

**THE INFORMATION- SEEKING BEHAVIOUR OF WOMEN ATTENDING  
ANTENATAL CLINIC: A CASE STUDY OF WOMEN IN MAKULULU- KABWE**

by

**CHEWE MUMBA**

**A dissertation submitted in partial fulfillment of the requirements for the Degree of  
Masters in Library and Information Studies (MLIS)**

**The University of Zambia**

**Lusaka**

**2015**



## **Copyright Declaration**

All rights reserved. No part or parts of this dissertation may be reproduced, stored in any retrievable format or transmitted in any form or by any other means such as electronic, mechanical, photocopying and recording or otherwise, without prior written permission from the author or the University of Zambia.

© University of Zambia, 2015.

## **Declaration**

I, Chewe Mumba, do hereby declare that this dissertation represents my own work and that it has not been submitted for a degree by anyone else at the University of Zambia or at any other university for the purpose of acquiring a degree.

**Signed:**.....

**Date:**.....

# Certificate of Approval

This dissertation of Chewe Mumba has been approved as fulfilling the requirement for the award of the degree of master in Library and Information Studies by the University of Zambia.

## Examiner's signatures

## Date

.....

.....2015

.....

.....2015

.....

.....2015

## **Abstract**

The study surveyed information seeking behavior of women attending antenatal clinic: A case study of women in Makululu- Kabwe. The Main objective of the study was to identify the information needs of women attending antenatal clinic in Makululu- Kabwe and also establish their information seeking behavior. The specific objectives of the study were: to identify sources of maternal information used by women, to find out the accessibility of maternal information among women, to establish the relevancy of maternal information among women, to investigate the information-seeking behavior of women and to ascertain challenges women face in order to access maternal information. The researcher used qualitative methodology for the study. The population was defined as all women in the reproductive age group who had given birth within the previous two years and had been receiving health services at Makululu health centre, Kabwe. Makululu Township was 1,974 and the sample size was 40 respondents. This study used semi- structured interviews and focus group discussion, as data collection methods.

Information seeking behavior was assessed using three variables namely; age group, income levels and education level, information seeking was highest among those women in the age groups below twenty years, twenty-twenty four years and twenty five- twenty nine years and also had the highest needs like first pregnancy. Furthermore, the women who were involved in trading were not able to seek needed information due to their busy schedule. The major sources of seeking information were through interpersonal sources as well as the clinic, those women who had attained secondary education sought maternal information from other sources which included brochures and birth plans. The respondents faced some challenges when accessing health information which mainly included; Language barrier where some nurses could not accurately explain certain vital issues in the local language, inadequate human resource constrain health services for women and poor attitude of health workers towards the women.

The study recommended that; health practitioners must utilize commonly used media such as televisions and radios to convey the information needed by pregnant women and should ensure easy access to information for example, oral transmission; group the women in smaller groups during health talks. Furthermore, health practitioners should include peer education and involvement of family members which is important for better engagement in reproductive health and family planning programs. Therefore, the study concluded that the information seeking behavior of the women under study was good since information was mostly sought in accordance with medical regulations.

## **Dedication**

To my late father Mr. F.M. Mumba who taught me to put God first in everything I do and also that education is the key to success. I also dedicate this dissertation to my mother Mrs. M.N. Mumba for the encouragement to believe in God as well as the support rendered to me during my period of study.

## **Acknowledgements**

I would like to give thanks to the Lord God Almighty for giving me good health, his love and grace throughout my study period. My sincere gratitude goes to my Supervisors Dr.

Akakandelwa Akakandelwa and Ms Christine Kanyengo for their guidance and support during the time of writing this dissertation despite their busy schedule. Without their assistance, it would not have been possible to present my work academically and professionally.

I am grateful to Kwame Nkrumah University for the sponsorship and support rendered to me to enable me attend class and conduct my research.

My gratitude also goes to my elder sister Mrs. N.M. Muuka for encouraging me during my study period.

My thanks go to my son Royd for helping me type my work and thanks too to my other son Michael for understanding when I was not at home with him.

My profound gratitude goes to a work mate Dr. J. Hachintu for guidance and dedication to proof read my work.

Lastly, I would like to say thank you to all who assisted me in one way or the other during my study.



# TABLE OF CONTENTS

<b>COPYRIGHT DECLARATION.....</b>	<b>ii</b>
<b>DECLARATION.....</b>	<b>iii</b>
<b>CERTIFICATE OF APPROVAL.....</b>	<b>iv</b>
<b>ABSTRACT.....</b>	<b>v</b>
<b>DEDICATION.....</b>	<b>vi</b>
<b>ACKNOWLEDGEMENTS.....</b>	<b>vii</b>
<b>LIST OF TABLES.....</b>	<b>xii</b>
<b>LIST OF FIGURES.....</b>	<b>xiii</b>
<b>LIST OF ACRONYMS.....</b>	<b>xiv</b>
<b>CHAPTER ONE: INTRODUCTION.....</b>	<b>1</b>
1.0 Overview.....	1
1.1 Background of the Study.....	1
1.2 Maternal Information among Women in Zambia.....	3
1.3 Importance of Maternal information.....	5
1.5 Maternal Health problems women face when pregnant.....	7
1.6 Statement of the problem.....	8
1.6.1 Objectives.....	9

1.7 Research Questions.....	9
1.8 Significance of the study.....	9
1.9 Theoretical Frame work- The Berry picking Theory.....	10
1.10 Operational Definitions.....	11
<b>CHAPTER TWO: LITERATURE REVIEW.....</b>	<b>13</b>
2.0 Overview.....	13
2.1 Information Needs of Women attending ANC.....	13
2.2 Sources of Maternal information used by Women.....	15
2.3 Accessibility of Maternal Information among Women.....	16
2.4 Relevancy of Maternal Information among Women.....	17
2.5 Information-seeking behavior of Women attending ANC.....	19
2.6 Challenges Women face to access Maternal Information.....	21
2.7 Summary of Literature Review.....	23
<b>CHAPTER THREE: RESEARCH METHODOLOGY.....</b>	<b>24</b>
3.0 Overview .....	24
3.1 Research Design.....	24
3.2 Target Population and study sample.....	24
3.3 Sampling Method.....	25
3.4 Data Collection Methods.....	26
3.5 Data Analysis.....	26
3.6 Reliability and Validity.....	27

3.7	Limitations of the study.....	27
3.8	Ethical Considerations.....	27
<b>CHAPTER FOUR: RESEARCH FINDINGS.....</b>		<b>29</b>
4.0	Overview.....	29
4.1	Findings from the study.....	29
4.1.1	Information Needs of Women attending ANC in Makululu.....	31
4.1.2	Sources of Maternal Information among Women in Makululu.....	33
4.1.3	Accessibility of Maternal Information among Women in Makululu.....	35
4.1.4	Relevancy of Maternal Information to the Women in Makululu.....	37
4.1.5	Information-seeking behavior of Women in Makululu.....	38
4.1.6	Challenges Women face when accessing Maternal Information.....	41
4.1.7	Summary of Findings.....	42
<b>CHAPTER FIVE: DISCUSSION OF RESEARCH FINDINGS.....</b>		<b>44</b>
5.0	Overview.....	44
5.1	Discussion.....	44
5.1.1	Information Needs of Women attending ANC in Makululu.....	44
5.1.2	Sources of Maternal Information among Women in Makululu.....	46
5.1.3	Accessibility of Maternal Information among Women in Makululu.....	49
5.1.4	Relevancy of Maternal Information to the Women in Makululu.....	52
5.1.5	Information-seeking behavior of Women in Makululu.....	54
5.1.6	Challenges Women face when accessing Maternal Information.....	57

5.1.7 Summary of Discussion.....	59
<b>CHAPTER SIX: CONCLUSION AND RECOMMENDATIONS.....</b>	<b>61</b>
6.0 Overview.....	61
6.1 Summary of Findings.....	61
6.2 Conclusion.....	62
6.3 Recommendations.....	64
<b>REFERENCES.....</b>	<b>65</b>

## LIST OF TABLES

<b>Table 1:</b> Background Characteristics of Respondents.....	31
<b>Table 2:</b> Interpersonal and other Sources of Maternal Information.....	33
<b>Table 3:</b> Available Maternal Information at Makululu Clinic.....	34
<b>Table 4:</b> Interpersonal and other Sources of Maternal Information vs Educational Qualifications.....	35
<b>Table 5:</b> Access to Maternal Information.....	36
<b>Table 6:</b> How often women had access to Maternal information.....	36
<b>Table 7:</b> Information-seeking behavior of women attending ANC.....	39

## LIST OF ACRONYMS

<b>ANC</b>	Antenatal Clinic
<b>APA</b>	American Psychological Association
<b>CBOH</b>	Central Board of Health
<b>CD-ROM</b>	Compact Disc Read only Memory
<b>CHAI</b>	Clinton Health Access Initiative
<b>CSO</b>	Central Statistical Office
<b>EMOC</b>	Emergency Obstetric Care
<b>EPDS</b>	Edinburgh Postnatal Depression Scale
<b>GDP</b>	Gross Domestic Product
<b>GNI</b>	Gross National Income
<b>GRZ</b>	Government of the Republic of Zambia
<b>HIV/AIDS</b>	Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome
<b>HRH</b>	Human Resources for Health
<b>ICTs</b>	Information Communication Technologies
<b>IMF</b>	International Monetary Fund
<b>MCH</b>	Maternal and Child Health
<b>MDGs</b>	Millennium Development Goals
<b>MOH</b>	Ministry of Health
<b>NGO</b>	Non Governmental Organization
<b>NHS</b>	National Health Service

<b>NHSA</b>	National Health Services Act
<b>NHSP</b>	National Health Strategic Plan
<b>OUP</b>	Oxford University Press
<b>PMTCT</b>	Prevention of Mother to Child Transmission
<b>PNC</b>	Postnatal Care
<b>TBA</b>	Traditional Birth Attendant
<b>TV</b>	Television
<b>UK</b>	United Kingdom
<b>UNDP</b>	United Nations Development Programme
<b>WHO</b>	World Health Organization
<b>ZHR</b>	Zambia Health Report
<b>ZNBC</b>	Zambia National Broadcasting Cooperation





# CHAPTER 1

## INTRODUCTION

### 1.0 Overview

This chapter contextualizes the problem statement. It provides a background on interpersonal sources of information used by women in seeking maternal health: A case study of illiterate women in Makululu- Kabwe which is a high density area. The statement of the problem, aim and objectives of the study are also discussed.

### 1.1 Background of the Study

The study discusses the information –seeking behaviour of women in a high density area of Makululu Township in Kabwe. Makululu is a slum in Bwacha constituency and as such is densely populated. Most of the women have low educational level, no stable source of income and they mostly engage in petty trading so as to earn a living and survive. Makululu Township has an estimated number of 773 households comprising 1,854 males, 1,974 females with the total population being 3,828 as noted by Central Statistical Office (2012). United Nations Habitat (2003) observes that, rapid urbanization, one of the greatest socio-economic changes during the last five decades or so, has caused the burgeoning of new kinds of slums, the growth of squatter and informal housing all around the rapidly expanding cities of the developing world.

Although Makululu Township is populated by both men and women, the focus of this study was to investigate the information- seeking behaviour of women attending antenatal clinic in Kabwe. Due to the fact that these settlements are unplanned and consequently have inadequate and poor essential social services such as health centers, schools, water and electricity. Water is, in most cases, drawn from communal taps that have been put up by the central government or Non-Governmental organizations (NGOs). Other common features in these slums include overcrowding, poor sanitation, poor drainage and uncollected solid waste.

Although health is a major discipline in the life of women, their health information needs and seeking is still a developing area of study. However, the availability of health information in

developing countries is often inadequate especially in slums and rural areas. Women's health is important in developing countries since their traditional role as family caregiver makes them chiefly responsible for the health of their children, husband and other family members in the home. (Ishida et al, 2000). Subsequently, there emerged a new concept of seeking information from traditional birth attendants (TBA's) in the community who still practice outdated modes of maternal health such as cutting the umbilical cord which joins the baby to the mother with a razor blade and if not properly done, can be a risk to the mother's or baby's health especially the baby who is dependent on the mother for survival. Throughout the world, especially in the developing countries, there is an increasing concern and interest in maternal and child health care.

Although the expectant mother feels as healthy as ever, her doctor will usually perform a thorough examination which includes the following:

- Blood pressure, pulse, respiration and initial weight.
- Pelvic measurements are taken to determine whether the birth passageway is wide enough to allow a normal size baby to be born without difficulties.

Turner and Fuller (2011) reveal that, in developing nations, maternal and child healthcare has been on the forefront of consciousness for improving the lives of the citizens. In addition, each country has its own policies and challenges with delivering healthcare to its citizens. Various regional, social and economic factors are involved in the ability of women and children to receive adequate care and prevention services. Some of these factors include shortage of health workers, service delivery which includes: childbirth and parenting (perinatal), early pregnancy class and antenatal class.

Maternal information among women attending ANC is likely to be sought in various ways mainly; considering the age variable where those women who are younger are seen to be in need of maternal information as it is their first experience for most of them, therefore, there is need for relevant authorities to avail the information and make it as easily accessible as possible. Another possible way, women are likely to seek information is through their income level; those women who are involved in some trading of some sort are likely to look for information easily through interaction with other people as they go about conducting their businesses while women who are not involved in any business have limited sources of obtaining maternal information from, their

major source includes interpersonal sources which includes their grandmothers, mothers, friends as well as the clinic. However, there is inadequate human resource in most if not all health institutions. According Ministry of Health (2010), it is stated in the National Health Strategic Plan (NHSP 2011-2015) that Zambia is facing serious human resources for health (HRH) crisis, both in the numbers and skills mix. The critical shortage of skilled manpower is a major obstacle to the provision of quality healthcare services and to the achievement of the national health objectives and millennium development goals (MDGs). There are three main problems, namely the absolute shortages of health workers, inequities in the distribution of health workers and skills-mix, which all favour urban areas, than rural areas. It is therefore important to make sure that improvement in maternal and child healthcare leading to reduced maternal and child mortality and morbidity.

## **1.2 Maternal information among women in Zambia**

Women's health is important for developing nations since it has implications for contributing to the development and quality of life of all. It is observed by The World Bank (1996) that, the health of a country's female population has profound implications for the health and education of children and the economic well being of household, as well as for the women themselves. Women's health is important in developing countries since their traditional role as caregivers makes them a basis for managing uncertainty, coping with change and maintaining some control regarding health decisions. Regardless of location, however, women tend to be the primary seekers of health information for their children and other family members, as well as for themselves (Warner and Procaccino, 2004) and they represent the majority of health information seekers (Hibbard et al. 1999). The methodological developments in information seeking among women could be seen as converging on similar themes, from opposite directions which must be stressed.

Saleh (2011) states that, the most paramount health information required is ante-natal and postnatal care, how to safely deliver pregnancy and immunizations especially on the six childhood killer diseases which are polio, whooping cough, tetanus, diphtheria, measles and tuberculosis. It has been observed by MOH (2010) that Zambia has developed a well integrated health information system providing information for evidence based planning within the health

sector. The Government of Zambia (GRZ) has over the years facilitated the development and strengthening of the health information system at different levels of the health system.

However, it has not been easy communicating new ideas to poor, illiterate and secluded women, therefore, activities promoting communication about population issues should be undertaken. It is important that communication activities directed to them continue to rely on traditional media and interpersonal, door-step contacts among some of the sources of information that can be used to convey maternal information to the women. Sources of health information can be categorized as non-interactive or interactive (Eysenbach and Diepgen, 2001). Non-interactive sources of health information that include traditional media such as leaflets, books, audiotapes, videotapes, radio and television, have been criticized as too general to meet the needs of specific users (Wallace, 1997). Therefore, interactive health information resources such as interactive video disks, Compact Disc Read only Memory (CD-ROMs), health kiosks and websites have become increasingly popular (Eysenbach and Diepgen, 2001; Eysenbach and Kohler, 2002).

