampling method that was used are also described. In addition, data collection methods and methods used to maintain validity and reliability are also explored.

4.2 RESEARCH METHODOLOGY

Empirical study in the form of a comparative study design was used for the purposes of obtaining data for this study. The advantages of a comparative design are that similarities and differences between institutions, countries, individuals and cultures can be derived from gathered data (Mouton, 2001:154). Mouton further states that, "it allows different theoretical viewpoints across different settings to be compared using surveys, existing statistics and data". Although comparative study designs have advantages, they also have limitations in the selection of appropriate cases, for example the degree of comparability of two different cases (Mouton, 2001:155).

In this study data were gathered through in-depth interviews conducted at the Harare Central Hospital and the Karanda Hospital respectively by the researcher. As a qualitative inquiry, it permitted the researcher to focus on human behaviour and the researcher became the first research instrument in the study (Welman, Kruger & Mitchell, and 2005:8). The study only focused on a small sample (64 people) of the population.

The selected method allowed for small samples of people to be studied by means of in-depth methods. This helped the researcher to investigate in greater depth using a small group of people as compared to investigating a large sample which does not allow in-depth interviewing (Miles & Huber (1994) cited in Welman *et al.*, 2005:9). The strength of qualitative study is that it is believed that first-hand experience of the subject under investigation produces the best data (Welman *et al.*, 2005:9). In this case, the researcher was in contact with the research subjects, which provided her with first-hand experience.

4.3 RESEARCH SETTING

The study was carried out at Harare Central and Karanda Mission hospitals respectively. Both hospitals are in Zimbabwe but situated in different locations.

4.3.1 Harare Central Hospital

The hospital is government-owned and is a referral hospital. Harare Central hospital is public funded. It is a 1079-bed hospital situated in the capital city Harare in the suburb of Southerton and provides a full spectrum of curative and preventative hospital services. The maternity clinic serves low-income patients.

4.3.2 Karanda Mission Hospital

The Karanda Mission is a church mission hospital that falls under The Evangelical Alliance Mission (TEAM). It was established in 1961, in Mt Darwin, Zimbabwe. It is situated 200 km north of Harare and is run by three Americans and Canadians. The hospital has 134 beds and is 90% full for most of the time. It caters mostly for the rural and low-income patients but has of late experienced an influx of patients with different ailments flocking the hospital in search of treatment. The hospital is an affiliate of the University of Zimbabwe and helps to train surgical residents who rotate for three months at a time to Karanda.

4.4 STUDY POPULATION AND SAMPLING

Welman *et al.* explain that a population “encompasses the total collection of all units of analysis about which the researcher wishes to make specific conclusions” (2001:52). The study population consisted of maternity service providers and women seeking maternity service at the Harare Central and the Karanda Hospital.

Non-probability sampling in the form of purposive sampling was used for the purposes of this study. A purposive sample of 64 was selected at the hospitals. Sampling has been defined by Mouton as selecting elements with the intention of finding out something about the total population from which they are taken (1996:132). Welman *et al.* add that a sample is a representative or a miniature image or likeness of the population (2005:55). This purposive sample consisted of subjects identified by the researcher for a specific purpose in this research.

The sample size consisted of 32 participants from Harare Central and 32 participants from Karanda Mission hospital. It consisted of the director of services, the matron, 10 women waiting to give birth, 10 women waiting for family planning services, and 10 women in the post natal section from each hospital.

4.4.1 Sampling criteria

The selected research subjects had to meet certain criteria to be included in the sample. They had to be of sound mind in order to consent to participating in the research and they had to be willing to participate as well. Above all:

- 1 director of services had to be responsible for the maternity services
- 1 hospital matron- had to be in charge of maternity services, overseeing all operations in the maternity section and being able to enlighten the researcher regarding their challenges in providing service to maternity patients.
- 10 women waiting for family planning services could be any woman who came to seek family planning services. These women were able to share their experiences of the type of family planning they receive and the service provided.
- 10 women waiting for delivery had to be women waiting to deliver a baby, already in labour, or waiting for contractions to begin.

- 10 women in the post natal section had to be women who had just given birth and were in the post natal ward.

4.5 DATA COLLECTION

For the purposes of this research study, the researcher made use of empirical methods in the form of in-depth interviews, key informants and observations and non-empirical studies in the form of literature review and secondary data analysis.

4.5.1 LITERATURE REVIEW

The researcher commenced with a thorough literature search on maternity services provided by church mission and government hospitals. Understanding and reviewing existing literature helped the researcher to develop the conceptual framework as it provided different variables affecting maternity service provision by the two different entities (Welman *et al.*, 2005:39).

It seemed that there is not much published literature on church mission hospitals. Access to primary literature sources was limited. In the end, the researcher relied on journals as most of the sources in the literature search. Welman *et al.* argue that secondary literature sources such as books and journals are aimed at a wider audience and are easier to locate than primary literature sources (2005:41). Abstracts and bibliographies were also used for the purposes of this research study.

4.5.2 IN-DEPTH INTERVIEWS

Following the review of literature, the researcher designed in-depth interview guides influenced by the study of the literature and the variables found in the research's conceptual framework.

The researcher undertook semi-structured interviews. Welman *et al.* state that, in semi-structured interviews, the researcher has a list of themes and questions to be covered although they may vary from one interview to the next (2005:166). For the purposes of this study, the researcher developed an interview guide which consisted of questions that were used to explore the research topic and its aspects. Five separate interview guides were designed for the different respondents – the director of maternity services, the matron, women waiting for delivery, women waiting for postnatal service, and women waiting for family planning services. (Please refer to appendices C, D, E, F and G).

Welman *et al.* affirm that semi-structured interviews offer a versatile way of collecting data and can be used with all age groups, for example those who are not able to read, the elderly, and people with poor eyesight (2005:167). Semi-structured interviews also permit the researcher to ask for elaboration of incomplete answers (Welman *et al.*, 2005:167). In this study, the researcher was able to engage at length with research subjects, asking them the what, how, where and why questions which enabled the researcher to get a fuller understanding of the researched aspects of the study.

4.5.3 DIRECT OBSERVATION

While the researcher conducted interviews, the way the respondents gave their responses from facial expressions to body language were noted. Welman *et al.* state that the behaviour which is to be recorded is observed first-hand in direct observation and researchers do not have to depend on the participants' possibly misleading reports (2005:172). The researcher could not forego the environment, infrastructure, bedding and linen that she could see with her eyes without questioning anyone, and also, for example, that at women the Karanda Mission hospital were wearing their own clothes instead of hospital maternity wear. The researcher took advantage of direct observations as an additional method that stimulated further questions and discussion with the research subjects.

4.5.4 SECONDARY DATA ANALYSIS

Welman *et al.* state that “secondary data are information collected by individuals or agencies and institutions other than the researcher herself” (2005:149). Statistical data were obtained at Harare Hospital from the statistics department. The researcher presented her letter of approval for research at Harare Hospital to Mr Jacha, the head of research, who later furnished her with statistics for maternal mortality for five years, the number of ambulances at the hospital, and the number of beds in the maternity section.

The researcher also managed to gain access to information about maternal mortality rates, still births, number of ambulances, and number of beds at Karanda Hospital. Secondary data complemented the literature review and in-depth interviews. It helped with providing a full picture of service and outcomes from the respective hospitals. Welman *et al.* argue that “primary data can be questioned and reviewed in the light of any new information found from secondary data” (2005:213).

4.6 DATA COLLECTION INSTRUMENT

The researcher used semi-structured questionnaires as interview guides. These interview guides were open ended (please see appendices C, D and E) and allowed respondents to formulate responses and express themselves freely (Welman *et al.*, 2005:174). The researcher chose questionnaires as they allow further discussion from a given response. This permits a deeper discussion on an issue. Welman *et al.* assert that the advantage of questionnaires is that “the respondent’s answer is not influenced unduly by the interviewer or the questionnaire and the verbatim replies from respondents provide a rich source of information that might have been untapped by categories on a pre-coded list” (2005:175).

Though questionnaires might offer respondents free range to express themselves, they also have their drawback in that it is more difficult to compare different responses and it takes time to analyse the data (Welman *et al.*, 2005:176).

4.7 DATA COLLECTION PROCEDURE

This section focuses on how the researcher collected data. The process starts when the researcher submits the research proposal to both hospitals and ends with gaining access to the research subjects.

4.7.1 COMMUNITY ENTRY

The researcher’s initial contact at Harare Hospital was with the secretary of research and ethics committee, Mrs Simbi, to whom the request for carrying out the study was submitted on the 5th of August. After two weeks, a signed letter of approval was received from Dr Pasi, the Chairman of the Harare Hospital research and ethics committee. The researcher took the letter to the maternity matron, Mrs Madzore, who agreed that she could start the research study the following morning at 8 a.m. The researcher was introduced to the security personnel and each time she passed, and would show the letter of approval. Mrs Madzore introduced her to the other departments where she needed to collect data.

The request for the research study at Karanda Hospital was submitted on the same day as at Harare Hospital and approval was received from the Karanda Hospital administration after three weeks. On arrival at Karanda, she was allocated accommodation and Dr Thistle

introduced her to Mrs Jahona, the matron, and to the rest of the staff. Mrs Jahona took her from one department to another.

The researcher started by introducing herself to the subjects and gave as much information as possible about the study. The whole process was explained. The researcher carried two questionnaires, one for the researcher and one for the research subject. The researcher conducted in-depth interviews and was writing responses down whilst the research subject was explaining. After the interviews, a narrative description of the findings was written down by the researcher.

