SAFE MOTHERHOOD STRATEGIES IN THE INFORMAL SETTLEMENT OF KIBERA, NAIROBI CITY COUNTY

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A RESEARCH PAPER SUBMITTED TO THE INSTITUTE OF ANTHROPOLOGY, GENDER AND AFRICAN STUDIES IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF ARTS IN GENDER AND DEVELOPMENT STUDIES OF THE UNIVERSITY OF NAIROBI

NOVEMBER 2015
DECLARATION

This research paper is my original work and has not been presented for examination in any other University.

Signature_________________________  Date________________________

Caroline Akeyo Othim
(N69/71278/2014)

This research paper has been submitted for examination with my approval as the University supervisor.

Signature ------------------------------------------ Date-------------------------------------

Dr. Owuor Olungah
DEDICATION

This project is dedicated to my deceased parents Mr. and Mrs. Othim for their inspiration. To my siblings: Evans, Christine, Linda, Lucy and Damaris for their continued support and encouragement and my fiancé, Dr. Dennis Miskellah for his unwavering belief in my abilities. Above all, I am thankful to God for having given me the strength and grace to pursue further studies.
ACKNOWLEDGEMENT

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I would like to thank all those who assisted me to ensure the success of this project; first, to heads of health facilities in Kibera; Medecin San Frontier Kibera South Health Center, Tabitha Medical Clinic, St. Mary’s Mission Hospital, Lang’ata Health center, Saola Nursing and Maternity, Christian Hope Network and Support Services, Kibera Community Health Center-AMREF and Beyond Zero Clinic. Secondly, to my research assistant Anne Agar, my colleagues and classmates, my friends, with a special mention of Dalmas Omia and lastly my informants without whom this study would not have been possible.
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This was a cross sectional, descriptive study exploring safe motherhood strategies in the informal settlement of Kibera in Nairobi City County. Specifically, the study examined the strategies adopted by the health facilities and their effectiveness in addressing the constraints faced in ensuring safe motherhood. The study was guided by Intervention and Solution focused theory and data collected through key informant interviews, in depth interviews, and observations. The sample population was drawn from public, private, Faith-based, NGO supported health facilities as well as a Beyond Zero Clinic within Kibera informal settlements.

Purposive sampling was used to identify the health facilities in Kibera. The study purposively included facilities run by government (Public) as well as private facilities run by health/medical entrepreneurs and not for profit facilities run by the church or faith based organizations as well as those run by non-governmental organizations. In situations where community run facilities existed, they were included as well as the Beyond Zero Clinic providing maternity services to Kibera residents. The data was analyzed through constant comparative approach which is consistent with the grounded theory and presented according to themes informed by the study objectives.

The study has revealed that the informal settlement facilities have adopted specific strategies in the delivery of maternal health care services. Among the strategies adopted include: partnerships with other organizations on provision of a range of services including family planning, ante-natal care, safe and clean delivery, skilled birth attendants, post-natal care, “delivery pack” to incentivize the mothers to have facility deliveries and maternal mortality audit meetings. Further, there is a user fees exemption for maternity services.

The strategies, however, are faced by a number of constraints including: insufficient human and material resources; ineffectiveness of the referral systems, physical inaccessibility of the facilities and insecurity. The study concludes that there is an urgent need to address the burden of shortage of staff, stock-outs of drugs, supplies and commodities and an ineffective referral system. The study recommends that referral pathways in the informal settlements needs to be improved and this should be complimented by constant and adequate supply of essential medicines and equipment and monetary resources.
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
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<tbody>
<tr>
<td>AIDS</td>
<td>Acquired Immunodeficiency Syndrome</td>
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<tr>
<td>AMREF</td>
<td>African Medical and Research Foundation</td>
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<tr>
<td>ANC</td>
<td>Ante Natal Care</td>
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<tr>
<td>ART</td>
<td>Anti Retroviral Treatment</td>
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<td>AU</td>
<td>Africa Union</td>
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<td>CARMMA</td>
<td>Campaign on Accelerated Reduction of Maternal Mortality</td>
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<td>CDC</td>
<td>Center for Disease and Control</td>
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<tr>
<td>CFK</td>
<td>Carolina for Kibera</td>
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<tr>
<td>CHV/W</td>
<td>Community Health Volunteer/Worker</td>
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<tr>
<td>EmOC</td>
<td>Emergency Obstetrics Care</td>
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<tr>
<td>FGM/C</td>
<td>Female Genital Mutilation/Cutting</td>
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<td>FIDA</td>
<td>Federation of Women Lawyers</td>
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<tr>
<td>GoK</td>
<td>Government of Kenya</td>
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<tr>
<td>HIV</td>
<td>Human Immunodeficiency Virus</td>
</tr>
<tr>
<td>ICPD</td>
<td>International Conference on Population and Development</td>
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<tr>
<td>JICA</td>
<td>Japan International Cooperation Agency</td>
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<tr>
<td>KDHS</td>
<td>Kenya Demographic Health Survey</td>
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<td>KEMSA</td>
<td>Kenya Medical Supplies Agency</td>
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<td>KES</td>
<td>Kenya Shillings</td>
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<td>KII</td>
<td>Key Informant Interview</td>
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<td>KNBS</td>
<td>Kenya National Bureau of Statistics</td>
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<td>MCH</td>
<td>Maternal and Child Health</td>
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<td>Abbreviation</td>
<td>Full Form</td>
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<tr>
<td>MDGs</td>
<td>Millennium Development Goals</td>
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<td>MMR</td>
<td>Maternal Mortality Rate</td>
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<tr>
<td>MOH</td>
<td>Ministry of Health</td>
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<td>MPHS</td>
<td>Ministry of Public Health and Sanitation</td>
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<td>MTP</td>
<td>Medium-Term Plan</td>
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<tr>
<td>NACOSTI</td>
<td>National Commission on Science, Technology and Innovation</td>
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<tr>
<td>NGO</td>
<td>Non-Governmental Organization</td>
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<td>PNC</td>
<td>Post Natal Care</td>
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<tr>
<td>SDG</td>
<td>Sustainable Development Goal</td>
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<tr>
<td>SRH</td>
<td>Sexual and Reproductive Health</td>
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<td>STIs</td>
<td>Sexually Transmitted Infections</td>
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<tr>
<td>TBA</td>
<td>Traditional Birth Attendant</td>
</tr>
<tr>
<td>UN</td>
<td>United Nations</td>
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<tr>
<td>UNC</td>
<td>University of North Carolina</td>
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<tr>
<td>UNDP</td>
<td>United Nations Development Programme</td>
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<td>UNFPA</td>
<td>United Nations Fund for Population Activities</td>
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<td>UNICEF</td>
<td>United Nations Children’s Fund</td>
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<td>USAID</td>
<td>United States Agency for International Development</td>
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<td>WB</td>
<td>World Bank</td>
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<td>WHO</td>
<td>World Health Organization</td>
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1.0 CHAPTER ONE: BACKGROUND TO THE STUDY

1.1 Introduction

Safe motherhood means ensuring that all women receive the care they need to be safe and healthy throughout pregnancy and childbirth. Safe motherhood begins before conception with proper nutrition and a healthy lifestyle. It continues with appropriate prenatal care, the prevention of complications when possible, and the early and effective treatment of any complications. The ideal results are pregnancy at term without unnecessary interventions, the delivery of a healthy infant, and a healthy postpartum period in a positive environment that supports the physical and emotional needs of the woman, infant, and family (CDC, 2008).

Every minute, somewhere in the world a woman dies from complications related to pregnancy or childbirth (UN, 2009). According to CDC (2008), 525,600 women, at a minimum, die every year and nearly all these maternal deaths occur in the developing world, making maternal mortality the health statistic with the largest disparity between developed and developing countries. For every woman who dies, 30 to 50 women suffer injury, infection, or disease. UNFPA (2008) posits that pregnancy-related complications are among the leading causes of death and disability for women of reproductive age in developing countries.

When a mother dies, children lose their primary caregiver, communities are denied her paid and unpaid labour, and countries forego her contributions to economic and social development. A woman's death is more than a personal tragedy; it represents an enormous cost to her nation, her community, and her family. Any social and economic investment that has been made in her life is lost. Her family loses her love, her nurturing, and her productivity inside and outside the home, (Tamara, 2013).
The concept of “safe motherhood” is usually restricted to physical safety, but childbearing is also an important rite of passage, with deep personal and cultural significance for a woman and her family. Issues of gender equity and gender-based violence are also at the core of maternity care, so the notion of safe motherhood must be expanded beyond the prevention of morbidity or mortality to encompass respect for women’s basic human rights (Tamara, 2013: 17).

According to World Bank (2013) in its review of the Millennium Development Goals (MDGs), Kenya made little progress towards achieving MDG 5 on improving maternal health even as the implementation of the MDGs come to an end in December 2015. The MDGs will be succeeded by the Sustainable Development Goals (SDGs) which were formally adopted on 27th September 2015 (UN, 2015). Goal 3 and 5 specifically targets good health and well-being and gender equality respectively. Globally, maternal mortality is the leading cause of death among females of reproductive age (UNFPA et al., 2006). The Kenya Demographic and Health Survey (KDHS) 2008/09 indicates that maternal mortality rate (MMR) in Kenya remained unacceptably high at 488 per 100,000 live births (KNBS, 2009). The recently released KDHS Key Indicators 2014 is silent on the figures of MMR. A reduction was marked in 2013 where the figure was estimated at 400 per 100,000 births (World Bank, 2013). However, an AMREF (2011) roadmap/strategy for 2011-2015 titled “Stand up for African mothers” and a UNFPA (2011) report on “The State of the World's Midwifery” puts the figure at 360 per 100,000 live births (AMREF, 2011).

In addressing the high maternal mortality, the Kenyan government is informed by a number of international, regional and national instruments as well as key interventions by a number of state and non-state actors including the Maputo Protocol, which requires African governments to
guarantee comprehensive rights to women as well as control of their reproductive health (AU, 2003). The African Union Campaign on Accelerated Reduction of Maternal Mortality (CARMMA) aims at contributing to advancement of social development to reduce maternal mortality in Africa. The CARMMA focuses on building on-going efforts particularly best practices by reporting, collecting and sharing information on various strategies and initiatives that countries have implemented to address maternal mortality (AU, 2009). The Millennium Development Goals (MDGs) on the other side had set out to improving maternal health and aimed at reducing the maternal mortality ratio (MMR) by three quarters between 1990 and 2015 (AMREF, 2011).

The Constitution of Kenya, 2010, has afforded many gains to the Kenyan populace. Key among these is the progressive Bill of Rights; Article 43 of the constitution provides that every person has the right to the highest attainable standard of health, including reproductive health care (GoK, 2010). Further, the economic blueprint of Kenya, Vision 2030 is a long-term policy that aims to create a “globally competitive and prosperous country with a high quality of life by 2030”. It notes the indispensible place of a healthy workforce for the realization of economic growth. Indeed economic growth has to go hand in hand with improved human development indicators (GoK, 2008).

The Ministry of Health (MoH) strategic plan’s main goal is to reduce health inequalities and to reverse the downward trend in health-related outcome and impact indicators. The plan aims at reducing maternal mortality from 488 to 150 per 100,000 live births (MoH, 2013). The Reproductive Health Policy 2007 with the theme “Enhancing the Reproductive Health Status for
All Kenyans,“ provides a framework for equitable, efficient, effective delivery of high-quality reproductive health services throughout the country, and emphasizes reaching those in greatest need and most vulnerable. The Adolescent Reproductive Health and Development Policy (2003) focuses on improving the reproductive health and well-being of adolescents and youth as well whereas the Health Policy 2011-2030, is a guiding document towards the attainment of the highest attainable standard of health in a manner responsive to the needs of the population (MOH, 2013).

The Kenyan government has prioritized maternal health by increasing health financing, devolving health services to the counties, waiver of user fees and adopting a free maternity services policy, which exempts all pregnant women from paying for delivery costs at public health facilities (MOH, 2013). Access to basic health services of acceptable quality is still denied to many of the world’s poorest people. Against a backdrop of severely underfunded health systems, governments are faced with a dilemma. Payments for health services, in the form of user charges, are likely to present a barrier to access. Yet, a shortage of resources at the facility level is a contributor to failure to deliver quality services, and this also presents a barrier to access. Some have argued that user charges can generate vital resources at the local level and help provide good quality services; others have highlighted their negative effects, particularly on equity, (Largade and Palmer, 2008).

