

**AN APPRAISAL OF COMMUNICATION FOR
ANTENATAL CARE OF WOMEN IN THE LUSAKA
URBAN DISTRICT HEALTH MANAGEMENT**

BOARD CLINICS

BY

CHITALU KASOTE MUMBA

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C.I



Declaration

I Chitalu Kasote Mumba do solemnly declare that this dissertation represents my own work which has not previously been submitted for at this or another University.

Signed .. 

Date 22 - 02 - 05

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Approval

This dissertation of Chitalu Kasote Mumba is approved as fulfilling the requirement for the award of the Degree of Master of Communication for Development

Signed

Date

Chitalu Kasote Mumba

22-02-05

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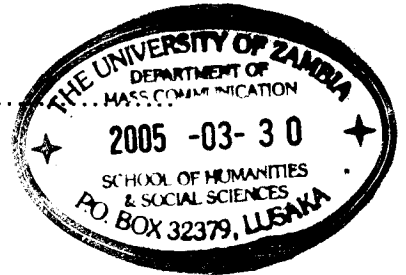
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Abstract

The study's main objective was to carry out an appraisal of the communication modes and messages used by and for expectant mothers attending antenatal sessions in the Lusaka Urban District Health Management Board (LUDHMB) Clinics.

Pregnancy is a time of immense joy for the expectant mother and her family. However, it can also be a time of great danger for the health of both the mother and her unborn child. Studies have revealed that late registration and inconsistent attendance of the antenatal clinic are major problems that lead to late detection of illnesses and conditions that could be prevented or cured if the expectant mother registers for antenatal sessions early and attends consistently.

The study was carried out in ten clinics ran by the Lusaka Urban District Health Management Board and in four Organisations that are involved in the policy formulation and provision of antenatal services in Zambia. In each of the ten clinics, the researcher interviewed ten expectant mothers who were attending antenatal sessions there and two nurses . The researcher also interviewed four individuals who were representing the four organizations involved in the policy formulation and service provision.

The data was collected using questionnaires and analysed using the Statistical Package for Social Science. The results revealed a number of important things.

Training in counseling helps the nursing staff to adequately communicate with the women attending antenatal clinic.

Meetings were identified as the most beneficial method of communication between the nursing staff in the clinics and their superiors at the LUDHMB Head quarters.

Interpersonal communication was identified as the most commonly used method of communication between the Nurses and the women attending antenatal clinic also between the clinics and the community at large. It was also identified as the method most commonly used by the expectant women to acquire information on antenatal care.

The radio was identified as the most commonly used mass medium amongst the expectant women. The Computer was identified as the least used form of mass medium.

82 percent of the expectant women registered for antenatal clinic late. 30 percent of them registered late because they were not sure that they were pregnant until much later.

17 percent of the expectant mothers were illiterate therefore they had no direct access to printed media.

The study recommends that an aggressive information campaign to fight the problem be carried out by the Ministry of Health in cooperation with the UNICEF, Christian Children Fund and the Zambia integrated Health Project. The Campaign's main objective must be to create National awareness on the importance of early antenatal registration and consistent attendance.

Dedication

This study is dedicated to the following people:

My husband Mr. Isaac Mumba who has provided me with strength and support throughout the study, my children Lombe, Kasote and Bwalya who have been my source of immense joy and happiness, bringing a smile to my face even when things got really tough, and lastly but not the least to my mother Mrs. Felistus Kasote for the love of reading and the determination to succeed that she sowed unto me at a very young age.

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List of Abbreviations

AIDS	-----	Acquired Immune Deficiency Syndrome
ASIP	-----	Agricultural Sector Investment Programme
CCF	-----	Christian Children Fund
CIDRZ	-----	Center for Infectious Disease Research in Zambia
HIPC	-----	Highly Indebted Poor Countries
LONRHO	-----	London Rhodesia Company
LUDHMB	-----	Lusaka Urban District Health Management Board
MCH	-----	Maternal and Child Health
MMD	-----	Movement for Multi Party Democracy
SPSS	-----	Statistical Package for Social Science
UNICEF	-----	United Nations Children's Fund
UNIP	-----	United National Independence Party
USA	-----	United States of America
UTH	-----	University Teaching Hospital
ZERPS	-----	Zambia Electronic Perinatal Records
ZIHP	-----	Zambia Intergrated Health Programme
ZWRA	-----	Zambia White Ribbon Alliance

CHAPTER ONE.

INTRODUCTION

1.0 General Background

The research was an appraisal of the communication modes and messages utilized by expectant mothers using the services provided by the various clinics run by Lusaka Urban District Health Management Board.

Expectant mothers are encouraged to attend the antenatal clinics as soon as they are pregnant. At the clinics, they are registered, examined and advised on steps to take to ensure that their pregnancy is healthy and that the delivery is safe. Studies have revealed that most women start the antenatal sessions late. This leads to a late detection of complications that have major negative effects on the mother and her unborn child.

Therefore, it is the study's main objective to appraise the communication modes and messages used during this very important time so as to establish their effectiveness at encouraging the women to start early antenatal sessions and to continue attending these sessions consistently. The study was carried out as part of the requirement for the Master of Communication for Development degree. The study was divided into four parts and was undertaken over a period of ten months, August 2003 to June 2004.

The four parts of the research were as follows:-

1. Project proposal writing

2. Collection of data
3. Interpretation of data
4. Report writing

The research was carried out in Lusaka and it involved expectant mothers attending antenatal sessions in the clinics under the Lusaka Urban District Health Management Board, the nursing staff who provide these services and organizations that are involved in the antenatal care policy formulation and implementation.

Antenatal services were first provided to expectant mothers in England in 1901 (Browne and Dixon 1970: 12) It was a branch of therapeutic and preventive medicine. It was meant not only to deal with medical issues but also to teach the expectant mothers to understand its potential benefit (a healthy pregnancy) and for the importance of dietary and social conditions conducive to a good health. For the same reasons as the above, antenatal services were introduced to Zambia then Northern Rhodesia in the 1930s (Suya 2000:7). The services were mainly provided to the white community. By the time of independence in 1964, there was a massive campaign through the department of Health and Social Services encouraging expectant mothers to register at the nearest health centre for antenatal sessions. This campaign continues to date.

1.1 Background Information.

The study was carried out in Lusaka (Appendix 5), the capital city of Zambia, a country located in Southern Africa. Africa (Appendix 8), one of the five continents of the world has a total landmass of 11,673,000 square miles. (McEwan and Sutcliffe, 1965: 9.) This land faces the Mediterranean Sea in the North and the Antarctic in the South. Africa is made up of various ethnically and geographically differing areas. It is populated by the Bantu, Arabic and Nilotic Nomads as well as a sprinkling of other ethnic groups.

Africa enjoys a contrast of climates including a great belt of Savannah plateau land, which stretches across Africa down to South of the continent. This is the area in which Zambia is found.

1.2 Location.

Zambia (Appendix 7) is located in Southern Africa and it lies between latitudes 10 and 18 degrees south and between longitudes 22 and 33 degrees east (Zambia Information Services, 1979:14). With an area of 752,720 square kilometres, it represents about 2.5% the total area of Africa (Kaplan, 1979: xiv). It is one of the largest countries in the region. Most of the area forms a plateau lying between 1,000 and 1,600 meters elevation (Ibid). Zambia is landlocked, making it totally dependent on other countries with coastal areas for its exports and imports. The country is bordered by Malawi to the east, Mozambique to the South East, Zimbabwe to the South, Botswana and Namibia to the South West, Democratic Republic of Congo to the North and Tanzania to the North East.

1.3 Climate.

Zambia has a sub tropical climate; this is characterized by three seasons. The hot, dry season from September to October, the rainy season from November to April with temperatures ranging from 27 degrees Celsius to 38 degrees Celsius (Ibid), the cool, dry season from May to August with temperatures ranging from 16 degrees Celsius to 27degrees Celsius (Ibid) The northern parts of the country experiences the highest rainfall with mean annual rainfall of approximately 1475 mm while the southern parts of the country get lower rainfall with mean annual rainfall of about 710mm (Opcit)

1.4 Water

The country is rich in water resources. Except in years of drought, average rainfall ranges from 600mm in the south to 1500mm in the north (Zambia Information services, 1979:15). Although the rainy season is only once a year during the period November to April, Zambia's total surface water coverage is 45,000 kilometres holding about 60 billion cubic meters of water (Environmental Council of Zambia, 2000 :112). Ground water occurs almost all over the country within 100m depth (Ibid). Total ground water storage capacity is in excess of 1000 billion cubic meters (Ibid).

Zambia has both natural lakes like Tanganyika, Mweru and Bangweulu and a man made lake – Kariba. Lake Kariba is a major source of hydro – electric power for both Zambia and Zimbabwe (Area handbook of Zambia, 1980:15).

1.5 Population

The population of Zambia has been growing very rapidly over the years. Results from the previous four census show that from 1963 to 1990, the population has more than doubled from 3.5 million to 7.8 million (Nsemukila, 1998:1) In the latest census of 2000, the population of Zambia was placed at 10 million (Central Statistics Office, 2003: 2) The increase in both size and growth rate are mainly as a result of the persistently high levels of fertility and declining level of mortality.

The population density has also increased over time. While it was previously only 10.4 people per square kilometre in the mid 1990s, it was increased to about 13.7 people per square kilometre in 2000 (Ibid) The highest proportion of the population is found on the Copperbelt at 19.3 percent (Ibid). Other population related concerns in the country include women in development, HIV/AIDS, environment, street children and orphans. In 1996, Zambia had a total child population of 4.1 million under the age of 18 (UNICEF, 1999: 9). 13 percent of them (500,000) were orphans, having lost one or both parents (Ibid).

1.6 Economy.

During the first five years after independence, copper production, exports and prices rose. Copper accounted for 40 to 50 percent of Zambia's gross domestic product (Kaplan, 1979:40). Efforts to diversify Zambia's economy in the 1970s from copper trade to agriculture and industry proved elusive due to the small base (Ibid). Although 70 percent of the population made a living by subsistence farming, large commercial farms continued to dominate the cash and export markets (Ibid). Agriculture output grew at a slow rate and any gains that were

made in the mid 1970s were nullified by the mid 1980s due to an increase in the population forcing Zambia to become an importer of food (Ibid).

By 1970, the direction of Zambia's trade shifted from the West to the Far East. This was in the context of Zambia's efforts to disengage from white dominated South Africa (Ibid). This was a costly move for a landlocked Zambia. With the unilateral declaration of Independence in Rhodesia in 1965 and the United Nations Sanctions on the rebel white regime, Zambia was further denied its significant trade and transport route (Ibid:41). The sudden cessation by Zambia of fuel imports through Southern Rhodesia crippled Zambia's economy. Fuel had to be hauled by road from Tanzania's port capital of Dar es Salaam (Ibid). This was an extremely costly move and it led to the rise in the cost of fuel.

Zambia's economy continued to decline throughout the 1980s in to the 1990s. In 2000, Zambia became eligible for debt relief under the Heavily Indebted Poor Countries (HIPC). The Gross Domestic Product growth has been estimated to continue at 4 percent and inflation to remain at 20 percent (<http://www.dci.gov/cia/publications/fact>).

In 1984, 23 African countries including Zambia were identified as food deficient areas threatened with famine due to prolonged drought (Osei – Hwedie and Ndulo, 1984: 113). Although Zambia had adequate human and land, resources to achieve self – sufficiency in food production, only 12 million hectares were cultivated (Ibid). Therefore, the Zambian land was under utilized. Food production lagged behind population growth rate, the food imports had

failed to make up the deficit (Ibid) During 1964 – 1973, Zambia’s population growth rate was 42.4 percent while total agriculture production increased by only 28.5 percent (Ibid).

Zambia is vulnerable to variations in weather from season to season. Rainfall is unpredictable leading to poor harvest of food crops and other agricultural products (Ibid). Food production in Zambia has been subjected to politics. This has contributed to food shortage. This practice started in the Kaunda era has continued to present. The government’s policy relating to investment, pricing, provision of infrastructure and services and production influence nature of food output (Ibid:120). The government does not assign highest priority to Agriculture. In the third National development plan of Zambia only, 15 percent of the total budget of K3, 354 Million was allocated to agriculture (Ibid).

The root cause to Zambians present agricultural food crisis can be traced to the colonial period (Ibid:118). Colonialism transformed Zambians economy from subsistence agriculture to an export oriented copper industrial sector. Subsistence farming was disrupted as able-bodied men migrated to the mines in search of wage labour. The numerous taxes imposed on the indigenous population and the need for labour on the mines forced men to migrate and to later send for their families to join them on the Copperbelt (Ibid.).

The colonial administration made no investment in Zambian agricultural development, except for the introduction of commercial farming along the line of rail (ibid.). From the time of independence, the government tried to improve the agricultural sector by introducing several policies. Subsidy of agricultural

inputs, soft loans, cooperatives and Family farms schemes were introduced. However, these were not sufficient to make farming profitable and to increase food production (Ibid.).

To try and improve the agricultural situation in Zambia, the government under president Chiluba liberalized agriculture for the realization of its full potential (Ibid: 34). This was done under the agricultural sector investment programme (ASIP). The government's main objectives were to promote smallholder productivity by redirecting and strengthening agricultural credit and improving rural infrastructure (marketing facilities and roads) (Ibid:37). However, the agriculture sector in Zambia continues to suffer great set backs – late delivery of inputs and poor marketing facilities of the produce (Ibid.).

Maize, cassava, sorghum, finger and bulrush millet, peanuts and beans are the principle staple foods grown in Zambia (Kaplan, 1979: 173)

Tobacco, Cotton and sunflower are the crops grown for commercial purpose. Fisheries, Dairy and live stock farming are some of the agricultural practices in Zambia (Ibid: 175).

The major source of income in the urban areas of Zambia, Lusaka included is through employment and hence, employment, formal and informal provides a good measure of welfare. According to the urban community survey carried out in 1997, the proportion of respondents in formal employment in the 10 urban settings where the study was carried out was 30 percent (UNICEF, 1997:3), Lusaka had 28.6 percent. (Ibid).

Between 1964 – 1987, employment grew at an extremely low rate – 1.3 percent, it declined to 0.6 percent in 1993 (Breitenbach and Werth, 1995:1). Between 15,000 – 25,000 youths are absorbed annually into the modern sector of employment out of an estimated 160,000 youths who leave school every year to join the labour market (Ibid). Since 1975, the contribution of the modern, formal sector of production to labour force absorption has been declining. In 1975, it was 26.6 percent, in 1983, it was 19 percent, in 1990, it was 17 percent, in 1996, it was 12.1 percent, and in 1999, it was 11 percent (Ibid: 3). 78 percent of the people in Zambia defined as employed were in the informal sector, 66.2 percent of them were involved in subsistence farming (Ibid: 48). In the urban areas, 44 percent were in the informal sector.

The fall in copper prices and the rise in fuel prices weakened the Zambian economy to such an extent that it could no longer create employment to match the needs of the people (Ibid).

Mining has been the country's most important economic activity. Since the 1930s (Ibid: 187). Since 1964, the sector has been the chief source of foreign exchange for independent Zambia and until the economic crisis that began in the mid 1970s (the lowering of the copper prices and increase in fuel) it was the provider of a large part of the funds required for general economic development (Ibid). There is also in Zambia, a large production of zinc, lead, cobalt and coal. Other metallic minerals include gold and silver, which are produced as by products of copper. There are also industrial minerals such as gypsum, feldspar, fluorpar, Kaolin,

magnetite and tin ore mined in small quantities. There is also limestone and sulphur from pyrite and extensive deposits of phosphate and uranium have been reported (Ibid.).

In the Mid 1990s, the copper mines were privatized to allow them to return to profitability and economic growth. However, the low prices of the minerals have slowed down the benefits from the privatization of the mines. This has reduced the incentive for further private investment in the sector (<http://www.wodi.gov/cia/publications/fact>).

In the late 19th century, various parts of what was to become Northern Rhodesia (Zambia) were directly or indirectly under control of Cecil Rhode's British South Africa Company (Opcit:5). In 1924, Northern Rhodesia became a British protectorate and it remained so through the period of the federation of Nyasaland and Rhodesia (1953 – 1963) (Ibid). In 1964, Northern Rhodesia gained its independence from Britain and became known as Zambia (Ibid.).