Data were collected over a period of one week at each hospital. The researcher found the director of services and matron in their respective offices women waiting for delivery were found in the labour ward and some were at the maternity waiting home that is at Karanda Mission only. Women waiting for post natal service were found in the post natal wards and women waiting for family planning services were found at the family planning clinic at each hospital. With the key informants, the interview took 40 minutes and with the women each interview took about 30 minutes.

4.8 RELIABILITY AND VALIDITY

This section focuses on the reliability and validity of the research study to ensure that the samples are representative of the target population. Invalid studies yield incorrect conclusions.

4.8.1 RELIABILITY

Reliability refers to a way of assessing the quality of the measuring procedure used to gather data in research. The measurement procedure must be reliable for the study results to be deemed valid. Reliability is defined as the degree of consistency with which an instrument measures the attribute it is designed to measure. For the purposes of this study, there was consistency in the responses gathered the questionnaires administered to research subjects at both the Karanda and the Harare Central hospital. In order to avoid bias in data collection the researcher collected data under the same conditions at both hospitals. Respondents, for example, were met in wards, in private, and confidentiality was ensured with all respondents. No names were used for the purposes of this study.

4.8.2 VALIDITY

The measurement procedure should provide an accurate representation of the construct it is measuring if it is to be considered valid.

Mouton states that, for the sake of quality assurance, the researcher must construct a record of the whole process, including dates when access was gained, dates of when interviews were conducted, field notes according to the subject's responses. All questionnaires and response copies have to be kept (2001:100). The researcher submitted the proposal to Harare Hospital on the 5th of August 2015, it was approved on the 18th of August 2015 and data collection was started on the 19th of August and ended on 23 August 2015. The request for conducting the study at Karanda Hospital was submitted on the 5th of August 2015. It was approved on the 22nd of August 2015. The researcher travelled to Karanda on the 23rd of August 2015 and started data collection the same day and ended on the 25th of August 2015.

Welman argues that there should be an evaluation of a sample for the external validity of the study (2005:125). Generalising the study's findings to the general population is justified because there were no problems in administering questionnaires; all questions were answered satisfactorily; and all participants were happy to participate in the study.

A representative sample should consist of 25 samples but not more than 500 (Welman *et al.*, 2005:125). For the purposes of this study, a sample of 64 participants was chosen to cover both Karanda Mission and Harare Central Hospital. Welman *et al* further state that the degree of population validity depends on how representative the sample is of the population from which it has been obtained (2005:125). The sample was drawn from mothers seeking maternal services at both hospitals and they were able to give an account of their experiences, therefore it justifies the validity.

4.9 PRETESTING QUESTIONNAIRE

Pretesting of a questionnaire occurs when the researcher pre-tests the instrument to determine whether the questions are clear and easily understood by the respondents. The researcher pre-tested the questionnaire with six women at Harare hospital before conducting the actual data collection. They all understood the questions regardless of age and consistency was found in their responses. Consequently the questionnaires were not changed, but remained the same.

4.10 ETHICAL CONSIDERATIONS

Honesty and respect for the rights of individuals are universal and major concerns underlying research ethics (Welman *et al.*, 2005:181). The research was approved by the research ethics committee of both Harare Central and Karanda Mission Hospitals for the protection of human subjects. To ensure protection of human rights, research subjects' consent was obtained before conducting in-depth interviews. The right to anonymity, confidentiality and informed consent were observed. To obtain this, the aims of the investigation were disclosed to the participants in a clear, unambiguous and simple manner (Mouton, 2001).

An information sheet and consent form that were written in both Shona (the local language) and English were given to participants to read and understand what the study was about and prospective participants were allowed to decide whether they wanted to participate or not (please see appendices A and B). The research subjects were informed about their right to voluntarily participate or withdraw from the study at any time without any consequences.

Anonymity and confidentiality were also taken into consideration in this study. No names were put on the answer or response sheets; all the response sheets were allocated numbers, for example "patient 1"; no names were asked during the interview except in the case of the matron and director of services.

4.11 DATA ANALYSIS

After gathering all data, the researcher read through and analysed the field notes. Each research subject was allocated a number, as in patient "1" and patient "2", depending on the time one was interviewed, if a patient was the first one then she was allocated "1". Data coding was used for the purpose of analysing data for this study. According to Welman *et al.*, the purpose of data coding is to analyse and make sense of the data that have been collected (2005:214). The researcher used descriptive coding which needed little interpretation and involves attributing a theme category to a segment of the text, for example Patient 4: "I came to this hospital because of their service.... ." In this case the researcher used the theme of service.

The figures below are interview excerpts from both hospitals. They show how data was analysed and coded. Themes emerged from the coding and it helped the researcher come to conclusions.

| | | |
|-----------------------------|---|---|
| Researcher (Interviewer) | CODE | Where do you live? What is the nearest clinic? |
| Patient | | I live in Bveke village. Nearest clinic is Bveke Clinic. |
| Researcher (Interviewer) | | Why did you come to Karanda hospital? |
| | (GS) Good Service (BP) bypassing (AS) Availability of skilled staff (HM) high mortality (I) Infrastructure (SA) service availability | I came to Karanda hospital because their service is good. People are giving birth at Bveke Clinic but most of them are dying, the staff there cannot help but we know Karanda can help. If I have a problem after going back home, I will come back here and not go to Bveke Clinic because there is no electricity, even if you have a problem they will send you here or to Mt Darwin. So most people prefer a big hospital a than clinic |

Figure 4.1: Excerpt of a coded interview with patient 1 in the post natal ward at Karanda Mission Hospital
Source: Own construct, 2015

| | | |
|------------|---|--|
| Researcher | CODE | Where do you live? What is your nearest clinic? |
| Patient | Bypassing (BP) | I live in Highfield. Nearest clinic is Highfield Clinic. |
| Researcher | | Why did you come to Harare Hospital? |
| Patient | SA) Service availability (BH)Big hospital (AS)Availability of Skilled staff | I was referred to Harare hospital because I have twins; one baby was breech and the other is normal. Highfield clinic said they cannot handle complications so they send me here to the big hospital where they say there are specialists and can help me. |

Figure 4.2: Excerpt from a coded interview with patient 1 in the post natal ward at Harare Hospital

Source: Own construct, 2015

Qualitative data analysis was used for this study. Responses were analysed by the researcher and emerging themes were coded. Gathered data were recorded in the research subjects' own words. In the end the researcher identified the following themes:

- Service availability (SA)
- Availability of skilled staff (AS)
- Infrastructure (I)
- Good service (GS)

There are other issues that were raised by respondents such as bypassing the nearest clinic and going to what they called big hospitals that are not entered as themes but will be explained under the four established themes.

4.12 CONCLUSION

This chapter has presented the design and methodology of the research study. The population and sampling methods used to gather data are explained. A comparative study design was used for the purposes of this study and data coding and their identification were used for data analysis. This whole chapter was informed by the research objectives of the study presented in Chapter 1. The next chapter presents and discusses research findings.

CHAPTER 5 - PRESENTATION AND DISCUSSION OF FINDINGS

5.1 INTRODUCTION

The research design and methodology used to gather data in this research study were outlined in Chapter 4. This chapter presents the results of the research study gathered through data collection methods explored in Chapter 4. The findings for objectives 1 to 3 as highlighted in Chapter 1 are presented in this chapter, whilst the findings for objective 4 are presented and discussed in the section dealing with recommendations. The first section of this chapter presents a summary of the demographic characteristics of participants at Harare Central and Karanda Mission Hospitals respectively.

5.2 DEMOGRAPHIC CHARACTERISTICS

Demographic characteristics provide a background picture of the study's respondents. For the purposes of this study, the required socio-demographic aspects are age, level of education reached and marital status. Age was used as a variable for the respondents to ascertain the age group of people seeking maternity service. Secondly, the level of education was also investigated as it helped the researcher to infer the level of income of an individual. This illustrated the class level of the people seeking maternity service at the Harare Central and Karanda Mission Hospitals respectively, since level of income affects one's choice of hospital utilisation. Lastly, the variable used under demographic characteristics was the marital status which, again, illuminates the level of income of a woman seeking maternity service.

Table 5.1: Harare Hospital demographics

| AGE | PERCENTAGE |
|----------------------|------------|
| 18-25 | 53.1 |
| 25-35 | 34.3 |
| Above 35 | 12.5 |
| EDUCATION LEVEL | |
| Below ordinary level | 38 |
| Ordinary level | 60 |
| Tertiary and other | 2 |
| MARITAL STATUS | |
| Married | 56.2 |
| Single | 25 |
| Divorced | 12.5 |

Table 5.2: Karanda Hospital Demographics

| AGE | PERCENTAGE |
|----------------------|------------|
| 18-25 | 56.2 |
| 25-35 | 34.3 |
| Above 35 | 9.3 |
| EDUCATION LEVEL | |
| Below ordinary level | 78.2 |
| Ordinary level | 15.6 |
| Tertiary and other | 6.3 |
| MARITAL STATUS | |
| Married | 80 |
| Single | 18 |
| Divorced | 2 |

Table 5.1 and Table 5.2 illustrate the demographic characteristics of respondents from both hospitals. Comparing and contrasting the two tables shows that the rural Karanda Mission hospital has a larger population of women seeking maternity services in the 18 to 25 year range. This could be interpreted as due to early marriages and the religion of the *vapostori* which influences marriage at an early age. At the urban-based Harare hospital the population of women in the same age group who were seeking maternity services was slightly lower at 53, 1 %; this could be attributed to early indulgence in sexual activities.