Access to maternity and health care services in some health institutions in Zambia especially rural areas is not impressive and one it could be due to the fact that health practitioners do not give adequate information to the women. Choolwe (2007) also observes that, health care providers in health institutions also give inadequate information, education and communication to the mothers. In most cases mothers are reminded to go back for postnatal care at one week and at six weeks for postpartum without explaining or emphasizing the importance of attending the postnatal care (PNC) services to them. There is indeed a growing global movement towards the abolition of user fees as a way to redress barriers and inequity of access to maternity care, ensure increased access to and use of skilled maternal healthcare services, and ultimately improve maternal health. In Zambia, user fees at government run health institutions have been abolished; patients do not pay any money before being attended to at a health institution except for other services which include among other things X-rays, scanning and Dental problems.

### **1.3 Importance of Maternal Information among women in Zambia**

According to Casasnovas (2008), good health is a crucial component of well-being. However, improvements in health status may be justified on purely economic grounds. It seems to be a logical assumption that good health raises human capital levels and therefore the economic productivity of individuals and a country's economic growth rate. Better health increases work force productivity by reducing incapacity, debility, and the number of days lost to sick leave, and reduces the opportunities an individual has of obtaining better paid work. Further, good health helps to forge improved levels of education by increasing levels of schooling and scholastic performance. There is also an important knock-on effect in that the resources that would otherwise be used for preventative health treatments are freed for alternative uses or in cushioning the effects of other negative externalities such as poverty within the community.

A survey done by the researcher indicates that in Zambia, there have also been efforts to improve health and maternity services by the government and other organizations. The Zambian government with the Ministry of Health has put in efforts to improve health service delivery through constructing more health institutions among other things. Furthermore, the Clinton Health Access Initiative (CHAI) has plans of expanding its assistance to Zambia's health system. CHAI wants to help Zambia's health system perform much better than presently. Although the Zambian Government was working tirelessly to reduce the country's maternal mortality rate in 2010, the number of women dying during childbirth was still high. According to Maimbolwa (2004), Ministry of Health (MOH) plays an important role in provision of modern health services. Churches, private practitioners and industry also contribute to health care as does the traditional informal sector. Modern medical care introduced in many African countries focuses on technology-based intervention.

Expectant mothers at Makululu Health Centre are prepared for childbirth through giving health talks on a monthly basis by health practitioners. There are also group discussions conducted where issues of maternal care are discussed. Women are also provided with leaflets containing information such as birth plan which contains information including how to prepare for a normal delivery, how to be ready for emergencies and how to prevent Mother-to-child- transmission of human immunodeficiency virus (HIV), among others. Women can also obtain health and

maternity information through observation, that is, they observe and talk to friends who are pregnant or other women before they start attending antenatal themselves, therefore, acquiring the information that they need and is helpful to them.

Hain (2014) states that, regular checkups by health professionals are very important in delivery and tracking the baby's growth in the mother's womb which provides opportunities for improving the mothers health and establish contact with providers at facility for delivery. Antenatal clinic (ANC) which is a maternity service is considered of great importance in providing maternal health to pregnant women which has to be conducted by a skilled provider so as to monitor the pregnancy and reduce the risk of morbidity and mortality for the mother and her baby during pregnancy and delivery. CSO and MOH (2015) state that, attending regular antenatal care by pregnant women is more helpful in identifying and preventing adverse pregnancy outcomes when it is sought early in the pregnancy and is continued through delivery. Early detection of problems in pregnancy leads to more timely referrals in case of complications and this is of particular importance in Zambia, which is a large and sparsely populated country where physical barriers are a challenge to the health care delivery system. Women who do not receive antenatal care during pregnancy are at higher risk of obstetric emergencies and adverse outcomes. In an effort to bridge the gap and provide health care as close to the family as possible, the District Health Management Teams have been training traditional birth attendants to recognize the danger signs during pregnancy and refer women early to health centers.

The World Health Organization (2008) recommends that:

- Pregnant women should have at least 4 antenatal visits for early detection and management of complications, prevention of malaria and tetanus.
- A skilled attendant at every birth who can at least recognize and manage complications, including life saving measures for mother and baby.

These measures must be put in place in order for the mother and newly born to be healthy and safe from any dangers, or infections. According to Das (2013), information exchange during pregnancy is a tool that facilitates women's decision making process regarding prenatal care as well as the care of their newborn infants, so that they can better manage their pregnancy.

## **1.4 Maternal Mortality in Zambia**

Zambia faces significant challenges with regards to maternal, infant and young child survival. The past five years has recorded a decline in young child mortality; however the rates still remain unacceptably high at 34, 70 and 119 per 1,000 live births for neonatal, infant and under-five deaths respectively (Central Statistical Office, 2007).CSO(2007)further reports that, malnutrition underlies a third of all child deaths.

CSO and MOH (2015) states that, the maternal mortality estimation inter-agency group (WHO et al., 2014) estimated that, from 1990 to 2013, the global maternal mortality ratio (MMR) declined by 45 percent, from 380 deaths to 210 deaths per 100,000 live births. This translates to an average annual rate of reduction of 2.6 percent. While impressive, this is less than half of the 5.5 percent rate needed to achieve the three-quarters reduction in maternal mortality targeted for 2015 in Millennium Development Goal 5. The number of women and girls who died each year from complications of pregnancy and childbirth declined from 523,000 in 1990 to 289,000 in 2013. Almost all of these deaths (99 percent) occur in developing countries.

According to In Zambia, maternal mortality rate is estimated at 649 women per 100, 000 per live births. The risks of dying during pregnancy and childbirth are increased by women's lack of empowerment, education, and access to economic resources, as well as poor nutrition and a heavy physical workload during pregnancy. Social factors include delayed decision making in accessing health services and low status of women in society. Most maternal deaths could be prevented by ensuring access to good-quality maternal health services, such as antenatal and postnatal care, and skilled attendance during childbirth, including emergency obstetric and neonatal care. Prevention of unwanted pregnancies and provision of safe abortion services, as allowed by law, could reduce maternal deaths and injuries caused by unsafe abortions.

## **1.5 Maternal Health Problems Women face when Pregnant**

There are a lot of challenges women go through when pregnant and if properly managed, can reduce death from pregnancy complications. One of the challenges is place of delivery. Delivery in a health facility is important to help reduce death due to complications of pregnancy. If a complication arises during delivery, a skilled attendant can manage or refer the mother to the

next level of care. CSO and MOH (2015) further state that, if a delivery takes place at home or a location where hygienic conditions may be poor, it could cause neonatal tetanus which is a leading cause of death among infants in developing countries and is likely to lead to infant mortality. To prevent infant deaths caused by neonatal tetanus, tetanus toxoid (TT) vaccination is given to women during pregnancy. Women should receive at least two doses of TT vaccine during each pregnancy. However, if vaccinated during a previous pregnancy or during maternal and neonatal tetanus vaccination campaigns, a woman may only require one dose. Provision of sufficient maternal information on safe delivery would also enable women make right choices concerning the place of delivery.

Lack of or inadequate birth preparedness is also another maternal health problem women experience when pregnant. In Zambia, to prevent unnecessary delays related to delivery, Ministry of Community Development, Mother and Child Health and Ministry of Health have implemented a birth preparedness package that outlines steps mothers should take to prepare for their birth (MOH, 2010). Adherence to these guidelines reduces delays in accessing delivery services, which can save lives especially among women living in rural locations. Additionally, Zambia's health care system faces challenges, including; shortage of skilled health staff, stock-out of essential medicines and essential supplies, and lack of basic medical equipment maternal health and emergency. To help alleviate the mentioned challenges faced by Zambia's health care system, the Zambian Government allocated more resources to the health system so as to help many families across the country today struggling to care for their sick as they face a health provision system that struggles to provide adequate medicines, beds and other basic health requirements.

## **1.6 Statement of the Problem**

Although maternal information is important for women in alleviating maternal health problems, very little is known about how women seek maternal information more especially for those living in high density areas. As such, there is a gap to assess the sources of information used and the information seeking behavior of women attending antenatal.



### **1.6.1 Objectives**

The main objective of this study was to identify the information needs of women attending antenatal clinic in Makululu- Kabwe and also establish their information seeking behavior.

The specific objectives of this study were:

- i) To establish information needs of women attending antenatal clinic in Makululu-Kabwe.
- ii) To identify sources of maternal information used by women.
- iii) To find out the accessibility of maternal information among women.
- iv) To inquire the relevancy of maternal information among women.
- v) To investigate information seeking behavior of women.
- vi) To ascertain challenges women face to access maternal information.

### **1.7 Research Questions**

- i) What are the information needs of women attending antenatal clinic in Makululu-Kabwe?
- ii) What are the sources of maternal information used mostly by women attending antenatal clinic in Makululu-Kabwe?
- iii) How accessible is maternal information to Women attending antenatal clinic?
- iv) How relevant is maternal information to Women attending antenatal clinic?
- v) What is the information seeking behavior of women attending antenatal clinic?
- vi) What are the challenges women face to access maternal information?

### **1.8 Significance of the study**

It is hoped that the findings of this study will provide new insights regarding the information seeking behavior of women attending antenatal clinic and this would enable them be more informed therefore seeking the information that is needed. Furthermore, it is hoped that the findings of this study will be used to provide efficient information delivery programs to women attending antenatal clinic which will enable them have easy access to maternal information relating to their information needs.

## **1.9 Theoretical Framework- The Berry Picking Theory**

In 1989, Marcia Bates came up with the Berry picking Model. The intention of this model was to be ‘much closer to the real behavior of information searchers than the traditional model of information retrieval is, and, consequently will guide our thinking better in the design of effective interfaces.’

Berry picking is named after the process of picking blueberries or huckleberries from bushes, in the forest. The berries are scattered on the bushes; they do not grow in bunches, and can therefore only be picked one at a time. This one-at-a time collecting of interesting pieces of information is the basis of the Berry picking model. Evolving Search is a second key element in this model, meaning that the results found often co-determine the relevancy of new results: it plays an important role in the Berry picking model.

According to Scholing (2004), the Berry picking model is a combination between searching and browsing activities. For a user who already knows what he wants to find, searching is the most suitable activity. With initial contextual knowledge, this will be the most efficient search strategy. For those who have less contextual knowledge, browsing will probably be a better method because it shows existing and related information in the repository. However, the information might not be relevant for their information needs, especially if the pieces of information are returned based on categories which are not of their interests. To overcome this problem, the browsing method in this model is aimed at providing similar information related to the one being viewed. This in turn will help the users to develop their contextual knowledge.

Olorunda,(2004) states that, the information needs of women should be of concern to most because women are the foundation of any society. The information needs of people depend on various factors such as education, profession, age, gender, region, socio-economic condition, religion, even weather.

Therefore, the goal of the researcher is to cater for search behavior that follows the Berry picking model more closely than the traditional model of information retrieval. When a document is viewed by a user, he/she is provided with a context of other similar documents.

As the interview will be conducted, pieces of information will be collected one at a time from each participant which is the basis of the Berry picking model. Users start with an information need, formulate an information request (a query), and then move iteratively through an information system along potentially complex paths, picking bits of information ("berries") along the way. In the process, they modify their information requests as they learn more about what they need and what information is available from the system. The information needs may change as the interview will be conducted which will cause the researcher to try out new approaches. Results that will be found will co-determine the relevancy of new results which plays an important role in the Berry picking model.

### **1.10 Operational Definitions**

The following concepts have been used in this study

***Information Sources-*** A system which produces messages by making successive selections from a group of symbols.

***Interpersonal sources-*** Connected with relationships between people (Hornby, 2010)

***Information needs-*** The recognition that one's knowledge is inadequate to satisfy a goal (Muusses, Weert et al 1997) and they are considered to be the foundation of information seeking behavior.

***Information seeking-*** Refers to a situation when someone perceives that the current state of possessed knowledge is less than that needed to deal with some issue.

***Information seeking behavior-***it is a process that begins with the challenges and problems that impel the information seeker to look for information. Information seeking behavior cannot solely be explained by needs but also by the level of perceived stress and consequently, the coping strategies that patients use.

***Information Communication Technologies-*** are various technologies used in the creation, storage, retrieval, manipulation and transmission of information; these include computers, various accessories, projectors, printers and photocopiers, radios and televisions, communication

devices such as mobile phones, video and audio recorders and various software among other things.

**Health-** is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity” (WHO, 2008).

**Maternity-** Maternity is the state of being or becoming a mother.

**Antenatal-** Concerned with the care and treatment of the unborn child and of pregnant women (Merriam Webster Dictionary, 2012).

**Gender** – Refers to the meaning of the male or female sex (Fowler, 2011).

## CHAPTER 2

### LITERATURE REVIEW

#### 2.0 Overview

This Chapter is an evaluation of publications of previous studies with similar topics done by various researchers in comparison with the study under discussion. It will look at the information needs of women attending Antenatal Clinic, sources of maternal information used by women focusing on the major sources, accessibility and relevancy of maternal information to the women. It will further go on to discuss the information –seeking behavior of women attending Antenatal Clinic and also the challenges the women face in order to access maternal information.

#### 2.1 Information Needs of Women Attending Antenatal Clinic

Around the world in developing nations, maternal and child healthcare has been on the forefront of consciousness for improving the lives of global citizens. However, there is need to avail more maternal information to pregnant women in different formats especially the illiterate ones. The role of information to women and their information needs is innumerable. For example, pregnant women need maternal information. Identifying the information consumers and their needs is fundamental. Although the information needs of women receiving antenatal and postnatal care are well understood, few studies have examined the information needs of women.

A study done by Kirkham (1993) about maternal information needs state that essentially, the affective bases for maternity and health information needs have not been extensively explored. Psychologists have found that in conditions of stress, information about the predicted leads to an increased sense of control (Miller, 1981). Additionally, in her theory of “sense-making”, Dervin (1992) argued that individuals experience information needs when they are confronted with gaps in their existing knowledge.

In a study done by Nwangwu and Ajama (2011) in a Northern Nigerian rural community where a picture was presented about the information needs of rural women. The study showed that health information constituted 20 percent of the information needs of rural women, and the paramount health information required were ante-natal and post-natal care; immunizations especially on the

six childhood killer diseases; how to prevent and manage Vascular Virginal Fistula; and how to secure safe child delivery. The rural women in this study also reported that they needed information on how to prevent and control epidemics especially cholera and meningitis which were rampant in the area. The study further revealed that the women used five main sources of information: government and its agents, elite groups, relatives and friends, market women, and non-governmental organizations (NGOs), with an indication that the major sources are informal.

One of the studies carried out on the level of health awareness related to pregnancy and sources of information among pregnant women was conducted by Rasheed and Al-Sowielem (2003). It was revealed that, women under study had an information need for food in pregnancy, rest in pregnancy, exercise in pregnancy, importance of antenatal care, antenatal visits, importance of blood examination and immunization in pregnancy among other things. Findings indicate that many women were well informed about certain aspects of pregnancy such as necessary dietary requirements, the need of adequate daily exercise and timing of the antenatal visits. There is however need to reactivate health education programmes through the local Primary Health Centers as well as mass media.

Another study that investigated the health information needs of pregnant women was done by Uloma and Chinyere (2013); he was trying to identify major health problems faced by pregnant women and the extent to which their information needs are met. Descriptive survey research design was used for the study. The population consisted of 50 women. Sampling was enumerative. Structured questionnaire was used for data collection. Data was analyzed using frequency distribution and percentage counts. Findings showed that the major problems faced by pregnant women were vomiting, lack of appetite, headaches, fear of labor, miscarriages, complication, and hemorrhage. In the area of channels of information, respondents identified their mothers and the antenatal care givers followed by their friends as their primary sources of information.

## **2.2 Sources of Maternal Information used by women**

One of the studies carried out on the sources of maternal information used by women was conducted by O Keefe et al (1998). It revealed that, depending on the nature of the information need, information is sought from different sources. Media sources are often the most important ones, and television especially plays a significant role in providing health information. Other studies, on the contrary, have shown that printed media are the most prevalent sources of health information. These can include medical books and journals, leaflets from organizations, women's magazines, and newspapers.