Zambia was a multiparty country until 1972 when the then President, Kenneth Kaunda declared it a one party participatory democracy (Ibid). The only party to remain in Zambia was the United National Independent Party (UNIP). In 1991, Zambia returned to multiparty politics. Multiparty elections were held in the same year. Unip under President Kaunda lost the election to the Movement for Multi Party (MMD) under the president ship of Chiluba (Ministry of Information and Broadcasting services, 2000: 2).

The last elections were held in 2001 they, saw the participation of 12 political parties. The MMD under the leadership of Levy Mwanawasa won the elections (<http://www.odci.gov/cia/publications/fact>). In 1996, Zambia was declared as a Christian nation (Opcit).

1.7 Health Services

At the time of independence, Zambia had excellent health services provided by the government and the mines. By 1975, with the fall in copper prices and the rise in the cost of fuel, Zambia's economy fell and this had a negative impact on the health delivery system (Ministry of Health, 1996: 1) By 1985, the health sector was barely able to provide basic health care to the patients. Though provided freely in a centrally controlled system, the services were inefficient and costly to the government (Ministry of Health, 1996: 2). With the coming of the 1990s, it was realized that the health of the people could only be improved if the system underwent a radical reform.

The year 1995 saw the provision of health services in Zambia under go great changes (Ibid). Through the health reforms, there was a decentralization of health delivery services giving more independence to the newly established District Health Management Boards (Ibid). These were given the powers to plan and allocate funds to specific district health activities.

However, the provision of health services continues to be hampered by inadequate maintenance of health facilities, shortage of drugs and shortage of

medical supplies. Inadequate professional personnel to operate the existing facilities have further compounded the problems in the health sector.

The government has continued to place emphasis on the implementation of primary health care, Child immunization and nutrition promotion programmes. Government in collaboration with the donor community continues to support programmes to reduce the incidence of preventable diseases such as malaria, tuberculosis and HIV/AIDS (Ibid:5).

Lusaka has twenty-seven clinics under the Lusaka Urban District Health Management Board (Lusaka Urban District Health Management board, 2003).The University Teaching Hospital (UTH) is the country's main referral hospital.

1.8 Mass Communication

The most common modes of mass communication in Zambia are:

1.8 1.News papers.

Zambian newspapers are circulated at national, provincial, company, municipal and church level. The country has three main daily newspapers. The rest are weeklies fortnightlies or monthlies (Kasoma,1986:23)

1.8.2 Radio.

Radio broadcasting started in Zambia in 1941 with a small government station at the old Lusaka airport (Ibid). Very few people had access to it. It was only in

1949 when simple radios arrived in the country from England that most Africans had access to radio broadcasting in their homes (Ibid). Currently most Zambian homes do have radios and apart from the main Zambia National Broadcasting Cooperation, there are several community radios. 1,200,000 households own radio sets (Ibid).

1.8.3 Television

This started in 1961 in Kitwe (Ibid:24). It was started by the London Rhodesia Company - Lonrho. The government bought the facility in 1964 and another station was opened in Lusaka. The length of transmission was extended(Ibid).

In 1972, the Zambian government instituted a localization of radio and television insisting on 90 percent local Zambian production (Ibid:25).

Currently, Zambia has a population of 277,000 people owning television sets (Ibid).

1.9 Educational Services.

The educational system in Zambia is composed of three levels – primary, secondary and tertiary (Ministry of Information and Broadcasting services, 2000: 92). According to the 1995 statistic, Zambia had 4000 primary schools, 224 secondary schools, 14 teacher-training colleges 17 technical and vocational institutions and two universities (Ibid).

1.10 Location of the Study

Lusaka is the capital city of Zambia and it is the place where the study was carried out. The town occupies one of the higher parts of the central African plateau (Williams,1986:19). To the north easterly direction is the Lunseinfwa arm of the Luangwa rift valley. It lies astride the eastern watershed of the Kafue River one of Zambia's four major river basins (Ibid).

The Lusaka drainage map reveals an essentially radical pattern . In the north – west quarter we have the Chunga tributary of the Mwembeshi River, which has its source in the north of Lusaka (Ibid). The Mwembeshi and the Chilongolo, Chowa and Mungu rivers, in the south west quarter are tributary to the Kafue river at the eastern end of the Kafue flats (Ibid). The Chilongolo is the only stream of significance to have established itself on the waterless surface of the limestone plateau south of Lusaka (Ibid).

The physical growth of Lusaka has been rapid, from 1928 to 1981, Lusaka grew from 0.38km² to 85.62km² (Ibid.138). The city continues to grow. Lusaka has played an increasingly important role in the process of urbanization especially during the first fifteen years of independence. Lusaka has experienced similar demographic developments as other African capitals. They has been rapid immigration to Lusaka especially in the 1990s due to the closing down of the mines on the copperbelt. At the time of its establishment in 1931 as the capital of northern Rhodesia, Lusaka had a population of 2433 persons (Ibid. 164). By 1949, the population had risen to 19000 (Ibid). An influx of African families to Lusaka was noticed in 1948 when the African housing ordinance was signed.

This allowed Africans in employment to reside with their families in Lusaka (Ibid).

Another rapid population growth was noticed during the period 1963 – 1969 this was due to Zambia's independence and the reestablishment of Lusaka as the capital city of newly established Zambian nation (Ibid:105). In 1963, Lusaka's population was 123,000 (Ibid). In 1969 it went up to 262,000 (Ibid). By 1980 Lusaka's population had grown up to 535,830 (Ibid). According to the 2000 census, Lusaka had a population of 2 million (Zambia High Commission ,2000 :15).

1.11 .Statement of the Problem

The study was carried out in order to achieve the following objectives:

1. To establish the modes of communication used by health staff in giving out information to the community at large on the availability of antenatal services.
2. To establish the modes of communication used by expectant mothers in obtaining information on the availability of antenatal services.
3. To establish how effective these modes and messages are at encouraging women to register for antenatal sessions early and to continue attending consistently until they deliver their babies.
4. To establish the communication modes and messages used in the clinics between the nursing staff and the expectant mothers. How effective were these at meeting the needs of the expectant mothers.

- 5 To establish ways in which the modes and messages could be improved to further meet the expectant mother's needs. To establish other informal community based modes and messages used by the expectant mothers to meet their needs.
- 6 To establish how effective the informal community based modes and messages are and how they can be formalized.

1.12. Rationale.

Pregnancy is the most joyous time for the woman and her family, but it can also be the most dangerous time for both mother and her unborn child. 18 percent of the women in Zambia, in the reproductive age group (12 to 50) die from pregnancy related and child bearing complications (Nsemukila, 1998:1).

Antenatal care is supposed to start as soon as the woman conceives and to continue until she has given birth (Ibid). It was therefore very important for a study to be carried out in this area, to look at the modes and messages of communication utilized by the expectant mothers during this period. To further establish the effectiveness of the modes and messages at ensuring that the expectant mothers were well informed about their new status, health needs and the demands of motherhood.

Expectant mothers live in communities where they are constantly communicating with others about their status. Studies in communication have proved that communication through community based social relations is an important source of information that individuals use to make decisions

(DeFleur and Ball,1989:119). The study looked at these forms of communication to see how they can be utilized to compliment the modes and messages offered by health institutions. Zambia's health reforms are insisting on doing away with the community's passive clinic dependant role (Ministry of Health, 1996: 2). An active community involved in the local health care system is what is being encouraged. Positive communication modes and messages are one way of achieving the above.

The health of a nation is dependant upon healthy individuals. Good health starts at the time of conception and continues through pregnancy, birth of the baby and the first five years of life. Parents, especially the mother have a great role to play in ensuring the above. It is therefore important that this information is communicated to the parents using the best possible methods.

All the individuals in the society must be made to understand the importance of care and proper communication during pregnancy. It is therefore not only a medical worker's field of study but a development communicator's too. A development communicator will work at sharing the information gathered with both the general public for their support and with the relevant authorities for their influence to bring about positive change in antenatal and general health care.

1.13. Research Questions

The study was set to answer the following research questions:

- 1) How do women discover that they are pregnant ?

- 2) When do the women register for antenatal care ?

- 3) Through what communication sources do the expectant mothers know about the availability of antenatal services offered at the clinics.?

- 4) What is the nature of the communication process between the nursing staff and the expectant mothers.?

- 5) What is communicated to the expectant mothers during the antenatal sessions

CHAPTER TWO

METHODOLOGY

2.0 Introduction

The researcher visited the Lusaka Civic centre and the Lusaka Urban District Health Management Board (LUDHMB). This was for the purpose of getting permission to carry out research in the clinics that are directly under the supervision of LUDHMB. Once permission was given, the researcher met with the focal person in charge of Maternal and Child Health (MCH) to get an orientation briefing on the operations of the clinics.

2.1 Sampling

A sampling frame of all the clinics in the Lusaka district was obtained from the LUDHMB, it was utilized to get a sample for the study. A sample was drawn because the researcher was in no position to carry out a study in all the clinics under the LUDHMB.

The clinics were stratified into three strata, those in High Density, Middle Density and Low Density. This stratification was for the purposes of ensuring that all the classes of the Lusaka population were included in the sample. Within the strata, the researcher carried out simple random sampling with replacement to arrive at a sample.

Simple random sampling with replacement was used because this ensured maximum representation, giving the chance of one subject being picked equal to all

the other subjects. When the same subject was picked twice it was simply returned to the drum for another shuffle and pick.

Once the specific number of clinics were picked, the researcher visited each individual clinic to get a record on the expectant mothers who were currently attending antenatal clinic. With the use of these records, the researcher used simple random sampling with replacement to pick out a sample that was studied during the research. Due to time limitation, it was not possible for the researcher to carry out a study on all the women attending antenatal clinics, thus a further sample of the individual women had to be picked.

2.2 Survey Method

Ten expectant mothers were interviewed from each clinic. A total number of one hundred expectant mothers were interviewed by the end of the research. Ten clinics with ten expectant mothers from each of the clinics gave a wide enough view of the situation in each community. One hundred expectant mothers was enough to draw a conclusion from on the situation in Lusaka. At each one of the ten clinics, two nurses were interviewed. The two were arrived at through a simple random sampling process. A total of 20 nurses were interviewed during the study.

The data was collected with the use of a questionnaire. To ensure that the data was well recorded in a uniform and orderly manner, the researcher herself administered the questionnaires while interviewing the expectant mothers and the nurses. To allow for easy administration and coding of the questioner, it had closed ended questions. However, efforts were made to ensure that the answers were as wide as

possible. All the questioners were precoded for easy feeding into the computer for analysis.

Once completed, the questionnaires were all numbered to allow for quick retrieval in case there was a query during the data analysis stage. The package used for the data analysis was the Statistical Package for Social Science (SPSS). This package proved to be very quick and user friendly. It did not require long and detailed calculations, the package was able to do the calculations and to further provide diagrams such as the bar charts that have been used in the data interpretation. These will make it easy even for a lay person to quickly understand the results .

2.2.2 In – depth Interview

During the period January to May 2004, the researcher carried out a number of four in-depth interviews with representatives of four organizations that are actively involved in the provision of antenatal care in Zambia. Through consultations with the Lusaka Urban District Health Management Board, the researcher was able to identify and to contact the four organizations

The in-depth interviews had a guide consisting of 14 preset questions. However, the researcher did allow for some follow up questions that were not part of the set guideline. During the interview session, the researcher took notes of the important points raised. The main objective of the in-depth interview was to supplement the data that was collected through the questionnaires and to get as much information as possible on the provision of antenatal care. It was important to collect information on antenatal care from not only the recipients of the services but also from the main

providers and policy makers. The responses given by the interviewees have been summarized to form part of the research findings.

CHAPTER THREE

CONCEPTUAL FRAMEWORK

3.0 Introduction

3.1 Conceptual and Operational Definitions

For the purposes of the research study, the following main concepts were defined and operationalised.

Expectant Mother – A woman who is pregnant (expecting a child) and has started attending the antenatal sessions offered at any clinic under the Lusaka Urban District Health Management Board (LUDHMB).

Young Expectant Mother – A woman aged eighteen years and below who is pregnant (expecting a child) and has started attending the antenatal sessions offered at any clinic under the LUDHMB.

Expectant Father – A man whose wife or partner is pregnant (expecting a child) and has started attending the antenatal sessions offered at any clinic under the LUDHMB.

Antenatal Sessions – Sessions that are carried out by trained nursing staff at the clinics under the LUDHMB. Expectant Mothers are encouraged to start attending these session as soon as their pregnancy is confirmed.

Level of Education – The level of formal education that one has attained (No formal education, grades one to four, grades five to seven, grades eight to nine, grades ten to twelve, college level and University level).

Nursing Staff – Staff employed by LUDHMB and in charge of carrying out the antenatal sessions in the clinics. They have received formal training in nursing.

Communication – A process by which the expectant mothers are able to exchange information with others and to express their needs to the nursing staff, the expectant fathers, and the rest of the individuals in the community. It is also a process by which the expectant mothers are able to get information on the fulfilment of their needs from the nursing staff, expectant fathers, and other individuals in the community and the mass media. It is also a process by which the nursing staff are able to express their needs to their colleagues and superiors

Beneficial Communication

1. A communication process that leads to the expectant mothers having their needs met.
2. It is also a communication process that leads to the nursing staff having their needs met.

Needs of the Expectant Mother –These are in two main categories:

- 1) Physiological Needs: Relief from physical ailments due to the pregnant status, relief from pain, provision of medicines, food and clothing.

2) Psychological needs: Relief from mental stress brought about due to concerns over the mother's health and that of her unborn child.

Needs of the Nursing Staff – Equipment and room to carry out the antenatal sessions (private rooms for physical examination and counselling), training in counselling and a balanced workload (a manageable number of expectant mothers per nurse so as to allow individualized attention). Timely and adequate salaries, leave pay and allowances.

Mass Media – Communication media such as the Radio, Television, Newspaper, Books, Magazines, Pamphlets, Posters and Brochures and computers.

Adequate Communication – Communication that allows for the full participation of the expectant mother and the others (nursing staff, expectant father and the rest of the individuals in the community).

Free Communication – The process by which the expectant mother is able to communicate with the others (nursing staff, expectant fathers and the other individuals in the community) without any communication obstacle (language, shyness, inferiority complex, lack of privacy, lack of time).

Informal Setting – Any other setting apart from the setting with the nursing staff at the LUDHMB clinics.

Training in Communication Skills – Training in any form of counselling.

3.2 The Social Learning Theory.

This is a theory that gives a general explanation as to how people acquire new forms of behaviour. It is social in that it attempts to explain how individuals observe other people's actions and how they come to adopt those patterns of action as personal modes of response to problems, conditions or events in their lives (<http://teachnet.Edb.utexas.ed~lynda-abbot/social-.html>).

Through this study, the researcher tried to establish the extent to which expectant mothers are socially influenced on when to start their antenatal sessions and to continue attending the session in line with whatever reasons as suggested by the Social Learning Theory.

The theory's leading proponent is Albert Bandura (ibid).

3.3 The Two Step Flow of Communication.

The theory was born out of a study by Lazarsfeld, Barelson and Gaudet (DeFleur and Ball – Rokeach, 1989: 127) that was carried out in the Erie County of the USA. It established the fact that informal social relationships played a part in modifying the manner in which individuals selected content from the media campaign and were influenced by that content.

Family members, friends and others brought ideas from the media to the attention of the voters who were themselves not exposed directly. The individuals who were more in touch with the media were called opinion leaders. The two step flow theory was discredited by subsequent studies which revealed that in fact instead of there

being just a two – step flow, sometimes there are other types of flow of information. This kind of knowledge has a bearing on the study. The specific steps through which information flowed were of interest to this research.

3.4 Multi – Step Flow of Communication

After the Two – Step Flow was discredited, there arose the Multi – Step Flow Theory. The Multi – Step flow includes the tenets of the Two – Step and the role of Opinion Leaders, but additionally it states that there are other ways the information travels, directly from the Media to the audience, or indirectly, through two or more steps.