The tables indicate that a large group of respondents at Karanda Mission hospital did not complete ordinary level schooling (78, 2%); on the other hand, 60% of respondents at Harare Central hospital had completed ordinary level. This informs the study of the poverty of respondents in the rural facility that could not complete the secondary level of education required in Zimbabwe.

A higher rate of marriage (80%) was found in the rural Karanda Mission hospital, whereas 56, 2% at Harare hospital were married, the reported divorce rate was 12, 5% and 25% of the respondents were single. Compared to Harare Central hospital with urban based respondents, stable marriages were depicted by respondents at the Karanda Mission hospital, which could be attributed to the continuous respect for religion, culture and tradition.

Generally, these demographic characteristics depict the representative population that is being affected by maternal mortality. The following section presents the research findings on the basis of the objectives of the study (see Chapter 1).

5.3 PRESENTATION OF DATA

Objective 1 was to establish the type of maternity services available at church mission and government hospitals. The data that were obtained are presented in Table 5.3 and in the discussions that follow.

Table 5.3: Maternity services provided at the Harare Central and Karanda Mission hospitals

| Harare Central hospital | Karanda Mission hospital |
|---|--|
| 1. Antenatal clinic <ul style="list-style-type: none"> • Routine test and screening for anaemia, HIV and blood type • Monitoring blood pressure • Measuring weight • Monitoring baby's growth and heart rate • Lessons on special diet and exercise • Lessons in preparation for birth • Lessons on motherhood • Visual inspection of the cervix | <ul style="list-style-type: none"> • Antenatal clinic • Routine test and screening for anaemia, HIV and blood type • Monitoring blood pressure • Measuring weight • Monitoring baby's growth and heart rate • Lessons on special diet and exercise • Lessons in preparation for birth • Lessons on motherhood • Visual inspection of the cervix |
| 2. Family planning clinic <ul style="list-style-type: none"> • Offering contraceptives such as <ul style="list-style-type: none"> ➢ Pills (US\$1 for 5 packets) ➢ Jadelle (US\$5) ➢ Loop (US\$3) ➢ Female condoms (free of charge) ➢ Depo Provera (US\$2) | 2. Family Planning clinic <ul style="list-style-type: none"> • Offering contraceptives such as <ul style="list-style-type: none"> ➢ Pills ➢ Depo Provera ➢ Jadelle ➢ Bilateral tubal ligation |
| 3. Post Natal service <ul style="list-style-type: none"> • Immunisation for babies • Contraceptives at 6 weeks | 3. Post Natal service <ul style="list-style-type: none"> • Immunisation for babies • Contraceptives for mothers at 6 weeks |
| 4. Midwifery training | 4. Midwifery Training |
| 5. Nurse Training | 5. Nurse Training |

5.3.1 RESULTS FROM INTERVIEW WITH SISTER MADZORE, MATRON AT HARARE CENTRAL MATERNITY HOSPITAL

The matron mentioned that Harare maternity hospital has an antenatal clinic and family planning clinic which provide services to the women as per need, as shown in Table 5.3 above. The antenatal natal clinic caters for referred women with high risk pregnancies such as

high blood pressure; first pregnancies; postdate pregnancies; caesarean section breech pregnancies and other complications. She highlighted that those women referred from polyclinics with high blood pressure but not warranting admittance are checked at the antenatal clinic till delivery. Mrs Madzore also revealed that, regarding post natal care, they have caesarean section and normal delivery wards.

She mentioned that women who present with a normal delivery are put in a normal delivery ward and are discharged after one day, while and women in the caesarean post natal ward are discharged after four days. She stated that all women with complications are monitored and discharged when they feel better. The user fees at Harare Hospital start with a deposit of US\$50 and the bill goes up depending on medication administered and procedures conducted. Mrs Madzore pointed out that they are not administering epidural pain relief during delivery yet because they only recently started training in its use.

Mrs Madzore mentioned that the maternity hospital has a staff establishment of 254 assigned by Ministry of Health but that this is inadequate because there are a shortage of midwives which results in the maternity hospital increasing their staff numbers by the use of locum medical staff. She also highlighted the shortage of equipment such as monitors in the early labour ward.

The matron of the Harare Hospital stated that they have four beds in the early labour ward, 13 beds in the labour ward, 42 post natal B beds, 40 postnatal A beds and 100 beds for the neonatal unit. She indicated that they have enough beds but a high turnout of pregnant women results in women sleeping on the floor.

5.3.2 RESULTS FROM INTERVIEW WITH SISTER IN CHARGE AT HARARE HOSPITAL FAMILY PLANNING CLINIC

Sister Museki and Sister Makokove mentioned that they provide contraceptives at a small fee, as shown in Table 5.3. They revealed that Jadelle and Depo Provera are the most commonly used contraceptive pills. As shown in Table 5.3 above, visual inspection of the cervix is conducted free of charge at the Harare maternity hospital. Sisters Museki and Makokove both revealed that they go into the main hospital to raise awareness and sensitise patients with regard to the visual inspection of the cervix and HIV testing. They realised that most people were not aware of the inspection of the cervix or thought it was expensive.

5.3.3 RESULTS OF INTERVIEW WITH SISTER JAHONA, ASSISTANT MATRON AT KARANDA MISSION HOSPITAL

Sister Jahona's age is above 35 and she has 11 years' experience as a registered nurse and in midwifery. She mentioned that Karanda Mission hospital offers a variety of services from prenatal to post natal care, as shown in Table 5.3 above. The hospital has a clinic which caters for ante natal and post natal care and offers a family planning service. The user fees at Karanda come to a total of US\$11 till delivery, but if a Caesarean section is necessary, it costs US\$200. At the ante natal clinic, education is given to pregnant women on signs of labour, motherhood and nutrition.

She mentioned that there is a shortage of midwives such that there is one qualified midwife per shift and student nurses, depending on availability. She also indicated that the maternity section comprises a 24-bed hospital but they sometimes have a shortage because of the influx of people. They consequently use floor beds when there are many patients. Mrs Jahona also mentioned that the hospital does not have maternity gowns for mothers; that they have one resuscitation machine in good condition; and that they have an old model ultra sound device. She stated that the maternity hospital sometimes runs out resources, for example the iron supplement ferrous sulphate.

5.4 REASONS FOR SEEKING ADMISSION TO A SPECIFIC HOSPITAL

Objective 2 aimed to explore factors drawing maternity patients to church mission and government hospitals respectively. Interviews with matrons and patients revealed various reasons behind decisions to make use of a specific hospital, as evident from the following.

5.4.1 RESULTS OF INTERVIEW WITH MRS MADZORE, MATRON AT HARARE CENTRAL MATERNITY HOSPITAL

The matron explained that Harare Central Hospital is a referral hospital which provides quality speciality care to all referred maternity patients with complications. She further clarified that the referral system works as a zoning system whereby they take maternity patients referred from a specific area or zone. Other maternity patients are referred to Parirenyatwa Hospital, another tertiary institute situated in the capital city Harare. The matron mentioned that they receive maternity patients from provincial and district hospitals such as Chivhu, Beitbridge, Chinhoyi and Karoi. Polyclinics such as Waterfalls, Hopley, Highfield,

Glenview, Mufakose and Kambuzuma also refer maternity patients to Harare hospital. The patients carry referral letters from their clinic of origin to Harare hospital but some patients come without referral letters and are served like others. The aforementioned hospitals and clinics make referrals for cases with complications such as fetal distress, pregnancy-induced hypertension, eclampsia, thick meconium, previous caesarean section and post-date cases.

5.4.1.1 Interview results patient 1, in Harare hospital post natal ward

She explained that she has been referred from Norton clinic because her previous delivery was by caesarean section.

5.4.1.2 Interview results patient 2, Harare hospital post natal ward

She mentioned that she was referred from Waterfalls clinic due to pregnancy-induced hypertension.

5.4.1.3 Interview results patient 3, Harare hospital post natal ward

The maternity patient mentioned pregnancy induced hypertension and thick meconium as the reasons for referral from Glenorah polyclinic.

5.4.1.4 Interview results patient 5, Harare hospital post natal ward

The patient was referred from Budiriro polyclinic because the placenta had remained inside.

5.4.1.5 Interview results patient 6, Harare hospital post natal ward

The patient mentioned that she was referred from Edith Opperman polyclinic because of her twin babies, one was breech and the other one was normal.

5.4.1.6 Interview results patient 10, Harare hospital post natal ward

The mother explained that she was referred from Kuwadzana polyclinic due to fetal distress.

5.4.2 RESULTS OF INTERVIEW WITH SISTER JAHONA, ASSISTANT MATRON, KARANDA HOSPITAL

Sister Jahona reported that the hospital is a rural mission hospital which is meant to serve the surrounding areas but to date it is serving maternity patients from the entire country. She mentioned that patients are sometimes referred from rural clinics and districts to provincial hospitals but they choose to come to the Karanda Mission hospital because of low user fees and the availability of *Masasa* / the maternity waiting shelter.

5.4.2.1 Interview results with patient 2, Karanda Mission hospital post natal ward

The patient mentioned that she bypassed the closest Bveke clinic because, “women are dying giving birth, staff cannot help but we know Karanda can help, there are no doctors and no electricity”.

5.4.2.2 Interview results patient 4, Karanda Mission hospital post natal ward

The patient explained that she came from Chimudzeka village and bypassed Bveke clinic which is closer, because “Bveke clinic cannot help if there is an emergency”.

5.4.2.3 Interview results patient 5, Karanda Mission hospital post natal ward

She came from Kanyoka village and bypassed Pachanza clinic because; “most people prefer big hospitals where there are doctors, medicine and good service”.