Several interventions by state and non-state actors targeting the reduction of maternal mortality are also being implemented. Notable among these, are the Beyond Zero campaign spearheaded by the First Lady Margaret Kenyatta, the AMREF campaign for African mothers and other ongoing campaigns, which also serve to contribute to the achievement of safe motherhood.
However, the situation in Kenya with regard to maternal health remains grim with the recently released KDHS 2014 showing very marginal improvements in the MNH care indicators and it is unlikely that the country will achieve the MDG maternal mortality target of 147/100,000 by 2015 (KNBS, 2014). Regional disparities within the country exist. The burden of maternal mortality is heaviest among the poor just like many other health indicators. In urban informal settlements, maternal mortality remains high; this suggests that the urban poor are a highly vulnerable and marginalized group. Rapid urbanization, fueled by high levels of rural to urban migration, under conditions of poor economic performance has led to the growth of slums in major towns in Kenya. The slums are characterized by poor housing, lack of basic amenities and low availability and utilization of formal health services including maternity care (Save the Children, 2015).

This study set to explore the strategies put in place towards safe motherhood and to address the constraints therein within the informal settlement of Nairobi City County.

1.2 Problem Statement

WHO (2014) estimates that nearly a billion people live in urban slums, shantytowns, on sidewalks, under bridges, or along the railroad tracks. Life under these circumstances is chaotic and dangerous, and communities often lack even the most basic legal recognition needed to seek essential services. The 2015 report by Save the Children on the State of the World’s Mothers shows, one of the worst places in the world to be a mother is in an urban slum. Poverty, and the social exclusion that goes with it, leave the urban poor trapped in overcrowded, makeshift or decrepit housing, with few opportunities to stay clean or safe on a daily basis.
Diets are poor and diseases are rife. Pregnancies occur too early in life and too often. Good health care, especially preventive care is rare (Save the Children, 2015). In most cases, the publicly funded health services that reach the urban poor are under-staffed and ill equipped. Forced reliance on pricey and unregulated care by private, and sometimes public, practitioners deepens poverty even further. More often, even the simplest and most affordable health promoting and lifesaving interventions like immunizations, vitamin supplements, safe drinking water, and prenatal check-ups, fail to reach them. Their plight is largely invisible (Save the Children, 2015).

Pregnant women in slums often die due to pregnancy related complications or suffer from long or short-term morbidity; in some cases like anemia, infertility, pelvic pain, incontinence and obstetric fistula with debilitating consequences (UNFPA, 2011). Maternal mortality reflects disparities in access to reproductive health care between the wealthy and poor, and inequities within regions suffered by vulnerable and marginalized populations in informal settlements (Center for Reproductive Rights, 2005) and are compounded by the three delays, which lead to high maternal mortality rates as outlined by Maine (1994). The three delays include the delay in the decision to seek care, the delay in arriving at a health facility, and the delay in the provision of adequate care at the facility. This study was therefore designed to fill the knowledge gap by answering the following research questions:

1. What are the strategies adopted by informal settlement health facilities towards achieving safe motherhood?

2. How effective are the adopted strategies in ensuring safe motherhood?


3. What are the constraints faced by informal settlement health facilities in achieving safe motherhood?

1.3 Objectives of the Study

1.3.1 Overall Objective

To explore the strategies employed by informal settlement health facilities to ensure safe motherhood.

1.3.2 Specific Objectives

1. To identify the strategies adopted by informal settlement health facilities to address the constraints towards achieving safe motherhood

2. To establish the effectiveness of the strategies in ensuring safe motherhood

3. To identify the constraints faced by informal health facilities in achieving safe motherhood

1.4 Assumptions of the Study

1. There are strategies that serve to reduce maternal mortality in informal settlement health facilities towards achieving safe motherhood.

2. The strategies adopted are effective towards ensuring safe motherhood.

3. Informal health facilities face a number of constraints towards achieving safe motherhood.
1.5 Justification of the Study

The study findings on ineffective referral systems, inadequate equipment, staff and resources will help inform policy makers to design appropriate policies to address these shortcomings in an effort to achieve safe motherhood.

Further, the study findings on myths and misconceptions are useful for the community as part of the local level strategies, which can enhance culturally and context specific interventions. This has the potential of increasing the female agency and enhancing male participation in the reproductive process for better maternal and health outcomes. The findings have also contributed to the body of scholarly knowledge on safe motherhood in the areas of public health, gender and sexual reproductive health. Overall, the study has generated a body of evidence on what the community itself could do to improve on its approaches and relationship with the health care system by the Community Health Volunteers and Traditional Birth Attendants.

1.6 Scope and Limitations of the Study

The study was conducted in Kibera and the scope covered the strategies adopted by the health facilities and their effectiveness in addressing the constraints faced in ensuring safe motherhood in selected health facilities. As a result, this may not have captured other areas that could be facing similar problems. However, the results can be are generalized beyond the study area. In addition, the qualitative methodological approach has its own limitations as it does not bring out comparative trends and patterns in strategies as would have been possible with quantitative approaches.
1.7 Definitions of Key Terms

**Maternal mortality** refers to the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and the site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes.

**Maternal mortality ratio** (MMR) is the number of maternal deaths during a given time period per 100,000 live births during the same time period. MMR captures the risk of death in a single pregnancy or a single live birth or in technical terms, it measures the extent of obstetric risk.

**Safe motherhood** encompasses a series of initiatives, practices, protocols and service delivery guidelines designed to ensure that women receive high-quality gynecological, family planning, prenatal, delivery and postpartum care, in order to achieve optimal health for the mother, fetus and infant during pregnancy, childbirth and postpartum.

**Informal settlements** are: 1. areas where groups of housing units have been constructed on land that the occupants have no legal claim to, or occupy illegally; 2. unplanned settlements and areas where housing is not in compliance with current planning and building regulations.
2.0 CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction
This chapter presents literature on safe motherhood. The reviews have been carried out along the following sub-headings: constraints faced by informal settlement health facilities to achieve safe motherhood, the strategies in place to address the constraints and the effectiveness of the strategies in achieving safe motherhood. The chapter concludes by discussing the theoretical and conceptual framework that guided the study.

2.2 Strategies adopted by informal settlement health facilities to achieve safe motherhood
Several interventions targeting the reduction of maternal mortality amongst the urban slum dwellers have been implemented over time. Notable among these is the policy on user fee exemption instituted in 2013 to increase access and equity for the poverty-stricken slums dwellers and rural populations. This policy exempts all pregnant women from paying for delivery costs at public and mission health facilities (MoH, 2013).

In January 2014, Beyond Zero Foundation was formed to partner with the government in reducing maternal and child mortality. Spearheaded by The First Lady of the Republic of Kenya, Her Excellency Margaret Kenyatta, the Beyond Zero Campaign is part of the initiatives outlined in her strategic framework towards HIV control, promotion of maternal, new born and child health in Kenya (Beyond Zero Foundation, 2015).

Save the Children 2015, profiled six cities that have made good progress in saving poor mothers and children’s lives despite significant population growth. The cities are Addis Ababa, Cairo, Manila, Kampala, Guatemala City and Phnom Penh. These cities achieved success through a
variety of strategies to extend access to high impact services, strengthen health systems, lower costs, increase health awareness and make healthcare more accessible to the poorest urban residents. The city profiles provide a diverse set of examples, but the most consistently employed success strategies included: Better care for mothers and babies before, during and after childbirth; increased use of modern contraception to prevent or postpone pregnancy; and strategies to provide free or subsidized quality health services for the poor (Save the Children, 2015).

Shiffman (2000) suggested several interventions that may be critical to reducing maternal mortality: family planning services, safe and legal abortion, skilled delivery, prenatal care and emergency obstetrics.

The Safe Motherhood Initiative (1987) outlined four strategies and specific interventions, referred to as the Pillars of Safe Motherhood, for the reduction of maternal morbidity and mortality. The pillars include: Family planning; to ensure that individuals and couples have the information and services to plan the timing, number and spacing of pregnancies; antenatal care, to prevent complications where possible and ensure that complications of pregnancy are detected early and treated appropriately; clean/safe delivery, to ensure that all birth attendants have the knowledge, skills and equipment to perform a clean and safe delivery and provide postpartum care to mother and baby; essential obstetric care, to ensure that essential care for high-risk pregnancies and complications is made available to all women who need it.
According to the UNFPA (2008), some of the strategies employed to improve maternal health include; the provision of a basic package of SRH services including family planning; pregnancy-related services, including skilled attendance at delivery and emergency obstetric care.

For people to realize their reproductive rights, the ICPD Programme of Action calls for and defines reproductive and sexual health care in the context of primary health care to include; Family planning; antenatal, safe delivery and post-natal care. While the percentage of deaths may be higher among high-risk women, the greatest numbers of deaths take place among women considered to be low-risk. For this reason, the international focus for addressing maternal mortality has shifted from predicting complications during pregnancy to preparing for efficient emergency interventions to handle complications if and when they arise. In general, emergency obstetric interventions are inexpensive and can easily be carried out by specially trained health professionals (UNFPA, 2011).

Once a woman has actually reached a facility that can provide emergency obstetric care, many economic and socio-cultural barriers have already been overcome. Focusing on improving services in existing health facilities is a major component in promoting access to emergency obstetric care. Other common initiatives have been a shift to skilled, professional attendants at births, referral systems for complicated deliveries, and higher proportions of births occurring in health care facilities (Thaddeus and Maine, 1994).
2.3 Effectiveness of the strategies to ensure safe motherhood

Real progress in reduction of maternal mortality in the slums have been achieved successfully through a variety of strategies to strengthen health systems, lower costs, increase health awareness and make health care more accessible to the poorest urban residents (Cross, 2011).

Evaluation of the user fee exemption intervention shows a dramatic reduction of direct maternal deaths but no significant impact on indirect maternal deaths (UNFPA, 2011). Thus, maternal mortality can be prevented in many cases but this demands not only a comprehensive understanding of the causes, but also, more importantly, an understanding of how the different causes are distributed in various groups with different characteristics (UNFPA, 2013).

The Beyond Zero Campaign’s identification of the mobile clinic provision in each of the 47 Counties with a focus on the marginalized areas like slums and rural areas and the resulting advocacy actions including increased resource allocation for health has provided glimpses of hope amongst underserved, marginalized and vulnerable families whose access to quality health services is gradually being assured (Beyond Zero Foundation, 2015).

Initiatives aimed at improving and reducing maternal health particularly in developing regions such as the Safe Motherhood Initiative (1987) and the International Conference on Population and Development (ICPD) plan of action were also launched as part of the efforts. However, there has been little progress in improving maternal health outcomes, particularly in Sub-Saharan Africa. The fifth Millennium Development Goal of reducing maternal mortality ratio by 75%
between 1990 and 2015, part of the UN millennium declaration, will not be realized in many African countries if steps are not taken to reduce the prevailing high maternal mortality.

Studies show that effective use of family planning methods is known to help save lives by enabling women to avoid pregnancy when they are too young or too old, and to space their births at intervals that are healthy for them and their babies, (UNFPA, 2011). Most successful cities provide free or subsidized health services for the poor. Reducing or eliminating payments for health care is crucial to increasing use of services among the poorest city residents (Save the Children, 2015).

The interventions aimed at combating the high maternal mortality ratio need to be both cause-specific as well as target specific to be effective. WHO (1994) proposed a model of antenatal care that is aimed at providing quality care to women in an efficient, cost-effective way especially in resource constrained environments like urban slums. The model is referred to as focused, or goal-directed, antenatal care, and proposes 4 to 5 focused antenatal visits (fewer than previously recommended) for women not having problems or complications at the outset. Women with higher income and higher education levels who reside in urban areas are more likely to use antenatal care as opposed to women with low education levels as is the case in most slums. Thus the slum women are unable to utilize the cost-effective components of antenatal care (AMREF, 2011).

Previous studies show that the impact of antenatal interventions on maternal mortality is difficult to ascertain. This may be due to the difficulties in establishing, even in industrialized countries, that standard antenatal practices improve maternal health. In fact, a review of the effectiveness of
antenatal care noted a “striking” lack of evidence about the etiology of common complications in pregnancy, as well as the biological efficacy of many treatments currently in use (Rooney, 1992).

A skilled attendant at delivery has become an important global measure of efforts to reduce maternal mortality. A second health-care indicator is the proportion of births attended by skilled health personnel. The selection of this as a monitoring indicator was based on historical and observational evidence that having a skilled health worker at delivery bore a strong and direct relationship to the reduction of maternal mortality (AMREF, 2011).