3.5 Diffusion Theory

Of special importance to this study is the Diffusion Theory. Diffusion is a process by which all innovations are communicated through certain channels, overtime, amongst members of a social system (Roger, 1995:15). In this study, the spread of information on the importance of early and consistent antenatal check up was taken as a process of diffusion. The main points in the process of diffusion have been identified as:

1. An innovation – An ideal practice or object that is perceived as new by an individual or unit of adoption (In the present study, the need for early and consistent antenatal checkups was taken as an innovation.
2. An individual or other unit of adoption that has knowledge or experience with using the innovation (In the present study, the researcher was interested in whether or not the nursing staff at the LUDHMB clinics and other women in the community who have benefited from early and consistent antenatal

check ups, did have the knowledge and experience of the importance of early and consistent antenatal checkups).

3. Another individual or unit that does not have knowledge or experience with the innovation (The present study tried to identify expectant women in the community who did not have the knowledge or experience of early and consistent antenatal check up).
4. A communication channel connecting the two (The present study looked at the communication channels that connected the two groups above).

Also important to the Diffusion Theory are the following four elements of diffusion (ibid. 17):

1. The Innovation (explained above)
2. The communication channel: (In the present study, the researcher was able to establish where the messages on early and consistent antenatal check up come from and how they were conveyed).
3. Time: (a) From the time that people are introduced to an innovation, how long it takes the individuals in the community to either reject or adopt (accept and practice) it. (b) The innovativeness of the individuals in the community, that is the earliness or lateness with which they adopt an innovation, compared to other members of the community. Five groups within which individuals can be classified have been identified (Ibid. 19) –*The Innovators*: These constitute 2.5

The study recommends that an aggressive information campaign to fight the problem be carried out by the Ministry of Health in cooperation with the UNICEF, Christian Children Fund and the Zambia integrated Health Project. The Campaign's main objective must be to create National awareness on the importance of early antenatal registration and consistent attendance.

percent of the individuals in the community to first adopt the innovation. These people are venturesome and eager to buy new ideas. *The Early Adopters*: These are the next 13 percent of individuals in a social system to adopt an innovation. These are highly respected by their peers.

The Early Majority: are the next 34 percent of individuals in a social system to adopt an innovation. These are deliberate before adopting new ideas. *The Late majority*: are the next 34 percent of individuals in a community to adopt an innovation. These people adopt an innovation just after the average member of a community. *Laggards*: are the last 16 percent of individuals in a community to adopt an innovation. This group of people holds on to traditional values. In relation to the present study, the researcher tried to identify the above groups in the study sample (c) The rate of adoption in a community which is measured by the number of members of the community that adopt the innovation in a given period of time.

In applying Diffusion Theory, this research established the following groups amongst expectant mothers:

- a. Early Registers: This group had registered between two – three months it constituted 18 percent of the respondents,
- b Late Registers: This group had registered between four – six months it constituted Seventy- seven percent of the respondents,

c. Very Late Registers: This group had registered between seven – nine months it constituted Five percent of the respondents.

4. A social system: Diffusion occurs within a social system and the social system affects the innovation's diffusion. The social system constitutes a boundary within which all innovation diffuses (Refer to major findings – Chapter 5).

Also of importance for the study are five characteristics of an innovation (Ibid.112) These are:

1. Relative Advantage: Potential adopters need to see an advantage for adopting the innovation. However, as far as the expectant women were concerned, early registration did not provide any relative advantage over late registration. Early registration meant more visits to the clinic and societal redress for unacceptable behaviour of early revelation of ones pregnancy.
2. Compatibility: An innovation needed to fit in with potential adopters' current practices and values. The research revealed that most women did not adhere to the call for early antenatal registration because it conflicted with their socio - cultural beliefs and practices. Fear of witchcraft had forced most women to conceal their pregnant status until the pregnancy had grown to a stage where they felt it was safe to reveal it. This is also the time that they felt safe enough to register for antenatal clinic.

3. Complexity: This is the degree to which an innovation is perceived as difficult to see and use. The research revealed that early antenatal registration was complex in that due to the social prohibitions against early pregnancy revelation, very few women in the community had practiced (used) it, therefore, it was difficult to actually see it's benefits.
4. Trialability: Potential adopters want the availability of testing before adopting. However despite the availability of health centres where the women would try to register for early antenatal sessions , societal redress, economical, geographical and even religious factors made it difficult for them to try out the services.
- 5 Observability: Potential adopters want to see observable results of an innovation. As far as early and consistent antenatal registration was concerned, the study reveals that the women had very limited opportunity to see the results of early and consistent antenatal registration. None of the 100 respondents registered at one month, and very few registered in the first trimester.

Therefore, early and consistent antenatal registration may be difficult to achieve due to the fact that it lacks compatibility with the current practices, beliefs and values. It is also viewed by the Potential Adopters as lacking Relative Advantage, is Complex and has very limited opportunity for Trialability and Observability.

CHAPTER FOUR

4.0 LITERATURE REVIEW

Zulu (1980) carried out a study on fifty women who were attending the BO1 ward at the University Teaching Hospital (UTH). These women had previously been attending antenatal sessions at clinics in their specific communities, they had been referred to UTH. due to some complications that had developed with their pregnancies. All the women at the time of Zulu's study had already given birth (Ibid.) The study's main objective was to carry out an assessment on how complete the antenatal services had been carried out at community level (Ibid.)

Zulu interviewed the women using a questionnaire and recorded the information on to specific questionnaires that were allocated to each woman. She further carried out a study of the information on the maternity record cards that the women were given at the clinics in the community (ibid.)

The study looked at the expectant mother's cards to see if the registration, history taking and laboratory investigations were adequately done. Registration and history taking was well done in 86 percent of the women. However, results on the laboratory investigations on most of the women were not available. Zulu discovered that this was because these women had started attending the antenatal sessions late and by the time the laboratory results were ready, they had already given birth. The study revealed that 48 percent of the women started their sessions in the last trimester and that they only attended to 4.5 visits instead of the recommended twelve (12) (Ibid.).

The study recommended that health education to all women in the community must be carried out with an emphasis on early starting of antenatal sessions (as soon as a woman had missed her monthly periods) (Ibid.)

The study revealed that there was a shortage of nursing staff in the clinic. One nurse had to attend to not less than fifteen expectant mothers per day (Ibid.)

However, Zulu's study did not go further to find out why most of these women started their antenatal sessions late. In her recommendation for health education to all mothers on the importance of starting the antenatal sessions early, Zulu did not give any suggestions on how this was to be done, what communication process was to be used or who it was to be carried out by.

Suya (2000) carried out a study to try and determine factors contributing to the late booking for antenatal care amongst expectant mothers. She carried out interviews with the women who were attending antenatal sessions in ten clinics under the Lusaka Urban District Health Management Board. The information was then recorded on to questionnaires that had been allocated to each woman. She also had focus group discussions with the women. From each clinic, five women were selected using the simple random sampling method. Finally, a total of fifty women were used in the study (Ibid.).

Suya's study had the following five main objectives to establish. a) factors that lead to late booking with an aim to encourage the expectant mothers to book early, b) whether mothers received adequate information on the importance of booking early for antenatal care, c) to assess the accessibility of antenatal services, d) to establish

reasons why expectant mothers started their antenatal sessions late, and, e) to make recommendations for all parties concerning what changes should be made in the provision of antenatal services in order to encourage expectant mothers to start their antenatal sessions early.

During the interviews, the women raised a number of reasons as to why they started their sessions late (Ibid.). Eight women wanted to reduce the number of visits, seven women were not sure they were pregnant, seven women were late due to financial reasons, seven women did not know about the availability of the antenatal services, while another five Women said the distance to the clinic was too long. Four women felt shy, four women raised medical reasons, three (3) women had no reason, and two (2) Women said the clinic was too congested.

Through the focus group discussions, the following reasons were revealed as explaining why the women registered for antenatal sessions late (Ibid.). Poor nursing staff attitude, Poor quality of services, lack of supplies such as equipment and drugs, inadequate staff leading to congestion at the clinic, shyness and laziness.

The study revealed that most of the late starters were young, lowly educated, unemployed and of low parity (first time expectant mothers or expectant mothers with four or less children).

Suya recommended for the following (Ibid):

- 1) More training for the nurses,

- 2) Equal distribution of the nurses (some clinics had several nurses while others had very few)
- 3) Universal primary education to all women,
- 4) The District Health Management Team to conduct periodic workshops for the nursing staff on human relations, moral ethics, and better ways of disseminating health information and in handling mothers to win their confidence,
- 5) For the LUDHMB to provide incentives for early bookings, and,
- 6) For the LUDHMB to reward deserving staff with positive motivation.

Suya's findings make interesting reading for the researcher, in that, in a way they are all pointing towards the need for further research. In this age of massive information dissemination via highly developed mass media, a high number of women did not know about the availability of antenatal services. Another high number of women were not sure they were pregnant. The current study tried to find out why despite the wide information dissemination on health matters, there were still cases like the above.

Suya's study does not provide recommendations for any community based initiatives at ensuring early antenatal session attendance. There is a current emphasis on the "bottom - up" approach in development, that is, development

which has the full participation of the community. In this connection, this study will assess the informal modes and messages of communication used in the community and try to establish how these can be used to provide positive community - based initiatives at information dissemination.

Nsemukila (1998) noted a high antenatal attendance by expectant mothers. For the whole of Zambia it was 91.7 percent, for Lusaka, it was 93.1 percent. He further noted that there was a positive correlation between the high level of education and antenatal attendance. Women who had attained post secondary school education had a 100 percent antenatal attendance. Those who had never been to school had a 86.8 percent attendance (Ibid).

Women who attended antenatal sessions were found to be at a lower risk of dying from complications due to pregnancy than those who had not. For non-attendants the risk was 5.55 percent while for those who had attended it was 1.00 percent (Ibid).

Nsemukila's study does not provide specifics on the stage at which the women started to attend antenatal sessions. This is an important omission because starting the sessions late does have a negative impact on the expectant mother's health and that of her unborn child. The current study tried to pay attention to the time at which the women started the antenatal sessions.

Jefferson (1972) quoted in Zulu (1980) carried out a study in the coloured community of Cape Town - South Africa. She compared the number of still births

in the coloured community of Cape Town, South Africa to that of Dar es salaam, Tanzania and discovered that there were fewer still births (23.2 for every 1000) in the coloured community of Cape Town as compared to the community in Dar es salaam which had 37 still births out of every 1000 births (Ibid). The lower still births in the Coloured community of Cape Town South Africa were attributed to the massive campaign on early registration for antenatal sessions and a positive response to the campaign. In Dar es salaam, the women registered late and preferred to seek advice on self - help remedies from fellow women in the community. They claimed to be dissatisfied with the treatment at the hands of uncaring physicians. They endeavoured to instruct one another on how to help themselves when faced with gynological problems (Ibid).

CHAPTER FIVE

5.0 MAJOR FINDINGS AND INTERPRETATIONS

5.1 Benefits form Training in Counselling

Out of the 20 nursing staff interviewed seventeen (17) 85 percent had training in counselling while, three (3)15 percent had no such training in counselling. All the seventeen (17) 100 percent who had received training in counselling said that it had helped them in communicating with women attending antenatal clinics. Therefore, adequate and beneficial communication with the women attending antenatal clinics maybe, at least in part, dependant upon the nursing staff's training in communication skills (counselling).

5.2. Ability to Communicate with Patients and Superiors.

TABLE I.

		Ability to Adequately Communicate with Your Superiors		
		YES	NO	
Ability to adequately Communicate with Women attending Antenatal Clinic	YES	9	8	17
	NO	1	2	3
TOTAL		10	10	20

Table I on page 38 is a comparison of the nursing staffs ability to adequately communicate with the women attending antenatal clinics and their ability to adequately communicate with their superiors.

Of the 20 nursing staff interviewed, 17 (85 percent) said that they were able to adequately and beneficially communicate with the women attending antenatal clinics. Of the 17, nine (53 percent) said their needs were satisfied through the mode of communication with their superiors. Eight (47 percent) said that communication with their superiors was not adequate and beneficial (their needs were not met). With these results, it does not seem like ability of the nursing staff to adequately and beneficially communicate with the expectant mothers is related to adequate and beneficial communication with their superiors.

5.3. Satisfaction of Needs and Method of Communication with Superiors.

TABLE-II

		Satisfaction of needs through communication with superiors		
		YES	NO	TOTAL
Method of Communication with Superiors	MEETINGS	8	1	9
	LETTERS		1	1
	VISITS	2	8	10
TOTAL		10	10	20

Table II on page 39 is a comparison of the method used by the nursing staff to communicate with their superiors and whether the method of communication used was beneficial to the nursing staff (did they have their needs met).

Of the 20 respondents, Ten **(50 percent)** said that they communicated through visits. Of the ten, eight (80 percent) said this method of communication with their superiors was not beneficial. Two (20 percent) said it was beneficial

Nine **(45 percent)** said they communicated through meetings. Of the nine, 8 (89 percent) said the method of communication was beneficial. One (11 percent) said that it was not beneficial.

One **(5 percent)** said they communicated through letters and that this method of communication was not beneficial

The results above, show that the most beneficial method of communication between the nursing staff and their superiors is through meetings. Meetings had the highest number of respondents 8 (89 percent) to state that this mode of communication was beneficial to them.

5.4. Provision of Information to Community at Large

Table III on the following page shows the responses from the nurses to the query on whether the clinic that the nurses operated from gave out information to the community at large on the importance of early and consistent antenatal care.

Out of a total of twenty respondents, eighteen 18 (90 percent) of them agreed that the clinics they operated from did give out information to the community at large on the importance of early and consistent antenatal care. Two (10 percent) stated that the clinics they operated from did not. This suggests that there is no uniform policy or guideline concerning the dissemination of information by the Health Centres to the community at large, a rather unfortunate finding.

TABLE III Provision of Information to Community at Large

	Frequency	Percentage
YES	18	90
NO	2	10
TOTAL	20	100

5.5. Media used by Clinics to Communicate to the Community on the importance of Early and Consistent Antenatal Care

TABLE-IV

Medium	Regularly used	Sometimes Used	Not Used
Posters, Pamphlets, Brochures	9(45%)	6(35%)	3(20%)
Radio	0(0%)	0(0%)	18(100%)
Television	1(5%)	0(0%)	17(95%)
Interpersonal communication	17(95%)	0(0%)	1(5%)
Computer	0(0%)	0(0%)	18(100%)

Table IV on page 41 shows the medium usage by the clinics to communicate to the community at large on the importance of early and consistent antenatal care.

Interpersonal communication has the highest regular usage of 17 (95 percent) out of the 18 respondents. Computer communication has the lowest regular usage of zero (0 percent) out of 18 respondents. Posters pamphlets and brochures were sometime used by six (35 percent) out of 18 respondents. Computer and radio communication have the lowest rate of usage.

Using the results above, one can state that the most regular form of communication used by the clinics to communicate to the community at large on the importance of early and consistent antenatal care is interpersonal communication. The nursing staff go out into the community to verbally and directly talk to the people on the importance of early and consistent antenatal care. According to the results above, Computer and radio communication are not used.

5.6 Regular Usage of Mass Media and Registration for Antenatal Clinics

TABLE V

Medium	Month of Registration			
	TWO TO THREE MONTHS	FOUR TO SIX MONTHS	SEVEN TO NINE MONTHS	TOTAL
Newspaper	1 (12.5%)	7 (87.5%)	0 (0%)	8 (100%)
Radio	10 (17%)	47 (78%)	3 (5%)	60 (100%)
Television	8 (16%)	41 (82%)	1 (2%)	50 (100%)
Computer	0 (0%)	3 (100%)	0 (0%)	3 (100%)

Table V on page 42 is a comparison of the expectant women's regular mass media usage and their time of registration for antenatal clinics. Out of the eight women who regularly used the newspaper, none registered at one month. One (12.5 percent) registered at two – four months, seven (87.5 percent) registered at four – six months. None registered at seven – nine months. Out of the sixty women who regularly used the radio, none registered at one month, ten (17 percent) registered at two – three months, 47 (78 percent) registered at four – six months, three (5 percent) registered at seven – nine months. Out of the 50 women who regularly used the television, none registered at one month, eight (16 percent) registered at two – three months, 41 (82 percent) registered at four – six months, one (2 percent) registered at seven – nine months. Out of the three women who regularly used the computer, three 100 percent registered at four – six months.