Another study conducted on the sources of maternal information used by women was done by Aaronson et al. (1988). The study identified the major sources of information as part of a larger investigation of health behaviors and beliefs during pregnancy. This study had a contrary view from the one conducted by O'Keefe et al (1998) where it was revealed that health practitioners were a major source of health related information and not media sources. However, the younger clients in the study suggested there was need to consider use of family as a major source of information. Five hundred and twenty nine (529) women were targeted and questionnaires followed by telephone interview were used to collect data.

A study conducted by Davies and Bath (2002) which aimed at identifying the main maternity information sources used by Somali women living in a northern city in the United Kingdom (UK) revealed that, women sought and used information from several interpersonal sources which included their mothers, grandmothers and friends. Informal sources were perceived as being approachable and providing a means through which further information could be sought, while each information source was also evaluated according to specific criteria. The study described here utilized unstructured exploratory focus group and semi-structured interviews with Somali women. All discussions and interviews were audio taped, translated and transcribed in their entirety and then analyzed using a variation of the theme analysis method. Sources of information emerged as a sub-theme from the data.

However, findings from a research done by Saleh (2011) differ from the study and state that, there are basically five sources through which the rural women satisfy their information needs.

These are: Government and its agents, Elite groups, Relatives and friends, Market women, and Non-Governmental Organizations (NGOs).

The Internet is also becoming a more commonly used source of information. Akakandelwa (2000) states that, the format of information is also changing. As a result of the impact of technology, access to information can be via internet, mobile phones and computers. Information technology is changing our environment at an ever- increasing rate, while such technology provides improved opportunities for accessing information, realizing these opportunities requires knowledge and skills that are not easily acquired and are even more difficult to keep up to date. The integration of Information communication technologies (I C T's) in everyday life has become the norm in today's fast changing environment.

### **2.3 Accessibility of Maternal Information by women**

A study to find out how accessible maternal information was to women attending antenatal clinic (ANC) was carried out by Lincetto et al (2009). The study revealed that women had access to maternal information through attending antenatal clinic (ANC) which is a maternity service. It provides women and their families with appropriate information and advice for a healthy pregnancy, safe childbirth, and postnatal recovery, including care of the newborn, promotion of early, exclusive breastfeeding, and assistance with deciding on future pregnancies in order to improve pregnancy outcomes. An effective ANC package depends on competent health care providers in a functioning health system with referral services and adequate supplies and laboratory support.

Accessibility to maternal health care by marginalized groups, such as poor migrant women, has remained an issue of concern in Ghana. A study done by Yiran and Teye (2015) examined the challenges that the migrant female head porters encounter in the process of seeking maternal health care in Accra. A sample of 70 women was interviewed. Findings indicated that the factors affecting accessibility to maternal health services were unavailability of health facilities in the slums, low income levels, high cost of maternal health care, long queues and waiting times at modern health facilities and the perception that traditional medicines are adequate for protecting pregnant women and their babies.



However, Heisser (1989) observed that, when discussing access to information, its limitations should also be discussed which include; problems of physical access, cost and the lack of ability to use information were identified. The principal barrier to information according to this author is the lack of ability of the user to be aware of the resources, where to find them, and how to use them. Other barriers include; insufficient funding and lack of human and financial resources which constrain both health services for women and gender-sensitive health policies. Economic crises have contributed to the lack of medical coverage for women and men. National health budgets have been affected leading to deteriorating public health systems and in some areas the cost of medical care and contraceptives has increased.

## **2.4 Relevancy of Maternal Information among Women**

A review done by American Society for Clinical Nutrition (2000) revealed the relevancy of maternal information among women. It related nutritional status to pregnancy-related death in developing countries where maternal mortality is higher than rates in the industrialized countries. It was further revealed that for three (3) of the central causes of maternal mortality which is induced abortion, pueral infection and pregnancy- induced hypertension, knowledge of nutrition is too scanty for programmatic application. Accessible obstetric services are vital to help avoid obstructed labour while current programs of universal iron supplementation are unlikely to have much effect on severe anemia. There is therefore an urgent need to reassess how to approach anemia control in pregnant women. Ankem (2007) reveals that, in generating awareness of women's' health information, popular magazines and television can be effective. Also, health sciences and public librarians may assist women in identifying useful information sources by providing guidance in accessing easy-to-read magazine articles and authoritative, reliable and relevant web information sites.

Information is significant and must be available and relevant to all who need it. It empowers individuals through allowing them to take personal responsibility and also contribute towards individual, societal and national development. Nwagwu and Ajama (2011) states that, to make informed choices and navigate within a complex health care system, people must have easily available, accurate and timely information which they must be able to use. Readily availability of health information is imperative for the development of informed and effective systems for

improving health in societies. According to Zambia Health report (2011), the most readily available media and communication technologies for young women are radio and mobile phone. But young women have lower levels of access to traditional media platforms like radio and TV than young males. The gender gap in home ownership of mobile phones is not significant. Internet access is nearly equally low for young men and women.

O'kereke et al (2013) assessed the relevancy of maternal information among women by carrying out a research which examined knowledge of safe motherhood among women in selected rural communities in Northern Nigeria. The study revealed that, knowledge of safe pregnancy practices among some women in rural communities is strongly associated with attendance at ANC visits and being employed or acquiring some level of education. Increasing knowledge about safe motherhood practices should translate into safer pregnancy outcomes and subsequently lead to lower maternal mortality across the developing world.

Aaronson et al (1988) observes that, sound health behavior decision-making requires relevant and accurate health knowledge. Knowledge serves as a basis for managing uncertainty, coping with change and maintaining some control regarding health decisions. To ensure that clients acquire accurate knowledge, healthcare providers and educators must understand information seeking behavior. Doing so allows health care professionals to consider, predict and influence the sources of information used by clients.

Education and literacy are basic human rights for the advancement of all people. According to Fahimi and Moghadam (2003), education contributes directly to the growth of national income by improving the productive capacities of the labor force; it helps women empower women. As female education rises, fertility, population growth, and infant and child mortality fall and family health improves. The World Bank (1996) argues that, the "education of females is so important to health improvements that it merits special attention in any reformation of health policies that aim to improve health outcomes rather than the delivery of health care services. Women with higher education levels marry and start bearing children later, make better use of health services and information that will improve the personal hygiene and health of their children.

Illiteracy levels for women world-wide are alarming. According to Chonya and Banda (2007), mother's education is directly associated with increased access to a skilled health worker for ANC services. Almost all the women with more than a secondary education receive ANC from a skilled health worker, compared with less than nine in ten eighty eight percent (88%) women with no education. What is most pronounced is that women with more than secondary education are much more likely to receive ANC services from a doctor fourteen percent (14 %) than their counterparts with little or no education one to two percent (1-2%). Similarly, women in the higher wealth quintiles are more likely than women in the lower wealth quintiles to visit a skilled health provider or a doctor for ANC services (Chonya and Banda, 2007).

## **2.5 Information-seeking behavior of women attending ANC**

Levy (1999) explored how women seek health information to make decisions during pregnancy. She observed the interviews of 20 women with their midwives and followed up responses through in-depth interviews with women, in which reactions to the information exchange and the motives behind information seeking were explored. Since these women were disadvantaged, the most appropriate way of seeking information was using informal sources of information from friends, oral talks from health workers and so on. In order to get a broader view of maternal information behavior, some studies of disadvantaged mothers from developed countries were also included. While these studies come from different countries and regions of the world, they show some interesting similarities as well as trends in the direction of information behavior.

Levy (1999) further revealed that information seeking is not necessarily problem solving, and information behavior on the web and social networking sites may be less to do with making sense of a situation than diversion. Entertainment and everyday life information seeking becomes a more dominant theme in information behavior research. Unfortunately, due to the small number of studies and the small number of participants, true generalities cannot be drawn, though comparisons may be possible. The earlier studies from the 1990s in developing countries show women using personal information sources first when seeking information for many reasons including health related. The later studies and studies from developed countries indicate that women, both in developed and developing countries, seek a majority of health related information from their healthcare providers.

However, in a study done by Das (2013) which examined information seeking behavior among pregnant women in a rural region of New Delhi, India, Information needs, perceived barriers, knowledge and direct experience were found to be significant predictors of pregnancy related information-seeking. The study used a mixed methods approach, a variant of the sequential mixed methods was used. To collect data, a questionnaire, focus group discussions and key informant interviews were conducted with a sample size of 165 pregnant women attending antenatal clinic. The study also points out the need for increasing low-income, rural women's awareness through innovative means. The need for proper counseling as an integral component of antenatal care is also evident from the study. Methodological issues could be one reason why self-efficacy and perceived risk did not predict information-seeking. Additionally, the high confidence levels of women in terms of obtaining information may in fact delay their information seeking until complications arise; therefore, the information seeking behavior of the women was not good because it was not in line with medical regulations.

McKenzie (2003) distinguishes two stages of information encounter: Connecting with sources and Interacting with them. When making connections, participants describe the practices involved in identifying (or being identified by) and making contact with (or being contacted by) potential sources and the barriers that could inhibit the process (Stage One of the model). After initial contact with a source the quality of the actual interaction with that source (practices/barriers) forms Stage Two of the model.

A study which was done by Kabir and Khan (2013) explored the utilization of antenatal care among pregnant women of urban slums in Bangladesh. Findings revealed that knowledge of ANC was better among women who had utilized antenatal care compared to those who did not and also that health seeking behavior is highly distinctive among poor and rich people. The study had a sample size of 3,549 women who were interviewed through individual questionnaires. The information-seeking behavior was dependent on whether antenatal care was utilized or not, for those women who utilized it, their information-seeking behavior was good and not good for those women who did not utilize antenatal care. Information seeking behavior can be affected by psychological and personal factors such as socio-demographic characteristics. Information seeking behavior is therefore behavior expressed through use of different information sources.

While poor quality of care can inhibit women from seeking health care, women's lack of autonomy in decision making or movement is also an important constraint on women's health seeking. Women are, by and large, taught self-denial and modesty from an early age and are hence unlikely to acknowledge a health problem, and particularly a gynecological problem, unless it is very advanced.

Rieh (2014) states that, information seeking is a complex information and communication activity requiring access to diverse of sources of information to deal with personal, social and work-related problem. The information-seeking situation perhaps needs greater consideration which include among other things, the type of settings in which women are more likely to find themselves may be as great an influence on observed behavior as the differences that can be ascribed to differences in brain structure. For example, women are known to be more frequent users of primary healthcare facilities than men. This may be partly due to differences in willingness to consult a primary care practitioner, but the main reasons appear to be women's responsibility for childrearing and contraception, and the medicalization of domains that exclusively affect women such as pregnancy and the menopause.

A study conducted by Uloma and Adedotu (2013) sought to ascertain the information seeking behavior of pregnant women in selected hospitals of Ibadan Metropolis. A survey design was adopted with a sample size of 1900. The study revealed that information on environmental cleanliness and immunization were mostly used. Doctors and Nurses were also identified as the most available and utilized sources of information whereas libraries were found to be the least available and utilized source of health information. The information seeking behavior of the women in this study was therefore good since it was in line with medical regulations.

## **2.6 Challenges women face to access maternal information**

In a study conducted by Glenton (2000), it was revealed that barriers to accessing information include use of medical terminology by the information source or provider which may not be understood by the information seeker. Furthermore, another study done by Parker, Ratzan and Lurie (2003) also affirms that low levels of literacy and the understanding of medical information constitute barrier to health information seeking. Wallace (1997) reveals that, over

the last ten or so years, there has been a significant increase of demands for access to health information. Factors contributing to this increased demand include demographic changes, higher education and literacy levels, increasing competence with new technologies and increasing demands for informed choice (Williams et al. 2002, 2003). Other factors include the increase in popularity of participative health care models, the overwhelming volume of health information available for doctors, limited consultation times, an emphasis on self-care and prevention, and a growing interest in alternative medicine (Cotten and Gupta 2004)

However, a study carried out by Gazali, Muktar and Gana (2012) identified low self-esteem and socio-demographic factors among the problems facing women when seeking information. There are various challenges women face in order to access health and maternity information. The social and economic status of the country is a contributing factor where poverty levels have increased in the last years, also, physical access, cost and the lack of ability to use information, that is, illiteracy. This has made it impossible for the illiterate women especially to have easy access to information relating to women's health and maternity issues.

Another study done by Jiyane (2002) further observes that, a number of factors create problems when accessing information by any community, but in particular the peri-urban community. As it is known, most information accessed is from the media such as radio, television, books, magazines, posters, church, health centers, community groups and clubs. Illiteracy, poverty, unemployment and poor infrastructure, hinder rural community to access information in the peri urban communities. The study further reveals that during antenatal care, some women value having access to modern technology, such as ultrasound scans so as to be certain one is pregnant and also that the baby is alive in the womb. It is worth noting that in much of the world, infertility is dreaded by men and women alike but it is a particular burden to women. Such pressure to reproduce is especially intense in agrarian societies, which have a high demand for labor. Just as beliefs and practices regarding fertility are culturally patterned, birth itself is a cultural production (Brettell and Sargent, 2001).

According to Zambia Demographic Health Survey (2015), it was revealed that many factors can prevent women from obtaining medical advice or treatment for themselves when they are sick. Information on such factors is particularly important in understanding and addressing the barriers

women may face in seeking care during pregnancy and at the time of delivery. Women were interviewed and some of the factors which were cited as barriers to accessing maternal information included; having problems in seeking medical care: getting permission to go for treatment, getting money for treatment, distance to a health facility, having to take transport, not wanting to go alone, concern that there may not be a female health provider, concern that there may not be any health provider, concern that there may not be drugs available for treatment, and concern about rude attitudes among health providers. The majority of women (68 percent) reported that at least one of these problems would pose a barrier in seeking health care for themselves when they were sick.

## **2.7 Summary of literature review**

The review provided studies on literature undertaken on the information-seeking behavior of women attending antenatal clinic, their information needs and the sources of information they use to obtain maternal information. Several literature reviewed in this study indicate that women are the primary seekers of health information and as such there is need to create awareness through health talks conducted at the Clinic. Furthermore, research has indicated that the information seeking behavior of women attending antenatal clinic is generally good because it is in line with medical regulations. It has been further revealed that the Clinic as well as interpersonal sources which includes; grandmothers, mothers and friends are the major sources of obtaining maternal information.

Meanwhile, research has reviewed that depending on the nature of the information needs, there are various sources women use in order to obtain the needed maternal information which mainly include media sources mainly television as well as printed sources; these can include, medical books and journals, leaflets from organizations, women's magazines and newspapers. Furthermore, literature on challenges women face when accessing maternal information was also reviewed which included; use of medical terminology, low level of literacy and understanding of medical information, low self esteem and socio-demographic factors.

## CHAPTER 3

### RESEARCH METHODOLOGY

#### 3.0 Overview

This chapter focuses on the methodology used to gather data from the field so as to investigate the topic under study. It will begin by giving an outline of the research design to be used in the study, then the target population and study sample, sampling method, data collection methods, data analysis, reliability and validity, limitations of the study and ethical considerations.

#### 3.1 Research design

The topic under discussion is a case study because the researcher is looking at a particular location which in this case is Makululu Township in Kabwe. The concern of this research is to endeavor to include almost all the information that was relevant to the study and as such, the needed information was detailed and collected from the respondents in a thorough and efficient manner. Case studies make an intensive examination of data within the situation the activity is taking place and generally answers one or more questions which are targeted to a limited number. According to Baxter and Jack (2008), “qualitative case study is an approach to research that facilitates exploration of a phenomenon within its context using a variety of data sources.” The researcher adopted qualitative methodology as suitable for the study. A qualitative approach enables the researcher pay attention to women’s responses and experiences within a natural context and therefore helps the researcher to understand the concepts under study. The researcher’s choice of qualitative methodology was determined by a number of factors which include the type of research, target population, sampling method, data collection methods among other things.



### **3.2 Target population and study sample**

The population was defined as all women in the reproductive age group who had given birth within the previous two years and had been receiving health services at Makululu health centre, Kabwe. The total population was 1,974 females.