5.4.2.4 Interview results patient 6, Karanda Mission hospital post natal ward

The mother mentioned that she originated from Dati village and bypassed Bveke clinic because “Karanda has electricity and one is served quickly”.

5.4.2.5 Interview results patient 7, Karanda Mission hospital post natal ward

The patient explained that she had come from Kasosera village and was referred from Chitse clinic because the baby was a breech and “at Chitse clinic, they could not turn the baby but when I arrived at Karanda the doctor turned the baby and I delivered naturally”.

5.4.2.6 Interview results patient 8, Karanda Mission hospital post natal ward

The mother lives in Dombo village and delivered her preterm baby (7 months) at nearby Chibure clinic. She further mentioned that she had to think for herself to further consult the big hospital Karanda. The mother said that, “upon arrival at Karanda they put the baby in the incubator. . . . Chibure does not have incubators Chibure clinic was good but Karanda is the best because they are able to help you in case of emergency”.

5.4.2.7 Interview results patient 9, Karanda Mission hospital post natal ward

The patient mentioned that she lives in Mazoe village and bypassed Bveke clinic because “the services are different, I was scared of complications, I witnessed someone delivering a baby with the legs coming first and the nurses could not help . . . an ambulance had to be called to transport the woman to Darwin Provincial hospital”.

5.4.2.8 Interview results patient 10, Karanda Mission hospital post natal ward

She lives in Mutandagaye village and Mukumbura clinic is the closest. Her reasons for bypassing the closest clinic was that, “it is a small clinic, they cannot do caesarean section, the nurses there are young, and the doctors are there but they do not provide the same service like the doctors at Karanda”.

5.4.2.9 Interview results patient 4, waiting for delivery at Karanda hospital

She lives in Chibara village and Chahwanda clinic is her nearest. She bypassed it because “there are not enough nurses”.

5.4.2.10 Interview results patient 5, waiting for delivery at Karanda hospital

The patient lives in Mutsvaire village and Rushinga clinic is the nearest. She visited Karanda because “I realised that with my first pregnancy let me go to Karanda where there are doctors and it is the best”.

5.4.2.11 Interview results patient 6, waiting for delivery at Karanda hospital

Her village of origin is Kadere village and her nearby clinic is Chahwanda. She was referred to Mt Darwin Provincial hospital but decided to consult at Karanda because it is good.

5.4.2.12 Interview results patient 8, waiting for delivery at Karanda hospital

The patient mentioned that she made her first booking at Chahwanda clinic at three months, and then booked at Karanda at eight months. She became sick, her legs and back were sore and the nurses at Chahwanda clinic told her that they could not manage the situation. The clinic did not have medicine and there was no electricity, they use candles at night; though there is electricity in the area the clinic does not have it.

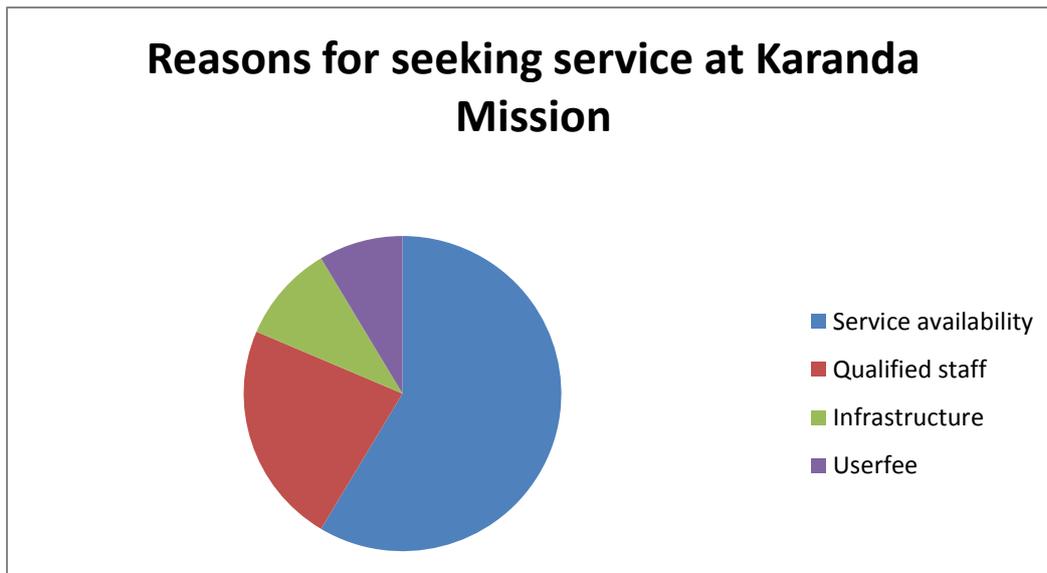


Figure 5.1: Reasons for seeking service at Karanda Mission Hospital

Figure 5.1 presents the reasons given for seeking service at the Karanda Mission Hospital. It indicates that the majority of patients visit the Karanda Mission for the availability of service, followed by the availability of trained staff. Infrastructure and user fees are mentioned as the least factors influencing the women in their choice of hospital. User fees therefore are not the main motivation for using the Karanda Mission hospital.

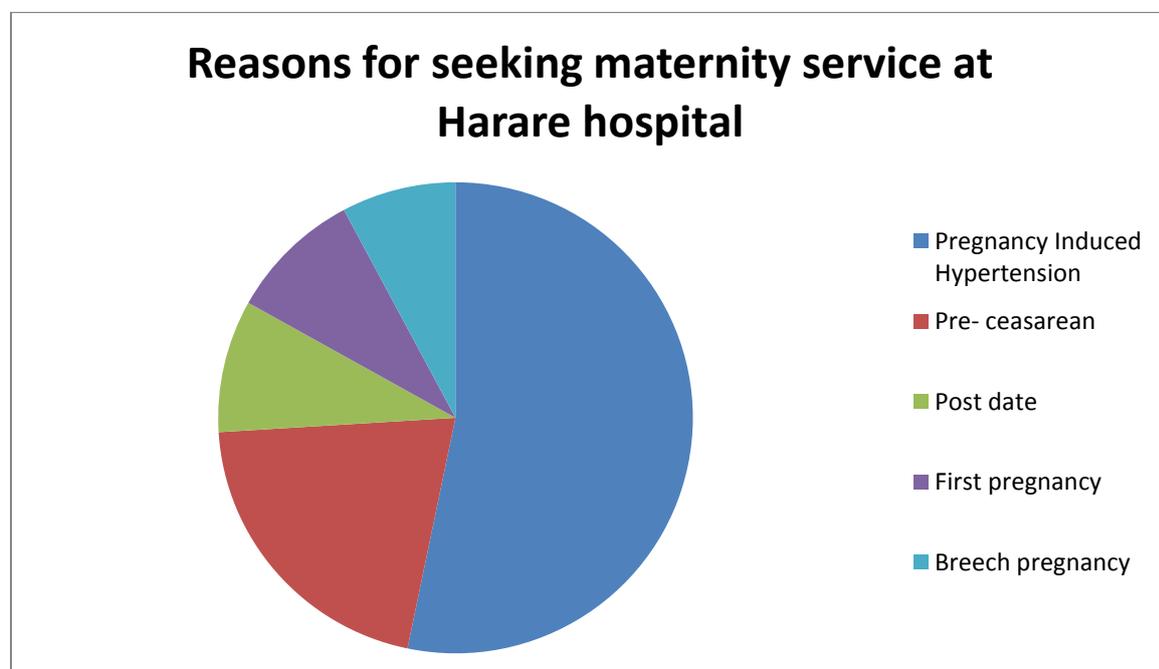


Figure 5.2: Reasons for seeking maternity service at Harare Central Hospital

Figure 5.2 shows the reasons why maternity patients are referred to the Harare hospital from provincial hospitals and polyclinics. It appears that the majority of patients who were interviewed had developed pregnancy-induced hypertension followed by those who had caesarean section before, post-date, first pregnancy, and breech pregnancies.

5.5 THE RELATIONSHIP BETWEEN CHURCH MISSION AND PUBLIC HOSPITALS IN ZIMBABWE

The relationship between the church mission and public hospitals that were investigated for this research is presented in terms of what was revealed during interviews with those as the head of these institutions.

5.5.1 RESULTS OF INTERVIEW WITH ASSISTANT MATRON SISTER JAHONA AT THE KARANDA HOSPITAL

Mission hospitals are governed by the MoHCH. Sister Jahona mentioned that the Karanda Mission Hospital offers nurse and midwifery training but the qualified nurses or midwives are sometimes deployed to government clinics. Not all trained nurses and midwives remain at Karanda Mission hospital though they are the trainers themselves. She also highlighted that Karanda is a rural mission hospital and it sometimes gets referrals from district hospitals, whereas the normal procedure is for district hospitals to refer patients to provincial hospitals.

5.6 THE RELATIONSHIP BETWEEN MATERNAL HEALTH SERVICES PROVISION AND MATERNAL MORTALITY

Relevant information was obtained from hospital records and interviews with those at the head of the hospitals.

Table 5.4 shows total deliveries, total live births and total maternal deaths per year per hospital for the two hospitals that provided the setting for the research.