The results above show that the majority of the expectant women who had regular usage of mass media registered in their fourth – six months (second trimester) of pregnancy. Early registration for antenatal clinics is in the first trimester (first – third month). Therefore regular usage of mass media might not be a determinant of early antenatal registration. The results further reveal that radio is the most regularly used form of mass media amongst the expectant mothers. 60 percent of them regularly used the radio.

This is in line with the findings that health personnel in the clinics do not use the mass media as a tool for sharing their knowledge about antenatal care (See Table IV).

5.7. Source of Information on Antenatal Care

Table VI shows other (apart from the clinic and nursing staff) sources of information on antenatal care used by the expectant mothers.

TABLE-VI Source of Information on Antenatal Care used by mothers

	Radio	TV	N/Paper	Computer	Posters Pamphlets Brochures	Magazines	Inter Personal
Regularly used	51	44	4	1	39	24	68
Sometimes Used	31	27	13	13	19	31	29
Rarely used	4	4	6	1	4	5	0
Never Used	14	25	77	98	38	40	3
Total	100	100	100	100	100	100	100

Interpersonal communication, that is verbal and direct communication amongst the expectant women themselves, with friends, relatives and other community members was ranked as the most regularly used source of information on antenatal care. 68 out of the 100 respondents used interpersonal communication as a regular source of information on antenatal care. 51 out of 100 respondents used the radio as a regular source of information on antenatal care. 44 out of 100 respondents used the television as a regular source of information on antenatal care. 39 out of 100

respondents used the posters, pamphlets and brochures as a regular source of information on antenatal care. 24 out of 100 respondents used the magazines as a regular source of information on antenatal care. 4 respondents out of 100 used the newspapers as a regular source of information on antenatal care. One out of 100 respondents used the computer as regular source of information on antenatal care. However, the access to mass media appears not yet fully exploited by health personnel in the clinics (see Table IV).

The results show that interpersonal communication is the most regularly used source of information on antenatal care by the expectant women.

5.8. Ability to Freely Communicate with the Nursing Staff and Age of Respondent

Table VII

		Age of Respondent			
		12 – 19	20 - 35	36- 45	TOTAL
ability to Freely Communicate with the Nursing Staff	YES	8	73	7	88
	NO	1	11		12
Total		9	84	7	100

Table VII looks at the respondents age and compares it with their ability to freely communicate with the nursing staff.

Out of 100 respondents, Nine were aged between 12 – 19 years. Of these, eight (89 percent) were able to freely communicate with the nursing staff. 84 respondents

were aged between 20 -35 years. Of these, seventy three (86 percent) were able to freely communicate with the nursing staff. Seven respondents were aged between 36 – 45 years. All the seven (100 percent) were able to freely communicate with the nursing staff.

89 percent) of the women in the youngest age group 12 – 19 were able to freely communicate with the nursing staff whilst, only 84 percent of the older age group 20 – 35 years were able to freely communicate. Therefore, age does not seem to be a determinant of the ability to freely communicate with the nursing staff

5.9. Expectant Father’s Educational Level and Attendance at Antenatal check ups with Respondents

Table VIII on the following page compares the expectant father’s educational level and their having been to the antenatal clinics with their partners.

Out of the one hundred respondents:

One (1) had no formal education and had not been for antenatal clinic.

16 of them had acquired grade one to seven (1 – 7) education. One (7 percent) had been to the antenatal clinic with his partner. 45 of them had acquired grade eight to twelve (8 – 12) education. Ten (22 percent) had been to the antenatal clinics with their partners. 34 had acquired college or University education. 12 (35 percent) had been to the antenatal clinics with their partners.

The results above show that out of a total of 100 expectant Fathers, only 25 percent accompanied their partners for antenatal clinic. The highest percentage of partners

who accompanied their partners to the antenatal clinics is that of those who had acquired college or University education, (35 percent of 34 partners). It therefore seems like the higher the partners educational level, the more likely they are to accompany their expectant partners to antenatal clinic.

Table VIII Father’s Educational Level and Attendance

		Has your Partner ever been to Antenatal Check ups with you		
		YES	NO	TOTAL
Expectant Fathers Educational Level	NO FORMAL EDUCATION		1	1
	GRADES 1- 7	1	15	16
	GRADES 8 -12	10	35	45
	COLLEGE AND UNIVERSITY	12	22	34
	NOT SURE	2	3	5
Total		25	75	100

5.10. Age of Pregnancy at Registration for Antenatal Clinic and Expectant Woman’s Educational Level

Table IX on the following page shows the results of a comparison between the respondents level of education and the time that they registered for antenatal clinic. Out of the hundred respondents none registered at one month. Six had no formal education and all the six (100 percent) registered between four – six months. 37 had acquired grade one – seven (1 – 7) education. Six (16 percent) registered between

two to three months, 28 (76 percent) registered between four to six months. Three (8 percent) registered between seven to nine months.

28 had acquired grade eight to nine (8 - 9) education. Two (7 percent) registered between two to three months, 24 (86 percent) registered between four to six months.

Table IX Age of Pregnancy at Time of Registration and Mothers Educational level

		Educational Level					
		No Formal Education	Grade 1 - 7	Grade 8 - 9	Grade 10 - 12	College/ University	Total
How old was pregnancy when you registered for Antenatal	TWO TO THREE MONTHS		6	2	4	4	16
	FOUR TO -SIX MONTHS	6	28	24	16	5	79
	SEVEN TO - NINE MONTHS		3	2			5
Total		6	37	28	20	9	100

2 (7 percent) registered between seven to nine months. 20 had acquired grade ten to twelve (10 to 12) education. Four (20 percent) registered between two to three

months, 16 (80 percent) registered between four to six months. None registered between seven to nine months.

Nine had acquired college to University education. Four (44 percent) registered between two to three months, five (56 percent) registered between four to six months, None registered between seven to nine months.

The earliest time of registration for all the educational categories was two to three months. Respondents who had acquired college or university education were highest in this category (44 percent). However on the whole it does not seem like the period of registration is dependant on the expectant mother's educational level.

5.11 Number of Children Alive and Time of Registration for Antenatal Clinic

Table X on the following page shows the result of a comparison of the respondents number of children and the time of registration for Antenatal Clinic.

The research revealed that the earliest time of registration amongst all the respondents was two – three months. None of the respondents registered at one month. Amongst those in the group that had one or no children, 13 of them registered between two to three months (early). 63 registered between four to nine months(late) Amongst those in the group that had two and above children, Three registered between two – three months (early). Twenty one registered between four to nine months (late) Therefore, for every one mother with one or no children who registered early, four registered late. For every one mother with two and above children who registered early, Seven registered late. The results reveal that they are more mothers who register late in the category of mothers with two and above children than there are in the category of mothers with one or no children.

Table X Number of children alive

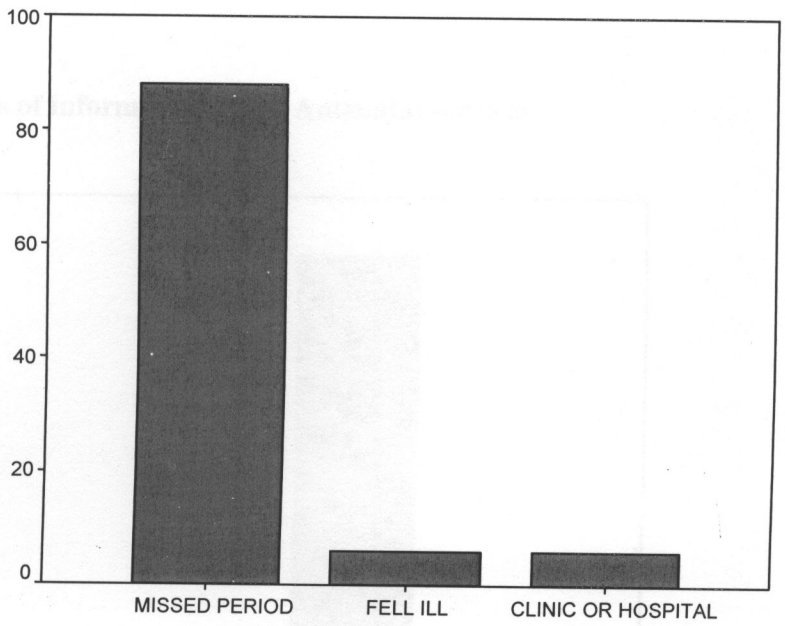
		Time of Registration for Antenatal			
		Two to three Months	Four to Six Months	Seven to nine months	Total
Number of Children Alive	ONE	7	31	3	41
	TWO – FOUR	3	17	1	21
	FIVE AND ABOVE		2	1	3
	NONE(has given birth before but children died)	3	20		23
	NONE (Carrying first pregnancy)	3	9		12
TOTAL		16	79	5	100

5.12 Ways the Respondents Discovered that they were Pregnant

Table XI on the following page shows the various ways in which the respondents discovered that they were pregnant. 90 percent discovered that they were pregnant when they missed their monthly periods. five percent discovered when they fell ill. (vomiting, dizziness and fatigue).

five percent discovered when they had visited the hospital for other illnesses and a test of their urine revealed the pregnancy. The results above reveal that missing of the monthly period was the most common way of establishing ones pregnancy. A small proportion of the expectant women had to go through the unfortunate circumstance of falling ill before they knew they were pregnant. This suggests that there is need for better provision of information on safe motherhood to the public at large.

TABLE XI Ways the Respondents Discovered that they were Pregnant



5.13. Source of Information about the Antenatal Services offered in the Community

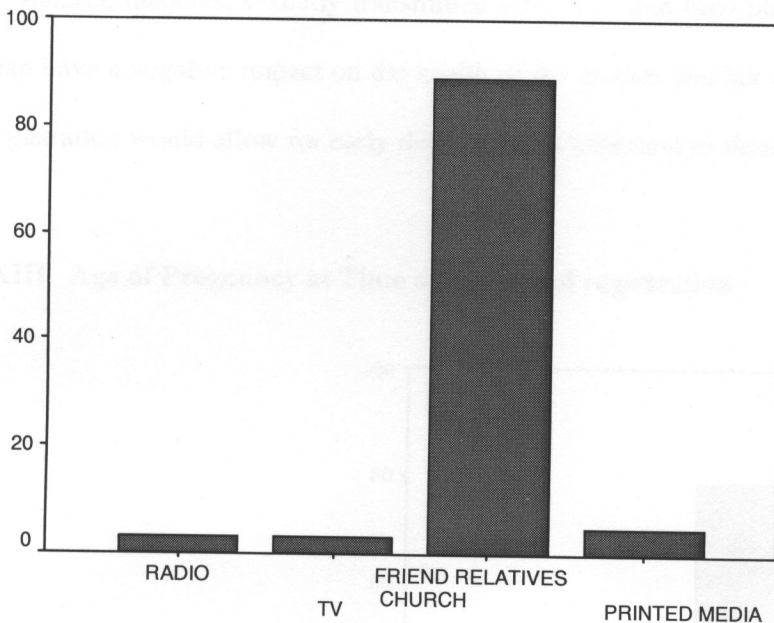
Table XIII on the following page shows the various media through which respondents found out about antenatal services offered in their community.

90 percent of respondents found out through interpersonal communication with their friends, and relatives in the community.

3 percent of the respondents found out through the radio 3 percent of the respondents found out through the television while 4 percent of the respondents found out through the printed media (newspapers, pamphlets, posters and brochures).

The results above reveal that expectant mothers obtained information on the availability of antenatal services in their communities mainly through interpersonal communication

Table XII Sources of information about Antenatal services



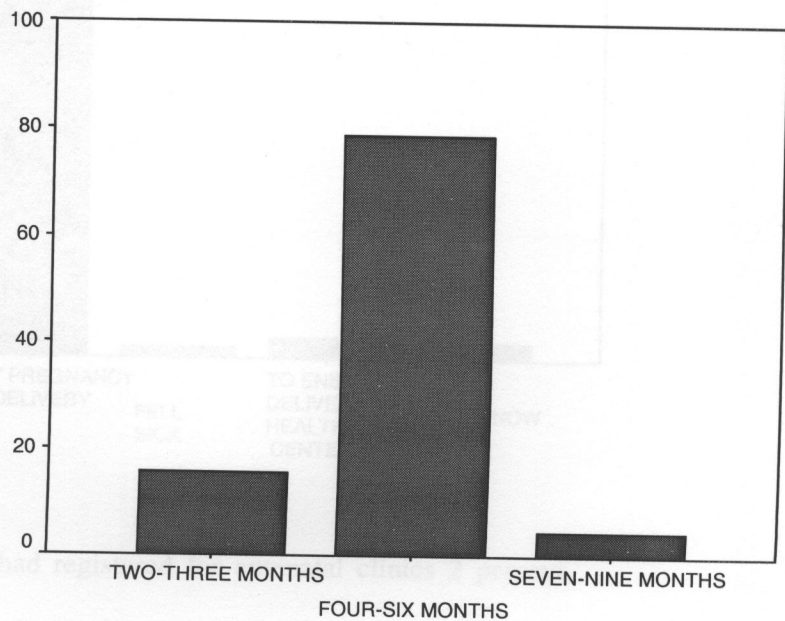
with friends and relatives. Therefore it is important that health institutions identify opinion leaders in the community, provide them with information on the importance of early and consistent antenatal care and work with them in the dissemination of this information to the rest of the community.

5.14 Age of Pregnancy at Time of Registration for Antenatal Care

Table XIII on the following page shows the results of the age of pregnancy at which the respondents registered for antenatal care. None of the respondents registered at one month. 18 percent of the respondents registered at two to three months

77 percent of the respondents registered at four to six months. 5 percent of the respondents registered at seven to nine months. These results reveal that the majority of the respondents registered their pregnancies late at four to six months (in the second trimester). Late registration leads to the late detection of ailments such as Malaria, diabetes, sexually transmitted infections and high blood pressure. These can have a negative impact on the health of the mother and her unborn child. Early registration would allow for early detection and treatment of these ailments.

Table XIII Age of Pregnancy at Time of Antenatal registration



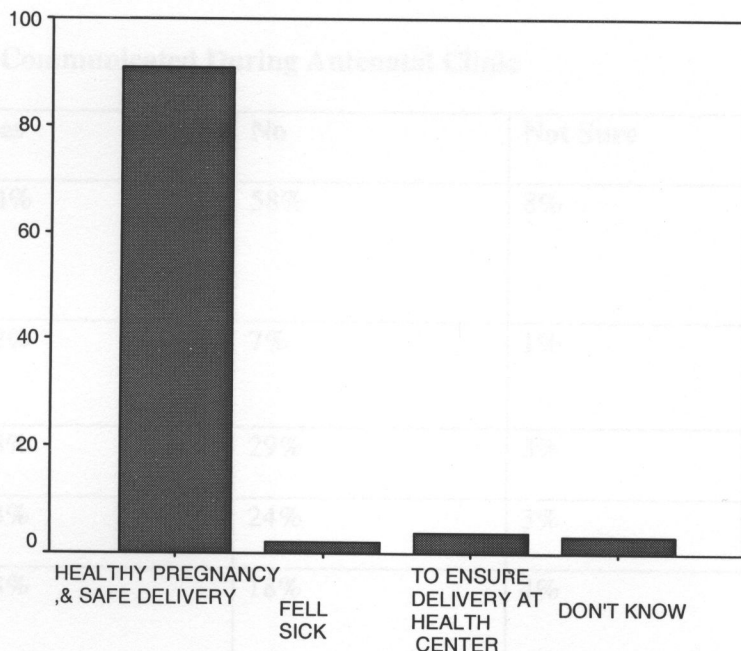
5.15. Reasons for Registering for Antenatal Clinic

Table XIV on the following page shows the reasons why the respondents registered for antenatal clinic.

91 percent of the respondents registered for antenatal clinic because they wanted to ensure a healthy pregnancy and a safe delivery.

4 percent registered for antenatal clinics because they wanted to ensure that they delivered in a Health Centre.

Table XIV Reasons for Registering for Antenatal Clinic



3 percent were not sure why they had registered for antenatal clinics 2 percent registered for antenatal clinic because they had fallen ill during pregnancy.