2.4 Constraints faced by informal health facilities in achieving safe motherhood

Maternal mortality in urban slums is fueled by a range of factors, including systemic, socio-cultural and economic inequalities. While high-quality private sector health facilities are more plentiful in urban areas, the urban poor often lack the ability to pay for this care – and may face discrimination or even abuse when seeking care. Public sector health systems are typically under-funded, and often fail to reach those most in need with basic health services. In many instances, the poor resort to seeking care from unqualified health practitioners, often paying for care that is of poor quality, or in some cases, harmful. Public health facilities in urban slums are usually exposed to one or more of the following risk factors; insufficient staff and resources; inadequate referral systems and or transportation for obstetric emergencies (UNDP et al., 2006).

A 2012 study by Fosto and Mukiira that focused on women giving birth in Nairobi slums, found that the majority were served by privately owned, substandard, often unlicensed clinics and maternity homes. An audit of 25 facilities concludes, “The quality of emergency obstetric care
services in Nairobi’s slums is unacceptably poor, with inadequate essential equipment, supplies, trained personnel, skills, and other support services.” There was little supervision or adherence to standards. Health personnel were found to be often unfriendly, unresponsive to questions and unable or unwilling to provide prenatal counselling. The fear of disrespect and abuse that women often encounter in facility-based maternity care is a more powerful deterrent to use of skilled care than commonly recognized barriers such as cost or distance (Tamara, 2013). Well-equipped private hospitals and clinics in Nairobi require women to pay before receiving service, and often refused admission to women who lacked financial means (Fosto and Mukiira, 2012).

Poverty, gender and other inequalities, a lack of information, weak health systems, a lack of political commitment, and cultural barriers are other obstacles that need to be overcome if women are to access technical services and information that can often prevent maternal mortality (Hunt and Bueno De Mosquita, 2006).

Weak health systems underlie poor care and health outcomes. Health systems are challenged by weak overall capacity. Challenges include a lack of leadership and management skills, staff, and supplies; inadequate financing and budgetary allocations; inadequate water and sanitation, electrical, and other infrastructure; poor or disjointed information systems; and lack of use of data for improved policy formulation and implementation (USAID, 2014).

The high maternal mortality in Kenya is attributed to a multiplicity of factors. The direct causes of maternal mortality are obstructed labour, pre-eclampsia, ante partum haemorrhage, post-partum haemorrhage, sepsis, hypertensive disorders, and unsafe abortion (MOH, 2008). Among women who deliver outside the health facility, a vast majority (8 out of 10) do not receive
postnatal care. Only 10% attend postnatal care within two days of delivery, while 2% get care three to six days after delivery (KNBS, 2014). This is despite the fact that majority of maternal deaths occur during the postpartum period (MOH, 2008). The indirect causes of maternal mortality are mostly infectious and non-infectious diseases and other miscellaneous causes. They include malaria, HIV and AIDS, hepatitis, respiratory infections, anemia, sickle cell disease, meningitis, cerebro-vascular diseases and others account for about 20% of maternal deaths, (Graham et al., 2008).

The causes of maternal mortality are compounded by limited availability and poor accessibility of health services especially among the poor and marginalized populations. Only 52% of Kenyans are within 5 kilometers of a functional health facility (MPHS, 2010). This is despite the norms and standards of the health sector requirement that all health facilities should have a catchment area of 5km. Low utilization of skilled birth attendance during pregnancy, child birth and postnatal period; insufficient skilled birth attendants and inequitable distribution of the available health personnel, also contribute to maternal mortality (Graham et al., 2008). Inadequate drugs, supplies and poor infrastructure in public health facilities contribute significantly to low quality of services that lead to poor outcomes for pregnant mothers.

A study by Japan International Cooperation Agency (JICA, 2009) in selected districts of Nyanza shows that more than 50% of the rural and slum facilities do not have regular power supply, water or other sanitation services and equipment. Dispensaries are required to provide safe delivery services for basic obstetric care. However, they lack the very basic room, equipment and the basic infrastructure to manage labour and conduct safe delivery, including referral services.
Other contributing factors to the high maternal mortality include lack of access to quality sexual and reproductive health services. According to UNFPA (2008), despite considerable progress since the International Conference on Population and Development (ICPD), millions of people, mostly disadvantaged women and adolescents still lack access to sexual and reproductive health (SRH) information and services. Marrying early and consequently conceiving early, put the lives of women at risk, frequent births even before her body has fully matured entails repeated life-threatening processes and numerous health risks like uterine prolapse and obstetric fistula (Center for Reproductive Rights and Federation of Women Lawyers–Kenya (FIDA) (2007).

2.5 Theoretical Framework

2.5.1 Intervention Theory

The study was guided by the Intervention theory and methods by Chris Argyris (1970). It refers to the decision making process of intervening effectively in a situation in order to secure desired outcomes. Intervention theory addresses the question of when it is desirable to intervene and when it is not appropriate to do so. It also examines the effectiveness of different types of intervention. It is used across a range of social and medical practices, including health care, child protection and law enforcement and it offers guidance in the use of behavioural-science principles and research to improve the effectiveness of organizational systems in meeting their objectives.

In Intervention Theory and Method, Chris Argyris argues that in organization development, effective intervention depends on appropriate and useful knowledge that offers a range of clearly defined choices and that the target should be for as many people as possible to be committed to the option chosen and to feel responsibility for it.
Overall, interventions should generate a situation in which actors believe that they are working to internal rather than external influences on decisions (Chris, 1970). Chris Argyris’s theory highlights the key active ingredients necessary for real change and to address change efforts in a health facility. The three criteria are valid and useful information, free and informed choice, and internal commitment.

2.5.2 Solution-Focused Model

The study therefore, adopted the Solution-Focused Model to address the weaknesses of the Intervention theory and methods. The model emerged from the therapeutic arena of Family Therapy in the 1980s. Its psychological principles have been applied to a wide range of fields, from organisational change to mental health. It was developed by Steve de Shazer, Insoo Kim Berg, and their team at the Brief Family Therapy Family Center in Milwaukee, Wisconsin. The model reflects the spirit of today as it affirms collaborative, personalized, strengths–based values. It embraces a green agenda by its simplicity, economical use of resources and its clear focus on sustainable outcomes (Franklin et al., 1988).

The Solution-Focused approach aims to help individuals, teams and organisations to break out of vicious problem-cycles and develop constructive, customized solutions. It involves developing a vision and then determining what skills, resources, and abilities an organization already possesses that can be enhanced in order to attain the desired outcome. Solution-focused brief therapy contends that both people and organizations are equipped with the skills to create change in their lives, though they may need help in refining and identifying those skills. Similarly, it recognizes that people and organizations already know, on some level, what change is needed.
Key Solution-Focused interventions include negotiating a starting point, exception seeking
future-focused questions, scaling and positive feedback (Franklin et al., 1988).

2.5.3 Relevance of the theories to the Study

The theoretical justification that underpinned this study examined the health facilities strategic
interventions to address constraints in achieving safe motherhood. The weakness of the
Intervention theory is its focus on people and internal influences rather than systemic changes as
well as external influences for effective interventions. The study therefore, adopted the solution
focused theoretical framework to address the weaknesses of the Intervention theory. The
framework aims to help individuals, teams and organisations to develop constructive, customized
solutions. The study was concerned with the integration and recognition of health facility
personnel and systems and their inclusion as decision-makers in maternal health planning and
policy-making, as well as maternal health services. The study looked at health facility strategic
influence on maternal mortality.

The two theories in combination therefore, helped to explain both the individual facility as well
as the systemic constraints that the limit the capacity of the health sector to achieve safe
motherhood.

2.6 Conceptual Framework

A conceptual framework is a figure that shows the relationship between the dependent variables
and the independent variables. A conceptual framework has been adapted to the study by the
researcher to show the relationship of the independent variables, the intervening variables and
the dependent variable as shown in the conceptual framework figure below.
Figure 2.1 Conceptual Framework

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Intervening Variables</th>
<th>Dependent Variable</th>
</tr>
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<tbody>
<tr>
<td>Availability of services</td>
<td>Sufficient;</td>
<td>Safe Motherhood</td>
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<tr>
<td></td>
<td>- Human resources</td>
<td></td>
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<tr>
<td></td>
<td>- Ambulance services</td>
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<tr>
<td></td>
<td>- Commodities e.g blood bank</td>
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<td></td>
<td>- Essential medicines</td>
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<td></td>
<td>- Machines e.g ultrasound</td>
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<tr>
<td></td>
<td>- Delivery beds</td>
<td></td>
</tr>
<tr>
<td>Affordability of services</td>
<td>User Fee exemption</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Subsidized Charges</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Normal Service Charge</td>
<td></td>
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<tr>
<td></td>
<td>- Socio economic factors</td>
<td></td>
</tr>
<tr>
<td>Accessibility of services</td>
<td>Proper roads infrastructure</td>
<td></td>
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<tr>
<td></td>
<td>- Enhanced security</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Distance (specific catchment area)</td>
<td></td>
</tr>
<tr>
<td>Awareness Creation</td>
<td>Working with CHV/Ws</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Contracting mentor mothers</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Avail IEC materials (MCH Booklet)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Addressing cultural factors; myths and misconceptions</td>
<td></td>
</tr>
</tbody>
</table>
3.0 CHAPTER THREE: METHODOLOGY

3.1 Introduction

This chapter describes the study site, study design, population universe, sampling, data collection methods, data analysis and processing. The chapter also discusses the ethical considerations that guided the study as well as field challenges and their solutions.

3.2 Study Site

The study was conducted in the Kibera informal settlement in Nairobi City County. It is about 5 kilometers from the city centre and is the largest urban slum in Africa (KNBS, 2009). Most of residents live in extreme poverty, unemployment rates are high, cases of assault and rape are common and majority of people lack access to healthcare, (Center for Reproductive Rights Report, 2005). The informal nature of slums underscores their non-permanence with lack of public infrastructure and social services. There are very few public health facilities serving the slum communities and are usually inaccessible at night due to security concerns (UNFPA (2013).

Kibera is characterized by high levels of maternal and infant mortality and the large number of children borne by each woman. Center for Reproductive Rights Report (1997) observes that the high rates of maternal mortality are partially attributable to women’s lack of access to emergency obstetric services. The high rates of infant mortality can be partly explained by women’s lack of access to postnatal care and information. Early marriage and early pregnancy are also prevalent at a young age and is correlated with higher incidence of obstructed labor, anemia and obstetric fistula. Women generally fare far worse than men, gender inequalities persist which makes safe motherhood a tall order (Center for Reproductive Rights Report, 1997).
Kibera is divided into 13 villages, including Kianda, Soweto, Gatwekera, Kisumu Ndogo, Lindi, Laini Saba, Siranga/Undugu, Makina, Mashimoni, Olympic, Ayany and Raila village as indicated in figure 3.1 below.

![Figure 3.1 Map of Kibera](image)

### 3.3 Study Design

This was a cross sectional study. Qualitative methods of data collection were deployed in the process of data collection including in-depth interviews, key informant interviews and observations. The data was analyzed through constant comparative approach that is consistent with the grounded theory and presented according to themes informed by study objectives.

The design shows which individuals were studied, when and where and under which circumstances they were being studied. More importantly, research design refers to the way the study is designed, that is, the method used to carry out a research. The research took a period of three months with two months of fieldwork. This involved visiting facilities, interacting with both the providers of services as well as the seekers of services.
3.4 Study Population and Unit of analysis

The study population was health facilities in Kibera informal settlement and the unit of analysis was the individual facility, which was represented by the individual healthcare providers and hospital managers, and selected women facility users.

3.5 Sample and Sampling Procedures

The sample population was drawn from public, private, Faith-based, NGO supported health facilities as well as a Beyond Zero Clinic within Kibera informal settlements. Purposive sampling was used to identify the health facilities in Kibera. The study purposively included facilities run by government (Public) as well as private facilities run by health/medical entrepreneurs and not for profit facilities run by the church or faith based organizations as well as those run by non-governmental organizations. In situations where there were community run facilities, they were included as well as the Beyond Zero Clinic providing maternity services to Kibera residents.

Purposive sampling was used to identify respondents amongst the health facility staff and this included the nurse, clinical officer or doctor in charge and the facility administrator.