Table 5.4: Maternal mortality at Karanda and Harare hospital respectively

| YEAR | ITEM | Karanda Mission | Harare central |
|-------------|-------------|------------------------|-----------------------|
| 2011 | Deliveries | 1746 | 13060 |
| | Live births | 1710 | 12856 |

| | | | |
|------|-----------------|------|-------|
| | Maternal deaths | 6 | 82 |
| 2012 | Deliveries | 1589 | 14644 |
| | Live births | 1547 | 14346 |
| | Maternal deaths | 4 | 107 |
| 2013 | Deliveries | 1297 | 14584 |
| | Live births | 1248 | 14357 |
| | Maternal deaths | 4 | 76 |
| 2014 | Deliveries | 1418 | 14630 |
| | Live births | 1384 | 14434 |
| | Maternal deaths | 7 | 92 |

5.6.1 RESULTS OF INTERVIEW WITH DR THISTLE, OBSTETRICIAN AND GYNAECOLOGIST AT KARANDA MISSION HOSPITAL

Dr Thistle stated that maternal mortality at the institute is very low, as shown in Table 5.4 above. He attributed the low maternal mortality rate to the ability of its staff to provide comprehensive emergency and obstetric new-born care. He mentioned that the staff at Karanda is able to administer antibiotics, uterotonic drugs and anticonvulsants. They are competent in the removal of retained products following abortion or miscarriage and can conduct vaginal delivery with the vacuum extractor. In addition, the institute can perform caesarean sections, safe blood transfusion and provide care to sick and low birth weight new-borns, including resuscitation. He stressed that this facilitates safe deliveries.

He also revealed that Karanda provides quality midwifery training which produces midwives who are able to do their job properly. Karanda Mission Hospital has managed to keep the maternal mortality rate low because of help from donors from overseas who provide cash, equipment, expertise and medical supplies. He mentioned that Karanda does not rely on

government stores but on external and private supply chains. The hospital has a shortage of staff such that they have resorted to hiring nurses and midwives at the hospital expense to cover the gaps in the shortages. At the time of the research study there was 18 hired staff to complement the hospital staff establishment.

5.6.2 RESULTS OF INTERVIEW WITH SISTER MADZORE, MATRON, HARARE CENTRAL MATERNITY HOSPITAL

The matron mentioned that maternal mortality at Harare Central hospital is relatively low and declining because Harare hospital is a referral hospital that attends to all complications that cannot be dealt with at provincial hospitals and polyclinics. She explained that they, upon the arrival of a woman, quickly observe and do routine check-ups of sugar, blood pressure and fetal heart, admit and keep monitoring patients. She also highlighted that they, as a tertiary institution for quality speciality care, are able to perform caesarean section, safe blood transfusions, removal of retained products following miscarriage and abortion and manual removal of the placenta.

She reported that they can also assist in vaginal delivery and administer uterotonic drugs and anticonvulsants. She stressed that providing comprehensive care has been the Harare Central hospital way of dealing with maternal mortality at the institute. She stated, however, that they sometimes fall short of essential obstetric drugs, and experience a shortage of blood and blood products for emergencies. Other factors contributing to maternal mortality have been post-partum haemorrhage due to unavailability of blood or failure by patients to buy blood units (which cost US\$200 per pint) for transfusion. The demand for cash up front at the hospital leaves patients in dilemma and it turns them away. She also pointed out the shortage of midwives. The hospital implemented locum staff to boost its staff component so that they can have at least a reasonable number of own midwives present to attend to women in each shift. Underfunding from government has resulted in hospitals operating below capacity and contributes immensely to maternal mortality. She, however, mentioned the health transition fund (HTF) set up by UNICEF to help revive the health system in Zimbabwe for the period 2011 to 2015 that has helped stabilise the hospital by providing funds, medical supplies and incentives for midwives as a form of retention.

5.7 MATERNAL MORTALITY AND ITS DETERMINANTS

Objective 4 was to establish the rate of maternal mortality and its determinants at Karanda and Harare hospitals respectively. To do this, the relevant information was obtained from hospital records and interviews with those at the head of the hospitals.

5.7.1 RESULTS OF INTERVIEW WITH DR. THISTLE, OBSTETRICIAN AND GYNAECOLOGIST, KARANDA HOSPITAL

Dr Thistle mentioned that the hospital has managed to deal with direct causes of maternal mortality because they have qualified staff, essential drugs and equipment. However, other determinants such as malaria, HIV, Tuberculosis, late transfers and cardiomyopathy have been indirect causes of death. He mentioned that there was one incident of maternal mortality due to cardiomyopathy in the year 2015 and the lady left a baby. Other instances had supernatural causes and were the outcome of religious beliefs, for example of faith groups such as the *Vapostori* or Apostolic faith whose adherents neither believe in immunisation nor family planning nor give birth too many children.

5.7.2 RESULTS OF INTERVIEW WITH SISTER MADZORE, MATRON, HARARE CENTRAL HOSPITAL

Sister Madzore mentioned that maternal mortality is relatively low at the institute due to the provision of comprehensive emergency and obstetric care; however, other causes of maternal deaths have included late transfers from provincial and polyclinics, either due to lack of transport or to sorting out paperwork for referral. Lack of essential obstetric drugs such as oxytocin, magnesium sulphate and ferrous sulphate has also contributed to maternal deaths.

5.8 CONCLUSION: DISCUSSION OF FINDINGS

The previous subsection presented research findings obtained from discussions with the research subjects. It gave an insight to the primary data that were gathered. A detailed discussion of the research findings based on the themes generated in Chapter 4 follows. The generated themes were service availability, trained staff, infrastructure, big hospital and good service.

5.8.1 SERVICE AVAILABILITY

The research findings revealed that the availability of service has an important influence on the choice of hospital. Women chose an institution that they hoped would bring a positive

outcome for them and the baby. No major differences were evident in the services provided at the Karanda Mission and Harare Central hospitals, as it was found that similar services are provided at both institutes. However, the over capacity use at both Karanda Mission and Harare Central is an indication that there is little or no service at all from hospitals that are being bypassed by patients. This conforms to the study carried out by Gill and Carlough (2008) which highlighted that service in developing countries, where it is available, is usually inadequate, therefore patients bypass hospitals that are perceived to be inadequate.

This research study revealed that all bypassed polyclinics and hospitals are owned and funded by the government. As explained in Chapter 3, these bypassed clinics and hospitals are part of the referral chain and are meant to be the first contact between the community and physicians. It appears that complications such as pregnancy-induced hypertension, first pregnancies, breech births and other complications cannot be dealt with at these facilities, which forces patients to seek service at Karanda or Harare Central Hospital. It is apparent that the provision of basic services is not adequate. This is similar to findings by Stekelenburg *et al.* (2004) who established that failure by government hospitals to provide skilled professional service to people in need is a limitation in the effort to reduce maternal mortality.

The research findings showed that, in as much as the availability of service is similar at both institutions, mission hospitals such as Karanda make service more obtainable and accessible by implementing a lower user fee as compared to Harare Hospital where the user fee is slightly higher. Karanda, for example, charges a total of US\$11 from antenatal to normal delivery and US\$200 for Caesarean section whereas Harare Hospital requires a deposit of US\$50 at admission and the bill goes up depending on the medication and procedures conducted. As a result, most of the women who fail to pay for their delivery are detained in a room at Harare Hospital till their relatives pay the arrears and only those in exceptionally difficult circumstances are discharged. This is in contrast with a study conducted by Yoder (1989), which revealed a higher user fee at church mission hospitals in Swaziland. This depicts variation in the use of church mission and public hospitals in different countries.

As proved by the research study, mission hospitals such as Karanda are not affected by political or humanitarian situations; service remains available and at the disposal of the communities. This was shown during 2007 to 2008 when Zimbabwe experienced an economic downturn. Most hospitals were on the brink of closing down because they could not

provide maternity services due to lack of drug supplies and health professional were leaving for greener pastures. At hospitals like Karanda, though, women were able to receive maternity service as they continuously receive supplies from their donor communities and are able to operate on their own. This finding is similar to results from a study by Widmer *et al.* (2011) which reported that church mission hospitals perform better than public hospitals.

5.8.2 INFRASTRUCTURE

As found in a study by Green *et al.* (2006), infrastructure at the Karanda and Harare hospitals does not differ much but what makes it different is the difference in ownership and management of hospitals which influence the availability of drugs, hospital supplies and its continuous flow over time. Both hospitals have basic facilities that can facilitate safe delivery. A major reason for choosing Karanda Mission was the availability of maternity housing which permitted women to be close to medical facilities in the last week of pregnancy and also when their pregnancy is considered risky.

Women bypassed government run clinics because of unavailability of electricity and incubators, at their local clinics. However, at the time of research, Karanda had three incubators of which two were fully functional although the third one was not working properly. There were two Doppler monitors, neither of which was in working, an old ultrasound machine, and old delivery beds. At Harare they mentioned shortages of monitors in the early labour ward. There were three ambulances on standby for Harare hospital as a whole, but 1 was not working. Karanda Mission has one ambulance recently donated by UNFPA.

The Karanda Mission hospital revealed that they did not have maternity gowns for mothers whereas women at Harare hospital were supplied with gowns but there were not enough to keep changing through their entire stay. This compares with studies conducted by Kahabuka *et al.* (2012) and Widmer *et al.* (2011) which highlighted shortages of equipment and infrastructure in public hospitals. However, the current study depicts the differences in provision of service by the two institutions and it shows that both have shortages, which may be similar or different. In as much as mission hospitals are said to have a continuous supply of medicine, Karanda mission at the time of research revealed that they sometimes have shortages of ferrous supplement.

5.8.3 SKILLED OR TRAINED STAFF

It has been noted that both hospitals offer nurse and midwifery training and both hospitals retain part of the qualified midwives while some of them are deployed to other hospitals and clinics. Both hospitals have a fair number of qualified midwives though they are facing staff shortages. The distinguishing factor in this regard has been the means to adapt or deal with staff shortages and trying to meet the demands of maternity services that result in positive maternal health outcomes.