A sample size of 40 women was used because it was difficult for the researcher to interview the respondents as they were not willing to be met. Furthermore, the researcher reached data saturation at forty (40) respondents with most of the respondents giving similar responses to questions asked. The researcher was able to evaluate the availability and accessibility of maternal information needed by women in the area under study. Women from Makululu Township were purposively selected.

### **3.3 Sampling method**

Purposive and convenience sampling approaches were used to sample research participants who comprised women who had been attending antenatal and other maternal health services in Kabwe for the previous two years.

#### **a) Purposive Sampling**

Purposive sampling is suitable for the study under discussion because it is deliberately selective and biased and as such, it helps come up with non random samples that reflect a specific purpose of the study. It is also inexpensive making it possible for the researcher to conduct research without difficulties. It is also an efficient method when it comes to selecting “rich” informants that will be necessary for an in-depth study (Bryman, 2008).

#### **b) Convenience Sampling**

Convenience sampling is a sample that is convenient to the researcher by virtue of its accessibility therefore, convenience sampling is simply available by chance to the researcher. Kothari (2004) further says that, convenience sampling is when population elements are selected for inclusion based on the ease of access.

Due to the nature of the study, purposive and convenience sampling techniques were used. According to Bryman (2008), convenience sampling includes whoever happens to be available at the time and it reduces time and cost of collecting information while purposive sampling selects the sample based on experience or knowledge of group to be sampled in a strategic manner. The population elements of this study were selected for inclusion in the sample based on the ease of access and those respondents who showed interest in the research were included as part of the sample so as to have actual representation of the participants.

### **3.4 Data Collection methods**

This study used interviews and focus group discussions as data collection methods. Semi-structured interviews are non-standardized and are frequently used in qualitative analysis. The researcher has a list of key themes, issues and questions to be covered

However, in order to conduct a semi- structured interview successfully, it requires very good equipment and is very time consuming. Responses from participants were recorded by using a voice recorder as well as through note taking to ensure correct responses are taken down and data collection was allocated a lot of time in order to capture almost all the ideas brought forth by the participants in the study and gave the researcher opportunities to probe for views and opinions of the interviewee.

### **3.5 Data Analysis**

Collected data was analyzed using thematic analysis and manually where the various issues raised in the study were grouped in themes and it involved case by case of the interviews; doing so helped to correct the natural limitations of peoples' memories. Data analysis was also done by looking at information that was given by the participants. This was compared with various literatures written on related topics. The transcripts were reviewed and coded for the researcher to come up with emergent themes.

In an attempt to understand the collected data, Berry picking theory was also employed. The mentioned theory has been reviewed in detail in chapter 1. The findings helped establish the relationship between information seeking behavior and level of education of women in Makululu

and also to identify sources of maternal information used among women so as to have a better understanding of the study.

### **3.6 Reliability and Validity**

Data collected in any research qualitative inclusive should be reliable and valid. In the study under discussion, reliability was achieved through ensuring that participants participate in the study under discussion and their responses were recorded as reliable.

In order for any research to be effective, validity is of great importance to effective research. Validity is essentially a demonstration that a particular instrument measures what it purports to measure.

Validity in this study was achieved through the analysis and understanding of factual information that will be obtained from the participants. Another way in which reliability and validity was ascertained in this study was through triangulation of research techniques which included use of semi structured interviews and Focus group discussions and also obtaining information through other sources which have been outlined therefore making analysis much easier.

### **3.7 Limitations of the Study**

The limitations the researcher faced in this study were that it took longer than expected for the researcher to collect data and it was almost impossible to do so due to the fact that the women were not willing to be met as they were doubting where the information they were giving to the researcher was going to be taken to. The researcher therefore, convinced the women by showing them the students' identity card to prove that the research was being conducted for academic purposes. It was impossible to collect data within a particular time due to unwillingness to give out certain information by the participants. As a result, the researcher split them in two groups meeting them one after the other within a space of two weeks.

### **3.8 Ethical Considerations**

In this study, ethical issues were taken into consideration by the researcher as the research was carried out. Confidentiality was maintained at all times and the researcher obtained informed consent from any subjects used in the study and ensured that all subjects participated voluntarily.

Ethical consideration is important in research so as to enable the researcher to be committed to empowering individuals and communities that need help, in this instance then, the researcher should be knowledgeable about the code of ethics in order to do the correct thing thereby soliciting positive change for people and not the researcher.

## **CHAPTER 4**

### **RESEARCH FINDINGS**

#### **4.0 Overview**

This chapter presents findings obtained from semi-structured interviews conducted to selected women of Makululu Township who had been attending ANC in the previous two (2) years. The chapter presents the findings as captured from women as well as nurses' responses. Semi-structured interviews were used to collect data. Data was obtained from Makululu Health Centre where under five clinics were conducted using mobile hospital. The health centre covers two (2) zones namely; Makululu and Chililalila. Therefore, the findings were obtained from both zones. A total of forty (40) respondents participated in the study. These were women who had been attending ANC at Makululu Clinic in the previous two years. The group under study was selected by the researcher because it was assumed they would be able to give the needed information.

#### **4.1 Findings from the study**

This section covers findings of the study and the main issues covered include-: The information needs of women attending antenatal clinic, interpersonal and other sources of information used by women to seek maternal information, the accessibility and relevancy of maternal information, the information-seeking behavior of women as well as challenges women face when accessing maternal information.

Table 1 provides background information concerning the respondents of the study. About nine (09) out of the forty (40) respondents who were sampled were below twenty (20) years, sixteen (16) were in the age group twenty to twenty four (20-24) years. Another nine (09) were in the age group twenty five to twenty nine (25-29) years, four (04) of the respondents were in the age group thirty to thirty four (30-34) years and the remaining two (02) were thirty five (35) years and above; a clear indication that most of the respondents were in the age group twenty to twenty four (20-24) years. It was also revealed that thirty nine (39) of the respondents were married with only one (01) being single. The researcher also wanted to find out the educational status of the

respondents and the results indicate that twenty nine (29) of the respondents had attained primary education while only eleven (11) had attained secondary education, an indication that most of the respondents had only attained primary education. An additional question was asked to find out the occupation of the women under study, findings indicated that twenty two (22) of the respondents did informal trading; mostly dealing in foodstuff out of which fifteen (15) did trading at home and the remaining seven (07) at the market. From the fifteen (15) one respondent was a hairdresser, another a peasant farmer who sold her maize to the Food Reserve Agency while the last one knitted school jerseys for sell. Therefore, most of the respondents did informal trading with the majority selling from their homes. The researcher also asked the respondents the number of children each one had and results indicated that nine respondents had two children, four had four children and another four had one child each while only three respondents had three children.

**Table 1: Background Characteristics of Respondents**

<b>Characteristic</b>	<b>Frequency</b>	<b>Percentage</b>
<b>Age group</b>		
Below 20	9	22.5
20-24	16	40
25-29	9	22.5
30-34	4	10
35 and above	2	5
<b>Marital status</b>		
Married	39	97.5
Single	1	2.5
<b>Education level</b>		
Primary	29	72.5
Secondary	11	27.5
<b>Occupation</b>		
Informal trading-home	15	37.5
Informal trading-market	7	17.5
<b>No. of children</b>	18	45
1	6	15
2	12	30
3	7	17.5
4	9	22.5
5	6	15

**4.1.1 Information Needs of Women attending Antenatal Clinic (ANC) in Makululu**

The respondents were asked what triggered their information needs. All the forty (40) respondents indicated that motherhood, pregnancy complications, nutrition and child birth triggered their information needs. The respondents further indicated that they were highly concerned about delivering babies without any birth defects or complications, as a result, information regarding complications and the level of delivery pain was highly sought after. Women generally sought information about the level of pain involved during the birth process from their mothers, friends, or women who have ever been pregnant in the community.

Furthermore, the respondents were asked if they were able to identify their information needs as pregnant women using the available information sources at Makululu health centre. All the forty (40) respondents stated that indeed it was the case. Identification of the respondents information needs was done as part of tradition where it is expected that grandmothers and other elderly women who were part of a girl's family should educate the young girls how to take care of themselves basically when they reach puberty, and also teach them on issues to do with childbirth and motherhood when they get married as well as when they become pregnant. The respondents further revealed that the pregnant women benefited from such talks since the discussions were conducted in the local language as a result, the respondents were able to understand very well what was expected of them. The respondents also revealed that they learnt a lot concerning how to take care of themselves when pregnant. This was beneficial to the women as most of them had low educational levels as indicated in table 1; therefore, they were dependent mainly on informal information which was transmitted to them orally.

One of the respondents in her own words said, *“When I was pregnant, my grandmother talked to me about how to take care of myself and my pregnancy.”*

However, despite the fact that their grandmothers identified the information needs of the women by talking to them about childbirth and motherhood on a regular basis, they also consulted the clinic as another source of maternal information when they became pregnant by attending antenatal clinic (ANC) every month.

An additional question was asked to find out if the information obtained from the available sources was adequate enough to meet the information needs of pregnant women in Makululu, results showed that majority of the respondents which is thirty eight (38) stated that information was indeed adequate to meet the information needs of the pregnant women in Makululu.

One respondent in her own words responded.

*“The information I obtained through health talks at Makululu Health centre met my information needs as I learnt a lot about childbirth and motherhood.”*



#### 4.1.2 Sources of Maternal Information among Women in Makululu

Maternal information is very important in a woman's life; there are various sources information can be obtained from. Respondents were asked what sources of information they were using when they were pregnant. The results are presented in table 2.

Results obtained in table 2 reveal that twenty (20) out of the forty respondents indicated that their main source of obtaining maternal information was the Clinic, fifteen (15) indicated their grandmother while two (02) of the respondents were obtaining maternal information from their mothers, another two (02) were obtaining maternal information from family and friends with only one (01) respondent obtaining maternal information from birth plans given at the Clinic which outline the requirements of the mother to be before birth and also what a woman needs to prepare in readiness for the baby.

**Table 2: Interpersonal and other Sources of Maternal Information**

<b>Sources of maternal Information</b>	<b>Frequency</b>	<b>Percentage</b>
Clinic	20	50
Grandmothers	15	37.5
Mothers	2	5
Family & Friends	2	5
Birth plans	1	2.5
<b>Total</b>	<b>40</b>	<b>100</b>

Apart from the mentioned sources of maternal information, the respondents were also able to obtain maternal information from other sources which were readily available at Makululu Clinic. The following results were obtained as shown in table 3.

Findings in table 3 indicated that thirty six (36) of the respondents revealed that health talks were available, two (02) indicated brochures with only one (01) who indicated posters and another one (01) birth plans.

An additional question to find out which other sources of maternal information the respondents were aware of, findings revealed that all the respondents were aware of obtaining maternal information from aunties, spouses as well as television and radio. On further scrutiny, the results revealed that the respondents were only obtaining maternal information from their aunties and spouses. The respondents were further asked why they were not able to obtain maternal information from television and radio. Results revealed that it was so because the national broadcaster Zambia National Broadcasting Corporation (ZNBC) was not accessible as there was no transmission in Makululu Township.

**Table 3: Available Maternal Information at Makululu Clinic**

Available health Information	Frequency	Percentage
Health talks	36	87.5
Brochures	2	5
Posters	1	2.5
Birth plans	1	2.5
<b>Total</b>	<b>40</b>	<b>100</b>

A further analysis of the sources of maternal Information compared with educational qualifications was made to determine whether the level of education attained influenced the type of information sources used by women. The results are as indicated in table 4. The results reveal that although nineteen (19) respondents were obtaining maternal information from the clinic and ten (10), findings also revealed that twenty nine (29) had either Grade 7 or were below this grade, eight (08) respondents had reached Grade 9 with only three (03) who had reached Grade 12 and obtained maternal information from the clinic as well as birth plans.

**Table 4: Interpersonal and other Sources of Maternal Information vs Educational Qualifications**

Sources of maternal information	G7 n=29	G9 n=08	G12 n=03	Percentage
Clinic	19 (47.5%)	04 (10%)	02 (5%)	62.5
Grandmothers	10 (25%)			25
Family & Friends		02(5%)		5
Mothers		02 (5%)		5
Birth plans			01 (2.5%)	2.5
<b>Total</b>	<b>29</b>	<b>8</b>	<b>3</b>	<b>100</b>

#### 4.1.3 Accessibility of maternal information among women

The respondents were asked if they had access to available sources of maternal information at the Clinic when they were pregnant. Findings revealed that all the forty (40) respondents indicated they had access to available sources of maternal information when pregnant.

Furthermore, the respondents were asked how they accessed maternal information and the results are presented in table 5. The results revealed that, ten (10) respondents had access to maternal information through listening to talks and discussions about childbirth and motherhood from their grandmothers while eighteen (18) respondents obtained maternal information through health talks conducted at the clinic during antenatal clinic (ANC) on a monthly basis. It was revealed in their own words by the majority of the respondents in response to the question relating to the four (04) ways through which the women had access to maternal information.

*“I had access to maternal information through health talks conducted at the Clinic on a monthly basis.”*

Eight (08) of the respondents had access to maternal information through having talks with their mothers while only four (04) had access to maternal information from chats they had with their friends where various issues were discussed including those to do with childbirth and motherhood.

**Table 5: Access to Maternal Information**

<b>Mode of Access to Maternal Information</b>	<b>Frequency</b>	<b>Percentage</b>
Listening to their grandmothers	10	25
Health talks at the Clinic	18	45
Having talks with their mothers	8	20
Chats with friends	4	10
<b>Total</b>	<b>40</b>	<b>100</b>

A question was further asked to find out how often the women accessed maternal information and the results are indicated in table 6. Results revealed that thirty six (36) of the respondents had access to maternal information monthly when attending ANC while only four (04) used to access maternal information whenever the information was needed that is, they would inquire from their grandmothers, family and friends as well as elderly women known by their families any time they needed the information.

**Table 6: How often the Women had Access to Maternal Information**

<b>How often Women Accessed Maternal Information</b>	<b>Frequency</b>	<b>Percentage</b>
Monthly	36	90
Whenever Information was needed	4	10
<b>Total</b>	<b>40</b>	<b>100</b>

Another source of obtaining maternal information known by the respondents is television (TV) and radio where health programs are broadcast to benefit the clients. In order to establish the number of women who had access to TV and radio, the researcher asked if the women had television sets and radios at their homes. Findings from the study indicated that twenty two (22) respondents revealed they had TV's and radios in their homes, nine (09) had TV's only, seven (07) had radios and only two (02) did not have either a TV or a radio. Despite the fact that majority of the respondents had both TV and radio in their homes, findings from the study

indicated that the respondents were not able to access the national broadcasting station, Zambia National Broadcasting Corporation (ZNBC) in the area, as a result, they were unable to have access to maternal information through the media.

#### **4.1.4 Relevancy of maternal Information to the women in Makululu**

Maternal information is relevant to pregnant women as it enlightens on issues concerning childbirth and motherhood which is very beneficial. Findings indicated that most of the sources of maternal information used by the respondents were relevant. Furthermore, the respondents were asked how they determined the relevancy of maternal information. Findings from the study indicated that the relevancy of maternal information obtained was determined according to age group of respondents; therefore, relevancy depends on whether the information obtained reaches the intended target.

Furthermore, findings revealed that maternal information is more relevant to respondents in the age group below twenty (20) years as well as between twenty to twenty four (20-24) years because most of the respondents in the mentioned age groups have had no children before therefore, their information seeking behavior is more inclined to issues of childbirth and motherhood. The respondents in the age group thirty to thirty five (30-35) years and also thirty five (35) years and above usually found maternal information obtained from grandmothers, friends to be less relevant as they have had children before and would rather use experience instead. Findings from the study indicated that twenty four (24) respondents revealed that the interpersonal sources they were using to obtain maternal information were somehow adequate. However, the remaining sixteen (16) out of the forty (40) respondents indicated that even if the interpersonal sources they were using to obtain maternal information were somehow adequate, most of the respondents could not read information from print sources like birth plans and brochures due to their low education level.