Simple random sampling was employed to recruit the 80 women of reproductive age to participate in the exit interview, 10 from each facility. They were recruited and interviewed as they exited the facility. Those included were lactating mothers who already had experience with services delivery at the facilities as well as pregnant women who were being attended to in the different facilities. Information combed from the women revolved around their interaction with
the providers, availability of supplies, staff attitude as well as their reasons for choosing the specific facility. The sampled facilities included:

1. Kibera Community Health Center- African Medical and Research Foundation (AMREF)
2. Medecins San Frontier (MSF) Kibera South Health Center
3. Tabitha Medical Clinic
4. St. Mary’s Mission Hospital
5. Beyond Zero Clinic in Kianda village
6. Lang’ata Health Center
7. Saola Maternity and Nursing Home
8. Christian Hope Network and Support Services (Chonesus)

3.6 Data collection methods

3.6.1 Key Informant Interviews

The researcher carried out a number of key Informant Interviews with the selected informants within the selected facilities using a semi structured interview guide. Twenty-four key informant interviews were conducted from the eight health facilities. For each facility, the informants were the in-charges, a mid wife or the facility administrator.

Issues teased out from the key informants included administrative structures, services delivery innovations, availability of supplies, financing and the general environment in which the safe-motherhood interventions are carried out. The informants were asked whether they have client complaint and feedback mechanisms as well as to identify problems the facilities face in service provision and how the facilities have traditionally overcome those challenges or not.
3.6.2 Unstructured Observation

Observations of the existing infrastructure and taking of photographs was undertaken to make situations come alive using an observation guide. The researcher observed treatment practices and how women were handled when they visited the facilities. The time taken between arrival and departure was important in understanding the delays in services provision. Also observed was the provision of health education and the privacy accorded to clients during consultations.

3.6.3 In depth Interviews with clients

In-depth interviews were conducted with women facility users on the days of the visit. These were lactating as well as pregnant women. The exercise gauged their perceptions of the services offered and the effectiveness of the strategies employed by each of the chosen facilities. Their general experiences with the providers, the availability of supplies, the cost of services, the time taken in seeking and receiving services and their level of satisfaction was crucial in gauging the safe-motherhood innovations in each facility.

3.7 Data Processing and Analysis

Qualitative data from KII were transcribed and translated and a coding was done based on the objectives of the study. The data was thematically analyzed along the lines of the specific objectives. Qualitative research is fundamentally interpretive, and interpretation represents one’s personal and theoretical understanding of the phenomenon under study. The qualitative data has been presented along the lines of set objectives and verbatim quotes are used to amplify the voices of the key informants.
In situations where the voices of women are key in unraveling a certain issue, this was equally brought out since the exit interviews questions were majorly open ended. Where certain observations were of great importance to the study, it was described and where possible with the consent of the facility managers and the services seekers, photographs were taken for clarity and pictorial representations have enriched the report.

3.8 Ethical Considerations

The researcher ensured that ethical requirements were upheld in the study. The proposal was subjected to the National Commission for Science, Technology and Innovation (NACOSTI) for review, reference number NACOSTI/P/15/32214/8669. The major ethical issues of concern addressed included; Informed consent; the researcher sought consent from the health facilities to be included in the study as well as from all the study subjects. For subjects who wished to withdraw from the study, there was no coercion but the researcher let them do so at will.

The researcher also upheld anonymity, privacy and confidentiality of the responses received. The researcher exercised care and control to ensure that the interview guides used to collect data from the subjects’ were filled and to achieve that, the researcher maintained a register of the interview instruments, which were used. In addition, the researcher intends to share the research findings with the scientific community via publications and give feedback to the subjects as well through the studied facilities.

In regard to request for compensation for their time, the researcher made it known that it was unethical but rather encouraged the subjects to participate. Long term benefits of the research findings in terms of the quality of services provision was the guiding principle in beneficence.
3.9 Problems encountered and their solutions

Some of the informants were not willing to give full information in the presence of the facility staff and some asked for incentives. The facilities staffs were also not willing to give information initially thinking that their facilities were under audit. Some of the subjects may have given biased responses based on their past experience and need to cushion the facilities.

The study attempted to create rapport at the beginning and adhered to strict confidentiality and anonymity in handling such problems of methodology. The researcher handled the problem by carrying an introduction letter from the University, NACOSTI and the county government, explained that it was unethical to give money to respondents and assured them that the information they gave would be treated confidentially and it would be used purely for academic purposes. In addition, recruitment was based on informed consent and the purpose of the study was fully explained. The creation of rapport and the assurance of the informants that their participation was voluntary and that they were at liberty to withdraw created some ease and the informants realized that they were not being monitored or audited.
4.0 CHAPTER FOUR: SAFE MOTHERHOOD STRATEGIES IN KIBERA

4.1 Introduction

This chapter presents the findings of the study and analyses the data. It further discusses the findings highlighting previous researches and compares the results along the set study objectives. The chapter begins by describing the health sector in Kenya and the descriptions of the facilities and their implications on the study. Subsequently the findings on strategies, their effectiveness and constraints faced by the facilities have been presented and discussed.

4.2 The Health Sector in Kenya

The health sector comprises the public system, with major players including the MOH and parastatal organisations, and the private sector, which includes private/NGO/FBO for-profit, FBO/NGO not for profit facilities. The public sector system accounts for about 51 percent of these facilities. Before the introduction of devolution, the public health system consisted of the following levels of health facilities national referral hospitals, provincial general hospitals, district hospitals, health centers and dispensaries. The government health service is supplemented by privately owned and operated hospitals and clinics, NGO supported and faith-based organizations’ hospitals and clinic (Muga et al., 2005).

4.2.1 Organization of Healthcare in the Devolved System

In the devolved system, healthcare is organised in a four-tiered system. These tiers are Community health services, Primary care services, County referral services and the National referral services. The first level comprises of all the community-based demand creation activities, that is, the identification of cases that need to be managed at higher levels of care, as
defined by the health sector. The Primary care services level comprises of all dispensaries, health centres and maternity homes for both public and private providers while the County referral services include the hospitals operating in, and managed by a given county and are comprised of the former level four and district hospitals in the county and include public and private facilities. The last level which is the National referral services comprise of facilities that provide highly specialised services and includes all tertiary referral facilities.

The counties are responsible for three levels of care: community health services, primary care services and county referral services. The national government has responsibility for national referral services (MMS & MPHS, 2012).

The study therefore, focused on primary care services: at the county level. This level is comprised of all dispensaries, health centres and maternity homes for both public and private providers.

4.2.2 Description of Sampled Facilities

The facilities are grouped as indicated in the table below:
### Table 4.1 List of sampled facilities

<table>
<thead>
<tr>
<th>Research facilities</th>
<th>Type</th>
<th>Key to the table</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Kibera Community Health Center - AMREF</td>
<td>Private – Not for profit</td>
<td>• Public refers to government supported facilities</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Private Not for profit refers to donor/NGO/FBO supported facilities</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Private For profit refers to NGO/FBO/medical entrepreneurs supported facilities</td>
</tr>
<tr>
<td>2. MSF Kibera South Health Center</td>
<td>Private – Not for profit</td>
<td></td>
</tr>
<tr>
<td>3. Tabitha Medical Clinic</td>
<td>Private – Not for profit</td>
<td></td>
</tr>
<tr>
<td>4. Lang’ata health center</td>
<td>Public</td>
<td></td>
</tr>
<tr>
<td>5. Beyond zero clinic - Kianda</td>
<td>Public</td>
<td></td>
</tr>
<tr>
<td>6. Saola Maternity and Nursing Home</td>
<td>Private – For profit</td>
<td></td>
</tr>
<tr>
<td>8. St. Mary’s Mission Hospital</td>
<td>Private – For profit</td>
<td></td>
</tr>
</tbody>
</table>

1. **Kibera Community Health Center - African Medical and Research Foundation (AMREF)**

This is a donor/NGO supported facility by the AMREF’s Kibera Community Integrated Health Programme. It is located in Lindi village but also serves other villages among them Mashimoni, Laini Saba, Silanga and Soweto East as indicated by the nurse at AMREF.

“Though the facility is located in Lindi village, we serve all residents who visit the facility from all over Kibera” *(Nurse at AMREF).*
“Despite this not being the nearest facility to my home which is located in Katwekera, I visit the facility and the staff gets to serve me. Very well” (26 year old at AMREF).

The AMREF Programme has been working in Kibera since 1998 and uses an integrated approach to address issues on comprehensive care for people living with HIV, maternal, newborn, and child health. The health facility provides outpatient services to children and adults and a 24-hour inpatient maternity service. The clinic also runs an anti-retroviral treatment (ART) program that provides care and treatment for HIV and AIDS and TB patients. On a regular day, the facility receives an average of 360 patients.

2. Medicin Sans Frontier (MSF) Kibera South Health Center

MSF has worked in the country since 1987 and in Kibera since 1998 with three operational MSF clinics; the MSF Kibera South Health Center was inaugurated in 2013. About 500 patients visit the clinic every day for comprehensive medical care that is provided free of charge and includes inpatient and outpatient services, 24-hour maternity and delivery care as well as ongoing
treatment for diseases such as HIV, tuberculosis and chronic diseases such as hypertension and diabetes which are common in Kibera. The clinic also provides medical and psychological treatment for victims of sexual violence. Children receive their essential vaccinations at the clinic, which also carries out nutrition screening and offers counselling services.

The 24-hour maternity ward has three delivery beds and six post-natal beds. Every week, around 45 babies are born. As many of the local residents are HIV positive, the clinic provides care to help prevent babies from contracting the virus from their mothers. Midwives check that babies are breastfeeding well, and appear to be in good health before discharging mothers, who then regularly return for post-natal care and immunization for their babies.

“The clinic runs an anti-retroviral treatment (ART) program that provides care and treatment for HIV positive mothers who are enrolled” (Nurse at MSF Clinic).

“When I realized I was HIV positive and pregnant, I thought that was the end of the world for me, but when I came here the nurses treated me well and I gave birth to a healthy baby girl” (A 23 year old at MSF Clinic).

After more than 20 years of working in Kibera, MSF is planning to hand over the clinic and its medical activities to the local health authorities in 2017, and is already working together with them to make sure that the medical services can keep on running as explained.

“The MSF Kibera south health center was established in 2013 and the plan is to hand it over to the ministry of health and the county health services in 2017” (Administrator at MSF).
3. Tabitha Medical Clinic

This is a massive 3-story structure community-based and private medical clinic located in Katwekera village. It is managed and co-run by the Center for Disease Control (CDC), and the NGO Carolina for Kibera. Tabitha Atieno Festo, a certified nurse, founded the medical clinic after selling vegetables for six months, a project she undertook using a $26 donation given to her by Rye Barcott in 2000. He is a former Marine Corps officer and co-founder of Carolina for Kibera (CFK), an NGO, together with Salim Mohamed and Tabitha Atieno. The facility was initially named Rye Medical clinic, however the name was changed to Tabitha in December 2004, in her memory after she passed away.

The Tabitha clinic rivals MSF in its scope. In one clinic it sees an average of 35,000 to 45,000 patients a year, which averages to about 250 a day. The majority of these patients (30,000) are enrolled in a “Surveillance Study” piloted by the CDC and the Kenya Medical Research Institute (KEMRI), which combines free outpatient care with home-based bi-weekly interviews. The
facility is currently facing funding challenges and they are fundraising in order to continue delivering services to the people of Kibera.

“We are having negotiations to partner with AMREF to support the facility in the provision of critical services like maternity, family planning and child welfare” (Administrator at Tabitha Clinic).

4. Lang’ata Health Center

This is a public health facility located in Lang’ata. Its inclusion in the study is because of its catchment area which includes Kibera. On a regular day, it receives between 35-70 clients. The facility serves Gatwekera, Kianda, Raila, Soweto West and Kisumu ndogo. The in-patient and out-patient services are provided free of charge. The services include family planning, maternity services and child welfare clinic. The facility has a 24 hour maternity wing.

“This facility serves people from low income areas that are near here, we receive patients from all over Kibera and even as far as Rongai” (Nurse at Lang’ata Health Center).

5. Beyond Zero Clinic - Kianda

Plate 4.3 Beyond Zero Community Clinic
The plate shows the container and a tent that is used as the waiting area.

In January 2014, Beyond Zero Foundation was formed to partner with the government in reducing maternal and child mortality. The Beyond Zero Campaign is spearheaded by the First Lady of the Republic of Kenya, Her Excellency Margaret Kenyatta. This is her initiative towards the promotion of maternal, new born and child health in Kenya. The first lady has received recognition for her efforts including UN person of the year award, SOMA award among others.

The beyond zero campaign raises funds through marathons, half marathons and contributions from well wishers, relatives and friends to increase access to better health care through mobile clinics that bring services closer to Kenya’s mothers and children.

The foundation donates the beyond zero clinics (can be mobile or stationary) to the counties focusing on the counties with the highest maternal mortality rates and marginalized areas, like urban slums. Since its inauguration, the campaign has delivered a total of 32 clinics. The beyond zero clinic in Kianda is one of the clinics providing health services in the Kianda area of Kibera. It aims at boosting efforts to improve maternal survival rates among Kenya’s most vulnerable communities.