As a result of the freezing of posts by the government, both hospitals face shortages and use different methods to adapt. Karanda, for example, hire staff at the hospital's expense and had recruited 18 staff members to complement the hospital staff establishment at the time of the research. Harare Hospital implemented the use of locums whereby midwives who are off duty are recalled to work and get paid overtime.

Most women favoured Karanda Mission and bypassed the government clinics and hospitals; they stressed the availability of skilled doctors who are able to deliver them safely in case of an emergency as motivation. Furthermore, patients described the doctors at bypassed clinics as “not the same as Karanda”. This concurs with the study by Stekelenburg *et al.* (2004) which states that absence of skilled workers impact on the quality of maternity service provision. These points to skills as a distinguishing factor that place the midwives from two different institutions into different categories.

Another advantage of the Karanda Mission hospital was the opportunity to have external doctors and midwives who were able to do training and enhance their midwifery skills. The continuous presence of volunteer doctors from abroad who are able to serve free of charge was acknowledged. This is similar to a study conducted by Hearn (1998), who stated that church mission hospitals benefit from short-term visiting professionals with high skills.

5.8.4 BIG HOSPITAL

Both Karanda Mission and Harare Central were continuously referred to as “big hospital” by the research subjects. Interviewed women originated from high density suburbs and villages that have clinics and hospitals that are able to provide basic services, or no service at all due to shortages of drugs, equipment, electricity and skilled workers, so they anticipated better service and better health outcomes at the bigger hospitals. The influx of maternity patients at

these two institutions is a reflection of the bigger picture of maternity service provision in the country considering that patients have bypassed clinics and hospitals or were referred from clinics and hospitals which are supposed to provide services in their area.

It indicates the general expectation that highly trained nurses, medication and equipment are available at the big hospitals, which is the basis for maternity patients to consult these two institutions. It also appears that the referrals to Harare Central hospital were made on the general assumption that Harare Central has highly skilled personnel. This conforms to a study done by Gerein *et al.* (2006) who revealed that availability of skilled health workers is essential in assuring high quality care.

5.8.5 GOOD SERVICE

Women maintained that they received good service from both hospitals. When questioned about what they meant by good service, they mentioned that they were happy to have delivered safely, that all stages of delivery were explained to them, and that they were given information on motherhood, breastfeeding and nutrition. Women who delivered by caesarean section mentioned that each stage was explained, that they were informed and their approval was sought before the procedure.

Patients at Karanda were happy that they did not have to wait long to be served and that they were continuously under observation until delivery and after. This conforms to a study carried out by Hulton, Mathews and Stones (2000) who stated that quality of care should also include whether women understand what is happening and the reasons for it. At Harare hospital, nurses from the family planning clinic made rounds in the post natal wards explaining family planning methods to patients.

Overall, patients at Harare Central hospital were happy to have delivered safely, considering the risks of their pregnancies. Another highly commended issue at Karanda Mission was the *Masasa* or maternity waiting shelter which permitted them to stay close to the maternity hospital. The midwives visited the *Masasa* continuously to check them and the women would go to the maternity section and report to the midwives whenever they felt that something was wrong. The majority of women who bypassed clinics and hospitals for the Karanda Mission hospital stated that they would come back to Karanda in the event of facing problems because they would spend the whole day waiting for service that may not be offered in the end at the bypassed clinics.

CHAPTER 6 - CONCLUSIONS AND RECOMMENDATIONS

6.1 INTRODUCTION

This chapter concludes this research study by presenting the conclusions based on research findings explained in Chapter 5. Recommendations based on the results of the study are directed at researchers, hospital administrators, and potential donors, the Ministry of Health and Child Welfare, and health policy makers. It starts with a summary of the conclusions from the empirical results drawn from the research objectives.

6.2 OBJECTIVE 1: TO EXAMINE THE QUALITY OF MATERNAL HEALTH SERVICE PROVISION IN ZIMBABWE

Research findings prove that there has been a big change in the quality of maternity service provision in the country from 2011 to date. Maternal mortality has decreased but remains high. The results show that the quality of maternity service has improved but is still compromised. It seems there has been steady and stable maternity service provision at church mission hospitals such as Karanda Mission since they are able to rely on their donor networks to provide what is needed. Whereas, government hospitals were struggling and almost shut down in 2011 before the intervention of the Health Transition Fund (explained in Chapter 3), which revived the maternity health system in Zimbabwe.

Results of interviews with the research subjects depicted a reflection of the quality of maternity service provision at large. This is shown by maternity patients bypassing government hospitals and clinics in their vicinity and seeking service at Karanda Mission hospital where they have expectations of positive health outcomes for both mother and baby. Although Harare Central hospital, on the other hand, still faces shortages of equipment, drugs and staff despite the intervention of the Health Transition Fund, patients are still being referred to it from other government hospitals and clinics below it in the referral chain. The failure and inability to provide primary health care service to the nearby communities is clear in the compromised maternal health service delivery system in Zimbabwe.

6.3 OBJECTIVE (2): TO ESTABLISH THE TYPE OF MATERNITY SERVICES AVAILABLE AT CHURCH MISSION AND GOVERNMENT HOSPITALS

Maternity services at both hospitals were found to be similar. Both offer antenatal, family planning and post natal services. Services provided include screening for all diseases at booking, blood tests, urine tests, HIV tests, antiretroviral drugs, visual inspection of the cervix (VIAC), and the CD4 count. Both hospitals provide contraceptives such as pills, injections such as Depo Provera and Jadelle implants for family planning. Harare hospital has offered females condoms which are not available at Karanda Mission and Karanda Mission does bilateral tubal ligation which is not done at Harare Central. Information on motherhood, breast feeding, and contraceptives is also provided at both hospitals.

Both church mission and government hospitals act under the guidelines of the Ministry of Health and Child Welfare. Salaries at the church mission hospital are paid by the government. The delivery system in the maternity service of both hospitals did not differ measurably, but the difference in ownership and management of the hospital influences the availability and continuous flow and availability of staff, equipment, medicines and other hospital supplies. For example, when staff shortages resulted from the freezing of posts by the government, the Karanda Mission managed to hire staff at own expense to complement their main staff component. This shows that mission hospitals have autonomy to make quick decisions to adapt to their circumstances.

In addition, the availability of donor funds makes it possible for mission hospitals to lower their user fees and influence service accessibility. Karanda, for example, charges only US\$11 for a normal delivery, whereas service costs at the Harare hospital depend on the procedure. A deposit of US\$50 is required upon arrival and the cost goes up as medications and procedures are added. Upon failure to top up the hospital bill at Harare Hospital, women and their newborn babies are detained in a room for those with outstanding payments and they are only discharged after a full payment. There are no beds in this room and food is not provided.

The major distinction is that maternity service costs are low at mission hospitals and high at government hospitals. Contraceptives at mission hospitals are provided free of charge whereas women pay for all contraceptives except for female condoms at government hospitals.

6.4 OBJECTIVE 3: TO EXPLORE FACTORS DRAWING MATERNAL PATIENTS TO CHURCH MISSION AND GOVERNMENT HOSPITALS

The availability of service, infrastructure, skilled workers, and good service has been established as factors drawing patients to both hospitals. Maternity patients bypassed government hospitals and clinics in favour of Karanda because they wanted positive health outcomes which for them could only be made possible by the availability of skilled doctors, equipment, medical supplies and a low user fee.

Maternity patients also highly commended the maternity waiting shelter at the Karanda Mission Hospital which is used by women close to their date of delivery. Examples of bypassed government clinics and provincial hospitals in favour of Karanda Mission are the Bveke, Rushinga, Pachanza, Chitse, Chibure, Chitepo, Nyamahobogo, Chahwanda clinics and the Mt Darwin provincial hospital.

On the other hand, maternity patients were referred to Harare hospital from other provincial government hospitals and polyclinics. The polyclinics cannot handle complications such as pregnancy-induced hypertension, breech births, caesarean sections and first pregnancies. Harare hospital is serving population from as far as Beit Bridge, Kariba, Karoi, and Chinhoyi and from polyclinics such as Waterfalls, Hopley, Glenview Mufakose and Kambuzuma.

No direct relationship was found between church mission and government hospitals. It was noted that, since Karanda Mission trains nurses and midwives, it retains the trained nurses and midwives in the end, but a certain number is deployed elsewhere by the MoHCH. This means that Karanda trains for other government hospitals and clinics. In the referral chain, clinics and district hospitals are supposed to refer patients to provincial hospitals, but it was discovered that these clinics sometimes refer patients to the Karanda Mission instead of the provincial hospital. This suggests that there is an expectation of positive health outcomes at the mission hospital, more so than at government hospitals.

6.5 OBJECTIVE 4: TO EXPLAIN THE RELATIONSHIP BETWEEN MATERNAL HEALTH SERVICE PROVISION AND MATERNAL MORTALITY AT KARANDA MISSION AND HARARE CENTRAL RESPECTIVELY

Maternal mortality at the Karanda Mission Hospital is very low and can be attributed to overseas volunteer doctors who extend skills to the nurses and midwives at the hospital. The

ability of Karanda Mission staff to administer comprehensive emergency obstetric care has also helped keep the maternal mortality low. Karanda Mission receives a continued supply of medical supplies, donated equipment and funds which make it possible for hospital to have positive maternal health outcomes for both mothers and babies. Due to the freezing of all vacant professional health posts by the Ministry of Finance, Karanda faces staff shortages as much as other hospitals. For the time being they have managed to use private hospital funds to hire staff to complement the main hospital staff.