The researcher inquired from the respondents if the information obtained from the mentioned information sources was relevant to them. Results revealed that indeed information obtained from the mentioned sources was relevant to the respondents. An additional question was asked to find out if health practitioners were helping the women attending antenatal clinic (ANC) have

access to maternal information which was relevant to them. Findings from the study revealed that majority thirty two (32) respondents indicated that health practitioners were helping them have access to health information that was relevant to them so as to prepare them for birth and motherhood, however, only eight (08) respondents revealed that they did not have access to different models of maternity care which included; private obstetric care and shared care. The researcher conducted further investigations to find out how the women were prepared for birth and motherhood and also asked if the mentioned interpersonal and other sources of information were useful in preparing them. Findings indicated that Results indicated that all the respondents revealed that the mentioned sources of information were useful and adequate in preparing women attending antenatal clinic (ANC) for birth and motherhood through health talks conducted by health practitioners and health workers where issues which include pregnancy and birth preparation are discussed.

Furthermore, Nurses at Makululu Clinic who responded to questions asked also stated that pregnant women are prepared for birth and motherhood through giving health education on the importance of ANC, postnatal care and Under 5 Clinic.

#### **4.1.5 Information seeking behavior of women in Makululu**

The information seeking behavior of the respondents was assessed taking into consideration three variables which included age, income levels as well as education levels and findings are presented in table 7.

**Table 7: Information-Seeking Behavior of Women Attending ANC**

<b>Characteristics</b>	<b>Frequency</b>	<b>Where information was sought from</b>	<b>Information seeking behavior pattern</b>
<b>Age group</b>			
Below 20years	23	Clinic and Interpersonal sources	Good
20-24	7	Clinic and Interpersonal sources	Good
25-29	6	Clinic and Interpersonal sources	Good
30-34	4	Clinic, Interpersonal sources and experience	Good
35 and above	2	Clinic, Interpersonal sources and experience	Good
<b>Income levels</b>			
Informal trading	22	Clinic and Interpersonal sources	Good
Nothing	18	Clinic and Interpersonal Sources	Good
<b>Education levels</b>			
Primary	29	Clinic and Interpersonal sources	Good
Secondary	11	Internet, brochures and birth plans.	Good

Findings showed that majority of the respondents which is twenty three (23) who were below twenty (20) years, seven (07) in age group twenty to twenty four (20-24), six (06) in age group twenty five to twenty nine (25-29) with four (04) of the women in the age group thirty to thirty four (30-34) and only two (02) who were thirty five years and above (35 and above) mainly sought for information from the clinic through health talks conducted during antenatal clinic (ANC) as well as from interpersonal sources, the women also consulted various people in a quest to obtain the needed information mainly through experience.

Furthermore, results from the study indicated that information seeking was highest in those women with the highest needs like first pregnancy. Twenty three (23) of the respondents who were below twenty (20), seven (07) in age group twenty to twenty four (20-24) and six (06) in the age group twenty five to twenty nine (25-29) had a greater need for information than six (06) who were in the age group, thirty to thirty five (30-35) and thirty five (35) and above. The six respondents' information seeking behavior was not in line with medical regulations because the women mostly relied on experience than information obtained from the clinic, however, their information seeking behavior was good.

The information seeking behavior of women relating to income level was also discussed. It was revealed that twenty two (22) of the respondents who were involved in some informal trading did not seek information easily compared to those who did not do anything at all because they were busy with their businesses and rarely found time to seek for needed information. Furthermore, eleven (11) respondents who had attained secondary education sought maternal information from other sources which included brochures and birth plans apart from interpersonal sources and the clinic.

The respondents also sought maternal information from the clinic by attending antenatal clinic (ANC) regularly; the majority thirty (30) started attending ANC when they were four (04) months pregnant until they delivered which was recommended and in accordance with medical regulations. Six (06) of the respondents started attending ANC when above four (04) months pregnant until delivery with only four (04) respondents starting to attend ANC when three (03) months pregnant until delivery. Therefore, the information seeking behavior patterns of the respondents was good for thirty of them and not so good for the remaining ten respondents.

While most women sought information regarding pregnancy complications, communication gaps between women and their health practitioners regarding the topic tended to be a recurring theme in the interviews with both the medical staff, and the expecting mothers expressed frustration at gaps in communication. The respondents were given advice on proper nutrition for normal vaginal delivery and a healthy child so as to minimize some pregnancy related complications.



A further investigation was carried out to find out how useful maternal information obtained from the mentioned sources was to the respondents in helping them understand issues relating to childbirth and pregnancy. Findings revealed that majority of the respondents indicated that maternal information obtained from the mentioned sources were indeed relevant in helping them understand issues of pregnancy and childbirth especially those obtained from the clinic and also from various mentioned interpersonal sources as they were considered to be reliable sources.

#### **4.1. 6 Challenges women face when accessing health information**

When accessing maternal information, there are a lot of challenges women face. The findings of the study showed that fifteen (15) respondents revealed that one barrier they faced when accessing maternal information was that they did not obtain any new information concerning childbirth and motherhood whenever they attended antenatal clinic (ANC), therefore, did not attend regularly.

It was further revealed from the findings that another challenge women face when accessing maternal information not having relevant search skills to look for needed information. Results indicated that fifteen (15) respondents did not have relevant search skills required to look for needed information due to low educational status attained by most of the respondents. Majority of the respondents said in their own words that,

*“I had challenges accessing maternal information because of the low level of education I have attained.”*

The study further indicated that five (05) respondents revealed they encountered problems when seeking information from other sources like the Clinic due to language barriers at times some nurses could not explain certain issues in the local language in order to help the women to understand better and also most information was in English like from TV, Radio, birth plans and books. Some of the respondents said that they encountered problems when seeking information from other sources like the Clinic due to language barriers.

*“I had problems to access maternal information at the Clinic because of language barriers, the nurses could not explain clearly in the local language some of the issues relating to pregnancy and childbirth.”*

Poor attitude of health staff to the pregnant women is also another barrier to accessing health information using the Clinic. Results from the study revealed that thirty (30) respondents indicated that some of the health workers had poor attitude to the pregnant women therefore making it quiet impossible for them to have access to maternal information. Another challenge the respondents faced when accessing maternal information was due to the poor attitude of health staff, in their own words, the respondents said that,

*“The poor attitude of health staff especially nurses when offering medical services is also another barrier I encountered when accessing maternal information.”*

However, most of the respondents could not specify the challenges they faced when accessing maternal information. Five nurses however were interviewed and gave the following responses: Long distance to delivery centre, inadequate human resource to attend to the women, illiteracy and ignorance among the women attending antenatal clinic (ANC) and lack of birth plans at Makululu Clinic to give to women attending ANC.

#### **4.2 Summary of findings**

The information seeking behavior of women attending antenatal was generally good. Three variables were taken into consideration; age group, income levels and education level. How women sought for information using the mentioned variables varied. Information seeking was highest among those women in the age groups below 20years, 20-24years and 25-29years, the women also had the highest needs like first pregnancy. Generally, the information seeking behavior of most of the respondents in the study was good since it was mostly in line with medical regulations.

The findings revealed that in general, women who had previously given birth in the past two years in Makululu mainly depended on maternal information obtained from health talks conducted at the clinic during antenatal and interpersonal sources which included their

grandmothers, mothers and friends. The respondents considered these sources of information to be more reliable. It could also be attributed to the fact that most of the respondents had only attained primary education therefore; they could only obtain maternal information using oral or informal sources. Only those respondents who had attained secondary level of education were able to seek for information from other sources apart from oral or informal sources of information.

Maternal information obtained was indeed useful and relevant and was able to meet the information needs of the respondents with the majority of the respondents having easy access to the needed information. However, the respondents faced some challenges when accessing health information which included; financial barriers, lack of search skills to look for needed information as most of the respondents had only attained primary education. Language barrier was another challenge where nurses could not explain certain issues concerning motherhood in the local language. Poor attitude of health staff to the pregnant women was also another barrier the respondents faced to accessing maternal information using the clinic. As a result, the women were not able to inquire about issues that could be relevant to them.

## CHAPTER 5

### DISCUSSION OF RESEARCH FINDINGS

#### 5.0 Overview

This chapter discusses the findings of the study entitled; Information Seeking Behavior of Women Attending Antenatal Clinic: A Case study of Women in Makululu- Kabwe. The discussion seeks to address the following questions:

- i) What are the information needs of women attending ANC?
- ii) What are the mostly used sources of health and maternity information by women in Kabwe?
- iii) How accessible is health and maternity information to Women in Kabwe?
- iv) How relevant is health and maternity information to Women in Kabwe?
- v) What is the information seeking behavior of women in Makululu-Kabwe?
- vi) What are the challenges women in Kabwe face in order to access information relating to health and maternity?

In order to answer the above questions, data was collected from respondents through semi-structured interviews and a total of 40 women participated in the study, all of them were interviewed. Generally, it has been established that the main interpersonal source of information the women under study use are health talks conducted at the clinic and health workers in particular play a critical role in providing health information needed by the women.

#### 5.1 Discussion

#### 5.2 Information Needs of Women attending Antenatal Clinic

Findings revealed that all the respondents indicated that motherhood, pregnancy complications, nutrition, child birth triggered their information needs. In order to satisfy the need, the individual will have demands for new information. Therefore, information needs vary across different individuals at different points in time (Hsieh and Brennan, 2005). However, age and health status may influence individuals' information needs.

However, majority of the respondents which is thirty eight (38) stated that information that was obtained from the limited sources was indeed adequate to meet the information needs of the pregnant women in Makululu. Further, the respondents revealed that indeed the available health information was adequate to meet the information needs of pregnant women mainly health talks which were conducted during every antenatal visit at the clinic. These findings are similar to findings in the sense making theory by Dervin (1992) where she argued that individuals experience information needs when confronted with gaps in their existing knowledge. Findings in the study have implications on information seeking behavior of women. Bearing in mind that majority of the respondents used health talks as well as interpersonal sources to obtain information; this may suggest that information seeking of most of the respondents was limited and the respondents were not able to obtain maternal information from other sources apart from oral due to the low level of education most of the respondents had attained as shown in table 3 where most of the respondents had only attained primary education. Those respondents who had reached grade 12 were able to seek information from other sources apart from the oral talks conducted at the clinic; this therefore implies that there is indeed a relationship between information seeking and level of education a woman has attained.

However, a study done by Nwangwu and Ajama (2011) in a Northern Nigerian rural community presented a picture about the information needs of rural women. The study showed that health information constituted 20 percent of the information needs of rural women, and the paramount health information required were ante-natal and post-natal care; immunizations especially on the six childhood killer diseases; how to prevent and manage Vascular Virginal Fistula; and how to secure safe child delivery. The rural women in this study also reported that they needed information on how to prevent and control epidemics especially cholera and meningitis which were rampant in the area. The study further revealed that the women used five main sources of information: government and its agents, elite groups, relatives and friends, market women, and non-governmental organizations (NGOs), with an indication that the major sources are informal.

In order to inquire if the information needs of the respondents were met, the respondents were asked if the available health information sources were adequate to meet their information needs.

The study indicated that all the respondents revealed that indeed the available health information was adequate to meet the information needs of pregnant women mainly health talks which were conducted during every antenatal visit at the clinic. However, those women who had attained a high level of education sought for information from other sources apart from oral communication, the sources included brochures, birth plans, posters and the internet as compared with those women who had attained a low level of education whose source was mainly through oral communication, that is interpersonal sources and health talks at the clinic.

### **5.3 Sources of Maternal Information among Women in Makululu**

The study established that the women under study mostly used health talks conducted at the clinic every time they attended antenatal clinic (ANC) on a monthly basis. Furthermore, the respondents obtained maternal information using interpersonal sources of information which included; grandmothers, mothers as well as friends. Despite the fact that interpersonal skills are vital when relating with others, personal information was however used first when the respondents were seeking maternal information. Research indicates that information is obtained from different sources depending on the information need (O’Keefe et al, 1998). However, it was observed from the study that the level of education a woman had attained was a major determinant of the information format she could use as well as the source. It was further observed that women mainly depended on informal sources of information, mostly interpersonal and oral sources.

In addition, findings of the study indicate in table 3 that almost all of the women which is thirty nine (39) who had attained either primary or secondary level of education used interpersonal sources of obtaining maternal information which included; grandmothers, mothers and friends as well as the clinic as a major source of information while only one (01) who had reached Grade 12 used birth plans as another source of obtaining maternal information. Maternal information was obtained in oral form where the respondents grandmothers would conduct talks with them and the talks were done in accordance with the stage a respondent had reached in life, for example, during puberty, when preparing for marriage, just after getting married and during pregnancy; during the first pregnancy, there was a lot of emphasis mainly concerning the baby’s general condition and the mothers wellbeing. Obtaining health and maternal information by

women through health institutions could be due to the fact that the women under study had low educational status as is indicated in table 1. Therefore, the most common source of maternal information among women attending ANC at Makululu Clinic were health talks as well as through interpersonal sources.

These results are different from earlier research findings by (O’Keefe et al, 1998) which revealed that media sources especially television plays a significant role in providing health information. It was observed from the study that those respondents who had reached Grade 12 seemed to take a higher responsibility for making their own decisions regarding health care, while the others relied mainly on grandmothers and health care providers to obtain maternal information.

Findings from a research done by Saleh (2011) also differ from the study and state that, there are basically five sources through which the rural women satisfy their information needs. These are: Government and its agents, Elite groups, Relatives and friends, Market women, and Non-Governmental Organizations (NGOs). It can be seen from the above that with the exception of Government and its agents, all the other sources are informal. This is an indication that either formal sources are lacking or the rural women prefer informal sources. Despite the fact that women seek and use information from several sources, many are dependent on general practitioners and informal sources for maternity information, although media sources are often the most important ones and television especially plays a significant role in providing health information (O’Keefe et al 1998). Women also seek maternity information from friends and neighbors. Sources of health information as a whole are viewed as having a number of advantages. Informal sources in particular are perceived as being approachable and providing a means through which further information could be sought, while each information source is evaluated according to specific criteria.

Findings from the study also indicated that few of the respondents were obtaining maternal information from other sources which included birth plans outlining the requirements of the mother to be before child birth. Although all the women under study were prepared for birth and motherhood and were obtaining health information that was useful in the preparation. Results indicated that all the respondents revealed they were prepared for birth and motherhood and were obtaining information relevant to them when they were pregnant through health talks that were

conducted at the clinic. This indicates that the majority of the respondents were prepared for birth and motherhood through health talks conducted by health practitioners and health workers during ANC. This can be supported by the fact that all the respondents used to attend ANC when they were pregnant which is very important for every pregnant woman. These results are similar to findings by Lincetto et al (2009) where ANC which is a maternity service provides women and their families with appropriate information and advice for a healthy pregnancy, safe childbirth, and postnatal recovery, including care of the newborn, promotion of early, exclusive breastfeeding, and assistance with deciding on future pregnancies in order to improve pregnancy outcomes. Furthermore, Nurses at Makululu clinic who were also interviewed stated that pregnant women were prepared for birth and motherhood through health education.

The above findings suggest that the main sources of maternal information used by the women under study were interpersonal sources which included their grandmothers, mothers, family and friends. Another main source of maternal information was the clinic where health talks were conducted monthly. Apart from the mentioned sources, the respondents also obtained maternal information from brochures, posters and birth plans. In general therefore, it can be argued that the information sources used by the respondents were adequate to enable them obtain needed information so as to effectively use it to know issues of motherhood and childbirth.

However, women under study used personal information sources first when seeking information before using interpersonal sources which required use of interpersonal skills, the skills are vital when interacting and relating with others. Concerns for first mothers are mainly around the baby's general condition and the mother's feelings and the information needs of the respondents related to health information for women and their families. Those respondents with a high level of education that is, grade 9 and above who were health literate seemed to have more sources of information where to obtain maternal information from, while less educated women, those who had reached grade 7 or below relied mainly on interpersonal sources (grandmothers , mothers and friends) as well as health care providers. Obtaining maternal information from various sources enabled the respondents acquire information that was relevant to their needs. People seek to fulfill their complex needs through use of various information sources. The berry picking theory can be applied to this study, it uses a range of search techniques to enable users search for



information. The respondents in this study used various sources of maternal information though they first obtained information from the main sources which were interpersonal sources and health talks conducted at the clinic. Few respondents also obtained maternal information from brochures, birth plans and posters.