“The beyond zero clinic provides medical services like ANC, vaccinations, immunizations, family planning, and nutrition services to residents, complementing care received at other facilities” (Nurse at Beyond Zero Clinic).
6. **Saola Maternity and Nursing Home**

This is a privately owned maternity and nursing home located in laini saba village and it serves residents from Mashimoni and Soweto East. The maternity home has 8 beds, opens on weekends, and operates 24 Hours a day. Their services include family planning, immunization, ANC, PNC, and maternal and child health. All the services are provided at a cost.

“Being a private clinic, we have to charge for all the services we provide, the only challenge we have, is that sometimes when we have emergencies, and we offer treatment afterwards, the clients are usually unable to pay” (*Nurse at Saola*).

“When I come here I have to pay for the services, I like it here, because I feel I know the nurse and the services they provide are good and they are also very fast” (*28year old at Saola Clinic*).

7. **Christian Hope Network and Support Services (Chonesus)**

This is a faith based supported facility located in Laini saba village. The Christian Hope Network and support services manage the clinic offering a number of services to the people of Kibera including, family planning, maternity services and child welfare clinic. On average, they receive 50 patients per day.

The clinic provides a number of services including family planning and maternity services, and although this is a church supported facility, we not only serve our members but everyone who comes to our clinic” (*Nurse at Chonesus*).

8. **St. Mary’s Mission Hospital**

St. Mary’s is a Kenyan Christian community focusing on healthcare ministry in service to the low-income earners. Its vision is to become the leading Christian Medical teaching, research and health care provider in Africa whilst its mission is to provide quality, affordable healthcare
within a compassionate Christian environment. They seek to fulfill their mission through their healthcare services, outreach programs in response to the surrounding communities’ needs, and our commitment to medical and clinico-pastoral education. The hospital has a nursing school and a high school as well.

The hospital serves a large proportion of low income people from the surrounding slums of Kibera, Mukuru kwa Njenga, Kuwinda etc. It has since become an oasis of healing in the midst of extreme hardship, currently serves about 1,200 outpatients daily, offers Comprehensive Care Centre (CCC) services to over 3,000 patients per month, conducts about 800 to 1,000 deliveries monthly, and undertakes about 500 major and 500 minor operations monthly. The facility services are affordable as explained by the nurse.

“Our costs are pocket friendly and our charges for services include; normal delivery KES 8,000 a deposit of KES 3,000 is made on admission and full payment on discharge. While a C-Section costs KES 18,000 with a deposit of KES 5,000 paid on admission and full payment on discharge. The hospital does carry out elective C-Section but encourages mothers to give birth normally unless a mother develops complications” (Nurse at St. Mary’s Hospital).

4.3 Strategies adopted to achieve safe motherhood in Kibera

Majority of the key informants in the sampled facilities indicated that the facilities had come up with a number of strategies. The findings on strategies are discussed and presented under four sub categories of the facilities: public, private for profit and private not for profit facilities as well as the cross cutting strategies.
4.3.1 User Fee Exemption

Plate 4.4 Pregnant woman at Lang’ata Health Center being attended to by a nurse

To address the barriers to access caused by out of pocket payments and to facilitate progress towards universal health coverage, the Kenyan government removed user fees in dispensaries and health centres, and introduced the provision of free maternal care services (including deliveries) in all public health care facilities effective June 1, 2013. Following this directive, the public health facilities put in place measures for user fee exemption that exempts all pregnant women from paying for maternity services at public facilities and this has led to an increase in the number of women having hospital births. This therefore, ensures that pregnant women have skilled attendance at the time of delivery and therefore, reduces the chances of maternal mortality. The government reimburses KES 2500 per delivery at the facility in quarterly disbursements, however, the disbursements sometimes delay and this is in itself a challenge to the day-to-day running of the facility.

“Since the introduction of the government policy on user fee exemption, the facility has seen an increased number of women coming for our delivery services, especially women
of modest means from Kibera and other nearby informal settlements” (Nurse at Lang’ata Health Center).

The services are also offered free of charge at the Beyond Zero facility however, no deliveries and postnatal care is offered. The rooms are small and the space limited.

“I prefer it here; you know government hospitals are free, for private hospitals you have to pay money, which I do not have” (21 yr old at Beyond zero clinic).

A study by Booth (1995) indicated that fees by itself tend to dissuade the poor from using health services more than the rich and are associated both with delays in accessing care and with increased use of self-medication and informal sources of care (Booth et al., 1995). By implication, the user fee exemption strategy serves to increase accessibility, affordability and usability of maternity services for poor and marginalized women who cannot afford the charges in place at private for profit facilities.

Studies show that charging of user fees and other out-of-pocket payments negatively affected the use of health care services in Kenya before the introduction of the user fee exemption policy (Mwabu, 1986; Mbugua et al., 1995; MoH, 2004; MoMS and MoPH, 2009).

However, a study by Largade and Palmer indicates that removing or reducing user fees was found to increase the utilization of curative services and perhaps preventive services as well, but negatively impacted service quality. Introducing or increasing fees reduced the utilization of some curative services, although quality improvements may help maintain utilization in some cases.
4.3.2 Public Private Partnerships (PPPs)

Public Private Partnership (PPP) is collaboration between the public and private sector that enables fulfillment of certain common goals by overcoming the visible limitations. The Government has the pivot role of framing health policies and programmes specific to the requirement of each country. However, over the years, the health sector has witnessed a demand supply mismatch attributed to a couple of factors. The private sector has served as a catalyst to deliver these services to the people by ways of greater efficiency, better management skills and focused strategies and stronger resource base whether in terms of monetary resources or human resources.

Through partnerships and collaboration with safe motherhood organizations, initiatives and campaigns, the public facilities have put in place measures aimed at improving the quality and availability of services by availing staff, resources, medical supplies, commodities, medicines, equipment and resources. The study revealed that the public facilities have established a working relationship and partnerships with non-state actors like; Save the Children, MSF, AMREF, and Marie Stopes to provide a range of services including family planning, antenatal care, skilled birth attendants, postnatal care, ambulance services among others.

“We work very closely with Marie Stopes in providing family planning services and education during our outreaches and in reaches at the facility and currently we are having discussions with Save the Children who are planning to renovate our maternity wing” (Nurse at Lang’ata Health Center).

“MSF is planning to hand the clinic and its medical activities over to the local health authorities in 2017, and is already working together with them to make sure that the medical services can keep on running” (Nurse at MSF).
The Beyond Zero clinic through the office of the First Lady also collaborates and partners with the government and a number of initiatives to raise funds for expansion as well as the running costs. The measures include participation and organizing of marathons, half marathons and contributions from well-wishers.

Previous study by Nikolic and Maikisch (2006) shows that public-private partnerships and collaboration in the health sector, is a menu of options available to governments public health sector, with potential benefits and risk mitigation measures to help ensure success and sustainability of health care service provision. By implication, organisations choose to partner because they cannot achieve their desired goals by other, non-partnership means. In other words, there is inevitably a level of self-interest in the motivation of all partners and each partner will need to see benefits from their collaboration, measured in their own terms, if their involvement in the partnership is to be sustained over time.

Public-Private Partnerships are a novel way for resource-constrained governments in developing countries to simultaneously improve health infrastructure and healthcare service provision, while creating a platform for addressing other system-wide inefficiencies. PPPs enable national governments to prudently leverage private sector expertise and investment to serve public policy goals, specifically the provision of high quality, affordable preventive and curative care to all.

They comprise long-term, highly structured relationships between the public and private sectors designed to achieve significant and sustainable improvements to health systems. The PPPs position a private entity, or consortium of private partners, in a long-term relationship with a
government to co-finance, design, build, and operate healthcare facilities, and to deliver both clinical and non-clinical services. The new, state-of-the-art facilities or renovated facilities that result from a PPP are owned by the government during all phases of the contract. The private partners are also responsible for delivering all clinical and non-clinical services at the facilities, from surgery to immunization to ambulances. Most importantly, PPPs aim to be “cost neutral” to patients, who incur the same out-of-pocket payments, usually zero or minimal, as they did in the previous dilapidated and poorly run public facilities.

4.3.3 Maternal Mortality Audit Meetings

The public facilities have also put in place a strategy of having maternal mortality audits. The audits are conducted whenever a mother dies to try to find out the cause and to prevent any other future occurrence because of similar causes. A maternal death audit is an in-depth systematic review of maternal deaths to delineate their underlying health, social and other contributory factors.

The lessons learned from such an audit are used in making recommendations to prevent similar future deaths. It is not a process for apportioning blame or shame but exists to identify and learn lessons from the remediable factors that might save the lives of more mothers in future. The process allows local lessons learned to be utilized in adapting safer clinical practice or overcoming other local barriers to care to enable more deaths to be prevented in future. This type of review should be formalized and incorporated into the routine reporting of services provided at health facilities in due course.
“When a mother dies at our facility, we seek to find out the causes and try to mitigate them to prevent any other deaths as a result of similar reasons, this has led to a reduction in the number of deaths at the facility to none over the last year” (Nurse at Lang’ata).

This audit process empowers local authorities to understand and take steps to improve maternal health. It is therefore, imperative to establish or strengthen maternal death audits in these settings, both to generate evidence for determining interventions and to provide the data needed to feed into the national civil registration system for the computing of MMR.

A previous study showed that despite providing maternal mortality supportive supervision and use of standard protocol for maternal and neonatal care, shortcomings abound, such as fear of blame, poor record keeping, and lack of knowledge and skills for the proper conduct of reviews (Mills, 2011). Beyond the Numbers, a 2004 WHO publication, describes five main approaches for ascertaining the causes and contributing factors for maternal deaths and ill health.

By implication, the importance of establishing health facility-based maternal death audits cannot be overemphasized. Facilities with high maternal mortality should endeavor to establish audit committees to ascertain the causes of maternal deaths and ways to reduce maternal morbidity and mortality.

4.3.4 For Profit and Nonprofit collaborative model
Private for profit health facilities support collaborative initiatives that seek to promote their core business of medical services provision with an aim of making profit.

“We collaborate with a number of well wishers to provide critical clinical services” (Nurse at St. Mary’s).
Studies show that in business today, a strategic partnership between any combination of the non-profit and for-profit, sectors provide much economic and social benefit, on as many levels, to as many stakeholders, when focused on the greater good. For-profits are realizing that they need to receive mutual value in the equation not a financial return, necessarily, but a return on their social investment. And they are seeking long-term, multi-faceted, value-driven partnerships with nonprofits.

Within this new environment, non-profits need to provide a Business Value Proposition (BVP) that attracts and outlines benefits for the for-profit partners. If a non-profit is only focused on raising funds and having its hand out, it is going to be left behind. Non-profits must understand that they must go beyond simple fund development and focus on these primary goals: Meet the business objective of each partner. Have a clear focus and impact on the greater good, which drives the success of any cross-sector partnership. Find the “brand fit” as it’s important to align partners with an appropriate association between two partners that is intellectually, emotionally and practically compatible (Burtch, 2013).

4.3.5 Corporate Social Responsibility
As part of their social responsibility, St. Mary’s Mission hospital has regularly organized outreach activities where they go out to the community, carry out free consultations, treat and give medication for free. CSR involves the code of conducts and ethical regulations for entities to be able to prove to their stakeholders that they are a responsible business entity and that the profit given back to the shareholders are not from unethical practices. CSR involves multiple
stakeholders, including the government, shareholders, employees, consumers, media, suppliers, NGOs, and the general public.

“We give back to the community through free medical camps and we also give health education talks to the communities we serve” (Nurse at St. Mary’s Hospital).

Corporate Social Responsibility (CSR) is concerned with the commitment of business organizations to contribute to sustainable development, stakeholder issues/concerns and improvement of societal conditions (Jamali et al., 2008; Jamali, 2008). Although an exact definition of CSR remains elusive (Matten and Moon, 2008), the term is generally used to refer to a mode of business engagement and value creation which fulfills legal, ethical and public societal expectations (Luetkenhorst, 2004). More generally, CSR is a set of policies, practices and programs that are integrated throughout business operations and decision-making processes, and intended to ensure that the company maximizes the positive impacts of its operations on society (Business for Social Responsibility, 2003).