The results show that a large majority of the respondents (91 percent) registered to ensure a healthy pregnancy and a safe delivery. However, it was surprising that 3 percent of the women did not know why they had registered for antenatal. These results prove that there is a great need for information dissemination on the importance of early and consistent antenatal care. The women can only value and

practice early and consistent antenatal care if their know the reasons why they should register and the benefits that they will draw from it.

5.16 Respondents Answers as to Information Communicated During Antenatal Clinic

Table XV shows the information communicated to the women during the antenatal clinic.

Table XV Information Communicated During Antenatal Clinic

Information	Yes	No	Not Sure
Dangers of Teenage and over age (above 35 years) pregnancy	34%	58%	8%
Dangers of STIs, HIV and AIDS in Pregnancy	92%	7%	1%
Dangers of Alcohol and Drug Abuse	68%	29%	3%
Important Nutritional needs	73%	24%	3%
Importance of Environmental and Body Hygiene	78%	18%	4%
Blood Pressure and Diabetes in pregnancy.	56%	35%	9%

34 percent of the women said that they had received information on the dangers of teenage and over age pregnancy (above 35 years). 58 percent said they had not received any information on the dangers of teenage and over age pregnancy. 8 percent said they were not sure if they had received any information on the dangers of teenage and overage pregnancy.

92 percent of the women said that they had received information on STIs, HIV and AIDS. 7 percent said that they had not received any information on STIs, HIV and AIDS. 1 percent said that they were not sure if they had received any information on STIs, HIV and AIDS.

68 percent of the women said that they had received information on the dangers of alcohol and drug abuse. 29 percent said that they had not received any information on the dangers of alcohol and drug abuse. Three percent said that they were not sure if they had received any information on alcohol and drug abuse

73 percent of the women said that they had received information on nutritional needs in pregnancy. 24 percent of the women said that they had not received any information on nutritional needs in pregnancy. 3 percent of the women said that they were not sure if they had received information on nutritional needs in pregnancy.

78 percent of the women said that they had received information the importance of body and environmental hygiene. 18 percent said that they had not received any information on the importance of body and environmental hygiene. 4 percent said that they were not sure if they had received any information on body and environmental hygiene.

56 percent of the women said that they had received information on the dangers of high blood pressure and diabetes in pregnancy. 35 percent of the women said that they had

not received any information on the dangers of high blood pressure and diabetes in pregnancy. 9 percent said that they were not sure if they had received any information on the dangers of high blood pressure and diabetes in pregnancy.

From the results above, one can state that the most commonly shared information during antenatal clinic was information on STIs, HIV and AIDS with 92 percent of the women saying that they had received information on it.

The least shared information during antenatal clinics was information on the dangers of teen age and over age pregnancy. 58 percent of the women said that they had not received any information on it. This is unfortunate as media reports indicate that teenage pregnancy is on the increase. The presence of expectant mothers at the clinics affords the health personnel an excellent opportunity to share useful knowledge and information on the growing problem.

5.17. Current Attendance and whether attended Antenatal Clinic Consistently in the Previous Pregnancy.

Table XVI

		Did you Attend Antenatal Clinic Consistently in Last Pregnancy			Total
		Yes	No	Not Applicable(First time Mother)	
Do you Attend Clinic Consistently in present pregnancy	Yes	66	1	30	97
	No	2		1	3
Total		68	1	31	100

Table XVI on page 57 shows that out of the Sixty nine respondents who had given birth before, 68 (98 percent) had consistently attended antenatal clinics in their last pregnancy. One (2 percent) had not. Sixty six (96 percent) were consistently attending antenatal clinic in their current pregnancy, Two (3 percent) were not. 31 of the respondents were first time mothers. Of these, thirty were currently attending antenatal clinic consistently while One was not.

Amongst the women who had given birth before, the results show a decline in the number of those presently consistently attending antenatal clinic as compared to those that consistently attended in their last pregnancies.

5.18. Respondents Ability to Read

Table XVII shows the number of respondents who were able to read and those who were not able to read.

Table XVII Respondents Ability to Read

	Frequency	Percentage
Able to read	83	83%
Not able to Read	17	17%
Total	100	100%

83 percent of the respondents were able to read. 17 percent of the respondents were not

able to read. This information is important in that it reveals that 17 percent of the respondents had no direct access to printed media. They had to depend on others who could read to share the information with them (Multi - step flow of

information) The research further revealed that indeed there was a Multi step flow of communication in the community. Female relations to the expectant woman, female neighbours, her male partner, traditional healers, Traditional Birth Attendants and church mates constituted the opinion leaders who were directly exposed to the mass media especially the printed media. The opinion leaders furnished the expectant woman with most of the information on antenatal care. They further helped her to decide when and where to register for antenatal care. The research reveals that 68 percent of the respondents got information on antenatal care through inter personal communication with the opinion leader's group above.

The research further revealed that with the influence of the opinion leaders, the expectant women had decided to select from the on going information campaign being ran by the Ministry of Health, the importance of antenatal care. 91 percent of the respondents were able to clearly and correctly state the importance of antenatal care. However, again with the influence of the opinion leaders, the expectant women had not placed much emphasis on the importance of early registration. This was despite the fact that both points are emphasized upon in the same campaign (some of the reasons for this have been explained on pages 27 and 28). The research reveals that 17 percent of the respondents have direct access only to other forms of mass media such as radio, and television and not to the printed media. For a country like Zambia with illiteracy levels of 29 percent amongst the female population aged 15 years and above (UNICEF, 2003:99), the fight against illiteracy must be accompanied with maximum development and usage of mass media that can be directly accessed by those who are illiterate (Radio and Television).

5.19 Respondents Recommendations to Improve the Services provided at the Antenatal Clinic

Table XVIII shows the respondents recommendations to improve the services delivered at the antenatal clinic.

Table XVIII Respondents Recommendation to Antenatal Clinic

Recommended Services	Number of Respondents
Nurses must be more Friendly	8
More Counselling to be done	6
More Nurses must be Employed	8
Provision of Medicines for Ailments	3
Provision of brochures and Pamphlets	1
More Time to be Provided for Antenatal Clinic	1
Provision of Delivery Services	14
Frequent Antenatal Check ups	1
Nothing (Fully Satisfied with Current Services	58
Total	100

58 percent of the respondents said that they were fully satisfied with the services currently offered at the antenatal clinic and that nothing else could be done to improve the services. Eight percent of the respondents said that they would like to see more nurses employed to handle antenatal clinics. Eight percent of the respondents said that the nurses must be more friendly. Six percent of the respondents said that they would like to see more counselling sessions being offered

at the clinic. Three percent of the respondents said that they would like to see the provision of medicines for various ailments

One percent of the respondents said that they would like to see the clinic distributing pamphlets and brochures with information on pregnancy. One percent of the respondents said that they would like to have more frequent antenatal sessions. They would like to have antenatal session every month and not every trimester (three months) like it is presently done. 14 percent of the respondents said that they would like the particular clinic which they attended to provide delivery services. One percent of the respondents said that they would like to see more time spent on antenatal clinic (A whole day, both morning and afternoon, unlike the current practice where antenatal clinic only takes place in the morning).The results show that only 58 percent of the respondents were happy with the services currently being provided in the antenatal clinics. For a country like Zambia which is interested in achieving excellent health service delivery, 58 percent is not satisfactory.

5.20. Reasons Respondents did not Register for Antenatal Clinic at One Month of Pregnancy.

Table XIX on the following page shows the reasons why the respondents did not register at one month of pregnancy.

32 percent of the respondent were busy with other chores and they were trying to reduce the number of visit to the antenatal clinic. 30 percent suspected that they could be pregnant at one month but they were not sure, they had decided to give themselves time to be sure.

16 percent were advised by their relative and or friends to start later. Eight percent said they had been advised by the nursing staff to register for antenatal clinic later.

Six percent felt shy to have their pregnancies registered at one month. Five percent said they had tried to register but the nursing staff at the clinic had no time to see them.

Table XIX Reasons the Respondents did not Register at one Month.

Reasons	Frequency	Percentage
Not sure about Pregnancy	30	30%
Felt Shy	6	6%
Was not sick and saw no reason to register	2	2%
Tried to reduce the number of visits	32	32%
Was advised by Relatives / friends to start later	16	16%
Was advised by Nurse to start later	8	8%
Clinic had no time to see me	5	5%
Don't know why	1	1%
Total	100	100

Two percent said that they were not ill and so they did not see any reason to register at one month. One percent said they did not know that they were pregnant until much later.

The results show that 30 percent of the respondents were not sure that they were pregnant in their first month of pregnancy. There is a great need for information dissemination on the signs and symptoms of pregnancy and the steps to take once pregnancy has been confirmed.

5.21. In- Depth Interviews

5.21.1. The Ministry of Health

At the Ministry of Health, the researcher had the opportunity of interviewing the Safe Motherhood focal person. The respondent stated that the Ministry carries out studies every five years (The Demographic Health Survey). It is through this survey that issues of antenatal care are established. The last survey in 2001 revealed a high antenatal coverage and attendance in Zambia. It also revealed that most women started their check ups in the second trimester (4 -6 months). The reasons advanced for this were in most cases socio-cultural. The women believed that registering for antenatal care in the first trimester would invite issues of witchcraft leading to miscarriage.

The Ministry of Health has concentrated most of its efforts on the promotion of Primary Health care facilities. They have further adopted an integrated communication approach where issues of Prevention of Mother to Child Transmission of HIV and, Malaria prevention are all tackled under Antenatal care. The Ministry of Health, has an ongoing information campaign programme that is

supported by the United Nations Population Fund, (UNPF) The United Nations Children Emergency Fund (UNICEF) and the , Christian Children fund.

The campaign focuses on poster production and radio and television programmes with the main objective of promoting early and consistent antenatal care. The above campaign programme is an ongoing one, targeting the whole of Zambia. The Demographic and Health Survey results of (1996) showed that most women were not consistent in attending antenatal clinics. The women were required to report for antenatal care once every month from the time that they registered to the time that they delivered their babies. The survey showed that most women felt that this was too much for them and they had decided to cut down on the number of times they visited the clinics by registering late.

In response to the above observation, the Ministry of Health decided to draw up a new programme for antenatal care that only required an expectant mother to attend the clinic at least four times before delivery. Through this, the Ministry emphasised on quality care as opposed to the quantity (number of times expectant mother attends clinic) In the four visits, the clinic would aims to provide as much care and information as possible to the expectant woman.

The Ministry of Health was working with the Centre for Infectious Disease Research in Zambia (CIDRZ) to install information and communication technology (ICT) in the health centres. This would lead to the establishment of the Zambia Electronic Perinatal records System. This project was as a result of observing and realizing that the health care system of pregnant women and newborns in Lusaka

was large and complex. The over burdened health workers spent valuable time re-entering patient data into multiple registers. They had less time to care for patients. It was further time-consuming for health care officials to monitor and investigate outcomes.

The above observations above led to the birth of the project meant to benefit the expectant mother in that she can receive better care because the nursing staff will have more information and more time to focus on giving care. The nursing staff will be able to monitor and to track patients, quickly see entire patient histories and to analyse the outcomes. The Health Centres will be able to monitor results and have better information about the population. At the first visit of the expectant mother to the antenatal clinic, the nursing staff would enter her information into the system. On her subsequent visits, stored information would be readily available in the system and there would be no need for re-entering even if the expectant mother decided to go to another clinic within Lusaka.

Security and confidentiality of the patient information will be of highest importance. Electronic records will help to make patients information more secure than the current paper system because the system limits access to patient data. Nursing staff will have to enter a pass word to see an individual's records .The system would allow for automated referrals from the clinics to the University Teaching Hospital (UTH). The clinic would still be able to monitor the patients referred to UTH.

The nursing staff will be provided with free computer training at the workplace. Each health person involved in antenatal care will be provided with an e-mail

address. Wireless equipment will be mounted to allow for communication among clinics and other network location . Every clinic in the Lusaka district would be provided with a printer and a computer. The Ministry of Health's future plans in relation to communication for antenatal care are to reinforce that which already exists, that is to continue with the nation wide information campaign programme stated above.

5.21.2. The Christian Children's Fund

The Christian Children's Fund (CCF) is a Non-governmental organization, which was established in the United States of America in the 1950s. It was set up to try and help children from under privileged communities, to ensure that these children were provided with their most basic needs these are food, clothing, shelter, education and health.

The CCF was established in Zambia in 1983. Its operations are mainly concentrated in the rural areas of Zambia. Ensuring that the Zambian under privileged child is provided with the most basic needs, from the time of its conception, CCF has greatly contributed towards the establishment of health centres in Zambia where antenatal care is one of the major services offered.

The researcher spoke to the Child Protection Officer for CCF and found out a number of important matters The CCF has as one of it's main activities the creation of awareness on the merits of antenatal care. This is done through the following activities:

- (1) Promotion of mobile antenatal clinics
- (2).Promotion of Traditional Birth Attendants through the facilitation of their training
- (3) Provision of quality antenatal services through the health centres supported by the CCF
- (4) Consistent monitoring and evaluation of the antenatal services.
- (5) Provision of information on safe sexual reproductive services
- (6) Promotion of Prevention of Mother To Child Transmission (PMTCT) and Voluntary Counselling and Testing as an entry point for the provision of Nave rapine
- (7) Promotion of post partum care

A base line survey to evaluate the service outlined above was carried out by CCF in April 2004. It revealed that the activities were a success. The numbers of women attending antenatal clinics had increased. The survey further revealed that there was a high level of appreciation of the services amongst the recipients.

A study had been carried out by the CCF to try to establish the levels of women attending antenatal clinics as compared to those reported pregnant in a specific period in Zambia. The study was carried out in Mumbwa district. In 70 percent of the rural health centres where the study was carried out, the results were not impressive. Most of the expectant mothers did not register for antenatal care.

Three main contributing factors to the poor levels of attendance were outlined.

(1) Religious Factors

A large population in Mumbwa belong to the Zionist Church. Conventional medicines, care and treatment are strictly not allowed in this church.

(2) Geographical Factors

Distances to the health centres are long . Women usually spent a whole day travelling to and from the centres.

(3) Economic Factors

Most mothers are not able to meet the requirements demanded by the clinics. The clinics usually demand that the expectant mothers provides a pair of gloves, razor blades and holders for the umbilical cord at the time of delivery. Transport costs to and from the clinic were unaffordable for most of the women in the area

The Christian Children's Fund is a member of the Zambia White Ribbon Alliance. This is an alliance of various organizations that are working together to try and promote safe motherhood in Zambia. It is through this organization that the CCF has participated in an information campaign for the promotion of antenatal care. The campaign was ran for a period of two weeks (10th October – 24th October 2003). Campaign activities were predominantly in Lusaka, however, other areas of Zambia were reached through the radio and television programmes. Apart from the radio and television programmes, the campaign used flyers, brochures and calendars carrying messages on the importance of antenatal care. However, a study has not been carried out to evaluate the impact of the campaign.

The CCFs future plans in relation to antenatal care are to carry out a one week national workshop for all the CCF skilled facilitators. Skills in information sharing on the importance of antenatal care will be one of the major topics. The facilitators would then go back to their centres in the country to train the local community members especially the TBAs on the importance of information sharing during antenatal care. The CCF is establishing a safe motherhood project in Mumbwa that will provide amongst other health services the following

- 1) Antenatal care
- 2) Delivery services
- 3) Post partum care
- 4) Newborn care and family planning

The CCF has further identified the printing and distribution of brochures and posters outlining the importance of antenatal care as one of its major future activities

5.21.3 The United Nations Children's Fund

(UNICEF)

UNICEF, an organ under the United Nations was initially set up in 1945, as a response to the plight of children who had been affected by the second world war. Today, UNICEF has evolved to become an advocate and facilitator for not only the well-being of children but also that of women and adolescents. UNICEF identifies the overall goal of strengthening Zambian capacities to promote sustained

improvements in the survival, development and welfare of women and children. This is to be achieved by positioning children and women at the centre of Zambia's reform and development agenda, increasing access to quality services and strengthening district, community and family capacities to protect and care for children

At UNICEF, the researcher interviewed the programme officer in the Primary Health Care and Nutrition Programme who revealed that in 1996, UNICEF carried out a safe motherhood needs assessment and it revealed that there was a 90 percent coverage in terms of antenatal care in Zambia. Despite the high coverage, the quality of the services offered during the clinics was what raised concern. The Demographic Health Survey of 2001 – 2002 further reflected the above concerns.