#### **5. 4 Accessibility of Health Information**

Information is of great use to the users if it is relevant and easily accessible. Relevancy and easy accessibility of information sources usually determines the quality of materials and services of an information centre. One way through which the women under study were able to have access to maternal information is through talks given by their grandmothers where issues of childbirth and motherhood are discussed. Discussions are done according to the information need and at different stages in the life cycle of the respondents; when a girl reaches puberty is one such stage, also when preparing her for marriage as well as when a young woman becomes pregnant. At the Clinic, the respondents were able to have access to treatment for key diseases positively associated with direct and indirect maternal mortality. The latter diseases include malaria, tuberculosis and HIV/AIDS.

Results from the study as indicated in table 3 showed the information sources that were readily available at Makululu clinic as stated by the respondents. Majority of the respondents were accessing the needed information from the clinic through health talks as well as interpersonal sources which included their grandmothers, mothers and friends. The study further revealed that all the respondents were accessing maternal information using available sources of information at the clinic when they were pregnant. Additionally, majority of the respondents were accessing health information every time they attended antenatal clinic (ANC) with very few accessing the information whenever it was needed. Easy accessibility and availability of health information could be due to efforts by health practitioners in conducting health talks to the women very time they attended ANC and also availing the available information.

Information is required by women attending antenatal care in order for them to know how to care for themselves and the unborn baby. People are living in an information era; therefore, information has become the most important element of progress in society. Kirkham (1993)

observes that, women's satisfaction with maternity services in secondary care has been shown to be primarily dependent on the quality of their communication with health professionals. Advice and support to the woman and her family for developing healthy home behaviours and a birth and emergency preparedness plan to:

- i) Increase awareness to maternal and new born health needs, self care during pregnancy and the postnatal period, including the need for social support during and after pregnancy.
- ii) Promote healthy behaviors in the home; including healthy life styles and diet, safety and injury prevention, and support and care in the home such as advice and adherence support for preventive interventions like iron supplementation and condom use among other things.
- iii) Support care seeking behavior, including recognition of danger signs for the woman and the new born as well as transport and funding plans in case of emergencies.

However, earlier findings by Jiyane (2002) observes that, a number of factors create problems when accessing information by any community, most information accessed is from the media such as radio, television, books, magazines, posters and so on. Illiteracy, poverty, unemployment and poor infrastructure, hinder rural community to access information. Therefore, Information seeking for women in townships like Makululu entirely depends on the availability of information and information sources which can help the women have easy access to information. Use of more than one source of information by the respondents under study will enable the information seeker learn and obtain more information. Just like in the Berry Picking theory where information is collected in bits and pieces, users in this study searched for information from various sources in different formats so as to obtain information that is relevant to the users information needs thereby obtaining information that is sufficient.

It was further indicated in the findings that health practitioners were helping the respondents have access to health information that was relevant to them so as to prepare them for birth and motherhood. It was also revealed in the findings that the respondents were prepared for birth and motherhood through health talks conducted during antenatal clinic (ANC). However, these findings are different from a study done by Abu Bakar and Alhadri (2009) which states that,

housewives in the village under study which was the rural community of Malaysia took the issue on health information seriously. When seeking information on health the housewives used popular magazines as the main source, followed by consultations with family and friends and also the mass media. When seeking information on health through the Internet most of the housewives used the relevant websites or homepages to get the needed information. In addition they also used the online periodicals as well for electronic health information.

The above findings reveal that women under study were able to have access to health information mainly through maternity services done at the clinic mainly ANC where health talks are conducted to the women on a monthly basis. This would suggest that the clinic is considered to be a vital source of information and the respondents were able to have easy access to health information obtained from the clinic which was mainly in form of health talks and the information was obtained every month when the women attended ANC as required of them. Health talks were conducted in Bemba considering the literacy levels of the respondents as shown in table 3 where majority of the respondents had only attained primary education.

Maternity services provide a unique opportunity to explore the priorities, beliefs and perceptions of a group of health-care consumers who are able to have an active role in their care. There is recognition that technology has an important contribution but, also, childbirth is a normal, though significant event. Thus, it is argued that care should be provided based on the individual needs of the mother, who should be at the centre of care decisions, and involved actively in her care. Other available sources of information were TV and Radio; however, despite the fact that most respondents had TV and Radio at their homes, they were not able to access health information as there was no signal for ZNBC the national broadcaster. Women's access to health information allows them to maintain their health and know more about childbirth and motherhood.

## 5.5 Relevancy of Maternal Information

It is vital to provide information that is relevant to the users. According to Lundu (1998), Information is key to wise management of our future; the right information reliable and relevant to our needs, available in a useful form to those who need it.

For pregnant women, antenatal clinic is widely established and provides an opportunity to inform and educate pregnant women about pregnancy, childbirth and care of the newborn; it therefore provides relevant health information to the women in Makululu as well. Women describe how they evaluate the accuracy and relevancy of information from health professionals according to judgments about the experience and training of the individuals who supplied it. Information will be evaluated on the basis of the perceived expertise of the health professional that provides it and according to the user's needs during the postnatal period.

Relevancy of maternal information to the user is vital as it is likely to address the information needs of the user. There is much consumer information available for many different aspects of health and antenatal. This information includes that developed by health professionals, advertising disguised as education, and also resources developed by support groups and individuals. Through use of such information, it is one way through which a user is likely to assess the relevancy to their information needs. It was revealed by one of the respondents in her own words in response to the question if the sources of information used in preparing the women for birth and motherhood were useful in the preparation.

*"I was prepared for birth and motherhood by the health practitioners and health workers who were conducting health talks where issues of pregnancy and childbirth were discussed."*

Another respondent had this to say:

*"Every time I used to attend ANC, the nurses would teach or educate me how to take care of the baby and myself"*

In addition, majority of the respondents asserted to the fact that the available health information at Makululu clinic which include; health talks, brochures, posters and birth plans were relevant in

availing health and maternal information that was needed by the women as indicated in table 3 of the study. Nwagwu and Ajama (2011) also agree with findings from the study and state that, to make informed choices and navigate within a complex health care system, people must have easily available, accurate and timely information which they must be able to use. Readily availability of health information is imperative for the development of informed and effective systems for improving health in societies. Information is needed in order to participate in shared decision making.

However, The Zambia Health report (2011) states that, the most readily available media and communication technologies for young women are radio and mobile phone. But young women have lower levels of access to traditional media platforms like radio and TV than young males. The gender gap in home ownership of mobile phones is not significant. Internet access is nearly equally low for young men and women. Munsanje (2009) states that, information is an important resource, and if well utilized can contribute to the improvement of most professions and indeed the lives of many people. The increase in the amount of information available as well as the different formats in which it comes poses a lot of challenges in the way different people look for this information.

In the berry picking theory, users may identify useful information and a reference since the theory is a user-centered approach. The respondents in the study identified television and radio as sources of information which provide useful information and would also enable the user assess the relevancy of information obtained from the mentioned sources. In this study, assessing relevancy of information to the users was dependent on whether the information needs of the users were met or not. Respondents in the study indicated they were able to assess the relevancy of available information sources at Makululu clinic by attending antenatal every month where health talks conducted contained information tailored to meet the needs of the users who were the respondents. These findings indicate that the women under study used to obtain health information from the clinic during ANC through health talks that were conducted. Health information obtained was indeed useful and relevant to the respondents in the sense that the information was able to meet the information needs of the respondents.

## **5.6 Information –Seeking Behavior of Women in Makululu**

According to Wilson (2000), information seeking behavior is the purposive seeking for information as a consequence of a need to satisfy a goal. Generally, information seeking behavior can be defined as what people do when looking for information to answer their need. There is need to identify information needs of the women before availing sources to them so as to have an idea which information sources would be useful to the respondents. Findings from the study indicated that all the respondents stated that health practitioners did identify the information needs of the women by conducting health talks and also inquiring from the women what information they would need to know concerning pregnancy and child birth. The respondents further revealed that the pregnant women benefited through the health talks which were conducted in Bemba since the health practitioners took into consideration their low educational status as evidenced from findings in table 1 of the study where the majority which is twenty nine (29) had only reached primary level of education.

Findings from this study revealed that women attending ANC seek information differently; different sources of information are consulted in a quest to obtain needed information. Women in this study consulted various sources to seek needed information. Mainly those respondents who had attained grade 12 were able to seek for information from other sources apart from health talks, these included brochures and birth plans as indicated in table 3, therefore, the information seeking behavior of women was dependent on the level of education a woman had attained. Those women who had attained a high level of education sought for information from other sources apart from oral communication as compared with those women who had attained a low level of education whose source was mainly through oral communication, which are interpersonal sources and health talks conducted at the clinic. In order to serve the needs of the women, there is need to have an understanding of their information seeking behavior and also inquire if the women are able to find information obtained from various sources relevant. The respondents further indicated that they were highly concerned about delivering babies without any birth defects or complications, and information regarding complications and the level of delivery pain was highly sought after. Women generally sought information about the level of

pain involved during the birth process from their mothers, friends, or women who have ever been pregnant in the community.

It was observed from the findings that women's information seeking behavior patterns were generally good and conforming to medical regulations. Most of the women under study attended antenatal clinic (ANC) more than the four recommended visits by World Health Organisation (WHO, 2003). The women also sought assistance from trained medical personnel as well as interpersonal sources which included their grandmothers, mothers and friends. Women attending ANC behave in different ways when seeking information; various sources of information are consulted in a quest to obtain the needed information. Findings from the study also indicated that the information seeking behavior of the majority of the women attending antenatal clinic (ANC) was assessed considering their age group, income levels and education levels; it was revealed that majority of the women with first pregnancy and were below 20years, between 20-24years and also between 25-29years had the highest information needs and sought information from the clinic and interpersonal sources, therefore, their information seeking behavior was good.

Another variable that was taken into consideration when trying to find out the information seeking behavior of the women attending antenatal clinic (ANC) in Makululu was income level. Findings revealed that the few women who were not involved in any trade were able to seek maternal information easily than more than half of the respondents who were involved in informal trading because they had time to look for the information needed while those involved in informal trading were preoccupied with their businesses trying to raise money to help their husbands meet the needs at their homes.

While most women sought information regarding pregnancy complications, communication gaps between women and their doctors regarding the topic tended to be a recurring theme in the interviews with both the medical staff, and the expecting mothers expressed frustration at gaps in communication. The respondents were given advice on proper nutrition for normal vaginal delivery and a healthy child so as to minimize some pregnancy related complications. Differences of online communication have an impact on questions and queries in information seeking and retrieval. The rich verbal abilities of women support the use of a wider vocabulary and multiple syntactic relationships. In practice of information seeking systems women's ways of

knowing have been devalued, e.g., contextual, connected, intuitive knowing. Julien et al (2005) outlines that, deeper understanding of women's way of knowing has great potential for information behavior research and '*highlights the value of gender as potentially significant variable*'. There is therefore need to identify information needs of the women and disseminate information that is relevant to the needs of women.

Women represent the majority of health information seekers as noted by several of the internet health information-seeking studies and also were seeking information on behalf of others, this raises the question about how proxy or mediated information seeking should be viewed. Many are dependent on general practitioners and health visitors for maternal information, Women favor community health forums addressed by health professionals and also seek maternal information from friends and spouses. Information sources as a whole are viewed as having a number of advantages. Informal sources in particular are perceived as being approachable and providing a means through which further information could be sought. Generally, disadvantaged women use interpersonal sources for seeking information, and the most commonly sought information is regarding health issues. The findings in the study are similar to findings in a study conducted by Davies and Bath (2002) which aimed at identifying the main maternity information sources used by Somali women living in a northern city in the United Kingdom (UK) and revealed that, women sought and used information from several interpersonal sources which included their mothers, grandmothers and friends. Informal sources were perceived as being approachable and providing a means through which further information could be sought, while each information source was also evaluated according to specific criteria.

The Berry Picking theory however states that, for users who have less contextual knowledge, browsing will probably be a better method users can employ to obtain information than searching because it shows existing and related information in the repository. However, the information might not be relevant for their information needs, especially if the pieces of information are returned based on categories which are not of their interests. Berry Picking theory could be applicable to the women under study because the women were mainly using available maternal information obtained from available sources of information, therefore, meeting the information needs of pregnant women through provision of quality services by health practitioners during



every antenatal visit conducted monthly; the health practitioners used to monitor the growth of the baby in the womb and also the mothers condition.

### **5. 7 Challenges Women face when Accessing Maternal Information**

When accessing health and maternal information, there are a lot of challenges women attending antenatal clinic face. The study showed that it was revealed by fifteen (15) respondents that one barrier they faced when accessing maternal information was that they did not obtain any new information concerning childbirth and motherhood whenever they attended antenatal clinic (ANC) and also because they did have any complications during their previous pregnancies, therefore, there was no need to attend ANC regularly.

It was further revealed from the findings that another challenge women face when accessing maternal information not having relevant search skills to look for needed information. Results indicated that fifteen (15) respondents did not have relevant search skills required to look for needed information due to low educational status attained by most of the respondents. Low levels of literacy can be a major obstacle preventing women from identifying health problems and had a negative impact on search skills for the women under study, they were not able to read and articulate health and maternal information. Due to being dependent on oral transmission, most illiterate women are embarrassed to acquire needed information and could be stigmatized by their fellow women or by medical staff. Organizational factors was also a challenge women faced when accessing maternal information and this may include deficiencies in the organization of the service, that is, Antenatal care. Issues such as waiting times, staffing levels and resource limits receive a great deal of publicity in the mass media; addressing issues raised by relevant authorities could greatly help strengthen ANC. Equity in the distribution of human resources is a key concern in Zambia. Only 50% of planned posts are covered, and poorest areas suffer the most. Yet, since 2005, the Ministry of Health (MOH) and its partners have launched a comprehensive set of measures (retention schemes, incentive schemes, bonding system, investment on training institutions).

The study further indicated that five (05) respondents revealed they encountered problems when seeking information from other sources like the Clinic due to language barriers at times some

nurses could not explain certain issues in the local language in order to help the women to understand better and also most information was in English like from TV, Radio, birth plans and books. However, a study carried out by Gazali, Muktar and Gana (2012) identified low self-esteem and socio-demographic factors among the problems facing women when seeking information. There are various challenges women face in order to access health and maternity information, the social and economic status of the country is a contributing factor where poverty levels have increased in the last years, also, physical access, cost and the lack of ability to use information, that is, illiteracy. This has made it impossible for the illiterate women especially to have easy access to information relating to women's health and maternity issues.

Poor attitude of health staff to the pregnant women is also another barrier to accessing health information using the Clinic. Results from the study revealed that thirty (30) respondents indicated that some of the health workers had poor attitude to the pregnant women therefore making it quiet impossible for them to have access to maternal information. Banda (2010) further reveals that, attitude of staff may influence knowledge of pregnant women. Members of staff may not be willing to explain danger signs in pregnancy in simple terms and clients may not assimilate the Information education and Communication (IEC) given to them.