4.3.6 Quality Service Provision

A strategy for the private for profit facilities is to provide quality services for their clients with friendly staff coupled with facility cleanliness. Quality is a very important concern for patients while planning to get treatment. According to Johnson, rather than selecting hospital based on price, patients should select it basing on quality and services. However, hospital’s overall reputation, and available facilities should be taken into consideration (Johnson, 2008). Taylor further suggests that a good hospital should have adequate certified and qualified physicians and friendly staffs who are competent in providing nearly all superior treatments offered these days (Taylor 1994).
Moreover, as private hospitals are more profit-oriented than the public hospitals, revenue generating of the firm largely depends upon the attraction of the customers and retaining them. A satisfied customer is always an asset for an organization. Therefore, every company has the objective to attract them with their service quality and make them satisfied for the long return.

4.3.7 Delivery Pack

The study showed that the NGO supported facilities in Kibera adopted a strategy of giving a “delivery pack” to the women who deliver at the facility to incentivize pregnant women to have facility deliveries. The pack contains a basin, soap and pampers.

“More women are having facility deliveries after the introduction of the delivery park, we give the women, a piece of soap, pampers and a basin” (Midwife at AMREF).

The change in facility deliveries did not occur without impetus, the facility pursued strategies, programs and policies aimed at increasing the number of women delivering in facilities, ranging from small scale interventions to national policies and laws. Many different approaches have been used. These approaches can be thought of as targeting different determinants of why women fail to deliver in health facilities, which have been characterized into four major categories by Gabrysch and Campbell (2009). Some strategies target socio-cultural determinants (for example, banning or integrating traditional birth attendants), some try to increase perceived need (such as through pregnancy counseling), some target economic barriers (such as conditional cash transfers, fee removal, or vouchers), and others address physical barriers (such as improving facility infrastructure and staff).
4.3.8 Subsidized rates and a sliding-fee scale

The AMREF facility offers free maternity services but charge subsidized rates for other services. They have a waiver system on the other chargeable services and it depends on a social worker assessment to determine the capability of the client to pay.

“We have a waiver system for our clients, our community volunteers assess the clients to ascertain their ability to pay” (Nurse at AMREF).

The Tabitha Medical Clinic provides primary healthcare and youth-friendly services to Kibera residents on a sliding-fee scale. Sliding scale fees are variable prices for products or services based on a customer's ability to pay. Such fees are thereby reduced for those who have lower incomes, or alternatively, less money to spare after their personal expenses, regardless of income. This is because the not for profit facilities receive support in kind from a number of well wishers as well as financial support from donors for their running costs.

4.3.9 Strengthened laboratory facilities

Plate 4.5 A nurse carrying out a test at AMREF lab

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The not for profit facilities have strengthened laboratory facilities through provision of essential equipment and supplies, support to equipment maintenance, training, supportive supervision, and regular quality assurance monitoring. They have improved quality assurance and quality control through training and retraining of health workers, ensuring routine evaluation of their environment and getting periodic customer feedback so as to improve on their services.

### 4.3.10 Task shifting and contracting mentor mothers

The not for profit facilities have a strategy of facilitating task shifting of doctors’ responsibilities to nurses or contracting mentor mothers. The "mentor mothers" help HIV positive mothers who are enrolled at the facilities. The mentor mothers offer psychosocial support, counselling, health education, ensure that the women are on anti-retroviral therapy, their children are immunized; they also escort them from the clinician to the lab. The sero-positive mothers are monitored over a period of time usually from antenatal to six months after delivery, thus reducing the HIV infection rate among children born to women living with HIV and reducing maternal deaths.

The strategy has contributed to reduced HIV infection rate among children born to women living with HIV. This is due to early intervention at the antenatal clinic, ART clinic, increased hospital deliveries and ART prophylaxis for mother and baby - done by encouraging the increased usage of maternity, family planning, ante/postnatal and child health care.

“So far, we have enrolled over 6,000 patients for care in the programme with more than 3,000 having started ARVs treatment” (Nurse at AMREF).
4.3.11 Integrated Programmes

The not for profit facilities are equipped to provide residents with basic healthcare and maternity services. There is an inpatient maternity ward, and an ambulance service for obstetric and other emergencies. Integrated management of chronic diseases such as HIV, and any other illnesses, makes it a one-stop service, thus easing patients’ access to medical care and facilitating early diagnosis, treatment and follow-up. Health education sessions, counselling and social support are also offered to empower patients to manage their own health.

The Tabitha Medical Clinic has improved the quality and capacity of care through expanded laboratory services, additional patient rooms, a central pharmacy, and youth reproductive health clinic. The clinic staffs consist of two full-time physicians and six clinicians. In addition, it also hosts volunteer medical students and faculty from UNC and Duke University Medical Schools. CFK has also provided training for volunteers in the community to become home-based care providers.

4.3.12 Capacity building

Training and mentorship of staff on key areas to enhance their skills and capacities for instance on EmOC, is also an important strategy. The NGO supported facilities goes further to train their Community Health Volunteers/Workers (CHV/Ws) and Traditional Birth attendants (TBA) to refer mothers to the nearest facility and their nurses enroll in the long distance learning programme to enhance their capacity.

“AMREF has a long distance training program for nurses where they can enroll to enhance their skills” (Administrator at AMREF).
4.3.13 Opening up access to facilities

One of the most critical barriers to maternal health care in Kenya on a national scale is the lack of physical access to facilities, due to the insufficient number of facilities, distance to facilities, and inadequate transportation infrastructure. The facilities provision of reliable and affordable transportation in form of ambulances is helping to get women into facility. However, issues remain with not enough ambulances, but it is clear that transportation is helping to get women to the facility to deliver, and increasing the number of women bringing newborns back for check-ups and emergencies.

Further, the AMREF supported facility purchased a staff vehicle to transport staff members to and from work to curb cases of staff being robbed. The management also lobbied the county government to put up a police post adjacent to the facility to boost security in the area. However, police personnel are yet to be deployed. The facilities have also independently lobbied the county government to improve the road network to increase accessibility of the facilities.

“We due to the increased insecurity, the management bought a staff vehicle to transport staff to and fro work.” (midwife at AMREF)

4.3.14 Awareness creation strategies

The study revealed that the facilities have put in place strategies to create awareness and to sensitize the community on maternal health and pregnancy to dispel myths and misconceptions in order to enhance the health seeking behaviour of the residents of Kibera. The facilities work very closely through community networking, out reaches and in reaches with the CHV/Ws and TBAs. Additionally, the NGO supported facilities conduct mobilization and sensitization activities for CHV/Ws to educate households on maternal and child health.
There are maternal education sessions where pregnant women are encouraged to come on a day of the week apart from the clinic days to be educated on ANC, delivery, exercises and safe motherhood practices.

“The nurses usually give us lessons on maternal health, how to carry ourselves, what to do and what not to do. The lessons happen on every clinic day” (22 year old at AMREF).

4.3.15 Maternity Services on 24 hours basis

All the facilities assessed in the study apart from Beyond Zero provide 24 hour maternity services which serves to enhance safe motherhood. The government requires that all public health facilities must operate for 24 hours and provide maternal health services. Research indicates that most deaths take place at night when the expectant mothers are being taken to health facilities for delivery.

“We have a 24hour maternity wing, however the other services are offered from 8a.m -5 pm” (Nurse at Lang’ata Health Center).

“We provide maternity services on a 24 hour basis, however, we attend to emergencies at night even if they are not maternity related” (Nurse at Tabitha Clinic).

4.3.16 Community Health Volunteers/Workers (CHV/Ws)

The core primary healthcare service provision rests on key household practices. In this regard, CHV/Ws who were described as ‘gate keepers’ of health in the community were found to be effective in dialoging with the households on actions for health since they shared a common situation and experience. In all the facilities visited, the CHV/Ws had been selected by the community using the MPHS guidelines with a strong emphasis on the willingness and ability to work as volunteers (MOH, 2007).
According to the community strategy (MOH, 2007), Community health workers are expected to be mature, responsible and respected members of the community, men or women chosen by the community to provide basic health care. Their main role is to promote good health. To the extent possible, CHWs should be accepted by the whole community as they are the link-pin between the household system and the health system. They are selected on the basis of the following criteria: a permanent resident in the area; able to read and write, and enthusiastic to learn more; concerned about the welfare of the people; willing to volunteer; physically fit; willing to visit all village members; respected by villagers; having demonstrated attitudes valued by the community and backed by immediate family members (particularly the spouse).

4.4 Effectiveness of Strategies

4.4.1 User fee exemption

The study revealed that user fee exemption is an effective strategy in ensuring that poor and marginalized women get access, afford and use maternity services and other health services, however this may affect the quality of services provision.

"There are other facilities (private) but people pay and am poor, I cannot afford” (17 year old at Lang’ata Health Center).

Most successful cities provide free or subsidized health services for the poor. Reducing or eliminating payments for health care is crucial to increasing use of services among the poorest city residents (Save the Children, 2015). Previous empirical studies, however, indicate that user fees are likely to result in deterioration in the utilization of health care services, particularly among the poor. Financial resources recovered from user fees appear to be relatively low, resulting in limited resources available to improve health service delivery and provide benefits
for the poor. This evidence poses a fundamental dilemma for lower income countries in determining how to effectively implement user fees policies without producing unintended outcomes (JICA, 2006).

4.4.2 Family Planning

Family planning if well used is an effective strategy to achieve safe motherhood as women are increasingly being able to space their children and have the desired number of children at a time when they want.

“I learnt my lesson after getting this child, I am now using family planning to prevent any unwanted pregnancy” (16year old at AMREF).

Previous studies show that effective use of family planning methods is known to help save lives by enabling women to avoid pregnancy when they are too young or too old, and to space their births at intervals that are healthy for them and their babies (UNFPA, 2011). Family planning serves to reduce child and maternal morbidity and mortality by preventing unintended pregnancies.

However, family planning is replete with a lot of cultural obstacles and women are constrained from making independent decisions on their sexuality. In situations where family planning is confused with birth control, it becomes difficult for women to be active agents of their sexual and reproductive health. Women prefer to use injectables or they are forced to take pills secretly as some of their partners are against it as most men associate this with promiscuity rather than family planning. The men are also reluctant to use available methods such as vasectomy. Condom use in relationships is usually based on the acceptability for the men.
"Sometimes when the husbands discover that their wives have implanted Norplant, they bring them forcefully to the facility to have it removed, which can be embarrassing to the women" (Nurse at Lang’ata health center).

Male involvement in family planning is therefore, important for FP as a strategy to be highly effective. It not only implies contraceptive acceptance by men, but refers to the need to change men’s attitude and behavior towards women’s health, make them more supportive of women using health services and sharing childrearing activities (Helzner, 1998).

4.4.3 Ante Natal Care, CHV/Ws and TBAs

The study also indicated that women who attended the ANC had better health outcomes. The facilities encourage the women to attend at least 4-5 focused antenatal visits. WHO (1994) proposed the focused model of antenatal care that is aimed at providing quality care to women in an efficient, cost-effective way especially in resource constrained environments like urban slums.

Community networking with the CHV/Ws and TBAs who are change agents has increased the numbers of women attending ANC, facility deliveries and PNC. This is an effective strategy because the CHV/Ws and TBAs are members of the community and the women trust them. They therefore, help to dispel myths and misconceptions around maternal health and pregnancy.

“I did not know that if you are pregnant you are supposed to attend ANC clinic until, one of the CHV/Ws approached me and educated me on the importance of attending ANC. I used to believe what I was told by people, that pregnancy is normal and regular check-ups are unnecessary because if I did so, the baby was likely to die while in the womb” (14year old at AMREF).
Previous studies show that the status of women is traditionally defined in terms of their marital and sexual status. Society in general views women as subordinate to men. Social rules and regulations are intensely patriarchal and women are expected to passively comply with all decisions made by men who are the owners of the household. Attitudes and practices relating to pregnancy and childbirth are influenced by social, cultural and religious factors. A myth among women is also that childbirth is generally regarded as a “normal” event, requiring no special preparations birth preparations are a taboo and causes bad luck or treatment for the pregnant woman, who is expected to bear her condition silently without complaint.

Previous studies indicate that within the health care system, community volunteers can be part of primary health care system. The use of community health volunteers as agents of health promotion has been a classical approach in community health and other development programs (Cross, 2010). The study findings reveal the potential of community change agents to increase utilization of obstetric care and other maternal health services such as early ANC booking and increased number of ANC visits.

The study also shows that NGO supported facility strategy of having maternal education sessions did not work well as it was cost intensive; it involved calling the mothers and sending reminders, and others were only available on the clinic days. Winning over TBAs is difficult as behavior change takes time.
4.4.4 Task shifting and mentor mothers

The study shows that “task shifting” and contracting mentor mothers as a strategic intervention has led to an increase in sero-positive mothers’ uptake of maternity services. The study has demonstrated the effectiveness of community-based safe motherhood intervention in promoting the utilization of obstetric care and a skilled attendant at delivery.