Both the 1996 Safe Motherhood Needs Assessment study and the Demographic Health Survey studies of 2001 – 2002, showed that most women started their antenatal clinics in their fifth month of pregnancy. It was difficult for the study to pick out consistency due to some noted limitations in the updating of records in the clinics. In cooperation with the government, UNICEF is under taking a five-year programme that is targeting three areas:

- (1) Child Health
- (2) Maternal and Adolescent Health
- (3) Nutrition

Under the Maternal and adolescent health sector, UNICEF is working with the Zambia Integrated Health Project (ZHIP) in the promotion of birth preparedness and in the provision of the following items to all the medical centres in Zambia - Rapid Plasma Reagin kits (RPP) used to detect syphilis in the expectant mothers, Iron supplements, bed nets and delivery gloves. UNICEF is also the main supporter of the television programme “Health Matters”. This is a programme that comes on air every evening during News time on the National television (ZNBC). Apart from the several other health issues that are looked at, the programme also looks at the importance of early and consistent antenatal care. It strongly urges women to register for antenatal care at the nearest health centre.

UNICEF has also produced a maternity counselling kit that is being used by the Ministry of Health to train the nurses and to support them in the counselling of expectant mothers. A health survey on the acceptability of the counselling kit revealed that the nurses found it very useful (Unicef 2004). The expectant mothers accepted the pictures in the kit and they gave an important suggestion to have pictures of fathers included, which had been left out in the original version.

UNICEF has future plans to carry out a communication campaign for the promotion of early and consistent antenatal care. The campaign will initially target the prevailing cultural beliefs and practices. Studies carried out by UNICEF have revealed that Zambians have very strong cultural beliefs and practices. The campaign will aim at promoting the positive ones while discouraging the negative ones. Secondly, the campaign will target the policy makers, urging them to place antenatal care on the national agenda especially the further training of medical staff

to equip them with the necessary skills in antenatal care. Finally, the campaign will target the government and other companies as employers to equip them with the necessary information on the importance of antenatal care for every expectant employee. Through the campaign, employers will be urged to give ample time and support to expectant women to allow them to register for antenatal care and to report for the clinic consistently.

5.21.4 The Zambia White Ribbon Alliance (ZWRA) for Safe Motherhood

This is a network of non-governmental organizations and partners that have combined forces to raise awareness and mobilize communities about the need to make pregnancy and childbirth safer for women and infants in Zambia. The alliance was formed in July 2000. The objectives of the alliance are to sensitise the public and the civic leaders on safe motherhood issues and to mobilizing communities to address these issues and to maximize the use of limited resources.

The alliance currently has thirty six members and it provides technical updates and statistic on deaths that are brought about due to unsafe pregnancies. The alliance has set up community action groups that are in charge of training Traditional Birth Attendants (TBAs) in the identification of women with complications and to refer these to medical centres. The TBAs are further trained to encourage expectant mothers to attend antenatal clinics and also to provide them with information on nutritional issues.

The Zambia White Ribbon Alliance (ZWRA) carried out an information campaign at the launch of the alliance in 2001. The following avenues were used during campaign:

- (1) There was a caption on the objectives of the alliance that ran in the three daily newspapers (Times, Daily mail and Post newspapers) for three months,
- (2) A weekly television programme entitled "Talkline" was aired every day for three months to discuss amongst other health issues the importance of safe motherhood,
- (3) A weekly radio program was aired on radio 2 looking at issues of safe motherhood,
- (4) Brochures were distributed to the public at every public event (Agricultural shows, World Health Day, World Aids Day) This is an on going activity and,
- (5) Drama shows on safe motherhood were performed at the Health Centres and also during other public events.

In November 2003, Zambia hosted fifty-two countries from all over the world for an international capacity-building workshop to look at the best methods of ensuring safe motherhood.

However, no survey has been carried out by the Alliance to establish the information campaigns impact on the Zambian population.

ZWRA has future plans of recruiting as many members as possible and to lobby for governmental recognition and support. The alliance plans to hold regular community based workshops where information sharing on the importance of antenatal care will be the major focus. It also plans to carry out a nation wide survey to establish the impact of the information campaign carried out in November 2001.

The in-depth interviews revealed that indeed both the government and non governmental organizations are doing a lot to communicate to the public on the importance of antenatal care. However, one notes that there has been no systematic evaluation on the impact of the communication campaigns.

The in- depth interviews further revealed that there is a lot of cooperation between the government and the other organizations and amongst the non-governmental organizations themselves. This is good in that it avoids the duplication of duties and it allows for sharing of information and resources

It is encouraging to note that UNICEF and the ZWRA have included the importance of the father's participation in the counselling kit and also in the Birth Plan. Both these are to be adopted for national usage.

5.22 Discussion of Results

5.22.1. Counselling

The results show that training in counselling does help the nurses to communicate adequately with the women attending antenatal clinic. It is a skill that enables the nursing staff to engage into a communicative relationship with the expectant mothers. The nurse allows the expectant mother to relax and to realise that she is communicating with a capable individual who is trained to listen attentively to her concerns, to give advise and information, and to maintain confidentiality.

Nursing staff usually go for training in counselling which lasts for six – eight weeks involving both class and practical work. This training enables them to communicate with the expectant women on various topics. HIV/AIDS, Sexually Transmitted Infections, marital and economic concerns are some of the most common calls for counselling.

Training in counselling does include pre and post test counselling for HIV/AIDS. Every expectant woman-attending antenatal sessions in the LUDHMB clinics is provided with an opportunity to undergo voluntary counselling and testing for HIV/AIDS.

5.22.2 Adequate Communication with Superiors and Adequate Communication with the Expectant Mothers.

Results show that despite some of the nursing staff not communicating well with their superiors, they still managed to adequately communicate with the women attending antenatal clinic.

This shows that adequate communication between the nursing staff and the women attending antenatal clinic may not be related to beneficial communication with superiors. Training in counselling cited above is likely to be one of these variables accounting for good communication ability in general. Further research can be carried out to identify the other variables.

5.22.3. Method of Communicating with Superiors.

Meetings are identified by the nursing staff as the most beneficial way of communicating with their superiors. Meetings may have been chosen because they provided for an environment where the two parties communicated interpersonally, with immediate feed back.

The visits by superiors were identified as not been adequate because they were irregular, hurried and did not providing for a situation where members of the two parties sat down to formally communicate. Usually, during these visits, the superiors from LUDHMB only spoke to the sisters in charge.

Communicating through letters was identified as not being adequate in that it is impersonal, takes long and did not provide for immediate feedback. In most cases the superiors took long to respond to the contents of the letters.

5.22.4. Clinic's Communication with The Community at Large

Apart from communicating with the women attending antenatal clinic, most of the clinics under the study did communicate with the community at large on the importance of early and consistent antenatal care. The most commonly used medium of communication was interpersonal where the nursing staff spoke verbally and directly to the audience. Brochures, pamphlets and posters were sometimes used. The radio, television, newspapers and the computer were never used at all.

Communicating with the community at large is important in that it is within the community that the present and future expectant mothers are found. It is also within these communities that individuals who have a lot of influence on the expectant mother's decision concerning her pregnancy (opinion leaders) are found. Once provided with correct and adequate information, these people are very likely to share the information with the expectant mother and help to influence her decisions positively.

90 percent of the respondents learnt about the antenatal services provided in the community through friends, relatives, and church mates. 16 percent of the respondents knew about their pregnancies at one month, yet they decided not to register because they had been advised not to by friends and relatives. 68 percent

of the respondents stated that their main source of information on antenatal care was interpersonal communication with friends and relations. All these examples show that, indeed, interpersonal communication does have a lot of influence on the expectant mother.

5.22.5. Regular Usage of Mass Media and Time of Registration for Antenatal Clinic.

The research revealed that a high number of respondents regularly used the mass media as a source information. It also reveals that radio was the most commonly used form of mass media amongst the expectant mothers. 60 percent of them stated that they regularly used the radio as a source of information. The radio is affordable, it can be battery operated and it can be used while the listener is busy with other chores. Radio programmes are broadcast in a variety of indigenous languages allowing for a larger number of people to listen and to be informed.

However, despite the large number of respondents who regularly used the mass media, where the Ministry of Health has an on going communication campaign on the importance of early and consistent antenatal care, 82 percent of them registered for antenatal clinic late (in the second and third trimester).

The above only goes to show that there are a lot of variables when it comes to the community's adoption of an innovation. As Rogers, 1995 states, an innovation has to be *compatible* with the community's existing values, beliefs and practices. An innovation also has to have *relative advantage* over that which the community is currently practicing (ibid). The innovation's complexity is also a factor (ibid).

An innovation must present an opportunity for *trialability* and *observability* (Rodgers, 1995. 15). Only after an information campaign has adequately dealt with the above intervening variables will complete adoption of an innovation be achieved.

5.22.6 Ability to Freely Communicate with Nursing Staff and Age of Expectant Mother.

It is surprising that a large majority of young expectant mothers were able to freely communicate with the nursing staff. Of the Nine expectant mothers who were aged between 12 – 19 years, only one of them stated that she was not able to freely communicate with the nursing staff, the rest stated that they were free. Sometimes matters related to reproduction become difficult for people to communicate about freely.

Several reasons could be advanced for the result above, however this present study did not go into that direction.

5.22.7. Age of Pregnancy at Registration and Expectant Woman's Educational Level.

The earliest time of registration was two to three months. Women with college and University education were the highest in this category. Women in this category had maximum exposure to information on the need for early registration. The explanation could lie in that they were able to read and to understand a wider variety of literature on antenatal care that was mainly written in English, the national language. Formal education, training and formal employment had further

exposed them to a wider variety of mass media including the computer thereby giving them better empowerment in this regard.

5.22.8 Expectant Fathers Educational Level.

Expectant Fathers who had acquired college and University education were more likely to accompany their partners to the antenatal clinic once summoned by the nursing staff than were expectant fathers in the lower educational categories.

Fathers who had acquired high formal educational were more enlightened and exposed to a larger variety of mass media and this might have made them confident and empathetic enough to accompany their spouses. Higher education had helped them to realise the importance of their contribution towards ensuring the health of their partners and that of the unborn child.

Fathers with lower formal education were at a disadvantage in that they were not as exposed to modern cultural information regarding the need for their participation in antenatal care. Such fathers need to be specifically targeted with information through the mass media on the importance of their participation in antenatal care.

5.22.9. Number of Pregnancies/Children and Time of Registration and Consistency.

The results reveal that expectant mothers with two or more children registered for antenatal clinic later than those with one or no children. The same results were revealed when it came to consistency in attending the antenatal clinic. The more

pregnancies a woman had, the less consistent she was in her antenatal clinic attendance.

This could be a result of such women having less fear that anything could go wrong, however such a tendency is unacceptable and must be stopped. Information on antenatal care states that, the more pregnancies a woman has, the more vulnerable she is to complications that can lead to her death and that of her unborn child. A woman who has had several pregnancies is in urgent need for early and consistent antenatal care (Nsemukila, 1998:114).

5.22.10. Reasons for Antenatal Clinic Registration

91 percent of the respondents were able to clearly state why they had registered for antenatal care. These results are very impressive. Perhaps, the efforts being made by the Ministry of Health through their on-going information campaign to create awareness on the importance of antenatal care are bearing fruit. However, there is need for more efforts to be targeted towards creating awareness on the need for early and consistent antenatal care.

5. 22.11. Information Communicated to the Expectant Women During Antenatal Clinic.

The research reveals that the most communicated information during antenatal clinic is information on HIV/AIDS and Sexually Transmitted Infections. 92 percent of the respondents stated that they had received information on HIV/AIDS during antenatal clinic. However, its very sad to note that information on the dangers of teenage and over-age pregnancy (pregnancy above the age of 35) was not widely

shared. 58 percent of the respondents stated that they had not been given any information on teenage and over-age pregnancy.

HIV/AIDS is one of the leading killers in Zambia (Demographic and Health Survey, 2001) and expectant mothers are more vulnerable in that their immune system is compromised and they are likely to pass the infection to their babies during birth and through the breast milk. This explains why the LUDHMB clinics have emphasised on HIV/AIDS as a major topic of discussion. However, teen-age and over-age pregnancy are some of the major causes of complications during pregnancy and birth. It is important that as much information as possible is shared on this topic.

5.22.12. Improvements to the Services provided at the Antenatal Clinic.

It was interesting to note that 58 percent of the respondents stated that they were satisfied with the services provided at the antenatal clinic and that they had no suggestions for any improvements.

It was however sad, to note that only one percent of the respondents suggested that the clinics must provide more information through brochures and pamphlets. Information provides an individual with the power to make positive and beneficial decisions. It was expected that more women would ask for information. The low results could be due to the fact that the women have not been made aware of the importance of information.

CHAPTER SIX

RECOMMENDATIONS

6.1. Counselling Training.

Counselling must be included in the nursing staff's formal training curriculum. It must be ensured that before they graduate to go out and practice, the nursing staff are fully qualified counsellors. Organizations such as the Christian Children's Fund involved in the training of the Traditional Birth Attendants (TBAs) must also ensure that basic skills in counselling are part of the (TBAs) training curriculum.

The research results identified psychological support through counselling as the most pressing need amongst expectant women attending antenatal clinics. This goes to show that for the nursing staff, training in counselling is a major necessity if they are to meet the need for counselling amongst the expectant women.

6.2. Meetings to enhance productivity.

The superiors at Lusaka Urban District Health Management Board (LUDHMB) are encouraged to hold regular meetings with the nursing staff in the clinics. The nursing staff identified regular meetings as the best method of communicating progress and needs in the clinics to their

superiors. Currently, the superiors at LUDHMB visit the clinics as a way of monitoring the work and discussing the needs of both the expectant women and the nursing staff. However, the nursing staff felt that the visits were not regular enough and that their needs were not being met through this method of communication. The visits must be combined with regular, well-scheduled and planned meetings. This would create a conducive atmosphere where the both the nursing staff and their superiors can express their views and plan to work at meeting both the needs of the expectant women and the nursing staff.

6.3. Motivating Clinic workers.

The Government through the Ministry of Health and the LUDHMB should work at improving the working conditions of the nursing staff in the clinics. During the research, the nursing staff called for better wages, paid leave, housing and transport allowance. Improved working conditions would motive the nursing staff to perform better.

The current poor working conditions have given rise to low motivation amongst the nursing staff. Most of them were engaged in various income generating projects to raise money. This left them little time to concentrate on their work. Some of the nurses were planning to leave the country, to work in other countries that were offering better working conditions. In the process, Zambia was losing its well qualified and experienced nursing staff.

6.4. Multi – media Approach

Health centres should use interpersonal communication in conjunction with other forms of mass media. The research reveals that communication between the nursing staff and the women attending antenatal clinic is mostly through interpersonal communication where the nursing staff verbally and directly give out information to the expectant women. The Radio, television, posters, brochures, pamphlets, magazines, newspapers and computers are rarely and in most cases never used.

Clinics should be encouraged to use radio, television, as well as video and audio tape players for informative and educative information sharing. Radio is the most easily accessed mass medium (See chapter five) while television is excellent for demonstrations and is the most convincing among mass media. New broadcasting stations, some of them in communities, are being set up around Lusaka and, more advantage should be taken of these. The researcher noted that several Clinics had access to the above. However, in most of the clinics, only entertainment programs were being played and shown on the channels. In cases where television and radio air educative health programs when antenatal clinics are not in session, the clinics should record these programs. These can then be played to the expectant mothers in the waiting rooms. The clinics should have posters placed at public places with information on the days and times when programmes on health matters are aired on radio and television. The Ministry of Health and the other organizations such as UNICEF have produced posters, brochures and pamphlets with information on the importance of early and consistent

antenatal care. These have been distributed to most of the clinics in Lusaka. However, it was noted during the study that one of the reasons for under utilization of the print media was that it was difficult to access. In most clinics, this material was kept in the Sister In Charge's office. This made it difficult for the expectant mothers to see it and to pick some for their use. The print media must be kept where they can be easily accessed like at the clinic's reception, the waiting room, and the counselling rooms.