Harare Central Hospital is one of the beneficiaries of the Health Transition Fund, which helped to revive the maternity section which was almost shut down in 2011. The hospital's maternal mortality is relatively low, which can now be attributed to the HTF which helped provide equipment, medical supplies and funds to retain health professional workers.

As a result Harare Central Hospital can provide comprehensive obstetric emergency care, the lack of which at an institution normally contributes to the death of women. Prior to 2011, women were dying at Harare hospital due to the shortage of medical supplies and equipment and absence of skilled professionals to carry out procedures. Currently, Harare Central, just like Karanda, faces a shortage of staff due to the cuts in intake per year for nursing and midwifery training and the freezing of all vacant post by the Ministry of Finance. The hospital has resorted to using locums as a way of complementing their main hospital staff component to meet demands for maternity services.

The reason for low maternal mortality at Karanda Mission is because they have drugs and equipment to deal with the direct causes of mortality. Maternal deaths at Karanda Mission are mainly due to indirect causes of maternal mortality such as malaria, HIV, Tuberculosis, late transfers, and cardiomyopathy. Religion is another major factor contributing to maternal mortality; sects such as the Apostolic Faith Mission or *Vapostitori* do not believe in immunisation and family planning. They have multiple births which compromise their health and they only consult the hospital when there is a complication. The causes of maternal mortality at Harare Central hospital are lack of resources; the shortage of skilled doctors; lack of transport to fetch women who experience complications to Harare Hospital; and late referrals from polyclinics and provincial hospitals

6.6 RECOMMENDATIONS

Recommendations are based on the conclusions drawn from the empirical findings of this study as expressed in objective 4.

Objective 4: To suggest possible ways of reducing maternal mortality in Zimbabwe

- The Zimbabwe Ministry of Finance needs to increase the budget allocation of the Ministry of Health and meet the objective of the stated Abuja declaration, of at least 15% of the country's total budget. The government should not rely fully on donor funds but donated funds should be complementary to the budget.
- With an adequate budget allocation, hospitals will be able to obtain adequate hospital supplies such as medication, equipment, bedding, linen and maternity gowns. It could also permit maternity clinics to be refurbished.
- The Ministry of Health should establish and implement sustainable hospital financing schemes and relieve the ordinary citizen from out of pocket spending.
- The Government of Zimbabwe needs to evaluate policies that are impacting maternal mortality. For example in 2009, the directive by the Ministry of Finance to freeze all vacant posts as a way of controlling the wage bill is counterproductive to the demand for doctors and nurses in understaffed hospitals. This directive should be lifted to allow hospitals to employ more staff to meet service demand, especially at the remote rural clinics that have no qualified doctors at all and are failing to provide basic emergency obstetric care.
- Bonding the graduate with the MoHCW is a positive way of retaining qualified nurses and midwives, but if the Ministry of Health cannot employ them, it is recommended that they release them so that they can find work elsewhere and keep their skills fresh. Refresher courses should be put in place for these recent graduates who have been affected by the freezing of posts and cannot be recruited. Being without work for more than three months results in graduates losing the acquired skills and reinstating them in hospitals will compromise the quality of service provided.

- The MoHCW should increase the annual nurse and midwifery training intake. There are major shortages at tertiary hospitals and the worst shortages are in the remote rural areas where service is needed most by the low-income population. This will help to increase the nurse to patient ratio.
- The MoHCW should monitor whether all hospitals have implemented the abolishment of user fees for primary health care. It was noticed that some hospitals and clinics are charging for service, yet the provisions of the HTF say no user fee for primary health care for children below five years and pregnant mothers. Harare hospital, for example, is charging and detaining women who fail to pay, arguing that they use the money for restocking supplies. To strengthen implementation, the government furthermore needs to enact a statutory instrument or an act of parliament that enforces the policy.
- The Government of Zimbabwe should revise the legal policy enacted in 1980 that stipulating that workers earning less than 400 Zimbabwean dollars are exempted from paying user fees. They should adjust the policy to suit the current economy using the United States dollar.
- Community education on maternal health issues such as safe delivery, malaria during pregnancy, HIV and pregnancy, TB and pregnancy. The MoHCW should collaborate with women's organisations and community leaders who are able to lead these campaigns.
- The MoHCW should collaborate with women's organisations and set up advocacy committees that can reach out to religions such as the apostolic sects and sensitise them with regard to safe pregnancy and safe delivery, and educate them on how they can strike a balance between their religion and modern medicine without compromising their health.
- Continuing medical education is of vital importance to upgrade the skills of midwives and doctors for them to offer successful maternity services. This can be done by linking with experts in maternal health within or outside the country who can offer training in how to handle complications such as breech births and managing sepsis, haemorrhage and pregnancy-induced hypertension. Experts could be linked to a

hospital and training could be offered at different arranged intervals throughout the year.

- More staff should be deployed to remote rural areas, but this can only be done by implementing incentives such as housing allowances, transport, and a bush allowance to motivate doctors and midwives to take up such posts on the outskirts.
- There is need for strong collaboration between mission hospitals and government hospitals. Church mission hospitals could provide trained midwives to surrounding rural clinics and hospitals. Midwives and nurses trained at Karanda Mission hospital should, for example, be deployed to the clinics that are being bypassed by patients. The Karanda hospital could also play a supervisory role in these clinics and hospitals.
- The Ministry of Social Welfare should cater for those in need.

6.7 LIMITATIONS OF THE STUDY

The study had several limitations related to its design, location and study units. Hospitals that are at different levels in the referral chain of Zimbabwe health service delivery were compared. Comparing hospitals at the same level would have been better at a glance but the selected hospitals provided better results. The hospitals are situated in different locations, one in an urban and the other in a rural area. Comparing hospitals in the same location would have permitted the researcher to analyse a population with similar characteristics. The study was also limited by its small sample size. The sample size could have been expanded by including officials from the MoHCW; officials from the Zimbabwe Association of church-related hospitals; nurses; nurse aids; and people in the accounts department dealing with payments.

6.8 AREAS FOR FURTHER STUDY

A greater depth of information may have been obtained had the research been expanded to the polyclinics and provincial hospitals referring patients to the Harare hospital. Also visiting the clinics surrounding the Karanda Mission hospital and investigating their reasons for referring patients to Karanda Mission and establishing the challenges they are facing in providing service to the communities would have added to the research. Lastly, further research needs to be conducted on the sustainability of church mission hospitals.

6.9 CONCLUSION

A comparative study of the quality of maternal health service provision at the Karanda Mission hospital and the Harare Central hospital has gained insight into maternity service delivery in Zimbabwe as a whole. The results of the study indicated that ownership, management and administration of a hospital influence the differences and similarities at both institutions which affect user fees, availability of service, and the availability of trained and skilled professionals. The aforementioned factors consequently influence the patient's choice of hospital when seeking maternity service.

Church mission hospitals have been proved to offer better maternal health services than government hospitals and the quality of maternal health service provision has been shown to influence maternal mortality at an institution. This is indicated by the continuous supply of hospital supplies and the availability of skilled workers at the Karanda Mission Hospital which has had low maternal mortality throughout. On the other hand the before and after situation of Harare Central hospital in relation to the introduction of the Health Transition Fund shows that better quality of maternal health service provision was noticed through the benefits of the health transition fund which revived and stabilised maternity service delivery in public hospitals and lowered maternal mortality which had risen. The Health Transition Fund yielded positive results from 2011 to 2015 but what will happen now, since the donor fund comes to an end December 2015, remains to be seen.

The government of Zimbabwe needs to put in place better hospital financing schemes and not rely on international donor funds.

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APPENDICES

Appendix A: Information sheet and English Consent Form

Information Sheet

Project Title: A comparative study of the quality of maternal health service provision at church mission and government hospitals in Zimbabwe. The Case of the Harare Central and the Karanda Hospitals

Principal investigator: Delice Zakeyo

Phone numbers: +263 777 890 723/ +27 82 660 3889

What you should know about this research study:

- We give you this consent form so that you may read about the purpose, risks, and benefits of this research study.
- The main goal of the research study is to gain knowledge that may help lower maternal mortality.
- You have the right to refuse to take part, or agree to take part now and change your mind later.
- Whatever you decide, will not affect your regular care.
- Please review this consent form carefully. Ask any questions before you make a decision.
- Your participation is voluntary.

Purpose of the study: You are being asked to participate in a research study about the quality of maternal health service provided by church mission and public hospitals in Zimbabwe. The purpose of the study is to assess the differences and similarities of the maternal health services provided by the two types of service providers. You are selected as a possible participant because you are the key informants who provide the service or who receive the service directly. A total number of 64 research participants have been selected to take part in this study at the Karanda and Harare Hospital.

Procedure and duration: If you decide to participate, you will be asked a few questions pertaining to maternal health service provision at the institution.

Risk and discomforts: There is no anticipated and known risk in taking part in the study.

Benefits to taking part in the study: The benefit of the research is that you will be helping us understand the possible factors contributing to maternal mortality and the possible solutions that can be advocated.

Confidentiality: All information will be kept (*either confidential, in the case where subjects' identities need to be retained or can be associated with their responses, or anonymous and confidential, in the case where data collection does not allow responses to be connected with a particular subject*). If anonymous, this means that your name will not

appear anywhere and no one except me will know about your specific answers. If confidential, I will assign a number to your responses, and only I will have the key to indicate which number belongs to which participant. In any articles I write or any presentations that I make, I will use pseudonyms and will not reveal your personal details.

Consent form

Project Title: A comparative study of the quality of maternal health service provision at church mission and public hospitals in Zimbabwe. The Case of the Harare Central and Karanda Hospitals

Your rights as a research Participant: Participation in this study is voluntary. If you decide not to participate in this study your decision will not affect your relation with the hospital. If you decide to participate, you are free to withdraw your consent and discontinue at any given time without penalty.