Task shifting to work with mentor mothers’ takes time as they have low skills and knowledge (they are usually class eight drop outs) but with a passion to work with sero-positive mothers. Changing their perception on myths around pregnancy and maternal health is sometimes difficult though they work very well after they are trained.

4.4.5 Robust referral system and transportation for not for profit facilities

NGO supported facilities robust referral system has been effective in encouraging women to use the facility and to access their maternity services as indicated by one of the women. The ambulance is on standby and pregnant women are assured that they would be referred to a higher level facility in case complications set in.

“I was to have my twins here but I developed complications and they referred me to Kenyatta with their ambulance and they even paid the bill” (24 year old woman at AMREF).

“I like it here because in case of any complication, they refer you using their ambulance” (35 year old at AMREF).

The study revealed that provision of EmOC has been an effective strategy towards achieving safe motherhood. All the facilities can provide EmOC except for the Beyond Zero clinic which has
limited space. A previous study by JICA noted that dispensaries and clinics which the Beyond Zero Clinic falls under are required to provide safe delivery services for basic obstetric care. However, they lack the very basic room, equipment and the basic infrastructure to manage labour and conduct safe delivery, including referral services.

4.5 Constraints to achieving safe motherhood in Kibera

The study sought to determine the constraints faced towards achieving safe motherhood strategies. The study revealed that there were a number of constraints analyzed along the lines of availability, affordability and accessibility of services.

4.5.1 Ineffective Referral System and transportation

The study revealed that the public facilities in the informal settlement of Kibera have a weak referral system because of outdated referral tools and guidelines at all levels, lack of orientation of the management teams on their referral roles and functions, and inadequate tools for referral allowances for expertise movement and fuel for travel for instance the public facilities within the sub-county of Kibera in Nairobi County share the only existing ambulance. Sometimes they are forced to send the women to private clinics for tests or to buy commodities such as gloves, cotton wool and gauze.

   “Women who develop complications are sometimes forced to hire a taxi to go to higher level facility or we request AMREF to send us their ambulance to assist when we have an emergency” (Nurse, Lang’ata Health Center).

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A referral system is a mechanism in the health care system that enables it to manage client health needs comprehensively with resources that are beyond those available locally. With this approach, the health sector has developed a referral strategy, standard guidelines, and forms to guide the sector in building an effective system that responds to the needs of rural and poor populations (MOH, 2013). For a referral system to be considered well-functioning, it needs to have at least the following elements:

i) A referral strategy informed by the assessments of population needs and health system capabilities

ii) Adequately resourced referral facilities

iii) Active collaboration between referral levels and across sectors

iv) Setting-specific protocols for the referring and receiving facilities

v) Accountability for provider’s performance and supportive supervision to improve performance

vi) Formalized communication and transport arrangements between the referring facilities

vii) Pro-poor protection against costs of emergency referrals

viii) Capacity to monitor the effectiveness of the referral system

ix) Government support of the referral system through the health policy

4.5.2 Frequent stock outs and insufficient equipments

The study found out that frequent stock out of drugs, supplies and commodities as well as lack of equipment, machines and materials is a serious challenge facing the facilities.

“The shortages are sometimes occasioned by delays in payments by the county government. Sometimes the drugs expire in the stores because the facility was not in need of them, due to the Push system by Kenya Medical Supplies Agency (KEMSA)” (Nurse at Lang’ata Health Center).
The Push system is based on forecast demand rather than being based on actual or consumed demand. The facilities are also unable to attend to mothers with complications and emergencies due to lack of theatres, ultrasound, tocograph, blood and other essential equipment. The implication for safe motherhood in the wake of these shortages can be fatal as inadequate drugs, supplies and poor infrastructure in public health facilities contribute significantly to low quality of services which lead to poor outcomes for pregnant mothers.

Plate 4.6 A woman receiving drugs from the pharmacy at MSF Clinic

4.5.3 Devolution of health challenges

The study found out that in relation to devolution of health services and staff, the remuneration and salaries for ministry of health and county staff are yet to be harmonized, which de-motivates staff as sometimes there are glaring disparities in salaries of staff in the same job group. This has led to a number of strikes by nurses demanding for better pay. The study also revealed that under the county government, there are delays or failure to pay health staff and the many Community Health Volunteers (CHV/Ws), even though the strategy has a provision for a stipend for the volunteers..
“Staff in the facility are very conscious of who their employer is, the county government and the MOH and the requisite remuneration which has not been harmonized” (Nurse at Lang’ata Health Center).

Increasing the burden on health professionals without adequate increases in compensation and/or staffing threatens to enhance this systemic problem further. As nurses argue, not only is it impossible to effectively supervise over 20 mothers in a ward at once (as some have been doing since the start of the program), it is taxing to work overtime every night and enhances already existing morale problems. Indeed, less than a month after implementation of free maternal health care, more than 2,000 nurses at the Kenyatta National Hospital went on strike, demanding fulfillment of a promised 46 per cent increment in their basic pay awarded by the High Court in September 2012. Although the government agreed to implement the pay rise, it remains to be seen whether this will provide sufficient incentive to cope with the demands of free maternal health care.

4.5.4 Limited resources and capital challenges

The private clinics rely on the user fees and charges they levy on their clients for the operating costs and for expansion. However, resources are limited and they have to charge each and every service they offer, as a result compared to the user fee exemptions and subsidies offered by public facilities and private not for profit facilities they have an uneven playing field.
4.5.5 High poverty levels in Kibera

The study revealed that the residents of the informal settlement live in absolute poverty and they have poor health seeking behaviour as health may not be a priority to them other than getting food on their table coupled with myths and misconceptions on pregnancy and maternal health. This therefore, determines if the residents would seek health care. Most of them therefore frequent the public and private not for profit facilities whose services are free or subsidized. Whereas the few who can afford to pay for the services visit the private and faith based facilities whose personnel are friendlier and they are assured of getting the necessary supplies and commodities. The high poverty levels therefore, limit the number of clients attending the private clinics. The private clinics are sometimes forced to detain some mothers who are unable to pay for the delivery services.

“The staff here have had to detain me because my family is unable to raise the KES 1,300 that the facility needs after I delivered” (21 year old student at Saola Maternity and Nursing home).

"Ushirika (private and faith based) is nearby but their services are expensive, I can't afford" (18 year old at Beyond Zero clinic).

4.5.6 High volume of patients and running costs

The Tabitha clinic suffers from many of the same problems as MSF and AMREF, most notably volume of patients and running costs. The number of patients the not for profit clinics see each year is a statistic reached only after many measures to reduce the volume in the clinic. For instance at the Tabitha medical clinic, originally those not contributing to the CDC Surveillance study had access to care at such a low cost that it flooded waiting rooms, forcing each nurse to see an average of 50 patients a day. As a result, the clinic had to raise its prices to keep people
from coming. Just like MSF, the CDC works to reduce the number of patients it sees to maintain high quality of care.

The registration fee is KES. 150, and the average visit can cost as much as KES 350. Because the clinic practices evidenced-based treatments, meaning they only provide treatments that have been proven to be efficacious and that are preceded by testing. Many patients come to the Tabitha clinic to confirm what disease they have, and then go home to their local chemist to buy drugs instead of receiving them free from the clinic. The clinic cites many of the same reasons for losing clients to more expensive, less qualified clinics: accessibility, convenience, and the personal relationship people have with their local chemists. But the clinic also is constantly fighting negative stereotypes and associations the people of Kibera have about them. Kibera residents’ also have a general distrust of free services and big international organizations with lots of money.

4.5.7 Reporting System

The not for profit facilities rely on donor funding for their operating costs. This therefore, implies that the facilities have to comply with the donor reporting guidelines and conditions. The challenge is for staff to understand the new reporting systems and to be able to adapt in a timely manner. This sometimes necessitates the training of the staff which is time consuming. For instance, due to funding challenges at the beginning of the year, Tabitha medical clinic approached AMREF for financial support and some of the conditions in place was for them to change their reporting systems in line with the AMREF reporting systems.
“We have had challenges with funds from sometime late last year and at the beginning of the year we approached AMREF who agreed to support us, but now we have to adapt and change our reporting system to suit them” (Nurse at Tabitha Medical Clinic).

4.5.8 Shortage of staff
The study found out that all the targeted health facilities have insufficient staff and this is compounded by glaring capacity gaps in some areas for example emergency obstetrics care (EmOC) and in some instances unqualified personnel. As indicated by a staff at AMREF, the available nurses are few to attend to the high number of patients, and the challenge is compounded when some take annual or sick leave and others attend seminars. According to the norms and standards of the Ministry of health in Kenya, there are set numbers of the different cadres of health personnel for each level (MPHS, 2010).

“A nurse can find that they are alone with a full maternity and it becomes difficult to attend to all the mothers” (Midwife at AMREF).

Insufficient staffing leads to ineffective monitoring of maternal health and provision of a comprehensive health education. Previous study by UNDP revealed that public health facilities in urban slums are usually exposed to one or more of the following risk factors; insufficient staff and resources; inadequate referral systems and or transportation for obstetric emergencies (UNDP et al., 2006).
4.5.9 Inaccessibility

The facilities assessed are highly inaccessible due to poor infrastructure and road network. Some women have to cover long distances to be able to access the services. This encourages pregnant women to seek the services of Traditional Birth Attendants (TBAs). Flooding of the roads during the rainy season is also a great constraint to residents and personnel to access the facility.

"Gumboots do not help and the young boys charge between KES 50 -100 to carry you across. They can get cheeky, when you agree on an amount, they change their mind midway in the waters that they did not know you were very heavy and insist that you pay more, in case you refuse, they dump you in the flood waters" (Midwife at AMREF).

4.5.10 Insecurity

The study revealed that insecurity is rampant in the area. Staff are sometimes robbed off their personal belongings e.g. laptops, phones, bags etc when going to work, in some instances even at gun-point and in broad daylight. A mother accessing the facilities at night faces several risky due to the insecurity and they would prefer to give birth at home in case they go into labor at night.
"One of our staff had her handbag snatched in broad daylight and there was nothing she could do and a colleague was robbed at gun point and made to lie on the muddy ground" (Administrator at AMREF).

“This place is very insecure even during the day and it is worse at night, woe unto you if you are pregnant and you go into labour at night” (Nurse at Chonesus).
5.0 CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary, conclusion, recommendations and suggestion for further studies. The study set to determine the strategies employed by informal settlement health facilities and their effectiveness in achieving safe motherhood.

5.2 Summary

The study examined the strategies adopted by the health facilities and their effectiveness in addressing the constraints faced in ensuring safe motherhood. The study findings revealed that informal settlement health facilities have come up with a number of safe motherhood strategies to address the constraints faced in achieving safe motherhood and reducing maternal mortality. The strategies include: established working relationships and partnerships with other organizations/facilities to provide better and quality services, provision of a range of services including family planning, antenatal care, safe and clean delivery, skilled birth attendants, postnatal care, “delivery pack” to incentivize the mothers to have facility deliveries, maternal mortality audit meetings, “task shifting” by contracting "mentor mothers", Capacity building and mentorship of staff, training of the Community Health Volunteers (CHVs) and Traditional Birth attendants (TBA), User fees exemption for maternity services, boosting security through collaboration with county government in putting up security masts and a police post.

Whereas the constraints identified include: insufficient staff and resources; inadequate referral systems and or transportation for obstetric emergencies, capacity gaps or unqualified staff, in relation to devolution of health services and staff, the remuneration and salaries for ministry of
health and county staff are yet to be harmonized, frequent stock out of drugs, supplies and commodities as well as lack of equipment, machines and materials, the facilities are also highly inaccessible due to poor infrastructure and road network, insecurity as well as poor health seeking behaviour coupled with myths and misconceptions on pregnancy and maternal health.

The effectiveness of the strategies was also determined and the study revealed that user fees exemption and family planning work well to contribute to achieving safe motherhood, however, for family planning to be highly effective, male involvement is important.

5.3 Conclusion

The informal settlement facilities have adopted several safe motherhood strategies that are contributing towards achieving safe motherhood in Kibera. Despite the noted strategies, there is an urgent need to address the burden of shortage of staff, stock outs of drugs, supplies and commodities, a proper and functioning referral system as well as unwanted early pregnancies amongst the teenage population in informal settlements.