6.5 Dangers of teenage and overage pregnancies

The nursing staff is advised to include in their antenatal discussions with the expectant mothers the dangers of teenage and over-age pregnancy. Despite teenage and over-age pregnancies being one of the major causes of complications during pregnancy and child birth, 58 percent of the expectant mothers stated that the nursing staff had not provided them with any information on the above topic. The researcher is proposing that information be provided forthwith on this important topic.

6.6 National Media Campaign

The researcher proposes that a national antenatal information campaign be carried out by the Ministry of Health in cooperation with organisations such as UNICEF, World Health Organisation, Christian Children's Fund and the Zambia Integrated Health project on the need for timely and consistent antenatal care.

The campaign objective must be to create national awareness of the importance of early antenatal registration and consistent attendance. There is need for campaign messages to carefully use the word “pregnancy”. The study has revealed that self-diagnosis of pregnancy is difficult and this is one of the major causes of late registration. Despite having missed their periods, most women stayed home for four to six months, giving themselves time to confirm their pregnancy. The foetal movements were usually felt by the mother in the second trimester, this was when most women were sure enough to register for antenatal clinic. Therefore, other than informing the women to report to the nearest Health Centre once they discovered that they were pregnant, campaign messages must encourage the women to visit the nearest health centre as soon as they had missed their monthly period. The missing of a monthly period is a serious development that needs medical attention even if it does not turn out to be a pregnancy.

Such a campaign must be multi – media while also exploiting the fact that radio is easily accessed by most people. The research has revealed that radio is the most regularly used form of mass media amongst the expectant women. Through television, the audience are able to actually see and hear the message being communicated to them. Newspapers, Brochures and pamphlets allow the audience to spend more time reading the information, consulting and sharing it with others. Posters at public places allow the audience on the move to access the information. Despite the research revealing that the computer had very little usage amongst the expectant mothers, it can still be used in the campaign. Times are changing and

research has revealed that the computer is fast becoming a major source of information. Interpersonal channels such as drama can also be used to maximise results.

The *Primary Target Audience* for the campaign would be women in the child bearing age group of 12 to 45 years. The secondary target audience would be the following:

- (1) Other women falling above the child bearing age group
- (2) Men who are all potential partners to the expectant women
- (3) Traditional healers
- (4) Community based organizations such as the churches
- (5) Traditional Birth Attendants.

The secondary target group is important because the research has revealed that these have a lot of influence on the expectant mother's antenatal decisions.

The Ministry of Health must encourage men who are partners to the expectant women to attend the antenatal clinics. Although the current

information campaign by the Ministry of Health insists on men's participation and support, the clinics have not involved the men in any of the antenatal sessions.

Partners to the expectant women were only summoned to the clinic when their expectant partners had tested positive for a Sexually Transmitted Infection. The campaign must insist that expectant Fathers accompany their expectant partners to the first antenatal session where registration and discussions on HIV/AIDS and Mother to child Transmission take place. The men must be exposed to this important discussion. This will help to ensure that they are involved in the pregnancy and together with the women they can ensure a safe and healthy pregnancy and child birth.

The campaign must also target employers and Health centres to inform them on the importance of men's antenatal attendance.

The research revealed that most Men were too busy at work and they could not be given permission to accompany their partners to the clinic despite them being summoned by the nursing staff. The nursing staff need to be equipped with skills to handle counselling for couples and skills to cater for discussions and registration that meet both the needs of men and women.

The information campaign should give out information on the changes that the Ministry of Health has made in connection with the number of visits to the antenatal clinic. Initially, women had to make an average of 12 visits to the antenatal clinic. The research revealed that 32 percent of the respondents

had registered for antenatal clinic late so as to reduce on the number of visits that they had to make to the Health Centres. The Demographic and Health Survey of 1996 and 2001 identified the above as a major reason for late antenatal registration. In response, the Ministry of Health decided to reduce the number of visits that a woman is required to make to the antenatal clinic from an average of 12 to four visits. However, the results of the research reveal that, most women were not aware of the changes and they had continued to register late.

The Ministry of Health should work with the Community based support systems. These can be used during the campaign as tools for the interpersonal dissemination of information. This will help to dispel some of the strongly held social cultural beliefs. The community and especially the expectant women will be helped to understand that there is more danger in delaying antenatal clinic registration so as to avoid social disapproval and witch craft than there is in starting antenatal early and receiving timely appropriate treatment. This information being given out to the expectant mother by a church member, a relation, a neighbour, a traditional healer or a community based drama group will be much more adhered to than if it was only being given out through the mass media. Community based dissemination of information will allow for the innovation to gain *compatibility*, with the prevailing beliefs, values and practices. Compatibility will allow more women to practice early and consistent antenatal registration, this will avail more opportunities for *trialability* and

observability. Finally, expectant women will be able to understand and appreciate the innovation's *relative advantage*.

The Ministry of Community Development and Social Welfare in conjunction with the Ministry of Education must continue to work hard in the fight against illiteracy. The study revealed that 17 percent of the respondents were illiterate. They had no direct access to printed media and this limited their benefit from valuable information. The study further revealed that mothers with higher educational levels were more likely to register earlier than mothers with lower or no formal education. The study further revealed that Fathers with higher educational attainment were more likely to attend antenatal sessions with their expectant partners than were those with lower or no formal education. Therefore it is important that the two Ministries support the establishment and maintenance of community based adult literacy classes.

6.7 Monitoring of the Campaign.

The Ministry of Health must ensure that there is continuous monitoring of the campaign. Prior to the launch of the campaign, a quantitative survey must be under taken on a larger scale than this present research, to quantify the existing levels of awareness, knowledge of the need for early and consistent antenatal care and also the actual times of antenatal registration and consistency. The quantitative survey can be repeated as benchmark and tracking research half way through the life cycle of the campaign programme

to assess the changes that have taken place from the time that the research was initiated.

The results of the above tracking research can be used to monitor the progress of the communication campaign and to make adjustments to the strategy where necessary.

6.8 Evaluation of the Campaign

At the end of the campaign, an overall evaluation should be done to assess its impact and effectiveness. This should be carried out by the Ministry of Health . The evaluation will help to establish whether the various activities met the stated communication campaign objectives. An increase in the number of women going for early antenatal registration and attending consistently, an increase in the number of expectant Fathers attending antenatal registration with their expectant partners and a general increased awareness in the country as a whole on the importance of early antenatal registration and consistent attendance. The out come of the evaluation will lead to an improvement in the implementation and management of future campaigns and ultimately enhance the overall quality of government communication.

REFERENCES.

Breitenbach, D and Werth, M (1995) *Youth Unemployment and Urban Informal Sector*, Longman Inc., New York.

Browne, J C and Dixon, G (1970) *Antenatal Care*, Churchill J.A Publishers, London.

Central Statistics Office (1990) *Zambia, a country Profile*, Lusaka.

DeFleur, M L and Ball-Rokeach, S J (1989) *Theories of Mass communication*, Longman Inc, New York.

[http://www.odci.gov/cia/publications/fact book geos / za html](http://www.odci.gov/cia/publications/factbook/geos/za.html)

[http://teachnet. Edb.utexas.ed~lynda- abbott/ social – html](http://teachnet.edb.utexas.ed/~lynda-abbott/social.html)

[http://www.odci.gov/cia/publications/fact book geos /za html](http://www.odci.gov/cia/publications/factbook/geos/za.html)

Kaplan, I (1979) *Zambia, A country study*, The American University, Washington, D.C.

Kasoma, F P (1986) *The Press in Zambia*, Multimedia Publications, Lusaka.

Mc Ewan, P F M and Sutcliffe, R.B. (1965) *The Study of Africa*, Camelot Press Ltd, London.

- Mc Pherson, A (1983) *Women's problems in General practices*, Oxford Medical Publishers, Oxford.
- Mhloyi, M (1990) "Maternal mortality in the SADDCC region", Harare.
- Ministry of Health, (1996) *Hand book for District Health Board Members*, Lusaka.
- Ministry of information and broadcasting services, (2000) "Millennium Dawn", Lusaka.
- National Commission for Development Planning, (2001) "Zambia Human Development Report - 1999/2000", Lusaka.
- Nsemukila, B (1998) *Maternal Mortality in Zambia*, Central Statistics Office, Lusaka.
- Osei Hwedie, K and Ndulo, M (1984) *Issues in Zambian Development*, Library of congress, Roxbury Mass.
- Rogers, E (1995) *Diffusion of Innovations*, Free press. New York.
- Suya, A N (2000) *A study to determine factors contributing to late booking for Antenatal Care at the Lusaka Urban District clinics*, UNZA, School of Medicine.
- UNICEF, (1997) "Urban Community Survey", Lusaka.

UNICEF, (1999) "Orphans and Vulnerable Children", Lusaka.

UNICEF, (2003) "The State of the World's children", Lusaka.

United Nations Development Program, (1995) "United Nations Development Program Report", Lusaka.

United Nations Development Program, (2000) "Zambia Human Development Report - 1999/2000", Lusaka.

Williams, G J (1986) *Lusaka and it's Environs*, The geographical Association, Lusaka.

Zambia Information Services, (1979) "Zambia Today", Lusaka.

Zambia High Commission, (2000) "Zambia at 36", New Delhi.

Zulu, M. (1980) *How complete is Antenatal care in some clinics in Zambia*, UNZA, School of medicine, Lusaka.

APPENDICES

APPENDIX I

QUESTIONNAIRE FOR EXPECTANT MOTHERS

SECTION A. PERSONAL INFORMATION

1. SEX

(1.) MALE

(2.) FEMALE

2. AGE

(1). 12 – 19 (2.) 20 - 35 (3). 36 – 45

(4). 46 AND ABOVE

3. MARITAL STATUS

(1). SINGLE (2) MARRIED

(3). WIDOWED (4). DIVORCED (5) SEPARATED

4. EDUCATIONAL LEVEL

(1). NO FORMAL EDUCATION

(2). GRADES 1 – 7

(3). GRADES 8 – 9

(4). GRADES 10 – 12

(5). COLLEGE AND UNIVERSITY LEVEL

5. CAN YOU READ

(1) YES (2) NO

SECTION B.

6 DO YOU OWN A RADIO

(1) YES (2) NO

7 DO YOU OWN A TELEVISION

(1) YES (2). NO

8 DO YOU HAVE ACCESS TO NEWSPAPERS

(1) YES (2) NO

9 DO YOU HAVE ACCESS TO A COMPUTER

(1). YES (2) NO

WHAT MEDIA DO YOU USE

	MEDIA	1.REGULARLY USED	2. SOMETIMES USED	3 RARELY USED	4 .NEVER
10	NEWSPAPER				
11	RADIO				
12	TV				
13	COMPUTER				

WHAT IS YOUR SOURCE FOR INFORMATION ON ANTENATAL CARE

	MEDIUM	1. REGULARLY USED	2. SOMETIMES USED	3. RARELY USED	4. NEVER
14	RADIO				
15	NEWSPAPERS				
16	T.V				
17	COMPUTER				
18	POSTERS/PAMPHLETS/ BROCHURES				
19	MAGAZINE				
20	INTERPERSONAL COMMUNICATION				

SECTION C.

21. WHAT NUMBER IS YOUR CURRENT PREGNANCY

(1). FIRST (2). SECOND – FOURTH (3). FIFTH - SEVENTH

(4). ABOVE SEVENTH

22. HOW MANY CHILDREN OF YOURS ARE ALIVE

(1). ONE (2). TWO – FOUR (3). FIVE – SEVEN

(4). ABOVE SEVEN (5) NONE (6) NOT APPLICABLE

23. HOW DID YOU DISCOVER THAT YOU WERE PREGNANT

- (1). MISSED PERIOD (2). FELL SICK (3). CLINIC OR HOSPITAL
- (4). FRIENDS AND RELATIVES

24 HOW DID YOU KNOW ABOUT ANTENATAL SERVICES OFFERED IN THIS CLINIC

- (1). RADIO (2) TV (3) NEWSPAPER / POSTERS.
- (4). FRIEND/ NEIGHBOR/ RELATION / CHURCH / COMMUNITY CLUB.
- (5) SCHOOL. (6) BROCHURES/PAMPHLETS/POSTERS

25 WHY DIDYOU REGISTER FOR ANTENATAL CHECK UPS

- (1). TO ENSURE A HEALTHY PREGNANCY AND SAFE DELIVERY.
- (2). BECAUSE I FELL SICK DURING THE PREGNANCY
- (3). TO ENSURE THAT I DELIVER IN A CLINIC
- (4). TO MEET WITH FRIENDS
- (5). I DO NOT KNOW

26 HOW OLD WAS YOUR PREGNANCY WHEN YOU REGISTERED FOR ANTENATAL CHECK UPS

- (1). ONE MONTH (2). TWO –THREE MONTHS (3). FOUR – SIX MONTHS (4). SEVEN – NINE MONTHS

27. IF YOU DID NOT REGISTER AT ONE MONTH WHY NOT

- (1) I WAS NOT SURE ABOUT PREGNANCY
- (2) FELT SHY
- (3) I WAS NOT SICK
- (4). TRIED TO REDUCE NUMBER OF VISITS/ TOO BUSY
- (5) WAS ADVISED BY FRIEND, NEIGHBOR TO START LATER
- (6) I DID NOT KNOW.
- (7) NOT APPLICABLE

28 HAVE YOU BEEN CONSISTENTLY ATTENDING ANTENATAL
CHECK UPS

- (1). YES
- (2) NO

29 IF NOT WHY NOT

- (1) I DID NOT KNOW IT WAS NECESSARY
- (2) TO REDUCE VISIT/ TOO BUSY
- (3) CLINIC TOO FAR
- (4) I FELT LAZY
- (5) NOT APPLICABLE

30 HOW OLD WAS YOUR PREVIOUS PREGNANCY WHEN YOU
REGISTERED FOR ANTENATAL CHECK UPS

- (1). ONE MONTH
- (2). TWO - THREE MONTHS
- (3). FOUR – SIX MONTHS
- (4). SEVEN – NINE MONTHS.

31. DID YOU ATTEND ANTENATAL CHECK UPS CONSISTENTLY

- (1). YES (2) NO

32 IF NOT WHY NOT

- (1). I DID NOT KNOW IT WAS NECESSARY
(2). TO REDUCE VISITS/ TOO BUSY
(3). CLINIC TOO FAR
(4). FELT LAZY
(5) NOT APPLICABLE

SECTION D

33 HAVE THE ANTENATAL CHECK UPS BEEN BENEFICIAL TO YOU

- (1) YES (2) NO

34 IF NOT, WHY NOT

- (1)MEDICAL CHECK UPS ARE INCOMPLETE
(2). NO MEDICINES ARE GIVEN FOR AILMENTS
(3). NO ADVICE OR COUNSELING IS GIVEN
(4). THE MEDICAL STAFF ARE UNFRIENDLY.
(5) NOT APPLICABLE

SECTION D.

35. HAVE YOU BEEN ABLE TO FREELY COMMUNICATE WITH THE
NURSING STAFF

- (1). YES (2). NO

36. IF NOT WHY NOT

- (1). FELT SHY (2). THERE WAS NO TIME
(3). THE NURSING STAFF ARE NOT FRIENDLY
(4). NOT APPLICABLE

37. WHAT DO YOU THINK MUST BE DONE TO IMPROVE THE SERVICES
AT THE CLINIC

- (1). THE MEDICAL STAFF TO BE MORE FRIENDLY
(2). MORE COUNSELING TO BE GIVEN
(3) TO EMPLOY MORE NURSING STAFF AT THE CLINIC
(4). TO PROVIDE MEDICINES FOR AILMENTS
(5). NOTHING
(6) NOT SURE

. DURING ANTENATAL CLINICS WHAT INFORMATION IS GIVEN OUT TO YOU

	INFORMATION	1. YES	2 NO	3 NOT SURE
38	DANGERS OF TEENAGE AND OVER AGE PREGNANCY(ABOVE 35 YEARS)			
39	STIs AND HIV/AIDS			
40	NUTRITIONAL NEEDS			
41	ALCOHOL AND DRUG ABUSE			
42	BODY AND ENVIRONMENTAL HYGIENE			
43	BLOOD PRESSURE/ DIABETES			

IN WHAT FORM IS THE INFORMATION GIVEN OUT BY THE CLINICS

	MEDIUM	1 REGULARLY	2. SOMETIMES	3 RARE	4 NEVER
44	RADIO				
45	TV				
46	INTERPERSONAL				
47	COMPUTER				
48	POSTERS PAMPHLETS/BROCHURES				
49	MAG/NEWSPAPER				

50. WHAT IS YOUR PARTNERS EDUCATIONAL LEVEL

- (1) NO FORMAL EDUCATION (2). GRADES 1 – 7
(3). 8 – 12 (4). COLLEGE AND UNIVERSITY LEVEL.