Offer to answer questions: Before you sign this form, please ask any questions on any aspect of this study that is unclear to you.

Authorisation: You are making a decision whether or not to participate in this study. Your signature indicates that you have read and understood the information provided above and have had all your questions answered and have decided to participate

Name of Research Participant

Date

Signature of Participant

Time

If you have any questions concerning this study, or if you feel that you have been treated unfairly, and would like to talk to someone other than a member of the research team, please feel free to contact Karanda Mission Hospital Administration on +263-774-082-211 / Harare central Hospital Research Committee on 263(4) 621100-19.

Appendix B: Informed Consent Shona

Information Sheet

Chinangwa: Tsvagurudzo yemamiriro ekuchengetedzwa kwehutano hwana mai muzvipatara zvinotungamirwa nedzisivondo/machechi nedzivotungamirirwa nehurumende muZimbabwe: Ongororo pachipatara cheHarare Central necheKaranda Mission.

Muongorori: Delice Zakeyo

Runhare: +263 777 890 723/ +27 82 660 3889

Zvamunofanira kuzva pamusoro peongororo iyi.

- Tokupai gwaro rino kut muverenge pamusoro pechinangwa, tsaona inogona kuuya nezvakanakira kunge muchipinda muongororo iyi.
- Chinangwa chikuru chetsvagiridzo iyi ndechekuda kuwana ruzivo rungabatsira kuderedza kufa kwana mai apo vanenge vachisununguka uye kuona rudzi rwerubatsiro rwurikuwana madzimai muzvipatara zviviri zvarehwa.
- Sarudzo yamunotora haishandure mabaturwo nemarapirwo amunoiwa pano pachipatara.
- Nyatsocherechedzai gwaro rino kana muine mubvunzo makasununguka kubvunza tisati tatanga
- Hamumanikidzwe kupinda muongororo iyi. Munopinda nekuda kwenyu.

Chinangwa chetsvagiridzo ino: Murikukumbirwa kuti mupe pfungwa dzenyu patsvagurudzo ino yatichange tichitasira kuti vana mai nevana vanochengetedzwa hutano hwavo sei muzvipatara zvinotungamirwa nedzisivondo/machechi nezvinotungamirwa neHurumende

Zvii zvichaitika uye zvinotora nguva yakadii: Kana mukabvuma kupinda muongororo iyi, muchabvunzwa mibvunzo maererano nemabaturwo amunoiwa pachipatara chino.

Tsaona dzingangokuwira: Hapana tsaona kana njodzi dzatingafunge kuti dzingangokuwire pakupinda muchirongwa chino

Zvakanakira kupinda muchirongwa chino: Kupinda kwenyu muchirongwa chino kunobatsira kuunza pfungwa dzingangobatsiridze mukuziwa zvikonzero zvinoita kuti madzimai afe apo vanenge vachisununguka muzvipatara, zvozoguma zvaita kuti paonekwe zvingaitwe kudzivirira dambudziko irori.

Tsindidzo: Zvese zvatichawana zvichachengetedzwa pasina vamwe vanhu kunze kwangu ini muongorori ndichazonanganidza umboo nemazita enyu. Mukunyora magwaro, umboo hwenyu hunonanganidzwa nezita remadunhurirwa randichashandisa.

Gwaro rewirirano

Chinangwa: Ongororo yekuzvipatara zvemachechi nezve ruzhinji muZimbabwe. Chipatara che Harare Central ne Karanda.

Kodzero dzevachapa umbowo patsvagurudzo: Makasununguka kupa muono wenyu patsvagurudzo ino kana kurega. Kana masarudza kupinda mutsvagurudzo, hazvina chanzvinokanganisa kana kuwedzera pahukama hwenyu nechipatara. Zvakare makasununguka kusarudza kurega kuenderera mberi nekupa pfungwa dzenyu patsvagurudzo iyi chero zvenyu mambenge mabvuma kupinda mairi

Mhinduro kumibvunzo: makasununguka kubvunza chero mubvunzo kana pane zvisina kukujekerei

Chibvumirano: Muri kuita sarudzo yekupinda kana kusapinda muongororo ino. Signature yenyu inoratidza kuti manzwisisa uye munobvuma kupinda muchirongwa chino.

Name of Research Participant

Date

Signature of Participant

Time

Kana muine mibvunzo maererano neongororo iyi makasununguka kukurukura nesu. Ridzai runhare ku Karanda Mission Hospital Administration on +263-774-082-211/ Harare central Hospital Research Committee on 263(4) 621100-19

Appendix C: Questionnaire - Director of maternity services

1. What is your age? (*Tick where appropriate*)
 - a. 18-25
 - b. 26-35
 - c. Above 35
2. Gender (*Tick where appropriate*)
 - A. female
 - b. male
3. What is your Level of education and training?
4. For how long have you been in the profession?
5. Tell me about maternal mortality at this institute.
6. How have you been dealing with maternal mortality issues at the institute?
7. What are the success stories?
8. How have you been managing?
9. What have been the socio, economic, cultural and political challenges in reducing maternal mortality?
10. Is the hospital staff able to provide basic and comprehensive emergency and obstetric and new-born care? (*please state the numbers*)

(A) Basic emergency obstetric care:

 - Administering antibiotics, uterotonic drugs (oxytocin) and anticonvulsants (magnesium sulphate);
 - Manual removal of the placenta;
 - Removal of retained products following miscarriage or abortion;
 - Assisted vaginal delivery, preferably with vacuum extractor;
 - Basic neonatal resuscitation care.

Comprehensive emergency obstetric and new-born care:

- Performing Caesarean sections;
 - Safe blood transfusion;
 - Provision of care to sick and low birth weight new-borns, including resuscitation.
11. What are your recommendations for maternal mortality reduction at the institute and in Zimbabwe as a whole?

Appendix D: Questionnaire - Hospital Matron

1. What is your age? (*Tick where appropriate*)
 - a. 18-25
 - b. 26-35
 - c. Above 35
2. Gender (*Tick where appropriate*)
 - a. female
 - b. male
3. What is your Level of education and training?
4. For how long have you been in the profession?
5. Tell me about maternal mortality at this institute.
6. What threshold does the hospital cover in maternity services?
7. How much does the hospital charge for registering pregnancy, delivery and for dispensing contraceptives?
8. What are the services available for pregnant women for antenatal care?
9. What are the services available for pregnant women at delivery?
10. What are the services available for women for post natal care?
11. What is the process for admitting a woman in labour? (From when a woman arrives, goes in waiting in labour and labour).
12. How many employees are required to manage the maternity wards? What training do they have in relation to managing maternity patients?
13. Infrastructure - does the institution have the necessary or basic equipment needed in maternity wards?
14. What is the number of available beds as to number of influx of patients?
15. What is the availability of drugs to administer to pregnant women, at delivery and after?
16. What do you think should be done to help reduce the high rate of maternal mortality in Zimbabwe?

Appendix E: Questionnaire - Patients waiting for delivery

1. What is your age? (*Tick where appropriate*)
 - a. 18-25
 - b. 26-35
 - c. Above 35
2. Gender
 - a. Female
 - b. Male
3. Level of education
 - a. ordinary level
 - b. advanced level
 - c. tertiary and other
4. What is your perception of the service at the hospital?
5. When did you register your pregnancy?
6. Did you attend antenatal or child birth classes?
7. How many times did you visit the hospital for routine check-ups?
8. Did you manage to check your health status before getting pregnant?
9. Why did you choose this hospital or why did you decide to give birth at this hospital?
10. Are there midwives or nurses monitoring you whilst you wait for delivery?
11. Did you get any medication or help for pain management?
12. How much is the maternity fees?
13. How did you get to the hospital?

Appendix G: Questionnaire - Family planning patients

1. What is your age? (*Tick where appropriate*)
 - b. 18-25
 - b. 26-35
 - c. Above 35
2. Gender
 - b. Female
 - b. Male
3. Level of education
 - a. ordinary level
 - b. advanced level
 - c. tertiary and other
4. What is your perception of the service at the hospital?
5. What service are you looking for? Is it available?
6. Is there a wide range of contraceptives to choose from? Is there enough information regarding different types of contraceptives?
7. Is it appropriate and effective?
8. How long does it take to be served?
9. Are you given time to ask questions or discuss problems with the staff?
10. Do you have traditional beliefs or a culture that you follow or use as contraceptive and are they taken into consideration at the hospital?

Appendix F: Questionnaire - Patients waiting for post natal service

1. What is your age? (*Tick where appropriate*)
 - c. 18-25
 - b. 26-35
 - c. Above 35

3. Gender
 - c. Female
 - b. Male

3. Level of education
 - a. ordinary level
 - b. advanced level
 - c. tertiary and other
4. What is your perception of the service at the hospital?
5. Did you manage to get information on promotion of safe motherhood and education regarding parenting, breastfeeding, contraceptives and depressants?
6. Did you manage to get help with managing of health conditions worsened by pregnancy e.g. diabetes, hypertension?
7. Did you understand the stages you went through during the delivery process, was everything explained to you and were you given a chance to ask questions?
8. How would you rate the institution in terms of respect and dignity for the patient?
9. What are the fees for post natal service including check-up and contraceptives after birth?
10. How flexible is it to come to the hospital to take contraceptives? Can you come anytime or there is a specific day?
11. How easy is it to contact the hospital in case of encountering a problem after giving birth when you have already gone home?
12. What is the Length of time it takes to be served at this hospital?