However, attitudes and behavior of health care providers can change upon an understanding of the information seeking behavior of the users. This will help design systems to serve the users' needs. Also, access to adequate emergency obstetric care (EmOC) can help reduce maternal mortality rates in Zambia. Since it is not easy communicating new ideas to poor, illiterate and secluded women, therefore, activities promoting communication about population issues should be undertaken so as to enable the women have easy access to health and maternity information whenever it is needed. Use of Medical terminology when conducting health talks to women attending antenatal and lack of communication skills is also a challenge women face when accessing health and maternity information. There is also an arrogant attitude among health practitioners as well as not according enough time to the women who need health and maternity advice. The women are also not given the health information that is relevant or the information is given orally and is thus easily forgotten. However, the women do not always obtain answers from health professionals. The physicians might think "the patients" do not even want to know

information concerning their health and maternal issues. The findings of this study differ from findings of a study done by Zambia Demographic Health Survey (2015) where it was revealed that many factors can prevent women from obtaining medical advice or treatment for themselves when they are sick. Information on such factors is particularly important in understanding and addressing the barriers women may face in seeking care during pregnancy and at the time of delivery. Women were interviewed and some of the factors which were cited as barriers to accessing maternal information included; having problems in seeking medical care: getting permission to go for treatment, getting money for treatment, distance to a health facility, having to take transport, not wanting to go alone, concern that there may not be a female health provider, concern that there may not be any health provider, concern that there may not be drugs available for treatment, and concern about rude attitudes among health providers. The majority of women (68 percent) reported that at least one of these problems would pose a barrier in seeking health care for themselves when they were sick.

However, most of the respondents who were interviewed in the study during the semi-structured interview could not specify the challenges they face when accessing health information. Some nurses however were given questionnaires and gave the following responses: inadequate human resource to attend to the women, illiteracy and ignorance among the women attending antenatal, having inadequate birth plans to give to women attending ANC.

## **5. 7 Summary of Discussion**

The Information seeking behavior of women living in Makululu in Kabwe was generally good assessed using three variables namely; age group, income levels and education levels. Furthermore, it also depended on availability and easy accessibility of information and sources carrying information which were relevant to the respondents' information needs. Therefore, illiteracy, poverty, unemployment and poor infrastructure hinder illiterate women to access information. Fulfilling information needs of users can help improve their well being. People seek to fulfill their complex needs through use of various information sources.

In general, women under study obtained maternal information using interpersonal as well as the clinic which enabled the women have access to information that was relevant to their information

needs. Grandmothers and other family members need to educate the young women on issues to do with womanhood on a regular basis and also, there is need for health practitioners to educate women on the importance of obtaining maternal information from various sources and not being restricted. Information Communication Technology (ICT) is one of the efficient sources of information in this technological era, there is therefore need to embrace technology and obtain relevant information especially through use of television sets and radios, internet and the mobile phone.

Women are the primary seekers of health information but they rarely look for information and mainly rely on informal sources which include the clinic, friends and family. However, there is need for them to explore other sources as well as formats of information. Women under study were able to have access to maternal information mainly through maternity services and interpersonal sources. The major form of obtaining maternal information was interpersonal sources as well as antenatal care conducted by health practitioners through health talks given to the women every month. Information obtained must be relevant to those who need it and there is need to provide it in various formats in order for it to reach its intended user. Health practitioners therefore should take keen interest concerning how women attending ante natal care (ANC) at their clinic obtain health information that is relevant to them.

In conclusion, various authors state that use of various sources of information by women would help them acquire and obtain information that is relevant to their needs. There is need for women to seek information using the available formats as well as other sources they are aware of so as to explore the different ways of obtaining information. Information is relevant to the user if it is accurate and easily accessible, health practitioners therefore need to educate the women on the importance of information in society and encourage attending antenatal clinic (ANC) is also an opportunity to promote the use of skilled attendance at birth, appropriate information and advice for a healthy pregnancy, safe childbirth, information-seeking behaviors', and linking women with pregnancy complications.

## CHAPTER 6

### CONCLUSION AND RECOMMENDATIONS

#### 6.1 Overview

This chapter gives an outline of the conclusion and recommendations of the study entitled; Information Seeking Behavior of Women Attending Antenatal Clinic: A Case study of Women in Makululu- Kabwe.

#### 6.2 Summary of Findings

The study revealed that, the information needs of women attending antenatal clinic were triggered by motherhood, pregnancy complications, nutrition, child birth. The women under study who have previously given birth in the past two years in Makululu mainly relied on maternal information obtained from the clinic through health talks conducted every month and also Interpersonal sources such as their grandmothers, mothers and friends. Maternal information was mainly obtained from the clinic through health talks conducted every month during ANC and through interpersonal sources, majority of the respondents had easy access to needed maternal information.

Furthermore, maternal information obtained was indeed useful and relevant and was able to meet the information needs of the respondents. The information seeking behavior of the women under study was generally good and was assessed using three variables namely; age group, income levels and education levels. It also depended on availability and easy accessibility of information. However, the respondents faced some challenges when accessing health information which included; language barrier where nurses could not explain certain issues concerning motherhood in the local language and also the respondents did not have adequate search skills to enable them look for needed information

## 6.2 Conclusion

Maternal information plays a vital role in helping women understand issues concerning childbirth and motherhood. The main objective of the study was to identify the information needs of women attending antenatal clinic and also to establish their information seeking behavior. Other objectives of the study included: To identify the information needs of the women attending antenatal clinic, to identify the information sources used by women in order to obtain maternal information, to find out the accessibility of maternal information among women, to inquire the relevancy of maternal information among women, to examine the information-seeking behavior of women in Makululu, Kabwe and to ascertain challenges women face in order to access health and maternity information. The following research questions were asked by the researcher so as to help obtain the needed information: What are the information needs of the women attending antenatal clinic in Makululu- Kabwe? What are the mostly used sources of maternal information by women in Kabwe? How accessible is maternal information to Women in Kabwe? How relevant is maternal information to Women in Kabwe? What factors affect women when accessing maternal information?

There is need for women to seek information using the available formats so as to explore the different ways of obtaining information. Information is relevant to the user if it is accurate and easily accessible, health practitioners therefore need to educate the women on the importance of information in society. The study revealed that use of various sources of information to obtain maternal information enabled the women to have access to information that was relevant to their needs which in this case in antenatal, the women mainly relied on informal sources as well as the clinic to obtain the needed maternal information. Furthermore, the respondents were able to have access to maternal information mainly through interpersonal sources and maternity services at the clinic. The major form of obtaining maternal information is through interpersonal sources as well as antenatal clinic which are mainly conducted by health practitioners through health talks given to the women every month.

The information seeking behavior of women living in Makululu-Kabwe was good and assessed using three variables namely; age group, income levels and education levels. Furthermore, it also depended on availability and easy accessibility of information. People seek to fulfill their complex needs through use of various information sources, for example, the information needs

of women under study was pertaining to antenatal, fulfilling information needs of users can help improve their well being. How women sought for information using the mentioned variables varied. Information seeking was highest among those women in the age groups below 20years, 20-24years and 25-29years, the women also had the highest needs like first pregnancy. Generally, the information seeking behavior of most of the respondents in the study was good since it was mostly in line with medical regulations.

In general, women who had previously given birth in the past two years in Makululu mainly depended on maternal information obtained from health talks conducted at the clinic during antenatal clinic and interpersonal sources which included their grandmothers, mothers and friends. The respondents considered these sources of information to be more reliable. It could also be attributed to the fact that most of the respondents had only attained primary education therefore; they could only obtain maternal information using oral or informal sources. Only those respondents who had attained secondary level of education were able to seek for information from other sources apart from oral or informal sources of information.

Maternal information obtained was indeed useful and relevant and was able to meet the information needs of the respondents with the majority of the respondents having easy access to the needed information. However, the respondents faced some challenges when accessing health information which included; financial barriers since majority of the respondents were involved in informal trading and it did not bring in much income to enable them acquire some of the prescribed medicines at the Clinic., lack of search skills to look for needed information as most of the respondents had only attained primary education. Language barrier was another challenge where nurses could not explain certain issues concerning motherhood in the local language. Poor attitude of health staff to the pregnant women was also another barrier the respondents faced to accessing maternal information using the clinic. As a result, the women were not able to inquire about issues that could be relevant to them.

### **6.3 Recommendations**

The findings of this study are important because these findings will help planners and other relevant authorities to address various issues that affect pregnant women in Zambia.

The study brought issues that needed to be addressed by health practitioners and relevant authorities. These recommendations are as follows:

1. Sources of maternal information were not adequate to cater for the needs of the pregnant women, therefore, there was need to avail more sources like posters in vernacular.
2. Health practitioners should emphasize the importance of attending antenatal clinic on a monthly basis as soon as a woman knows she is pregnant should be emphasized by health practitioners as this will expose them to a lot of information that will in turn help them with issues pertaining to pregnancy and also avoid complications.
3. Health practitioners should ensure easy accessibility of information for example, oral transmission and group the women in smaller groups and also allocate enough time when conducting health talks.
4. Health practitioners must encourage the young women to use information sources that are readily available which mostly include; friends and family members, medical doctors, and radio.
5. Health practitioners should include peer education and involvement of family members particularly educating the mothers of young women which is important for better engagement in reproductive health and family planning programs and will assist in interjecting correct information into trusted word of mouth networks.



## REFERENCES

- Aaronson, L.S, Mural, C.M and Ptoutz,S.K (1988). Seeking Information: where do pregnant women go? *Health Education Quarterly*. 15(3). London. Available at ([deepblue.lib.umich.edu/handle/2027.42/67615](http://deepblue.lib.umich.edu/handle/2027.42/67615) ). Accessed on 10/06/15
- Akakandelwa, A. (2000). An Assessment of User Education in Academic Libraries: The Case of The University of Zambia ( Dissertation). Botswana. University of Botswana.
- American Society for Clinical Nutrition (2002). Nutrition and Maternal Mortality in the Developing World. *The American Journal of Clinical Nutrition*. 72(1), 2125. Available at ([ojcn.nutrition.org/content/72/1/2125.full](http://ojcn.nutrition.org/content/72/1/2125.full) ). Accessed on 20/05/15
- Ankem, K. (2007). “Information-Seeking Behavior of Women in their path to an Innovative Alternative Treatment for Symptomatic Uterine Fibroids”. *Journal of the Medical Library Association*. 95(2),164-172. Available at ([www.informationr.net/ir/15-4/paper444.html](http://www.informationr.net/ir/15-4/paper444.html) )
- Banda, J.N. (2010). Knowledge and Attitude of Antenatal Mothers Towards Danger Signs in Pregnancy in Lusaka Urban (Dissertation). Lusaka. The University of Zambia.
- Baxter,P. Jack, S. (2008). Qualitative Case study Methodology. *The qualitative report*. 13(4),544-559.West Hamilton. McMaster University.
- Blas, E.and Limbambala, M.(2001). The Challenge of Hospitals in Health Sector Reform: The case of Zambia. Geneva. UNDP/World Bank, Who Special; Programme for Research and Training in Tropical Diseases(TDR),WHO.Available at ([www.ncbi.nlm.gov/](http://www.ncbi.nlm.gov/)). Accessed on 16/12/14
- Branch, J. L.(2003). Instructional Intervention is the key: Supporting Adolescent Information seeking. *School Libraries Worldwide*.9(2),47. Available at (<https://www.questia.com/libraury/journal/Ip3-b420> ).Accessed on 16/12/14
- Brettell, C.B. and Sargent, C.F. (2001). *Gender in Cross- Cultural Perspective*; New Jersey. Prentice Hall inc.

Bryman, A. (2008). *Social Research Methods*. Oxford. Oxford University Press.

Byron, S.M. (1999). *Information Seeking in a Virtual Learning Environment*; unpublished doctoral dissertation. Texas. University of North Texas.

Bystrom, K. and Hansen, P. (2005). Conceptual Framework for tasks in Information Studies. *Journal of the American Society for Information Science and Technology*, 56(10), 13. Available at ([onlinelibrary.wiley.com/doi/10.1002/asi.20197/cit...](http://onlinelibrary.wiley.com/doi/10.1002/asi.20197/cit...) ). Accessed on 10/11/14

Bystrom, K. and Jarvelin, K. (1995). Task Complexity affects Information Seeking and Use, Information Processing and Management, 31(2),15. Available at ([www.sis.uta.fi/infim/julkasiut/fire/kb20.pdf](http://www.sis.uta.fi/infim/julkasiut/fire/kb20.pdf) ). Accessed on 10/11/14

Cartwright, A. (1979). *The Dignity of Labour: A Study of Childbirth and Induction*. London. Tavistock.

Casasnovas, G.L, Rivera, B. and Currias, L. (2008). *The Role of Health on Economic Growth: An Introduction*. Barcelona.UniversitatPompeuFabra(UPF). Available at ([www.upf.edu/.../casasnovas/\\_.../health\\_economi...](http://www.upf.edu/.../casasnovas/_.../health_economi...)). Accessed on 20/03/15

Central Statistical Office (2012). *Zambia 2010 Census of Population and Housing: Vol. 11 Lusaka*.CSO. Available at ([www.zamstats.gov.zm/.../census/2010/...](http://www.zamstats.gov.zm/.../census/2010/...)). Accessed on 15/4/15

Choolwe, J.N. (2007). *A Study to Determine the Factors Associated with Underutilization of Postnatal Care Services among Postpartum Women in Mazabuka District*. Lusaka. The University of Zambia. ( A Research).

Chonya, L.N. and Banda, J.C. (2009). *Zambia Demographic and Health Survey (Chapter 9)*, Calverton. Macro inter. Inc.

Cole, C. (2001). Intelligent Information Retrieval: Part 4. Testing the timing of two Information Retrieval devices in a Naturalistic setting, *Information Processing and Management*. 37(1),163-182. Available at ([www.ingentaconnect.com/content/els/03064573/...](http://www.ingentaconnect.com/content/els/03064573/...) ). Accessed on 10/06/15

Cotten, S.R. and Gupta, S.S. (2004): “Characteristics of Online and Offline Health Informationseekers and Factors that discriminate between them”, *Social Science and Medicine*, 59 (9), 15. Available at ([www.academia.edu/2846428/chacteristics-](http://www.academia.edu/2846428/chacteristics-) ). Accessed on 10/06/15

Davis, M.M. and Bath, P.A. (2002). Interpersonal sources of health and maternity information for Somali women living in the U.K – information seeking and evaluation. *Journal of documentation*. 58 (3). Sheffield. The University of Sheffield. Available at([www.emeraldinsight.com/doi.abs/10.1108/100220](http://www.emeraldinsight.com/doi.abs/10.1108/100220) ) Accessed on 11/11/14

Eysenbach, G. and Diepgen, T.L.(2001). The Role of E-Health and Consumer Health Informatics for evidence-based patient choice in the 21st century”, *Clinics in Dermatology*,(19)1, 11-70. Available at ([www.ncbi.nlm.gov/pubmed/11369478](http://www.ncbi.nlm.gov/pubmed/11369478) ). Accessed on 12/6/15

Eysenbach, G. and Kohler, C. (2002). How do Consumers Search for and Appraise Health Information on the World Wide Web? Qualitative study using focus groups, usability tests and in-depth interviews. *British Medical Journal*. 10,324. Available at ([www.bmj.com/content/324/7337/573](http://www.bmj.com/content/324/7337/573) ). Accessed on 10/12/14

Faculty of Pharmacy, University of Benin (2007). “Women’s Health – A Continuing Challenge in Developing Countries”; *Tropical Journal of Pharmaceutical Research, editorial*. 6 (3), 735-736. Available at (<http://www.tjpr.org>). Accessed on 10/12/14

Fahimi, F.M. and Moghadam, V.M. (2003).Empowering Women, Developing Society: Female Education in the Middle East and North Africa. Washington, DC. Population Reference Bureau. Available at ([www.prb.org/.../EmpoweringWomenDevel...](http://www.prb.org/.../EmpoweringWomenDevel...)) Accessed on 12/08/14.

Fowler,K.M. (2011). Gender Differences in mirror-tracking task performance. Atlanta, Georgia. Georgia Institute of Technology.

Fuller,S. and Turner, K.E. (2011). Patient-Held Maternal and /or Child Health Records: Meeting the Information needs of Patients and Health care Providers in Developing Countries. *Online Journal of Public health Informatics*. Available at (<http://ojphi.org>). Accessed on 10/10/14.

Gazali, W.A, Muktar, F. and Gana, M.M.C.(2012). Barriers to utilization and Maternal health care facilities among women pregnant and non pregnant women of child bearing age in Maidugun Metropolitan Council (MMC) and Jereb Igas of Bruno state. *Continental Journal of Tropical medicine*.6(1),12-22.