51. HAS YOUR PARTNER EVER ACCOMPANIED YOU FOR
ANTENATAL CLINIC

- (1) YES (2). NO

52. IF NOT WHY NOT

- (1). WAS TURNED BACK BY CLINIC STAFF
- (2). FEELS SHY
- (3). ITS NOT A MANS PLACE
- (4) HE DOES NOT KNOW THAT HE CAN ACCOMPANY ME
- (5)NOT APPLICABLE
- (6) HE IS TOO BUSY TO COME ALONG

53. HAS YOUR PARTNER EVER ASKED YOU ABOUT THE ANTENATAL
CHECK UPS

- (1). YES
- (2). NO

END

APPENDIX 2

QUESTIONNAIRE FOR THE NURSING STAFF

SECTION A. PERSONAL INFORMATION

1. SEX

(1) MALE

(2) FEMALE

2. WHAT QUALIFICATIONS DO YOU HAVE

(1) ZAMBIA ENROLLED NURSE

(2) REGISTERED NURSE

(3) CLINICAL OFFICERS QUALIFICATIONS

(4) MEDICAL DOCTORS QUALIFICATIONS

3. HOW LONG HAVE YOU BEEN WORKING AT THIS CLINIC

(1) LESS THAN TWO YEARS

(2) 2 – 5 YEARS

(3) 6 – 10 YEARS

(4) ABOVE 10 YEARS

SECTION B.

4. DO YOU HAVE ANY QUALIFICATION IN COUNSELING

(1) YES

(2) NO

5. DO YOU THINK THAT YOUR TRAINING IN COUNSELING HAS HELPED YOU TO COMMUNICATE WITH THE WOMEN ATTENDING ANTENATAL CHECKUPS

(1) YES

(2) NO

6. IF YES, HOW HAS IT HELPED

(1) I AM BETTER ABLE TO GIVE OUT INFORMATION ON ANTENATAL CARE

(2) I AM BETTER ABLE TO DISCUSS WITH THE WOMEN

(3) I AM BETTER ABLE TO NOTE OUT THOSE THAT NEED COUNSELING

(4) NOT APPLICABLE

7. IF NOT WHY NOT

(1) THE WOMEN DO NOT REQUEST FOR COUNSELING

(2) THERE IS NO TIME FOR COUNSELING

(3) THERE IS NO PRIVATE SPACE FOR INDIVIDUAL COUNSELING

(4) NOT APPLICABLE

SECTION C.

8. DOES THIS CLINIC GIVE OUT INFORMATION TO THE COMMUNITY AT LARGE ON THE IMPORTANCE OF EARLY AND CONSISTENT ANTENATAL CHECK UP

(1) YES (2) NO

IF YES, WHAT ARE THE MEDIA USED

	MEDIUM	1. REGULARLY USED	2. SOMETIMES USED	3 NOT USED
9	POSTERS PAMPHLETS/BROCHURES			
10	RADIO			
11	TV			
12	INTERPERSONAL			
13	COMPUTER			
14	MAGAZINES AND NEWSPAPERS			

15 IF THE ANSWER TO QUESTION 8 IS NO, WHAT ARE THE MAJOR
CONSTRAINTS

- (1) LACK OF FUNDING
- (2) LACK OF TRAINED MANPOWER
- (3) BUREAUCRATIC CONSTRAINT
- (4) NOT APPLICABLE

16. AT WHAT STAGE OF THE PREGNANCY DO YOU ADVISE THE
WOMEN TO REGISTER FOR ANTENATAL

- (1) ONE MONTH (2) TWO – FOUR MONTHS (3) FIVE – SEVEN
MONTHS (4) EIGHT MONTHS AND ABOVE

SECTION D.

18 WHAT ARE THE WOMEN'S MOST PRESSING NEEDS

- (1) MEDICAL (2) PHYSICAL (FOOD, CLOTHING)
- (3) PSYCHOLOGICALSUPPORT – COUNSELLING
- (4) INFORMATION

19 ARE THE ANTENATAL CHECK UPS ABLE TO MEET THESE NEEDS

- (1) YES (2) NO

20 IF NOT, WHY NOT

- (1) LACK OF FUNDING (2) LACK OF TRAINED
MANPOWER (3) BUREAUCRATIC CONSTRAINTS (4) NOT
APPLICABLE

21 WHAT ARE YOUR MOST PRESSING NEEDS FOR YOU TO PERFORM
YOUR ANTENATAL DUTIES BETTER

- (1) TRAINING (2) BETTER WORKING
CONDITIONS
(3) BETTER COMMUNICATION WITH THE COMMUNITY
(4) BETTER COMMUNICATION WITH SUPERIORS

22 HOW DO YOU COMMUNICATE WITH YOUR SUPERIORS

- (1) MEETINGS (2) LETTERS (3) VISITS
(4) NO COMMUNICATION

23 ARE MOST OF YOUR NEEDS SATISFIED THROUGH THE METHOD
OF COMMUNICATION ABOVE

- (1) YES (2) NO

24 IF NOT WHAT CAN BE DONE TO ENSURE THAT YOUR NEEDS ARE
SATISFIED

- (1) MORE MEETINGS (2) MORE VISITS (3) LESSENING THE
BUREAUCRACY (4) NOT APPLICABLE

END

APPENDIX 3

GUIDE FOR IN-DEPTH INTERVIEW

1. HAS THERE BEEN A STUDY CARRIED OUT BY YOUR ORGANIZATION TO ESTABLISH THE LEVELS OF WOMEN ATTENDING ANTE- NATAL CLINICS AS COMPARED TO THOSE REPORTED PREGNANT IN A SPECIFIC PERIOD IN ZAMBIA.
2. ACCORDING TO THE FINDINGS OF THE STUDY, WAS ATTENDANCE TO ANTENATAL CLINICS IMPRESSIVE
3. IF NOT, WHY NOT
4. WHAT SPECIFIC ACTIVITIES HAS YOUR ORGANIZATION CARRIED OUT TO ENSURE THAT EVERY EXPECTANT MOTHER ATTENDS ANTENATAL CLINICS EARLY AND CONSISTENTLY
5. HAVE THE ACTIVITIES BEEN A SUCCESS
6. HOW HAVE THEY BEEN A SUCCESS
7. IF NOT WHY NOT
8. HAS YOUR ORGANIZATION CARRIED OUT ANY INFORMATION CAMPAIGN ON THE IMPORTANCE OF EARLY AND CONSISTENT ANTENATAL CHECK UPS
9. WHAT MEDIA WERE USED
10. WHAT WAS THE MAJOR FOCUS OF THE CAMPAIGN
11. FOR HOW LONG DID THE CAMPAIGN RUN
12. WHICH PART(S) OF ZAMBIA DID IT TAKE PLACE IN
13. WHAT WERE THE RESULTS OF THE CAMPAIGN

14. WHAT ARE YOUR ORGANIZATIONS FUTURE PLANS
IN TERMS OF COMMUNICATION FOR ANTENATAL CARE IN
ZAMBIA

APPENDIX 4

CLINICS WHERE THE STUDY WAS CARRIED OUT

1. KALINGALINGA CLINIC

2. KAUNDA SQUARE CLINIC

3. KANYAMA CLINIC

4 MANDEVU CLINIC

5 MATERO REFERENCE CLINIC

6. CIVIC CENTRE CLINIC

7 KABWATA CLINIC

8. MAKENI CLINIC

9.KAMWALA CLINIC

10. RAILWAY CLINIC

APPENDIX 5

ORGANISATIONS WHERE THE STUDY WAS CARRIED OUT

1 THE MINISTRY OF HEALTH

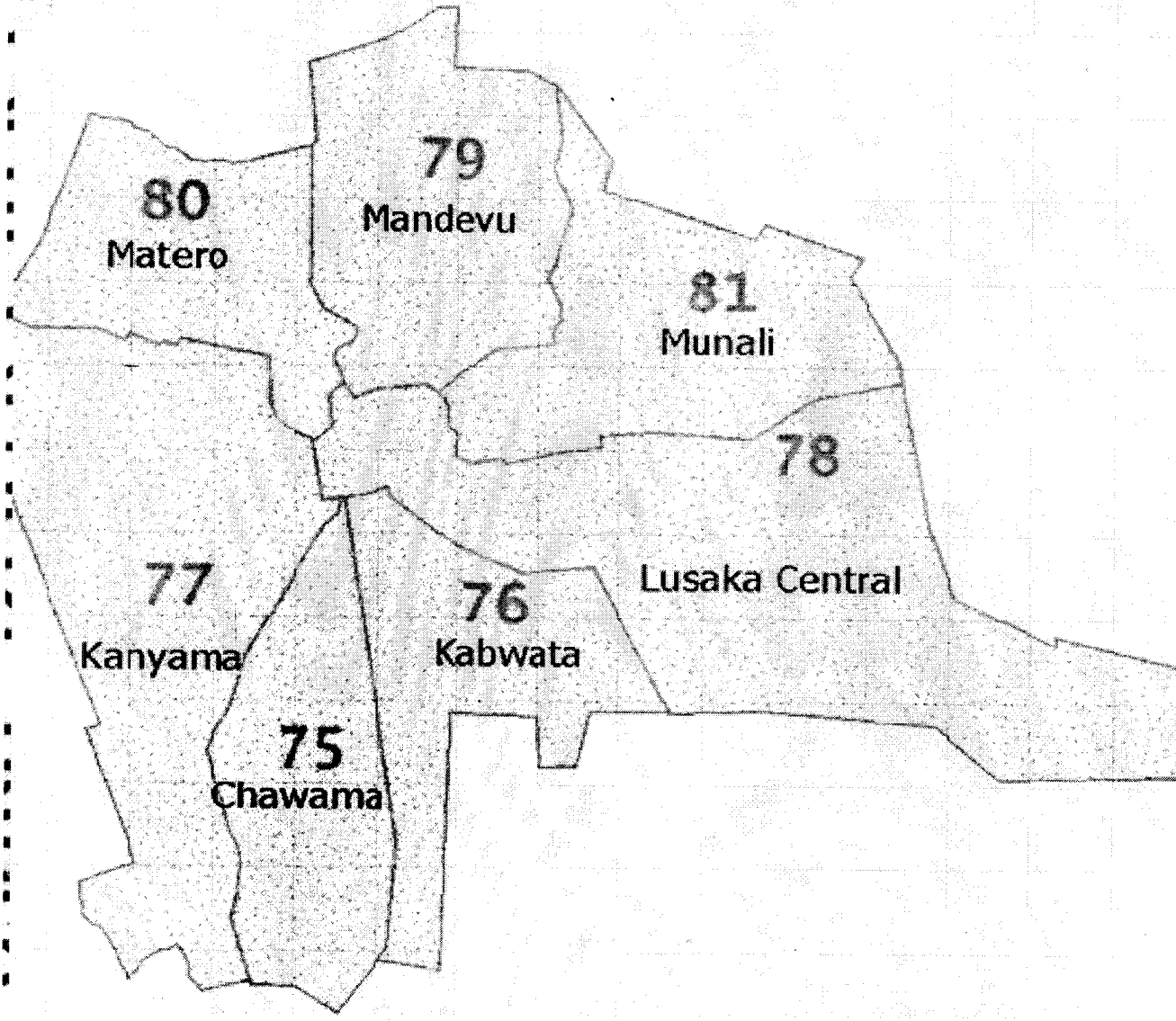
2. UNITED NATIONS CHILDREN'S EMERGENCY FUND (UNICEF)

3 ZAMBIA WHITE RIBBON ALLIANCE

4 CHRISTIAN CHILDREN'S FUND

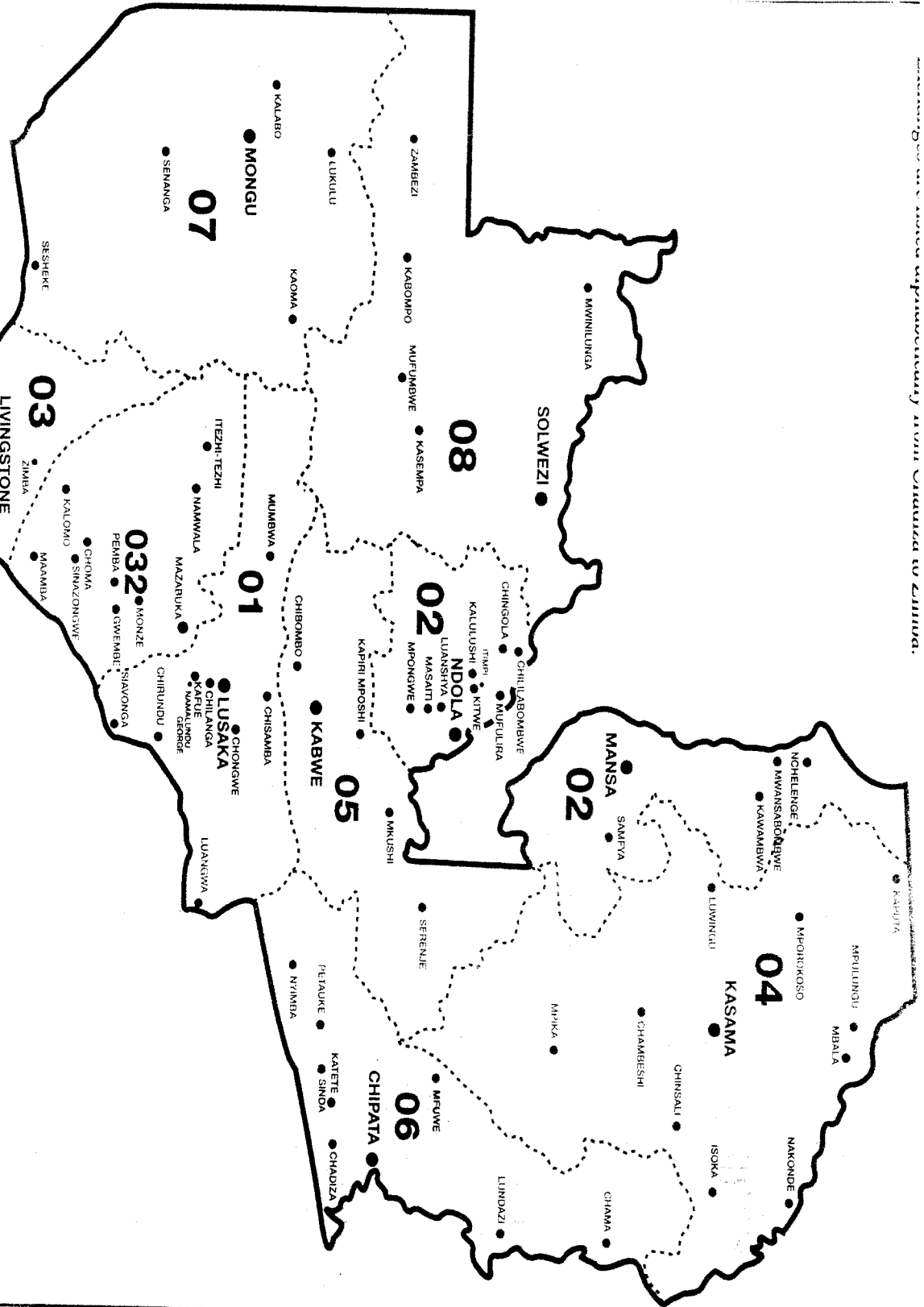
APPENDIX 6

MAP OF LUSAKA



MAP OF ZAMBIA

Boundaries are shown approximately from Victoria to Livingstone.



APPENDIX 8

MAP OF AFRICA