Further, the study has confirmed and is in concurrence with what is generally known to be the major constraints faced by facilities in informal settlements. In addition, the strategies put in place towards achieving safe motherhood in the study area is in tandem with what have traditionally been done in similar environments as exemplified in the literature review.
Current evidence suggests that safe motherhood in developing countries could be improved if all pregnant women could have access to health professionals as well as access to quality emergency obstetric care services. This is an indication that indeed, most maternal deaths usually happen following mismanaged labor.

The study also concludes that the lack of emergency ambulance services in the slums where infrastructure is non-existent and insecurity deters movement at night further complicates referral. It may as well be that the quality of emergency obstetric services is poor. In most cases, more than half of obstetric emergencies arrive at referral facilities either on foot or by public means and emergency obstetric care facilities are lacking in staffing, skills, and equipment.

For safe motherhood to be achieved, proper health systems need to be put in place covering; policies, essential supplies of medicines and equipment, infrastructure, referral system, monitoring & evaluation, supervision & training of staff and proper records keeping. The ultimate goal is to ensure that women irrespective of their economic status are able to go through pregnancy and delivery without experiencing the many obstacles that have traditionally threatened their lives. Motherhood must be celebrated and women must be seen as key partners in the future of our nation and of society in general.

5.4 Recommendations

This study revealed that informal settlement facilities have made several strides in contributing towards safe motherhood. However, in order to fully achieve safe motherhood in a resource constraint environment, the study recommends the following:
• Referral pathways and transportation in the informal settlements needs to be improved and this should be complimented by constant and adequate supply of essential medicines and equipment and monetary resources. The health sector management can do this by allocating dedicated obstetric ambulances to every facility to ensure prompt transfer of women in labour and women and children with obstetric and neonatal emergencies to care and where possible establishment of maternity wings for deliveries at the beyond zero clinics.

• Strengthening human resources for maternal health by providing training on essential steps in management of obstetric emergencies to doctors, nurses and midwives as well as intensifying midwifery, CHV/Ws and TBAs education and training. This should also include employment of qualified personnel for all the health personnel job cadres in line with the norms and standards of the MOH.

• Proper management of devolved health services; the national and county government needs to put in place necessary systems and measures to ensure effective implementation of health policies by streamlining of the health services and personnel, and harmonization of the scheme of service for the ministry of health and county health services.

• In terms of future possible studies, the study suggests that a similar study be done in all the counties to evaluate the effectiveness of low cost strategies to ensure safe motherhood.
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## APPENDICES
### Appendix 1: Work plan

**WORKPLAN**

<table>
<thead>
<tr>
<th>Activity (Deliverables)</th>
<th>Month 1</th>
<th>Month 2</th>
<th>Month 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research Proposal Development</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Development tools (draft) and submission for review</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Field work</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Data entry, cleaning, and analysis</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Research Project</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Appendix 2: Budget

<table>
<thead>
<tr>
<th>Line Item Description (Activity and Expense Category)</th>
<th>Quantity/Days</th>
<th>Unit Cost (KES)</th>
<th>Total Amount (KES)</th>
<th>Total Amount (USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stationery</td>
<td>1</td>
<td>5000.00</td>
<td>5000.00</td>
<td>55.56</td>
</tr>
<tr>
<td>Photocopying of Data collection tools</td>
<td>1</td>
<td>15000.00</td>
<td>15000.00</td>
<td>166.67</td>
</tr>
<tr>
<td>Field Travel Logistics and Transport</td>
<td>20</td>
<td>6000.00</td>
<td>120000.00</td>
<td>1333.33</td>
</tr>
<tr>
<td>Meals</td>
<td>20</td>
<td>1500.00</td>
<td>30000.00</td>
<td>333.33</td>
</tr>
<tr>
<td>Typesetting and Printing</td>
<td>4</td>
<td>500.00</td>
<td>2000.00</td>
<td>22.22</td>
</tr>
<tr>
<td>Binding</td>
<td>4</td>
<td>500.00</td>
<td>2000.00</td>
<td>22.22</td>
</tr>
<tr>
<td>Internet services</td>
<td>1</td>
<td>6000.00</td>
<td>6000.00</td>
<td>66.67</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td><strong>180000.00</strong></td>
<td><strong>2000.00</strong></td>
</tr>
</tbody>
</table>

Grant Amount Requested

- **US Dollars (USD)**: 2,000
- **Kenya Shillings (KES)**: 180,000

Exchange Rate Assumed

- $1 = KES 90
Appendix 3: Consent Form

INFORMED CONSENT
Hello, my name is Caroline Othim from the University of Nairobi. I am currently undertaking my Masters degree and I am carrying out a study to explore the strategies employed by informal settlement health facilities towards safe motherhood and to specifically find out the following;

1. To identify the constraints of achieving safe motherhood in informal settlements health facilities.
2. To establish the strategies adopted by informal settlement health facilities to achieve safer motherhood
3. To examine the effectiveness of the strategies to ensure that essential care for high-risk pregnancies and complications is made available to all women who need it.

The purpose of this study is to collect this information and use it to improve the services that the community gets from this health center as well as a requirement for my Masters programme. You have been selected to join this study because you are a staff or a user of the services in this facility. The information collected will only be used for the purposes I have informed you about and will be confidential. Your name will not appear anywhere in the final reports. Participating in this study is voluntary and you can choose not to answer any questions.

At this time, is there anything you would like to ask me about this study?
If you have any questions or concerns later on, please contact me on 0725 292525, this interview will take about 30 minutes.

Signature _____________________________________________

Name of Interviewee: _______________________________________________

Name of facility: _______________________________________________
Appendix 4: Key Informant Interview Guide

Consent Statement: Are you willing to take part in this study?
Yes. I have been informed about the study CONTINUE WITH THE INTERVIEW
No. I will not take part in this study. STOP HERE AND THANK THE RESPONDENT

Bio Data
Sign: _____________________               Date: [dd] /[mm] /[yyyy]

Interviewee name: ______________________________________
Facility name and village location__________________________________________________

DEMOGRAPHIC INFORMATION
1. Gender:      Male [   ]                     Female   [    ]
2. Age:
   Between 18-25              [   ]      Between 26-35         [   ]   Between 36-40     [   ]
   Between 41-44              [   ]      Between 45-50        [    ]      50 and above     [    ]
3. Highest level of education:
   Secondary     [   ]     College           [   ]     University      [   ]
   Others           [   ] Specify……………………………………………………………
4. Years of service:
   Less than 1 year  [  ]  6-10 years  [  ]
   1-5 years   [  ]  Over 10 years  [  ]
5. Please indicate your designation …… ……………

STRATEGIES AND CONSTRAINTS
1. Do you provide maternity services in this facility? Yes/No
2. What are the daily opening hours of this health facility? _____________
3. What are the constraints/challenges facing the facility in promoting safe motherhood?
4. Have you ever thought of innovative strategies to overcome the challenges? Yes/No
5. What are some of the strategies in place to safe motherhood in this health facility?
6. What were the notable challenges faced during the implementation of these strategies?
7. In your opinion, were the strategies effective in achieving improved maternal health? Please list the strategies that were/are effective
8. In your opinion, why were the strategies as mentioned not effective? Please list the strategies that were not/are not effective
9. Are there any further challenges faced even after the implementation of the above strategies?
10. Do you have any recommendations on what should be done to promote safe motherhood?

THANK YOU
Health facility village location: _____________________  Facility name: ____________________
Interviewee name _____________________________________ Code____________________

Demographic Data

<table>
<thead>
<tr>
<th>2.1 Age Category</th>
<th>2.2 Sex</th>
<th>2.3 Marital status</th>
<th>2.5 Education level</th>
<th>2.6 Occupation</th>
</tr>
</thead>
</table>

Strategies and Constraints

1. Is this the nearest health facility for you to reach?
2. On average, approximately how long does it take you to get to this health center from your house? COMPLETE TIME IN MINUTES
3. How much did you pay for the card /registration?
4. Did you get the drugs that were prescribed to you in this health center’s pharmacy today? Yes/No/Some
5. Did you have to purchase any items for you to get diagnosed or treated? Yes/No/Some
6. If yes, what items did you have to purchase?
7. Please list the constraints/challenges in seeking maternity services from this facility
8. What is your perception regarding maternity service provision in this facility?
9. What is your perception regarding the attitude of health care personnel in this facility?
10. In a scale of 1-10, where do you rate this facility and why?
11. What are some of your recommendations to achieve safe motherhood?

Thank You
**Appendix 6: An Observation Guide**

**Observation Guide**

1. Describe what you see and hear in the health facility and how you feel about what is taking place.
2. Draw or describe the room arrangement.
3. Describe a few health facility routines and procedures.
4. Describe the attitude of the health workers.
5. Describe health facility infrastructure, pharmaceuticals, machines and equipments.
6. Observe the time taken by the patients between arrival and departure.

<table>
<thead>
<tr>
<th>Category</th>
<th>Includes</th>
<th>Researcher to note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verbal behavior and interactions</td>
<td>Who speaks to whom and for how long; who initiates interaction; languages or dialects spoken; tone of voice</td>
<td>Gender, age, ethnicity, and profession of speakers; dynamics of interaction</td>
</tr>
<tr>
<td>Physical behavior and gestures</td>
<td>What people do, who does what, who interacts with whom, who is not interacting</td>
<td>How people use their bodies and voices to communicate different emotions; what individuals’ behaviors indicate about their feelings toward one another</td>
</tr>
<tr>
<td>Personal space</td>
<td>How close people stand to one another</td>
<td>What individuals’ preferences concerning personal space suggest about their relationships</td>
</tr>
<tr>
<td>Human traffic</td>
<td>People who enter, leave, and spend time at the observation site</td>
<td>Where people enter and exit; how long they stay; who they are (ethnicity, age, gender); whether they are alone or accompanied; number of people</td>
</tr>
<tr>
<td>People who stand out</td>
<td>Identification of people who receive a lot of attention from others</td>
<td>The characteristics of these individuals; what differentiates them from others; whether people consult them or they approach other people; whether they seem to be strangers or well known by others present</td>
</tr>
</tbody>
</table>
Ref: No. CHS/PH/109/58

Caroline Akeyo Othim
University of Nairobi
P.O BOX 30197-00100
(N69/71278/2014)

RE: RESEARCH AUTHORIZATION

Following your application dated 23rd October, 2015 for authority to carry out a study on “Safe Motherhood Strategies in the informal Settlement of Kibera”, I am pleased to inform you that you have been authorized to undertake the study in Nairobi County.

On completion of the assessment you are expected to disseminate the finds to the county operational research team and two hard copies and one copy in PDF of the findings to our assessment.

[Signature]

Mr. Raphael K Muli,
For County Director of Medical Services

Ce

DMOH - Lenongin

[Handwritten note: To Dr. Wangari, kindly allow her to collect data for her project. Thank you. From Michelle.]

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Appendix 8: Introductory letter from University of Nairobi

UNIVERSITY OF NAIROBI
INSTITUTE OF ANTHROPOLOGY, GENDER & AFRICAN STUDIES

Telephone 0202082535 P.O. Box 30197-00100
NAIROBI 15th October 2015
NAIROBI

The County Medical Officer,
Nairobi City County,
P.O. BOX 30075-00100,
NAIROBI.

Dear Sir/Madam,

RE: INTRODUCING Ms. CAROLINE AKEYO OTHIM
(N69/71278/2014).

This is to confirm that the above named is a Second year Masters of Arts in Gender and Development Studies student at the Institute of Anthropology, Gender and African Studies of the University of Nairobi.

She has duly completed her coursework and is conducting a research entitled “Safe Motherhood Strategies in the Informal Settlement of Kibera, Nairobi County” as part of the requirements for the degree. She proposes to interview health officials at the Lang’ata Health Centre and facility users.

Any assistance accorded to her will be highly appreciated.

Yours Faithfully,

Owuor Olungah, Ph.D.
Director and Senior Research Fellow
University of Nairobi.
Appendix 9: NACOSTI Authorization Letter

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Ref: No. NACOSTI/P/15/32214/8669

Date: 13th November, 2015

Caroline Akeyo Othim
University of Nairobi
P.O. Box 30197-00100
NAIROBI.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on “Safe motherhood strategies in the informal settlement of Kibera, Nairobi City County,” I am pleased to inform you that you have been authorized to undertake research in Nairobi County for a period ending 10th November, 2016.

You are advised to report to the County Commissioner and the County Director of Education, Nairobi County before embarking on the research project.

On completion of the research, you are expected to submit two hard copies and one soft copy in pdf of the research report/thesis to our office.

DR. S. K. LANGAT, OGW
FOR: DIRECTOR GENERAL/CEO

Copy to:

The County Commissioner
Nairobi County.

The County Director of Education
Nairobi County.