Available at (<http://www.wiloludjournal.com/ojs/index.php/cjtropped/article/view/452/pdf-149> ). Accessed on 12/06/15

Glenton, C (2002). Developing patient- centered information for back pain sufferers. *Health Expectations*. 5(4),319-329

Green, J.M, Coupland, V.A, Kitzinger, J.V. (1988). *Great Expectations: A Prospective study of women's Expectations and Experiences of Childbirth, Child Care and Development Group*. Cambridge. Cambridge University Press.

Hain, A.K.(2014). Safe Motherhood. India. UNICEF. Available at ([www.healthphone.org/ammaji/ante-natal-checkup.htm](http://www.healthphone.org/ammaji/ante-natal-checkup.htm)). Accessed on 15/02/15

Harada, V. H. (2005). Librarians and Teachers as Research Partners: Reshaping Practices based on Assessment and Reflection; *School Libraries Worldwide*, 11(2), 112.

Heiser, J.C. (1989). Illiteracy and Alliteracy in Effective Access to Information: Today's Challenge, Tomorrow's Opportunity.

Helman, C.G. (1990). *Culture, Health and Illness*. London. Wright.

Hibbard, J.H, Greenlick, M, Jimison, H, Kunkel, L. and Tusler, M. (1999). Prevalence and Predictors of the use of Self-care resources. *Evaluation and health professionals*. 22(1)

Hornby, A.S. (2010). *Oxford Advanced Learners Dictionary of current English*. Oxford. Oxford University Press.

Hossain, A. and Islam, S. (2012). Information Needs of Rural Women: A study of three villages of Bangladesh. *Library philosophy and practice (e- journal)*. 693,12. Available at (<http://digitalcommons.unl.edu/libphilprac> ). Accessed on 16/06/15

Hsieh, Y and Brennan, P.F. (2005). What are Pregnant Women's Information Needs and Information-seeking behavior prior to their prenatal genetic. New York.

Isbell, D. and Kammerlocher, L. (1998). Implementing Kuhlthau: a new model for library and reference instruction; *Reference Services Review*, 26(3-4).

Ishida, M.C. (2000). Towards Attainment of Women's Health in Developing Countries. Washington D.C. The World Bank.

Jiyane, G.V. (2002). An Exploratory Study of the Information availability and Utilization by the Rural Women of Melmoth. Kazulu-Natal. University of Zululand (Dissertation). Available at ([uzspace.uzulu.ac.za/.../An+exploratory+study+of+the+information+avail](http://uzspace.uzulu.ac.za/.../An+exploratory+study+of+the+information+avail) ). Accessed on 05/04/15

Julien, H, Lynne, E.F and Hart, S (2005). A Content Analysis of Affective issues in Library and Information Sceince Systems work. *Library and Information Science Research*.27 (4). Available at (<http://dx.doi.org/10.1016/i> ) Accessed on 06/06/14.

Kabir,M. and Khan,G.N. (2013). Impact of a Community –based Perinatal and Newborn Preventive care package on perinatal and neonatal mortality in a remote...London.BioMed Central.

Kirkham, M.J. (1989). "Midwives and information-giving during labour", in Robinson, S, Thomson, A.M. (Eds), *Midwives, Research and Childbirth*. London. Chapman & Hall.

Kothari,C.S.(2004). *Research Methodology Methods and Techniques*. New Delhi. New Age International (P) Ltd publishers.

Kuhlthau, C. (1999).The role of experience in the information search process of an early career information worker: perceptions of uncertainty, complexity construction and sources; *Journal of the American Society of Information Science*. 50(5), 399-412. Available at ([onlinelibrary.wiley.com/doi/10.1002\(sici\)1097-4571\(1999\)50:5<399](http://onlinelibrary.wiley.com/doi/10.1002(sici)1097-4571(1999)50:5<399)). Accessed on 07/05/15

Kuumuori, G. (2014). Barriers to Accessing and Using Antenatal, Delivery and Postnatal care services in Ghana in the context of a free maternal healthcare Policy. Oxford. University of Oxford. Available at ([www.ethox.ox.ac.uk/...health.../barriers-to-accessing-and-using formal-a](http://www.ethox.ox.ac.uk/...health.../barriers-to-accessing-and-using-formal-a) ) Accessed on 07/05/15

Kuhlthau, C. and Tama, S. (2001). Information Search Process of lawyers: A call for “just for me” information services. *Journal of Documentation*. 57(1), 25-43.

Available at ( [www.informationr.net/ir/13-4/paper355.html](http://www.informationr.net/ir/13-4/paper355.html) ). Accessed on 12/06/15

Levy, V. (1999). "Maintaining Equilibrium: a grounded theory study of the processes involved when women make informed choices during pregnancy", *Midwifery*. 15,109-19.

Available at ([www.researchgate](http://www.researchgate) ). Accessed on 05/03/14

Lusaka times (2011). 2012 Full Budget Address Speech by Alexander Chikwanda. Lusaka. Available at ([www.lusakatimes.com](http://www.lusakatimes.com) ). Accessed on 05/03/15

Maimbolwa,M.C.(2004). Maternity Care in Zambia: With special reference to social support. (Dissertation). Stockholm.

Ministry of Health and Central Statistical Office (2015). Zambia Demographic Health Survey2013-2014. Lusaka.

McGregor, J.H., and Streitenberger, D.C. (2004). Do Scribes Learn? Copying and information use. In M. K. Chelton and C. Cool (Eds.), *Youth information-seeking behavior: theories, models and issues*. Scarecrow Press. Lanham, Maryland.

McKenzie, P. (2003).“Justifying cognitive authority decisions: discursive strategies of Information seekers”. *Library Quarterly*. 73 (3), 212.

McMillan (2002). *MacMillan Dictionary*. London. MacMillan.

MerriamWebsterDictionary(2013).Available at([www.merriamwebster.com/dictionary/antenatal](http://www.merriamwebster.com/dictionary/antenatal)). Accessed on 21/11/14

Miller, S.M. (1981). "Predictability and Human Stress: towards a clarification of evidence and theory", *Advances in Experimental Social Psychology*. 14, 134.

Ministry of Health (2010). National Health Strategic plan 2011-2015-Towards Attainment of Health related Millennium Development Goals and Other National Health Priorities in a clean, caring and competent Environment. Lusaka. Ministry of Health. Available at ([www.moh.gov.zm/docs/nhsp.pdf](http://www.moh.gov.zm/docs/nhsp.pdf) ). Accessed on 21/11/14

Munsanje, V.M. (2012). Information Needs and Information-seeking behavior of female traders in Zambia (Dissertation). Lusaka. The University of Zambia. Available at ([dspace.unza.zm:8080/jspui/bitstream/123456789/1009/1/munsanje.pdf](http://dspace.unza.zm:8080/jspui/bitstream/123456789/1009/1/munsanje.pdf) ). Accessed on 12/04/15

Murray, E, Lo, B. and Pollack, L. (2003). “The Impact of health information on the Internet on health care and the physician-patient relationship; national U.S. survey among 1,050 U.S. physicians”, *Journal of Medical Internet Research*.5 (3), 17. Available at (<http://www.jmir.org/2003/3/e17> ). Accessed on 21/11/14

Muusses,L.D, Weert, M. (2012). Chemotherapy and Information seeking Behaviour: charecteristics of patients using mass media information sources. Available at (<http://www.nivel.eu>). Accessed on 12/05/14

Ngoma, C. M. (2003). Reproductive Health with a focus on Safe Mother hood. Lusaka, ZEPH.

Ngwagwu, W.E. and Ajama, M. (2011). Women's health information needs and information sources: a study of a rural oil palm business community in South-Western Nigeria; Africa Regional Centre for Information Science, University of Ibadan, Nigeria.

O'Keefe, G.J, Boyd, H.H and Brown, M.R. (1998). Who learns preventive health care information from where: cross-channel and repertoire comparisons. *Health Communication*, 10(1), 25-36.

Okerere, E et al (2013). Knowledge of Safe Motherhood among Women in Rural Communities in Northern Nigeria: implication for maternal mortality reduction. *Reproduction Health*. 10 (1), 57. Available at (<http://www.reproductive-health-journal.com/content/10/1/57> ). Accessed on 06/06/15

Olorunda, O. (2004). World library and information congress: Women's information needs for economic development. Paper presented at the 70th IFLA General Conference and Council. Available at (<http://archive.ifla.org/IV/ifla70/papers/011e-Olorunda.pdf> ). Accessed on 06/06/15

Oxford University Press (2013). *Impact of User fees on Maternal Health Services Utilization and related outcomes: A Systematic Review*. Oxford. Oxford University Press.

Available at ([heapol.oxfordjournals.org/content/early/2013/01/...](http://heapol.oxfordjournals.org/content/early/2013/01/...) ). Accessed on 12/05/15

Parker, R.M, Ratzan, S.C and Lurie, N (2003). Health Literacy: A policy challenge for advancing high quality health care. *Health Affairs*. 232(4), 147-153.

Porter, M., Macintyre, S (1989). "*Psychosocial effectiveness in antenatal and postnatal care*", in Robinson, S, Thomson, A.M (Eds), *Midwives, Research and Childbirth*. London. Chapman & Hall.

Rasheed, P. and Al-Sowielem, L.S. (2003). Health Education Needs for Pregnancy: A study among Women attending Primary Health Centres. *J family community med*. 10 (1), 31-38. Available at ([www.ncbi.nlm.nih.gov/...](http://www.ncbi.nlm.nih.gov/...) ) Accessed on 10/06/15

Rieh, S.Y (2014). *Information-seeking Behavior*. Michigan. University of Michigan. Available at (<https://www.si.umich.edu/...> ) Accessed on 10/06/15

Saleh, A.G and Lassi, F.I (2011). Information Needs and Information-Seeking Behaviour of rural Women in Borno State, Nigeria. *Library Philosophy and Practice*. Available at (<http://www.digitalcommons.unl.edu/libphilprac/625.html>). Accessed on 16/04/15

Scholing, P. (2007). *Berrypicking in History. A user- centered approach to Bibliographic interfaces*. Groningen. Rijks Universiteit.



Simkin, P et al (1991): *Pregnancy, Childbirth & the Newborn*. New York. Meadowbrook press.

Shuyler, K.S. and Knight, K.M. (2003): “What are patients seeking when they turn to the Internet? Qualitative content analysis of questions asked by visitors to an orthopedics web site.”

*Journal of Medical Internet Research*.5(4),244.Available at (<http://www.jmir.org/2003/5/e24/index.htm> ). Accessed on 16/11/14

The University of Zambia, School of Medicine (2013). *Zambia Ethnographic Appraisal of Maternal Health-seeking Behavior: executive summary*. Lusaka.

Uloma, C.O and Adedotun, A.A (2013). *Information-seeking Behavior of Pregnant Women in Selected Hospitals of Ibadan Metropolitan*. Ibadan.

The World Bank(1996). *Improving Women’s Health in India*. Washington, D.C. The World Bank.

UN Habitat (2003). *The Challenge of Slums: Global Report on Human Settlements 2003*.London. Earthscan. Available at ([www.aq.upm.es/.../t...](http://www.aq.upm.es/.../t...)). Accessed on 16/11/14

Wallace, S. (1997). “Health information in the new millennium and beyond: the role of computers and the Internet.”*Health Education*. 3(2), 119.

Warner, D. & Procaccino, J.D. (2004). *Toward wellness: women seeking health information; Journal of the American Society for Information Science and Technology*. 55(8), 220.

Williams, P., Huntington, P. and Nicholas, D. (2003). “Health information on the Internet: a qualitative study of NHS Direct Online users.” *Aslib Proceedings*.55(5/6). 304-12.

Williams, P., Nicholas, D., Huntington, P. and Gunter, B. (2002). “Doc.com: reviewing the literature on remote health information provision.” *Aslib Proceedings*.54 (2),127-41.

World Health Organisation(2008). *World Health Statistics* Available at (<http://www.who.int/whostat/2008/en/index.html>). Accessed on 16/11/14



**THE UNIVERSITY OF ZAMBIA**  
**SCHOOL OF EDUCATION**  
**DEPARTMENT OF LIBRARY AND INFORMATION SCIENCE**

Dear Respondent

My name is Chewe Mumba a student at The University of Zambia pursuing my Masters Degree in Library and Information Studies (MLIS) and I am carrying out a research whose topic is:

**Information-Seeking Behavior of Women attending Antenatal Clinic (ANC):  
A case study of women in Makululu-Kabwe.**

Kindly assist me conduct my research by responding to questions in the interview guide.

**THANK YOU FOR YOUR PARTICIPATION**

**Section A: Basic Characteristics of Respondents**

1. Age Group

- a) Below 20 ( )
- b) 21-24 ( )
- c) 25-29 ( )
- d) 30-34 ( )
- e) 35 & above ( )

2. Marital Status

- a) Single ( )
- b) Married ( )
- c) Divorced ( )
- d) Separated ( )
- e) Widowed ( )

- 3. Educational Status.....
- 4. Occupation of participant.....
- 5. Number of children participant has.....

**Section B: Information Needs of Women attending Antenatal Clinic**

6. What were your information needs as women attending antenatal clinic (ANC)?

.....  
.....

7. Mention 4 things that stimulates your information needs as pregnant women.....

.....  
.....

8. What sources of information were you using to obtain information needed as pregnant women?

- a) Interpersonal sources and Clinic
- b) Clinic
- c) Interpersonal sources

9. Were the available sources of information at Makululu health centre able to identify your information needs as pregnant women before availing information sources to you?

a) Yes

b) No

10. Was the information obtained from available sources adequate to meet your information needs as pregnant women?

- a) Yes
- b) No

**Section C: Sources of Maternal Information used by Women attending ANC**

11. What sources of maternal information were you using when you were pregnant?

- a) Clinic ( )
- b) Interpersonal sources ( )
- c) Birth plans ( )
- d) All the Above ( )

12. How did you know about these Information sources?

- a) Through friends ( )
- b) Through inquiring from mothers ( )
- c) By inquiring from health centres ( )

13. Mention four (4) other sources of maternal information which were available at Makululu health centre.

.....  
.....  
.....  
.....

14. Were the types of information sources you were using determined by the level of education you had attained?

- a) Yes
- b) No

**Section D: Accessibility to Maternal Information among Women**

15. Were you having access to the available sources of maternal Information when you were pregnant?

- a) Yes
- b) No

16. Mention four (4) ways through which you were accessing maternal information.....

.....  
.....

17. How often were you accessing maternal information?

- a) Monthly
- b) Whenever information was needed

**Section E: Relevance of Maternal Information among Women attending ANC.**

18. Was the maternal information you were using relevant to you as a pregnant woman?

- a) Yes
- b) No

19. How useful were the sources of maternal information to you as a pregnant woman?

- a) Very useful
- b) Useful
- c) Quiet useful
- d) Not Useful

20. Which age groups was maternal information more relevant to?

- a) Below 20 years and 20- 24 years
- b) 25-29 years and 30- 35 years
- c) 35 years and above

21. Why do you think maternal information was more relevant to women in the mentioned age groups?

.....  
.....

22. How was the relevance of maternal information determined?

.....  
.....

**Section F: Information Seeking Behavior of Women attending ANC**

23. How did you seek maternal information?

- a) Through experience and health talks conducted at the clinic
- b) Through programs on television and radio
- c) Through use of internet

24. Was the information you sought adequate enough to meet the information needs as pregnant women?

a) Yes

b) No



25. In which category was information seeking highest?

- a) Every women attending ANC
- b) Those women with highest needs like first pregnancy
- c) Only in the young women

26. Generally, what was your information seeking behavior as women attending ANC?

- a) Good
- b) Moderate
- c) Fair

**Section G: Factors that affect women when accessing Maternal Information**

27. Mention at least three (3) challenges women face when accessing maternal information

.....  
.....  
.....

28. Mention four (4) recommendations that will help women access the needed maternal information without any difficulties?

.....  
.....  
.....  
.....  
.....  
.....